



Division of Environmental Protection
One Independence Hill, Farmingville, NY 11738
(631) 451-6455 Fax:(631) 451-6459

EP-06 rev. 4/04

PLEASE TYPE OR PRINT CLEARLY

The Full Environmental Assessment Form (EAF) is intended to provide a method whereby applicants and agencies can be assured that the determination process has been orderly, comprehensive in nature, yet flexible to allow introduction of information to fit a project or action.

Full EAF Components: The full EAF is comprised of three parts:

- Part I:** Provides objective data and information about a given project and its site. By identifying basic data, it assists a reviewer in the analysis that takes place in Parts II and III.
- Part II:** Focuses on identifying the range of possible impacts that may occur from a project or action. It provides guidance as to whether an impact is likely to be considered small to moderate or whether it is a potentially large impact. The form also identifies whether an impact can be mitigated or reduced.
- Part III:** If any impact in Part II is identified as potentially large, then Part III is used to evaluate whether or not the impact is actually important.

DETERMINATION OF SIGNIFICANCE – Type I and Unlisted Actions

¹ Identify portions of EAF completed for project: Part I Part II Part III

² Upon review of the information recorded on this EAF (Parts I, II and III if appropriate) and any other supporting information, and considering both the magnitude and importance of each impact, it is reasonably determined by the lead agency that:

- A. The project will not result in any large and important impact (s) and, therefore, is one that will not have a significant impact on the environment; therefore, a **NEGATIVE DECLARATION** will be prepared.
- B. Although the project could have a significant effect on the environment, there **will not** be a significant effect for this Unlisted Action because the mitigation measures described in PART 3 have been required; therefore, a **CONDITIONED NEGATIVE DECLARATION*** will be prepared.
- C. The project may result in one or more large and important impacts that may have a significant impact on the environment; therefore, a **POSITIVE DECLARATION** will be prepared.

*A conditioned Negative Declaration is only valid for Unlisted Actions.

3. NAME OF ACTION: Ronkonkoma Hub Transit-Oriented Development	
4. NAME OF LEAD AGENCY: 	
5. NAME OF OFFICE IN LEAD AGENCY: 	
6. SIGNATURE OF RESPONSIBLE OFFICER IN LEAD AGENCY: 	7. SIGNATURE OF PREPARER:
8. DATE: 	



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**Part I – PROJECT INFORMATION
Prepared by Project Sponsor**

NOTICE: This document is designed to assist in determining whether the action proposed may have a significant effect on the environment. Please complete the entire form Part A through O. Answers to these questions will be considered as part of the application for approval and may be subject to further verification and public review. Provide any additional information you believe will be needed to complete Parts II and III.

It is expected that completion of the full EAF will be dependent on information currently available and will not involve new studies, research or investigation. If information requiring such additional work is unavailable, so indicate and specify each instance.

1. NAME OF PROJECT: Ronkonkoma Hub Transit-Oriented Development	
2. PROJECT LOCATION: See Attachment	
3. NAME AND ADDRESS OF APPLICANT/SPONSOR: Town of Brookhaven Town Board, 1 Independence Hill, Farmingville, New York 11738	4. BUSINESS PHONE: (631) 451-6455 Attention: Tullio Bertoli
5. NAME AND ADDRESS OF OWNER, IF DIFFERENT: See Attachment Commissioner, Department of Planning, Environment and Land Development	
6. S.C. TAX PARCEL NUMBER.: See Attachment	7. PRESENT ZONING: See Attachment
8. DESCRIPTION OF ACTION: (PLEASE BE SPECIFIC; ATTACH ADDITIONAL SHEET IF NECESSARY) See Attachment	

PLEASE COMPLETE EACH QUESTION – INDICATE “N/A” IF NOT APPLICABLE:

- A. LAND USE:** (If not applicable, check here and go to Section B) N/A
Physical setting of overall project, both developed and undeveloped areas.
1. Present land use: Urban Industrial Commercial
 Residential Suburban Rural (non-farm) Forest
 Agriculture Other (Specify) Ronkonkoma Train Station and Associated Parking
- B. CRITICAL ENVIRONMENTAL AREA:**
1. Is the site located in or substantially contiguous to a Critical Environment Area designated pursuant to Article 8 of the ECL, and 6 NYCRR 617?
 YES NO N/A
- C. ZONING AND PLANNING INFORMATION:**
1. Does proposed action involve a planning or zoning decision?
 YES NO
- If yes, complete 1-13 below; if no, go to section D:**
- Zoning Amendment Zoning Variance Special Use Permit
 Subdivision Site Plan New (Revision) of Land Use Plan
 Resource Management Plan Other Adoption of TOD, Adoption of Urban Renewal Plan
2. What is the zoning classification(s) of the site? C Residence, L Industrial 1, J Business 2, J Business 4, and J Business 6

3. What is the maximum potential development of the site if developed as permitted by the present zoning?
The maximum development potential of the total area of parcels not under MTA ownership (as these parcels are not subject to local zoning) is approximately 601,725± square feet (gross floor area).
4. What is the PROPOSED zoning of the site? TOD
5. What is the maximum potential development of the site if developed as permitted by the proposed zoning?
1,450 multi-family units, 195,000 sq. ft. of retail space, 360,000 sq. ft. of commercial parcel, 60,000 sq. ft. of "flex" space. See "Description of Action" included in attachment to this Part I EAF.
6. Is the proposed action consistent with the recommended used adopted or recommended in local land use plans?
 YES NO
7. What are the predominant land use(s) and zoning classifications within a ¼ mile radius of proposed action?
See Attachment
8. Is the proposed action compatible with adjoining/surrounding land used within a ¼ mile?
 YES NO
9. If the proposed action is a subdivision of land, what is the number of lots proposed? N/A
 a. What is the minimum sized lot proposed? _____
10. Will proposed action require any authorization(s) for the formation of sewer or water districts?
 YES NO *A new sewer district is being established by Suffolk County.
11. Is the project site presently used by the community or neighborhood as an open space or recreation area?
 YES NO
12. Will the proposed action create a significant demand for any community provided services (recreation, education, police, fire protection)? YES NO
 a. If YES, is existing capacity sufficient to handle projected demand? YES NO
 *Consultations will be undertaken with local community service providers as part of the DSGEIS.
13. Will the proposed action result in the generation of traffic significantly above present levels? YES NO
 a. If YES, are existing roads adequate to handle the additional traffic? YES NO

(*Traffic Study is being prepared to identify mitigation, if and as needed)

D. **SITE DESCRIPTION:** (If not applicable, check here & go to Section E) N/A

Total Lot Area: 53.73± square feet acres

PRESENTLY

AFTER COMPLETION

	PRESENTLY	AFTER COMPLETION
Meadow or Old Field (non-agriculture)	0	0
Forested	4.30±	0
Agricultural (include orchards, pasture etc.)	0	0
Unvegetated (rock, earth or fill)	16.12±	0
Roads, buildings and other paved surfaces	26.33±	46.53±
Beach, Dune or Bluff	0	0
Surface Water	0	0
Tidal Wetlands (as per Chapter 81 and Art. 25	0	0
Freshwater Wetlands or 24 of the ECL)	0	0
Landscaped	6.98±	7.20±
Other (indicate type)	0	0

E. PROJECT DESCRIPTION: (If not applicable, check here and go to Section F) N/A

1. Physical dimensions and scale of project (fill in dimensions as appropriate):
 - a. Total contiguous acreage owned or controlled by project sponsor: 53.73± acres
 - b. Project area to be developed: TBD initially; 53.73± ultimately square feet acres
 - c. Project area to remain undeveloped 0 square feet acres
 - d. Length of project, in feet and/or miles, if appropriate: N/A feet miles
 - e. If the project is an expansion, indicate percent of expansion N/A %
 - f. Number of off-street parking spaces existing 2,571±, proposed Not yet determined.
 - g. Maximum vehicular trips generated upon completion of the project? 1,442± hourly in the P.M. peak hour
 - h. Frontage along a public thoroughfare 7,591± linear feet * (To be analyzed in DSGEIS)
 - i. If residential: Number and type of housing units:

	ONE FAMILY	TWO FAMILY	MULTI-FAMILY	CONDOMINIUM
Initially:				
Ultimately:			1,450±	
 - j. Dimensions of largest proposed structure. Not yet determined.

Height	Width	Length	
2. Will blasting occur during construction? YES NO
3. Will project require relocation of any facilities? YES NO
 If YES, explain Proposed action may result in the relocation of surface parking into a parking structure. Existing uses may relocate as properties are acquired for redevelopment.

F. LAND RESOURCES: (If not applicable, check here and go to Section G) N/A

1. What is/are the predominant soil type(s) on project site? (Please consult Suffolk County Soil Survey and Soil Conservation Service – Phone: 727-2315)
 List types: See Attachment
2. Is project or any portion of project located in a 100-year flood plain?
 YES NO N/A
3. Soil drainage:

	Well-drained	<u>100</u>	% of site
	Moderately well drained	_____	% of site
	Poorly drained	_____	% of site
4. If any agricultural land is involved, how many acres of soil are classified within soil groups 1 through 4 of the NYS Land Classification System? (See 1 NYCRR 370 (1).) N/A acres N/A
5. Are there any dunes, bluffs, swales, kettleholes, strands or other geological formations on the project site?
 YES NO If YES, Describe: _____
6. Are there bedrock outcroppings on project site? YES NO
 - a. What is depth to bedrock? 1,550± (in feet) N/A (below grade surface)
7. Approximate percentage of the project site with slopes (0-100%):
 0-10% 100% 10-15% _____ 15% or greater _____
8. How much natural material (i.e. rock, earth, etc.) will be removed from the site? Not yet determined. cubic yards
9. Will the disturbed areas be reclaimed? YES NO N/A
 - a. If YES, for what intended purpose is the site being reclaimed? _____
 - b. Will topsoil be stockpiled for reclamation? YES NO
 - c. Will upper subsoil be stockpiled for reclamation? YES NO
10. Grading: YES NO N/A If yes, complete a. through i. Not yet determined.
 - a. Total area to be regraded: _____ square feet acres
 - b. Total cubic yards of cut: _____ cubic yards
 - c. Total cubic yards of fill: _____ cubic yards
 - d. Greatest depth of excavation or cut: _____ feet (excluding recharge basin)
 - e. Greatest depth of any recharge basin: _____ feet
 - f. Greatest depth of fill: _____ feet
 - g. Greatest depth of excavation or cut: _____ feet (excluding recharge basins)
 - h. Maximum artificial slopes after construction (check one)
 2:1 or greater 3:1 5:1 10:1 or less
 - i. Will the project require the use of retaining walls? YES NO
 - j. Briefly describe method(s) to reduce erosion/runoff during and after construction: _____

*Includes frontage along Railroad Avenue, Mill Road, Union Avenue, Carroll Avenue, Hawkins Avenue, Union Street, and Garry Street.

G. VISUAL-CULTURAL RESOURCES: (If not applicable, check here and go to Section H) N/A

1. **Visual:**
- a. Will the project be noticeably visible from surrounding areas after its completion?
 YES NO N/A
 - b. Will the project remove vegetation that currently screens the project site from surrounding areas?
 YES NO N/A
 - c. Will the project partially or completely block, or contrast with, scenic views from surrounding areas or from the site?
 YES NO N/A
 - d. Does the present site include scenic views known to be important to the community?
 YES NO If yes, please explain: _____
2. **Cultural:**
- a. Does the project site contain a building or site, and/or is it located within or substantially contiguous to a building, site or district listed on the State or the National Registers of Historic Places or Register of National Landmarks?
 YES NO N/A
 - b. Does the project site contain a building or site, which is substantially contiguous to or within a Town Historic District or Town Historic District Transition Zone?
 YES NO N/A
 - c. Is the project site contiguous to or does it contain a site or building which is designated a Town Landmark?
 YES NO N/A
 - d. Will the project be noticeably visible from, be adjacent to, or result in the partial or complete demolition of any structures listed on the State or National Registers of Historic Places, or a Town Historic Landmark?
 YES NO N/A
 - e. Will the project result in the partial or complete demolition or relocation of any structures greater than 50 years old?
 YES NO N/A
 - f. Will the project result in the partial or complete removal of any documented or known Native American site?
 YES NO N/A
 - g. Does the project site contain or is it located adjacent to a cemetery or gravesite?
 YES NO N/A

H. WATER RESOURCES: (If not applicable, check here and go to Section I) N/A

1. Will there be a potential discharge as a result of an approval of this application into a body of water either on or off-site?
 YES NO N/A
If Yes, please explain: _____
2. Method of handling runoff (check all that apply): (Based upon the Draft Land Use and Implementation Plan)
 Leaching Pools Dry Wells Recharge Basin (off-site)
 Recharge Basin (on-site) Other (describe): _____
3. What is the minimum depth to the water table on site? 40± feet below grade surface
(Please cite date and source of information) USGS Topographic Map, Patchogue Quadrangle, and USGS Water Table
a. Seasonal variation 2± feet Elevation and Potentiometric Surface Altitudes in the Upper Glacial, Magothy, and Lloyd Aquifers, March-April 2006.
4. Are there any lakes, ponds, swamps, bogs, marshes, or freshwater wetlands within or contiguous to project area?
 YES NO N/A
a. Name of lake/pond or wetland: _____
5. Are there any streams within or contiguous to the project site?
 YES NO N/A Name: _____
a. Name of body of water to which it is tributary: _____
6. Are there any Creeks, Embayments, Harbors or tidal wetland areas within or contiguous to the project area?
 YES NO N/A Name(s) _____
a. Name of body of water to which it is tributary: _____

7. Is the site located over a primary, principal or sole source aquifer?
 YES NO N/A
8. Will surface area of an existing water body increase or decrease by proposal?
 YES NO Please explain: _____

I. FLORA-FAUNA-AQUATICS: (If not applicable, check here and go to Section J) N/A

1. Do hunting, fishing or shellfishing opportunities presently exist in the project area?
 YES NO N/A
2. Is the project site utilized by, or contain any species of plant or animal life that is identified as rare, threatened, endangered, protected or identified as a species of special concern?
 YES NO UNKNOWN If yes, identify each species: _____
-
3. What wildlife species have been confirmed or would be expected to occur on site? Typical suburban species (i.e., squirrels, song birds, rabbits, etc.)
-
4. What vegetation species have been confirmed or would be expected to occur on site? White oak, red oak, pitch pine, and beech trees.
5. Are there any rare or protected plants or unique plant communities present on site?
 YES NO If yes, identify each species: _____
6. How many acres/sq. ft. of vegetation (trees, shrubs, ground covers) would be removed from site?
11.28 acres square feet N/A
7. Will any mature forest (over 100 years old) or any other locally important vegetation be removed by this project?
 YES NO N/A

J. UTILITIES: (If not applicable, check here and go to Section K) N/A

1. Is the site served by existing public utilities? YES NO
- a. If yes, does sufficient capacity exist to allow connection? YES NO
- b. If yes, will improvements be necessary to allow connection? YES NO
2. Will project result in an increase in energy use? YES NO
 If yes, indicate type: Electric, Natural Gas, Fuel Oil
3. What type water supply is from wells, indicate pumping capacity: N/A gallons/minute.
4. Total anticipated water usage per day: 400,000 gallons/day. (does not include irrigation)

K. WASTE DISPOSAL: (If not applicable, check here and go to Section L) N/A

1. Will a Safe Pollutant Discharge Elimination System (SPDES) permit be required? YES NO
 If yes, for what type of material? Sewage
2. Is surface liquid waste disposal or storage involved? YES NO
- a. If yes, indicate type of waste (sewage, industrial, etc.) amount and method of disposal _____
3. Is subsurface liquid waste disposal involved (including sanitary)? YES NO
 If yes, please indicate:
- a. Type of waste: Sewage
- b. Volume of waste: 400,000 gallons per day
- c. Sanitary waste treatment on-site septic-system
 municipal treatment plant
 modified subsurface sewage disposal system
 community sewage disposal system
 other _____

*However, approximately 7.20 acres of landscaping would be installed.

4. Are there any point source discharges not previously described associated with this project?
 YES NO N/A If yes, explain: _____
5. Will the project generate solid waste? YES NO N/A
 a. If yes, what is the amount per month? 327± tons
 b. If yes, will an existing solid waste facility be used? YES NO
 c. If yes, give name: *_____ location: Brookhaven landfill (or other licensed facility)
 d. Will any wastes not go into a sewage disposal system or into a sanitary landfill?
 YES NO If yes, explain: Recyclables would be handled in accordance with local policy
 *Private and municipal carters
6. Will the project involve the storage or disposal of solid waste? YES NO
 (If yes, please attach a list itemizing same)
 a. If yes, what is the anticipated rate of disposal? _____ tons/month.
 b. If yes, what is the anticipated site life? _____ years.
7. As part of the construction or use of the site will the project routinely use herbicides or pesticides?
 YES NO (Except for routine landscape maintenance)
 If yes, describe the type, amount and method of application: _____
8. Has the site ever been used for the disposal of solid or hazardous wastes?
 YES NO * UNKNOWN If yes, explain fully on a separate sheet.
9. If an industrial use is proposed for the site, describe the product and the manufacturing process involved:
N/A
10. Will any hazardous or toxic substances or waste be stored or generated on site?
 YES NO N/A
 a. If yes, identify the substance, amount and method of storage or disposal. _____
11. Will project routinely project odors more than 1 hour/day? YES NO
12. Will project produce operating noise exceeding the local ambient noise levels? YES NO
 If yes, source of noise: _____

L. ECONOMICAL IMPACTS: Completed for all commercial/industrial projects and residential projects greater than 10 units. (If not applicable, check here and go to Section M) N/A

1. Does project involved Local, State or Federal funding? YES NO (Town initiative)
2. If single phase project:
 anticipated period of construction N/A months, (including demolition)
3. If multi-phased: TBD
 a. Total number of phases anticipated: _____
 b. Expected date of commencement phase 1 (including demolition): _____
 c. Approximate completion date of final phase: _____ month _____ year.
 d. Is phase 1 functionally dependent on subsequent phases? YES NO
4. Number of jobs generated during construction Not yet determined. After project is complete Not yet determined.
5. Number of jobs eliminated by this project: 0
6. What are the current tax revenues generated by the project site? \$525,000± dollars
7. What tax revenues will project generate after completion? Not yet determined. dollars
8. What is the estimated cost of construction? N/A dollars
9. How many schoolchildren is the project expected to generate? 214** N/A
10. What is the estimated cost of educating the school-age children generated by the completion of this project? Not yet determined. N/A

**Assumes for analysis purposes - 50% rental units and 50% ownership units (50% one-bedroom and 50% two-bedroom)

M. APPROVALS REQUIRED: TYPE SUBMITTAL DATE

Town Board	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	See Attachment	
Town Planning Board	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	See Attachment	
Town Zoning Board	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		
Town; Environmental Protection	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		
Town; Building Department	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		
Country Health Department	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	See Attachment	
Local Agencies	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	See Attachment	
State Agencies	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	See Attachment	
Federal Agencies	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		
Other Agencies	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	See Attachment	

N. ADDITIONAL INFORMATION:

Attach any additional information as may be needed to clarify your project. If there are or may be any adverse impacts associated with your proposal, please discuss such impacts and the measures which you propose to mitigate or avoid them.

O. VERIFICATION:

I certify that the information provided above is true to the best of my knowledge.

1. NAME OF APPLICANT/SPONSOR: Town of Brookhaven Town Board	2. SIGNATURE:
3. TITLE: by: Tullio Bertoli, Commissioner, Department of Planning, Environment and Land Development	4. DATE: May , 2013
5. NAME OF OWNER:	6. SIGNATURE:
7. TITLE:	8. DATE:

Note: If the action is in the Coastal Area and you are a state agency, complete the Coastal Assessment Form before proceeding with the assessment.

Ronkonkoma Hub Transit-Oriented Development (TOD)

Town of Brookhaven Part 1 – Environmental Assessment Form

ATTACHMENT

Page 2, Item 2: Project Location

The project area is bounded by Union Avenue and Union Street to the north; Village Plaza Drive to the east; Country Road 29 (Ronkonkoma Avenue), Garrity Avenue and Hawkins Avenue to the west; and the Long Island Railroad (LIRR) Ronkonkoma to the south in the hamlet of Ronkonkoma, Town of Brookhaven, Suffolk County, New York (see attached Site Location Map).

Page 2, Item 5: Name and Address of Owner and Item 6: Suffolk County Tax Parcel Numbers

No.	Suffolk County Tax Map Number (SCTM)	Name of Owner
1	200 – 799 – 3 – 32	14 Hawkins Avenue, LLC
2	200 – 799 – 3 – 33.1	14 Hawkins Avenue, LLC
3	200 – 799 – 3 – 33.2	55 Property Corp.
4	200 – 799 – 3 – 34	Gregory J. Mensch
5	200 – 799 – 3 – 35	Band Construction, Inc.
6	200 – 799 – 3 – 36	Antonio Melo
7	200 – 799 – 3 – 37	Micah Disipio
8	200 – 799 – 3 – 38	65 Railroad Avenue, LLC
9	200 – 799 – 3 – 39	63 Railroad Avenue, LLC
10	200 – 799 – 3 – 40.1	61 Property Corp.
11	200 – 799 – 3 – 40.2	61 Properties Corp.
12	200 – 799 – 3 – 41	John & Lily Bedell
13	200 – 799 – 3 – 42	55 Property Corp.
14	200 – 799 – 3 – 43	51 Property Corp.
15	200 – 799 – 3 – 44	Bernett & Gordon Realty Co.
16	200 – 799 – 3 – 45.1	M.T.A (LIRR)
17	200 – 799 – 3 – 49	M.T.A (LIRR)
18	200 – 799 – 3 – 50	M.T.A (LIRR)
19	200 – 799 – 4 – 44	NHP Realty, LLC
20	200 – 799 – 4 – 47.1	On-Track Realty, LLC
21	200 – 799 – 4 – 48	Margaret Higgins & Jerome Gaynor
22	200 – 799 – 4 – 49	Community Housing Innovations, Inc.
23	200 – 799 – 4 – 51.1	Marco Giangrasso
24	200 – 799 – 4 – 52	Hawkins & Union Avenue Realty, LLC
25	200 – 799 – 4 – 53	Carmine E. Dorsi
26	200 – 799 – 4 – 54	Anthony & Blase Davi
27	200 – 800 – 1 – 27.1	Anthony & Blase Davi
28	200 – 800 – 1 – 28	M.T.A. & R. Bergen David S. Symons
29	200 – 800 – 1 – 31.1	Island Wide, LLC
30	200 – 800 – 1 – 33.1	Carroll Properties, Inc.

No.	Suffolk County Tax Map Number (SCTM)	Name of Owner
31	200 – 800 – 1 – 34	Nelson Fernandes & Magalhaes Americo
32	200 – 800 – 1 – 35.7	Tudor Station Plaza, LLC c/o Island Estates
33	200 – 800 – 1 – 35.8	Ronkonkoma Railroad Properties, LLC
34	200 – 800 – 1 – 35.9	Tudor Station Plaza, LLC
35	200 – 800 – 1 – 36	M.T.A (LIRR)
36	200 – 800 – 1 – 38	M.T.A (LIRR)
37	200 – 800 – 2 – 9	Holbrook Truck & Equipment Leasing, Inc.
38	200 – 800 – 2 – 10	William & Mildred Mallins
39	200 – 800 – 2 – 11	William & Mildred Mallins
40	200 – 800 – 2 – 12	William & Mildred Mallins
41	200 – 800 – 2 – 13	Subsurface Maintenance Corp.
42	200 – 800 – 2 – 14	Subsurface Maintenance Corp.
43	200 – 800 – 2 – 15	James Zambik
44	200 – 800 – 2 – 16	Wiencyzyslaw & Gabriela Odynocki
45	200 – 800 – 2 – 17	Joseph Urban
46	200 – 800 – 2 – 18	Calvin C. Lorenz
47	200 – 800 – 2 – 19	William A. Mallins
48	200 – 800 – 2 – 20	Yashvinder & Jaspir Mahajan
49	200 – 800 – 2 – 21	Anthony Mingoia
50	200 – 800 – 2 – 22	William A. Mallins
51	200 – 800 – 2 – 23	John Lock & George McDowell
52	200 – 800 – 2 – 28.1	Lock & McDowell, Inc.
53	200 – 800 – 2 – 28.3	Unified Credit Trust & G&D Oakland & C. Hill Trustee
54	200 – 800 – 2 – 28.4	Unified Credit Trust & G&D Oakland & C. Hill Trustee

Source: Town of Brookhaven Assessor's Office

Page 2, Item 7: Present Zoning

The overall project area is situated within the following zoning districts: C Residence; L Industrial 1 (L-1); J Business 2 (J-2); J Business 4 (J-4); and J Business 6 (J-6).

Page 2, Item 8: Description of Action

Since 2007, the Town Board of the Town of Brookhaven has been working with the community to revitalize the Ronkonkoma Hub area, which consists of an approximately 53.73-acre area, bounded by Union Avenue and Union Street to the north; Village Plaza Drive to the east; Country Road 29 (Ronkonkoma Avenue), Garrity Avenue and Hawkins Avenue to the west; and the Long Island Railroad (LIRR) Ronkonkoma to the south.

Since that time, the Town of Brookhaven had completed a two-phased planning study to revitalize the aforesaid Ronkonkoma Hub area. The goal was, and continues to be, to develop a vision that supports the compact, mixed-use, transit-oriented redevelopment of this area. Phase 1 of the planning study, completed in 2008, focused on documenting existing conditions and identifying potential opportunity sites for transit-oriented development. Phase 2 of the study, completed in early 2009, built upon the work completed in Phase 1 and, among other things, reviewed case studies of existing successful TOD projects and offered various recommendations relating to redevelopment opportunities, TOD zoning, transportation issues and concept plans. The Town also prepared a

Ronkonkoma Hub Transit-Oriented Development Draft Land Use and Implementation Plan (Draft Land Use and Implementation Plan) and a Draft Generic Environmental Impact Statement (DGEIS) which evaluated a theoretical maximum development scenario pursuant to the aforesaid *Draft Land Use and Implementation Plan*. The Town of Brookhaven Town Board accepted the DGEIS on September 21, 2010, and a public hearing was held on October 19, 2010.

The support for the redevelopment of the Ronkonkoma Hub area was evident from the aforesaid public hearing and the various community meetings that were held throughout the Phase 1 and Phase 2 planning processes. Subsequent to the public hearing on the DGEIS, the Town of Brookhaven, in an effort to ensure that the planning efforts would result in the actual redevelopment of the blighted Hub area, decided to seek private developer input. The Town issued a Request for Expressions of Interest (RFEI) and ultimately a solicitation for a Master Developer. Upon review of the responses to the RFEI and the solicitation for a Master Developer, the Town Board selected and entered into an agreement with TREC RONK HUB, LLC, an affiliate of Tritec (hereinafter referred to as "TREC RONK").

Since the time of selection of TREC RONK as the Master Developer and upon review preliminary plans prepared by TREC RONK, the Town of Brookhaven prepared *The Ronkonkoma Hub Study Area Blight Study (Blight Study)*. The Blight Study found sufficient evidence to determine the Project Area to be a substandard or unsanitary area in accordance with both Article 15 of the New York State General Municipal Law and Article XLI of Chapter 85 of the Town of Brookhaven Town Code. Subsequently, the Town of Brookhaven Town Board, after review of the aforesaid *Blight Study*, by Town Board Resolution 2012-804, dated September 20, 2012, designated the Ronkonkoma Hub as appropriate for urban renewal pursuant to Article 15 of the New York State General Municipal Law, and authorized the preparation of an urban renewal plan. In accordance with the requirements set forth in Article 15 of the General Municipal Law, a draft *Urban Renewal Plan* for the Ronkonkoma Hub has been prepared and is being reviewed by the Town.

The draft Urban Renewal Plan recommends development at a different mix and density than that contemplated in the aforesaid *Draft Land Use and Implementation Plan* and DGEIS. The range of uses and densities proposed in the draft Urban Renewal Plan include:

- 1,350 to 1,450 multi-family residential dwelling units
- 185,000± to 195,000± square feet of retail space
- 350,000± to 360,000± square feet of office/commercial space, and
- 60,000± square feet of "flex" space, to be utilized for conference, exhibition, hospitality, and residential uses.

The Conceptual Master Plan being developed by TREC RONK would conform to the above ranges. In addition, open space components would be included, and surface and structured parking would be provided. A sewage treatment plant (STP), to be owned and operated by Suffolk County, will be constructed. This STP will be initially constructed to accommodate 500,000 gallons per day (gpd) of sanitary flow, with 400,000 gpd allocated to the Ronkonkoma Hub and the remaining 100,000 gpd allocated to the Town of Islip (for future use, which has not yet been defined).

In order to implement the redevelopment of the Ronkonkoma Hub, the Town of Brookhaven Town Board would have to undertake the following actions:

- Adoption of the *Land Use and Implementation Plan*
- Adoption of the *Urban Renewal Plan for the Ronkonkoma HUB*
- Adoption of a Transit-Oriented Development (TOD) Zoning District
- Change of zone of parcels within the Ronkonkoma Hub area to the TOD Zoning District
- Approval of a Conceptual Master Plan

As the draft *Urban Renewal Plan* and the proposed Conceptual Master Plan of TREC RONK include a different development mix and density than evaluated in the DGEIS, the Town of Brookhaven is in the process of preparing a Draft Supplemental Generic Environmental Impact Statement (DSGEIS) to evaluate the impacts thereof.

Page 3, Item 7: What are the predominant land use(s) and zoning classifications within a ¼-mile radius of the proposed action?

North: Areas north of the Ronkonkoma Hub area are developed primarily with single-family residences within the C Residence zoning district. Undeveloped parcels and the Courtyard Long Island MacArthur Airport Hotel exist within the J Business 8 zoning district, and some commercial and industrial uses exist along the Long Island Expressway South Service Road, within the J Business 2, J Business 4 and L Industrial 1 zoning districts.

East: Single-family residences and multi-family condominiums exist to the east of the Ronkonkoma Hub area and are situated within the C Residence and Multi-Family Residence (“MF”) zoning districts, respectively.

South: To the south of the Ronkonkoma Hub area are the LIRR tracks, which form the dividing line between the Towns of Brookhaven and Islip. South of the LIRR tracks are parking areas associated with the LIRR Ronkonkoma Train Station, followed by the Town of Islip compost facility and the Long Island MacArthur Airport, all of which are situated within the Industrial 1 District, as designated by the Town of Islip.

West: Areas west of the Ronkonkoma Hub area are developed primarily with single-family residences within the C Residence zoning district. County Road 29 (west of the subject property) is flanked by commercial development within the J Business 2, J Business 4, J Business 5, and J Business 6 zoning districts.

Page 4, Item F.1: What is/are the predominant soil type(s) on project site?

Soils on the overall subject property include Cut and fill land, gently sloping (CuB); Plymouth loamy sand, 0 to 3 percent slopes (PIA); Riverhead sandy loam, 0 to 3 percent slopes (RdA); and Riverhead and Haven soils, graded, 0 to 8 percent slopes (RhB).

Page 8, Item M: Approvals Required

Approvals noted with an asterisk in the table below would be required for actual development that would occur in accordance with the TOD District. These approvals are not needed for adoption of the *Land Use and Implementation Plan, Urban Renewal Plan, TOD Zoning District, changes of zone or approval of a Conceptual Master Plan*, all of which are Town Board actions.

Approvals Required

Type

Town Board

Adoption of *Land Use and Implementation Plan*, Adoption of *Urban Renewal Plan*, Adoption of New TOD Zoning District, Change of Zone in the Ronkonkoma Hub area to the New TOD Zoning District, and Approval of a Conceptual Master Plan

Town Planning Board*

Site Plan and Potential Subdivision

County Health Department*

Water Connection and Sanitary Disposal

Local Agencies*

Town of Brookhaven Highway Department – Roadway Improvements

Building Department*

Building Permits

Suffolk County*

Establishment of Sewer District and Construction of STP
Agreement(s) to Accommodate for Relocation of Parking

Suffolk County Department of Public Works*

Highway Work Permit

Suffolk County Planning Commission

Referral

NYS Department of Transportation (NYSDOT)*

Highway Work Permit

Metropolitan Transportation Authority*

Agreement(s) to Accommodate for Relocation of Parking

RESOLUTION SUBMISSION

MEETING OF: OCTOBER 1, 2013

RESOLUTION NO. 2013-865

MOVED BY COUNCILMEMBER: Timothy Mazzei

REVISION:

SHORT TITLE: ADOPTION OF SEQRA POSITIVE DECLARATION AND NOTICE OF INTENT TO PREPARE A DRAFT SUPPLEMENTAL GENERIC ENVIRONMENTAL IMPACT STATEMENT (DSGEIS) FOR THE RONKONKOMA HUB TRANSIT-ORIENTED DEVELOPMENT (TOD)

DEPARTMENT: Town Board

REASON: Compliance with SEQRA

PUBLIC HEARING REQUIRED: No

DEPARTMENT OF FINANCE APPROVAL: YES NO

DOLLARS INVOLVED: No Fiscal Impact

EXECUTION OF DOCUMENT REQUIRED:

LR:cah

Present	Absent		Motion	Aye	No	Abstain	Not Voting
		Councilmember Fiore-Rosenfeld					
		Councilmember Bonner					
		Councilmember Walsh					
		Councilmember Kepert					
		Councilmember Mazzei	1				
		Councilmember Panico	2				
		Supervisor Romaine					

ADOPTED
BY THE BROOKHAVEN TOWN BOARD

RESOLUTION NO. 2013-865
MEETING OF OCTOBER 1, 2013

ADOPTION OF SEQRA POSITIVE
DECLARATION AND NOTICE OF INTENT
TO PREPARE A DRAFT SUPPLEMENTAL
GENERIC ENVIRONMENTAL IMPACT
STATEMENT (DSGEIS) FOR THE
RONKONKOMA HUB TRANSIT-ORIENTED
DEVELOPMENT (TOD)

WHEREAS, the Town Board is presently considering the Land Use and Implementation Plan for the Ronkonkoma Hub Transit-Oriented Development (TOD); and

WHEREAS, the Town Board, as the SEQRA Lead Agency, adopted a Positive Declaration and authorized the preparation of a Generic Environmental Impact Statement (GEIS) by Resolution No. 2010-860 adopted at the August 17, 2010 Town Board Meeting; and

WHEREAS, the Town of Brookhaven has prepared a Ronkonkoma HUB Transit-Oriented Land Use & Implementation Plan and a Draft Generic Environmental Impact Statement (DGEIS) with respect to said proposed action, and has submitted recommendations with respect to appropriate criteria for determining significance of the proposed action; and

WHEREAS, the maximum potential development currently being considered for the Ronkonkoma Hub area is greater than that evaluated in the Draft Generic Environmental Impact Statement (DGEIS); and

WHEREAS, the Town Board has determined that the proposed action may have a significant impact on the environment and that a Draft Supplemental Generic Environmental Impact Statement (DSGEIS) should be prepared;

NOW, THEREFORE, BE IT RESOLVED, by the Town Board of the Town of Brookhaven that based upon the Town Board's examination of the Draft Generic Environmental Impact Statement and the appropriate criteria for determination of

significance, the proposed action will have a "significant impact" on the environment and, therefore, a Draft Supplemental Generic Environmental Impact Statement (DSGEIS) must be prepared; and be it further

RESOLVED that this resolution constitutes a "Positive Declaration" pursuant to SEQRA and that this Board's Notice of this determination (as set forth in the Notice of Determination attached hereto) shall be filed to the extent required by the State Environmental Quality Review Act or as deemed necessary by this Town Board.

**STATE ENVIRONMENTAL QUALITY REVIEW ACT (SEQRA)
DETERMINATION OF SIGNIFICANCE
POSITIVE DECLARATION**

Notice of Intent to Prepare a Draft Supplemental Generic Environmental Impact Statement (DSGEIS)

Date: October 1, 2013

This Notice is issued pursuant to Article 8 of the Environmental Conservation Law (State Environmental Quality Review Act) and the implementing regulations set forth in 6 NYCRR Part 617.

The Town Board of the Town of Brookhaven (Town Board), as lead agency, has determined that the proposed action described below may have a significant effect on the environment and that a Draft Supplemental Generic Environmental Impact Statement (DSGEIS) will be prepared.

TITLE OF ACTION: Proposed Ronkonkoma Hub Transit-Oriented Development (TOD)

SEQR STATUS: Type I

DESCRIPTION OF ACTION:

Commencing in 2007, the Town Board began working with the community to revitalize the Ronkonkoma Hub area. The Ronkonkoma Hub area consists of 53.73±-acres, generally bounded by Union Avenue and Union Street to the north; Village Plaza Drive to the east; Ronkonkoma Avenue, Garrity Avenue and Hawkins Avenue to the west; and the railroad tracks of the Long Island Rail Road (LIRR) to the south, in the hamlet of Ronkonkoma. Since that time, the Town of Brookhaven completed a two-phased planning study to revitalize the Ronkonkoma Hub area, known as the *Ronkonkoma Hub Planning Study*. The goal was, and continues to be, to develop a vision that supports the compact, mixed-use, transit-oriented redevelopment of this area. The Town also prepared a draft *Ronkonkoma Hub Transit-Oriented Development Draft Land Use and Implementation Plan* ("Draft Land Use and Implementation Plan") and a Draft Generic Environmental Impact Statement (DGEIS), which evaluated a theoretical maximum development scenario pursuant to the aforesaid *Draft Land Use and Implementation Plan*.

The Theoretical Full Build Plan examined in the DGEIS included the redevelopment of opportunity sites with preferred land uses (i.e., multi-family residential, retail, restaurant, and office). The Theoretical Full Build Plan included the following program mix:

- 615 Residential Units
- 60,875 square feet – Retail
- 49,375 square feet – Office
- 30,000 square feet – Health Club
- 200 seats – Restaurant Use (Total)
- 2,701 new parking spaces

**SEQRA Positive Declaration
Town Board of the Town of Brookhaven
Proposed Ronkonkoma Hub Transit-Oriented Development (TOD)**

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- Sewage Treatment Plant
- Plaza area for outdoor public use

The Theoretical Full Build Plan was not a specific development proposal, but represented a potential redevelopment option that could achieve the goals and objectives of the *Draft Land Use and Implementation Plan* and complied with the proposed Ronkonkoma Hub Transit-Oriented Development District (“TOD District”). Examination of the Theoretical Full Build Plan enabled the Town Board to conduct a comprehensive environmental review of the overall proposed action and take a “hard look” pursuant to SEQRA and its implementing regulations at 6 NYCRR Part 617.

The proposed action examined in the DGEIS included the adoption the *Draft Land Use and Implementation Plan*, the adoption of the TOD District (a formed-based code [FBC]), the rezoning of the Ronkonkoma Hub area (also referred to as the “TOD area”) to the TOD District, and the redevelopment of the area in accordance with the TOD District, based upon the Theoretical Full Build Plan. The Town Board, serving as lead agency, accepted the DGEIS, and a public hearing was held on October 19, 2010.

The support for the redevelopment of the Ronkonkoma Hub area was evident from the aforesaid public hearing and the various community meetings that were held throughout the planning process. Subsequent to the public hearing on the DGEIS, the Town of Brookhaven, in an effort to ensure that the planning efforts would result in the actual redevelopment of the blighted Hub area, decided to seek private developer input as to the financial feasibility of the redevelopment concept. The Town issued a Request for Expressions of Interest (RFEI) and ultimately a Request for Qualifications (RFQ) for a Master Developer.

Upon review of preliminary plans received as part of the RFEI and RFQ processes, the Town of Brookhaven prepared *The Ronkonkoma Hub Study Area Blight Study (“Blight Study”)*, and after review of the *Blight Study*, designated the Ronkonkoma Hub as appropriate for urban renewal pursuant to Article 15 of the New York State General Municipal Law, and authorized the preparation of an urban renewal plan. A draft *Urban Renewal Plan* has been prepared and is being reviewed by the Town.

The *Urban Renewal Plan* recommends development at a different mix and density than that contemplated in the aforesaid *Land Use and Implementation Plan* and DGEIS. The range of uses and densities proposed in the *Urban Renewal Plan* include:

- 1,350 to 1,450 multi-family residential dwelling units
- 185,000± to 195,000± square feet of retail space
- 350,000± to 360,000± square feet of office/commercial space

**SEQRA Positive Declaration
Town Board of the Town of Brookhaven
Proposed Ronkonkoma Hub Transit-Oriented Development (TOD)**

Page 3

- 60,000± square feet of “flex” space, to be utilized for conference, exhibition, hospitality, and/or residential uses

Pursuant to 6 NYCRR §617.9(a):

“(7) Supplemental EISs.

(i) The lead agency may require a supplemental EIS, limited to the specific significant adverse environmental impacts not addressed or inadequately addressed in the EIS that arise from:

- (a) changes proposed for the project; or*
- (b) newly discovered information; or*
- (c) a change in circumstances related to the project.*

(ii) The decision to require preparation of a supplemental EIS, in the case of newly discovered information, must be based upon the following criteria:

- (a) the importance and relevance of the information; and*
- (b) the present state of the information in the EIS.*

(iii) If a supplement is required, it will be subject to the full procedures of this Part.”

As the maximum potential development currently being considered for the Ronkonkoma Hub area is greater than that evaluated in the DGEIS, a positive declaration is being issued and a DSGEIS must be prepared to address potential changes in impacts that would result from the modified proposed action.

In order to redevelop the Ronkonkoma Hub area as currently contemplated, the following would be required by the Town Board:

- Adoption of the *Land Use and Implementation Plan*
- Adoption of the *Urban Renewal Plan*
- Adoption of a TOD District zoning code
- Change of zone of parcels within the Ronkonkoma Hub area to the TOD District zoning code
- Approval of a Conceptual Master Plan (“Maximum Density Concept Plan”)

**SEQRA Positive Declaration
Town Board of the Town of Brookhaven
Proposed Ronkonkoma Hub Transit-Oriented Development (TOD)**

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PROJECT LOCATION:

The Ronkonkoma Hub area includes multiple tax map parcels and is bounded by Union Avenue to the north; Village Plaza Drive to the east; the Long Island Rail Road (LIRR) tracks (Ronkonkoma Branch) to the south; and Ronkonkoma Avenue, Garrity Avenue, and Hawkins Avenue to the west; in the hamlet of Ronkonkoma, Town of Brookhaven, Suffolk County, New York.

REASONS SUPPORTING THIS DETERMINATION:

The Town Board, in reviewing the proposed action, using the available information and comparing it with the thresholds set forth in 6 NYCRR §§617.4 and 617.5, has determined that the proposed action is a Type I action. A coordinated review for a Type I action involving more than one agency was completed, as set forth in 6 NYCRR §617.6(b), in order to inform and allow other regulatory agencies to participate in the decision making process. The Town Board, as lead agency and after review and analysis of the proposed action, the issues and areas of environmental concern identified and as enumerated below, the criteria contained in 6 NYCRR §617.7(c) and other supporting information, finds that the proposed action may have a significant effect upon the environment and that a Draft Supplemental Generic Environmental Impact Statement (DSGEIS) should be prepared to evaluate the differences in impacts resulting from the change in potential maximum density pursuant to the draft TOD District.

Significant impacts to the environment are anticipated, including:

1. The proposed action would allow for redevelopment of a 53.73±-acre area with mixed uses and would result in multi-phased construction that would extend for more than one year and involve multiple phases.
2. The proposed action would result in the generation of approximately 400,000 gallons per day of sewage effluent, which could potentially impact groundwater resources.
3. The proposed action would result in increased water usage (in excess of 20,000 gallons per day).
4. The proposed action may result in increased impervious surfaces (e.g., buildings, parking areas and driveways), which may alter the existing drainage pattern and potentially result in adverse impacts relating to stormwater runoff.

**SEQRA Positive Declaration
Town Board of the Town of Brookhaven
Proposed Ronkonkoma Hub Transit-Oriented Development (TOD)**

Page 5

5. Implementation of the proposed action would result in an increase in trip generation and parking demand.
6. As the proposed action would allow the construction of buildings at a height greater than that permitted by prevailing zoning, impacts to area aesthetics may result.
7. Implementation of the proposed action could cause a change in the types and intensity of land uses which could potential adversely impact community character.
8. Implementation of the proposed action would result in impacts to community services.
9. Implementation of the proposed action would result in an increased demand on utility providers.

SCOPING: Formal public scoping will not be conducted

LEAD AGENCY: The Town Board of the Town of Brookhaven

CONTACT PERSON: Tullio Bertoli, AIA, AICP, LEED
Commissioner
Department of Planning, Environment and Land
Management

ADDRESS: Town of Brookhaven
One Independence Hill
Farmingville, New York 11738

TELEPHONE NO.: (631) 451-6400

EMAIL: tbertoli@brookhaven.org

**SEQRA Positive Declaration
Town Board of the Town of Brookhaven
Proposed Ronkonkoma Hub Transit-Oriented Development (TOD)**

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A COPY OF THIS NOTICE HAS BEEN SENT TO:

The Honorable Ed Romaine, Supervisor
and Members of the Town Board
Town of Brookhaven
One Independence Hill
Farmingville, New York 11738

The Honorable Tom Croci, Supervisor
and Members of the Town Board
Town of Islip
655 Main Street
Islip, New York 11751

Vincent E. Pascale, Chairperson
Town of Brookhaven Planning Board
One Independence Hill
Farmingville, New York 11738

Dr. James L. Tomarken
MD, MPH, MBA, MSW
Commissioner
Suffolk County Department of Health Services
3500 Sunrise Highway, Suite 124
P.O. Box 9006
Great River, New York 11739-9006

Mr. Dan Losquadro, Superintendent of Highways
Town of Brookhaven Highway Department
1140 Old Town Road
Coram, New York 11727

Mr. Arthur Gerhauser, Chief Building Inspector
Town of Brookhaven Building Division
One Independence Hill
Farmingville, New York 11738

**SEQRA Positive Declaration
Town Board of the Town of Brookhaven
Proposed Ronkonkoma Hub Transit-Oriented Development (TOD)**

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Honorable William J. Lindsay, Presiding Officer
Suffolk County Legislature
William Rogers Legislature Building
725 Veterans Memorial Highway
Smithtown, New York 11787

The Honorable Steven Bellone, County Executive
Suffolk County
H. Lee Dennison Building
100 Veterans Memorial Highway
Hauppauge, New York 11788-0099

Mr. Gilbert Anderson, P.E., Commissioner
Suffolk County Department of Public Works
335 Yaphank Avenue
Yaphank, New York 11980

David L. Calone, Chairman
Suffolk County Planning Commission
H. Lee Dennison Building
100 Veterans Memorial Highway
Hauppauge, New York 11788

Mr. Glenn Murrell, Acting Planning & Program Manager
Region 10, New York State Department of Transportation
State Office Building
250 Veterans Memorial Highway
Hauppauge, New York 11788

Ms. Helena Williams, President
c/o Elisa Picca, Chief Planning Officer
Metropolitan Transportation Authority – Long Island Railroad
Jamaica Station
Sutphin Boulevard and Archer Avenue
Jamaica, New York 11435

**SEQRA Positive Declaration
Town Board of the Town of Brookhaven
Proposed Ronkonkoma Hub Transit-Oriented Development (TOD)**

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Mr. Peter A. Scully, Regional Director
New York State Department of Environmental Conservation
SUNY @ Stony Brook
50 Circle Road
Stony Brook, New York 11790-3409

Town of Brookhaven:

Timothy P. Mazzei, Councilman, District 5
Tullio Bertoli, Commissioner, PELM
Chip Wiebelt, Senior Site Plan Reviewer
Anthony Graves, Chief Environmental Analyst, Division of Environmental Protection, PELM

This Notice has also been forwarded for publication in the Environmental Notice Bulletin

THIS DETERMINATION IS NOT COMPLETE UNTIL AUTHORIZED AS FOLLOWS:

ADOPTED BY RESOLUTION ON: October 1, 2013

Patricia A. Eddington, LCSW, Town Clerk and Registrar:



Proposed Ronkonkoma Hub Transit-Oriented Development (TOD)

Ronkonkoma, Town of Brookhaven
Suffolk County, New York

Prepared for **Town of Brookhaven Town Board**
Farmingville, New York

Prepared by  *Engineering, Surveying and Landscape Architecture, P.C.*
Hauppauge, New York

October 2013

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- Attachment A – Ronkonkoma Hub Study Area Blight Study
- Attachment B – Town of Brookhaven Resolution 2012-804
- Attachment C – Fully Executed Master Development Designation Agreement

I. INTRODUCTION

In September 2012, the Town of Brookhaven caused to be prepared *The Ronkonkoma Hub Study Area Blight Study* (hereinafter the “*Blight Study*”) (see Attachment A) for the Ronkonkoma Hub, located in the hamlet of Ronkonkoma, Town of Brookhaven, Suffolk County, New York (the “Project Area,” see Figure 1). The *Blight Study* found sufficient evidence to determine the Project Area to be a substandard or insanitary area in accordance with both Article 15 of the New York State General Municipal Law and Article XLI of Chapter 85 of the Town of Brookhaven Town Code. Subsequently, the Town of Brookhaven Town Board (hereinafter the “Town Board”), after review of the aforesaid *Blight Study*, by Town Board Resolution 2012-804, dated September 20, 2012, designated the Ronkonkoma Hub as appropriate for urban renewal pursuant to Article 15 of the New York State General Municipal Law, and authorized the preparation of an urban renewal plan (see Attachment B).

In accordance with the requirements set forth in Article 15 of the General Municipal Law, this *Urban Renewal Plan* for the Ronkonkoma Hub (hereinafter the “*Urban Renewal Plan*”) has been prepared in order to facilitate the redevelopment of the Ronkonkoma Hub area as a Transit-Oriented Development (TOD) area featuring a mix of higher density residential development, commercial, hospitality, institutional, office, and retail uses, conference, entertainment and exhibition venues, and public designated outdoor spaces. The development is designed to both complement and benefit from the presence of the Ronkonkoma Long Island Railroad (LIRR) Station and its associated commuter passenger volumes.

In accordance with Article 15, this document contains a description of the proposed *Urban Renewal Plan*, including a discussion of its objectives, conformance with existing comprehensive plans, and a description of the various elements of the redevelopment proposal. It also explains the techniques that would be used to implement the overall redevelopment plan. The intent of this *Urban Renewal Plan* is to address blighted conditions identified within the Project Area, defined by Section 501 of the General Municipal Law as “substandard, insanitary, deteriorated or deteriorating conditions, factors, and characteristics” that constitute a “serious and growing menace, is injurious to the public safety, health, morals and welfare...and constitutes a negative influence on adjacent properties impairing their economic soundness and stability, thereby threatening the source of public revenues.” In order to promote sound growth and development, and to address the aforementioned blighted conditions, Urban Renewal Law allows for the “clearance, replanning, reconstruction, redevelopment, rehabilitation, restoration or conservation” of designated blighted areas.

II. DESCRIPTION OF PROJECT

A. Boundaries of the Urban Renewal Project

The Project Area boundaries are Union Avenue and Union Street to the north; Village Plaza Drive to the east; County Road 29 (Ronkonkoma Avenue), Garrity Avenue and Hawkins Avenue to the west; and the railroad tracks of the Long Island Railroad to the south, (see Figure 1). The Project Area encompasses 54 Suffolk County Tax Map (SCTM) parcels comprising approximately 54 acres (see Figure 2).

B. Urban Renewal Plan Objectives

The objectives of this *Urban Renewal Plan* are as follows:

- Eliminate blighting conditions, including: vacant and underutilized properties and buildings; deteriorated buildings; inadequate sidewalks, drainage, and sewerage infrastructure; incompatible land uses; and, aesthetic and visual detriments
- Promote compact, mixed-use development in proximity to the commuter rail station
- Encourage development that supports transit
- Encourage a diverse mix of higher density residential development, commercial, office and retail uses, entertainment and exhibition venues, and outdoor spaces for workers, visitors, and residents
- Promote economic development opportunities
- Encourage a pedestrian-friendly environment and pedestrian-oriented commercial enterprises and consumer services that do not primarily rely on automobile traffic to bring consumers to the area
- Encourage flexibility in site and architectural design
- Maintain a consistently high level of design quality

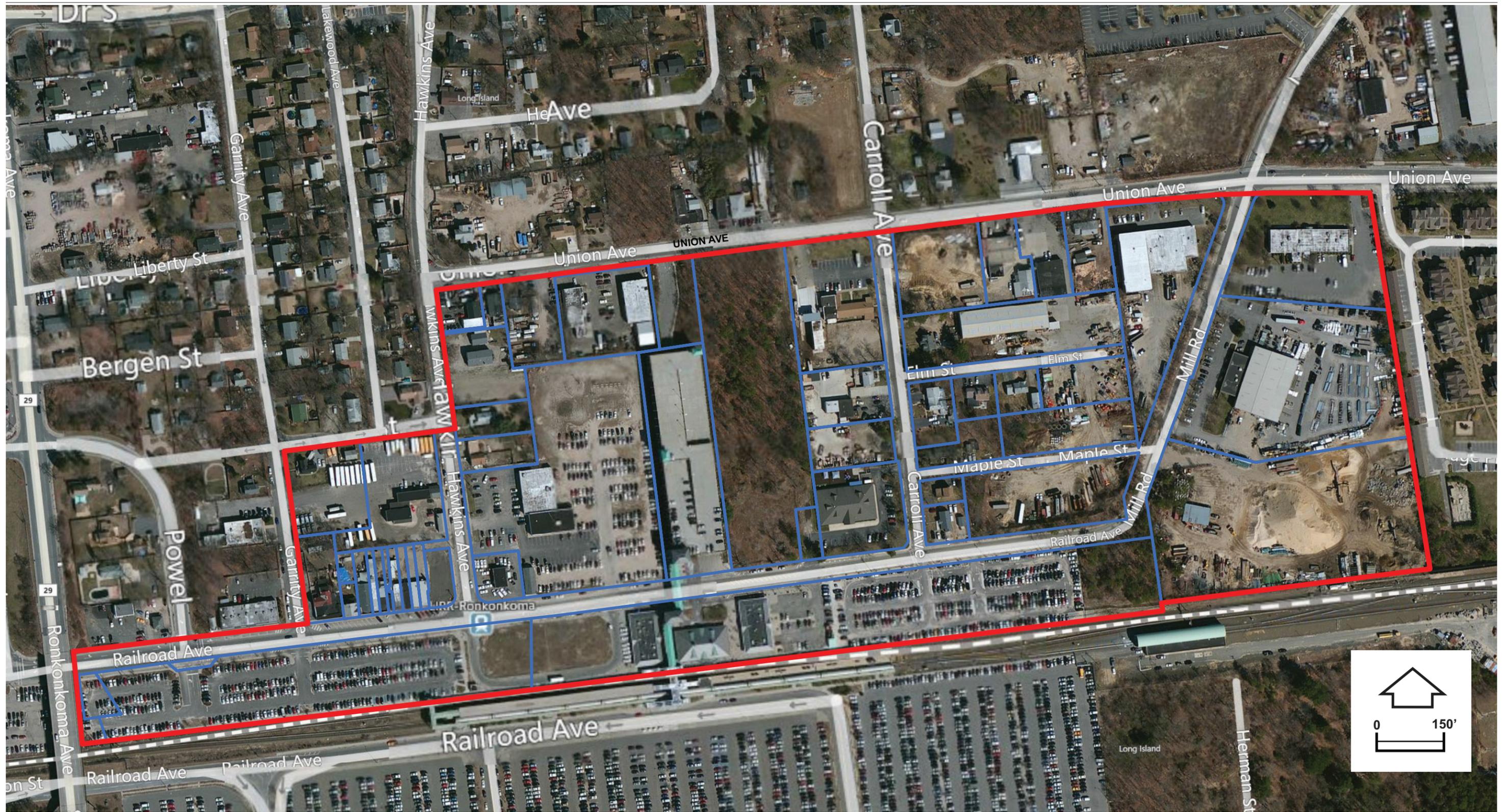


FIGURE 1

Ronkonkoma Hub Project Area

Ronkonkoma Urban Renewal Plan | Town of Brookhaven, New York

- Project Area
- Town of Brookhaven Tax Parcel



FIGURE
2

Project Area Tax Parcels Map

Ronkonkoma Urban Renewal Plan | Town of Brookhaven, New York

- Project Area
- Tax Parcel

C. Proposed Actions

As discussed in the *Blight Study*, the observed blighting conditions within the Project Area include vacant properties and buildings, underutilized properties and buildings, deteriorated buildings, inadequate sidewalks and curbs, inadequate drainage and sewerage infrastructure, incompatible land uses, and aesthetic and visual detriments.

The *Urban Renewal Plan* has been developed as a method to revitalize the Project Area with higher density residential development, commercial, hospitality, institutional, office, and retail uses, conference, entertainment and exhibition venues, and public designated outdoor spaces to complement the Ronkonkoma LIRR Station. The *Urban Renewal Plan* also proposes an upgrade of public facilities and infrastructure, including roads, sidewalks, curbs, public hardscape and landscape, and various utility infrastructure (e.g., natural gas lines, water mains, and electric distribution), stormwater runoff collection systems, street and walkway lighting, and parking areas. To facilitate the redevelopment of the Ronkonkoma Hub, a sewage treatment plant (STP) will be constructed, under the auspices of the Suffolk County Department of Public Works (SCDPW), on the south side of the Long Island Rail Road tracks to accommodate sanitary waste from the Ronkonkoma Hub and other areas.

To accomplish the objectives of the *Urban Renewal Plan*, the Town of Brookhaven has selected a master developer, and has executed a *Master Developer Designation Agreement* (hereinafter the "MDDA"), which sets forth the various responsibilities of the Town and the master developer (see Attachment C). While the selected master developer would provide the majority of funding for redevelopment efforts, the Town of Brookhaven would apply for New York State and Federal grants, as available, to fund various elements of the *Urban Renewal Plan*.

III. LOCAL LAND USE PLANS, POLICIES, AND OBJECTIVES FOR THE RONKONKOMA HUB

The redevelopment of the Ronkonkoma Hub area has been a goal of the Town of Brookhaven since the adoption of the *Brookhaven 1996 Comprehensive Land Use Plan* (hereinafter the “1996 Comprehensive Plan”). As discussed below in the summary of the planning documents that address the Ronkonkoma Hub area, while recommended redevelopment of the Ronkonkoma Hub has evolved since the adoption of the *1996 Comprehensive Plan*, the overall vision for the area has remained relatively consistent.

A. The 1996 Comprehensive Plan

A comprehensive plan is a tool for guiding the future of a community. Its purpose is to establish a common vision for the future of a community and then determine policies that will help attain that vision.

The *1996 Comprehensive Plan* included an assessment of existing land uses; existing zoning and related codes; demographic data depicting the population, housing, social and economic conditions in the Town; historical and cultural facts; previous land use plans such as Brookhaven's 1975 and 1987 plans; community services and facilities; circulation and transportation infrastructure; and environmental resources. It also identified existing problems, deficiencies and needs, as well as community strengths and assets, and set forth goals, aspirations and/or objectives to be achieved. Lastly, alternatives and implementation programs for achieving the plan goals and objectives were proposed.

The *1996 Comprehensive Plan* recognized the advantageous location of the Ronkonkoma Hub proximate to not only the Ronkonkoma LIRR Station, but also to the Long Island - Islip MacArthur Airport and recommended that the Town continue to pursue redevelopment of the Ronkonkoma Hub. With this recommendation, the *1996 Comprehensive Plan* sought “to promote the goal of creating a ‘sense of place’ rezoning”¹ to meet certain standards, such as interconnecting streets, inclusions of sidewalks and bike lanes, construction of housing along the street frontage, providing a mix of housing types, and promoting the development of active recreational sites. Within the *1996 Comprehensive Plan*, it was envisioned that the Ronkonkoma Hub area would be redeveloped with large attractive office buildings and industrial development; however, since the drafting of that plan, and based upon various planning and visioning initiatives that have been undertaken by the Town, these uses have been determined to be no longer beneficial for the area, whereas the benefits of the TOD would meet the Town’s objectives for the Ronkonkoma Hub.

The *1996 Comprehensive Plan* identified the need for an increase in parking capacity at the Ronkonkoma LIRR Station. Since the adoption of the *1996 Comprehensive Plan*, multiple parking improvements have been undertaken, including a Metropolitan Transportation Authority (MTA)-owned public lot expansion east of the Ronkonkoma LIRR Station buildings and a privately-owned parking lot immediately north of the Ronkonkoma LIRR Station buildings along the north side of

▼
¹Town of Brookhaven Long Island 1996 Comprehensive Land Use Plan, Town of Brookhaven, 1996.

Railroad Avenue, which provides an additional 500+ parking spaces combined. Based on a parking study performed by VHB in 2009, current parking demand at Ronkonkoma Hub is satisfied by existing parking facilities, but the parking demands would increase significantly upon redevelopment under the TOD concept.

B. Draft Brookhaven 2030 Plan

While the *Draft Brookhaven 2030 Plan* has not yet been adopted by the Town of Brookhaven, it identifies the Ronkonkoma LIRR Station as “the most used Station, due to its electrified service as compared to diesel service on the other two routes, and is one of the most used LIRR Stations overall.”² Specifically, the *Draft Brookhaven 2030 Plan* addresses the importance of “creating transit-oriented developments surrounding Brookhaven’s Long Island Railroad Stations, including those in Port Jefferson Station, Patchogue, Ronkonkoma, Bellport, Medford, Mastic and Yaphank.”³

The following two key goals of the *Draft Brookhaven 2030 Plan* are pertinent to the *Urban Renewal Plan*:

- Redirect growth to areas served by infrastructure, revitalize downtowns, and establish pedestrian-oriented centers that have a sense of place
- Expand the range of transportation options

C. Ronkonkoma Hub Transit-Oriented Planning Study

In 2007, the Town of Brookhaven embarked upon a two-phased planning study, known as the *Ronkonkoma Hub Transit-Oriented Planning Study* (hereinafter the “*Ronkonkoma Hub Planning Study*”), aimed at revitalizing a multi-block area around the Ronkonkoma Hub. The goal of the *Ronkonkoma Hub Planning Study* was to develop a vision that would include compact, mixed-use redevelopment of underutilized land that supports and expands on the high ridership and recent improvements made to the Ronkonkoma train station. The desired outcome of the *Ronkonkoma Hub Planning Study* was a long-term development strategy that would establish clear and predictable guidance for the revitalization of the blighted, vacant and/or underutilized parcels. The Vision Plan, developed as part of the *Ronkonkoma Hub Planning Study*, includes zoning recommendations, identification of transportation improvements, financial implications, and concept plans. Highlights of the Vision Plan include the following:

- Public plazas at key intersections to provide public spaces for pedestrians and help activate the street
- Streetscape enhancements including sidewalks, signage, lighting and landscaping along Railroad Avenue, Mill Road and Hawkins Avenue
- Orient buildings towards the street edge along Railroad Avenue and Hawkins to help define the “Main Street” character
- Parking at the rear or interior of lots and seek opportunities for shared parking



² Town of Brookhaven Department of Planning, Environment and Land Management, *Brookhaven 2030 Plan Existing Conditions and Trends Report*, Prepared by Urbitran Associates, July 2008, Page 4. (website: <http://www.brookhaven2030.org/pdfs/ExistingConditionsandTrends.pdf>)

³ Town of Brookhaven Department of Planning, Environment and Land Management, *Brookhaven 2030 Plan Issues and Opportunities Outreach Report*, Prepared by Urbitran Associates, December 2007, Page 8. (website: http://www.brookhaven2030.org/pdfs/issues_and_opportunities_report.pdf)

- Active pedestrian-oriented uses on the ground floor, particularly along Railroad Avenue between Garrity Avenue and the Station
- New development on the MTA “bus loop” site
- Buildings up to 5 stories on Railroad Avenue, up to 4 stories on Mill Road and up to 2.5 stories on Union Avenue
- Streetscape enhancements to the Station plaza
- Mix of uses on upper floors
- Buildings oriented toward the street edge along Mill Road
- Multi-family buildings oriented toward amenities such as parks or plazas
- Residential unit types mixed within development sites
- Pedestrian connections to the Fairfield residential apartments, located immediately east of the Project Area

D. Long Island 2035 Comprehensive Regional Sustainability Plan

The *Long Island 2035 Comprehensive Regional Sustainability Plan* is intended to guide sustainable development of Long Island’s economy and social and natural environment for the next 25 years. As set forth in the Environment & Infrastructure section of the “Sustainable Strategies for Long Island 2035 - December 2010,” environmental and infrastructure strategies are focused on addressing existing needs, anticipating future growth and protecting Long Island’s natural resources. One of the strategies, involving transit (T-2) is to “create vibrant, transit-supported communities.” According to the *Long Island 2035 Comprehensive Regional Sustainability Plan*:

transit-supported communities (TSCs) are beneficial because they:

- *create vibrant, walkable communities;*
- *attract young workers;*
- *produce fewer school-age children per unit;*
- *generate greater incremental revenues when compared to single-family development;*
- *encourage transit use; and*
- *decrease traffic congestion.*

In addition to meeting consumer demand, transit-supported communities allow for compact growth in and around rail station areas, creating more development within a short walk of transit and more clusters of development along transit corridors. This form of growth allows more people to live on Long Island without adding to the burden of Long Island roadways. It also adds to the mix of housing on the Island, creating more choice and more availability of housing stock across pricing categories and housing types. With the clustering of worksites at station areas as well, it can be easier to live and work in transit corridors and use the LIRR to travel from home to work. This growth strategy will also boost LIRR ridership by creating reverse commute markets and establishing more consistent, all-day, bi-directional use of the railroad. Currently, however, only 19% of Nassau’s population and 6% of Suffolk’s population are located within a half-mile (10-minute walk) of a transit station.

E. Town of Brookhaven Blight to Light Study

In September of 2010, the Town of Brookhaven issued the *Draft Blight to Light Study*, which identified blighted properties within the Town and provided general recommendations for redevelopment of each identified property. The Ronkonkoma Hub is identified within the *Draft Blight to Light Study*, and is described as having limited retail and commercial offerings, unrealized economic potential, vacant and rundown buildings, chaotic zoning patterns, and a lack of investment. The *Draft Blight to Light Study* recommended a number of tools to facilitate the redevelopment of the Ronkonkoma Hub, including incentive plans and zoning, expedited permitting, special districts and others.

This study was accepted by the Town in October 2010. Subsequently, the Town Board passed the Blight to Light code amendments (Article XLI – Redevelopment Initiative, of the Town Code), giving the Town the means to eradicate suburban blight.

F. Ronkonkoma Hub Study Area Blight Study

As previously discussed, VHB performed the *Blight Study* on the Project Area in September of 2012 and identified several blighting characteristics, including:

- *Vacant and partially vacant properties and buildings* – Seven tax parcels were observed to contain vacant or partially vacant buildings, representing approximately 5.5 percent of the total gross floor area (gfa) within the Project Area (12,793± square feet), and approximately 6.5 percent of the total area of the Project Area (3.52± acres) is undeveloped.
- *Significant underutilization of development potential* – The total developed gross floor area in the Project Area (excluding the Ronkonkoma LIRR Station and parcel associated with the LIRR Parking Structure) is 232,978± square feet, representing only 39± percent of the total development potential permitted under existing zoning. This underutilization results in a lower level of economic activity than would otherwise be expected in the Project Area and, therefore, lowers levels of employment and property tax revenues.
- *Deteriorated buildings* – Deterioration of building elements was identified in a number of locations within the Project Area, creating potentially unsafe conditions and detracting from the area’s desirability as a place for private investment.
- *Inadequate curb and sidewalk areas* – Deteriorated or missing curbs and sidewalks were identified in various Project Area locations, detracting from the overall character of the area. Also, the lack of sidewalks hinders pedestrian activity and creates inefficiencies in pedestrian circulation (along with creating potentially dangerous conditions for pedestrians).
- *Lack of appropriate drainage and sewerage infrastructure* – Drainage is inadequate in certain locations, creating undesirable conditions for nearby uses. The lack of sewage treatment in the Project Area (i.e., properties rely upon individual on-site sanitary systems rather than a central collection and treatment system) limits the overall development density.

- *Incompatible land uses* – In several Project Area locations, residential uses adjoin or are located proximate to commercial uses that are not conducive to a desirable residential environment.

- *Aesthetic and visual character* – The combination of deteriorating buildings and infrastructure with the presence of substantial acreage devoted to the storage of vehicles, equipment, etc., creates an unattractive visual environment, which is not conducive to the attraction of private investment.

IV. THE URBAN RENEWAL PLAN

A. Overview of Proposed Actions by Type

As stated in Sections II.B and III.F of this *Urban Renewal Plan*, blighting conditions in the Project Area include vacant properties and buildings, underutilized properties and buildings, deteriorated buildings, inadequate sidewalks and curbs, inadequate drainage and sewerage infrastructure, incompatible land uses, and aesthetic and visual detriments. These blighting conditions contribute to the unrealized economic potential of the Project Area, and foster potentially hazardous and unsafe conditions for residents, employees, and pedestrians.

The current land use pattern (see Figure 3), has single-family residential uses interspersed with intensive commercial uses (e.g., automobile-related commercial businesses) and vacant lots creating a disjointed and inefficient land use pattern. Overall, the land use pattern within the Ronkonkoma Hub does not create a desirable living and business environment, though its use as a major commuter hub lends itself the potential to becoming a vibrant, transit-oriented community. These conditions inhibit the Town's desired objective of having the area evolve in a manner that leads to redevelopment of the neighborhood as a transit-oriented center.

B. Recommendations for All Actions

The *Urban Renewal Plan* provides a framework for the redevelopment of the Project Area in a transit-oriented manner, including higher density residential development, commercial, hospitality, institutional, office, and retail uses, conference, entertainment and exhibition venues, and public designated outdoor spaces, as well as improvements to public infrastructure, such as sidewalk improvements and construction of an STP to accommodate sanitary discharge generated by future land uses within the Project Area, as well as proximate to the Project Area. The *Urban Renewal Plan* includes: redevelopment of private and public properties; adoption and mapping of revised land use regulations; and, specific investments in public infrastructure to improve safety, access, and circulation for its residents. The overall goal of all these undertakings would be to revitalize the Ronkonkoma Hub area as a vibrant, transit-oriented center.

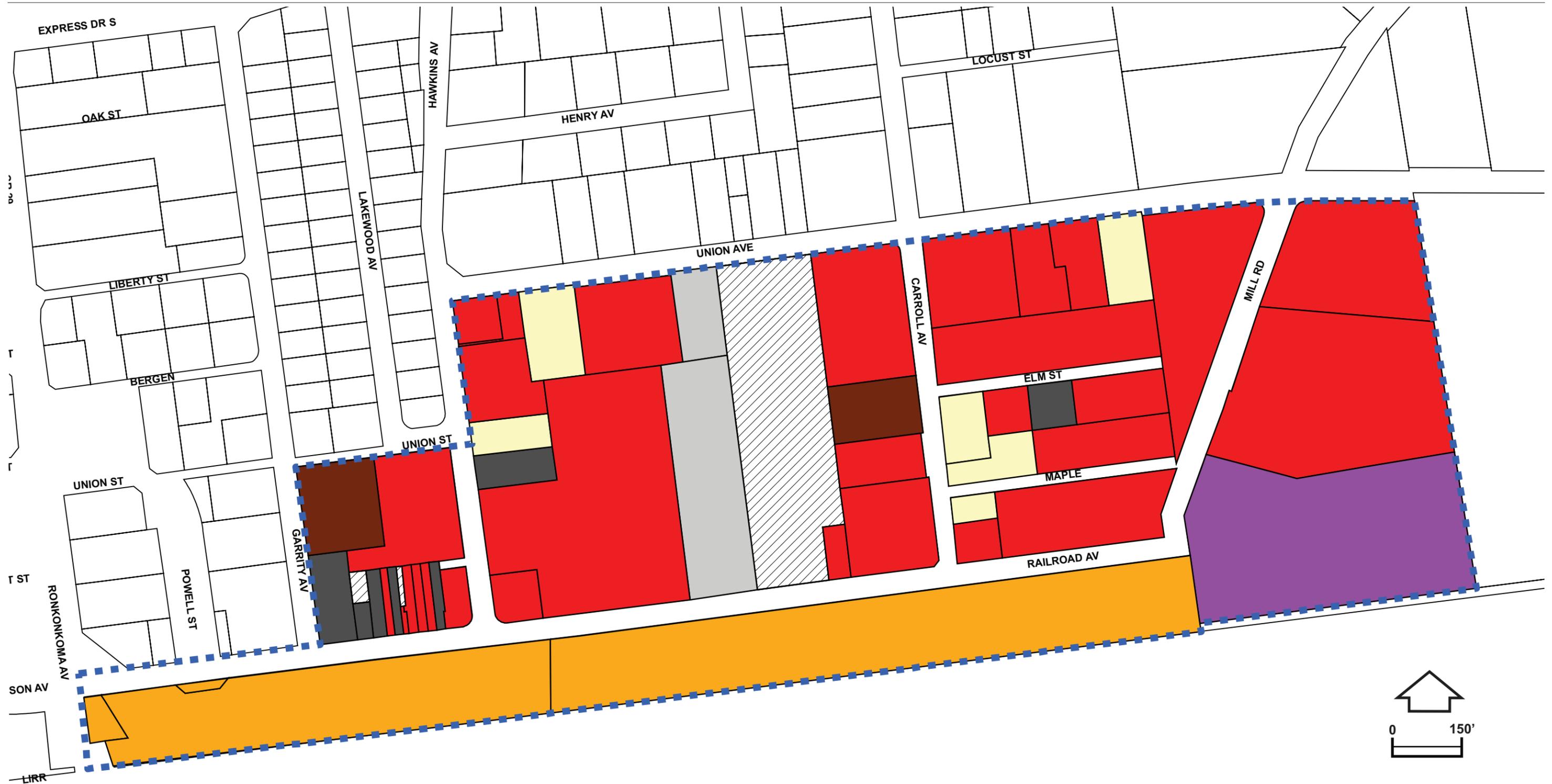


FIGURE 3

Existing Land Use Map

Ronkonkoma Urban Renewal Plan | Town of Brookhaven, New York

- | | | | | | | | |
|---|-------------------------------|---|--------------------------------------|---|------------------|---|-------------------------|
|  | Project Area |  | Residential |  | Commercial |  | LIRR Ronkonkoma Station |
|  | Town of Brookhaven Tax Parcel |  | Mixed Use Residential and Commercial |  | Industrial |  | Vacant Structure |
| | | | |  | Parking Facility |  | Undeveloped Land |



Overall, the *Urban Renewal Plan* recommends the development of higher density residential development (i.e., a potential maximum of 1,450 residential dwelling units) multi-family buildings fronting major thoroughfares in the Project Area, approximately 195,000 square feet of retail space,, approximately 360,000 square feet of office/commercial space, and approximately 60,000 square feet of “flex space,” to be utilized for conference, exhibition, hospitality, and residential uses. There are also public designated outdoor space components throughout the Project Area. Parking facilities would also be provided to accommodate parking demand generated by the recommended uses, while maintaining the existing MTA-owned parking deck, located in the central portion of the Project Area, as well as other surface parking areas within the Ronkonkoma Hub. An analysis of the issues and recommendations concerning the critical components for redevelopment of the Project Area, including land use, zoning and other land use controls, building conditions, and public improvements, follows.

► Land Uses

Issues:

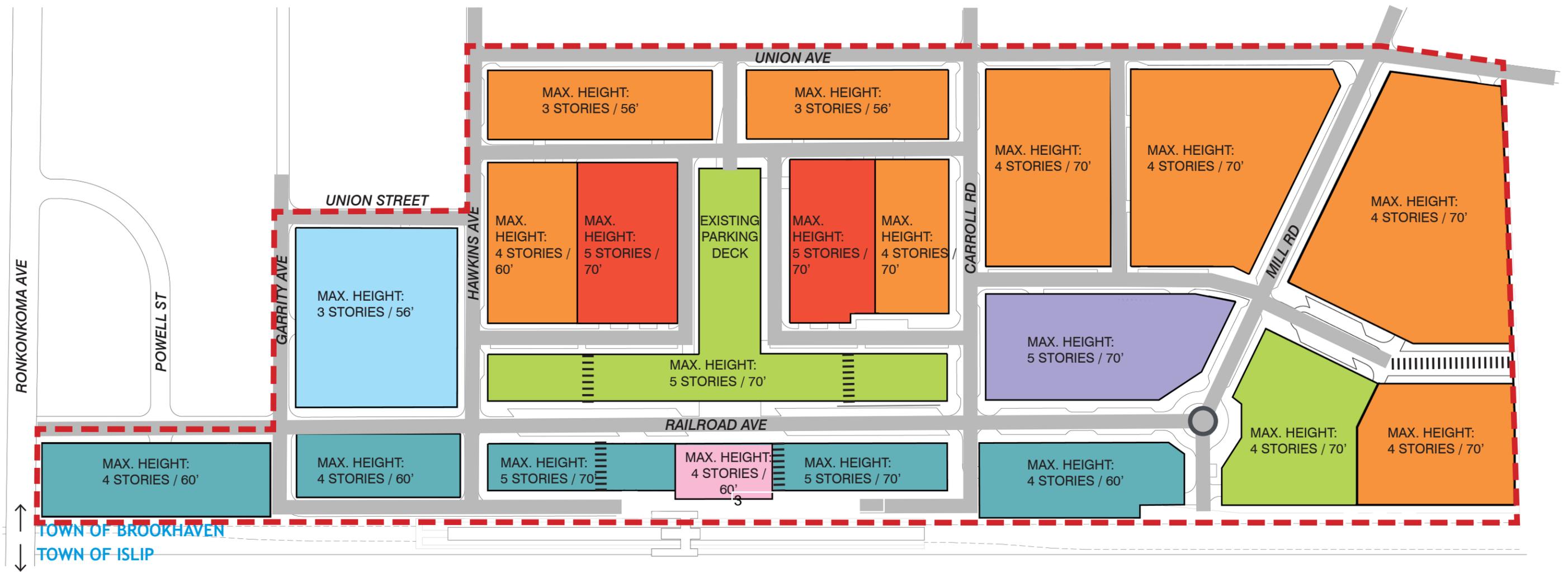
The Project Area poses challenges related to vacant and underutilized properties and buildings, deteriorated buildings, inadequate sidewalks and curbs, inadequate drainage and sewerage infrastructure, incompatible uses, aesthetic and visual detriments and other conditions that are more fully described in the *Blight Study*. Further, the mix of commercial businesses (primarily automobile-related businesses) and single-family residential uses creates a disjointed and inefficient land use pattern, compounded by the presence of vacant and underutilized lots and buildings.

Specifically, the Project Area features approximately 232,979 square feet of gross floor area (gfa), representing approximately 38.2 percent of the total allowable gfa within the Project Area (i.e., 609,370± square feet gfa) under existing zoning. Further, approximately 5.5 percent of the total gfa within the Project Area is vacant (i.e., 12,793± square feet), and approximately 6.5 percent of the total area of the Project Area (i.e., 3.52± acres) is undeveloped. Such underutilization and vacancies represent unrealized economic potential as well as create an unappealing business environment.

Recommendations:

The *Urban Renewal Plan* recommends redevelopment of the Project Area with a mix of uses at higher densities than what currently exist, as well as implementing various traffic and streetscape improvements. The high daily commuter volume at the Ronkonkoma LIRR Station (approximately 17,000 riders), proximity of the Project Area to major transportation corridors (i.e., the Long Island Expressway), and electric and express train service to New York City make higher development densities feasible and desirable. Additionally, the STP to be constructed to the south of the Project Area would permit up to 400,000 gallons per day of sanitary waste from the recommended redevelopment, which would allow for development densities significantly greater than what currently exists. Specifically, the recommended land use development program (see Figure 4) includes the following components:

- Several multi-family residential buildings, with maximum heights of three- to four-stories, primarily fronting along Union Avenue and Mill Road.
- Predominantly retail use with residential permitted along the west side of Hawkins Avenue, with a maximum height of three stories.
- Several mixed-use buildings potentially containing office or residential over retail, dining and entertainment uses. These buildings would have maximum heights of five stories along Railroad Avenue and four stories along Mill Road.
- Mixed-use buildings containing commercial, exhibition, hospitality, institutional, and residential uses. These buildings would be situated in the eastern portion of the Project Area, along Railroad Avenue and Mill Road, and would have a maximum height of five stories.
- Mixed-use buildings containing residential, office and institutional uses, with a maximum height of five stories, located adjacent to the existing parking deck.
- Maximum of four-to-five story buildings containing retail, office, dining and entertainment uses, situated along the south side of Railroad Avenue.
- A special use/entertainment venue is also recommended in the southern-central portion of the Project Area along the south side of Railroad Avenue, and would be up to four stories in height.
- Improvements to existing streets, the construction of new public and private streets, and the installation/upgrade of traffic signals or construction of a roundabout, and/or other traffic controls, as deemed appropriate in order to improve traffic circulation. These improvements would also create a safer and more inviting pedestrian environment.



LEGEND

- Development zone
- Proposed pedestrian passage
- Traffic circle

BLOCK USE

	Vertical mixed-use: Residential or office over retail, dining, and entertainment
	Vertical mixed-use: Office over retail, dining, and entertainment
	Mixed-use: Predominantly retail with residential permitted
	Residential, commercial, hospitality, or institutional, with first floor retail permitted
	Residential with very limited first floor retail permitted
	Horizontal mixed-use: Residential, office, institutional
	Special use, entertainment

MAXIMUM DENSITIES

Type	Density
Residential	1450 DU
Retail	195,000 sf
Office / Medical	360,000 sf
Flex space (hospitality, conference, exhibition, residential)	60,000 sf

NILES BOLTON ASSOCIATES

OCTOBER 7, 2013
ORIGINAL SCALE: 1" = 200'



FIGURE 4 **Conceptual Land Use Plan**

Ronkonkoma Urban Renewal Plan, Town of Brookhaven, New York

➤ Zoning and Other Land Use Controls

Issues:

The Project Area currently comprises four separate zoning districts, including the L1 (Light Industry), J-2 (General Business), J-4 (Professional and Business Offices), and J-6 (Main Street Business District) districts (see Figure 5). These districts do not permit land uses and development densities most appropriate for the Project Area, given the daily commuter volumes associated with the Ronkonkoma LIRR Station.

Recommendations:

In order to facilitate the recommended redevelopment of the Project Area described in this *Urban Renewal Plan*, a “Transit-Oriented Development” Zoning District (TOD District) would need to be created and implemented for the entire Project Area (see Figure 6). A TOD District would permit higher density residential, commercial, office and retail development in mixed-use buildings while also allowing for flexibility in the design and placement of these uses. Implementation of a TOD district would encourage efficient use of land, be a catalyst for revitalization, and foster a sense of place through development of a new transit-oriented, mixed use, pedestrian-friendly community. A TOD District would also encourage redevelopment of vacant and/or underutilized, blighted properties, which would complement the surrounding communities and uses as well as better utilize existing public transit infrastructure at the Ronkonkoma LIRR Station.

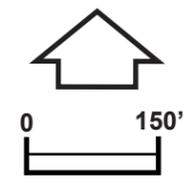
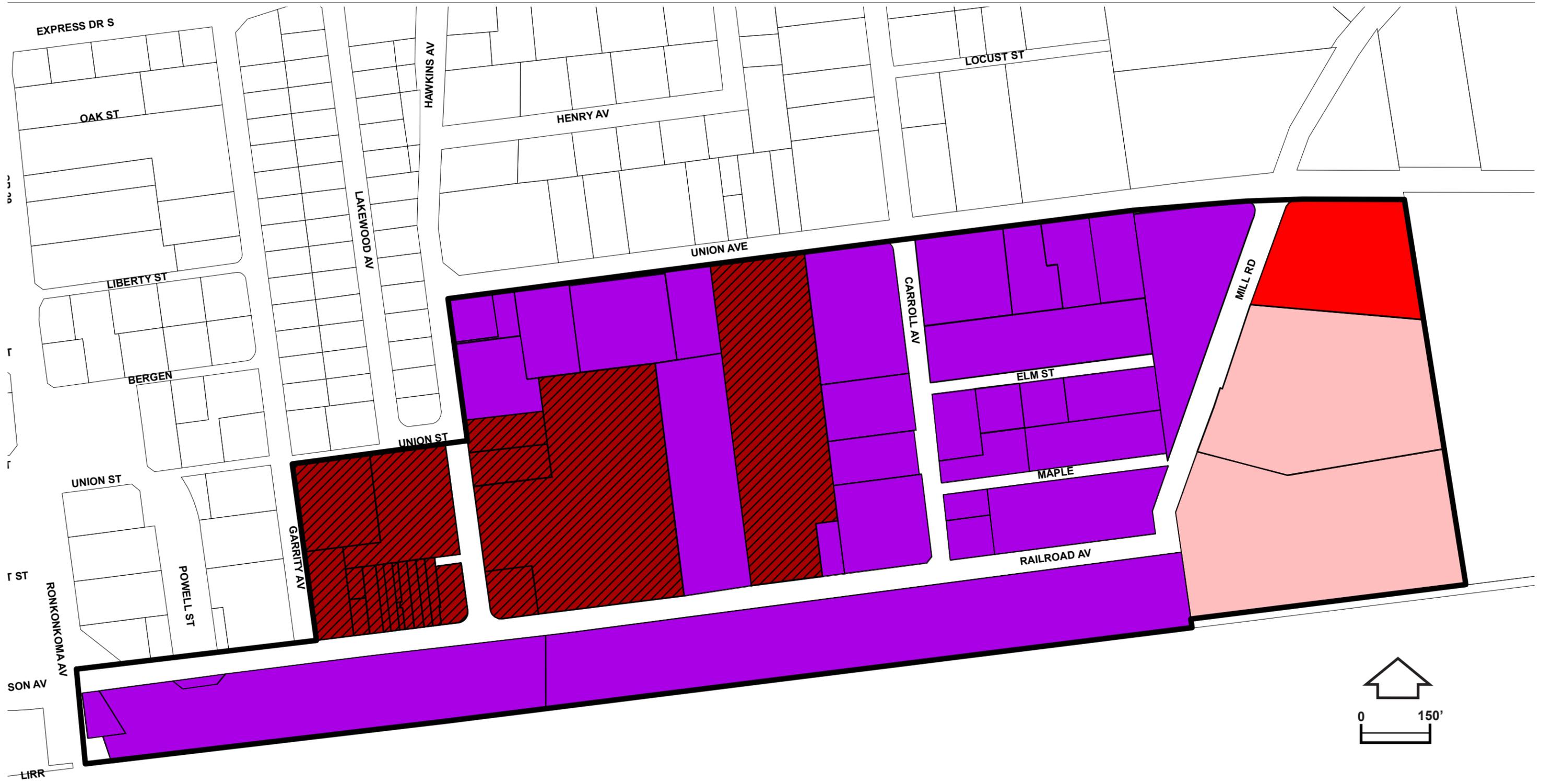


FIGURE 5

Project Area Existing Zoning Map

Ronkonkoma Urban Renewal Plan, Town of Brookhaven, New York



Project Area
Town of Brookhaven
Tax Parcel

Zoning Classification

J2 Business
J4 Business

J6 Business
L1 Industrial



FIGURE
6

Project Area Proposed Zoning Map

Ronkonkoma Urban Renewal Plan, Town of Brookhaven, New York

 Proposed TOD District

➤ Building Conditions

Issues:

Existing buildings within the Project Area are not adequate to accommodate the redevelopment recommendations within this *Urban Renewal Plan*. Further, there were observed deteriorated buildings within the Project Area, as seen in the following photographs.



Photograph 1: View of deteriorated building along the east side of Hawkins Avenue.



Photograph 2: View of deteriorated building along the east side of Garrity Avenue

The inadequacy of existing buildings within the Project Area to accommodate the recommended development densities will require the construction of new buildings.

Recommendations:

It is recommended to acquire and demolish all structures except for the existing MTA parking garage, and potentially the train station building(s). Individual buildings that are maintained and/or rehabilitated to eliminate code violations and blighting conditions, and which are proposed to be occupied in a manner which meets the objectives of this *Urban Renewal Plan* in terms of use, density, design and other factors, may be retained and integrated into the overall development.

➤ Public Improvements

Issues:

Sidewalk and curb areas within the Project Area are in disrepair and, in some cases, non-existent. Drainage infrastructure within the Project Area is also inadequate as pooling water along roadways was observed after rain events. Further, the lack of adequate sewerage infrastructure limits the building development potential of the Project Area.

Recommendations:

Redevelopment of the Project Area with development densities recommended by this *Urban Renewal Plan* would require improvements and upgrades to infrastructure, including roads, sidewalks, curbs, public hardscape and landscape, gas lines, water mains, electric distribution, storm water runoff collection systems, street and walkway lighting and public parking areas.

Additionally, the creation of a new sanitary sewer district by Suffolk County, with the STP planned for construction on the south side of the LIRR tracks would permit development densities significantly greater than those currently existing within the Project Area. As such, the redevelopment recommendations contained in this *Urban Renewal Plan* would be feasible in the context of permissible sanitary waste generation.

C. Conformance with Local Land Use Plans, Policies, and Objectives for the Ronkonkoma Hub

➤ 1996 Comprehensive Plan

As previously discussed, the *1996 Comprehensive Plan* recommends that, in order to create communities with a 'sense of place,' redevelopment proposals should include interconnecting streets, inclusion of sidewalks and bike lanes, provision of housing close to the street with a mix of housing types, and development of active recreational sites.

The *Urban Renewal Plan* recommends the development of a potential maximum of 1,450 residential dwelling units in multi-family apartment buildings along major thoroughfares in the Project Area (e.g., Union Avenue and Mill Road), incorporation of streetscape improvements to create a more attractive and inviting pedestrian environment, improvements to the existing street network to accommodate traffic generated from recommended development, and the provision of public designated outdoor spaces for recreation. Thus, the recommendations of the *Urban Renewal Plan* facilitate the overall vision articulated within the *1996 Comprehensive Plan*.

Specific recommendations for the Ronkonkoma Hub area within the *1996 Comprehensive Plan* include the expansion of parking areas to meet the demand of commuters, and the development of large-scale commercial and industrial uses.

As previously acknowledged, various parking improvements at the Ronkonkoma LIRR Station have been undertaken since the adoption of the *1996 Comprehensive Plan* to meet commuter demand. However, additional parking would be required as part of the *Urban Renewal Plan* in order to accommodate parking demand generated by recommended increased development densities. With regard to the *1996 Comprehensive Plan* recommendation for the development of large commercial and industrial uses, it has been determined through subsequent land use studies (discussed in Section III of this *Urban Renewal Plan*), that such uses are not appropriate for the Ronkonkoma Hub area. The high daily commuter volume, express train service to New York City at the

Ronkonkoma LIRR Station, and proximity to the Long Island Expressway make recommendations for redevelopment with higher density residential development, commercial, hospitality, institutional, office, and retail uses, conference, entertainment and exhibition venues, and public designated outdoor spaces for workers, visitors, and residents more appropriate.

Overall, therefore, the recommendations of the *Urban Renewal Plan* are consistent with the relevant goals outlined in the *1996 Urban Renewal Plan*.

➤ Draft Brookhaven 2030 Plan

The pertinent recommendations of the *Draft Brookhaven 2030 Plan*, and how the Urban Renewal Plan could achieve these goals, are discussed below.

- *Redirect growth to areas served by infrastructure, revitalized downtowns, and establish pedestrian-oriented centers that have a sense of place*

Implementation of the *Urban Renewal Plan* would result in the development of a new transit-oriented, mixed-use, community that better utilizes existing public transit infrastructure at the Ronkonkoma LIRR Station. Further, increased residential densities with complementary commercial, office and retail space, and outdoor spaces would create an active and inviting pedestrian environment, contributing to the creation of a ‘sense of place’ within the Ronkonkoma Hub.

- *Expand the range of transportation options*

New housing and job opportunities would be located within walking distance of public transit, thereby expanding the range of alternative transportation options beyond single-occupant vehicles. Further, the four Suffolk County Transit bus routes that provide service to the Ronkonkoma LIRR Station (i.e., 6A, 7A, 57, and 59) would be maintained.

➤ Ronkonkoma Hub Transit-Oriented Planning Study

The Vision Plan highlights from the *Ronkonkoma Hub Planning Study*, and how the *Urban Renewal Plan* could achieve them, are discussed below.

- *Public plazas at key intersections to provide public spaces for pedestrians and help activate the street*

A public plaza would be provided adjacent to the train station and sidewalks, including amenities such as street trees and street furniture, would help to activate the streets (see below).

- *Streetscape enhancements including sidewalks, signage, lighting and landscaping along Railroad Avenue, Mill Road and Hawkins Avenue*

Streetscape improvements are recommended along all existing and proposed streets within the Project Area to create a more attractive and inviting pedestrian environment.

- *Orient buildings towards the street edge along Railroad Avenue and Hawkins to help define the “Main Street” character*

The *Urban Renewal Plan* recommends that all redevelopment have frontage along the major corridors (i.e., Railroad, Hawkins and Union Avenues and Mill Road) and existing and proposed secondary roads in the Project Area.

- *Parking at the rear or interior of lots and seek opportunities for shared parking*

Parking for recommended uses in the Project Area would be situated within the existing MTA-owned parking deck, surface parking areas, on-street parking, subsurface parking, and above-ground structured parking along the south side of Railroad Avenue.

- *Active pedestrian-oriented uses on the ground floor, particularly along Railroad Avenue between Garrity Avenue and the Station*

It is recommended that ground floor redevelopment along Railroad Avenue feature a mixture of commercial, exhibition, institutional, hospitality, office, residential, retail, and public designated outdoor space uses to ensure an active pedestrian environment, to be complemented with streetscape improvements.

- *New development on the MTA “bus loop” site*

The MTA “bus loop” site would be redeveloped with mixed-use retail and office.

- *Buildings up to 5 stories on Railroad Avenue, up to 4 stories on Mill Road and up to 2.5 stories on Union Avenue*

Recommended redevelopment within the Ronkonkoma Hub area would include buildings that would have maximum heights of three-to-five-stories.

- *Streetscape enhancements to the Station plaza*

Streetscape improvements are recommended along all existing and proposed streets within the Project Area to create a more attractive and inviting pedestrian environment.

➤ *Mix of uses on upper floors*

Multiple mixed-use buildings are recommended, including buildings that feature commercial, exhibition, hospitality, institutional, office, residential, and/or retail uses.

➤ *Buildings oriented toward the street edge along Mill Road*

As previously discussed, all redevelopment along Mill Road would be oriented toward to the street.

➤ *Multi-family buildings oriented toward amenities such as parks or plazas*

Development of designated open/outdoor space of various types throughout the Project Area is recommended in order to provide recreational opportunities for residents, employees, and visitors.

➤ *Residential unit types mixed within development sites*

One- and two-bedroom residential units (rental and ownership) would be permitted.

➤ *Pedestrian connections to the Fairfield residential apartments, located immediately east of the Project Area.*

A pedestrian connection to the Fairfield residential apartments is recommended. It is also recommended that streetscape and pedestrian improvements provide convenient and safe access to this area.

Based on the foregoing, the recommendations of the *Urban Renewal Plan* are consistent with those goals described in the *Ronkonkoma Hub Planning Study*.

➤ **Long Island 2035 Comprehensive Regional Sustainability Plan**

The recommendations of the *Urban Renewal Plan* are generally consistent with the Environment & Infrastructure section of the “Sustainable Strategies for Long Island 2035 - December 2010,” which is part of the *Long Island 2035 Comprehensive Regional Sustainability Plan*. The *Urban Renewal Plan* recommends the redevelopment of the Project Area with a mix of uses, which would be within walking distance to the Ronkonkoma LIRR Station. Further, this *Urban Renewal Plan* addresses all of the benefits of transit-supported communities as outlined in the “Sustainable Strategies for Long Island 2035 - December 2010” plan.

➤ Town of Brookhaven Blight to Light Study

The *Urban Renewal Plan* would revitalize blighted conditions in the Project Area with a mix of uses, including higher density residential development, commercial, hospitality, institutional, office, and retail uses, conference, entertainment and exhibition venues, and public designated outdoor spaces, thus accomplishing the intent of the *Blight to Light Study*, which was accepted by the Town in October 2010.

D. Methods of Implementation

The *Urban Renewal Plan's* overall goals are to be reached through specific actions that are described below as "Methods of Implementation." Each of these methods is to be accomplished by one or more entities involved in the recommended redevelopment process, including the Town of Brookhaven and the selected master developer.

➤ Rezoning

The *Urban Renewal Plan* recommends that the Town of Brookhaven rezone the entire Project Area to a TOD District in order to facilitate the recommended redevelopment. The rezoning would be adopted by the Town Board as an action separate from the adoption of the Plan, after an analysis and report to the Town Board by the Town of Brookhaven Department of Planning, Environment, and Land Management.

➤ Land Acquisition

The *Urban Renewal Plan* would provide for the acquisition of all property within the Project Area for redevelopment purposes (with the potential exception of various MTA-owned properties, including the parking garage and the train station building[s]).⁴ Property acquisition strategies include the purchase of individual properties by the selected master developer and, if necessary, the possible use of eminent domain by the Town of Brookhaven (as set forth in the MDDA, a copy of which is included in Attachment C). Any such use of eminent domain would follow the applicable requirements of New York State law.

➤ Demolition

The intent of the *Urban Renewal Plan* is to acquire and demolish all structures except for the existing MTA parking garage and potentially the train station building(s). Individual buildings that are maintained and/or rehabilitated to eliminate code violations and blighting conditions, and which are proposed to be occupied in a manner which meets the objectives of this Plan in terms of use, density, design and other factors, may be retained and integrated into the overall development.

▼
⁴ It is anticipated that a cooperative arrangement would be made with the MTA for the use of its property, which may or may not include, acquisition of property, licensing, etc.

➤ Relocation

As a result of acquisition of properties as described above, existing residents and businesses in the Project Area may require relocation. Depending upon whether the properties are acquired by the selected master developer through negotiation or by the Town of Brookhaven through the use of eminent domain, the displaced residents and/or businesses may be entitled to relocation benefits.

➤ Disposition and Redevelopment

All property acquired in accordance with the *Urban Renewal Plan* shall be made available for redevelopment or public improvement. The *Urban Renewal Plan* recommends higher density residential development, commercial and retail uses, entertainment and exhibition venues, and public designated outdoor spaces. The Town of Brookhaven Department of Planning, Environment, and Land Management would oversee the disposition of Town acquired property, if any, as well as the redevelopment of properties in accordance with the *Urban Renewal Plan*.

V. PROPOSED PUBLIC, SEMI-PUBLIC, PRIVATE, OR COMMUNITY FACILITIES OR UTILITIES

Redevelopment of the Project Area should include improvements such as, but not limited to, roads, sidewalks, curbs, public hardscape and landscape, gas lines, water mains, electric distribution, stormwater runoff collection systems, street and walkway lighting and public parking areas. These improvements should be undertaken by both the Town of Brookhaven and the selected master developer, in coordination with the appropriate utility providers. Additionally, a new sewer district should be created by Suffolk County that includes the Project Area in order to permit the discharge of sanitary waste to the STP on the south side of the LIRR tracks.

VI. PROPOSED METHODS OR TECHNIQUES OF URBAN RENEWAL

The methods by which this *Urban Renewal Plan* should be undertaken shall include property acquisition, relocation, demolition of structures on parcels to be redeveloped, adoption of a TOD District, and construction of necessary infrastructure, building space and amenities for recommended uses by the Town of Brookhaven and the selected master developer.

VII. PROPOSED TIME SCHEDULE FOR THE EFFECTUATION OF THE PLAN

It is currently anticipated that effectuation of the *Urban Renewal Plan* could take approximately five-to- ten years, though this schedule could be affected by factors such as real estate market conditions. Implementation of this *Urban Renewal Plan* will begin upon its approval by the Town Board. After adoption of the *Urban Renewal Plan*, implementation of a TOD District would take place during the first year. It is anticipated that acquisition of properties and design of public improvements would continue through years one and two. Years three on would see the redevelopment of the Project Area, including the construction of necessary public improvements.

VIII. DURATION OF PLAN CONTROLS

The regulations and controls contained in this *Urban Renewal Plan* shall be binding and effective by deed or lease upon all purchasers or lessors and their heirs and assigns in the Project Area, from the time of the approval of the *Urban Renewal Plan* by the Town of Brookhaven, New York, for 20 years, unless amended as provided therein.⁵

IX. PROCEDURES FOR CHANGES IN THE APPROVED PLAN

The provisions of this *Urban Renewal Plan* may be modified or amended at any time by the Town Board of the Town of Brookhaven, New York. Major changes affecting proposed land uses, property acquisition, and project boundaries shall be undertaken in accordance with the procedures set forth in Article 15 and Article 15A of New York State law. Minor changes not affecting the above may be made by the Town Board upon recommendations of the Town of Brookhaven Department of Planning, Environment, and Land Management, following a public hearing and SEQRA review.

X. PROVISIONS TO PRESERVE INTEGRITY OF PLAN

In order to preserve the integrity of the *Urban Renewal Plan*, the Town of Brookhaven Building Inspector shall notify the Commissioner of the Town of Brookhaven Department of Planning, Environment, and Land Management, upon receipt of any application for a permit for building construction or alteration for a certificate of occupancy for a structure or use within the Project Area. Pursuant to Section 503(h) of the General Municipal Law, for a period of three years from the approval of the *Urban Renewal Plan* by the Town Board, or of any further amendments or modifications thereto, the Building Inspector shall not issue a building construction or alteration permit or certificate of occupancy for a structure or use within the Project Area without having first obtained the consent of the Commissioner of the Town of Brookhaven Department of Planning, Environment, and Land Management, unless the construction, alteration or use is necessary for the immediate protection of the public health or safety. The Commissioner of the Department of Planning, Environment, and Land Management of the Town of Brookhaven shall consent to the issuance of certificates of occupancy and permits upon determination that the proposed construction, alteration or use is not consistent with the *Urban Renewal Plan* or any amendments thereto. The Commissioner of the Town of Brookhaven Department of Planning, Environment, and Land Management shall have the power to reject any proposals that are inconsistent with the *Urban Renewal Plan* in order to preserve the integrity of the *Urban Renewal Plan*. This provision in no way usurps the approval authority of the Town Board, Planning Board, Board of Zoning Appeals, or any other entity of the Town, after the Commissioner of the Department of Planning, Environment and Land Management determines that a proposed action is consistent with the *Urban Renewal Plan* or any amendments thereto.

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⁵ The MDDA provides that the agreement expires if no construction commences within ten years of the date thereof.



Attachment A

The Ronkonkoma HUB Study Area

Hamlet of Ronkonkoma
Town of Brookhaven
New York

Prepared for **Town of Brookhaven Town Board**
Farmingville, New York

Prepared by

 **Engineering, Surveying and Landscape Architecture, P.C.**
Hauppauge, New York

September 2012

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Appendices

Appendix A - Section 85-495 of the Town of Brookhaven Town Code

Appendix B - Blight Study Field Observations

I. INTRODUCTION

This report presents an analysis of existing conditions within an area referred to as the “Ronkonkoma Hub,” in the hamlet of Ronkonkoma, Town of Brookhaven, Suffolk County, New York) for the purpose of determining whether this area contains blighted conditions, as set forth in Article 15 of New York State General Municipal Law. The Ronkonkoma Hub includes approximately 54± acres, and its boundaries are defined by Union Avenue and Union Street to the north, Village Plaza Drive to the east, the LIRR Ronkonkoma Branch rail line to the south, and Garrity Avenue and Hawkins Avenue to the west (hereinafter the “Study Area,” see (Figure 1).

The Study Area conditions were analyzed in accordance with the provisions of Article 15 of New York State General Municipal Law, which grants municipalities the power to redevelop areas in their jurisdiction that contain blighting conditions. The legislative findings state, in pertinent part:

“It is hereby found and declared that there exist in many municipalities within this state areas that are residential or predominantly residential, non-residential or predominantly non-residential, commercial or predominantly commercial, industrial or predominantly industrial, vacant or predominantly vacant and which are characterized by insanitary and substandard conditions, or which are deteriorated or deteriorating, owing to obsolete and dilapidated buildings and structures...physical deterioration...excessive land coverage...inadequate maintenance, buildings abandoned or not utilized in whole or substantial part...poorly or improperly designed street patterns and intersections, inadequate access to area, blocks and lots of irregular form, shape or insufficient size, width or depth...which hamper or impede proper and economic development of such areas and which impair or arrest the sound growth and development of the area, community or municipality...”

Article 15 further defines “Substandard or insanitary areas,” in part, as follows:

“The term ‘substandard or insanitary area’ shall mean and be interchangeable with a slum, blighted, deteriorated or deteriorating area, or an area which has a blighting influence on the surrounding area, whether residential, non-residential, commercial, industrial (or) vacant...”



FIGURE 1

Ronkonkoma Hub Study Area

Ronkonkoma HUB Blight Study | Town of Brookhaven, New York

- Study Area
- Town of Brookhaven Tax Parcel

August 2012 | source: Town of Brookhaven Provided Geographic Information Systems Data



The Ronkonkoma Hub was identified within the Town of Brookhaven's *Draft Blight to Light Study* (September 2010), a study undertaken to identify blighted properties and areas within the Town and facilitate their redevelopment through the institution of zoning, permitting and financial incentives.

Within the *Draft Blight to Light Study*, it was noted that the Ronkonkoma LIRR Station itself had limited retail and commercial space, and the surrounding area was characterized by buildings that were deteriorating and/or vacant. In addition, there was a notable lack of economic activity befitting an area with such high passenger volumes. Other constraints identified in the area included "chaotic zoning patterns" and a "lack of investment" (pp. 56-7). The vision for the area articulated within the *Draft Blight to Light Study* was as a "major destination for living, working, shopping, and dining..." (pg. 56). This Blight Study supplements the Town's *Draft Blight to Light Study* by further evaluating the conditions of individual parcels within the Ronkonkoma Hub.

Additionally, pursuant to Article XLI of Chapter 85 of the Town of Brookhaven Town Code ("Town Code"), the Town of Brookhaven found that:

"...blighted properties have prevented and arrested the sound growth and development of the local community. These blighted properties are predominantly commercial or industrial in nature and are characterized by deteriorating and/or abandoned buildings, in whole or substantial part thereof, and are typically inadequately maintained with debris, litter and/or trash accumulation and are lacking in basic public amenities. It is the purpose of this initiative to implement and achieve the objectives of the Town Board by providing clear guidelines to accomplish the following goals:

- A. Eliminate blighted properties throughout the Town.*
- B. Stimulate the revitalization of abandoned, vacant or underutilized blighted properties.*
- C. Where appropriate, encourage the demolition of existing abandoned, vacant or underutilized structures.*
- D. Where appropriate, encourage adaptive reuse of abandoned, vacant or underutilized business or manufacturing buildings or structures.*

- E. *Promote development or redevelopment of multiple structures in a coordinated fashion.*
- F. *Encourage flexibility in site and architectural design.*
- G. *Maintain a consistently high level of design quality.*
- H. *Establish redevelopment procedures that define and maintain a clear and predictable site plan review process. Administrative policies should support this objective, sending a positive message to landowners and developers.*
- I. *Encourage applications to the Town of Brookhaven Industrial Development Agency for possible tax abatement of qualifying projects.*
- J. *Encourage applications to the County of Suffolk and other municipalities to further enhance the redevelopment of these properties.”*

To this end, the Town of Brookhaven has developed criteria to assess the extent to which blight has impacted an individual property. These criteria include assessment of vacancies, vandalism, building deterioration, and obstacles to adaptive reuse among other categories. For a complete description of the blight rating criteria, see Section 85-495 of the Town Code, a copy of which is included in Appendix A of this Blight Study.

This analysis of the Study Area has been undertaken to determine if there is sufficient evidence to declare the area blighted under the requirements of Article 15 of New York State General Municipal Law. Field inspections of the Study Area, conducted in July and August, 2012, evaluated building and site conditions, land uses, including under-utilization of land, and conformity of existing buildings to land use regulations. The survey was supplemented with reviews of aerial photographs and Geographic Information Systems (GIS)-based tax parcel and building data maintained by the Town of Brookhaven. Also considered were data pertaining to building code violations, crime statistics, fire violations, and constituent complaints, for properties within the Study Area.

As explained in greater detail in later sections of this study, the results of this survey found evidence

of significant blight, as the Study Area is characterized by:

- Vacant properties and buildings
- Underutilized properties and buildings
- Deteriorated buildings
- Inadequate sidewalks and curbs
- Inadequate drainage and sewerage infrastructure
- Incompatible uses
- Aesthetic and visual detriments.

If blighting conditions within the Study Area are determined to be of a significant enough nature, such as contributing to a blighting influence on the Study Area and the surrounding area and deterring economic activity (i.e., job creation and property tax revenue), the Town can designate the area as appropriate for urban renewal and prepare an urban renewal plan to remedy those conditions. Pursuant to Section 502 of Article 15 of New York State General Municipal Law, “Urban renewal” is defined, in part, as follows:

“A program established, conducted and planned by a municipality for the redevelopment, though clearance, replanning, reconstruction, rehabilitation, and concentrated code enforcement, or a combination of these and other methods, of substandard and insanitary areas of such municipalities...”

An “Urban renewal plan” is defined in Section 502 as follows:

“A plan for an urban renewal project, which shall conform to the comprehensive community plan for the development of the municipality as a whole and which shall be consistent with local objectives. Such urban renewal plan shall include but shall not be limited to: a statement of proposed land uses; proposed land acquisition, demolition and removal of structures; proposed acquisition of air rights

and concomitant easements or other rights of user necessary for the use and development of such air rights; proposed methods or techniques of urban renewal; proposed public, semi-public, private or community facilities or utilities; a statement as to proposed new codes and ordinances and amendments to existing codes and ordinances as are required or necessary to effectuate the plan; proposed program of code enforcement; a proposed time schedule for the effectuation of such plan, and such additional statements or documentation as the agency may deem appropriate.”

Designation of an area as appropriate for urban renewal and adoption of an urban renewal plan by a municipality allows the municipality flexibility in implementing a redevelopment plan through a variety of actions. These could include actions such as: applying for federal or state funding assistance; demolition, clearance, rehabilitation and/or improvement of properties; implementation of land use and design controls; acquisition of properties, which may include the use of eminent domain and disposition of properties.

II. EXISTING CONDITIONS

This section defines the extent of the Study Area and describes the existing conditions within the Study Area, including existing zoning and land uses, based on field observations and data provided by the Town of Brookhaven and other municipal agencies.

A. Definition of the Study Area

The Study Area was initially defined and then evolved through a series of planning studies sponsored by the Town of Brookhaven. The purpose of these studies was to develop a vision that includes compact, mixed-use redevelopment of underutilized land that supports and expands on the high ridership of and recent improvements made to the Ronkonkoma LIRR Station. The desired outcome of these planning studies was a long-term development strategy that established clear and predictable guidance for the revitalization of the blighted, vacant and/or underutilized parcels.

This series of studies began with the *Ronkonkoma Hub Planning Study – Phase 1* (hereinafter the *Phase 1 Study*), developed in April 2008. The *Phase 1 Study* evaluated 181± acres surrounding the Ronkonkoma LIRR Station, including analysis of existing zoning, multi-family housing demand, parking, building space, and transportation infrastructure as well as the creation of goals and objectives and preliminary analysis of the development potential for priority development sites. The *Ronkonkoma Hub Planning Study – Phase 2* (hereinafter the *Phase 2 Study*), which followed in March 2009, generated a long-term vision and implementation strategy aimed at providing guidance to all interested parties on potential future development around the Ronkonkoma LIRR Station.

Based on these two planning studies, the *Ronkonkoma Hub Planning Study – Phase 3* (hereinafter the *Phase 3 Study*) was undertaken in August 2010. The *Phase 3 Study* established a vision for redevelopment of 54± acres that were chosen mostly because they are located on key “gateway” roadways serving the Ronkonkoma LIRR Station (Railroad Avenue, Hawkins Avenue, and Mill Road), where more viable land uses and higher density development would be most appropriate and complementary to existing uses. The *Phase 3 Study* established the Study Area, which consists of 54 tax parcels (see Table 1 and Figure 2). As previously discussed, the boundaries of the Study Area are Union Avenue and Union Street to the north, Village Plaza Drive to the east, the LIRR Ronkonkoma

Branch rail line to the south, and Garrity Avenue and Hawkins Avenue to the west. The total approximate gross floor area (gfa) of buildings within the Study Area is 232,979± square feet, based on GIS data maintained by the Town of Brookhaven.¹

Table 1 - SCTM Parcels and Property Ownership in the Study Area

No.	Suffolk County Tax Map Number (SCTM)	Name of Owner
1	200 - 799 - 3 - 32	14 Hawkins Avenue, LLC
2	200 - 799 - 3 - 33.1	14 Hawkins Avenue, LLC
3	200 - 799 - 3 - 33.2	55 Property Corp.
4	200 - 799 - 3 - 34	Gregory J. Mensch
5	200 - 799 - 3 - 35	Band Construction, Inc.
6	200 - 799 - 3 - 36	Antonio Melo
7	200 - 799 - 3 - 37	Micah Disipio
8	200 - 799 - 3 - 38	65 Railroad Avenue, LLC
9	200 - 799 - 3 - 39	63 Railroad Avenue, LLC
10	200 - 799 - 3 - 40.1	61 Property Corp.
11	200 - 799 - 3 - 40.2	61 Properties Corp.
12	200 - 799 - 3 - 41	John & Lily Bedell
13	200 - 799 - 3 - 42	55 Property Corp.
14	200 - 799 - 3 - 43	51 Property Corp.
15	200 - 799 - 3 - 44	Bernett & Gordon Realty Co.
16	200 - 799 - 3 - 45.1	M.T.A (LIRR)
17	200 - 799 - 3 - 49	M.T.A (LIRR)
18	200 - 799 - 3 - 50	M.T.A (LIRR)
19	200 - 799 - 4 - 44	NHP Realty, LLC
20	200 - 799 - 4 - 47.1	On-Track Realty, LLC
21	200 - 799 - 4 - 48	Margaret Higgins & Jerome Gaynor
22	200 - 799 - 4 - 49	Community Housing Innovations, Inc.
23	200 - 799 - 4 - 51.1	Marco Giangrasso
24	200 - 799 - 4 - 52	Hawkins & Union Avenue Realty, LLC
25	200 - 799 - 4 - 53	Carmine E. Dorsi
26	200 - 799 - 4 - 54	Anthony & Blase Davi
27	200 - 800 - 1 - 27.1	Anthony & Blase Davi
28	200 - 800 - 1 - 28	M.T.A. & R. Bergen David S. Symons
29	200 - 800 - 1 - 31.1	Island Wide, LLC
30	200 - 800 - 1 - 33.1	Carroll Properties, Inc.
31	200 - 800 - 1 - 34	Nelson Fernandes & Magalhaes Americo
32	200 - 800 - 1 - 35.7	Tudor Station Plaza, LLC c/o Island Estates
33	200 - 800 - 1 - 35.8	Ronkonkoma Railroad Properties, LLC

▼
¹ Excluding MTA-Owned Parcels

No.	Suffolk County Tax Map Number (SCTM)	Name of Owner
34	200 – 800 – 1 – 35.9	Tudor Station Plaza, LLC
35	200 – 800 – 1 – 36	M.T.A (LIRR)
36	200 – 800 – 1 – 38	M.T.A (LIRR)
37	200 – 800 – 2 – 9	Holbrook Truck & Equipment Leasing, Inc.
38	200 – 800 – 2 – 10	William & Mildred Mallins
39	200 – 800 – 2 – 11	William & Mildred Mallins
40	200 – 800 – 2 – 12	William & Mildred Mallins
41	200 – 800 – 2 – 13	Subsurface Maintenance Corp.
42	200 – 800 – 2 – 14	Subsurface Maintenance Corp.
43	200 – 800 – 2 – 15	James Zambik
44	200 – 800 – 2 – 16	Wiencyzyslaw & Gabriela Odynocki
45	200 – 800 – 2 – 17	Joseph Urban
46	200 – 800 – 2 – 18	Calvin C. Lorenz
47	200 – 800 – 2 – 19	William A. Mallins
48	200 – 800 – 2 – 20	Yashvinder & Jaspir Mahajan
49	200 – 800 – 2 – 21	Anthony Mingoia
50	200 – 800 – 2 – 22	William A. Mallins
51	200 – 800 – 2 – 23	John Lock & George McDowell
52	200 – 800 – 2 – 28.1	Lock & McDowell, Inc.
53	200 – 800 – 2 – 28.3	Unified Credit Trust & G&D Oakland & C. Hill Trustee
54	200 – 800 – 2 – 28.4	Unified Credit Trust & G&D Oakland & C. Hill Trustee

Source: Town of Brookhaven Assessor's Office

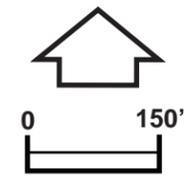


FIGURE 2 Study Area Tax Parcels

- Study Area
- Tax Parcel

August 2012 | source: Town of Brookhaven Provided Geographic Information Systems Data



B. Existing Land Use

The Study Area comprises a total of 54 tax parcels, containing residential, commercial, industrial, and public land uses (see Figure 3). Seven tax parcels (i.e., SCTM Nos. 799-3-35, 40.2, 42, 43 and 44; 799-4-48; and 800-2-15) were observed to contain a vacant or partially-vacant building (totaling approximately 12,793±-square feet of building area [gfa], or approximately 5.5 percent of the total building area [gfa] within the Study Area). Three tax parcels (i.e., SCTM Nos. 799-3-32 and 40.1; and 800-1-35.8) were found to be vacant (i.e., lacked development or any activity, such as commercial storage or staging uses) (totaling 3.52±-acres or 6.5± percent of the 54±-acre Study Area). SCTM No. 800-1-35.8, located immediately east of the LIRR Parking Structure along Railroad Avenue, constitutes 3.4± acres itself, creating a large, inactive void within the Study Area. Several tax parcels were observed to be active, but not developed with any structures (i.e., surface parking lots for the riders of the Ronkonkoma LIRR, commercial storage and/or staging, and industrial activities).

A majority of the tax parcels were observed to contain commercial uses, especially automobile-related businesses, including repair shops. Other commercial uses in the Study Area include lawn mower repair, general retail, offices, open-air storage and staging lots, a warehouse, gym, and private parking facility. There were also several single-family residential uses scattered throughout the Study Area. Several tax parcels are associated with the Metropolitan Transportation Authority (MTA), including the LIRR Ronkonkoma terminal station and associated parking lots and parking structure located along Railroad Avenue. Additionally, several lots were observed to be mixed-use, developed with both commercial and residential uses. Table 2 below includes a summary of land uses in the Study Area.

Table 2 – Observed Land Uses in the Study Area

Land Use	Number of SCTM Parcels
Commercial	29
Residential	6
Industrial	1
Land Uses Associated with the MTA	6
Mixed-Use (Commercial and Residential)	2 ¹
Parcels with Vacant or Partially Vacant Buildings	7
Undeveloped	3
Total:	54

Sources: VHB Field Surveys, July and August, 2012; Town of Brookhaven GIS data

¹This count does not include parcels where a vacant commercial use and active residential use were observed.



FIGURE 3

Existing Land Use

Ronkonkoma HUB Blight Study | Town of Brookhaven, New York

Land Use Classification

-  Study Area
-  Town of Brookhaven Tax Parcel
-  Residential
-  Mixed Use Residential and Commercial
-  Commercial
-  Industrial
-  LIRR Ronkonkoma Station
-  Vacant Structure
-  Parking Facility
-  Undeveloped Land

August 2012 | source: Town of Brookhaven Provided Geographic Information Systems Data



C. Existing Zoning

According to GIS-based SCTM parcel data provided by the Town of Brookhaven, parcels within the Study Area are situated within four zoning districts, including: L1 (Light Industry); J-6 (Main Street Business District); J-2 (General Business); and J-4 (Professional and Business Offices)(see Figure 4 and Table 3 below).

Table 3 – Existing Zoning in the Study Area

Zoning District	Number of Lots
L1: Light Industry	32
J-6: Main Street Business District	19
J-2: General Business	2
J-4: Business – Office Building	1
Total:	54

Source: Town of Brookhaven GIS data

The permitted uses within each of these zoning districts are summarized in Table 4 below.

Table 4 – Current Zoning and Summary of Permitted Uses within the TOD District Area

Zoning District	Summary of Permitted Uses
L1: Light Industry	Agriculture; banks; churches; commercial laundry; day-care facility; health club; manufacturing; office; printing plants; research and development; veterinarian; and warehouse
J-6: Main Street Business District	Retail and personal service stores; restaurants and bars; offices; banks; museums; theaters; studios; indoor recreation; private instruction schools; institutions; and second story residential or office use
J-2: General Business	Banks (without drive-through facility); bowling alleys; places of worship; commercial centers; day care facilities; delicatessens; dry cleaners; health clubs; Laundromats; non-degree granting schools; offices; personal service shops; pharmacies (without drive-through facility); retail stores; shops for custom work; take-out restaurants; undertaking establishments; veterinarians
J-4: Business –Office Building	Offices; art galleries; banks; day care facilities; exhibit halls; undertaking establishments

Source: Chapter 85 of the Town of Brookhaven Town Code

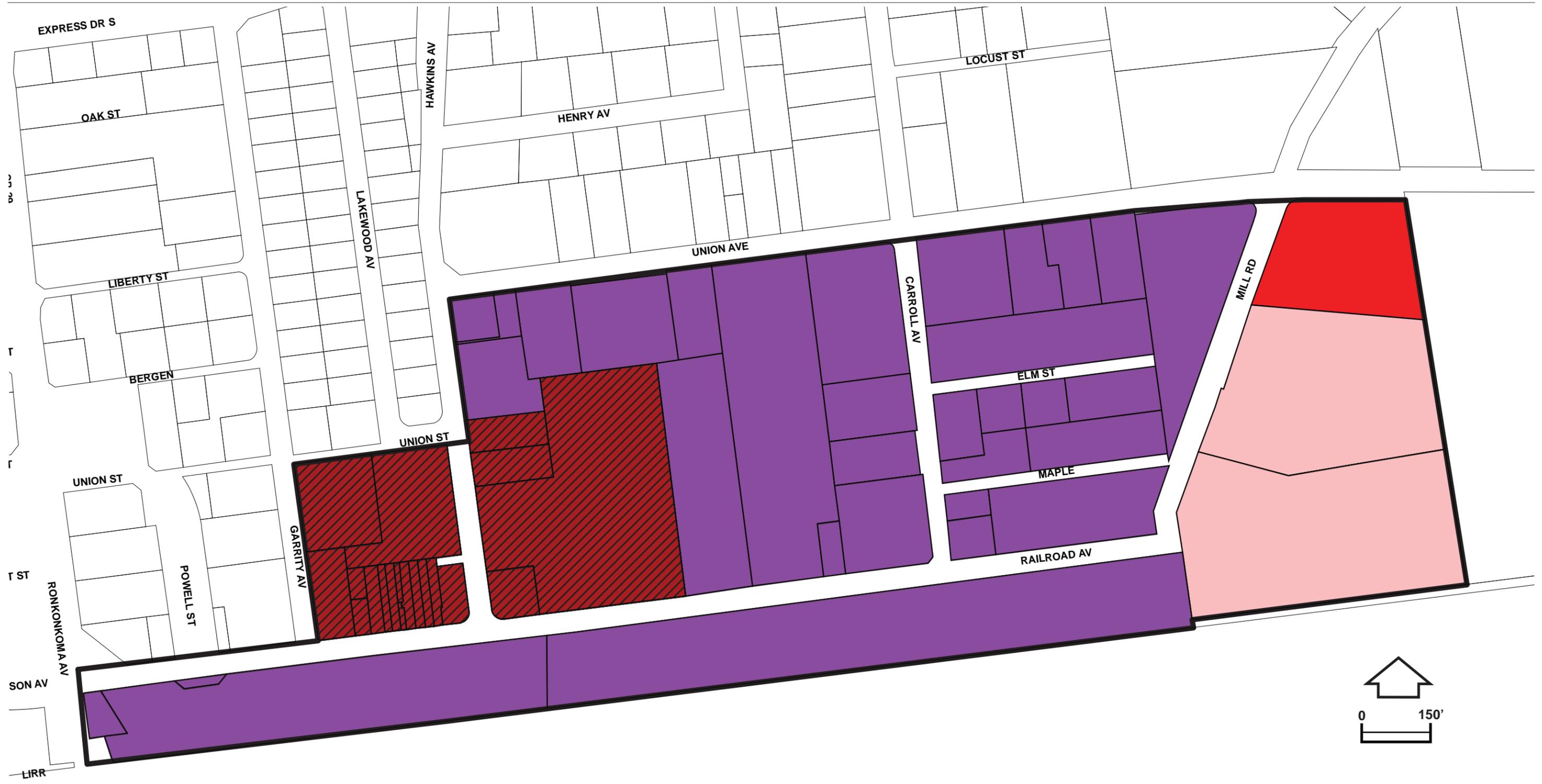


FIGURE 4

Existing Zoning

Ronkonkoma HUB Blight Study | Town of Brookhaven, New York



Study Area
Town of Brookhaven
Tax Parcel

Zoning Classification

- | | |
|---|--|
|  J2 Business |  J6 Business |
|  J4 Business |  L1 Industrial |

August 2012 | source: Town of Brookhaven Provided Geographic Information Systems Data



Table 5 below summarizes the lot and bulk regulations for each of the four zoning districts within the Study Area.

Table 5 - Lot and Bulk Regulations for Study Area Zoning Districts

	L1 District	J-2 District	J-6 District	J-4 District
Maximum Height (Feet/Stories)	50/3	35/2	30/2	35/2.5
Maximum Building Area (Percent)	60	50%	30%	30
Minimum Lot Area (Square Feet)	20,000	4,000	4,000 ¹	9,000
Minimum Road Frontage (Feet)	100	40	100	75
Minimum Front/Rear Yard Setbacks (Feet)	30/50	15/20	40/30	40/35
Side Yard Setback (Feet)	10 (Both)	10 ²	12 (Both)	10 ³
Maximum Floor-to-Area Ratio (FAR)	0.35 ⁴	0.35 ⁵	0.60 ⁶	0.25

Source: Chapter 85 of the Town of Brookhaven Town Code

Notes:

- (1) The minimum required lot area for a hotel, place of assembly, private or public automobile parking field or garage shall be two acres
- (2) The minimum required side yard setback for a bank or pharmacy with a drive-through facility shall be 25 feet; The minimum required side yard setback for a commercial center or regional movie theater shall be 50 feet.
- (3) The minimum required side yard setback for a bank with an accessory drive-through facility or an office use with an accessory restaurant or take-out restaurant use shall be 25 feet
- (4) The maximum permitted FAR for a parcel within a designated hydrogeologic sensitive zone shall be 30 percent; the maximum permitted FAR for an electric generating facility shall be 25 percent.
- (5) The maximum permitted FAR for a commercial center or regional movie theater shall be 20 percent; the maximum permitted FAR for a commercial center with a large commercial retailer use shall be 16 percent.
- (6) Maximum building area shall be less than 60,000 square feet of gross floor area.

III. BLIGHT AND BLIGHTING FACTORS

In order to assess the presence of blighting factors, field surveys of the Study Area were conducted with visual inspections of lots, buildings, and public improvements. GIS-based tax parcel and building footprint data for the Study Area provided by the Town of Brookhaven supplied ownership details, lot size, building coverage and other information. Additionally, the Town of Brookhaven provided data with regard to building code violations, inadequacies in the water and sewerage infrastructure and fire code violations, among other information.

A. Vacant Properties and Buildings

As previously discussed, a total of seven tax parcels were observed to contain vacant and partially vacant buildings (representing approximately 5.5 percent of the total building area [gfa] within the Study Area). Three tax parcels were identified as vacant, one via the field survey and two additional lots via aerial photography and GIS data, as these two parcels were not visible from publicly-accessible locations.² The photographs below illustrate examples of vacant buildings and properties within the Study Area (for additional photographs of vacant buildings and properties within the Study Area, refer to Appendix B). Figure 3 identifies the vacant buildings and properties observed in the Study Area.



Photograph No. 1: View of vacant building along Railroad Avenue



Photograph No. 2: View of vacant property along Railroad Avenue.

▼
² SCTM Nos. 799-3-33.2 and 799-3-40.1

Vacant buildings and properties indicate economic stagnation, including lack of job creation and loss of property tax revenue, as well as contributing to an aesthetically and visually unattractive appearance.

B. Underutilized Properties and Buildings

Underutilized properties are generally those properties that are not developed or utilized to their maximum potential, based upon prevailing zoning. Based upon prevailing zoning within the Study Area, it was determined that the maximum development potential of the total area of parcels not under MTA ownership (as these parcels are not subject to local zoning³) is approximately 601,725± square feet of total building area (gfa)⁴ (see Table 6). It is important to note that the maximum calculated permitted gross floor area excludes MTA-owned parcels, as these parcels are not subject to local zoning.

Table 6 – Estimated Development Potential in terms of GFA within the Study Area, by Zoning District

Zoning District	Area Situated with Zoning District (Square Feet)	Maximum Permitted Floor Area Ratio	Maximum Calculated Permitted Gross Floor Area (Square Feet)
L-1 District	829,136±	0.35	290,198±
J-2 District	357,262±	0.35	125,042±
J-4 District	82,946±	0.25	20,737±
J-6 District	357,025±	0.60	165,750± ¹
Total:	1,626,369±²	-	601,725±

Source: Town of Brookhaven provided GIS data.

Notes:

(1) Pursuant to Section 85-251 of the Town Code, the maximum gfa permitted on a lot within the J-6 Zoning District is 60,000 square-feet. Thus, the maximum calculated permitted gfa of SCTM No. 799-4-47.1, situated within the J-6 Zoning District and comprising approximately 180,774± square feet, is 60,000 square feet. The maximum calculated permitted gfa of all tax parcels within the Study Area situated within the J-6 Zoning District that do not exceed the 60,000-square-foot threshold is 105,750± square feet. Therefore, the maximum calculated permitted gfa for all tax parcels situated within the J-6 zoning district is 165,750± square feet.

(2) Excludes MTA-Owned parcels, which comprise approximately 11.8± acres and the area comprised of roadways (4.9± acres).

As previously mentioned the current total building area (gfa) within the Study Area is approximately 232,979± square feet,⁵ which represents approximately 39± percent of the maximum potential building area in accordance with the prevailing zoning. As such, there is a potential gross floor area underutilization of approximately 368,746± square feet in gross floor area. It is recognized that it may

³ SCTM Nos. 200-799-3-45.1, 49, and 50, and 800-1-28, 36, and 38.

⁴ It is noted that while the Study Area comprises approximately 54± acres, approximately 4.9± acres of Study Area are comprised of roads and as such, the total area of all development parcels within the Study Area is approximately 49.1± acres.

⁵ Excluding parking structure and LIRR Station buildings on the north and south sides of Railroad Avenue, respectively.

not be feasible to achieve the maximum permitted development on any individual lot due to particular site conditions such as lot configuration, frontage, parking requirements, etc. Nonetheless, this analysis provides an indication of the extent of unrealized development potential within the Study Area. Figure 5 and Table 7 below identify tax parcels within the Study Area that are underdeveloped when compared to estimated maximum calculated permitted gross floor area.

Table 7 – Maximum Development Potential and Current Gross Floor Area Utilization within Study Area, by Tax Parcel (Excludes MTA-Owned Parcels)

Tax Parcel	Zoning District	Lot Area (Square Feet)	Maximum FAR	Maximum Permissible GFA	Existing GFA	Utilization (Percent)
799-3-32	J6	34,777±	0.60	20,866	1,776±	9%
799-3-33.1	J6	47,455±	0.60	28,473	8,996±	32%
799-3-33.2	J6	2,636±	0.60	1,581	0	0%
799-3-34	J6	7,809±	0.60	4,685	0	0%
799-3-35	J6	3,335±	0.60	2,001	1,160±	58%
799-3-36	J6	3,009±	0.60	1,806	1,183±	66%
799-3-37	J6	3,245±	0.60	1,947	1,296±	67%
799-3-38	J6	3,270±	0.60	1,962	1,280±	65%
799-3-39	J6	703±	0.60	422	445±	106%
799-3-40.1	J6	1,135±	0.60	681	0	0%
799-3-40.2	J6	3,042±	0.60	1,825	1,174±	64%
799-3-41	J6	2,539±	0.60	1,524	1,164±	76%
799-3-42	J6	4,719±	0.60	2,831	2,185±	77%
799-3-43	J6	2,989±	0.60	1,793	2,897±	162%
799-3-44	J6	17,214±	0.60	10,328	5,345±	52%
799-4-44	J6	11,578±	0.60	6,947	1,336±	19%
799-4-47.1	J6	180,773±	0.60	60,000 ¹	14,550±	24%
799-4-48	J6	13,523±	0.60	8,114	2,199±	27%
799-4-49	J6	13,273±	0.60	7,964	2,957±	37%
799-4-51.1	L1	28,196±	0.35	9,868	3,349±	34%
799-4-52	L1	9,859±	0.35	3,451	2,187±	63%
799-4-53	L1	5,635±	0.35	1,972	1,892±	96%
799-4-54	L1	25,075±	0.35	8,776	734±	8%
800-1-27.1	L1	43,208±	0.35	15,123	18,310±	121%
800-1-31.1	L1	59,885±	0.35	20,960	8,751±	42%
800-1-33.1	L1	25,774±	0.35	9,021	3,237±	36%
800-1-34	L1	19,510±	0.35	6,828	0	0%
800-1-35.7	L1	39,916±	0.35	13,971	15,919±	114%
800-1-35.8	L1	149,591±	0.35	52,357	0	0%
800-1-35.9	L1	6,000±	0.35	2,100	0	0%
800-2-10	L1	20,042±	0.35	7,015	4,460±	64%
800-2-11	L1	19,312±	0.35	6,759	8,429±	125%
800-2-12	L1	20,051±	0.35	7,018	1,448±	21%
800-2-13	L1	64,393±	0.35	22,537	27,284±	121%
800-2-14	L1	20,794±	0.35	7,278	0	0%
800-2-15	L1	10,075±	0.35	3,526	1,893±	54%
800-2-16	L1	10,164±	0.35	3,557	2,822±	79%
800-2-17	L1	14,903±	0.35	5,216	3,286±	63%
800-2-18	L1	14,895±	0.35	5,213	1,417±	27%
800-2-19	L1	30,625±	0.35	10,719	0	0%
800-2-20	L1	5,878±	0.35	2,057	1,396±	68%
800-2-21	L1	9,013±	0.35	3,155	1,062±	34%
800-2-22	L1	56,490±	0.35	19,771	0	0%
800-2-23	L1	80,075±	0.35	28,026	28,355±	101%
800-2-28.1	J4	82,946±	0.25	20,737	10,555±	51%
800-2-28.3	J2	162,811±	0.35	56,984	36,249±	64%
800-2-28.4	J2	194,450±	0.35	68,058	0	0%
800-2-9	L1	39,778±	0.35	13,922	0	0%
Total:	-	1,626,369±²	-	601,725±	232,979±³	-

Notes:

(1) Pursuant to Section 85-251 of the Town Code, the maximum gfa permitted on a lot is 60,000 square-feet.

(2) Excludes MTA-Owned parcels; Variation in total lot area due to rounding errors

Vacant Tax Parcel
Underutilized Tax Parcel

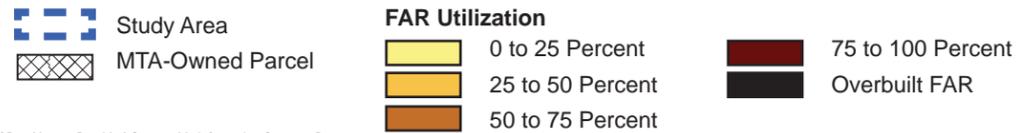
Source: Town of Brookhaven provided GIS-based parcel and building footprint data



FIGURE 5

Floor-to-Area Ratio Utilization in the Study Area, by Tax Parcel

Ronkonkoma HUB Blight Study | Town of Brookhaven, New York



August 2012 | source: Town of Brookhaven Provided Geographic Information Systems Data



As indicated in Table 7, various tax parcels are completely underutilized (i.e., they have no built space at all), while many other parcels feature some built space but could potentially allow for significant additional development potential per the Town of Brookhaven zoning code. Specifically, 11 tax parcels (which have the potential for approximately 187,981± square feet of gross floor area) are vacant while 30 tax parcels are partially developed, but have a development potential of an additional 193,775± square feet of gross floor area. This totals an estimated 381,755± square feet of actual gross floor area underutilization. As indicated in Figure 5, underutilized permissible FAR is prevalent throughout the Study Area, especially along the primary transportation corridors (i.e., Railroad and Union Avenues) and along secondary streets (i.e., Garrity, Hawkins, and Carroll Avenues and Mill Road). Such underutilization of allowable building development⁶ indicates significant unrealized economic activity (i.e., job creation and property tax revenue) in the Study Area, given the presence of the Ronkonkoma LIRR Station.

C. Deteriorated Buildings

The deterioration of buildings and other structures was observed during the field surveys. Observed deterioration include poor condition of roofs, windows, and siding; deterioration of façade and masonry features; fencing that was falling down and/or in disrepair; and lack of paved driveway areas. Photograph No. 3 provides an example of observed deterioration (for additional photographs of building deterioration in the Study Area, refer to Appendix B).



⁶As noted in this report, the potential that could actually be realized would be constrained by various factors including specific individual lot configuration, and specific parking and dimensional regulations of the zoning district.



Photograph No. 3: View of a deteriorated mixed-use commercial and residential structure along Garrity Avenue.

Deterioration poses the potential for unsafe conditions and creates a visually unappealing appearance. This can hinder economic growth by discouraging private investment and, thereby, limiting job and property tax revenue generation.

D. Inadequate Sidewalks and Curbs

In many locations within the Study Area, particularly along Railroad Avenue, sidewalk and curb areas were observed to be in disrepair and, in some cases, non-existent. Compounding this problem is overgrowth of vegetation; these issues are illustrated in the photograph below.



Photograph No. 4: View of deteriorated sidewalk/curb area at Union Avenue and Mill Road.

Inadequate sidewalk and curb areas hinder pedestrian activity, create inefficiencies in pedestrian circulation (along with creating potentially dangerous conditions for pedestrians), contribute to the visual blight within the Study Area. Overall, the lack of pedestrian activity in and around the LIRR Ronkonkoma Station contributes to the economic stagnation within the Study Area.

E. Inadequate Drainage and Sewerage Infrastructure

Observations and recorded complaints of pooling water along roads within the Study Area indicate that drainage infrastructure is inadequate, as shown below in Photograph No. 5.



Photograph No. 5: View of pooling water along Railroad Avenue.

Lack of such infrastructure contributes to a poor visual and aesthetic appearance, can discourage private investment in the area, and can also contribute to public health threats (e.g., mosquito infestation).

As indicated above, properties within the Study Area rely upon individual on-site sanitary systems for sewage disposal. These sanitary systems, many of which are likely old, provide no actual physical treatment of sanitary waste (only the benefit of filtration through leaching pools). Moreover, in accordance with Article 6 of the Suffolk County Sanitary Code, for those parcels not under MTA ownership, the maximum potential sanitary discharge is 22,380 gallons per day (gpd).⁷

Based upon a commercial land use sanitary design flow factor of 0.06 gpd per square foot, as published by the Suffolk County Department of Health Services, the 37.3±-acre portion of the Study Area (with a maximum permitted sanitary density of 22,380 gpd) has a maximum yield of 373,000 square feet of commercial space. While this exceeds the current total building area (232,979± square feet), it is significantly less than the maximum development potential based upon prevailing zoning, which is estimated at 601,725± square feet. In fact, the lack of sewage treatment within the Study Area actually restricts development to only 62 percent of the total development potential and may be a contributing factor in the underutilization of properties described elsewhere in this report.

F. Incompatible Uses

The Study Area features a number of intensive commercial uses (including automobile repair and service businesses) interspersed with low-density (single-family) residential uses. Photograph No. 6 below demonstrates such land uses proximate to one another (for additional photographs depicting the general character of the Study Area, refer to the Photograph Log in the Appendix B).



⁷Pursuant to the *Long Island Comprehensive Waste Treatment Management Plan (208 Study)*, the site is located in Hydrogeologic Zone I and within such hydrogeologic zone, Article 6 of the Suffolk County Sanitary Code limits sewage discharge from on-site systems to 600 gallons per day per acre. Thus, the maximum potential sanitary discharge to on-site sanitary systems for the 37.3±-acre portion of the Study Area not under MTA ownership is approximately 22,380 gallons per day.



Photograph No. 6: View of adjoining automotive-related business and residential uses along Hawkins Avenue.

Such land uses do not complement one another, and produce a disjointed and inefficient land use pattern. This detracts from the quality of the residential environment as well as the economic vitality of the area, resulting in lost potential for job and property tax revenue generation.

G. Aesthetic and Visual Characteristics

The Study Area consists of numerous vacant/unoccupied parcels and/or structures, a number of which are in highly visible locations (i.e., Railroad Avenue), a rundown appearance of local businesses as well as large surface parking lots that are active with commuter vehicles during the day but are generally not used during nighttime hours. As discussed earlier, much of the Study Area lacks adequate pedestrian sidewalks or safe crossings, except in the immediate vicinity of the Ronkonkoma LIRR Station. Further, other tax parcels are utilized as staging and/or storage grounds for commercial uses and/or debris. These conditions create a blighted aesthetic and visual appearance with the Study Area (refer to the Photograph Nos. 7 through 10 below).



Photograph 7: View of abandoned residence along Elm Street.



Photograph 8: View of deteriorated sidewalk areas along Railroad Avenue.



Photograph 9: View of deteriorated fencing along Garrity Avenue.



Photograph 10: View of vacant commercial building along Railroad Avenue.

IV. CONCLUSIONS

The Ronkonkoma Hub was identified within the Town of Brookhaven's *Draft Blight to Light Study* (September 2010), a study undertaken to identify blighted properties and areas within the Town and facilitate their redevelopment through the institution of zoning, permitting and financial incentives.

Based upon field observations and the data collected, it can be concluded that the Study Area is sufficiently blighted to warrant the preparation of an Urban Renewal Plan in accordance with Article 15 of the New York State General Municipal Law. Further, based upon the characteristics of blight, as defined by the Town of Brookhaven in Section 85-1 of the Town Code, it can be concluded that several of these characteristics are relevant (or partially relevant) to the Study Area, including:

- Deterioration of the site
- Dilapidated, deteriorated or defective structures
- Aesthetically poor conditions – signs, parking area, facades
- Vacant and underutilization of land, lots and buildings
- Weeds and poorly landscaped, debris and litter
- Poorly maintained, cracked sidewalks and curbing
- Damaged or missing fencing
- Outdated and inefficient buildings and uses

Evidence of blighted conditions, as detailed in this report and in the appendices, is summarized below:

- *Vacant and partially vacant properties and buildings* – Seven tax parcels were observed to contain vacant or partially vacant buildings, representing approximately 5.5± percent of the total gfa within the Study Area (12,793± square feet), and approximately 6.5± percent of the total area of the Study Area (3.52± acres) is undeveloped.
- *Significant underutilization of development potential* – The total developed gross floor area in the

Study Area (excluding the Ronkonkoma LIRR Station and parcel associated with the LIRR Parking Structure) is 232,978± square feet, representing only 39± percent of the total development potential permitted by zoning. This underutilization often results in a lower level of economic activity than would otherwise be expected in the Study Area and, therefore, lowers levels of employment and property tax revenues.

- *Deteriorated buildings* – Deterioration of building elements was identified in a number of locations within the Study Area, creating potentially unsafe conditions and detracting from the area’s desirability as a place for private investment.
- *Inadequate curb and sidewalk areas* – Deteriorated or missing curbs and sidewalks were identified in various Study Area locations, detracting from the overall character of the area. Also, the lack of sidewalks hinders pedestrian activity and creates inefficiencies in pedestrian circulation (along with creating potentially dangerous conditions for pedestrians).
- *Lack of appropriate drainage and sewerage infrastructure* – Drainage is inadequate in certain locations, creating undesirable conditions for nearby uses. The lack of sewage treatment in the Study Area (i.e., properties rely upon individual on-site sanitary systems rather a central collection and treatment system) limits the overall development density.
- *Incompatible land uses* – In several Study Area locations, residential uses adjoin or are located proximate to commercial uses that are not conducive to a desirable residential environment.
- *Aesthetic and visual character* – The combination of deteriorating buildings and infrastructure with the presence of substantial acreage devoted to the storage of vehicles, equipment, etc., creates an unattractive visual environment, which is not conducive to the attraction of private investment.

Each of these factors contributes to a “substandard or unsanitary area... which hamper or impede proper and economic development of such areas and which impair or arrest the sound growth and development of the area, community or municipality...,” as defined in Article 15 of New York State General Municipal Law. Therefore, there is sufficient evidence to declare the Study Area to be a substandard or unsanitary area in accordance with both New York State and Town of Brookhaven laws, and therefore, appropriate for urban renewal.



Engineering, Surveying and Landscape Architecture, P.C.



Appendix A

*Town of Brookhaven, NY
Monday, September 10, 2012*

§ 85-495. Severity of existing blight.

- A. The severity of existing blight score shall be determined by the sum of the points for each of the following criteria, on a scale of 0 to 50 points with 50 points representing the maximum severity of blight:
- (1) Number of years vacant: 1 point for first year, 1.5 points per year thereafter to maximum of 14 points.
 - (2) Plus 5 points maximum for buildings that have been vandalized to a point that they have missing or boarded windows and doors or have a facade that is seriously damaged, missing or dilapidated.
 - (3) Plus 5 points maximum for buildings that have collapsed, or have missing or structurally faulty foundations, walls, floor or roofs as determined by the Chief Building Inspector.
 - (4) Plus 4 points maximum for buildings that have interior inflexibility prohibiting adaptive reuse and/or have unusual retrofit costs (asbestos, etc.) as determined by the Chief Building Inspector.
 - (5) Plus 5 points maximum if the building has become a fire hazard or has existing fire damage as determined by the Chief Fire Marshal.
 - (6) Plus 4 points maximum if the property has been cited for code violations as documented by Town enforcement officials; including graffiti, dumping, litter or abandoned motor vehicle history.
 - (7) Plus 5 points maximum if the property has become a place where vagrancy or criminal activity has been taking place as documented by the Town enforcement officials or by the Suffolk County Police Department.
 - (8) Plus 4 points maximum if the property is interfering with the reasonable, lawful and expected use of other properties within the community as documented by community complaints.
 - (9) Plus 4 points maximum if the property has missing, broken or in need of repair curbs, walks or pavement.



Engineering, Surveying and Landscape Architecture, P.C.

Appendix B

Ronkonkoma Hub Blight Study
Field Observations

SCTM No.:	Owner:	Land Use:	Zoning:	Lot Size (acres):	Comments:
799-3-32	14 Hawkins Avenue, LLC	Residential and Auto-Related Use	J6	0.80±	Some fencing in disrepair (associated with bus depot). Residence use observed to be in good condition.

Photograph No. 1	Photograph No. 2
 <p>Bus parking component of tax parcel</p>	 <p>View of single-family residential use from Garrity Avenue</p>

Ronkonkoma Hub Blight Study
Field Observations

SCTM No.:	Owner:	Land Use:	Zoning:	Lot Size (acres):	Comments:
799-3-33.1	14 Hawkins Avenue, LLC	Auto-related use	J6	1.09±	Some deterioration of siding and roofs associated with buildings on-site.

Photograph No. 3	Photograph No. 4
 <p>View of buildings on-site, fronting Hawkins Avenue</p>	 <p>View of buildings on-site, fronting Hawkins Avenue</p>

Ronkonkoma Hub Blight Study
Field Observations

SCTM No.:	Owner:	Land Use:	Zoning:	Lot Size (acres):	Comments:
799-3-34	Gregory J. Mensch	Commercial (Parking for Commercial Use)	J6	0.18±	Property utilized for parking, likely for employees of the bus depot.

Photograph No. 5



View of parcel from Railroad Avenue.

**Ronkoma Hub Blight Study
Field Observations**

SCTM No.:	Owner:	Land Use:	Zoning:	Lot Size (acres):	Comments:
799-3-35	Band Construction, Inc.	Commercial (Vacant)	J6	0.08±	Vacant commercial building Slight deterioration of masonry / façade Rear of lot underutilized (vacant/storage)

Photograph No. 6



View of property frontage along Railroad Avenue

Photograph No. 7



View of rear of lots (multiple lots)

Ronkoma Hub Blight Study
Field Observations

SCTM No.:	Owner:	Land Use:	Zoning:	Lot Size (acres):	Comments:
799-3-36	Antonio Melo	Commercial	J6	0.07±	Minor façade Deterioration Rear of lot underutilized (vacant/storage)

Photograph No. 8	Photograph No. 9
 <p>View of property frontage from Railroad Avenue</p>	 <p>View of rear of lots (multiple lots)</p>

Ronkonkoma Hub Blight Study
Field Observations

SCTM No.:	Owner:	Land Use:	Zoning:	Lot Size (acres):	Comments:
799-3-37	Micah Disipio	Commercial	J6	0.07±	Minor façade deterioration Rear of lot underutilized (vacant/storage)

Photograph No. 10	Photograph No. 11
 <p>View of property frontage from Railroad Avenue</p>	 <p>View of rear of lots (multiple lots)</p>

Ronkonkoma Hub Blight Study
Field Observations

SCTM No.:	Owner:	Land Use:	Zoning:	Lot Size (acres):	Comments:
799-3-38	65 Railroad Avenue, LLC	Commercial	J6	0.07±	Minor façade deterioration Rear of lot underutilized (vacant/storage)

Photograph No. 12	Photograph No. 13
 <p>View of property frontage from Railroad Avenue.</p>	 <p>View of rear of lots (multiple lots)</p>

Ronkonkoma Hub Blight Study
Field Observations

SCTM No.:	Owner:	Land Use:	Zoning:	Lot Size (acres):	Comments:
799-3-39	63 Railroad Avenue, LLC	Commercial	J6	0.08±	Commercial building observed to be in good condition.

Photograph No. 14



View of property frontage from Railroad Avenue

Ronkonkoma Hub Blight Study
Field Observations

SCTM No.:	Owner:	Land Use:	Zoning:	Lot Size (acres):	Comments:
799-3-40.1	61 Property Corp	Commercial	J6	0.03±	Not visible from publicly-accessible location Identified as a vacant lot from GIS analysis

Aerial No. 1



Approximate boundaries of subject parcel outlined in red.

Ronkonkoma Hub Blight Study
Field Observations

SCTM No.:	Owner:	Land Use:	Zoning:	Lot Size (acres):	Comments:
799-3-40.2	61 Property Corp	Commercial	J6	0.02±	Vacant commercial building, observed to be recently renovated

Photograph No. 15



View of site frontage from Railroad Avenue

Ronkoma Hub Blight Study
Field Observations

SCTM No.:	Owner:	Land Use:	Zoning:	Lot Size (acres):	Comments:
799-3-41	John and Lilly Bedell	Commercial	J6	0.06±	Commercial building observed to be in good condition

Photograph No. 16



View of site frontage from Railroad Avenue

Ronkonkoma Hub Blight Study
Field Observations

SCTM No.:	Owner:	Land Use:	Zoning:	Lot Size (acres):	Comments:
799-3-42	55 Property Corp	Commercial	J6	0.11±	Vacant commercial building, observed to be recently renovated

Photograph No. 17



View of frontage along Railroad Avenue

Ronkonkoma Hub Blight Study
Field Observations

SCTM No.:	Owner:	Land Use:	Zoning:	Lot Size:	Comments:
799-3-33.2	55 Property Corp	Commercial (Vacant)	J6	0.06±	Not visible from publicly-accessible location Identified as a vacant lot from GIS analysis

Aerial No. 2



Approximate boundaries of subject parcel outlined in red.

Ronkonkoma Hub Blight Study
Field Observations

SCTM No.:	Owner:	Land Use:	Zoning:	Lot Size (acres):	Comments:
799-3-43	51 Property Corp	Commercial (Vacant);	J6	0.07±	Vacant commercial building, observed to be recently renovated

Photograph No. 18



View of property frontage along Railroad Avenue

Ronkonkoma Hub Blight Study
Field Observations

SCTM No.:	Owner:	Land Use:	Zoning:	Lot Size (acres):	Comments:
799-3-44	Bennett & Gordon Realty Co.	Commercial/ Residential	J6	0.40±	Vacant commercial buildings, observed to be recently renovated Residence in rear of lot, has visible building deterioration

Photograph No. 19



View of property frontage from Railroad Avenue.

Photograph No. 20



View of residential component in rear of lot

Ronkonkoma Hub Blight Study
Field Observations

SCTM No.:	Owner:	Land Use:	Zoning:	Lot Size (acres):	Comments:
799-4-44	NHP Realty, LLC	Commercial	J6	0.27±	Taxi / Auto-repair use, with visible building deterioration

Photograph No. 21



View of building frontage along Hawkins Avenue.

Ronkonkoma Hub Blight Study
Field Observations

SCTM No.:	Owner:	Land Use:	Zoning:	Lot Size (acres):	Comments:
799-4-47.1	On-Track Realty, LLC	Commercial	J6	4.15±	Gym building observed to be in good condition Parking facility lacks paving, striped stalls

<p>Photograph No. 22</p>  <p>View of gym building from Hawkins Avenue</p>	<p>Photograph No. 23</p>  <p>View of parking facilities</p>
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Ronkonkoma Hub Blight Study
Field Observations

SCTM No.:	Owner:	Land Use:	Zoning:	Lot Size (acres):	Comments:
799-4-48	Margaret Higgins & Jerome Gaynor	Commercial/ Residential	J6	0.31±	Auto-repair portion vacant and façade is in disrepair with deteriorating masonry, peeling paint, missing wood sections on garage doors. Continuous curb cut leading to unpaved driveway and parking area. Residence observed to be in good condition

Photograph No. 24



View of property from Hawkins Avenue.

Ronkonkoma Hub Blight Study
Field Observations

SCTM No.:	Owner:	Land Use:	Zoning:	Lot Size (acres):	Comments:
799-4-49	Community Housing Innovations, Inc.	Residential	J6	0.30±	Residence observed to be in good condition

Photograph No. 25



View of property from Hawkins Avenue.

Ronkonkoma Hub Blight Study
Field Observations

SCTM No.:	Owner:	Land Use:	Zoning:	Lot Size (acres):	Comments:
799-4-51.1	Marco Giangrasso	Commercial	L1	0.65±	Observed commercial buildings Lot features large undeveloped areas

Photograph No. 26	Photograph No. 27
 <p>Undeveloped portion of property.</p>	 <p>View of commercial/residential buildings from Hawkins Avenue.</p>

Ronkoma Hub Blight Study
Field Observations

SCTM No.:	Owner:	Land Use:	Zoning:	Lot Size (acres):	Comments:
799-4-52	Hawkins & Union Avenue Realty, LLC	Commercial	L1	0.23±	Large portion of property used for auto-storage, possible underutilization. Continuous curb cut. Deteriorated pavement. Open commercial garbage receptacle. Possible second-story residence, minor siding deterioration visible.

Photograph No. 28



View of auto-storage on subject property

Photograph No. 39



View of possible associated residential use, minor siding deterioration.

Ronkonkoma Hub Blight Study
Field Observations

SCTM No.:	Owner:	Land Use:	Zoning:	Lot Size (acres):	Comments:
799-4-53	Carmine E. Dorsi	Commercial	L1	0.13±	Commercial building observed to be in good condition.

Photograph No. 30



View of property from Union Avenue.

Ronkonkoma Hub Blight Study
Field Observations

SCTM No.:	Owner:	Land Use:	Zoning:	Lot Size (acres):	Comments:
799-4-54	Anthony and Blasé Davi	Residential	L1	0.58±	Residence observed to be in good condition. Large portion of property appears to be used for automobile storage. Slight roof deterioration is visible

Photograph No. 31



View of property from Union Avenue.

Photograph No. 32



View of roof deterioration.

Ronkoma Hub Blight Study
Field Observations

SCTM No.:	Owner:	Land Use:	Zoning:	Lot Size (acres):	Comments:
800-1-27.1	Anthony and Blasé Davi	Commercial	L1	0.99±	Commercial buildings observed to be in generally good condition. Large portion of property used for auto-storage (underutilization).

Photograph No. 33	Photograph No. 34
 <p>View of property from Union Avenue</p>	 <p>View of property from Union Avenue</p>

**Ronkoma Hub Blight Study
Field Observations**

SCTM No.:	Owner:	Land Use:	Zoning:	Lot Size (acres):	Comments:
800-1-28	MTA & R. Bergen David S. Symons	LIRR Parking Deck Entrance	L1	0.47±	None

Photograph No. 35



View of entrance from Union Avenue

**Ronkonkoma Hub Blight Study
Field Observations**

SCTM No.:	Owner:	Land Use:	Zoning:	Lot Size (acres):	Comments:
800-1-35.8	Ronkonkoma Rail Road Properties, LLC.	Wooded/Vacant	L1	3.43±	Undeveloped/wooded parcel

Photograph No. 36



View of property from Railroad Avenue

Ronkonkoma Hub Blight Study
Field Observations

SCTM No.:	Owner:	Land Use:	Zoning:	Lot Size (acres):	Comments:
800-1-31.1	Island Wide, LLC	Commercial	L1	1.37±	Commercial buildings observed to be in good conditions

Photograph No. 37



View of property from Union Avenue

Ronkonkoma Hub Blight Study
Field Observations

SCTM No.:	Owner:	Land Use:	Zoning:	Lot Size (acres):	Comments:
800-1-33.1	Carroll Properties, Inc.	Commercial/ Residential	L1	0.59±	Commercial building and residence observed to be in good condition. Large paved area in front of building appears to be underutilized.

Photograph No. 38	Photograph No. 39
 <p>View of auto-repair component from Carroll Avenue</p>	 <p>View of residential component from Carroll Avenue</p>

Ronkonkoma Hub Blight Study
Field Observations

SCTM No.:	Owner:	Land Use:	Zoning:	Lot Size (acres):	Comments:
800-1-34	Nelson Fernandes & Magalhaes Americo	Commercial	L1	0.45±	Open lot for staging/auto storage (underutilized).

Photograph No. 40



View of property from Carroll Avenue

Ronkonkoma Hub Blight Study
Field Observations

SCTM No.:	Owner:	Land Use:	Zoning:	Lot Size (acres):	Comments:
800-1-35.7	Tudor Station Plaza, LLC c/o Island Estates	Commercial	L1	0.92±	Commercial building observed to be in good condition

Photograph No. 41



View of property from Railroad Avenue

Ronkonkoma Hub Blight Study
Field Observations

SCTM No.:	Owner:	Land Use:	Zoning:	Lot Size (acres):	Comments:
800-1-35.9	Tudor Station Plaza, LLC c/o Island Estates	Undeveloped/ Wooded	L1	0.14±	Parcel utilized as entrance/exit to day care facility (underutilization)

Photograph No. 42



View of property from Railroad Avenue

Ronkonkoma Hub Blight Study
Field Observations

SCTM No.:	Owner:	Land Use:	Zoning:	Lot Size (acres):	Comments:
800-1-36	MTA LIRR	Parking Deck	L1	1.84±	Parking deck observed to be in good condition

Photograph No. 43



View of property from Railroad Avenue

Ronkoma Hub Blight Study
Field Observations

SCTM No.:	Owner:	Land Use:	Zoning:	Lot Size (acres):	Comments:
800-2-21	Anthony Mingoia	Commercial	L1	0.21±	Commercial buildings observed to be in good condition Driveways unpaved

Photograph No. 44	Photograph No. 45
 <p>View of property from Railroad Avenue</p>	 <p>View of unpaved driveway area</p>

Ronkonkoma Hub Blight Study
Field Observations

SCTM No.:	Owner:	Land Use:	Zoning:	Lot Size (acres):	Comments:
800-2-19 800-2-22	William A. Mallins	Commercial	L1	0.70± 1.30± (2.0± Total)	Property used for commercial storage/staging (underutilization). Two lots that are used for same purpose. Views of property screened from Mill Road.

Photograph No. 46



View of property from Mill Road

Ronkonkoma Hub Blight Study
Field Observations

SCTM No.:	Owner:	Land Use:	Zoning:	Lot Size (acres):	Comments:
800-2-23	John Lock & George McDowell	Commercial	J2	1.84±	Commercial building observed to be in generally good condition. Rear area used for commercial storage/staging (underutilized)

Photograph No. 47	Photograph No. 48
 <p>View of rear commercial storage area associated with subject property</p>	 <p>View of commercial building fronting Union Avenue.</p>

Ronkonkoma Hub Blight Study
Field Observations

SCTM No.:	Owner:	Land Use:	Zoning:	Lot Size (acres):	Comments:
800-2-12	William and Mildred Mallins	Residential	L1	0.46±	Residence observed to be in good condition.

Photograph No. 49



View of property from Union Avenue.

Ronkonkoma Hub Blight Study
Field Observations

SCTM No.:	Owner:	Land Use:	Zoning:	Lot Size (acres):	Comments:
800-2-11	William and Mildred Mallins	Commercial	L1	0.44±	Commercial building observed to be in good condition. Large paved area in front of building appears to be underutilized.

Photograph No. 50



View of property from Union Avenue.

Ronkonkoma Hub Blight Study
Field Observations

SCTM No.:	Owner:	Land Use:	Zoning:	Lot Size (acres):	Comments:
800-2-10	William and Mildred Mallins	Commercial	L1	0.46±	Commercial building observed to be in good condition.

Photograph No. 51



View of property from Union Avenue.

**Ronkonkoma Hub Blight Study
Field Observations**

SCTM No.:	Owner:	Land Use:	Zoning:	Lot Size (acres):	Comments:
800-2-9	Holbrook Truck and Equipment Leasing, Inc.	Commercial	L1	0.91±	Commercial storage/staging (underutilized)

Photograph No. 52



View of property from Carroll Avenue.

**Ronkonkoma Hub Blight Study
Field Observations**

SCTM No.:	Owner:	Land Use:	Zoning:	Lot Size (acres):	Comments:
800-2-13	Subsurface Maintenance Corp.	Commercial	L1	1.48±	Building observed to be in fair condition. Rear of property used for commercial staging/storage (underutilized).

Photograph No. 53	Photograph No. 54
 <p>View of structure fronting Carroll Avenue</p>	 <p>View of rear storage area from Elm Street</p>

Ronkoma Hub Blight Study
Field Observations

SCTM No.:	Owner:	Land Use:	Zoning:	Lot Size (acres):	Comments:
800-2-14	Subsurface Maintenance Corp.	Commercial	L1	0.48±	Property used for commercial staging/storage (underutilized).

Photograph No. 55



View of property from Elm Street (beyond fence)

Ronkonkoma Hub Blight Study
Field Observations

SCTM No.:	Owner:	Land Use:	Zoning:	Lot Size (acres):	Comments:
800-2-15	James Zambik	Residential (Vacant)	L1	0.23±	Residence appears to be vacant, abandoned vehicle on premises, unpaved driveway

Photograph No. 56



View of property from Elm Street

Photograph No. 57



View of unpaved driveway area and abandoned vehicle

Ronkonkoma Hub Blight Study
Field Observations

SCTM No.:	Owner:	Land Use:	Zoning:	Lot Size (acres):	Comments:
800-2-16	Wiencyzyslaw and Gabriela Odynocki	Commercial	L1	0.23±	Commercial building observed to be in good condition

Photograph No. 58



View of property from Elm Street

Ronkonkoma Hub Blight Study
Field Observations

SCTM No.:	Owner:	Land Use:	Zoning:	Lot Size (acres):	Comments:
800-2-17	Joseph Urban	Residential	L1	0.34±	Residence observed to be in good condition

Photograph No. 59



View of property from Carroll Avenue

Ronkoma Hub Blight Study
Field Observations

SCTM No.:	Owner:	Land Use:	Zoning:	Lot Size (acres):	Comments:
800-2-18	Calvin C. Lorenz	Residential	L1	0.34±	Residence observed to be in good condition

Photograph No. 60



View of property from Maple Street

Ronkonkoma Hub Blight Study
Field Observations

SCTM No.:	Owner:	Land Use:	Zoning:	Lot Size (acres):	Comments:
800-2-20	Yashvinder and Jasper Mahajin	Residential	L1	0.06±	Residence observed to be in good condition

Photograph No. 61



View of property from Carroll Avenue

Ronkonkoma Hub Blight Study
Field Observations

SCTM No.:	Owner:	Land Use:	Zoning:	Lot Size (acres):	Comments:
800-2-28.4	Unified Credit Trust & G&D Oakland & C. Hill Trustee	Industrial	J2	4.47±	Industrial storage/staging (underutilized)

Photograph No. 62



View of property from Mill Road

**Ronkonkoma Hub Blight Study
Field Observations**

SCTM No.:	Owner:	Land Use:	Zoning:	Lot Size (acres):	Comments:
800-2-28.3	Unified Credit Trust & G&D Oakland & C. Hill Trustee	Commercial	J2	3.74±	Commercial building observed to be in good condition

Photograph No. 63



View of property from Mill Road

**Ronkonkoma Hub Blight Study
Field Observations**

SCTM No.:	Owner:	Land Use:	Zoning:	Lot Size (acres):	Comments:
800-2-28.1	Lock & McDowell, Inc.	Commercial	J4	1.90±	Commercial building observed to be in good condition.

Photograph No. 64



View of property from Union Avenue

**Ronkonkoma Hub Blight Study
Field Observations**

SCTM No.:	Owner:	Land Use:	Zoning:	Lot Size (acres):	Comments:
800-1-38	MTA LIRR	LIRR Facilities	L1	6.32±	Ronkonkoma LIRR Station facilities

<p>Photograph No. 65</p>  <p style="text-align: center;">View of Ronkonkoma LIRR Terminal Station from Railroad Avenue</p>	<p>Photograph No. 66</p>  <p style="text-align: center;">View of Parking Area</p>
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Ronkonkoma Hub Blight Study
Field Observations

SCTM No.:	Owner:	Land Use:	Zoning:	Lot Size (acres):	Comments:
799-3-45.1	MTA LIRR	LIRR Facilities	L1	3.73±	Ronkonkoma LIRR Station facilities

Photograph No. 67	Photograph No. 68
 <p>View of parking area</p>	 <p>View of undeveloped land.</p>

Ronkonkoma Hub Blight Study
Field Observations

SCTM No.:	Owner:	Land Use:	Zoning:	Lot Size (acres):	Comments:
799-3-50	MTA LIRR	LIRR Facilities	L1	0.05±	Ronkonkoma LIRR Station facilities

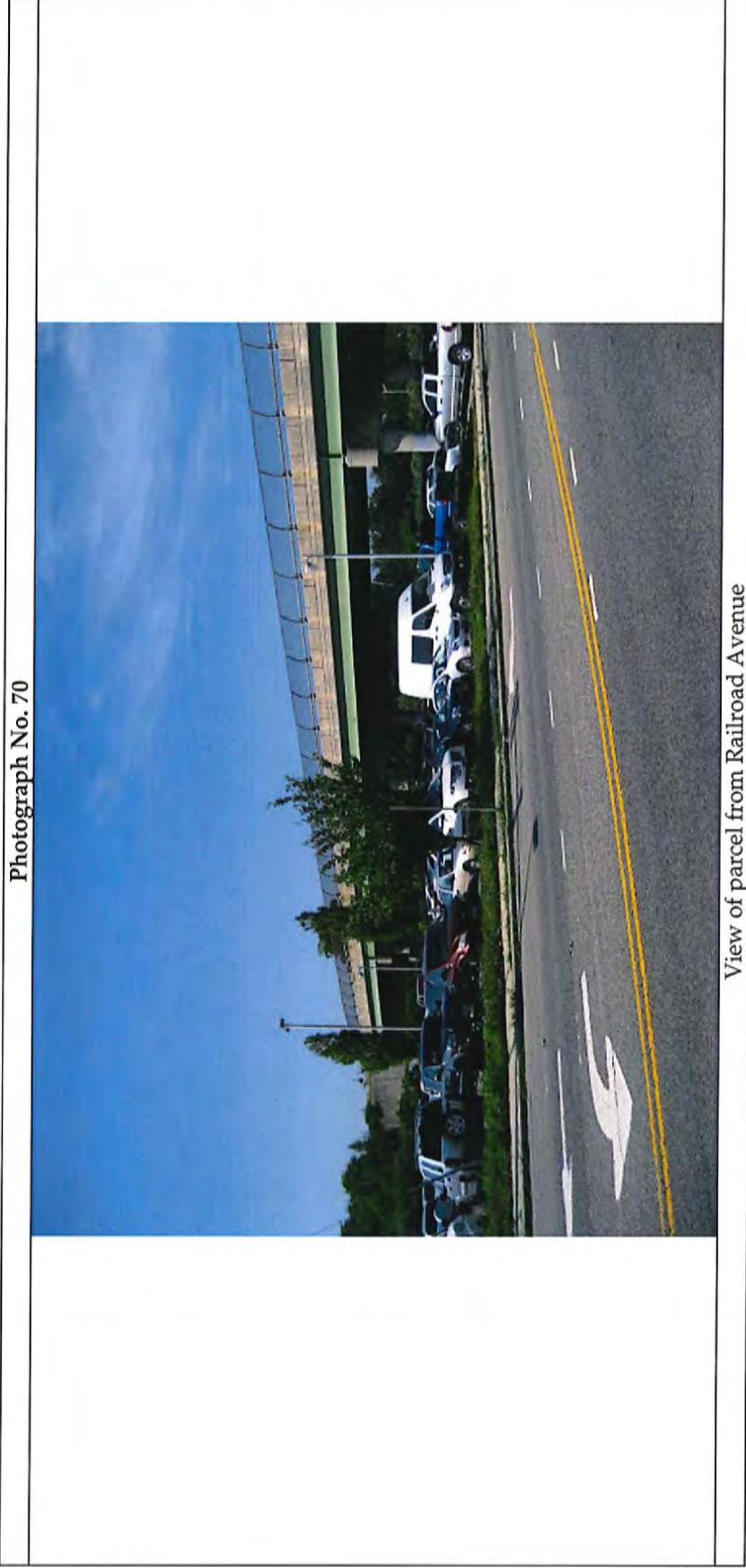
Photograph No. 69



View of parcel from Railroad Avenue

**Ronkonkoma Hub Blight Study
Field Observations**

SCTM No.:	Owner:	Land Use:	Zoning:	Lot Size (acres):	Comments:
799-3-49	MTA LIRR	Parking	L1	0.15±	Ronkonkoma LIRR Station facilities





Attachment B

RESOLUTION NO. 2012-804

MEETING: September 20, 2012

DESIGNATION OF THE "RONKONKOMA HUB"
AS APPROPRIATE FOR URBAN RENEWAL
AND TO AUTHORIZE VHB ENGINEERING,
SURVEYING & LANDSCAPE ARCHITECTURE,
P.C., TO PREPARE AN URBAN RENEWAL
PLAN FOR THE DESIGNATED AREA

WHEREAS, the Town Board acknowledges receipt of the *Blight Study for the Ronkonkoma Hub*, dated September, 2012, prepared by VHB Engineering, Surveying and Landscape Architecture, P.C., and incorporates such document by reference herein; and

WHEREAS, the *Blight Study for the Ronkonkoma Hub* sets forth several factors evidencing that the "RONKONKOMA HUB" is a substandard and insanitary area within the Town of Brookhaven; and

WHEREAS, based upon the *Blight Study for the Ronkonkoma Hub* the Town Board herein designates the "RONKONKOMA HUB" appropriate for urban renewal pursuant to General Municipal Law, Article 15; and

WHEREAS, because the "RONKONKOMA HUB" area is deemed appropriate for urban renewal, the Town Board authorizes VHB Engineering, Surveying and Landscape Architecture, P.C. to prepare an Urban Renewal Plan for such designated area in its entirety; and

WHEREAS, any Urban Renewal Plan prepared shall be presented to the Planning Board for consideration at a public hearing; and

NOW, THEREFORE, BE IT RESOLVED by the Town Board of the Town of Brookhaven that the Town Board has considered the factors set forth in the *Blight Study for the Ronkonkoma Hub*, dated September, 2012; and be it further;

RESOLVED that the Town Board designates the “RONKONKOMA HUB” appropriate for urban renewal; and be it further

RESOLVED that the Town Board authorizes VHB Engineering, Surveying and Landscape Architecture, P.C. to prepare an Urban Renewal Plan for such designated area in its entirety.



Attachment C

MASTER DEVELOPER DESIGNATION AGREEMENT

This Agreement ("Agreement" or "MDDA") dated as of August 9/10/2012 is by and between the **TOWN OF BROOKHAVEN**, a municipal corporation, having its principal office at Town Hall 1 Independence Hill, Farmingville, New York 11738 (the "Town"), and **TREC RONK HUB, LLC**, a Delaware limited liability company having an office at Stony Brook Technology Center 45 Research Way, Suite 100, Setauket, New York 11733 (the "Company").

RECITALS:

WHEREAS, in 2007, the Town of Brookhaven ("Town") embarked upon a two-phased planning study known as the "Ronkonkoma Hub Transit-Oriented Planning Study" aimed at revitalizing a multi-block area around the "Ronkonkoma Hub," which surrounds the Ronkonkoma Railroad Station; and

WHEREAS, the "Ronkonkoma Hub Transit-Oriented Planning Study," which was completed in 2009, resulted in a long-term vision and implementation strategy establishing guidance for revitalization of a "TOD District area"; and

WHEREAS, to implement the findings of the "Ronkonkoma Hub Transit-Oriented Planning Study," the Town determined to prepare and adopt a "Land Use and Implementation Plan for the proposed Ronkonkoma Hub Transit-Oriented Development ("TOD")," to adopt a TOD zoning district, to rezone the project area to the TOD zoning district, and to have the "TOD" area redeveloped in accordance with the TOD zoning district (the foregoing planning, zoning, and redevelopment steps are hereinafter referred to as the "Proposed Action"); and

WHEREAS, the Town Board, by Resolution 2010-860, dated August 17, 2010, adopted a positive declaration under the State Environmental Quality Review Act ("SEQRA" -- Article 8 of the New York State Environmental Conservation Law) and its implementing regulations at 6 NYCRR Part 617 for the adoption and implementation of the aforesaid "Land Use and Implementation Plan for the proposed Ronkonkoma Hub Transit-Oriented Development ("TOD")," which positive declaration required preparation of a Generic Environmental Impact Statement ("GEIS") for the Proposed Action; and

WHEREAS, the Town Board, by Resolution 2010-989, dated September 21, 2010, accepted a "Draft Generic Environmental Impact Statement ["DGEIS"] for Proposed Adoption of the Land Use and Implementation Plan for the Ronkonkoma Hub Transit-Oriented Development (TOD), TOD Code and Associated Rezoning to the TOD," prepared by VHB Engineering, Surveying and Landscape Architecture, P.C., and dated September 2010, as satisfactory with respect to its scope and content, directed that such DGEIS be circulated for public and agency consideration, directed that a SEQRA hearing be held on such DGEIS on October 19, 2010, and directed that notice of such hearing be published by the Town Clerk; and

WHEREAS, the Town Board, by Resolution 2010-990, also dated September 21, 2010, accepted the "Draft Ronkonkoma Hub Transit-Oriented Development Land Use Plan" as satisfactory with respect to its scope and content, directed that such plan be circulated for public

and agency consideration, directed that a public hearing on such plan be held on October 19, 2010, and directed that notice of such hearing be published by the Town Clerk; and

WHEREAS, public hearings were duly held and closed on the aforesaid DGEIS and “Draft Ronkonkoma Hub Transit-Oriented Development Land Use Plan”; and

WHEREAS, the Town Board is in the process of preparing a comprehensive plan for adoption of the aforesaid TOD zoning district, which will facilitate the aforesaid redevelopment; and

WHEREAS, the Town shall undertake a study to facilitate the undertaking of the Project by utilizing the structure and tools available to it and in furtherance of the objectives of Articles 15 and 15-A of the General Municipal Law of the State of New York, as amended (the "GML"), and based upon the findings therefrom, may undertake a program for the acquisition, clearance, building, demolition, replanning, reconstruction and neighborhood rehabilitation of certain areas in the Town and may engage in carrying out a neighborhood development program and urban renewal program of certain areas in the Town, resulting in the creation and possible adoption by the Town Board of a Town Comprehensive Development Plan ("Comprehensive Plan") and Urban Renewal Plan (“Urban Renewal Plan”); and

WHEREAS, the Town the Town Board anticipates that, prior to adoption of the aforesaid comprehensive plan, adoption of the aforesaid TOD zoning district, the aforesaid rezoning the project area to the TOD zoning district, and redevelopment of the TOD area in accordance with the TOD zoning district, the Town Board will prepare, accept, and hold a public hearing on “Draft Supplemental Generic Environmental Impact Statement” (“DSGEIS”) for the said comprehensive plan, TOD zoning district, rezonings of property, and TOD redevelopment, prepare and accept a “Final Supplemental Generic Environmental Impact Statement” (“FSGEIS”) for the said comprehensive plan, TOD zoning district, rezonings of property, and TOD redevelopment, and adopt SEQRA findings for the said comprehensive plan, TOD zoning district, rezonings of property, and TOD redevelopment and shall endeavor to adhere to the following schedule to accomplish same:

September, 2012 – Accept Blight Study and Authorize Hearing on Urban Renewal Plan

October, 2012 – Hold Hearing on Urban Renewal Plan

March 2013 – Hold Hearings on SEQRA Supplemental DGEIS and Form-Based Code and zone change for TOD area

August 2013 – Make Final SEQR and Urban Renewal Determinations, issue a Findings Statement, and adopt Form-Based Code and Rezone TOD area and modification of Comprehensive Plan; and

WHEREAS, Tritec Real Estate Company, Inc. (the "Responder") was among the group of pre-qualified developers/development teams to whom the Town issued a Request for Expression of Interest on or about March 7, 2011 ("RFEI"); and

WHEREAS, in furtherance of GML and the Comprehensive Plan, the Responder may undertake the Project on and around the properties designated by the Town as the Ronkonkoma Urban Renewal Area ("URA") which area is coterminous with the TOD, and which area is more fully described and delineated in the map attached hereto as Exhibit A (the "Project Site"); and

WHEREAS, on or about September 19, 2011 the Town issued a Request for Qualifications ("RFQ") for a developer to serve as master developer for the TOD which responses were due October 28, 2011; and

WHEREAS, as part of the RFQ, the Town has indicated that it will consider the adoption of zoning provisions applicable to the TOD site ("Form-Based Code"), and anticipates that it would consider adoption of the Form-Based Code provisions substantially similar to those outlined in the RFQ, with such changes or modifications as the Town determines necessary; and

WHEREAS, the Responder submitted a Response to the RFQ dated October 2011 ("Responder's Response") which has been accepted by the Town as the preferred developer plan; and

WHEREAS, Company is an affiliate of Responder and has been designated by Responder to serve as master developer; and

WHEREAS, the Town has approved, by resolution dated February 7, 2012 a resolution designating the Company as the Preferred Developer; and

WHEREAS, the Town and the Company entered into a Memorandum of Agreement ("MOA") dated February 17, 2012 which outlined certain understandings and intentions of the Company and the Town with respect to the terms and conditions by which the Company was designated as the "preferred developer", for the Project as approved by the Town Board; and

WHEREAS, in addition to the understandings and intentions outlined herein, it is contemplated that the Company may seek to enter into agreements with an industrial development agency ("IDA") to effectuate certain sales tax and mortgage recording tax exemptions, and property tax abatements on terms and conditions agreed to between IDA and the Company; and

WHEREAS, the Town, in compliance with SEQRA for this MDDA has designated itself as lead agency and notified the other parties to this agreement of such designation as involved agencies in accordance with SEQRA regulations; and

WHEREAS, the Town Board has prepared a Short Form Environmental Assessment Form for the proposed execution of this MDDA, which the Town Board has determined to be an unlisted action under SEQRA; and

WHEREAS, the Town Board has adopted a negative declaration under SEQRA for the execution of this MDDA.

IN ORDER TO ACCOMPLISH THE FOREGOING PURPOSES, THE PARTIES HEREBY DESIGNATE PAUL PONTIERI TO BE THE "TOWN CONSULTANT" FOR PURPOSES RELATED TO THIS AGREEMENT WHO SHALL ACT AS A REPRESENTATIVE OF THE TOWN AND AS A LIAISON TO THE TOWN AGENCIES AND OTHER MUNICIPAL AUTHORITIES WITH RESPECT TO THE PROJECT, WITH RESPONSIBILITIES MORE FULLY SET FORTH IN A CONSULTANT AGREEMENT TO BE ENTERED BETWEEN THE TOWN CONSULTANT AND THE TOWN AND AGREE AS FOLLOWS:

TERMS OF AGREEMENT

ARTICLE I

The Proposed Project

1.1. The Proposed Project. The "Proposed Project" shall be described in detail in connection with the preparation of the DFGEIS. The Project may be developed in two or more phases, with phase one comprised of those acres delineated on the map attached hereto as Exhibit B ("Phase I"), and phase two or additional subsequent phases comprised of the balance of Project Site parcels ("Phase II" or "Subsequent Phases").

1.2. Project Materials. Upon execution of this Agreement, to the extent available, the Company shall deliver to the Town Representative copies of its development plans and program for the Proposed Project prepared by or for the Company prior to the date hereof. After the date hereof, the Company shall deliver to the Town Representative copies of all other development plans and program materials prepared by or for the Company during the term hereof relating to the Proposed Project, as they become available.

Upon the execution of this Agreement, the Town agrees to provide the Company with copies of urban renewal plans and studies that have been prepared by or on behalf of the Town with respect to any areas contained within the Proposed Project Phases.

1.3. Acquisition of Property. The Town shall endeavor to designate the TOD as an Urban Renewal Project and/or shall use good faith efforts to effectuate a comprehensive plan which plan may include the Town's acquisition of parcel(s) necessary to complete the Project through the Town's governmental powers, including by eminent domain, as provided under Article 2 of the Eminent Domain Procedures Law ("EDPL"). Notwithstanding the foregoing, a condition precedent to the Town's acquisition of parcels by eminent domain shall be the Company's satisfaction of one of the following alternative conditions:

a) Company shall have entered into exercisable purchase options for not less than either: i) twenty-five percent (25%) of all parcels within the Project Site; or ii) parcels

valued in the aggregate at not less than twenty-five percent (25%) of the total appraised value of all parcels within the Project Site, or, alternatively,

b) Company shall have entered into exercisable purchase options for not less than twenty-five percent (25%) of all parcels in Phase I of the Project. The Company shall keep the Town apprised, pursuant to monthly status reports, of its acquisition efforts. The Town agrees that it shall, upon Developer's having satisfied either of the conditions precedent described hereinabove, acquire any remaining privately-held parcels through eminent domain, upon request from the Company subject to the prior completion of an Urban Renewal Plan and SEQRA for the TOD, and in accordance with the terms of a condemnation agreement to be entered into between the Town and the Company ("Condemnation Agreement").

Condemnation Agreement shall provide, among other terms, the following essential terms, subject to the terms of this Agreement: that Company shall have input in the condemnation process; that the Town shall acquire title at such time(s) as the Company desires; and that the Company shall pay or provide credit facilities to the Town in the total amount of not less than 110% of acquisition damages as determined by the appraisers for those parcels that the Company determines to acquire. The Condemnation Agreement shall provide that Company shall be consulted in the selection of attorneys, appraiser attorneys and other experts and consultants and shall be consulted on all settlement negotiations; but Company shall acknowledge that the selection of attorneys, appraiser attorneys and other experts and consultants and decisions on settlement negotiations shall be in Town's sole discretion.

Notwithstanding the foregoing, the Town may, in its discretion, and subject to completion of an Urban Renewal Plan and SEQRA for the TOD, acquire any privately-owned parcels within the TOD at any time subsequent to the Company's having demonstrated, to the Town's satisfaction, that it has made bona fide offers to purchase such parcel(s), which offers have been rejected by the owners thereof.

1.4. Development Strategy for the Proposed Project.

The Town and the Company shall work together to create a development strategy (the "Development Strategy") which is consistent with the goals of the Urban Renewal Plan. It is expected that the Development Strategy shall address development and redevelopment of the Proposed Project pursuant to principles and goals (collectively, the "Project Goals"), which Project Goals may be modified, from time to time, upon mutual agreement of the Town and the Company:

- (i) to create economic value for the Proposed Project area; and
 - (ii) to create jobs and career opportunities for Town residents and to attract additional residents; and
 - (iii) to enhance the vibrancy of the TOD and create a diversity of uses;
- and

(iv) to benefit from the proximity and accessibility of the Long Island Rail Road station; and

(v) to provide a mixed-use downtown setting which may include residential, commercial, retail, office, educational, cultural and civic uses, if appropriate.

1.5. Infrastructure Required for the Proposed Project. In furtherance of the Proposed Project, the Town will work with Suffolk County to undertake the creation of a new sanitary sewer district which will include the real property within the boundaries of the TOD. Suffolk County has authorized the issuance of \$21 million in county bonds in its 2013 capital budget for a 500,000 gallon per day sewer plant for the TOD ("Sewer Bonds"). The Town will continue to actively work with Company to identify creative financing mechanisms to fund the cost of infrastructure for the Proposed Project including, but not limited to the following: sewer plant, sanitary collection system, roads, sidewalks, curbs, public hardscape and landscape, gas lines, water mains, electric distribution, storm water runoff, collection system, street and walkway lighting and public parking areas, including pursuing government grants (i.e. federal TIGER grants, and state grant programs), and Environmental Facilities Corporation and other financing programs to write-down interest costs. To date, the Town has received a \$4 million grant from New York State for design of the sewer district, and is working with the Department of Public Works to send the map and plan for the sewer district to be scored and rated by EFC for funding consideration.

The Town and the Company shall each use their best efforts to reach agreement on the allocation of infrastructure costs for infrastructure required for the Project, including but not limited to the identification of grants, provided by Suffolk County, the State of New York or the federal government for the planning, design and/or construction of infrastructure required for the Project, as well as other sources of private funding ("Other Funding Sources"), and/or grants. The Town shall request from the County and its consultants a "Milestones Chart" schedule for the creation of the sanitary sewer district, for provision to the Company. In addition, the parties will work together to identify and utilize any and all available Federal, state and other grants and/or subsidies (which, together with the general obligations bonds are collectively referred to herein as the "Public Funding"). The Town and Company agree to use continuous best efforts to pursue all available Public Funding in connection with the Project.

The Town shall use continuous best efforts to pursue all Other Funding Sources available in connection with the Proposed Project to fund infrastructure the cost of which has not yet been allocated between Company and the Town.

The Town shall take all commercially reasonable steps to obtain title, easements, or rights of way to, in, on, or under all lands reasonably deemed necessary by the Town, in its reasonable discretion, to construct all infrastructure for the Project.

The Town shall use continuous best efforts to pursue all necessary agreements with the Metropolitan Transportation Authority, Suffolk County and any other necessary governmental entity to acquire parcels necessary for development of the Proposed Project.

1.6. Financial Commitments of the Company / Project Entity. During the term of this Agreement, and in addition to other undertakings set forth elsewhere herein, the Company shall undertake certain tasks described below, subject in each case to the other provisions of this Agreement:

(a) Company shall work with the Town and Town Representative to acquire the parcels necessary from private parties to develop the Proposed Project. Company shall, during the term of this Agreement, strive to develop the Proposed Project as an urban renewal project, including taking action to acquire the properties necessary for development of the Project, and assisting the Town in its acquisition and land disposition activities related to the Project as applicable.

(b) The Company may at any time during the term of this Agreement, identify a financial partner(s) and/or co-venturer(s). The Town acknowledges that Company may form a joint venture with a strategic development partner for the Project, and further acknowledges that Company may bring in other developer participants in connection with the acquisition, construction and/or development of one or more portions of the Project. The Company represents and agrees for itself, its members, and any successor in interest of itself and its members, respectively, that prior to completion of at least 50% of the improvements intended for the Project, neither the Company, nor any members or managers of the Company, shall assign, transfer or convey, 51% or more of their respective right, title or interest in this Agreement to a joint venture strategic development partner without the express prior written consent of the Town, which consent shall not be unreasonably withheld, delayed or conditioned. In determining said reasonableness standards, the Municipality shall consider the financial capabilities, reputation, experience and expertise of the proposed assignee, transferee or grantee, as the case may be; including determining that said proposed assignee, transferee or grantee is not a Prohibited Party ("**Reasonableness Standards**"). For purposes of this Agreement, a Prohibited Party shall mean any person or related entity that has been convicted in a criminal proceeding for a felony or any crime involving moral turpitude or that is an organized crime figure or has substantial business or other affiliations with an organized crime figure. Notwithstanding the above, the Company may bring in other reputable developer participants to acquire, construct and/or develop one or more portions of the Project conditioned upon said developer participants being subject to the same Reasonableness Standards as defined above, without consent, but upon notice to the Town. Said notice shall contain the developer participants' capabilities, reputation, experience and expertise. Any approved assignee of this Agreement shall assume the applicable obligations of the Company under this Agreement in writing, and any approved assignee of a portion of the Project shall assume the applicable Town's obligations as to such portion of the Project in writing, and an original of any such assignment and assumption agreement shall be delivered to the Town.

1.7. Construction and Operational Commitments of the Company

(a) The Town shall, at the Company's sole cost and expense (in accordance with a budget and scope of work approved by Company), undertake all studies and applications required for the Town to comply with SEQRA and any other applicable land use proceedings with respect to the Proposed Project. The Company shall cooperate fully with the Town in its efforts to comply with SEQRA and any other applicable land use proceedings or requirements, and shall provide all necessary materials and reports in a timely manner so as to allow the Town to evaluate the Proposed Project for SEQRA purposes or as otherwise required by law.

(b) The Company, as the case may be, may, if applicable, and if permitted by the New York State Department of Environmental Conservation ("DEC"), submit an application to the DEC to undertake environmental remediation of any of the Proposed Projects as a "volunteer" under the New York State Brownfield Cleanup Program ("BCP"). It is agreed that the Company and any entity in which it retains a beneficial ownership interest shall be deemed to be "qualified and eligible sponsors" in connection with the Proposed Project. Any related environmental investigation and remediation undertaken in the sole discretion of the Company, shall be at the sole cost and expense of the Company or Project Entity, as the case may be.

(c) The Company shall work with the Town in an effort to identify Others Funding Sources, including the use of public funding techniques to pay for the Proposed Project, including Tax Increment Financing under the GML.

(d) The Company shall, as soon as practicable and so as to be timely concluded for financing purposes, at its sole cost and expense, make necessary and proper application to the Town for the urban renewal project, and make any changes to its development plans which are consistent with the terms of this Agreement and are reasonably required by the Town.

(e) Subject to the SEQRA process, the Project Entity shall work with the Town Representative to develop a "Milestones Chart" schedule for pre-construction activities, construction start dates, and a preliminary construction timetable for the construction activities related to the Proposed Project, which Milestone Chart shall be completed no later than October 15, 2012. Such Milestone Chart shall specify, among other milestones, at least two (2) _ dates for the holding of meetings between the Company and civic and community groups to present details of the Proposed Project.

(f) The Company shall reimburse and/or pay any expenses of the Town and its agencies incurred by such agencies to date and not yet paid by Company in connection with the Proposed Project (the "Reimbursement"), which expenses are required to be reimbursed pursuant to the terms of an escrow agreement between the Company and the Town dated February 17, 2012 ("Escrow Agreement"). The Reimbursement shall be paid upon the execution of this agreement. Additionally, the Company shall provide for the payment of expenses in connection with the Project to be incurred by the Town and its agencies from the date of this Agreement through the Term of this Agreement, as such Term may be modified, by amending the Escrow Agreement to provide for same, as of the date of this Agreement. The amended

Escrow Agreement shall provide that prior to payment of any expense Company shall be given opportunity to review itemized bills and object to inappropriate expenses outside the scope of the approved budget. All consultants and professionals shall be paid at standard municipal rates or as otherwise approved by Company.

ARTICLE II

[Intentionally Deleted]

ARTICLE III

Consultation/Term

3.1 Consultation. During the term of this Agreement, representatives of the Company and the Town, including the Town Representative, representatives of the Town designated by the Town, shall meet regularly to confer about the progress of the parties' activities under this Agreement. Such meetings shall occur at approximately two week intervals.

3.2 Term.

If the Company fails to commence construction of the Proposed Project within ten (10) years from the date hereof, the rights and obligations of the parties under this Agreement shall expire.

ARTICLE IV

Default

4.1 Default by Town.

(a) If the Town fails to comply with any provision of this Agreement, or is otherwise in breach of this Agreement, and such failure continues for more than thirty (30) days after written notice from the Company is given to the Town that specifies the failure and requires it to be remedied, such failure shall constitute an event of default (a "Town Default").

(b) In the event of a Town Default, the Company, in its reasonable discretion, may:

(i) Waive strict compliance with the pertinent provision of this Agreement and provide the Town, with an additional time period

within which to rectify, or "cure" the Town Default (the "Town Cure Period"); or

- (ii) Due to the fact that there would not be an adequate remedy at law, in addition to any other rights and remedies available at law or in equity and without the necessity of proving actual damages or posting bond or similar security, be entitled to seek equitable relief including, but not limited to, specific performance, with respect to the Town Default.

4.2 Default by Company.

- (a) If the Company fails to comply with any provision of this Agreement.

(b) If the Company fails to comply with any provision of this Agreement, or is otherwise in breach of this Agreement, and such failure continues for more than thirty (30) days after written notice from the Town is given to the Company that specifies the failure and requires it to be remedied, such failure shall constitute an event of default (a "Company Default").

(c) In the event of a Company Default, the Town in its reasonable discretion may:

- (i) Waive strict compliance with the pertinent provision of this Agreement and provide the Company with an additional time period to rectify, or "cure" the Company Default (the "Company Cure Period");
- (ii) In addition to any other rights and remedies available at law or in equity and without the necessity of proving actual damages or posting bond or similar security, be entitled to seek injunctive relief including, but not limited to, specific performance, with respect to the Company Default; provided, however, the Company shall in no case be liable for money damages or consequential damages.

ARTICLE V

Exclusivity

5.1 Exclusivity. During the term of this Agreement, the Town will not: (i) designate any person, firm or entity, other than the Company, as a qualified and eligible sponsor or master developer for the redevelopment of any of the Proposed Projects; (ii) enter into any agreement with any other firm, person or other entity with respect to any of the Proposed Projects; (iii) authorize or direct, by written resolution or other formal act voted on by the Town, any representative to act on their behalf in connection with any such agreement; or (iv) enter into

any negotiation or discussions (or solicit or accept any offers) with respect to or related to any of the foregoing.

ARTICLE VI

Miscellaneous

6.1 Negotiated Document. The parties acknowledge that the provisions and language of this Agreement have been negotiated, and agree that no provision of this Agreement shall be construed against any party by reason of such party having drafted such provision of this Agreement.

6.2 Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the State of New York without regard to conflict of laws principles.

6.3 Counterparts. This Agreement may be executed in any number of counterparts, each of which shall be an original, but all of which together shall constitute one and the same instrument, and any of the parties or signatories hereto may execute this Agreement by signing any such counterpart.

6.4 Captions. The captions of this Agreement are for the purpose of convenience of reference only, and in no way define, limit or describe the scope or intent of this Agreement or in any way affect this Agreement.

6.5 Recitals. The recitals at the preamble of this Agreement are incorporated herein by reference.

6.6 Gender, Etc. As used in this Agreement, the masculine shall include the feminine and neuter, the singular shall include the plural, and the plural shall include the singular as the context may require.

6.7 No Third Party Beneficiaries. Except as may be expressly provided to the contrary in this Agreement, nothing contained in this Agreement shall or shall not be construed to confer upon any person other than the parties hereto, any rights, remedies, privileges, benefits or causes of action to any extent whatsoever.

6.8 Successors and Assigns. The agreements, terms, covenants and conditions of this Agreement shall be binding upon and inure to the benefit of the parties hereto and, except as otherwise provided herein, their respective successors and permitted assigns.

6.9 Further Assurances. Each party hereto shall do all acts and things and make, execute and deliver such written instruments as shall from time to time be reasonably required to carry out the terms and provisions of this Agreement.

6.10 No Amendment. Neither this Agreement nor any provisions hereof may be changed, modified, amended, supplemented, altered, waived, discharged or terminated orally,

but only by an instrument in writing signed by the party against who enforcement of the change, modification, amendment, supplement, alteration, waiver, discharge or termination is sought, and, if required by any mortgage document, the applicable lender has consented thereto.

6.11 Inconsistent Provisions. The terms and provisions of this Agreement shall prevail over any inconsistent terms and provisions of the MOA between the Company and the Town.

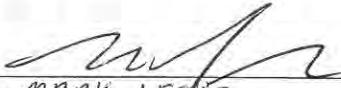
6.12 Entire Agreement. This Agreement, together with the Schedules and Exhibits hereto, contain all of the promises, agreements, conditions, inducements and understandings between and amongst the parties hereto concerning the Proposed Projects and there are no promises, agreements, conditions, inducements or understandings, oral or written, expressed or implied, between them other than as expressly set forth herein and therein.

6.13 Arbitration. If there is any disagreement between the parties with respect to the interpretation of this Agreement, then such disagreement shall be determined by the American Arbitration Association, for matters in Brookhaven, New York with the venue for any dispute resolution in Brookhaven, New York. The then current rules of the American Arbitration Association shall govern the arbitration provided for herein.

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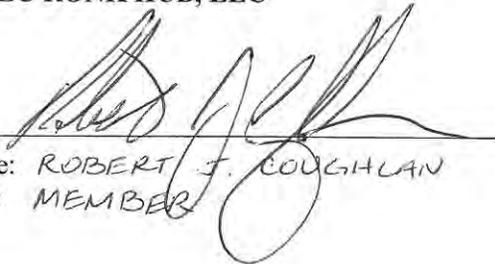
IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

TOWN OF BROOKHAVEN

By: 
Name: MARK LESKO
Title: SUPERVISOR

:

TREC RONK HUB, LLC

By: 
Name: ROBERT J. COUGHLAN
Title: MEMBER

ACKNOWLEDGEMENTS

STATE OF NEW YORK,

SS.;

COUNTY OF

On the 10th day of September in the year 2012, before me, the undersigned, a Notary Public in and for said state, personally appeared Mark Lesko, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to in the within instrument and acknowledged to me that he/she executed the same in his/her capacity, and that by his/her signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.



NOTARY PUBLIC

Eileen McCallion
No. 01MC5032411
Notary Public, State of New York
Qualified in Suffolk County
Commission Expires in 08/29/20 14

STATE OF NEW YORK,

SS.;

COUNTY OF SUFFOLK

On the 30th day of August in the year 2012, before me, the undersigned, a Notary Public in and for said state, personally appeared Robert J. Coughlan, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to in the within instrument and acknowledged to me that he/she executed the same in his/her capacity, and that by his/her signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

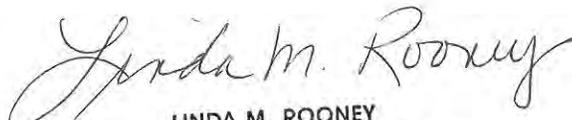
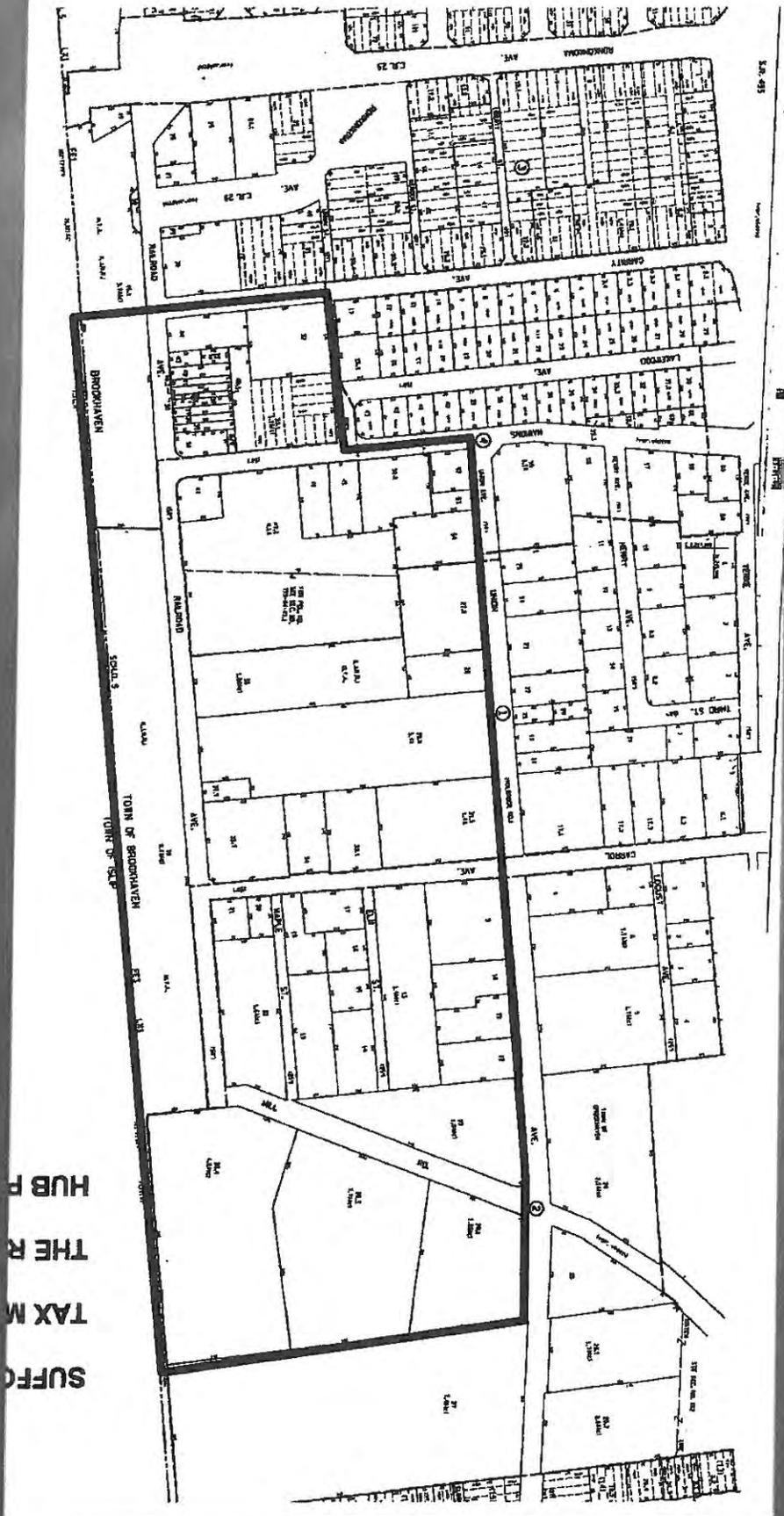

LINDA M. ROONEY
NOTARY PUBLIC-STATE OF NEW YORK
No. 01RO6187648
Qualified in Suffolk County
My Commission Expires May 27, 2016

Exhibit A

Site Map

EASTERN LONG ISLAND TERMINAL DEVELOPMENT AREA - PARCEL TAX MAP

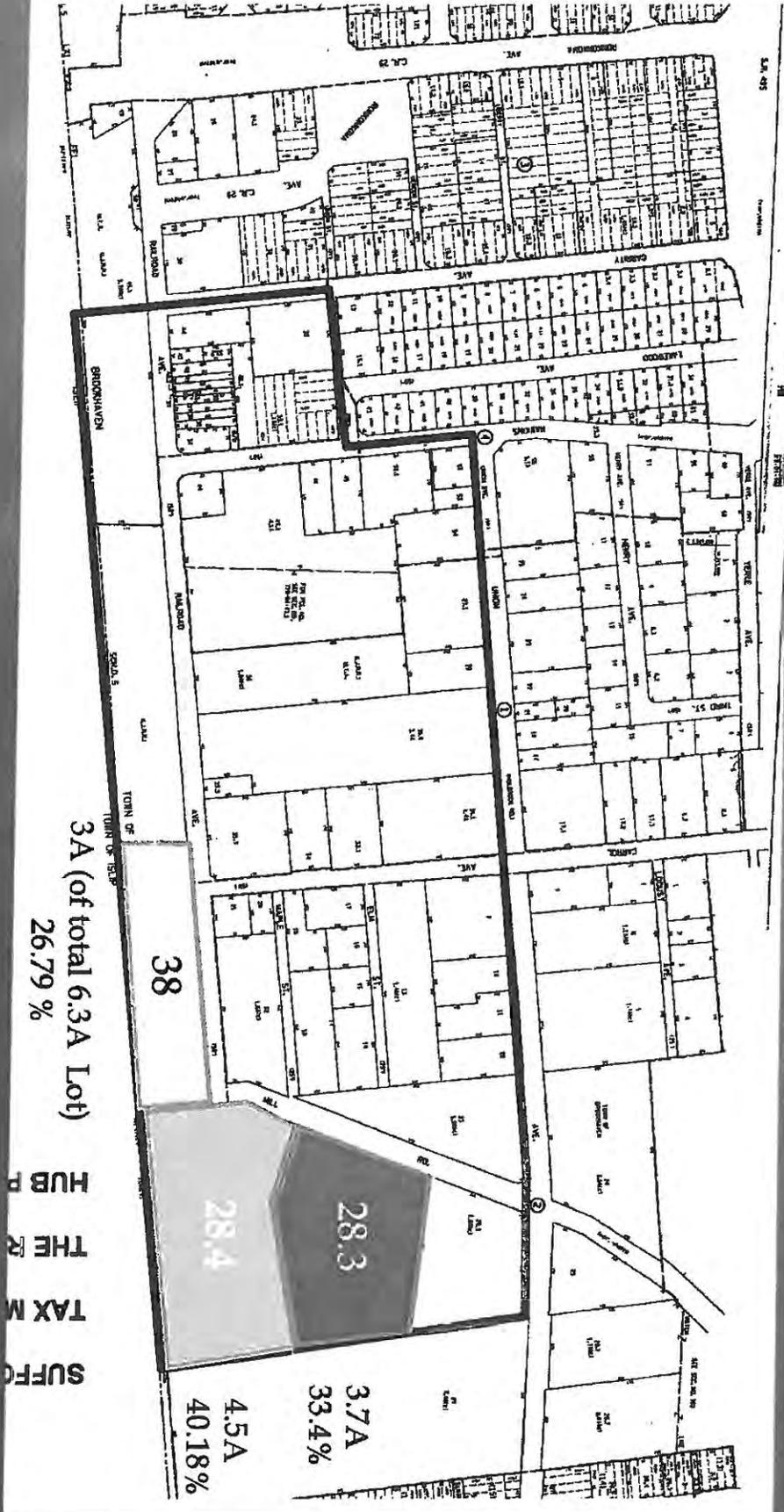


SUFFOLK
TAX MAP
THE R
HUB P

Exhibit B

Phase I

**PHASE I - LOTS 28.3, 28.4 AND PORTION OF LOT 38
(3 ACRES OF TOTAL 6.3ACRE LOT)**



3A (of total 6.3A Lot)
26.79 %

SUFFOLK
TAX MAP
THE R
HUB P

4.5A
40.18%
3.7A
33.4%

Land Use and Implementation Plan

*Proposed Ronkonkoma Hub
Transit-Oriented Development
(TOD)*

Ronkonkoma, Town of Brookhaven
Suffolk County, New York

Prepared for **Town of Brookhaven Town Board**
Farmingville, New York

Prepared by  *Engineering, Surveying and Landscape Architecture, P.C.*
Hauppauge, New York

October 2013

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1.0 Introduction

This *Ronkonkoma Hub Transit-Oriented Development (TOD) Land Use and Implementation Plan* (hereinafter the “*Land Use and Implementation Plan*”) has been prepared as a result of the extensive planning process conducted by the Town of Brookhaven (the “*Town*”) for the redevelopment and revitalization of the 53.73±-acre area surrounding the Ronkonkoma Station on the Long Island Railroad (LIRR) Ronkonkoma Branch (the “*TOD area*” also known as the “*Ronkonkoma Hub area*”). Through the use of implementation tools (including the development of a form-based code), the Town’s vision is to encourage pedestrian-friendly, transit-oriented development with higher densities and a mix of uses, including new housing opportunities, retail, office and other uses that support the existing transportation infrastructure in the area, specifically the LIRR train station.

The *Land Use and Implementation Plan* provides an overview of the Ronkonkoma Hub area, the background and history of the Town’s planning process, the proposed form-based code (FBC), and a redevelopment concept that illustrates the overall type and level of development that could take place with the application of the proposed FBC.

This *Land Use and Implementation Plan* relies on data, assumptions and conceptual plans developed in Phase 2 of the *Ronkonkoma Hub Transit-Oriented Planning Study*, dated March 2009,¹ (hereinafter referred to as the “*Ronkonkoma Hub Planning Study*”), a market analysis conducted in August 2010,² *The Ronkonkoma Hub Study Area Blight Study* (hereinafter the “*Blight Study*”), the *Urban Renewal Plan for the Ronkonkoma Hub* (hereinafter the “*Urban Renewal Plan*”), as well as the Maximum Density Concept Plan that has been prepared as a result of the Request for Expressions of Interest (RFEI) and Request for Qualifications (RFQ) processes undertaken by the Town of Brookhaven Town Board (“*the Town Board*”) to determine market feasibility of the redevelopment concept.

▼
¹ *Ronkonkoma Hub Transit-Oriented Development Planning Study*, prepared for the Town of Brookhaven by VHB, Inc., March 2009.

² *Market Analysis: Ronkonkoma Hub Transit-Oriented Land Use & Implementation Plan and GEIS*, prepared for the Town of Brookhaven, prepared by BBP & Associates, LLC, August 2010.

2.0 Background and History

This section provides an overview of Ronkonkoma Station, an overview of transit-oriented development as a revitalization tool, and an overview of FBC zoning as an implementation tool. This section also summarizes the *Ronkonkoma Hub Planning Study* (Phases 1 and 2). Phase 1 of this study, which documented existing conditions and identified potential opportunity sites for transit-oriented development, was completed in April 2008. Phase 2 was completed in March 2009 and generated a long-term vision and implementation strategy for the revitalization of the study area.

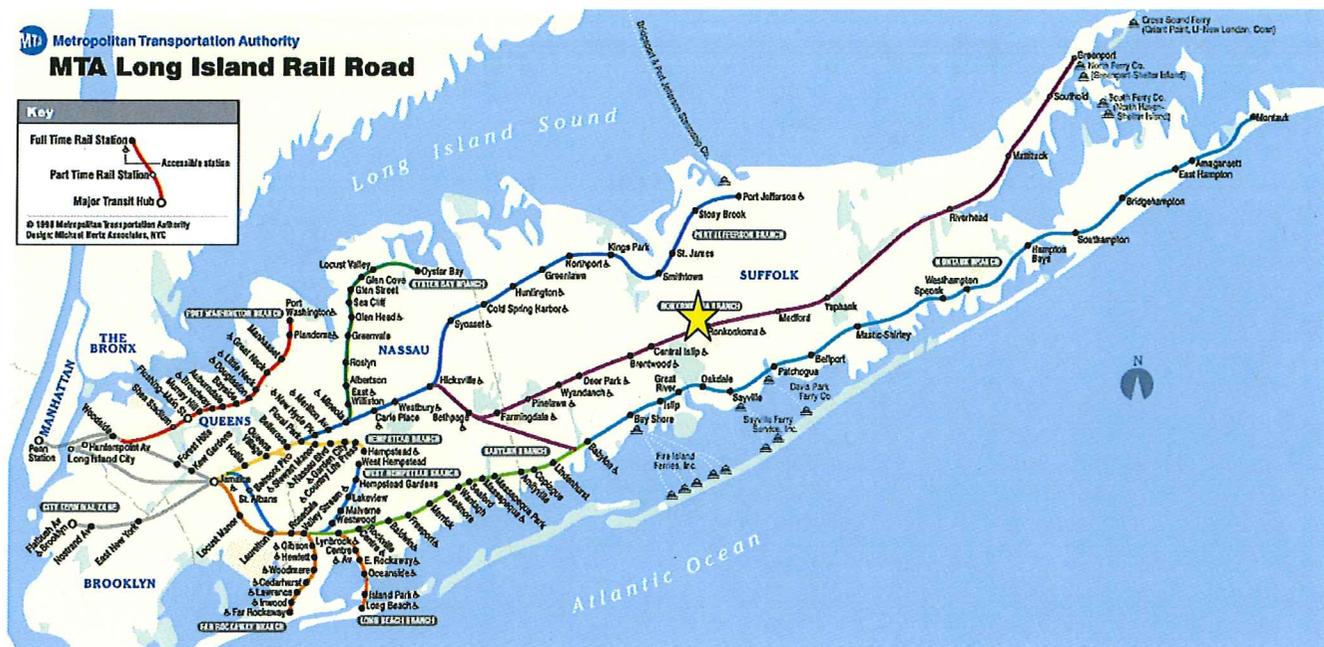
Overview of Ronkonkoma Station

Ronkonkoma Station is located approximately 50 miles east of Penn Station in Manhattan on the Ronkonkoma Branch of the LIRR, which begins at Hicksville and runs east to Greenport. Refer to Figure 1 for a map of the LIRR system. Ronkonkoma Station is one of the busiest suburban stations in the entire LIRR system serving approximately 14 million riders annually.³ Since 1987, it has served as the eastern terminus of the electrification of the Main Line. A daily weekday, non-holiday schedule includes 30 westbound trains with a 66 to 87-minute ride to Penn Station and 33 eastbound trains with a 68 to 96-minute ride from Penn Station to Ronkonkoma Station.⁴ The Station also functions as a major multi-modal transportation hub that serves Suffolk County Transit bus routes S57, S59, 6A, and 7A. There are shuttle bus connections to/from MacArthur Airport and local taxi service provided at the Station as well.

Ronkonkoma Station originally opened in 1883 as the Lakeland Depot. It underwent major renovation/expansion in 1997, including a new station house, clock tower, plaza, pedestrian bridge, and parking garage. In 2010, surface parking improvements were implemented on the east side of the Station.

▼
³ Metropolitan Transit Authority, *MTA Financial Plan and Proposed LIRR Reduction Reductions Supplemental Information*, 2010. (website: http://www.mta.info/news/pdf/LIRR_Supplemental_Info.pdf)
⁴ According to the MTA schedule as of May 2013. (website: <http://mta.info/lirr/Timetable/Station/RonkonkomaKO3.pdf>)

Figure 1 – Location Map of Ronkonkoma Station



Ronkonkoma Hub Transit-Oriented Planning Study

In 2007, the Town embarked upon a two-phased planning study aimed at revitalizing a multi-block area around the Ronkonkoma Hub. The goal was to develop a vision that supports compact, mixed use, transit-oriented redevelopment (described further below). The outcome of the planning study, known as the *Ronkonkoma Hub Planning Study*, was a long-term development strategy that established clear and predictable guidance for the revitalization of the area.

Phase 1, completed in April 2008, focused on documenting existing conditions and identifying potential opportunity sites for transit-oriented development. Subsequently, Phase 2 of the study, which was completed in March 2009, built upon the work completed in Phase 1 to generate a long-term vision and implementation strategy aimed at providing guidance to all interested parties on potential future development around the Station. The outcome of the *Ronkonkoma Hub Planning Study* is a long-term development strategy that establishes clear and predictable guidance for the revitalization of the area.

Key goals of the *Ronkonkoma Hub Planning Study* included:

- Promote quality and healthy communities
- Redirect growth to areas already served by existing infrastructure
- Expand transportation choices to enhance environmental quality
- Reduce vehicle trips around the station

- Support compact, mixed-use, transit-accessible, pedestrian-oriented redevelopment
- Create a sense of place
- Support local businesses
- Create housing choices
- Explore reverse commute opportunities
- Enhance the tax base for the Town and the region to support the variety of taxing districts

Public meetings were held to gather input from local government, residents, businesses and other stakeholders throughout the planning study, including the development of a vision for the Ronkonkoma Station. Table 1 lists the multiple public meetings held or sponsored by the Town throughout the development of the *Ronkonkoma Hub Planning Study* under Phases 1, 2 and 3 (described further below).

Table 1 – Visioning and Public Meetings

Meeting	Date
Stakeholder Meeting	October 18, 2007
Local Stakeholders and Civic League	November 7, 2007
Public Information Meeting	January 17, 2008
Stakeholder Meeting	June 16, 2008
Public Information Meeting	September 18, 2008
Public Workshop at Town Hall	June 16, 2010
Public Informational Meeting at Ronkonkoma Fire Department	July 14, 2010
DGEIS Public Hearing	October 19, 2010

Overview of Transit-Oriented Development

Transit-Oriented Developments, or TODs, are mixed-use, higher density communities that encourage people to live, work and shop near transit services, and decrease their dependence on driving. They promote the creation or enhancement of walkable communities centered around high-quality public transportation systems. Components of transit-oriented design include: walkability; having a train station as a prominent feature within the community; being a regional node containing a mix of uses including residential, office, retail and civic uses; and high-density, high-quality development within a 10-to-15-minute walk surrounding the train station. (Refer to Figure 4, below, for images of examples of successful TOD projects comparable to the Ronkonkoma Hub).

Since World War II, Long Island has experienced significant sprawl-like development where most residents drive to work, and to shopping and recreation destinations, resulting in traffic congestion and poor air quality. Long Island is currently designated by the U.S. Environmental Protection Agency as a “non-attainment” area for ozone, a primary component of smog. With its extensive service

throughout Long Island and high ridership, the LIRR creates multiple opportunities to apply TOD principles, thereby reducing traffic congestion and air pollution.

According to the Urban Land Institute,⁵ the following ten key principles help ensure the development of successful livable pedestrian-scale communities that promote increased transit ridership and decreased dependency on single-occupancy vehicles, thereby, reducing traffic congestion:

1. Make it Better with a Vision
2. Apply the Power of Partnerships
3. Think Development When Thinking About Transit
4. Get the Parking Right
5. Build a Place, Not a Project
6. Make Retail Development Market Driven, Not Transit Driven
7. Mix Uses, but Not Necessarily in the Same Place
8. Make Buses a Great Idea
9. Encourage Every Price Point to Live around Transit
10. Engage Corporate Attention

In addition to having a transit system (either planned or existing) supported by a growing ridership, a fundamental element of the success of TOD is a variety of housing types for a mix of income levels. Because people of all income levels use public transit, the most successful TOD projects provide diversity in housing options.

Phase 1 of the Ronkonkoma Hub Planning Study

The study area for the *Ronkonkoma Hub Planning Study*, as identified in Phase 1, encompassed 181± acres of land and was generally defined by the LIRR rail line to the south, Express Drive South (LIE South Service Road) to the north, Bay Avenue to the west and Babcock Avenue to the east. Refer to Figure 2 for the Phase 1 study area boundaries and existing land uses.

This initial phase of work included: a site tour; data assembly and review; meetings; creation of goals and objectives; analysis of existing zoning, multi-family housing demand, parking, building space, and transportation infrastructure; and preliminary analysis of the development potential for priority development sites. A questionnaire was distributed during Phase 1 that sought opinions from both the area residents and riders of the LIRR.

▼
⁵ R. Dunphy, D. Myerson, M. Pawlukiewicz, *Ten Principles for Successful Development Around Transit*, Urban Land Institute, 2003.

Figure 2 – Ronkonkoma Hub Planning Study: Study Area and Existing Land Uses



Data sources:
 Aerial Imagery – I-3 Imagery Prime World, ESRI Online Services
 Assessors Parcels, LIR Rail – Suffolk County GIS Basemap, Town of Brookhaven, Long Island, NY

Phase 2 of the Ronkonkoma Hub Planning Study

With input from local government, residents, businesses and other stakeholders, Phase 2 of the *Ronkonkoma Hub Planning Study* included a review of case studies of existing successful TOD projects, identified TOD opportunity sites and included zoning recommendations, identification of transportation improvements, financial implications, and concept plans. Figure 3 shows the TOD opportunity sites that were identified during the planning process.

Figure 3 – Ronkonkoma Hub Planning Study: TOD Opportunity Sites



Also as part of Phase 2, a Vision Plan was developed that called for the transformation of Railroad Avenue into a community “Main Street” with mixed-use buildings that define the street edge. In addition, the Vision Plan included pedestrian amenities such as small plazas at key intersections and streetscape improvements along both sides of Railroad Avenue. Parking was placed at the rear of or internal to these sites to enable new development to front the street. Finally, the Vision Plan called for a mix of housing, retail, recreation and office space.

The highlights of that Vision Plan included:

- Public plazas at key intersections to provide public spaces for pedestrians and help activate the street
- Streetscape enhancements including sidewalks, signage, lighting and landscaping along Railroad Avenue, Mill Road and Hawkins Avenue
- Orientation of buildings towards the street edge along Railroad Avenue and Hawkins to help define the “Main Street” character
- Parking at the rear or interior of lots and seek opportunities for shared parking
- Active pedestrian-oriented uses on the ground floor, particularly along Railroad Avenue between Garrity Avenue and the Station
- New development on the MTA “bus loop” site
- Buildings up to 5 stories on Railroad Avenue, up to 4 stories on Mill Road and up to 2.5 stories on Union Avenue
- Streetscape enhancements to the Station plaza
- Mix of uses on upper floors
- Buildings oriented toward the street edge along Mill Road
- Multi-family buildings oriented toward amenities such as parks or plazas
- Residential unit types mixed within development sites

- Pedestrian connections to Fairfield residential apartments

In addition to the land use goals, the *Ronkonkoma Hub Planning Study* identified numerous opportunities to enhance the streetscape and roadways to improve the public realm and plan for the anticipated growth in development within the study area. Roadway and other streetscape goals included the following:

- Potential new intersection treatment at Railroad and Hawkins Avenues
- Potential roadway and streetscape improvements to Railroad Avenue, Mill Road, Union Street, and Hawkins Avenue
- Streetscape amenities along Railroad Avenue including sidewalks, street trees, lighting, plazas, and landscape improvements at key intersections
- Bike route connections along Railroad Avenue and Mill Road and Union Avenue
- Bike storage at the Train Station

Phase 2: TOD Zoning Recommendations

Based on TOD case studies evaluated as part of Phase 2, as shown in Figure 4, a typical TOD concept includes a ten-minute walk radius. At the time of preparation of Phase 2 of the *Ronkonkoma Hub Planning Study*, such a radius was drawn around the Ronkonkoma Hub as a framework for a potential TOD zoning district, which captured sections of established residential neighborhoods. The intent was that this preliminary district would include the principles of TOD and encompass the land use and urban design features associated with TOD such as, the allowance of higher density housing and taller building heights, including a mix of uses.

Subsequent to the *Ronkonkoma Hub Planning Study*, the TOD area was refined further (reduced from 181± acres to 53.73± acres) to exclude the areas of well-established single-family residential uses and include the core TOD area consisting of the most severely underutilized and underdeveloped parcels with existing compatible land uses (i.e., commercial), as the intent of the action is not to redevelop thriving residential communities. Additionally, the refined 53.73±-acre TOD area was based on an updated market study that determined what could be supported in the area (see Appendix I of the 2010 Draft Generic Environmental Impact Statement [DGEIS], which is described below).

Figure 4 – Ronkonkoma Hub Planning Study: TOD Case Studies



Phase 2: Transportation-Related Infrastructure

The *Ronkonkoma Hub Planning Study* identified the need for transportation-related infrastructure improvements, including capacity enhancements at intersections and the installation/upgrade of traffic signals or construction of roundabouts, and/or other traffic controls, as deemed appropriate. Traffic calming elements, sidewalks and other pedestrian-friendly features, were recommended to create a walkable community and reduce automobile trips. The following is a list of issues and potential improvements that were identified as having an effect on the extent of transportation-related infrastructure improvements:

- A direct link from the Ronkonkoma Station to MacArthur Airport through the airside of the Airport, by either bus rapid transit or light rail, while beneficial, was deemed unlikely at that time due to construction costs, security concerns and FAA safety issues.
- An enhanced shuttle service should have attractive, user-friendly, clean fuel vehicles with frequent service and extended hours in order to attract ridership.
- An enhanced shuttle service could be expanded to also connect to other nearby destinations to further promote ridership.

- Multi-level parking decks should be considered as a way to improve efficiency and overall security
- Paid parking should be considered as a way to increase ride sharing and reduce the use of Single Occupancy Vehicles
- Opportunities within the Town of Islip for newly-constructed shared parking should be explored if appropriate agreements can be implemented with Suffolk County and the MTA.

Ronkonkoma Hub Transit-Oriented Development Draft Land Use and Implementation Plan and Subsequent Studies

Upon completion of the Phase 2 efforts, the Town prepared a *Ronkonkoma Hub Transit-Oriented Development Draft Land Use and Implementation Plan* (“*Draft Land Use and Implementation Plan*”) (Phase 3) and a DGEIS (“*2010 DGEIS*”) in accordance with the State Environmental Quality Review Act (SEQRA), which evaluated a theoretical maximum development scenario pursuant to the aforesaid *Draft Land Use and Implementation Plan*. The Town Board accepted the 2010 DGEIS as complete and adequate for public review on September 21, 2010, and a public hearing was held on October 19, 2010.

The support for the redevelopment of the Ronkonkoma Hub area was evident from the aforesaid public hearing and the various community meetings that were held throughout the Phase 1 and Phase 2 planning processes (see Table 1). Subsequent to the public hearing on the 2010 DGEIS, the Town, in an effort to ensure that the planning efforts would result in the actual redevelopment of the blighted Hub area, decided to seek private developer input as to the financial feasibility of the redevelopment concept. The Town issued a RFEI and ultimately a RFQ for a Master Developer.

Upon review of preliminary plans received as part of the RFEI and RFQ processes, the Town prepared a *Blight Study*. The *Blight Study* found sufficient evidence to determine the study area to be a substandard or insanitary area in accordance with both Article 15 of the New York State General Municipal Law and Article XLI of Chapter 85 of the Town of Brookhaven Town Code. Subsequently, the Town Board, after review of the aforesaid *Blight Study*, by Town Board Resolution 2012-804, dated September 20, 2012, designated the Ronkonkoma Hub as appropriate for urban renewal pursuant to Article 15 of the New York State General Municipal Law, and authorized the preparation of an urban renewal plan. In accordance with the requirements set forth in Article 15 of the General Municipal Law, a draft *Urban Renewal Plan* has been prepared and is being reviewed by the Town.

The draft *Urban Renewal Plan* recommends development at a different mix and density than that contemplated in the aforesaid *Draft Land Use and Implementation Plan* and 2010 DGEIS. The uses and densities proposed in the draft *Urban Renewal Plan* include:

- A potential maximum of 1,450 multi-family residential dwelling units
- Approximately 195,000 square feet of retail space
- Approximately 360,000 square feet of office/medical space
- Approximately 60,000 square feet of “flex” space, to be utilized for conference, exhibition, hospitality, and/or residential uses

The Town is performing further SEQRA review to evaluate maximum development potential in accordance with the draft *Urban Renewal Plan*.

3.0 Proposed TOD District

The proposed Ronkonkoma Hub Transit-Oriented Development District (“TOD District”) as a FBC zoning code is a tool the Town is developing to implement the Vision detailed in the *Ronkonkoma Hub Planning Study*. A draft of the TOD District is included in Appendix A of this document.

The area being considered for rezoning encompasses 53.73± acres, which are comprised of 54 individual parcels within the Town. The boundaries of the TOD area are established by the Town of Brookhaven Building Zone Map, as or hereafter amended. The TOD District establishes objectives, policies, and standards to promote orderly development and redevelopment within the TOD District for purposes of encouraging high density mixed-use development, housing, retail, office and other supportive uses.

The following section provides an overview of FBC zoning and a description of the elements of the proposed TOD District, including the regulating plan and other plans that support the code.



Form-Based Code Zoning

The key goal of FBC zoning is to meet community visions not achievable through existing or conventional zoning. FBC zoning is different from conventional zoning in that it emphasizes building form and appearance rather than specifying and distinguishing uses or establishing set back, building height, or lot coverage restrictions. Figure 5 illustrates this difference. FBC zoning focuses on regulating the public realm, including street types, blocks, and civic spaces and provides for flexibility in use, site and architectural design. FBC zoning also includes an extensive use of graphics to illustrate, for example, the anticipated relationship of the building to the street or site.

Figure 5 – Conventional Zoning v. Form-Based Codes



Elements of Form-Based Code Zoning

The key components of FBC zoning generally include:

- Regulating Plan
- Building Form Standards
- Public Space/Street Standards
- Administration
- Definitions⁶

Benefits of Form-Based Code Zoning

The key benefits of FBC zoning include:

- More predictable physical result
- Achieves vision established in planning process
- Supports smart growth principles, including:
 - Transit-oriented development;
 - Place making;
 - Compact/mixed use development; and
 - Increased density
- Flexibility in accordance with regulating plan



⁶ *Form-Based Codes: A Guide for Planners, Urban Designers, Municipalities, and Developers*, Daniel Parolek, AIA, Karen Parolek, and Paul Crawford, FAICP, 2008.



Proposed TOD District

The overall purpose of the proposed TOD District and the associated rezoning and redevelopment is to encourage the efficient use of land, be a catalyst for revitalization, and foster a sense of place through development of a new transit-oriented, mixed-use, pedestrian-friendly community. Also, the proposed TOD District aims to encourage development that would enhance the tax base and complement the surrounding communities and uses as well as to better utilize existing public transit infrastructure at Ronkonkoma Station through improved access and increased ridership. More specifically, the purpose and intent of the TOD District zoning are to:

1. promote economic development opportunities
2. encourage the efficient use of land
3. encourage land uses that complement existing surrounding uses and better utilize existing public transit infrastructure at the train station
4. encourage building reuse and "infill" to create higher densities
5. encourage a pedestrian-friendly environment, as well as pedestrian-oriented commercial enterprises and consumer services that do not rely on automobile traffic to attract consumers
6. encourage flexibility and consistent high quality in site and architectural design
7. facilitate new development, as well as redevelopment of existing vacant/unoccupied parcels, that increase the area's marketability and enhances the tax base
8. facilitate development of a compact, mixed-use, self-sufficient community that fosters a "sense of place" and serves the diverse needs of workers, visitors, and residents

The Regulating Plan, described below, and which is part of the TOD District, would govern land development activities within the TOD District. The intent of the TOD District is to promote the development of the Ronkonkoma Hub area in accordance with the Regulating Plan.

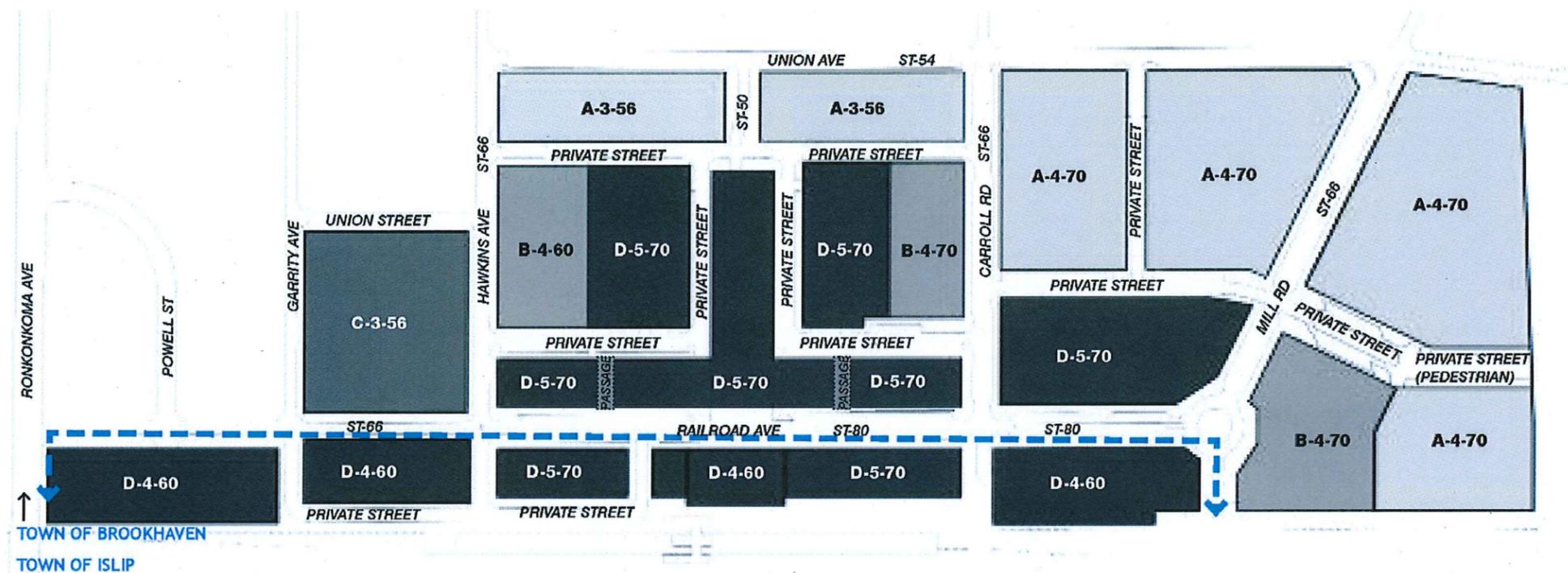
Regulating Plan

A regulating plan is a plan that governs land development activities within the zoning district by promoting orderly development and redevelopment within the TOD area for the purposes of encouraging high-density, mixed-use development, housing, retail, office and other supportive uses. The TOD District Regulating Plan, presented herein as Figure 6, is based upon the key goals to guide the development of the TOD District, as set forth in the *Ronkonkoma Hub Planning Study*, outlined in Section 2.0, above.

The Regulating Plan, presented in Figure 6, and the *Ronkonkoma Hub Planning Study*, when read in concert with the TOD District, establish a comprehensive land use plan for development or redevelopment within the TOD area. In the review of all new development subject to these provisions, the Town shall rely on the development concepts expressed in the Regulating Plan for the administration and enforcement of the TOD District.

As indicated on Figure 6, the Regulating Plan includes four subdistricts, each of which has its own prevailing character, as follows:

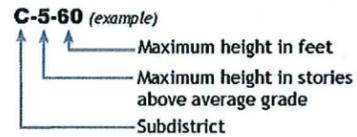
- Neighborhood Subdistrict (A) – The Neighborhood Subdistrict is a predominantly residential area with medium-to-high density building types. It allows for a limited amount of ground floor commercial use and live/work units. It provides a transition between single-family homes and more compact mixed-use areas.
- Downtown Living Subdistrict (B) – The Downtown Living subdistrict is predominantly a mixed-use residential area with medium-to-high density building types. It allows for up to 50 percent commercial use.
- Marketplace Subdistrict (C) – The Marketplace Subdistrict allows for predominantly retail-focused mixed-use, maintaining a high level of flexibility to attract diverse local and national retailers.
- Main Street Subdistrict (D) – The Main Street Subdistrict is intended as predominantly a pedestrian-oriented, mixed-use town center. Regional shopping, entertainment, and outdoor dining uses are encouraged.



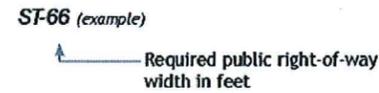
LEGEND

	Subdistrict A Neighborhood
	Subdistrict B Downtown living
	Subdistrict C Marketplace
	Subdistrict D Main Street

Form & use



Street types



Residential uses prohibited within the dashed boundary. See Subdistrict D requirements.

Notes:

1. The **principal frontage** shall be the side of the block that is of greatest length, abuts a public street, or that is otherwise approved by the Planning Board at site plan approval. There shall be one principal frontage per block. *Exception: in Subdistrict C, Hawkins Avenue shall be the principal frontage.*
2. The **secondary frontage** shall be any side of a block that abuts a public street but is not a principal frontage. *Exception: in Subdistrict C, Railroad Avenue shall be the only secondary frontage.*
3. **Private street** locations illustrated here may be adjusted, so long as the requirements of note 5 below are met.
4. Subdistricts shall be construed to extend to the centerlines of adjoining streets.
5. Within the subdistricts, blocks shall be subdivided with public or private streets such that the total perimeter of the block is not less than 1300 linear feet, and does not exceed 1600 linear feet. A clearly defined public pedestrian pathway connecting two different streets shall be construed as subdividing the block.



Figure 6
Regulating Plan

Building heights (in stories and feet) are also set forth on the Regulating Plan (see Figure 6), as follows:

- Neighborhood Subdistrict (A) – Maximum height of four stories, 70 feet, east of Carroll Avenue and maximum height of three stories, 56 feet west of Carroll Avenue
- Downtown Living Subdistrict (B) – Maximum height of four stories, 70 feet
- Marketplace Subdistrict (C) – Maximum height of three stories, 56 feet
- Main Street Subdistrict (D) – Maximum height of five stories, 70 feet, with the exception of four blocks south of Railroad Avenue, which would have a maximum height of four stories and 60 feet.

The full text of the TOD District is provided in Appendix A, and a description of permitted and prohibited uses and parking requirements are presented below.

Permitted Uses

Permitted uses of the proposed TOD District include:

1. Farmers' Market
2. Live/work units
3. Parking Garages
4. All residential and commercial uses, accessory uses and special permit uses authorized in Chapter 85, except if specifically noted in the TOD District as prohibited (see below list of prohibited uses).

The following uses are prohibited in the TOD District:

1. All uses exclusively permitted and/or exclusively special permitted in the L Industrial 1, L Industrial 2, L Industrial 4, K Business, MHC-Mobile Home Community, HF-Horse Farm, and PC-Pet Cemetery districts.
2. Outdoor storage, boat storage, motor vehicle repair, heavy construction vehicle dealerships, kennels, lumberyards and/or trucking terminals.

Parking Requirements

Table 2 presents the parking requirements of the proposed TOD District.

Table 2 - TOD District Parking Requirements

Land Use	Minimum Spaces Required
Residential	1.20 spaces per dwelling unit
Restaurants	0.33 spaces per seat
Commercial	2.65 spaces per 1,000 sq. ft. of building area
Office	2.86 spaces per 1,000 sq. ft. of floor area



SEQRA Compliance and the Maximum Density Concept Plan

Compliance with SEQRA is required for the proposed redevelopment of the Ronkonkoma Hub area. The following sections describe the status of the environmental review process as well as the overall type and level of development that could take place with the application of the proposed TOD District, and the evaluation of the potential environmental impacts associated with development in accordance with the TOD District.

SEQRA and the Public Review Process

All proposed “actions” in New York State, such as rezoning and/or development projects, require an environmental impact assessment. Pursuant to 6 NYCRR Part 617.2(b)(1), “actions” include:

- *Projects or physical activities, such as construction or other activities that may affect the environment by changing the use, appearance or condition of any natural resource or structure that:*
 - *Are directly undertaken by an agency; or*
 - *Involve funding by an agency; or*
 - *Require one or more new or modified approvals from an agency or agencies.*

In accordance with SEQRA and its implementing regulations, it is essential that the potential impacts of the entire development be evaluated and to establish conditions for future development. In this case, the proposed action includes the adoption of the proposed TOD District, including, among other things, the rezoning of the project area to the TOD District, to permit redevelopment in accordance with the TOD District, and to advance the Town’s goals in creating a compact, mixed-use TOD.

In May 2010, an Environmental Assessment Form (EAF) was prepared for the proposed action, and after undertaking coordinated review with all potentially involved and/or interested agencies, the Town Board declared itself as Lead Agency for the proposed action on June 15, 2010. On July 14, 2010, a public information session was held to present the proposed TOD zoning district and the Theoretical Full Build Plan to be analyzed for potential environmental impacts. The Town Board issued a Positive Declaration on August 17, 2010 requiring preparation of a DGEIS. The Town Board accepted the 2010 DGEIS as complete and adequate for public review on September 21, 2010, and a public hearing was held on October 19, 2010. The 2010 DGEIS evaluated the following impact categories:

- Soils and Topography
- Water Resources and Sanitary Disposal
- Ecology
- Land Use and Zoning
- Traffic and Parking
- Air Quality
- Noise
- Socioeconomics
- Community Facilities and Services
- Aesthetics
- Cultural Resources

Two alternatives – the no-action alternative and maximum build-out plan – were also evaluated as part of the 2010 DGEIS.

As explained earlier, subsequent to the public hearing on the 2010 DGEIS and RFEI and RFQ processes for a Master Developer, the Town prepared the *Blight Study*. A draft *Urban Renewal Plan* for the Ronkonkoma Hub has also been prepared and is being reviewed by the Town.

As previously discussed, the draft *Urban Renewal Plan* recommends development at a different mix and density than that evaluated in the DGEIS. The uses and densities proposed in the draft *Urban Renewal Plan* include:

- A potential maximum of 1,450 multi-family residential dwelling units
- Approximately 195,000 square feet of retail space
- Approximately 360,000 square feet of office/medical space, and
- Approximately 60,000 square feet of “flex” space, to be utilized for conference, exhibition, hospitality, and/or residential uses

Because of the changes in the potential development levels since the 2010 DGEIS was prepared and accepted, the Town Board issued a Positive Declaration on October 1, 2013 and prepared a Supplemental Draft Generic Environmental Impact Statement to evaluate the potential significant adverse environmental impacts associated with the aforesaid development levels. Upon completion of the SEQRA process (i.e., adoption of a Findings Statement), the Town Board will be able to take action on the Land Use and Implementation Plan.

4.0 Implementation Strategy

The following section outlines the implementation strategy for realizing the Town's vision for the redevelopment of the Ronkonkoma Hub area, including a summary of the market analysis and an overview of approval process.

Market Analysis and Trends

A market analysis⁷ was prepared subsequent to the *Ronkonkoma Hub Planning Study* to evaluate the market conditions (as of 2010, while the Town of Brookhaven, County of Suffolk and surrounding areas were still experiencing the effects of the recession) to determine what ultimately may be supported in the Ronkonkoma Hub area. The market analysis helped to guide the development of the program mix for the Theoretical Full Build Plan evaluated in the 2010 DGEIS. The market analysis suggests there is support for the mixed use concept being contemplated for the Ronkonkoma Hub area. Refer to Appendix I of the 2010 DGEIS for the full market study.

Key Findings by Market Sector

Below are some key findings of the market analysis, by market sector.

Residential Market Key Findings

- The Ronkonkoma Hub area is situated within a primary market area (Towns of Brookhaven and Islip) and secondary market area (Suffolk County) of which the majority of demand for new housing will emerge from the primary market area, with the next largest source of demand coming from the secondary market area.
- It is estimated that the majority of demand will emerge from the middle two-thirds of this range (households earning between approximately \$50,000 and \$130,000).⁸
- In 2009, there was an estimated 337,000 target market households in the primary and secondary study areas combined. By 2019, it is projected that nearly 11,000 households will be added in these areas.
- Top socioeconomic groups in the market areas are similar in that most households are relatively affluent; consist of married couples; empty nesters



Note that this market analysis was prepared prior to the RFEI and RFQ processes conducted by the Town, which have, in effect, assessed market conditions through the identification of a Master Developer. The original market study is included as Appendix I of the 2010 DGEIS.

⁸ The target market of households most likely to prefer multi-family housing near transit includes households earning \$35,000 to \$150,000 as this is an income range that can afford current market rate rents and purchase prices. Note that this was data from 2010.

(couples without children and baby boomers); persons who live in older single-family homes; commute; and enjoy shopping, dining out, and outdoor activities.

- To appeal to the target demographic, new units should offer a broad range of amenities.⁹

Retail and Restaurant Market Key Findings

- The Ronkonkoma Hub area is situated within four associated trade areas: the convenience goods primary trade area (three-mile radius, roughly equal to a five-minute drive), the convenience goods secondary trade area (Suffolk County), the shoppers goods primary trade area (five-mile radius, roughly equal to a ten-minute drive), and the shoppers goods secondary trade area (Suffolk County).
- Two classifications of retail goods and services may be offered within the Ronkonkoma Hub area: convenience (e.g. food stores, limited service eating places, etc.) and shoppers goods (e.g. clothing, home furnishings, etc.).
- Retail spending in each trade area is strong and projected to grow as disposable income rises.
- Future retail spending could support over 51 million square feet of convenience and shoppers goods retail space in the primary and secondary trade areas (in retail store group categories conducive to downtown development).

Office Market Key Findings

- The primary and secondary office market areas are Suffolk County and Long Island, respectively.
- Existing office uses are minimal within the Ronkonkoma Hub area, and represent a very small proportion of the office uses present in Suffolk County and Long Island.
- Top industry clusters in Long Island include: back office and outsourcing; biomedical; communications, software and media services; financial services; front office and producer services; and information technology services.
- Office-based employment and associated demand for office space is projected to grow in Suffolk County and Long Island by 2014. Office space supply is also projected to grow based on past trends in supply.

▼
⁹ Fairfield at Ronkonkoma development, a rental townhouse community situated to the east of the transit station, is a model for relatively higher density housing catering to the needs and preferences of target market households for the TOD District. The development has enjoyed an extremely high occupancy rate and high rental rates (in the range of \$1,875 to \$2,480), which suggest demand is strong for this type of housing near the train station.

- Industries such as real estate, rental and leasing, professional, scientific and technical services, management, and administrative support are compatible with downtown settings and, thus, should be considered targets for office space in the Ronkonkoma Hub area.



Town of Brookhaven Approval and Adoption Process

A key tool for the revitalization of the Ronkonkoma Hub, which the Town has begun, is rezoning the 53.73±-acre TOD area. Through rezoning, the Town is able to encourage transit-oriented development by using the FBC. The TOD District aims to establish objectives, policies, and standards to promote orderly development and redevelopment within the TOD area for purposes of encouraging high density mixed-use development, housing, retail, and office uses.

As previously indicated, the SEQRA process analyzes the potential impacts associated with the creation of the TOD District and its application to the specific tax parcels that comprise the Ronkonkoma Hub area. Furthermore, based upon the TOD District, including the Regulating Plan, a Maximum Density Concept Plan that illustrates the maximum potential development under the parameters set forth in the *Urban Renewal Plan* was developed. The potential impacts of this maximum development plan are also analyzed as part of the SEQRA process.

Once the SEQRA process is completed (i.e., upon adoption of a Findings Statement), the Town Board will be in a position to make a decision on the creation of the TOD District and to rezone the parcels within the Ronkonkoma Hub area to that District. Subsequent to these actions, the Planning Board can then review applications for site plan approval in accordance with the TOD District.



Engineering, Surveying and Landscape Architecture, P.C.

Appendix A

ARTICLE XLVII. RONKONKOMA HUB TRANSIT-ORIENTED DEVELOPMENT DISTRICT
(RONKONKOMA HUB TOD DISTRICT)

§85- __. Overview and Historical Background.

The Ronkonkoma Hub Transit-Oriented Development (TOD) area consists of approximately 53.73 acres in the hamlet of Ronkonkoma, and is generally bounded by Union Avenue on the north, Village Plaza Drive on the east, the Long Island Rail Road (LIRR) tracks (Ronkonkoma Branch) on the south, and Garrity Avenue, Hawkins Avenue, and Ronkonkoma Avenue on the west.

In 2007, the Town embarked upon a multi-phased planning study, known as the “Ronkonkoma Hub Transit-Oriented Planning Study” (hereinafter the “Ronkonkoma Hub Planning Study”), aimed at revitalizing a multi-block area around the “Ronkonkoma Hub,” which is one of the busiest stations in the LIRR system. The area immediately surrounding the train station consists of numerous vacant/unoccupied parcels and/or structures that have a deteriorated or run-down appearance, local businesses, and large surface parking lots, some of which are located along Railroad Avenue, east and west of the existing train station.

The goal of the Ronkonkoma Hub Planning Study was to develop a vision for compact, mixed-use redevelopment of underutilized land that supports and expands on the high passenger volume in, and recent improvements made to, the Ronkonkoma train station. The desired outcome of the planning study was a long-term development strategy that established clear and predictable guidance for the revitalization of the blighted, vacant, and/or underutilized parcels in the Ronkonkoma Hub.

Key goals of the Ronkonkoma Hub Planning Study included:

- Promoting quality and healthy communities;
- Redirecting growth to areas already served by existing infrastructure;
- Expanding transportation choices to enhance environmental quality;
- Reducing vehicle trips around the train station;
- Supporting compact, mixed-use, transit-accessible, pedestrian-oriented redevelopment;
- Creating a “sense of place”;
- Supporting local businesses;
- Creating housing choices;
- Exploring reverse-commute opportunities; and
- Enhancing the tax base for the Town and the region to support the variety of taxing districts.

Phase 1 of the Ronkonkoma Hub Planning Study, completed in April 2008, focused on documenting the existing conditions of an approximately 181±-acre study area, including analysis of existing zoning, multi-family housing demand, parking, building space, and transportation infrastructure, as well as the creation of goals and objectives and preliminary analysis of the development potential for priority development sites. The study area was generally bounded by the LIRR train line on the south, Expressway Drive on the north, Bay Avenue on the west, and Babcock Avenue on the east.

Phase 2 of the Ronkonkoma Hub Planning Study, completed in March 2009, built upon the work completed in Phase 1 and generated a long-term vision and implementation strategy aimed at providing guidance for potential future development around the LIRR Ronkonkoma station.

The implementation phase, or Phase 3, of the Ronkonkoma Hub Planning Study incorporated the principles of the aforesaid planning process, but eliminated the single-family residential areas from the study area, and thus, from any proposed zoning changes or development modifications. As part of the implementation strategy, a proposed Land Use and Implementation Plan was prepared.

Based upon the results of Phases 1 and 2 of the visioning and planning process conducted from 2007 to 2009, as described above, a 53.73±-acre area (which did not include the existing single-family residential communities in the aforesaid study area) was selected to be considered for rezoning and redevelopment, as identified in the proposed Land Use and Implementation Plan. This 53.73±-acre area was identified for potential rezoning and redevelopment mostly because it includes parcels located on key “gateway” roadways serving the train station (Railroad Avenue, Hawkins Avenue, and Mill Road), where higher-density, mixed-use development would be most appropriate.

On _____, 2013, the Town Board adopted an “Urban Renewal Plan for the Ronkonkoma Hub,” as well as a comprehensive plan entitled the “Ronkonkoma Hub Transit-Oriented Development Land Use and Implementation Plan,” for the aforesaid 53.73±-acre area. This Ronkonkoma Hub Transit-Oriented Development (TOD) District is adopted pursuant to, and in accordance with, the said urban renewal and comprehensive plans.

§85-___. Legislative Intent.

A. The Town Board’s intent, in adopting this Article and the Ronkonkoma Hub TOD District, is to allow for comprehensive, transit-oriented, and economically-viable revitalization of the area including and proximate to the LIRR Ronkonkoma train station by:

- (1) promoting economic development opportunities;
- (2) encouraging the efficient use of land;
- (3) encouraging land uses that complement existing surrounding uses and better utilize existing public transit infrastructure at the train station;
- (4) encouraging building reuse and “infill” to create higher densities;
- (5) encouraging a pedestrian-friendly environment, as well as pedestrian-oriented commercial enterprises and consumer services that do not rely on automobile traffic to attract consumers;
- (6) encouraging flexibility and consistent high quality in site and architectural design;
- (7) facilitating new development, as well as redevelopment of existing vacant/unoccupied parcels, that increase the area’s marketability and enhances the tax base; and

- (8) facilitating development of a compact, mixed-use, self-sufficient community that fosters a “sense of place” and serves the diverse needs of workers, visitors, and residents.

§85-___. Authority and Supersession of Town Law.

A. This Article is enacted pursuant to Statute of Local Governments §10(6) and Municipal Home Rule Law §§10(1)(ii)(a)(14),10(1)(ii)(d)(3), and 10(2), and is intended to and shall supersede:

- (1) the entirety of Town Law §261-b (relating to incentive zoning);
- (2) Town Law §261-c (relating to planned unit development zoning districts) to the extent that such section requires that certain land uses be provided for through “planned unit development district regulations;”
- (3) Town Law §262 (relating to zoning districts) to the extent that such section requires that regulations within a zoning district be uniform for each class or kind of buildings throughout such district;
- (4) Town Law §263 (relating to comprehensive plans and zoning purposes) to the extent that the zoning purposes therein are inconsistent with the planning goals and principles underlying the aforesaid “Urban Renewal Plan for the Ronkonkoma Hub,” the aforesaid “Ronkonkoma Hub Transit-Oriented Development Land Use and Implementation Plan,” and/or this Article;
- (5) Town Law §269 (relating to zoning law conflicts) to the extent that such section provides that regulations made under authority of Article 16 of the Town Law, which impose greater or higher dimensional requirements, shall govern over standards required in any other statute or local law, ordinance or regulation;
- (6) Town Law §270 (relating to an official town map) to the extent that such section provides that such map shall be final and conclusive with respect to the location and width of streets and highways, drainage systems, and the location of parks shown thereon;
- (7) the entirety of Town Law §272-a (relating to town comprehensive plans);
- (8) Town Law §273 (relating to official maps and changes thereto) to the extent that such section requires change or addition to the Town’s official map so as to lay out new streets, highways, drainage systems, or parks, or to widen or close existing streets, highways, drainage systems, or parks, provides that changes or additions to the Town’s official map shall be deemed to be final and conclusive with respect to the location of streets, highways, drainage systems, and parks shown thereon, and provides that the layout, widening or closing, or approval of the layout, widening, or closing, of streets, highways, drainage systems, or parks by the Town Board or the Town Superintendent of Highways shall be deemed to be an addition or change of the Town’s official map and subject to the provisions of Article 16 of the Town Law with regard to such additions or changes;

- (9) Subsections 2(a) and 6 of Town Law §274-a (relating to site plan review and approval) to the extent that such subsections limit required site plan elements to those included in a zoning ordinance or local law authorizing the review, approval, or disapproval of site plans, authorize the board reviewing site plans to require a park or parks suitably located for playground or other purposes before approving a site plan containing residential units, and authorize the board reviewing site plans to require a sum of money in lieu of such park or parks; and
- (10) the entirety of Subdivision 1 of Town Law §280-a (relating to permits for buildings not on improved mapped streets).

§85-___. Terms and Provisions of This Article Control.

The provisions of this Article shall supplant, supersede, and prevail over any other Chapters, Articles, and provisions of the Code of the Town of Brookhaven (hereinafter the “Town Code”). Except as otherwise provided in this Article, any other Chapters, Articles, or provisions of the Town Code that are inconsistent with, in conflict with, or in addition to the aforesaid “Ronkonkoma Hub Transit-Oriented Development Land Use and Implementation Plan” (as it may have been amended), the aforesaid Regulating Plan, this Article, and/or the standards and procedures set forth herein (including, but not limited to, the land development standards of Section 85-50 of this Chapter and the building, outdoor play area, and off-street parking setbacks in Section 85-396(B)(6) of this Chapter) shall have no application, force, or effect within the Ronkonkoma Hub TOD District.

§85-___. The Regulating Plan.

The Regulating Plan incorporated in this Article designates the subdistricts comprising the Ronkonkoma Hub TOD District and the various roadways within and adjacent to those subdistricts. In reviewing proposed development in the Ronkonkoma Hub TOD District, the Planning Board shall determine that such proposed development complies with the Regulating Plan and with the descriptions, building forms, and development parameters applicable to each of the subdistricts, as depicted on the Regulating Plan and set forth in subsequent sections of this Article.

§85-___. Designation of Ronkonkoma Hub TOD District.

The Ronkonkoma Hub TOD District shall encompass the following parcels on the Suffolk County Tax Map, as well as all roadways, shown on the Regulating Plan, that lie between or adjacent to such parcels:

- 0200-799.00-03.00-032.000
- 0200-799.00-03.00-033.001
- 0200-799.00-03.00-033.002
- 0200-799.00-03.00-034.000
- 0200-799.00-03.00-035.000
- 0200-799.00-03.00-036.000

0200-799.00-03.00-037.000
0200-799.00-03.00-038.000
0200-799.00-03.00-039.000
0200-799.00-03.00-040.001
0200-799.00-03.00-040.002
0200-799.00-03.00-041.000
0200-799.00-03.00-042.000
0200-799.00-03.00-043.000
0200-799.00-03.00-044.000
0200-799.00-03.00-045.001
0200-799.00-03.00-049.000
0200-799.00-03.00-050.000

0200-799.00-04.00-044.000
0200-799.00-04.00-047.001
0200-799.00-04.00-048.000
0200-799.00-04.00-049.000
0200-799.00-04.00-051.001
0200-799.00-04.00-052.000
0200-799.00-04.00-053.000
0200-799.00-04.00-054.000

0200-800.00-01.00-027.001
0200-800.00-01.00-028.000
0200-800.00-01.00-031.001
0200-800.00-01.00-033.001
0200-800.00-01.00-034.000
0200-800.00-01.00-035.007
0200-800.00-01.00-035.008
0200-800.00-01.00-035.009
0200-800.00-01.00-036.000
0200-800.00-01.00-038.000

0200-800.00-02.00-009.000
0200-800.00-02.00-010.000
0200-800.00-02.00-011.000
0200-800.00-02.00-012.000
0200-800.00-02.00-013.000
0200-800.00-02.00-014.000
0200-800.00-02.00-015.000
0200-800.00-02.00-016.000
0200-800.00-02.00-017.000
0200-800.00-02.00-018.000
0200-800.00-02.00-019.000
0200-800.00-02.00-020.000
0200-800.00-02.00-021.000

0200-800.00-02.00-022.000
0200-800.00-02.00-023.000
0200-800.00-02.00-028.001
0200-800.00-02.00-028.003
0200-800.00-02.00-028.004

§85-___. Definitions.

The following terms, as used in this Article, shall be defined as follows:

BLOCK

An area bounded by the nearest of (1) a lot line along a public or private street and/or (2) a public pedestrian passageway, and/or (3) as restricted by existing local conditions. A block shall have a perimeter dimension not less than 1,300 linear feet and not greater than 1,600 linear feet. Exception: Where a block spans two subdistricts, each subdistrict within the block shall be considered a separate block for the purpose of calculating permitted land use percentages.

BUILDABLE LOT AREA

The total area of a lot available for construction of building(s) and structures(s), as defined by (1) the boundary of the build-to zone that is closest to the lot line along a street, (2) the lot line along the street where there is no build-to zone, and (3) all required building setback lines.

BUILDABLE SQUARE FOOTAGE

The total building floor area permitted in a block. It is calculated by multiplying the total of the Buildable Lot Areas for all lots in the block by the maximum number of stories permitted in the block.

BUILD-TO ZONE

The range of distances, as measured from the street lot line, within which the ground floor façades of principal buildings must be located along primary and secondary frontages. Exception: Where there is a designated outdoor space between the street lot line and a building, the build-to zone shall be measured from the inner line -- i.e., the line opposite and farthest from the lot line -- of such designated outdoor space

CONVENTION CENTER

A building or group of buildings designed for single and/or multi day events, industrial/trade shows, and the like, having exhibit areas, conference rooms, hotel accommodations, restaurants, and other related facilities.

DESIGNATED OUTDOOR SPACE

An area or horizontal space, including, but not limited to, a park, green, node, pedestrian median, square, plaza, courtyard, or outdoor eating or drinking area, that is open to and unobstructed from the sky, except for canopies or other structures providing protection or shelter from sun or weather.

LINEAR PRINCIPAL FRONTAGE

The total length, measured parallel to the lot line along a principal frontage, of the façades of all buildings in a block.

LIVE/WORK UNIT

A single unit consisting of both residential and non-residential space.

PARKING GARAGE

A building or structure, or a part of a building or structure, used for the bulk parking of vehicles, with no facilities for motor vehicle repair or service.

PAVILION

A covered open-air structure, typically used for shelter, concerts, exhibits, or temporary retail sales. A pavilion shall not be required to comply with minimum height limits.

PRINCIPAL FRONTAGE

The side of a block that is of greatest length, abuts a public street, and contains one or more main building entrances, or that is otherwise designated by the Planning Board at site plan approval. There shall be one principal frontage per block.

SECONDARY FRONTAGE

Any side of a block that abuts a public street but is not a principal frontage or that is otherwise designated by the Planning Board at site plan approval.

STORY

That portion of a building or structure included between the surface of any floor that is at or above the average grade and the surface of the floor (not including any mezzanine) next above it or, if there is no floor above it, then the space between such floor and the ceiling next above it. A basement not greater than 6' in height above the average grade, any other structure that is not greater than 6' in height above the average grade plane, and attics which do not include any habitable space shall not be considered a story.

TOWER

A vertical architectural element of limited length and width that does not include any habitable space, which is permitted to exceed the maximum height of the subdistrict to the extent permitted by the New York State Building Code.

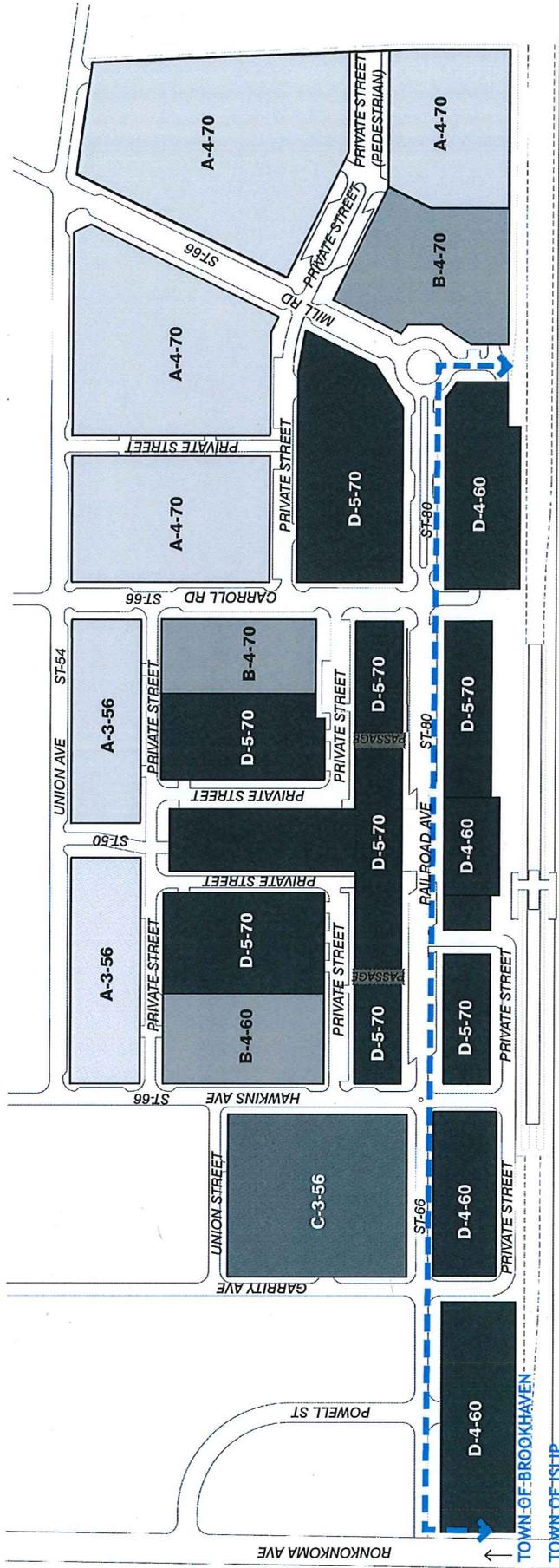
§85-___. Development Standards and Requirements.

A. Recognizing the importance of comprehensive redevelopment of the lands in the Ronkonkoma Hub TOD District in accordance with the aforesaid "Urban Renewal Plan for the Ronkonkoma Hub," the aforesaid "Ronkonkoma Hub Transit-Oriented Development Land Use and Implementation Plan" (as it may have been amended), and the provisions of this Article:

- (1) The development of any lands within the Ronkonkoma Hub TOD District shall require the submission of a site plan application that conforms to the requirements of the Regulating Plan and is subject to Planning Board site plan approval.
- (2) The minimum lot area requirement for any such site plan application shall be 10 acres, except that such minimum lot area requirement shall not apply to a site plan application that (a) seeks to amend a site plan previously approved pursuant to this Article, or (b) is made by an applicant that has previously received site plan approval pursuant to this Article and covers either a minimum of two (2) acres or lands contiguous to (i.e., directly adjoining or located directly across a street or pedestrian passageway from) a site plan previously approved pursuant to this Article.
- (3) Any resolution of approval or conditional approval issued by the Planning Board shall be subject to the applicant obtaining all approvals, licenses and/or permits required from other governmental agencies having jurisdiction of the proposed development. As a condition of approval, the applicant may be required to file appropriate legal documentation as the Planning Board determines necessary to provide for and ensure the continued proper future maintenance, use and ownership responsibility for civic spaces, facilities, utilities and services both in connection with site plan approval and in relation to the planned development of the area as a whole. Such documentation shall be acceptable to the Town Attorney in form and substance.

85-___. Severability.

A. If any clause, sentence, paragraph, section or item of this Article shall be adjudged by any court of competent jurisdiction to be invalid, such judgment shall not impair nor invalidate the remainder hereof, but such adjudication shall be confined in its operation to the clause, sentence, paragraph, section or item directly involved in the controversy in which such judgment shall have been rendered.



LEGEND

Subdistrict A	Neighborhood
Subdistrict B	Downtown living
Subdistrict C	Marketplace
Subdistrict D	Main Street

Form & use
C-5-60 (example)
Maximum height in feet
Maximum height in stories above average grade
Subdistrict

Street types
ST-66 (example)
Required public right-of-way width in feet

- Residential uses prohibited within the dashed boundary. See Subdistrict D requirements.

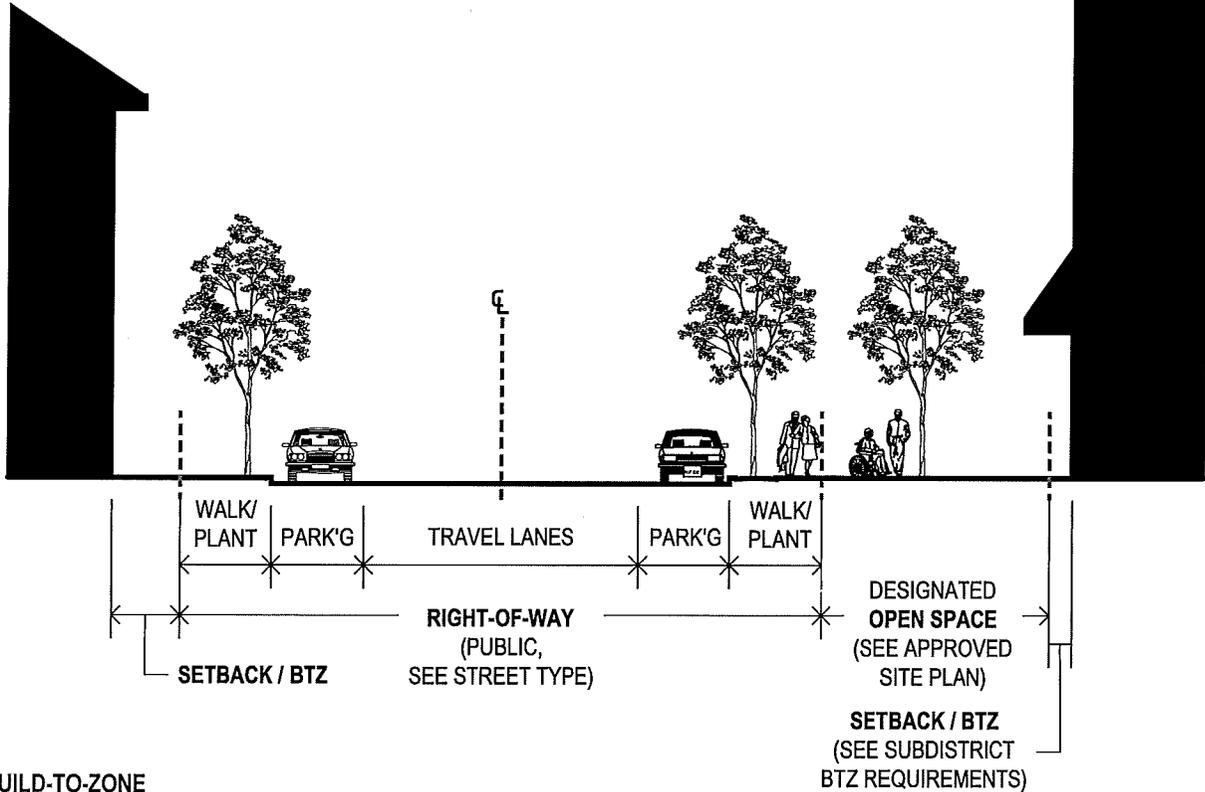
Notes:

- The principal frontage shall be the side of the block that is of greatest length, abuts a public street, or that is otherwise approved by the Planning Board at site plan approval. There shall be one principal frontage per block. Exception: in Subdistrict C, Hawkins Avenue shall be the principal frontage.
- The secondary frontage shall be any side of a block that abuts a public street but is not a principal frontage. Exception: In Subdistrict C, Railroad Avenue shall be the only secondary frontage.
- Private street locations illustrated here may be adjusted, so long as the requirements of note 5 below are met.
- Subdistricts shall be construed to extend to the centerlines of adjoining streets.
- Within the subdistricts, blocks shall be subdivided with public or private streets such that the total perimeter of the block is not less than 1300 linear feet, and does not exceed 1600 linear feet. A clearly defined public pedestrian pathway connecting two different streets shall be construed as subdividing the block.

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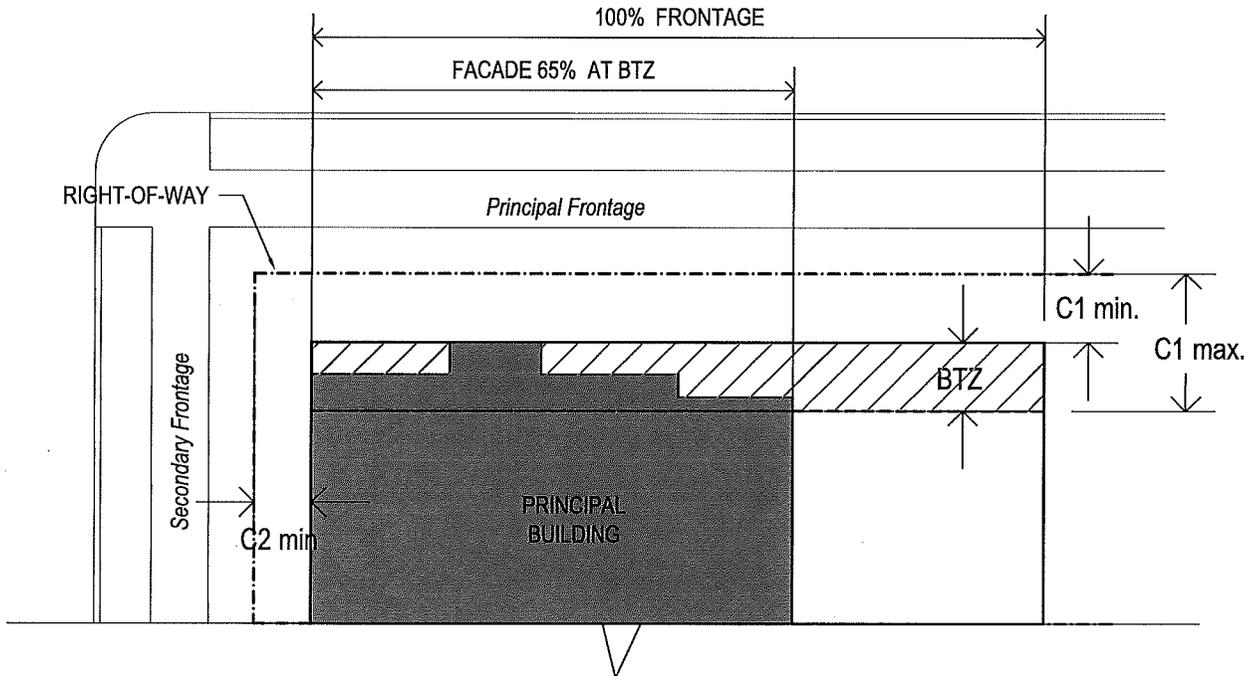
STREET ASSEMBLY

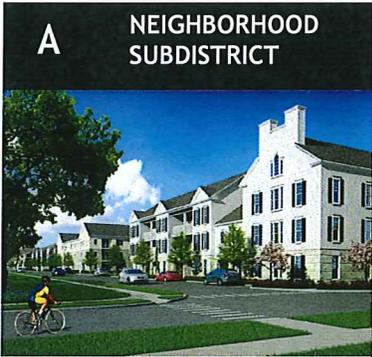
This illustration depicts a generic street assembly, consisting of the street type (which defines the lot lines), a designated open space (optional, where approved by the Town), and a setback established by the build-to-zone.



BUILD-TO-ZONE

This illustration depicts a principal building which meets a 65% build-to requirement. In this illustration, the BTZ is variable between a maximum and minimum requirement, as is common in this Code.





A NEIGHBORHOOD SUBDISTRICT

The Neighborhood subdistrict is a predominantly residential area with medium to high density building types. It allows for a limited amount of ground floor commercial use and live/work units. It provides a transition between single family homes and more compact mixed use areas.

© Niles Bolton Associates

A. USE (see also Table 1)

Residential	Permitted at all levels.
Commercial	Permitted at first floor. Limited to a maximum of 15% of linear principal frontage per block.

B. BUILDING CONFIGURATION

B1. Maximum height, feet	Varies. See regulating plan.
B2. Max. height, stories	Varies. See regulating plan.
B3. Minimum height, stories	2 stories

C. ALIGNMENT- PRINCIPAL BUILDINGS

C1. Principal Frontage BTZ	2 ft. min. 12 ft. max.
C2. Secondary Frontage BTZ	2 ft. min. 12 ft. max.
C3. Setback from TOD District boundary	25 ft. min.
C4. Build-to frontage	65% min. at build-to-zone.

D. ACCESSORY BUILDINGS

Accessory buildings shall be set back from the lot line as specified herein.

D1. Principal Frontage	25 ft. min.
D2. Secondary Frontage	10 ft. min.
D3. Rear lot line setback from TOD District	25 ft. min.

E. PARKING REQUIREMENTS

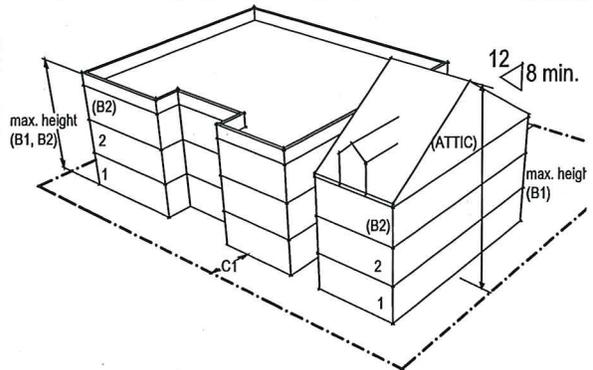
See Table 5

F. STREETScape

Street trees	30' o.c. average
Furnishings	100' o.c. average

BUILDING CONFIGURATION

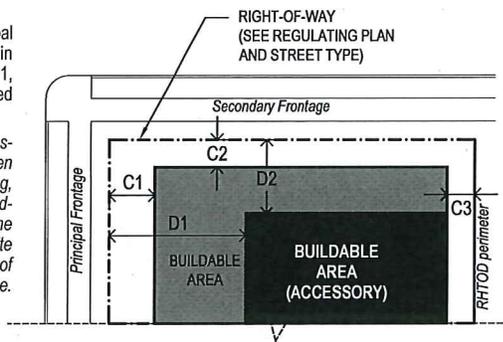
1. Height (B1) is measured from average grade to top of parapet or top of ridge.
2. The number of stories (B2) shall be measured from the average grade and shall exclude attics, basements, and other areas below the average grade.



ALIGNMENT

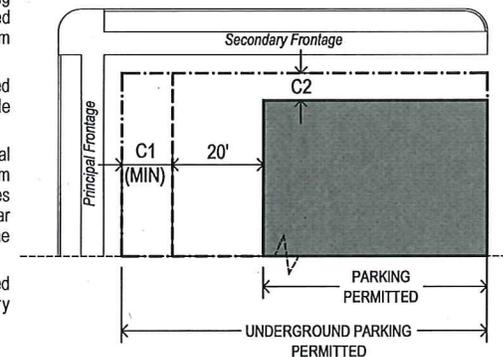
1. Ground floor façades of principal buildings shall be built within the frontage build-to zones (C1, C2) to the minimum specified width (C4).

Exception: Where there is a designated outdoor space between the street lot line and a building, the build-to zone for such building shall be measured from the inner line (i.e. the line opposite and farthest from the lot line) of such designated outdoor space.



PARKING PLACEMENT

1. Covered and/or surface parking spaces may only be provided where shown in the diagram at right.
2. Underground parking is permitted anywhere within the buildable lot area.
3. Garage entries from the Principal Frontage must serve a minimum of 8 parking spaces. Entrances to individual one and two car garages are not permitted on the Principal Frontage.
4. Surface parking shall be screened from view along secondary frontages.



B DOWNTOWN LIVING SUBDISTRICT



The Downtown Living subdistrict is predominantly a mixed-use residential area with medium to high density building types. It allows for up to 50% commercial use.

© Niles Bolton Associates

A. USE (see also Table 1)

Residential	Permitted at all levels.
Commercial	Permitted at all levels First floor area for commercial uses in each block is limited to 50% of the linear principal frontage for the block; total area for commercial uses on all floors in a block is limited to 50% of the buildable square footage for the block.

B. BUILDING CONFIGURATION

B1. Maximum height, feet	Varies. See regulating plan
B2. Max. height, stories	Varies. See regulating plan
B3. Minimum height, stories	2 stories

C. ALIGNMENT - PRINCIPAL BUILDINGS

C1. Principal Frontage BTZ	2 ft. min. 6 ft. max.
C2. Secondary Frontage BTZ	2 ft. min. 6 ft. max.
C3. Setback from TOD District boundary	25 ft. min.
C4. Build-to frontage	80% min. at built-to-zone.

D. ACCESSORY BUILDINGS (NOT USED)

E. PARKING REQUIREMENTS

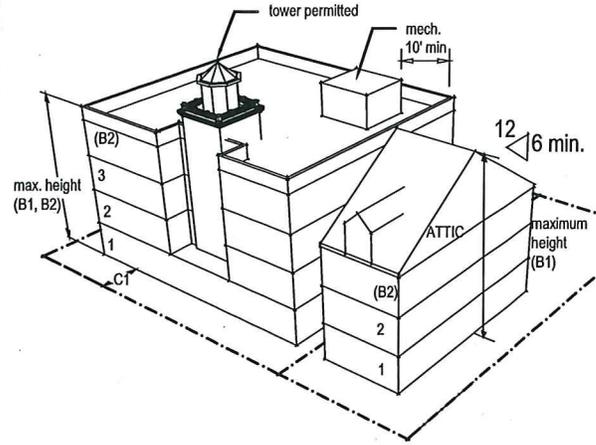
See Table 5

F. STREETScape

Street trees	30' o.c. average
Furnishings	100' o.c. average

BUILDING CONFIGURATION

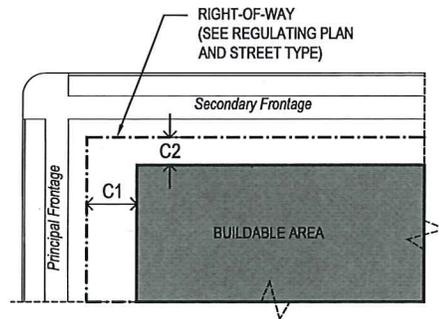
1. Height (B1) is measured from average grade to top of parapet or top of ridge.
2. The number of stories (B2) shall be measured from the average grade and shall exclude attics, basements, and other areas below the average grade.
3. A tower, cupola, or other vertical element shall be permitted above the allowed maximum height, but shall not exceed 20% of the first floor area in size, or 20% of the first floor frontage in length.
4. Mechanical / utility structures and enclosures are permitted above the allowed height, but must be set back at least 10' from the roof perimeter.
5. Except at porches and canopies, or where concealed by a parapet, pitched (shingle) roofs must have an 6:12 or greater slope.
6. For buildings taller than three stories, the building design shall have a distinct two- or three-part vertical composition.



ALIGNMENT

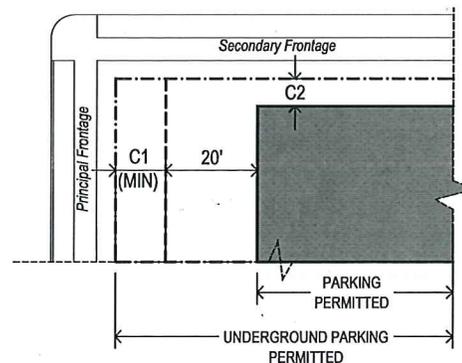
1. Ground floor façades of principal buildings shall be built within the frontage build-to zones (C1, C2) to the minimum specified width (C4).

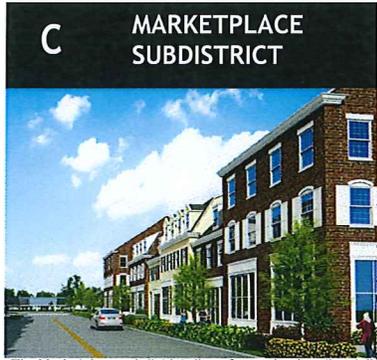
Exception: Where there is a designated outdoor space between the street lot line and a building, the build-to zone for such building shall be measured from the inner line (i.e. the line opposite and farthest from the lot line) of such designated outdoorspace.



PARKING PLACEMENT

1. Covered and/or surface parking spaces may only be provided where shown in the diagram at right.
2. Underground parking is permitted anywhere within the buildable lot area.
3. Garage entries from the Principal Frontage must serve a minimum of 8 parking spaces. Entrances to individual one- and two-car garages are not permitted on the Principal Frontage.
4. Surface parking shall be screened from view along secondary frontages.





The Marketplace subdistrict allows for predominantly retail-focused mixed-use, maintaining a high level of flexibility to attract diverse local and national retailers.

A. USE (see also Table 1)	
Residential	Permitted. The area for residential uses in each block is limited to 50% of the buildable square footage for the block.
Commercial	Permitted.

B. BUILDING CONFIGURATION	
B1. Maximum height, feet	56
B2. Max. height, stories	3
B3. Minimum height, feet	24

C. ALIGNMENT - PRINCIPAL BUILDINGS	
C1. Principal Frontage BTZ	2 ft. min. 6 ft. max.
C2. Secondary Frontage BTZ	2 ft. min, no maximum.
C3. Setback from TOD District boundary	Not Applicable.
C4. Build-to frontage	65% min. at build-to-zone.

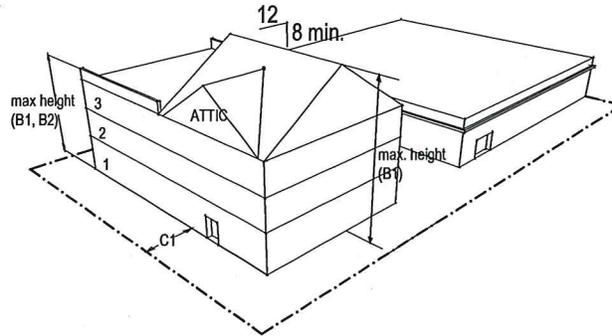
D. ACCESSORY BUILDINGS (NOT USED)	
See Table 5	

E. PARKING REQUIREMENTS	
See Table 5	

F. STREETScape	
Street trees	50 ft o.c. average
Furnishings	50 ft o.c. average

BUILDING CONFIGURATION

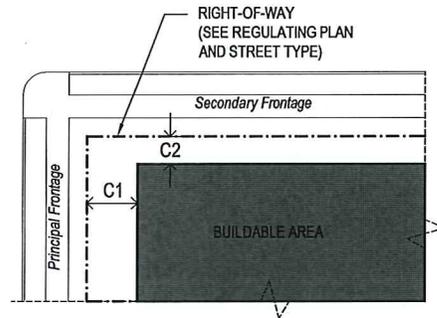
- Height (B1) is measured from average grade to top of parapet or top of ridge.
- The number of stories (B2) shall be measured from the average grade and shall exclude attics, basements, and other areas below the average grade.



ALIGNMENT

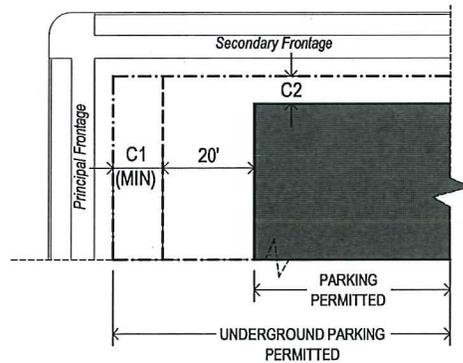
- Ground floor façades of principal buildings shall be built within the frontage build-to zones (C1, C2) to the minimum specified width (C4).

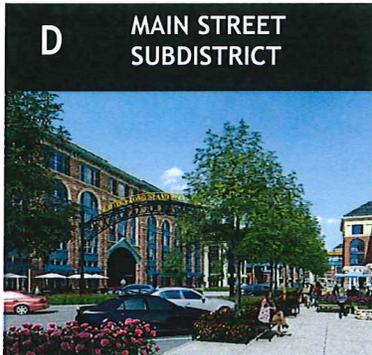
Exception: Where there is a designated outdoor space between the street lot line and a building, the build-to zone for such building shall be measured from the inner line (i.e. the line opposite and farthest from the lot line) of such designated outdoor space.



PARKING PLACEMENT

- Covered and/or surface parking spaces may only be provided where shown in the diagram at right.
- Underground parking is permitted anywhere within the buildable lot area.
- Garage entries from the Principal Frontage must serve a minimum of 8 parking spaces. Entrances to individual one- and two-car garages are not permitted on the Principal Frontage.
- Surface parking shall be screened from view along secondary frontages.





D MAIN STREET SUBDISTRICT

The Main Street subdistrict is intended as predominantly a pedestrian-oriented, mixed-use town center. Regional shopping, entertainment, and outdoor dining uses are encouraged.

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A. USE (see also Table 1)

Residential	Residential units are permitted above first floor. Residential common areas are permitted at first floor. <i>Exception: Residential uses are not permitted on parcels located south of Railroad Avenue and west of the intersection of Railroad Avenue and Mill Road.</i>
Commercial	Permitted.

B. BUILDING CONFIGURATION

B1. Maximum height, feet	Varies. See regulating plan.
B2. Max. height, stories	Varies. See regulating plan.
B3. Minimum height, stories	3

C. ALIGNMENT - PRINCIPAL BUILDINGS

C1. Principal Frontage BTZ	2 ft. min. 4 ft. max.
C2. Secondary Frontage BTZ	2 ft. min. 4 ft. max.
C3. Setback from TOD District boundary	Not Applicable
C4. Build-to frontage	80% min. at built-to zone

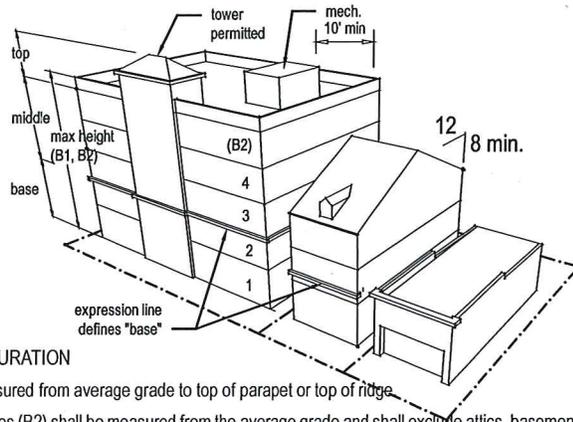
D. ACCESSORY BUILDINGS (NOT USED)

E. PARKING REQUIREMENTS

See Table 5

F. STREETScape

Street trees	50 ft o.c., average
Furnishings	50 ft o.c., average



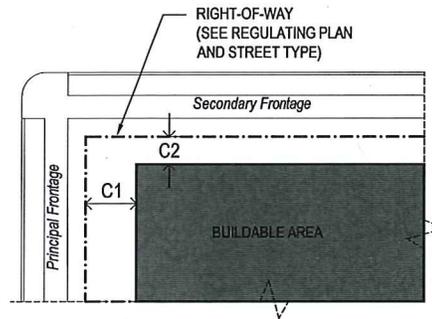
BUILDING CONFIGURATION

- Height (B1) is measured from average grade to top of parapet or top of ridge.
- The number of stories (B2) shall be measured from the average grade and shall exclude attics, basements, and other areas below the average grade.
- Mechanical / utility structures and enclosures are permitted above the allowed height, but must be set back at least 10' from the roof perimeter.
- A tower, cupola, or other vertical element shall be permitted above the allowed maximum height, but shall not exceed 20% of the first floor area in size, or 20% of the first floor frontage in length.
- Pitched (shingle) roofs, where not concealed by a parapet, must have an 8:12 or greater slope.
- For buildings taller than one story, a horizontal expression line is required at the second or third floor line, or between the second and third floor lines.
- For buildings taller than three stories, the building design shall have a distinct three-part vertical composition consisting of a base, middle, and top.

ALIGNMENT

- Ground floor façades of principal buildings shall be built within the frontage build-to zones (C1, C2) to the minimum specified width (C4).

Exception: Where there is a designated outdoor space between the street lot line and a building, the build-to zone for such building shall be measured from the inner line (i.e. the line opposite and farthest from the lot line) of such designated outdoor space.



PARKING PLACEMENT

- Covered and/or surface parking spaces may only be provided where shown in the diagram at right.
- Underground parking is permitted anywhere within the buildable lot area.
- Garage entries from the Principal Frontage must serve a minimum of 8 parking spaces. Entrances to individual one- and two-car garages are not permitted on the Principal Frontage.
- Surface parking shall be screened from view along secondary frontages.

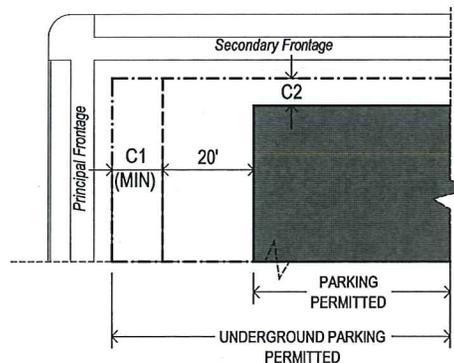


TABLE 2. USES

RONKONKOMA HUB TOD

TABLE 2: Permitted uses. Any building or land in the Ronkonkoma Hub TOD District may include a combination of the uses permitted below.

A. Permitted uses

- 1) Farmers' Market

- 2) Live/Work Units

- 3) Parking Garages

- 4) All residential and commercial uses, accessory uses and special permit uses authorized in Chapter 85 shall be permitted except as listed in Table 2, Section B.

B. Prohibited uses

- 1) All uses exclusively permitted and/or exclusively special permitted in L-Industrial-1 and L-Industrial-2, L-Industrial-4, K Business, MHC-Mobile Home Community, HF-Horse Farm and PC- Pet Cemetery districts shall be prohibited.

- 2) Outdoor storage, boat storage, motor vehicle repair, heavy construction vehicle dealerships, kennels, lumberyards and/or trucking terminals shall be prohibited.

TABLE 3: Public street type designs. These street types may be used for public or private rights-of-way as approved during the detailed site plan process. Streets shall generally be design for 30 miles per hour vehicular traffic. Specific street and roadway designs may vary from the following standard forms to accommodate required traffic mitigation measures (e.g., additional turning lanes). *Final lane widths as determined by the Planning Board.

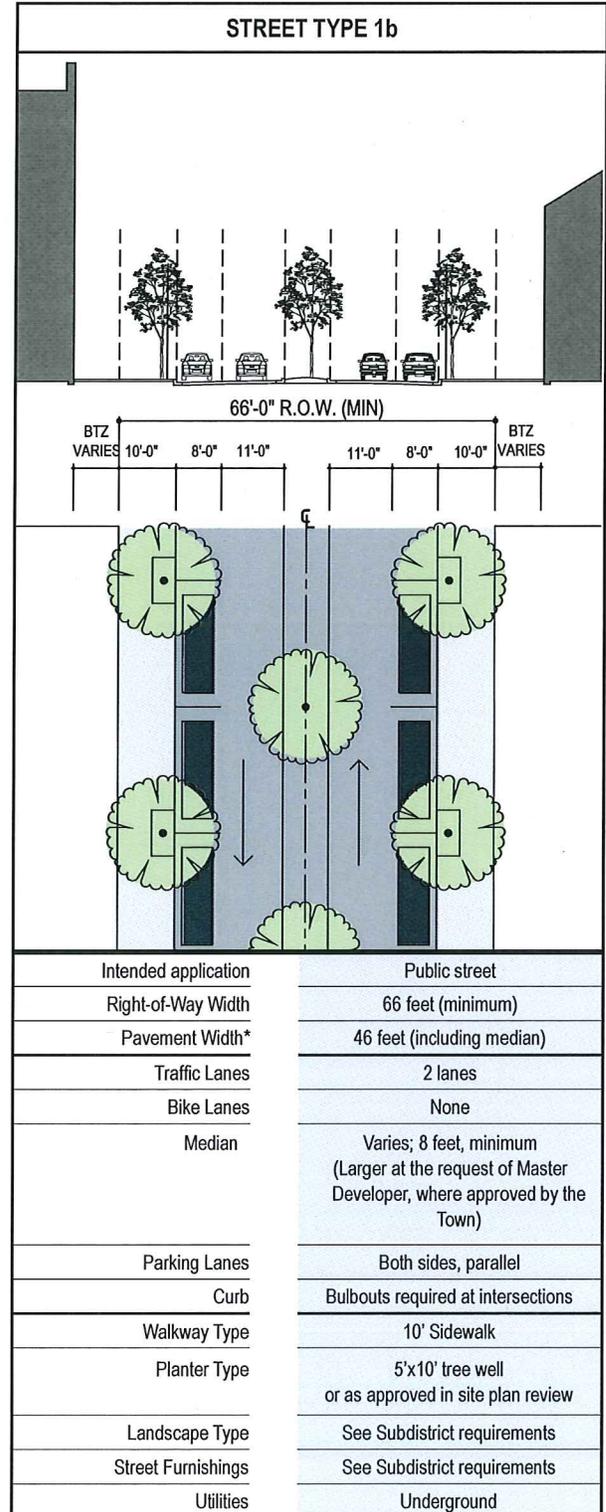
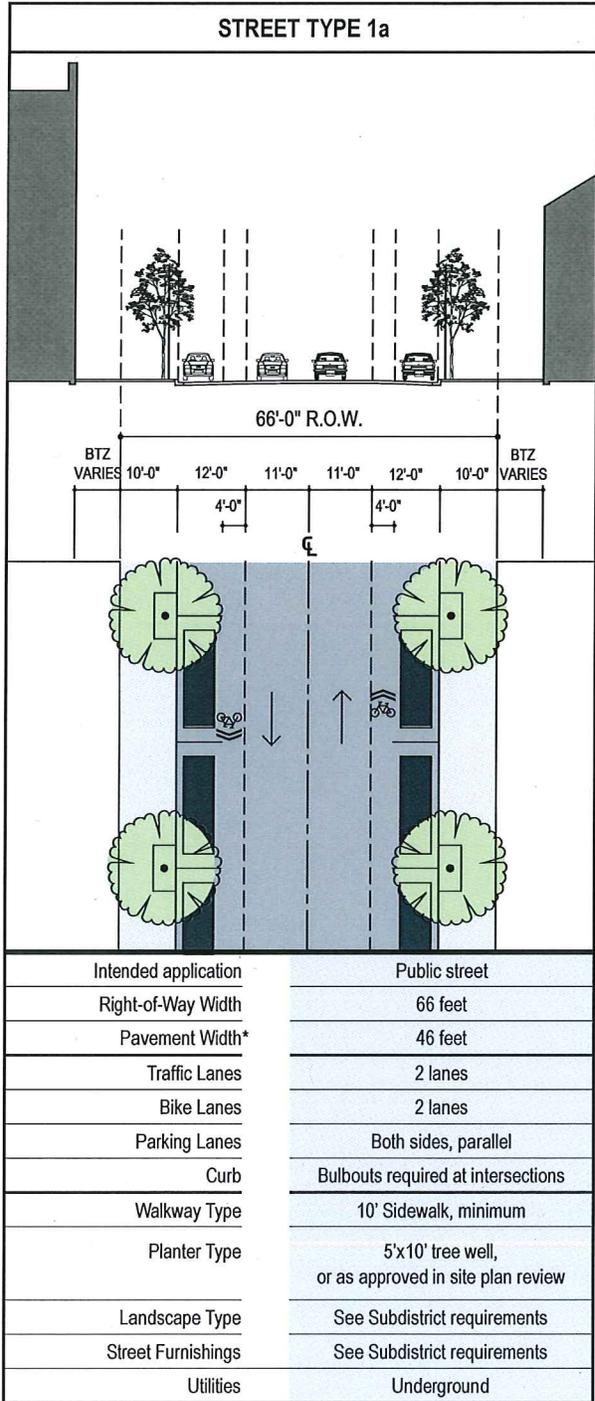


TABLE 3: Public street type designs. (Continued)

STREET TYPE 1c		STREET TYPE 2	
<p>54'-0" R.O.W.</p> <p>BTZ VARIES 8'-0" 8'-0" 4'-0" 11'-0" 11'-0" 4'-0" 8'-0" BTZ VARIES</p>		<p>80'-0" R.O.W.</p> <p>BTZ VARIES 10'-0" 19'-0" 11'-0" 11'-0" 19'-0" 10'-0" BTZ VARIES</p>	
Intended application	Public street	Intended application	Public street
Right-of-Way Width	54 feet	Right-of-Way Width	80 feet
Pavement Width*	38 feet	Pavement Width*	60 feet
Traffic Lanes	2 lanes	Traffic Lanes	2 lanes
Bike Lanes	2 lanes	Bike Lanes	None
Parking Lanes	One side, parallel	Parking Lanes	Both sides, angled
Curb	Bulbouts required at intersections	Curb	Bulbouts required at intersections
Walkway Type	8' Sidewalk	Walkway Type	10' Sidewalk
Planter Type	4'x10' tree well	Planter Type	5'x10' tree well
Landscape Type	See Subdistrict requirements	Landscape Type	See Subdistrict requirements
Street Furnishings	See Subdistrict requirements	Street Furnishings	See Subdistrict requirements
Utilities	Underground	Utilities	Underground

TABLE 3: Public street Type designs. (Continued.)

STREET TYPE 4	
Intended application	Public street
Right-of-Way Width	50 feet
Pavement Width*	22 feet
Traffic Lanes	2 lanes
Bike Lanes	None
Parking Lanes	None
Curb Radius	(undefined)
Walkway Type	5' Sidewalk (minimum)
Planter Type	5' wide planting strip or 5'x10' tree well
Landscape Type	See subdistrict requirements; <i>Exception: at this Street Type, tree requirements must be met on only one side of street</i>
Street Furnishings	See Subdistrict requirements
Utilities	Underground

TABLE 4: Private street type designs. These street types, in addition to the Public Street Types in Table 3, are permitted by right as private street types within the Ronkonkoma Hub TOD District. Private street cartways and sidewalks shall be open to vehicular and pedestrian use by the general public. These shall not be interpreted to limit other configurations of streets, drives, and parking aisles, as approved in detailed site plan review. Specific street and roadway designs may vary from the following standard forms to accommodate required traffic mitigation measures (e.g. additional turning

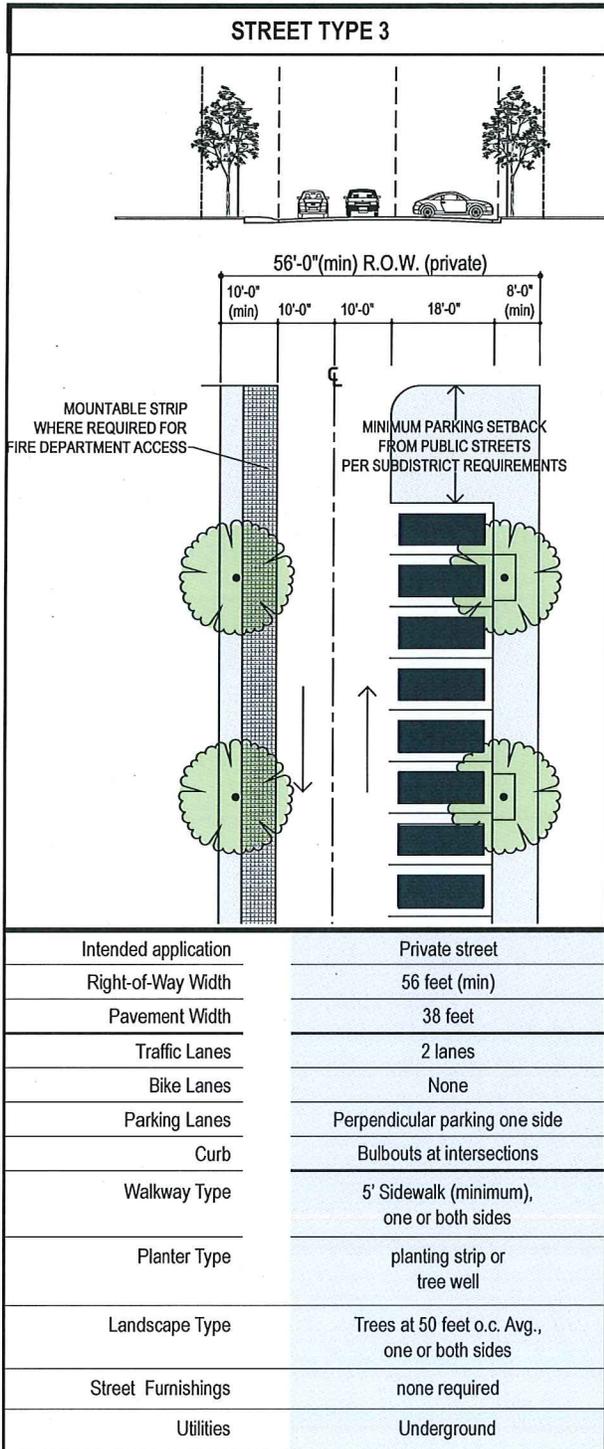
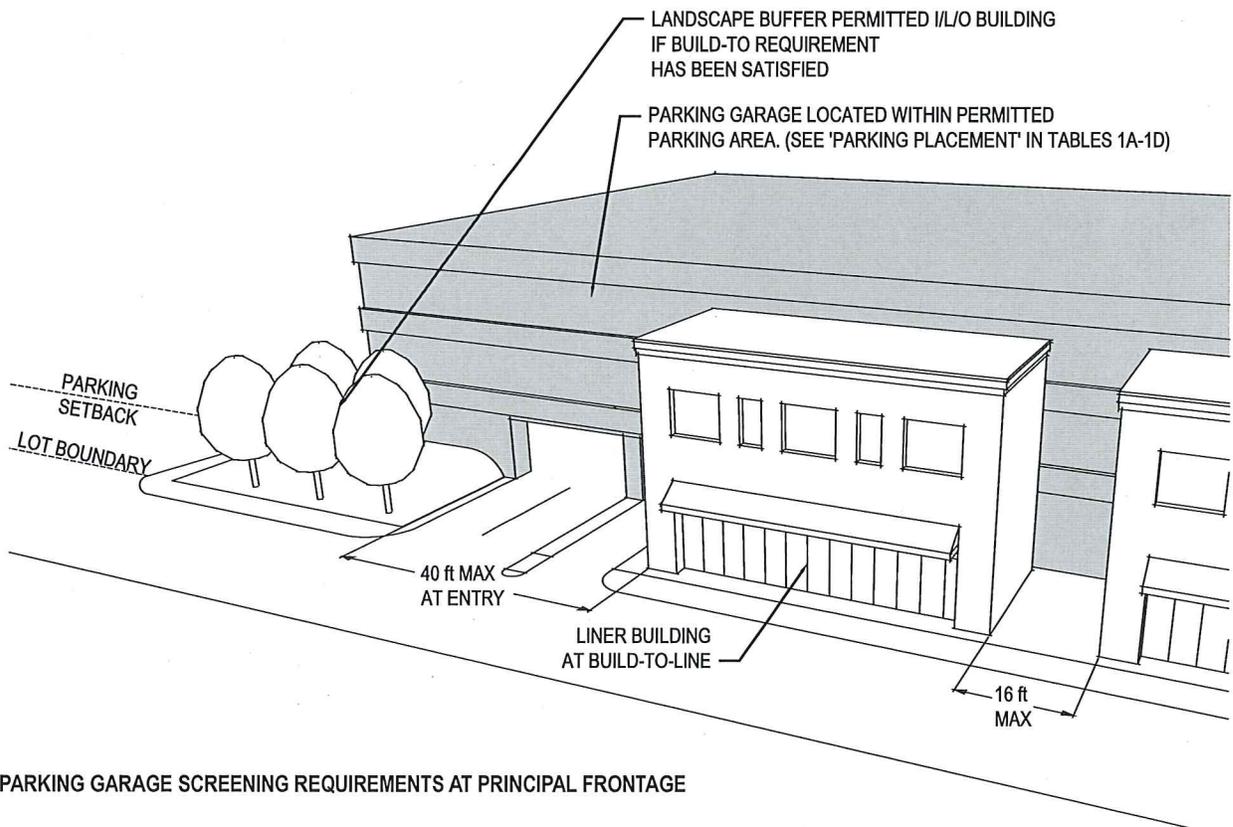


TABLE 5: Parking requirements. Except as noted, the provisions in this table shall be the exclusive parking provisions for the Ronkonkoma Hub TOD District, and shall supersede and prevail over other parking provisions in the Town Code.

Land Use	Minimum parking spaces required
a. Residential	1.20 spaces per dwelling unit
b. Commercial	2.65 spaces per 1,000 square feet of building area
c. Restaurant	0.33 spaces per seat
d. Office	2.86 spaces per 1,000 square feet of building area

Parameter	Requirement
e. Size of parking space	Minimum 9 ft x 18 ft
f. Drive aisle width (double-loaded)	Minimum 24 ft
g. Drive aisle width (single-loaded)	Minimum 20 ft
h. Landscape screening	Required for surface parking abutting primary and secondary frontage
i. Unbuffered garage exposure at principal frontage	Maximum 16 ft interruption of frontage. <i>Exception: Maximum 40 ft. interruption of frontage at vehicular entrance. (see illustration below)</i>



PARKING GARAGE SCREENING REQUIREMENTS AT PRINCIPAL FRONTAGE

TABLE 6. DESIGNATED OUTDOOR SPACE

RONKONKOMA HUB TOD

TABLE 6a: Designated Outdoor Space. The provisions in this table shall be the exclusive provisions for open space in the Ronkonkoma Hub TOD District, and shall supersede and prevail over any other open space provisions in the Town Code. For each site plan application in the Ronkonkoma Hub TOD District, designated outdoor space shall be provided, as necessary, to ensure that such space, combined with the area of the existing train station plaza and the areas of designated outdoor space provided on all previously-approved site plans in the Ronkonkoma Hub TOD District, does not, at any time, constitute less than 5% of the total buildable lot area covered by the proposed site plan application and all previously-approved site plans in the Ronkonkoma Hub TOD District.

Shade structures, including but not limited to umbrellas, awnings, tensile fabric structures, and brise-soleil shall be permitted in any designated outdoor space.

TABLE 6b: Designated Outdoor Space Types. This table defines types of Designated Outdoor Space which meet the Designated Outdoor Space requirement and the subdistricts in which each Type is permitted

<p>a. Green: An informal outdoor space, available for unstructured recreation. A green may be spatially defined by landscaping rather than building facades. Its landscape shall consist of lawn and trees, naturalistically disposed. The minimum size shall be 1/8 acre.</p>		<p>e. Outdoor Activity Zone: An outdoor space available for civic or commercial use in which a enlarged sidewalk or landscape area is provided in excess of the minimum required by at least four feet in width. Outdoor dining areas, even where restricted to use by patrons of a specific establishment, qualify as an outdoor activity zone.</p>	
<p>b. Pocket Park: A small outdoor space located within a block or interspersed among blocks. A pocket park may include a playground. Where bounded by landscape walls or formal hedges, a pocket park may be counted toward required buildout at frontage. The minimum size shall be 800 sf.</p>		<p>f. Square: A formal outdoor space available for unstructured recreation and civic purposes. A square is spatially defined by building facades. Its landscape shall consist of paths, lawns and trees, formally disposed. The minimum size shall be 5000 sf. A square may be counted toward required buildout at frontage.</p>	
<p>c. Node: A small formal outdoor space at or within prominent intersections. A node may include art installations, fountains, or structured planters.</p>		<p>g. Plaza: A formal outdoor space available for civic purposes and commercial activities. A plaza shall be spatially defined by building facades. Its landscape shall consist primarily of pavement. Trees are optional. The minimum size shall be 5000 sf. A plaza may be bisected by a street if the pavement and curb profile distinguish the street as part of the plaza area. A plaza may be counted toward required buildout at frontage.</p>	
<p>d. Median: A small outdoor space located within a street right-of-way, separating vehicular travel lanes with either landscape or hardscape. A median must be a minimum of ten feet in width, and include a usable amenity such as seating or bicycle parking to qualify as designated outdoor space.</p>			

TABLE 7: Permitted signs. In addition to all other signs permitted by the Town Code, the specific signage types identified herein are permitted in the indicated subdistricts of the Ronkonkoma Hub TOD District, provided they meet the specifications set forth herein. The signage specifications set forth herein prevail over and supersede any provisions of the Town Code that otherwise prohibit or restrict the signage types set forth herein.

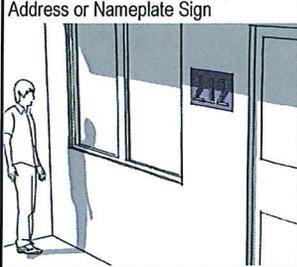
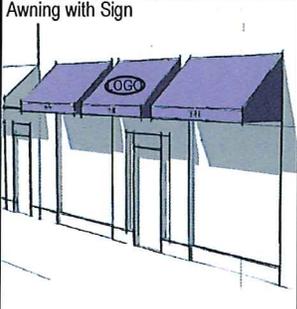
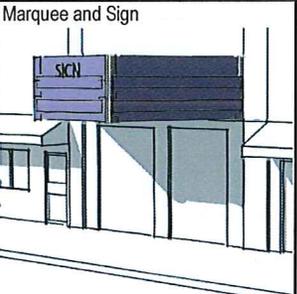
Subdistrict	A	B	C	D	SPECIFICATIONS
<p>Address or Nameplate Sign</p> 	■	■	■	■	<p>Quantity (max) 1 per address</p> <p>Area max 2 sf</p> <p>Width max 24 in</p> <p>Height max 24 in</p> <p>Depth / Projection max 3 in</p> <p>Max.mounting height (top) 7 ft</p> <p>Letter Height max 6"</p> <p>Illumination max 185 lumens internal</p>
<p>Awning with Sign</p> 	■	■	■	■	<p>Quantity (max) 1 per window/door</p> <p>Area n/a</p> <p>Width max equals width of Facade</p> <p>Height n/a</p> <p>Depth / Projection min 3 ft, max 6 ft</p> <p>Clearance min 8 ft</p> <p>Max.mounting height (top) first floor only</p> <p>Letter Height min 5 in, max 10 in</p> <p>Logo one per business</p> <p>Valance Height max 12 in</p> <p>Distance from Curb min. 2 ft.</p> <p>Illumination External, building-mounted only.</p> <p>Permitted surface materials Fabric, metal roofing, glass.</p> <p>Encroachment into ROW 3 ft permitted</p>
<p>Band Sign</p> 	■	■	■	■	<p>Quantity (max) 1 per 24 ft of facade length</p> <p>Area (max) 2 sf per linear ft Facade</p> <p>Width max 90% width of Facade</p> <p>Height (Subdistrict B) max 18 in</p> <p>Height (Subdistrict C,D) max 3 ft</p> <p>Depth / Projection max 7 in</p> <p>Clearance min 7 ft</p> <p>Letter Height max 24 in</p> <p>Illumination External, building-mounted only.</p>
<p>Shingle Sign</p> 	■	■	■	■	<p>Quantity max 1 per business; max 1 per 24 lf of facade</p> <p>Area (Subdistrict A) max 6 sf</p> <p>Area (Subdistrict B,C,D) max 4 sf</p> <p>Width max 4 ft</p> <p>Height max 4 ft</p> <p>Depth / Projection max 4 ft</p> <p>Clearance min 8 ft</p> <p>Max.mounting height (top) n/a</p> <p>Letter Height max 8 in</p> <p>Encroachment into ROW 3 ft permitted</p>
<p>Marquee and Sign</p> 	■	■	■	■	<p>Quantity (max) 1 per block</p> <p>Area n/a</p> <p>Width (max) entrance plus 2' each side</p> <p>Height max 50% Story height</p> <p>Depth / Projection min 4 ft, max 10 ft</p> <p>Clearance min 10 ft</p> <p>Max.mounting height (top) n/a</p> <p>Letter Height n/a</p> <p>Distance from Curb min 3 ft.</p>

TABLE 7: Permitted signs. (continued)

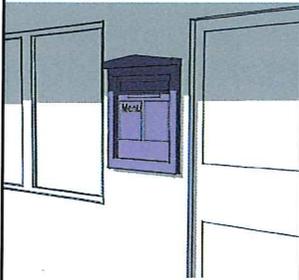
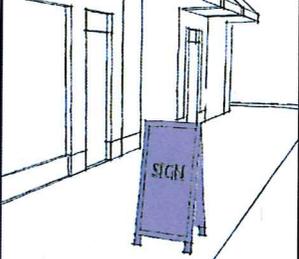
Subdistrict	A	B	C	D	Specifications
<p>Outdoor Display Case</p> 		■	■	■	<p>Quantity _____ 1 per entrance</p> <p>Area _____ max 6 sf</p> <p>Width _____ max 3.5 ft</p> <p>Height _____ max 3.5 ft</p> <p>Depth / Projection _____ max 5 in</p> <p>Clearance _____ min 4 ft</p> <p>Max.mounting height (top) _____ 8 ft</p> <p>Illumination _____ max 2000 lumens internal</p>
<p>Sidewalk Sign</p> 		■	■	■	<p>Quantity _____ 1 per retail or food service business</p> <p>Area _____ max 8 sf</p> <p>Width _____ max 26 in</p> <p>Height _____ max 42 in</p>
<p>Window Sign</p> 		■	■	■	<p>Quantity _____ 1 per window</p> <p>Area _____ max 25% of glass</p> <p>Clearance _____ 4 ft</p> <p>Letter Height _____ max 12 in</p>
<p>Outdoor Electronic Media Display</p> 				■	<p>LARGE</p> <p>Quantity _____ 1 maximum in TOD</p> <p>Area _____ max 920 sf</p> <p>Width _____ max 40 ft</p> <p>Height _____ max 23 ft</p> <p>Max.mounting height (top) _____ max 42 ft</p> <p>SMALL</p> <p>Quantity _____ 3 maximum in TOD</p> <p>Area _____ max 144 sf</p> <p>Width _____ max 16 ft</p> <p>Height _____ max 9 ft</p> <p>Max.mounting height (top) _____ max 42 ft</p>
<p>Neon</p> 				■	<p>Custom-made only</p> <p>Area _____ max 144 sf</p> <p>Max.mounting height (top) _____ max 42 ft</p>

TABLE 7: Permitted signs. (continued)

Subdistrict	A	B	C	D	Specifications
<p>Blade Sign</p> 			■	■	<p>Quantity: 1 per 40 ft of frontage</p> <p>Width: max 30 in</p> <p>Vertical length: max 50% of facade height</p> <p>Depth: max 8 in</p> <p>Clearance: min 8 ft</p> <p>Max. mounting height (top): 35 ft</p> <p>Illumination: unrestricted</p> <p>Encroachment into R.O.W.: 2' permitted</p>

TABLE 8. SUPPLEMENTARY PUBLIC LIGHTING

RONKONKOMA HUB TOD

TABLE 5: Supplementary Public Lighting. The generic lighting types below shall be permitted in the subdistricts indicated. Except as noted, the provisions in this table shall be the exclusive lighting provisions for the TOD zoning district, and shall supersede and prevail over other lighting provisions in the Town Code. This table shall not prohibit any lighting otherwise permitted in the Town of Brookhaven. (The illustrations do not indicate a specific luminaire, only the general form, proportion, and light distribution)

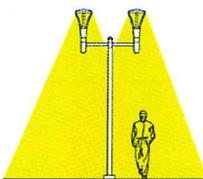
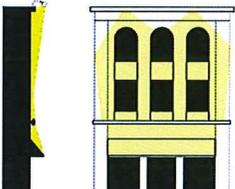
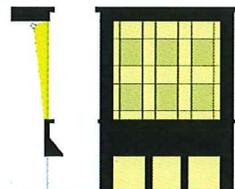
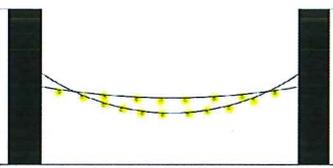
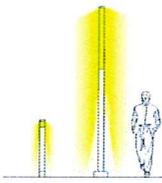
Subdistrict	A	B	C	D	Characteristics
Post 	■	■	■	■	Light source: LED, ceramic metal halide, and others as permitted elsewhere in the Code. Color temperature: Unrestricted Cutoff: fully shielded Spill onto adjacent properties: Permitted to spill within and among the C & D subdistricts. Maximum height: 20 ft
Column 	■	■	■	■	Light source: LED, ceramic metal halide, and others as permitted elsewhere in the Code. Color temperature: Unrestricted Cutoff: fully shielded Spill onto adjacent properties: Permitted to spill within and among the C & D subdistricts. Maximum height: 20 ft
Double Column 		■	■	■	Light source: LED, ceramic metal halide, and others as permitted elsewhere in the Code. Color temperature: Unrestricted Cutoff: fully shielded Spill onto adjacent properties: Permitted to spill within and among the C & D subdistricts. Maximum height: 20 ft
Facade Lighting 			■	■	Light source: LED, ceramic metal halide, and others as permitted elsewhere in the Code. Color temperature: Unrestricted Cutoff: partially shielded (fully shielded from public side) Spill onto adjacent properties: Permitted to spill within and among the C & D subdistricts.
Backlit Facade or Video Panel 				■	Light source: LED, ceramic metal halide, and others as permitted elsewhere in the Code. Color temperature: Unrestricted Cutoff: (Not applicable) Spill onto adjacent properties: Permitted to spill within and among B, C & D subdistricts.
Catenary or Street-spanning Arch 				■	Permitted only where approved by the Town, and subject to establishment of a maintenance agreement between the Town and the Master Developer. Light source: LED, ceramic metal halide, and others as permitted elsewhere in the Code. Maximum lumens / bulb: 850 lm Color temperature: Unrestricted Cutoff: Non-cutoff Spill onto adjacent properties: Permitted to spill within and among B, C & D subdistricts.

TABLE 5: Supplementary Public Lighting (Continued).

Subdistrict	A	B	C	D	Characteristics
<p>Reflected downlight</p> 				■	<p>Light source: LED, ceramic metal halide, and others as permitted elsewhere in the Code.</p> <p>Color temperature: Unrestricted</p> <p>Cutoff: Indirect cutoff</p> <p>Spill onto adjacent properties: Permitted to spill within and among the C & D subdistricts.</p> <p>Maximum height: 20 ft</p>
<p>Light Column</p> 			■	■	<p>Light source: LED, ceramic metal halide, and others as permitted elsewhere in the Code.</p> <p>Color temperature: Unrestricted</p> <p>Cutoff: Fully shielded</p> <p>Spill onto adjacent properties: Permitted to spill within and among the C & D Subdistricts</p> <p>Maximum height: 12'</p>
<p>Neon</p> 				■	<p>Custom-made only (generic, mass-produced neon signs are prohibited)</p> <p>Light source: Neon</p> <p>Color temperature: Unrestricted</p> <p>Cutoff: Unrestricted</p> <p>Spill onto adjacent properties: Permitted to spill within and among the B, C, & D Subdistricts.</p>

ARTICLE XLVII. RONKONKOMA HUB TRANSIT-ORIENTED DEVELOPMENT DISTRICT
(RONKONKOMA HUB TOD DISTRICT)

§85- ___. Overview and Historical Background.

The Ronkonkoma Hub Transit-Oriented Development (TOD) area consists of approximately 53.73 acres in the hamlet of Ronkonkoma, and is generally bounded by Union Avenue on the north, Village Plaza Drive on the east, the Long Island Rail Road (LIRR) tracks (Ronkonkoma Branch) on the south, and Garrity Avenue, Hawkins Avenue, and Ronkonkoma Avenue on the west.

In 2007, the Town embarked upon a multi-phased planning study, known as the “Ronkonkoma Hub Transit-Oriented Planning Study” (hereinafter the “Ronkonkoma Hub Planning Study”), aimed at revitalizing a multi-block area around the “Ronkonkoma Hub,” which is one of the busiest stations in the LIRR system. The area immediately surrounding the train station consists of numerous vacant/unoccupied parcels and/or structures that have a deteriorated or run-down appearance, local businesses, and large surface parking lots, some of which are located along Railroad Avenue, east and west of the existing train station.

The goal of the Ronkonkoma Hub Planning Study was to develop a vision for compact, mixed-use redevelopment of underutilized land that supports and expands on the high passenger volume in, and recent improvements made to, the Ronkonkoma train station. The desired outcome of the planning study was a long-term development strategy that established clear and predictable guidance for the revitalization of the blighted, vacant, and/or underutilized parcels in the Ronkonkoma Hub.

Key goals of the Ronkonkoma Hub Planning Study included:

- Promoting quality and healthy communities;
- Redirecting growth to areas already served by existing infrastructure;
- Expanding transportation choices to enhance environmental quality;
- Reducing vehicle trips around the train station;
- Supporting compact, mixed-use, transit-accessible, pedestrian-oriented redevelopment;
- Creating a “sense of place”;
- Supporting local businesses;
- Creating housing choices;
- Exploring reverse-commute opportunities; and
- Enhancing the tax base for the Town and the region to support the variety of taxing districts.

Phase 1 of the Ronkonkoma Hub Planning Study, completed in April 2008, focused on documenting the existing conditions of an approximately 181±-acre study area, including analysis of existing zoning, multi-family housing demand, parking, building space, and transportation infrastructure, as well as the creation of goals and objectives and preliminary analysis of the development potential for priority development sites. The study area was generally bounded by the LIRR train line on the south, Expressway Drive on the north, Bay Avenue on the west, and Babcock Avenue on the east.

Phase 2 of the Ronkonkoma Hub Planning Study, completed in March 2009, built upon the work completed in Phase 1 and generated a long-term vision and implementation strategy aimed at providing guidance for potential future development around the LIRR Ronkonkoma station.

The implementation phase, or Phase 3, of the Ronkonkoma Hub Planning Study incorporated the principles of the aforesaid planning process, but eliminated the single-family residential areas from the study area, and thus, from any proposed zoning changes or development modifications. As part of the implementation strategy, a proposed Land Use and Implementation Plan was prepared.

Based upon the results of Phases 1 and 2 of the visioning and planning process conducted from 2007 to 2009, as described above, a 53.73±-acre area (which did not include the existing single-family residential communities in the aforesaid study area) was selected to be considered for rezoning and redevelopment, as identified in the proposed Land Use and Implementation Plan. This 53.73±-acre area was identified for potential rezoning and redevelopment mostly because it includes parcels located on key “gateway” roadways serving the train station (Railroad Avenue, Hawkins Avenue, and Mill Road), where higher-density, mixed-use development would be most appropriate.

On _____, 2013, the Town Board adopted an “Urban Renewal Plan for the Ronkonkoma Hub,” as well as a comprehensive plan entitled the “Ronkonkoma Hub Transit-Oriented Development Land Use and Implementation Plan,” for the aforesaid 53.73±-acre area. This Ronkonkoma Hub Transit-Oriented Development (TOD) District is adopted pursuant to, and in accordance with, the said urban renewal and comprehensive plans.

§85- __. Legislative Intent.

A. The Town Board’s intent, in adopting this Article and the Ronkonkoma Hub TOD District, is to allow for comprehensive, transit-oriented, and economically-viable revitalization of the area including and proximate to the LIRR Ronkonkoma train station by:

- (1) promoting economic development opportunities;
- (2) encouraging the efficient use of land;
- (3) encouraging land uses that complement existing surrounding uses and better utilize existing public transit infrastructure at the train station;
- (4) encouraging building reuse and “infill” to create higher densities;
- (5) encouraging a pedestrian-friendly environment, as well as pedestrian-oriented commercial enterprises and consumer services that do not rely on automobile traffic to attract consumers;
- (6) encouraging flexibility and consistent high quality in site and architectural design;
- (7) facilitating new development, as well as redevelopment of existing vacant/unoccupied parcels, that increase the area’s marketability and enhances the tax base; and

- (8) facilitating development of a compact, mixed-use, self-sufficient community that fosters a “sense of place” and serves the diverse needs of workers, visitors, and residents.

§85-___. Authority and Supersession of Town Law.

A. This Article is enacted pursuant to Statute of Local Governments §10(6) and Municipal Home Rule Law §§10(1)(ii)(a)(14),10(1)(ii)(d)(3), and 10(2), and is intended to and shall supersede:

- (1) the entirety of Town Law §261-b (relating to incentive zoning);
- (2) Town Law §261-c (relating to planned unit development zoning districts) to the extent that such section requires that certain land uses be provided for through “planned unit development district regulations;”
- (3) Town Law §262 (relating to zoning districts) to the extent that such section requires that regulations within a zoning district be uniform for each class or kind of buildings throughout such district;
- (4) Town Law §263 (relating to comprehensive plans and zoning purposes) to the extent that the zoning purposes therein are inconsistent with the planning goals and principles underlying the aforesaid “Urban Renewal Plan for the Ronkonkoma Hub,” the aforesaid “Ronkonkoma Hub Transit-Oriented Development Land Use and Implementation Plan,” and/or this Article;
- (5) Town Law §269 (relating to zoning law conflicts) to the extent that such section provides that regulations made under authority of Article 16 of the Town Law, which impose greater or higher dimensional requirements, shall govern over standards required in any other statute or local law, ordinance or regulation;
- (6) Town Law §270 (relating to an official town map) to the extent that such section provides that such map shall be final and conclusive with respect to the location and width of streets and highways, drainage systems, and the location of parks shown thereon;
- (7) the entirety of Town Law §272-a (relating to town comprehensive plans);
- (8) Town Law §273 (relating to official maps and changes thereto) to the extent that such section requires change or addition to the Town’s official map so as to lay out new streets, highways, drainage systems, or parks, or to widen or close existing streets, highways, drainage systems, or parks, provides that changes or additions to the Town’s official map shall be deemed to be final and conclusive with respect to the location of streets, highways, drainage systems, and parks shown thereon, and provides that the layout, widening or closing, or approval of the layout, widening, or closing, of streets, highways, drainage systems, or parks by the Town Board or the Town Superintendent of Highways shall be deemed to be an addition or change of the Town’s official map and subject to the provisions of Article 16 of the Town Law with regard to such additions or changes;

- (9) Subsections 2(a) and 6 of Town Law §274-a (relating to site plan review and approval) to the extent that such subsections limit required site plan elements to those included in a zoning ordinance or local law authorizing the review, approval, or disapproval of site plans, authorize the board reviewing site plans to require a park or parks suitably located for playground or other purposes before approving a site plan containing residential units, and authorize the board reviewing site plans to require a sum of money in lieu of such park or parks; and
- (10) the entirety of Subdivision 1 of Town Law §280-a (relating to permits for buildings not on improved mapped streets).

§85-____. Terms and Provisions of This Article Control.

The provisions of this Article shall supplant, supersede, and prevail over any other Chapters, Articles, and provisions of the Code of the Town of Brookhaven (hereinafter the “Town Code”). Except as otherwise provided in this Article, any other Chapters, Articles, or provisions of the Town Code that are inconsistent with, in conflict with, or in addition to the aforesaid “Ronkonkoma Hub Transit-Oriented Development Land Use and Implementation Plan” (as it may have been amended), the aforesaid Regulating Plan, this Article, and/or the standards and procedures set forth herein (including, but not limited to, the land development standards of Section 85-50 of this Chapter and the building, outdoor play area, and off-street parking setbacks in Section 85-396(B)(6) of this Chapter) shall have no application, force, or effect within the Ronkonkoma Hub TOD District.

§85-____. The Regulating Plan.

The Regulating Plan incorporated in this Article designates the subdistricts comprising the Ronkonkoma Hub TOD District and the various roadways within and adjacent to those subdistricts. In reviewing proposed development in the Ronkonkoma Hub TOD District, the Planning Board shall determine that such proposed development complies with the Regulating Plan and with the descriptions, building forms, and development parameters applicable to each of the subdistricts, as depicted on the Regulating Plan and set forth in subsequent sections of this Article.

§85-____. Designation of Ronkonkoma Hub TOD District.

The Ronkonkoma Hub TOD District shall encompass the following parcels on the Suffolk County Tax Map, as well as all roadways, shown on the Regulating Plan, that lie between or adjacent to such parcels:

- 0200-799.00-03.00-032.000
- 0200-799.00-03.00-033.001
- 0200-799.00-03.00-033.002
- 0200-799.00-03.00-034.000
- 0200-799.00-03.00-035.000
- 0200-799.00-03.00-036.000

0200-799.00-03.00-037.000
0200-799.00-03.00-038.000
0200-799.00-03.00-039.000
0200-799.00-03.00-040.001
0200-799.00-03.00-040.002
0200-799.00-03.00-041.000
0200-799.00-03.00-042.000
0200-799.00-03.00-043.000
0200-799.00-03.00-044.000
0200-799.00-03.00-045.001
0200-799.00-03.00-049.000
0200-799.00-03.00-050.000

0200-799.00-04.00-044.000
0200-799.00-04.00-047.001
0200-799.00-04.00-048.000
0200-799.00-04.00-049.000
0200-799.00-04.00-051.001
0200-799.00-04.00-052.000
0200-799.00-04.00-053.000
0200-799.00-04.00-054.000

0200-800.00-01.00-027.001
0200-800.00-01.00-028.000
0200-800.00-01.00-031.001
0200-800.00-01.00-033.001
0200-800.00-01.00-034.000
0200-800.00-01.00-035.007
0200-800.00-01.00-035.008
0200-800.00-01.00-035.009
0200-800.00-01.00-036.000
0200-800.00-01.00-038.000

0200-800.00-02.00-009.000
0200-800.00-02.00-010.000
0200-800.00-02.00-011.000
0200-800.00-02.00-012.000
0200-800.00-02.00-013.000
0200-800.00-02.00-014.000
0200-800.00-02.00-015.000
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0200-800.00-02.00-022.000
0200-800.00-02.00-023.000
0200-800.00-02.00-028.001
0200-800.00-02.00-028.003
0200-800.00-02.00-028.004

§85-____. Definitions.

The following terms, as used in this Article, shall be defined as follows:

BLOCK

An area bounded by the nearest of (1) a lot line along a public or private street and/or (2) a public pedestrian passageway, and/or (3) as restricted by existing local conditions. A block shall have a perimeter dimension not less than 1,300 linear feet and not greater than 1,600 linear feet. Exception: Where a block spans two subdistricts, each subdistrict within the block shall be considered a separate block for the purpose of calculating permitted land use percentages.

BUILDABLE LOT AREA

The total area of a lot available for construction of building(s) and structures(s), as defined by (1) the boundary of the build-to zone that is closest to the lot line along a street, (2) the lot line along the street where there is no build-to zone, and (3) all required building setback lines.

BUILDABLE SQUARE FOOTAGE

The total building floor area permitted in a block. It is calculated by multiplying the total of the Buildable Lot Areas for all lots in the block by the maximum number of stories permitted in the block.

BUILD-TO ZONE

The range of distances, as measured from the street lot line, within which the ground floor façades of principal buildings must be located along primary and secondary frontages. Exception: Where there is a designated outdoor space between the street lot line and a building, the build-to zone shall be measured from the inner line -- i.e., the line opposite and farthest from the lot line -- of such designated outdoor space

CONVENTION CENTER

A building or group of buildings designed for single and/or multi day events, industrial/trade shows, and the like, having exhibit areas, conference rooms, hotel accommodations, restaurants, and other related facilities.

DESIGNATED OUTDOOR SPACE

An area or horizontal space, including, but not limited to, a park, green, node, pedestrian median, square, plaza, courtyard, or outdoor eating or drinking area, that is open to and unobstructed from the sky, except for canopies or other structures providing protection or shelter from sun or weather.

LINEAR PRINCIPAL FRONTAGE

The total length, measured parallel to the lot line along a principal frontage, of the façades of all buildings in a block.

LIVE/WORK UNIT

A single unit consisting of both residential and non-residential space.

PARKING GARAGE

A building or structure, or a part of a building or structure, used for the bulk parking of vehicles, with no facilities for motor vehicle repair or service.

PAVILION

A covered open-air structure, typically used for shelter, concerts, exhibits, or temporary retail sales. A pavilion shall not be required to comply with minimum height limits.

PRINCIPAL FRONTAGE

The side of a block that is of greatest length, abuts a public street, and contains one or more main building entrances, or that is otherwise designated by the Planning Board at site plan approval. There shall be one principal frontage per block.

SECONDARY FRONTAGE

Any side of a block that abuts a public street but is not a principal frontage or that is otherwise designated by the Planning Board at site plan approval.

STORY

That portion of a building or structure included between the surface of any floor that is at or above the average grade and the surface of the floor (not including any mezzanine) next above it or, if there is no floor above it, then the space between such floor and the ceiling next above it. A basement not greater than 6' in height above the average grade, any other structure that is not greater than 6' in height above the average grade plane, and attics which do not include any habitable space shall not be considered a story.

TOWER

A vertical architectural element of limited length and width that does not include any habitable space, which is permitted to exceed the maximum height of the subdistrict to the extent permitted by the New York State Building Code.

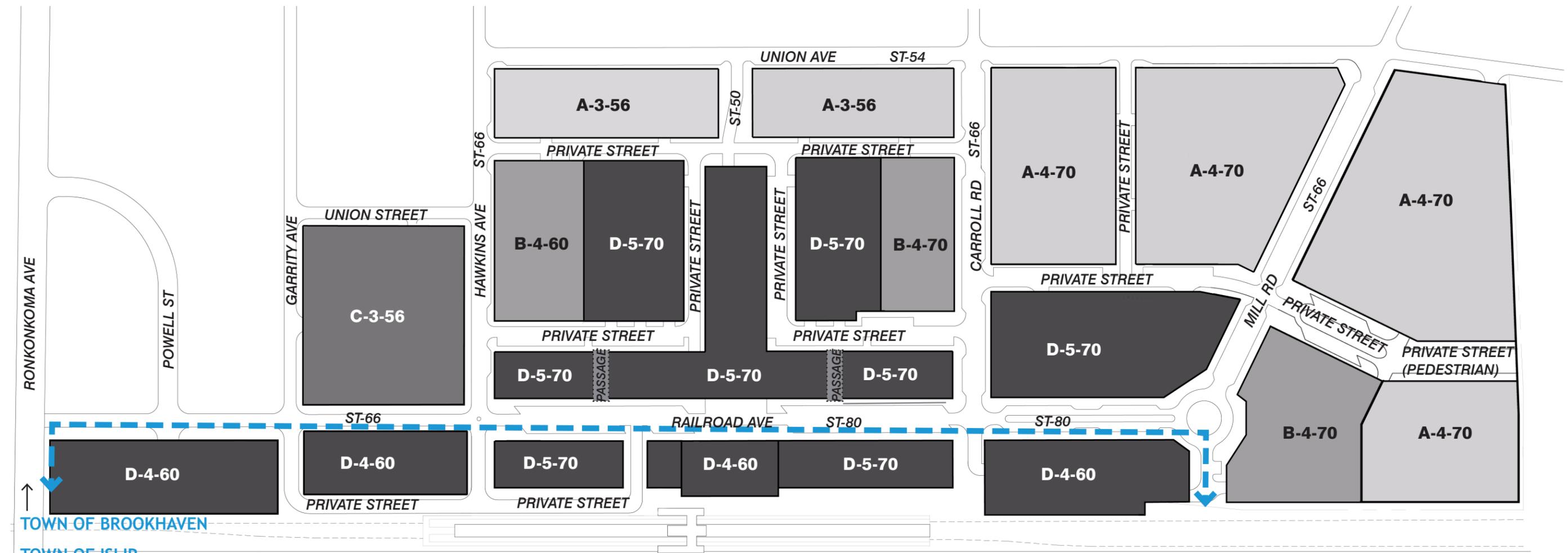
§85-___. Development Standards and Requirements.

A. Recognizing the importance of comprehensive redevelopment of the lands in the Ronkonkoma Hub TOD District in accordance with the aforesaid “Urban Renewal Plan for the Ronkonkoma Hub,” the aforesaid “Ronkonkoma Hub Transit-Oriented Development Land Use and Implementation Plan” (as it may have been amended), and the provisions of this Article:

- (1) The development of any lands within the Ronkonkoma Hub TOD District shall require the submission of a site plan application that conforms to the requirements of the Regulating Plan and is subject to Planning Board site plan approval.
- (2) The minimum lot area requirement for any such site plan application shall be 10 acres, except that such minimum lot area requirement shall not apply to a site plan application that (a) seeks to amend a site plan previously approved pursuant to this Article, or (b) is made by an applicant that has previously received site plan approval pursuant to this Article and covers either a minimum of two (2) acres or lands contiguous to (i.e., directly adjoining or located directly across a street or pedestrian passageway from) a site plan previously approved pursuant to this Article.
- (3) Any resolution of approval or conditional approval issued by the Planning Board shall be subject to the applicant obtaining all approvals, licenses and/or permits required from other governmental agencies having jurisdiction of the proposed development. As a condition of approval, the applicant may be required to file appropriate legal documentation as the Planning Board determines necessary to provide for and ensure the continued proper future maintenance, use and ownership responsibility for civic spaces, facilities, utilities and services both in connection with site plan approval and in relation to the planned development of the area as a whole. Such documentation shall be acceptable to the Town Attorney in form and substance.

85-___. Severability.

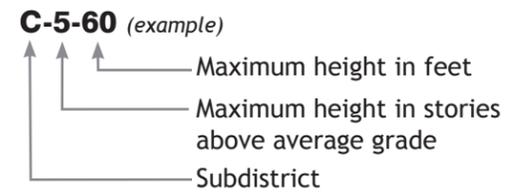
A. If any clause, sentence, paragraph, section or item of this Article shall be adjudged by any court of competent jurisdiction to be invalid, such judgment shall not impair nor invalidate the remainder hereof, but such adjudication shall be confined in its operation to the clause, sentence, paragraph, section or item directly involved in the controversy in which such judgment shall have been rendered.



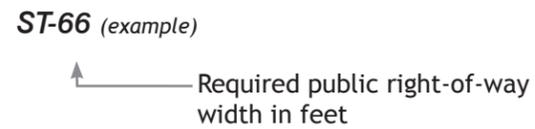
LEGEND

	Subdistrict A Neighborhood
	Subdistrict B Downtown living
	Subdistrict C Marketplace
	Subdistrict D Main Street

Form & use



Street types



Notes:

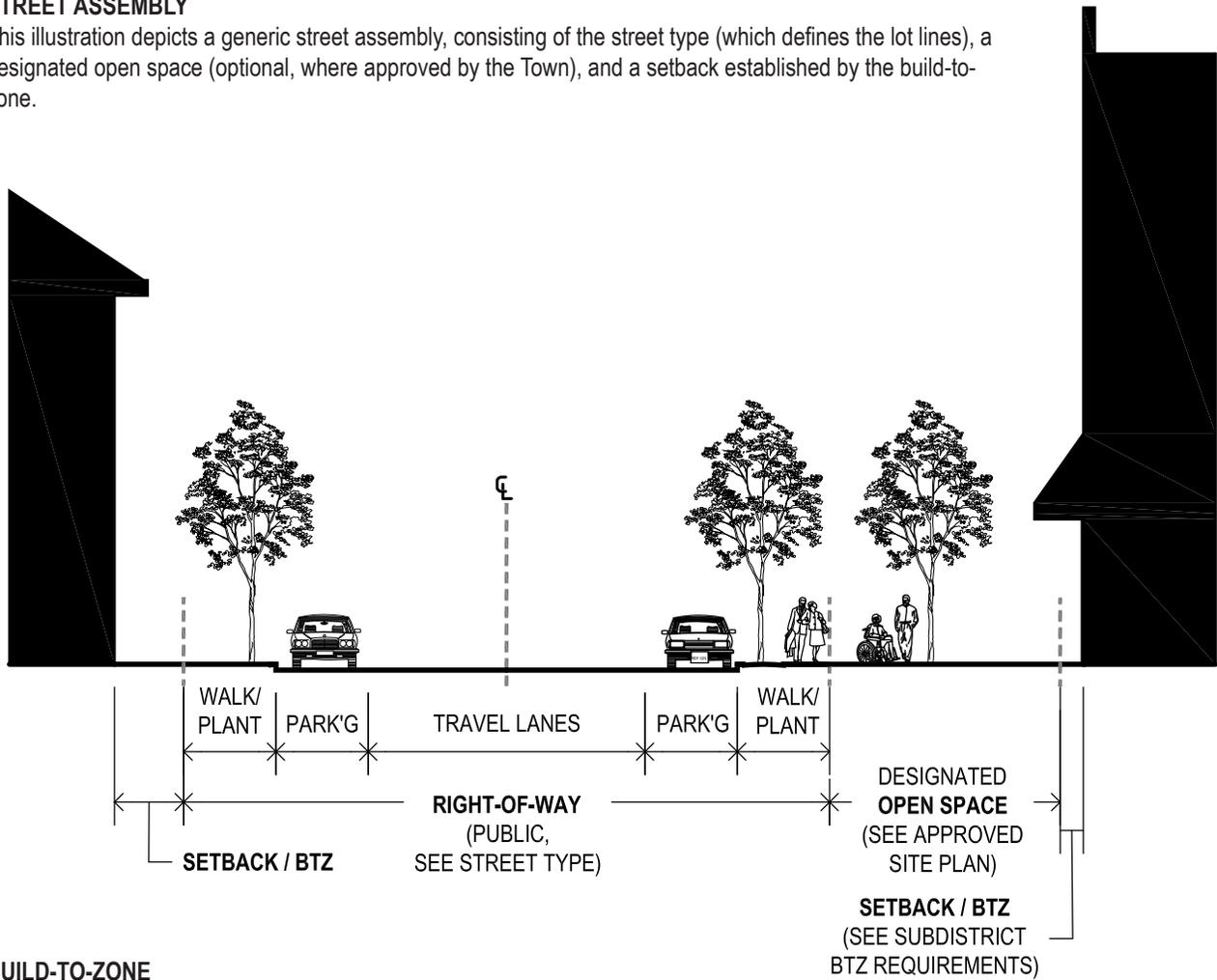
1. The principal frontage shall be the side of the block that is of greatest length, abuts a public street, or that is otherwise approved by the Planning Board at site plan approval. There shall be one principal frontage per block. *Exception: in Subdistrict C, Hawkins Avenue shall be the principal frontage.*
2. The secondary frontage shall be any side of a block that abuts a public street but is not a principal frontage. *Exception: in Subdistrict C, Railroad Avenue shall be the only secondary frontage.*
3. Private street locations illustrated here may be adjusted, so long as the requirements of note 5 below are met.
4. Subdistricts shall be construed to extend to the centerlines of adjoining streets.
5. Within the subdistricts, blocks shall be subdivided with public or private streets such that the total perimeter of the block is not less than 1300 linear feet, and does not exceed 1600 linear feet. A clearly defined public pedestrian pathway connecting two different streets shall be construed as subdividing the block.

Residential uses prohibited within the dashed boundary. See Subdistrict D requirements.

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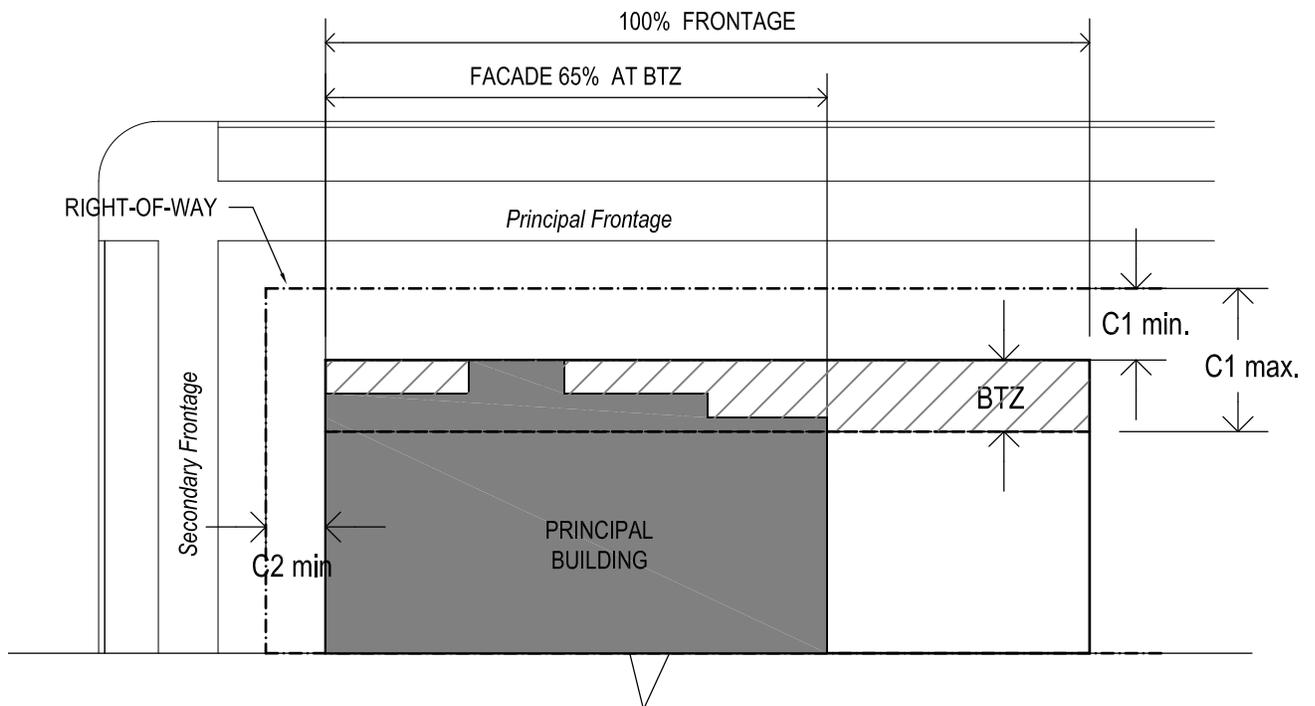
STREET ASSEMBLY

This illustration depicts a generic street assembly, consisting of the street type (which defines the lot lines), a designated open space (optional, where approved by the Town), and a setback established by the build-to-zone.



BUILD-TO-ZONE

This illustration depicts a principal building which meets a 65% build-to requirement. In this illustration, the BTZ is variable between a maximum and minimum requirement, as is common in this Code.



A NEIGHBORHOOD SUBDISTRICT



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The Neighborhood subdistrict is a predominantly residential area with medium to high density building types. It allows for a limited amount of ground floor commercial use and live/work units. It provides a transition between single family homes and more compact mixed use areas.

A. USE (see also Table 1)

Residential	Permitted at all levels.
Commercial	Permitted at first floor. Limited to a maximum of 15% of linear principal frontage per block.

B. BUILDING CONFIGURATION

B1. Maximum height, feet	Varies. See regulating plan.
B2. Max. height, stories	Varies. See regulating plan.
B3. Minimum height, stories	2 stories

C. ALIGNMENT- PRINCIPAL BUILDINGS

C1. Principal Frontage BTZ	2 ft. min. 12 ft. max.
C2. Secondary Frontage BTZ	2 ft. min. 12 ft. max.
C3. Setback from TOD District boundary	25 ft. min.
C4. Build-to frontage	65% min. at build-to-zone.

D. ACCESSORY BUILDINGS

Accessory buildings shall be set back from the lot line as specified herein.

D1. Principal Frontage	25 ft. min.
D2. Secondary Frontage	10 ft. min.
D3. Rear lot line setback from TOD District	25 ft. min.

E. PARKING REQUIREMENTS

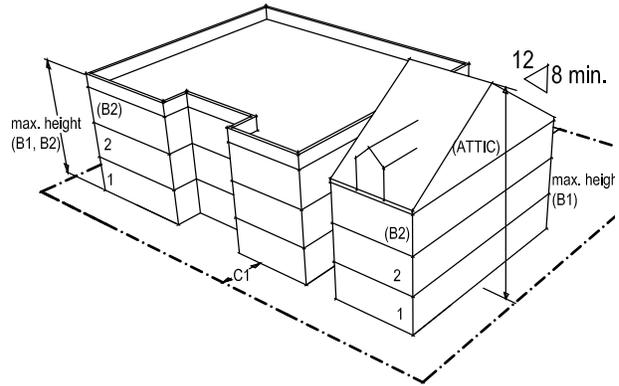
See Table 5

F. STREETScape

Street trees	30' o.c. average
Furnishings	100' o.c. average

BUILDING CONFIGURATION

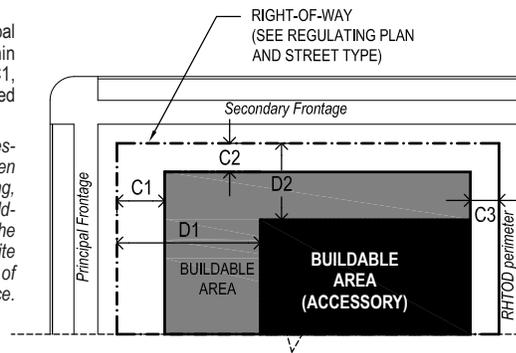
1. Height (B1) is measured from average grade to top of parapet or top of ridge.
2. The number of stories (B2) shall be measured from the average grade and shall exclude attics, basements, and other areas below the average grade.



ALIGNMENT

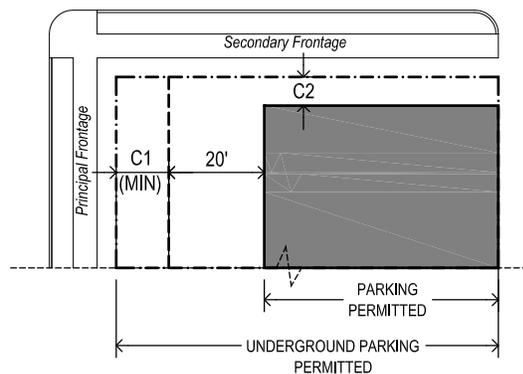
1. Ground floor façades of principal buildings shall be built within the frontage build-to zones (C1, C2) to the minimum specified width (C4).

Exception: Where there is a designated outdoor space between the street lot line and a building, the build-to zone for such building shall be measured from the inner line (i.e. the line opposite and farthest from the lot line) of such designated outdoor space.



PARKING PLACEMENT

1. Covered and/or surface parking spaces may only be provided where shown in the diagram at right.
2. Underground parking is permitted anywhere within the buildable lot area.
3. Garage entries from the Principal Frontage must serve a minimum of 8 parking spaces. Entrances to individual one and two car garages are not permitted on the Principal Frontage.
4. Surface parking shall be screened from view along secondary frontages.





The Downtown Living subdistrict is predominantly a mixed-use residential area with medium to high density building types. It allows for up to 50% commercial use.

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B DOWNTOWN LIVING SUBDISTRICT

A. USE (see also Table 1)

Residential	Permitted at all levels.
Commercial	Permitted at all levels First floor area for commercial uses in each block is limited to 50% of the linear principal frontage for the block; total area for commercial uses on all floors in a block is limited to 50% of the buildable square footage for the block.

B. BUILDING CONFIGURATION

B1. Maximum height, feet	Varies. See regulating plan
B2. Max. height, stories	Varies. See regulating plan
B3. Minimum height, stories	2 stories

C. ALIGNMENT - PRINCIPAL BUILDINGS

C1. Principal Frontage BTZ	2 ft. min. 6 ft. max.
C2. Secondary Frontage BTZ	2 ft. min. 6 ft. max.
C3. Setback from TOD District boundary	25 ft. min.
C4. Build-to frontage	80% min. at built-to-zone.

D. ACCESSORY BUILDINGS

(NOT USED)

E. PARKING REQUIREMENTS

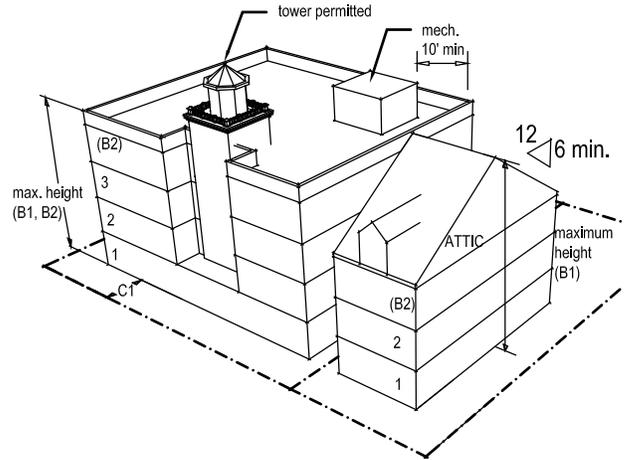
See Table 5

F. STREETScape

Street trees	30' o.c. average
Furnishings	100' o.c. average

BUILDING CONFIGURATION

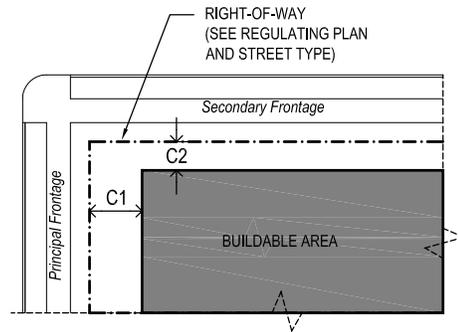
1. Height (B1) is measured from average grade to top of parapet or top of ridge.
2. The number of stories (B2) shall be measured from the average grade and shall exclude attics, basements, and other areas below the average grade.
3. A tower, cupola, or other vertical element shall be permitted above the allowed maximum height, but shall not exceed 20% of the first floor area in size, or 20% of the first floor frontage in length.
4. Mechanical / utility structures and enclosures are permitted above the allowed height, but must be set back at least 10' from the roof perimeter.
5. Except at porches and canopies, or where concealed by a parapet, pitched (shingle) roofs must have an 6:12 or greater slope.
6. For buildings taller than three stories, the building design shall have a distinct two- or three-part vertical composition.



ALIGNMENT

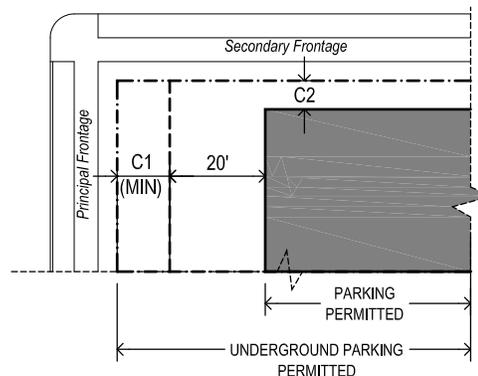
1. Ground floor façades of principal buildings shall be built within the frontage build-to zones (C1, C2) to the minimum specified width (C4).

Exception: Where there is a designated outdoor space between the street lot line and a building, the build-to zone for such building shall be measured from the inner line (i.e. the line opposite and farthest from the lot line) of such designated outdoor space.



PARKING PLACEMENT

1. Covered and/or surface parking spaces may only be provided where shown in the diagram at right.
2. Underground parking is permitted anywhere within the buildable lot area.
3. Garage entries from the Principal Frontage must serve a minimum of 8 parking spaces. Entrances to individual one- and two-car garages are not permitted on the Principal Frontage.
4. Surface parking shall be screened from view along secondary frontages.



C MARKETPLACE SUBDISTRICT

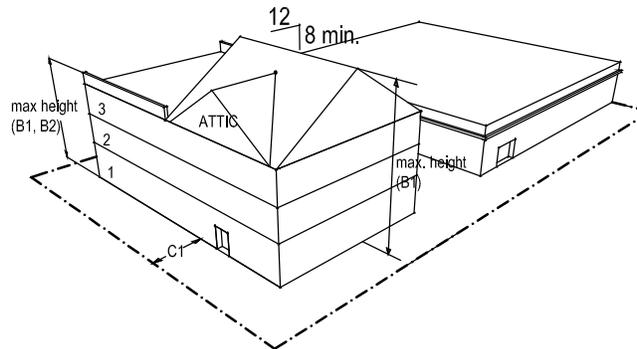


The Marketplace subdistrict allows for predominantly retail-focused mixed-use, maintaining a high level of flexibility to attract diverse local and national retailers.

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BUILDING CONFIGURATION

1. Height (B1) is measured from average grade to top of parapet or top of ridge.
2. The number of stories (B2) shall be measured from the average grade and shall exclude attics, basements, and other areas below the average grade.



A. USE (see also Table 1)

Residential	Permitted. The area for residential uses in each block is limited to 50% of the buildable square footage for the block.
Commercial	Permitted.

B. BUILDING CONFIGURATION

B1. Maximum height, feet	56
B2. Max. height, stories	3
B3. Minimum height, feet	24

C. ALIGNMENT - PRINCIPAL BUILDINGS

C1. Principal Frontage BTZ	2 ft. min. 6 ft. max.
C2. Secondary Frontage BTZ	2 ft. min, no maximum.
C3. Setback from TOD District boundary	Not Applicable.
C4. Build-to frontage	65% min. at build-to-zone.

D. ACCESSORY BUILDINGS

(NOT USED)

E. PARKING REQUIREMENTS

See Table 5

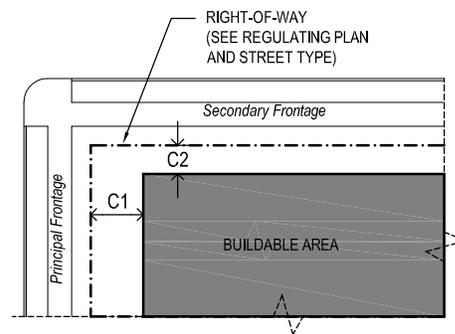
F. STREETScape

Street trees	50 ft o.c. average
Furnishings	50 ft o.c. average

ALIGNMENT

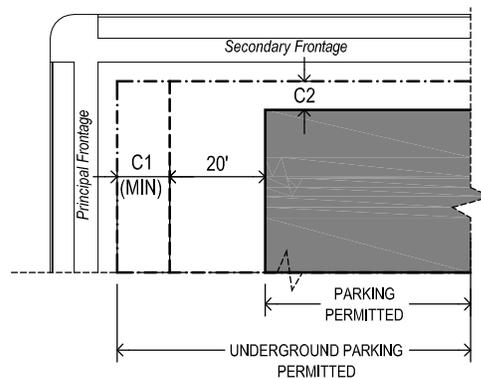
1. Ground floor façades of principal buildings shall be built within the frontage build-to zones (C1, C2) to the minimum specified width (C4).

Exception: Where there is a designated outdoor space between the street lot line and a building, the build-to zone for such building shall be measured from the inner line (i.e. the line opposite and farthest from the lot line) of such designated outdoor space.



PARKING PLACEMENT

1. Covered and/or surface parking spaces may only be provided where shown in the diagram at right.
2. Underground parking is permitted anywhere within the buildable lot area.
3. Garage entries from the Principal Frontage must serve a minimum of 8 parking spaces. Entrances to individual one- and two-car garages are not permitted on the Principal Frontage.
4. Surface parking shall be screened from view along secondary frontages.





The Main Street subdistrict is intended as predominantly a pedestrian-oriented, mixed-use town center. Regional shopping, entertainment, and outdoor dining uses are encouraged.

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A. USE (see also Table 1)

Residential	Residential units are permitted above first floor. Residential common areas are permitted at first floor. <i>Exception: Residential uses are not permitted on parcels located south of Railroad Avenue and west of the intersection of Railroad Avenue and Mill Road.</i>
Commercial	Permitted.

B. BUILDING CONFIGURATION

B1. Maximum height, feet	Varies. See regulating plan.
B2. Max. height, stories	Varies. See regulating plan.
B3. Minimum height, stories	3

C. ALIGNMENT - PRINCIPAL BUILDINGS

C1. Principal Frontage BTZ	2 ft. min. 4 ft. max.
C2. Secondary Frontage BTZ	2 ft. min. 4 ft. max.
C3. Setback from TOD District boundary	Not Applicable
C4. Build-to frontage	80% min. at built-to zone

D. ACCESSORY BUILDINGS

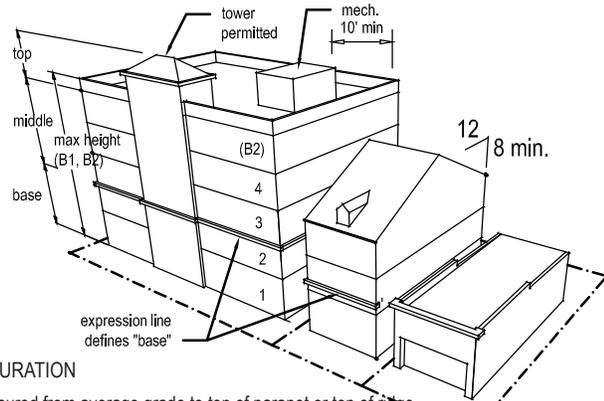
(NOT USED)

E. PARKING REQUIREMENTS

See Table 5

F. STREETScape

Street trees	50 ft o.c., average
Furnishings	50 ft o.c., average



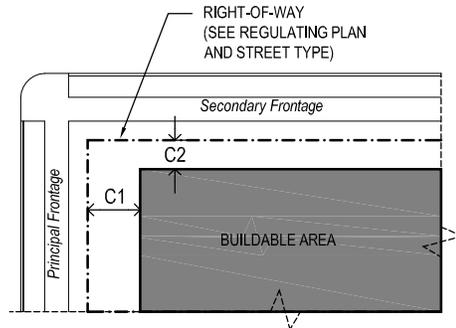
BUILDING CONFIGURATION

1. Height (B1) is measured from average grade to top of parapet or top of ridge.
2. The number of stories (B2) shall be measured from the average grade and shall exclude attics, basements, and other areas below the average grade.
3. Mechanical / utility structures and enclosures are permitted above the allowed height, but must be set back at least 10' from the roof perimeter.
4. A tower, cupola, or other vertical element shall be permitted above the allowed maximum height, but shall not exceed 20% of the first floor area in size, or 20% of the first floor frontage in length.
5. Pitched (shingle) roofs, where not concealed by a parapet, must have an 8:12 or greater slope.
6. For buildings taller than one story, a horizontal expression line is required at the second or third floor line, or between the second and third floor lines.
7. For buildings taller than three stories, the building design shall have a distinct three-part vertical composition consisting of a base, middle, and top.

ALIGNMENT

1. Ground floor façades of principal buildings shall be built within the frontage build-to zones (C1, C2) to the minimum specified width (C4).

Exception: Where there is a designated outdoor space between the street lot line and a building, the build-to zone for such building shall be measured from the inner line (i.e. the line opposite and farthest from the lot line) of such designated outdoor space.



PARKING PLACEMENT

1. Covered and/or surface parking spaces may only be provided where shown in the diagram at right.
2. Underground parking is permitted anywhere within the buildable lot area.
3. Garage entries from the Principal Frontage must serve a minimum of 8 parking spaces. Entrances to individual one- and two-car garages are not permitted on the Principal Frontage.
4. Surface parking shall be screened from view along secondary frontages.

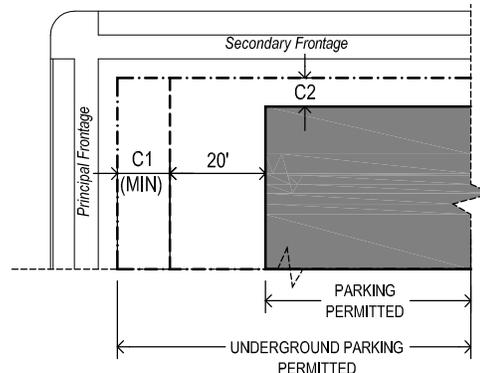


TABLE 2: Permitted uses. Any building or land in the Ronkonkoma Hub TOD District may include a combination of the uses permitted below.

A. Permitted uses

- 1) Farmers' Market

- 2) Live/Work Units

- 3) Parking Garages

- 4) All residential and commercial uses, accessory uses and special permit uses authorized in Chapter 85 shall be permitted except as listed in Table 2, Section B.

B. Prohibited uses

- 1) All uses exclusively permitted and/or exclusively special permitted in L-Industrial-1 and L-Industrial-2, L-Industrial-4, K Business, MHC-Mobile Home Community, HF-Horse Farm and PC- Pet Cemetery districts shall be prohibited.

- 2) Outdoor storage, boat storage, motor vehicle repair, heavy construction vehicle dealerships, kennels, lumberyards and/or trucking terminals shall be prohibited.

TABLE 3: Public street type designs. These street types may be used for public or private rights-of-way as approved during the detailed site plan process. Streets shall generally be design for 30 miles per hour vehicular traffic. Specific street and roadway designs may vary from the following standard forms to accommodate required traffic mitigation measures (e.g., additional turning lanes). *Final lane widths as determined by the Planning Board.

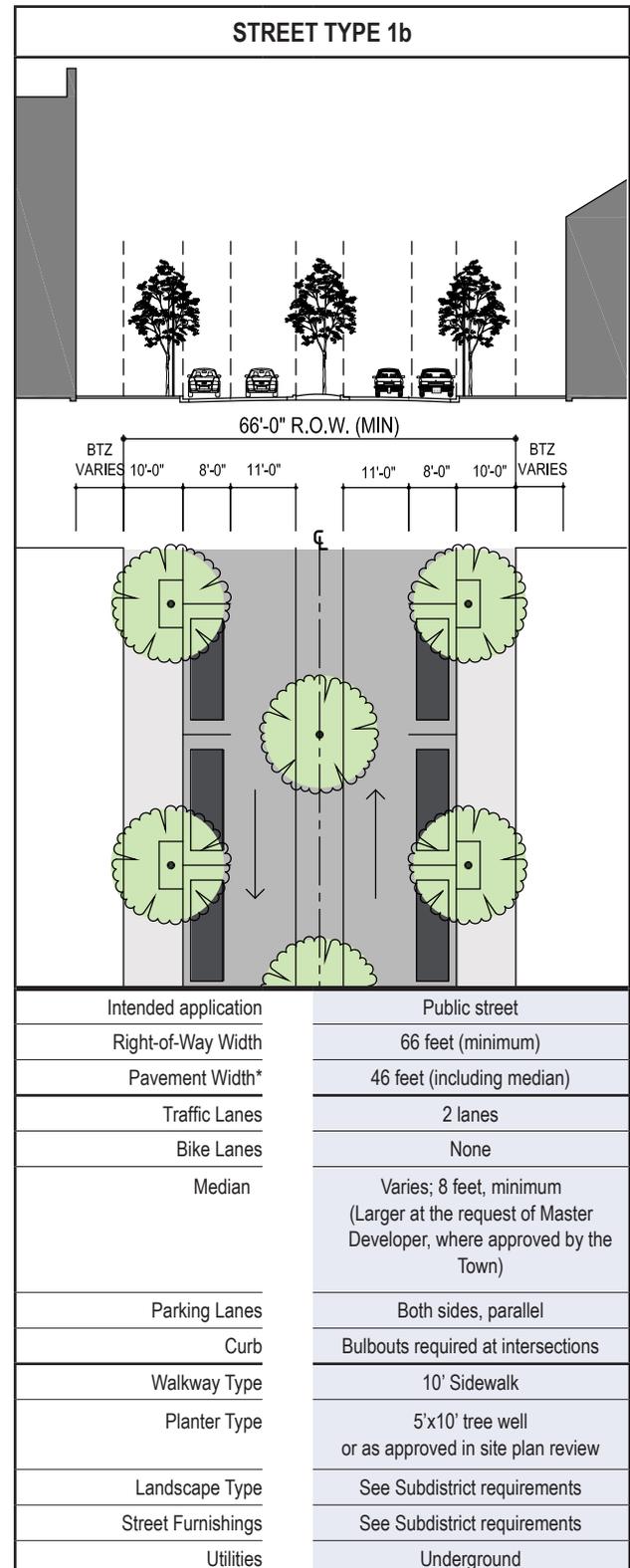
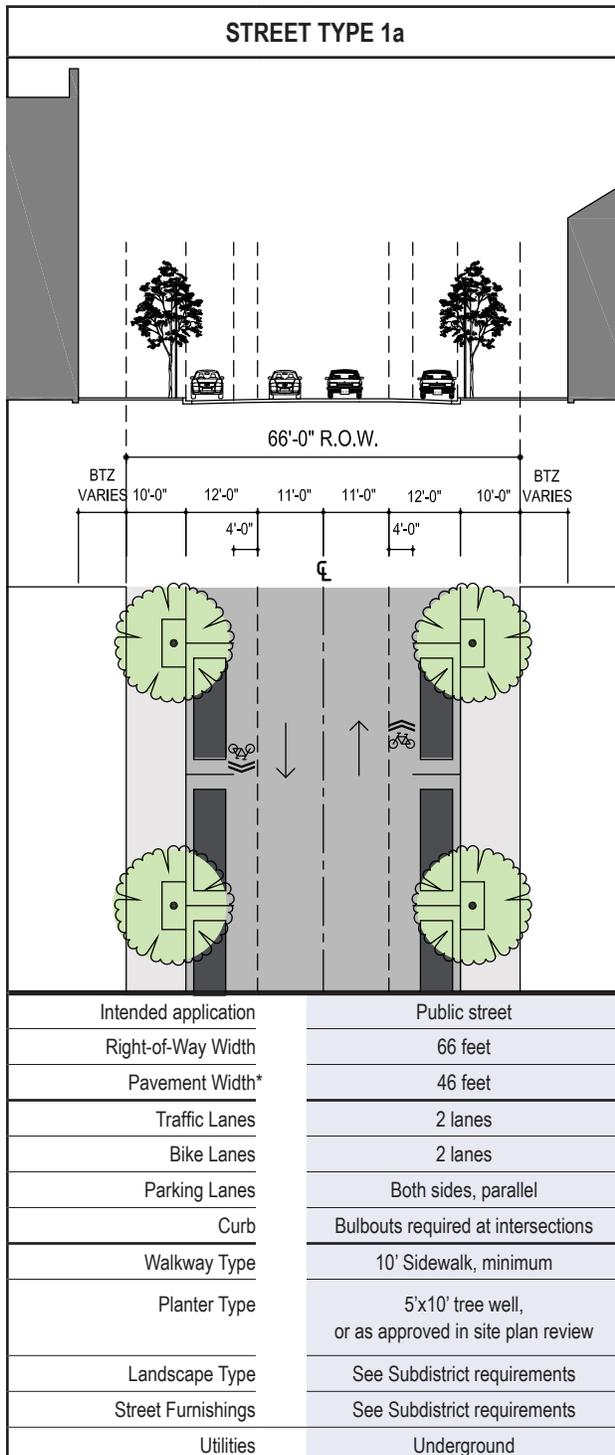


TABLE 3: Public street type designs. (Continued)

STREET TYPE 1c		STREET TYPE 2	
<p>54'-0" R.O.W.</p> <p>BTZ VARIES 8'-0" 8'-0" 4'-0" 11'-0" 11'-0" 4'-0" 8'-0" BTZ VARIES</p>		<p>80'-0" R.O.W.</p> <p>BTZ VARIES 10'-0" 19'-0" 11'-0" 11'-0" 19'-0" 10'-0" BTZ VARIES</p>	
Intended application	Public street	Intended application	Public street
Right-of-Way Width	54 feet	Right-of-Way Width	80 feet
Pavement Width*	38 feet	Pavement Width*	60 feet
Traffic Lanes	2 lanes	Traffic Lanes	2 lanes
Bike Lanes	2 lanes	Bike Lanes	None
Parking Lanes	One side, parallel	Parking Lanes	Both sides, angled
Curb	Bulbouts required at intersections	Curb	Bulbouts required at intersections
Walkway Type	8' Sidewalk	Walkway Type	10' Sidewalk
Planter Type	4'x10' tree well	Planter Type	5'x10' tree well
Landscape Type	See Subdistrict requirements	Landscape Type	See Subdistrict requirements
Street Furnishings	See Subdistrict requirements	Street Furnishings	See Subdistrict requirements
Utilities	Underground	Utilities	Underground

TABLE 3: Public street Type designs. (Continued.)

STREET TYPE 4	
Intended application	Public street
Right-of-Way Width	50 feet
Pavement Width*	22 feet
Traffic Lanes	2 lanes
Bike Lanes	None
Parking Lanes	None
Curb Radius	(undefined)
Walkway Type	5' Sidewalk (minimum)
Planter Type	5' wide planting strip or 5'x10' tree well
Landscape Type	See subdistrict requirements; <i>Exception: at this Street Type, tree requirements must be met on only one side of street</i>
Street Furnishings	See Subdistrict requirements
Utilities	Underground

TABLE 4: Private street type designs. These street types, in addition to the Public Street Types in Table 3, are permitted by right as private street types within the Ronkonkoma Hub TOD District. Private street cartways and sidewalks shall be open to vehicular and pedestrian use by the general public. These shall not be interpreted to limit other configurations of streets, drives, and parking aisles, as approved in detailed site plan review. Specific street and roadway designs may vary from the following standard forms to accommodate required traffic mitigation measures (e.g. additional turning

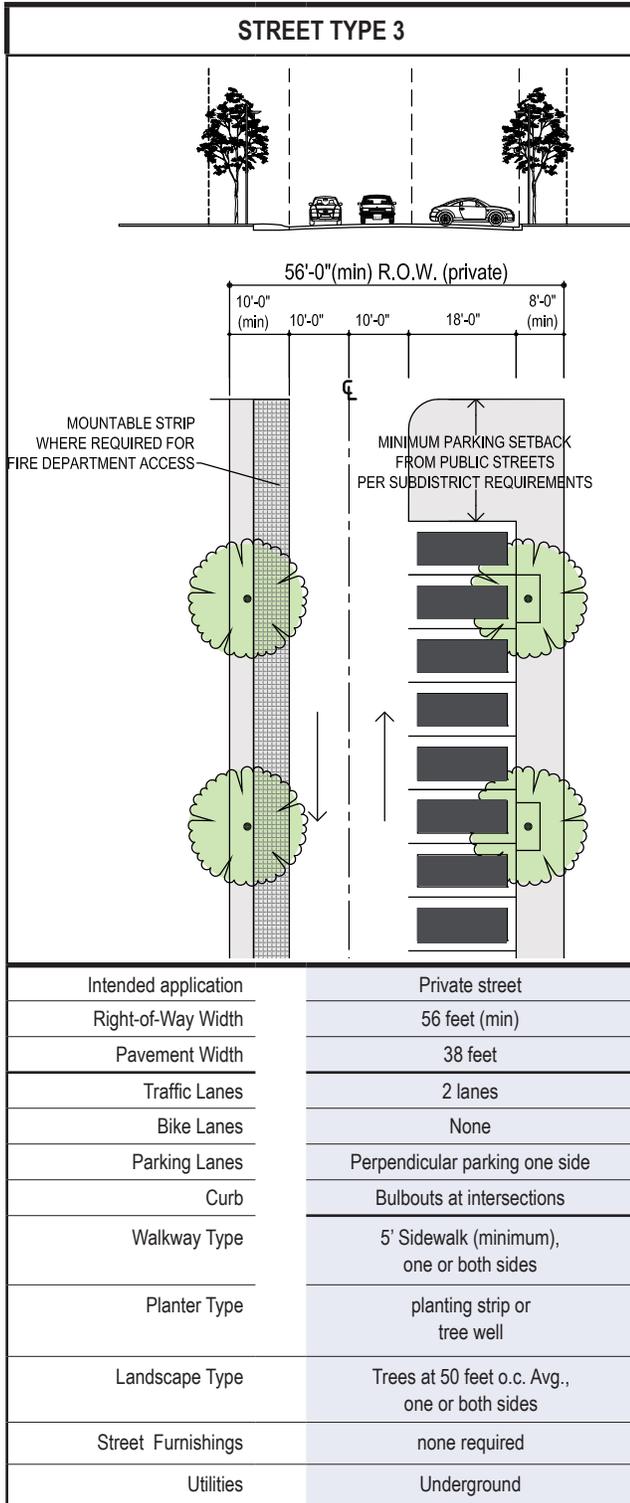
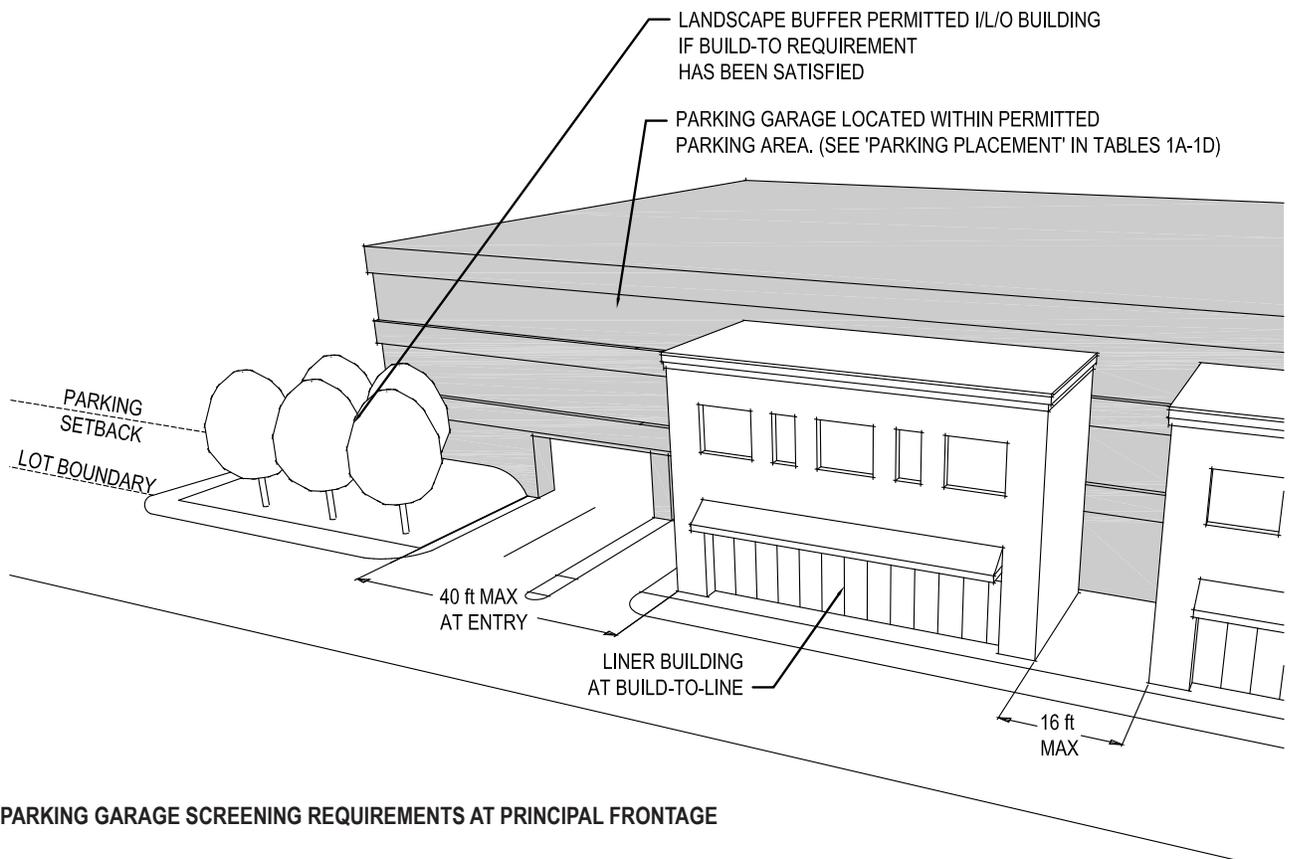


TABLE 5: Parking requirements. Except as noted, the provisions in this table shall be the exclusive parking provisions for the Ronkonkoma Hub TOD District, and shall supersede and prevail over other parking provisions in the Town Code.

Land Use	Minimum parking spaces required
a. Residential	1.20 spaces per dwelling unit
b. Commercial	2.65 spaces per 1,000 square feet of building area
c. Restaurant	0.33 spaces per seat
d. Office	2.86 spaces per 1,000 square feet of building area

Parameter	Requirement
e. Size of parking space	Minimum 9 ft x 18 ft
f. Drive aisle width (double-loaded)	Minimum 24 ft
g. Drive aisle width (single-loaded)	Minimum 20 ft
h. Landscape screening	Required for surface parking abutting primary and secondary frontage
i. Unbuffered garage exposure at principal frontage	Maximum 16 ft interruption of frontage. <i>Exception: Maximum 40 ft. interruption of frontage at vehicular entrance. (see illustration below)</i>



PARKING GARAGE SCREENING REQUIREMENTS AT PRINCIPAL FRONTAGE

TABLE 6. DESIGNATED OUTDOOR SPACE

RONKONKOMA HUB TOD

TABLE 6a: Designated Outdoor Space. The provisions in this table shall be the exclusive provisions for open space in the Ronkonkoma Hub TOD District, and shall supersede and prevail over any other open space provisions in the Town Code. For each site plan application in the Ronkonkoma Hub TOD District, designated outdoor space shall be provided, as necessary, to ensure that such space, combined with the area of the existing train station plaza and the areas of designated outdoor space provided on all previously-approved site plans in the Ronkonkoma Hub TOD District, does not, at any time, constitute less than 5% of the total buildable lot area covered by the proposed site plan application and all previously-approved site plans in the Ronkonkoma Hub TOD District.

Shade structures, including but not limited to umbrellas, awnings, tensile fabric structures, and brise-soleil shall be permitted in any designated outdoor space.

TABLE 6b: Designated Outdoor Space Types. This table defines types of Designated Outdoor Space which meet the Designated Outdoor Space requirement and the subdistricts in which each Type is permitted

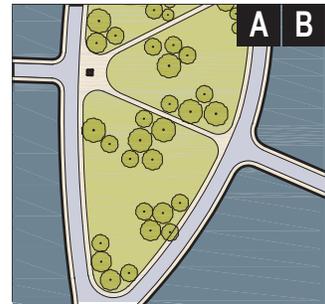
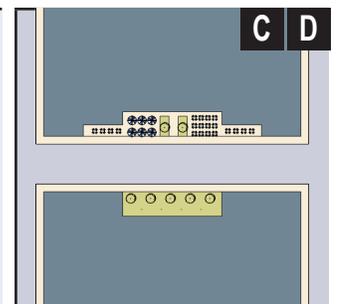
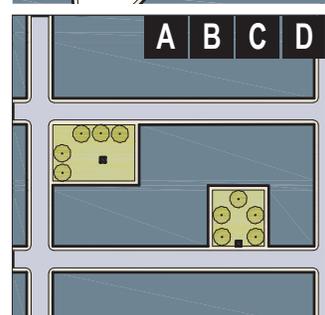
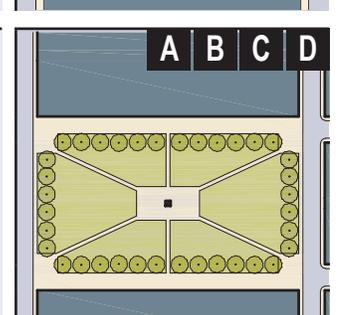
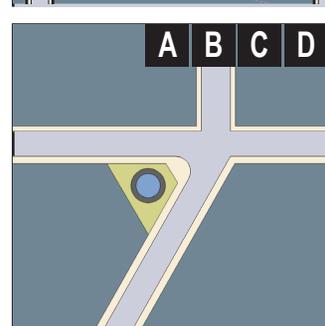
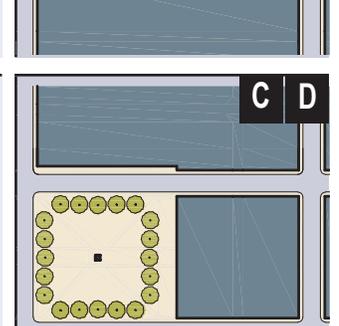
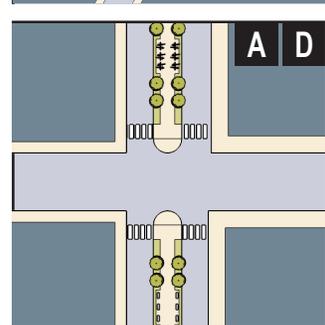
<p>a. Green: An informal outdoor space, available for unstructured recreation. A green may be spatially defined by landscaping rather than building facades. Its landscape shall consist of lawn and trees, naturalistically disposed. The minimum size shall be 1/8 acre.</p>		<p>e. Outdoor Activity Zone: An outdoor space available for civic or commercial use in which an enlarged sidewalk or landscape area is provided in excess of the minimum required by at least four feet in width. Outdoor dining areas, even where restricted to use by patrons of a specific establishment, qualify as an outdoor activity zone.</p>	
<p>b. Pocket Park: A small outdoor space located within a block or interspersed among blocks. A pocket park may include a playground. Where bounded by landscape walls or formal hedges, a pocket park may be counted toward required buildout at frontage. The minimum size shall be 800 sf.</p>		<p>f. Square: A formal outdoor space available for unstructured recreation and civic purposes. A square is spatially defined by building facades. Its landscape shall consist of paths, lawns and trees, formally disposed. The minimum size shall be 5000 sf. A square may be counted toward required buildout at frontage.</p>	
<p>c. Node: A small formal outdoor space at or within prominent intersections. A node may include art installations, fountains, or structured planters.</p>		<p>g. Plaza: A formal outdoor space available for civic purposes and commercial activities. A plaza shall be spatially defined by building facades. Its landscape shall consist primarily of pavement. Trees are optional. The minimum size shall be 5000 sf. A plaza may be bisected by a street if the pavement and curb profile distinguish the street as part of the plaza area. A plaza may be counted toward required buildout at frontage.</p>	
<p>d. Median: A small outdoor space located within a street right-of-way, separating vehicular travel lanes with either landscape or hardscape. A median must be a minimum of ten feet in width, and include a usable amenity such as seating or bicycle parking to qualify as designated outdoor space.</p>			

TABLE 7: Permitted signs. In addition to all other signs permitted by the Town Code, the specific signage types identified herein are permitted in the indicated subdistricts of the Ronkonkoma Hub TOD District, provided they meet the specifications set forth herein. The signage specifications set forth herein prevail over and supersede any provisions of the Town Code that otherwise prohibit or restrict the signage types set forth herein.

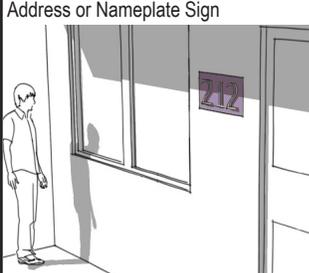
Subdistrict	A	B	C	D	SPECIFICATIONS
 <p>Address or Nameplate Sign</p>	■	■	■	■	Quantity (max) 1 per address Area max 2 sf Width max 24 in Height max 24 in Depth / Projection max 3 in Max.mounting height (top) 7 ft Letter Height max 6" Illumination max 185 lumens internal
 <p>Awning with Sign</p>	■	■	■	■	Quantity (max) 1 per window/door Area n/a Width max equals width of Facade Height n/a Depth / Projection min 3 ft, max 6 ft Clearance min 8 ft Max.mounting height (top) first floor only Letter Height min 5 in, max 10 in Logo one per business Valance Height max 12 in Distance from Curb min. 2 ft. Illumination External, building-mounted only. Permitted surface materials Fabric, metal roofing, glass. Encroachment into ROW 3 ft permitted
 <p>Band Sign</p>		■	■	■	Quantity (max) 1 per 24 ft of facade length Area (max) 2 sf per linear ft Facade Width max 90% width of Facade Height (Subdistrict B) max 18 in Height (Subdistrict C,D) max 3 ft Depth / Projection max 7 in Clearance min 7 ft Letter Height max 24 in Illumination External, building-mounted only.
 <p>Shingle Sign</p>	■	■	■	■	Quantity max 1 per business; max 1 per 24 lf of facade Area (Subdistrict A) max 6 sf Area (Subdistrict B,C,D) max 4 sf Width max 4 ft Height max 4 ft Depth / Projection max 4 ft Clearance min 8 ft Max.mounting height (top) n/a Letter Height max 8 in Encroachment into ROW 3 ft permitted
 <p>Marquee and Sign</p>			■	■	Quantity (max) 1 per block Area n/a Width (max) entrance plus 2' each side Height max 50% Story height Depth / Projection min 4 ft, max 10 ft Clearance min 10 ft Max.mounting height (top) n/a Letter Height n/a Distance from Curb min 3 ft.

TABLE 7: Permitted signs. (continued)

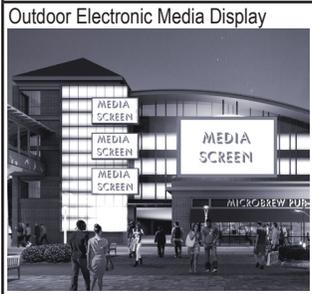
Subdistrict	A	B	C	D	Specifications
<p>Outdoor Display Case</p> 		■	■	■	<p>Quantity _____ 1 per entrance</p> <p>Area _____ max 6 sf</p> <p>Width _____ max 3.5 ft</p> <p>Height _____ max 3.5 ft</p> <p>Depth / Projection _____ max 5 in</p> <p>Clearance _____ min 4 ft</p> <p>Max.mounting height (top) _____ 8 ft</p> <p>Illumination _____ max 2000 lumens internal</p>
<p>Sidewalk Sign</p> 		■	■	■	<p>Quantity _____ 1 per retail or food service business</p> <p>Area _____ max 8 sf</p> <p>Width _____ max 26 in</p> <p>Height _____ max 42 in</p>
<p>Window Sign</p> 		■	■	■	<p>Quantity _____ 1 per window</p> <p>Area _____ max 25% of glass</p> <p>Clearance _____ 4 ft</p> <p>Letter Height _____ max 12 in</p>
<p>Outdoor Electronic Media Display</p> 				■	<p>LARGE</p> <p>Quantity _____ 1 maximum in TOD</p> <p>Area _____ max 920 sf</p> <p>Width _____ max 40 ft</p> <p>Height _____ max 23 ft</p> <p>Max.mounting height (top) _____ max 42 ft</p> <p>SMALL</p> <p>Quantity _____ 3 maximum in TOD</p> <p>Area _____ max 144 sf</p> <p>Width _____ max 16 ft</p> <p>Height _____ max 9 ft</p> <p>Max.mounting height (top) _____ max 42 ft</p>
<p>Neon</p> 				■	<p>Custom-made only</p> <p>Area _____ max 144 sf</p> <p>Max.mounting height (top) _____ max 42 ft</p>

TABLE 7: Permitted signs. (continued)

Subdistrict	A	B	C	D	Specifications																
Blade Sign 			■	■	<table border="1"> <tr> <td>Quantity</td> <td>1 per 40 ft of frontage</td> </tr> <tr> <td>Width</td> <td>max 30 in</td> </tr> <tr> <td>Vertical length</td> <td>max 50% of facade height</td> </tr> <tr> <td>Depth</td> <td>max 8 in</td> </tr> <tr> <td>Clearance</td> <td>min 8 ft</td> </tr> <tr> <td>Max.mounting height (top)</td> <td>35 ft</td> </tr> <tr> <td>Illumination</td> <td>unrestricted</td> </tr> <tr> <td>Encroachment into R.O.W.</td> <td>2' permitted</td> </tr> </table>	Quantity	1 per 40 ft of frontage	Width	max 30 in	Vertical length	max 50% of facade height	Depth	max 8 in	Clearance	min 8 ft	Max.mounting height (top)	35 ft	Illumination	unrestricted	Encroachment into R.O.W.	2' permitted
Quantity	1 per 40 ft of frontage																				
Width	max 30 in																				
Vertical length	max 50% of facade height																				
Depth	max 8 in																				
Clearance	min 8 ft																				
Max.mounting height (top)	35 ft																				
Illumination	unrestricted																				
Encroachment into R.O.W.	2' permitted																				

TABLE 5: Supplementary Public Lighting. The generic lighting types below shall be permitted in the subdistricts indicated. Except as noted, the provisions in this table shall be the exclusive lighting provisions for the TOD zoning district, and shall supersede and prevail over other lighting provisions in the Town Code. This table shall not prohibit any lighting otherwise permitted in the Town of Brookhaven. (The illustrations do not indicate a specific luminaire, only the general form, proportion, and light distribution)

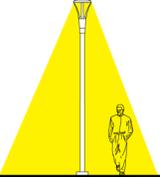
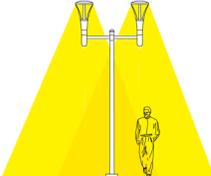
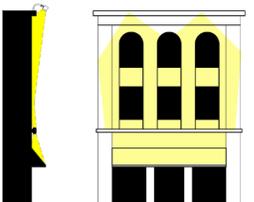
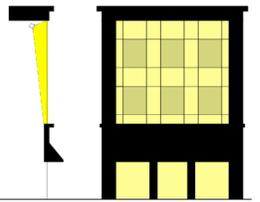
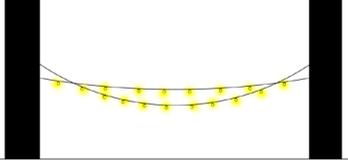
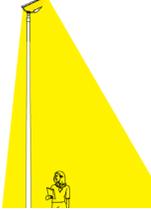
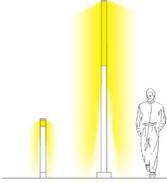
Subdistrict	A	B	C	D	Characteristics
<p>Post</p> 	■	■	■	■	<p>Light source: LED, ceramic metal halide, and others as permitted elsewhere in the Code. Color temperature: Unrestricted Cutoff: fully shielded Spill onto adjacent properties: Permitted to spill within and among the C & D subdistricts. Maximum height: 20 ft</p>
<p>Column</p> 	■	■	■	■	<p>Light source: LED, ceramic metal halide, and others as permitted elsewhere in the Code. Color temperature: Unrestricted Cutoff: fully shielded Spill onto adjacent properties: Permitted to spill within and among the C & D subdistricts. Maximum height: 20 ft</p>
<p>Double Column</p> 		■	■	■	<p>Light source: LED, ceramic metal halide, and others as permitted elsewhere in the Code. Color temperature: Unrestricted Cutoff: fully shielded Spill onto adjacent properties: Permitted to spill within and among the C & D subdistricts. Maximum height: 20 ft</p>
<p>Facade Lighting</p> 			■	■	<p>Light source: LED, ceramic metal halide, and others as permitted elsewhere in the Code. Color temperature: Unrestricted Cutoff: partially shielded (fully shielded from public side) Spill onto adjacent properties: Permitted to spill within and among the C & D subdistricts.</p>
<p>Backlit Facade or Video Panel</p> 				■	<p>Light source: LED, ceramic metal halide, and others as permitted elsewhere in the Code. Color temperature: Unrestricted Cutoff: (Not applicable) Spill onto adjacent properties: Permitted to spill within and among B, C & D subdistricts.</p>
<p>Catenary or Street-spanning Arch</p> 				■	<p>Permitted only where approved by the Town, and subject to establishment of a maintenance agreement between the Town and the Master Developer. Light source: LED, ceramic metal halide, and others as permitted elsewhere in the Code. Maximum lumens / bulb: 850 lm Color temperature: Unrestricted Cutoff: Non-cutoff Spill onto adjacent properties: Permitted to spill within and among B, C & D subdistricts.</p>

TABLE 5: Supplementary Public Lighting (Continued).

Subdistrict	A	B	C	D	Characteristics
Reflected downlight 				■	Light source: LED, ceramic metal halide, and others as permitted elsewhere in the Code. Color temperature: Unrestricted Cutoff: Indirect cutoff Spill onto adjacent properties: Permitted to spill within and among the C & D subdistricts. Maximum height: 20 ft
Light Column 			■	■	Light source: LED, ceramic metal halide, and others as permitted elsewhere in the Code. Color temperature: Unrestricted Cutoff: Fully shielded Spill onto adjacent properties: Permitted to spill within and among the C & D Subdistricts Maximum height: 12'
Neon 				■	Custom-made only (generic, mass-produced neon signs are prohibited) Light source: Neon Color temperature: Unrestricted Cutoff: Unrestricted Spill onto adjacent properties: Permitted to spill within and among the B, C, & D Subdistricts.

Site Plans

Issued for: **SEQRA Review**

Date Issued: October 11, 2013

Latest Issue: October 11, 2013

Ronkonkoma Hub TOD

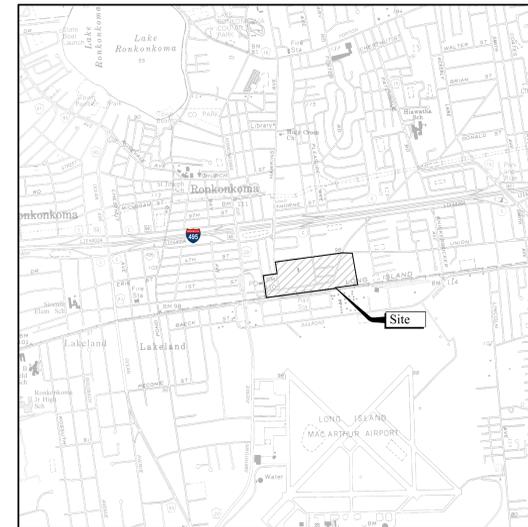
Ronkonkoma, Town of Brookhaven, New York

Sheet Index

Number	Drawing Title	Latest Issue
C-1	Layout and Materials Plan - Total Development	10/11/2013
C-1A	Layout and Materials Plan - A	10/11/2013
C-1B	Layout and Materials Plan - B	10/11/2013
C-1C	Layout and Materials Plan - C	10/11/2013
C-2	Grading, Drainage & Utilities Plan - Total Development	10/11/2013
C-2A	Grading, Drainage & Utilities Plan - A	10/11/2013
C-2B	Grading, Drainage & Utilities Plan - B	10/11/2013
C-2C	Grading, Drainage & Utilities Plan - C	10/11/2013
C-6	Landscape Plan - Total Development	10/11/2013
C-6A	Landscape Plan - A	10/11/2013
C-6B	Landscape Plan - B	10/11/2013
C-6C	Landscape Plan - C	10/11/2013

Property Developer

Master Developer:
TRECRONK HUB, LLC
Stony Brook Technology Center
45 Research Way, Suite 100
Setauket, New York 11733



Site Location Map



0 1000 2000 Feet

CIVIL ENGINEER, ENVIRONMENTAL PLANNER:
**VHB Engineering, Surveying,
and Landscape Architecture, P.C.**
2150 Joshua's Path, Suite 300
Hauppauge, NY 11788
Phone: (631)-234-3444 · Fax: (631)-234-3477

PLANNER:
Niles Bolton Associates
300 N Lee St, Suite 502
Alexandria, VA 22314
Phone: (703)-836-0915 · Fax(703)-684-3653



**Engineering, Surveying
& Landscape Architecture, P.C.**

Transportation
Land Development
Environmental Services

2150 Joshua's Path, Suite 300
Hauppauge, New York 11788
631.234.3444 • FAX 631.234.3477





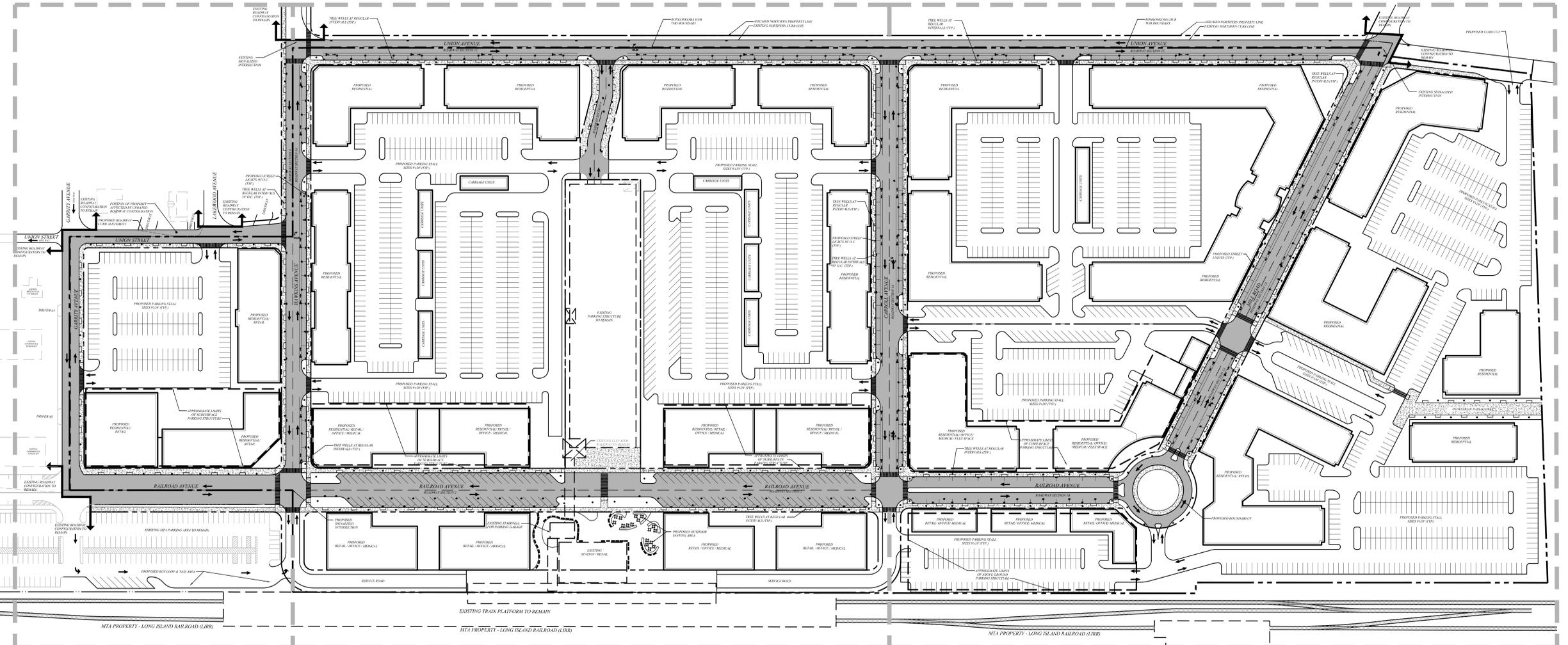
Engineering, Surveying & Landscape Architecture, P.C.
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Environmental Services
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Hauppauge, New York 11788
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SHEET C-1A

SHEET C-1B

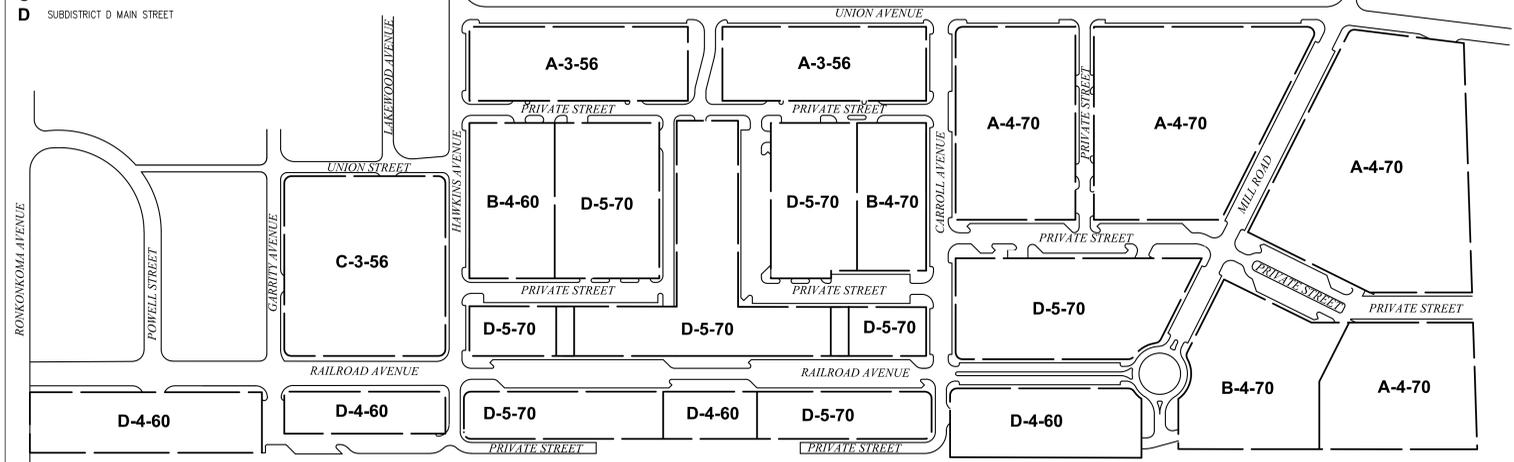
SHEET C-1C



Legend

- A SUBDISTRICT A NEIGHBORHOOD
- B SUBDISTRICT B DOWNTOWN LIVING
- C SUBDISTRICT C MARKETPLACE
- D SUBDISTRICT D MAIN STREET

C-3-56 — MAXIMUM HEIGHT IN FEET
MAXIMUM HEIGHT IN STORIES ABOVE AVERAGE GRADE
SUBDISTRICT



Regulating Plan

NOTE: SEE RONKONKOMA HUB TOD DISTRICT CODE FOR DETAILS AND REGULATIONS FOR DEVELOPMENT OF THE VARIOUS SUBDISTRICTS

General Notes:

- General
- ALL ASPECTS OF INDIVIDUAL DEVELOPMENT BLOCKS TO BE SUBJECT TO SITE PLAN APPROVAL BY THE PLANNING BOARD & WILL COMPLY WITH THE APPLICABLE PROVISIONS OF THE "RONKONKOMA HUB TOD DISTRICT" CODE.
 - ROADWAY SECTIONS ARE SHOWN AS PER THE MAXIMUM DENSITY PLAN. LOCATIONS OF SPECIFIC ROADWAY SECTIONS SUBJECT TO CHANGE BASED ON ACTUAL DEVELOPMENT PLANS.
 - ALL LANDSCAPING & LIGHTING PROPOSED FOR PUBLIC ROADS & INDIVIDUAL DEVELOPMENT BLOCKS SUBJECT TO APPROVAL FROM PLANNING BOARD.
 - PUBLIC ROADWAY SECTIONS SUBJECT TO MODIFICATION AS NECESSARY TO ACCOMMODATE TRAFFIC MITIGATION MEASURES SUCH AS TURNING LANES, TRANSITION TO EXISTING PERIMETER ROADS, ETC.
 - ALL PUBLIC ROADS & PRIVATE IMPROVEMENTS TO CONFORM TO ADA REQUIREMENTS FOR ACCESSIBILITY & HANDICAP PARKING SUBJECT TO ACTUAL DEVELOPMENT PLANS, ENTRANCE LOCATIONS, ETC.
 - TRAFFIC SIGNS, TRAFFIC SIGNALS AND PAVEMENT MARKINGS REQUIRED FOR PUBLIC AND PRIVATE ROADS & DEVELOPMENT SUBJECT TO PLANNING BOARD APPROVAL & SHALL CONFORM TO FEDERAL MUTCD & NYS STANDARDS.
 - PARKING SHOWN ON THIS PLAN IS SCHEMATIC ONLY. INDIVIDUAL SITE PLANS FOR DEVELOPMENT BLOCKS WILL BE REQUIRED TO DEMONSTRATE COMPLIANCE WITH THE PARKING REQUIREMENTS SPECIFIED IN THE RONKONKOMA HUB TOD CODE.
 - ALL DIMENSIONS, R.O.W. AND GRADING SUBJECT TO CONFIRMATION BY ACTUAL FIELD SURVEY.

No.	Revision	Date	Appr.

Designed by *DGB* Drawn by *KTW* Checked by *KPW*
 CAD checked by *CS* Reviewed by *KPW*
 Scale: 1"=80' Date: October 11, 2013
 Project Title:

Ronkonkoma HUB TOD
Ronkonkoma, New York
Town of Brookhaven

Town of Brookhaven, NY
Issued for
DSGEIS/Preliminary
Engineering

Not Approved for Construction
Drawing Title

Layout and
Materials Plan -
Total Development

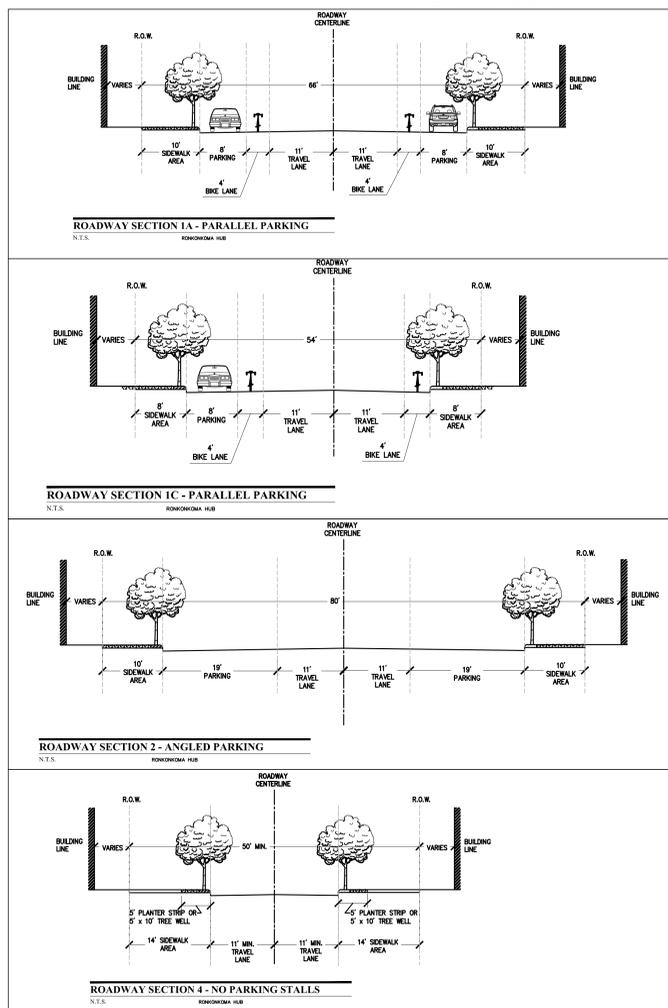
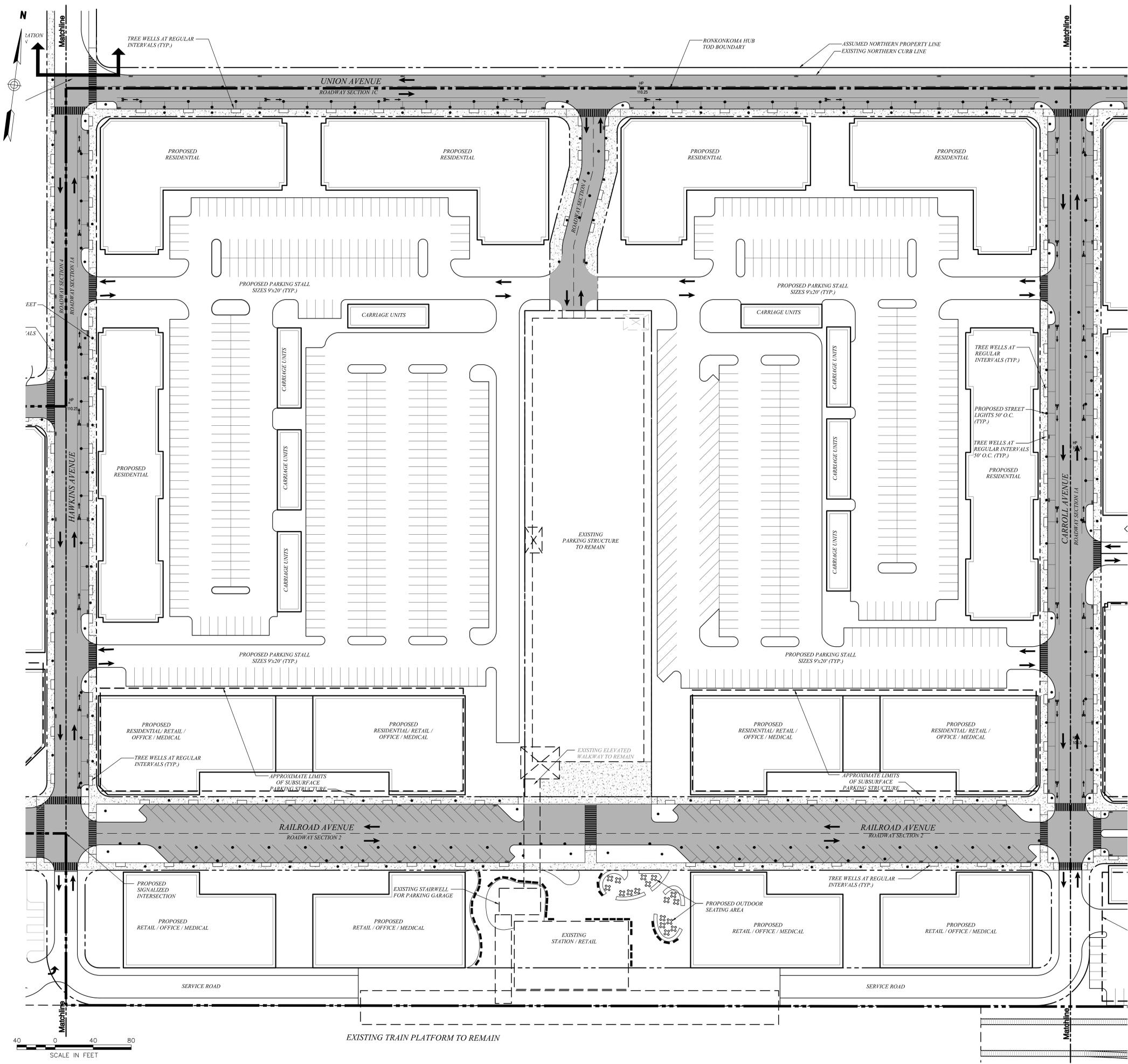
Drawing Number

C-1

Sheet 1 of 12
Project Number 28743.00



Engineering, Surveying & Landscape Architecture, P.C.
 Transportation
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 Environmental Services
 2150 Joshua's Path, Suite 300
 Hauppauge, New York 11788
 631.234.3444 • FAX 631.234.3477



NOTE: ROADWAY SECTIONS SHOWN FOR THIS PURPOSE OF DEFINING TRAVEL LANE & PARKING DIMENSIONS - SEE RONKONKOMA HUB TOD ZONING CODE FOR ADDITIONAL DETAIL.

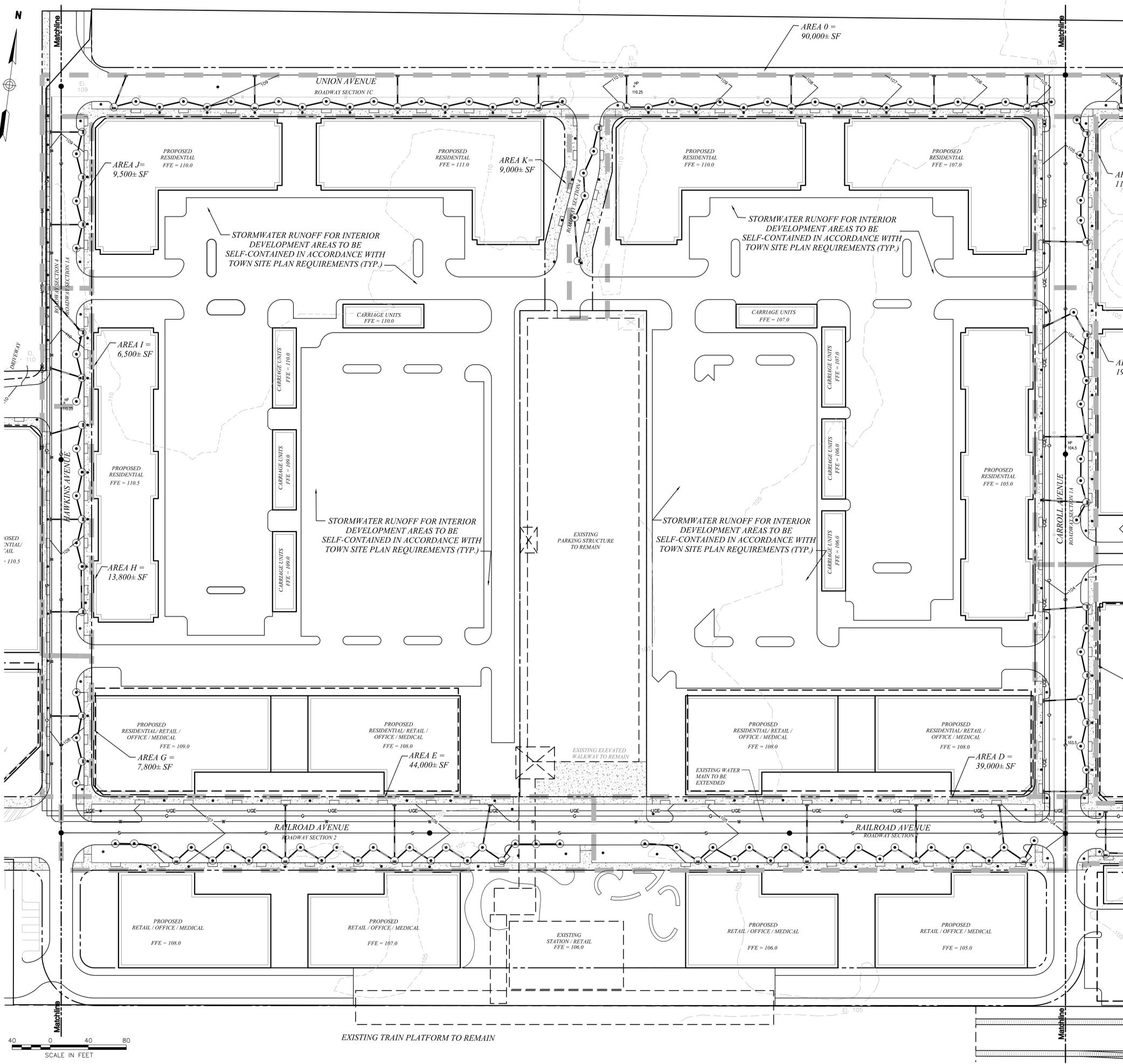
No.	Revision	Date	Appr.

Designed by *DGB* Drawn by *KTW* Checked by *KPW*
 CAD checked by *CS* Approved by *KPW*
 Scale: 1"=40' Date: October 11, 2013
 Project Title: Ronkonkoma HUB TOD
 Ronkonkoma, New York
 Town of Brookhaven, NY
 Issued for: DSGEIS/Preliminary Engineering
 Not Approved for Construction
 Drawing Title: Layout and Materials Plan - B





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 Hauppauge, New York 11788
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Drainage Calculation Summary

Local Drainage Design Criteria

- Storage volume based on a 5-inch rainfall.
- Runoff coefficients for:
 Pavement, roof, concrete, other impervious areas = 1.00
 Landscaped, grassed, natural, other pervious areas = 0.30
- Drainage structures shall include new 8 foot diameter precast storm drain rings with a capacity of 42.24 cubic feet per vertical foot.
- Interconnecting pipe between drywells shall be 12-inch diameter reinforced concrete pipe (RCP) at 1% min. pitch, unless otherwise noted on the plans.

Drainage Area - D	Area = 39,000± SF	Contributing Area (SF)	Runoff C	Rainfall (FT)	Volume (CF)
REQUIRED STORAGE VOLUME	• Impervious Areas 39,000 SF x 1.00 x 5/12 FT = 16,250 CF				
PROVIDED STORAGE VOLUME	Use (22) drywells - 8 FT 9 rings with 18 FT effective depth @ 42.24 CF/VF 22 x 18 FT EFF. DEPTH x 42.24 CF/VF = 16,727 CF				

Drainage Area - E	Area = 44,000± SF	Contributing Area (SF)	Runoff C	Rainfall (FT)	Volume (CF)
REQUIRED STORAGE VOLUME	• Impervious Areas 44,000 SF x 1.00 x 5/12 FT = 18,333 CF				
PROVIDED STORAGE VOLUME	Use (25) drywells - 8 FT 9 rings with 18 FT effective depth @ 42.24 CF/VF 24 x 18 FT EFF. DEPTH x 42.24 CF/VF = 19,008 CF				

Drainage Area - G	Area = 7,800± SF	Contributing Area (SF)	Runoff C	Rainfall (FT)	Volume (CF)
REQUIRED STORAGE VOLUME	• Impervious Areas 7,800 SF x 1.00 x 5/12 FT = 3,250 CF				
PROVIDED STORAGE VOLUME	Use (5) drywells - 8 FT 9 rings with 18 FT effective depth @ 42.24 CF/VF 5 x 18 FT EFF. DEPTH x 42.24 CF/VF = 3,802 CF				

Drainage Area - H	Area = 13,800± SF	Contributing Area (SF)	Runoff C	Rainfall (FT)	Volume (CF)
REQUIRED STORAGE VOLUME	• Impervious Areas 13,800 SF x 1.00 x 5/12 FT = 5,750 CF				
PROVIDED STORAGE VOLUME	Use (8) drywells - 8 FT 9 rings with 18 FT effective depth @ 42.24 CF/VF 8 x 18 FT EFF. DEPTH x 42.24 CF/VF = 6,083 CF				

Drainage Area - I	Area = 6,500± SF	Contributing Area (SF)	Runoff C	Rainfall (FT)	Volume (CF)
REQUIRED STORAGE VOLUME	• Impervious Areas 6,500 SF x 1.00 x 5/12 FT = 2,708 CF				
PROVIDED STORAGE VOLUME	Use (4) drywells - 8 FT 9 rings with 18 FT effective depth @ 42.24 CF/VF 4 x 18 FT EFF. DEPTH x 42.24 CF/VF = 3,042 CF				

Drainage Area - J	Area = 9,500± SF	Contributing Area (SF)	Runoff C	Rainfall (FT)	Volume (CF)
REQUIRED STORAGE VOLUME	• Impervious Areas 9,500 SF x 1.00 x 5/12 FT = 3,960 CF				
PROVIDED STORAGE VOLUME	Use (6) drywells - 8 FT 9 rings with 18 FT effective depth @ 42.24 CF/VF 6 x 18 FT EFF. DEPTH x 42.24 CF/VF = 4,562 CF				

Drainage Area - K	Area = 9,000± SF	Contributing Area (SF)	Runoff C	Rainfall (FT)	Volume (CF)
REQUIRED STORAGE VOLUME	• Impervious Areas 9,000 SF x 1.00 x 5/12 FT = 3,750 CF				
PROVIDED STORAGE VOLUME	Use (6) drywells - 8 FT 9 rings with 18 FT effective depth @ 42.24 CF/VF 4 x 18 FT EFF. DEPTH x 42.24 CF/VF = 4,562 CF				

Drainage Area - O	Area = 90,000± SF	Contributing Area (SF)	Runoff C	Rainfall (FT)	Volume (CF)
REQUIRED STORAGE VOLUME	• Impervious Areas 90,000 SF x 1.00 x 5/12 FT = 37,500 CF				
PROVIDED STORAGE VOLUME	Use (50) drywells - 8 FT 9 rings with 18 FT effective depth @ 42.24 CF/VF 50 x 18 FT EFF. DEPTH x 42.24 CF/VF = 38,016 CF				

Legend

	CONCRETE
	SPOT ELEVATION
	DRAINAGE
	SEWER
	UNDERGROUND ELECTRIC
	WATER
	GAS
	DOUBLE CATCH BASIN
	DRYWELL
	SEWER MANHOLE
	CROSSWALK
	ACCESSIBLE CURB RAMP

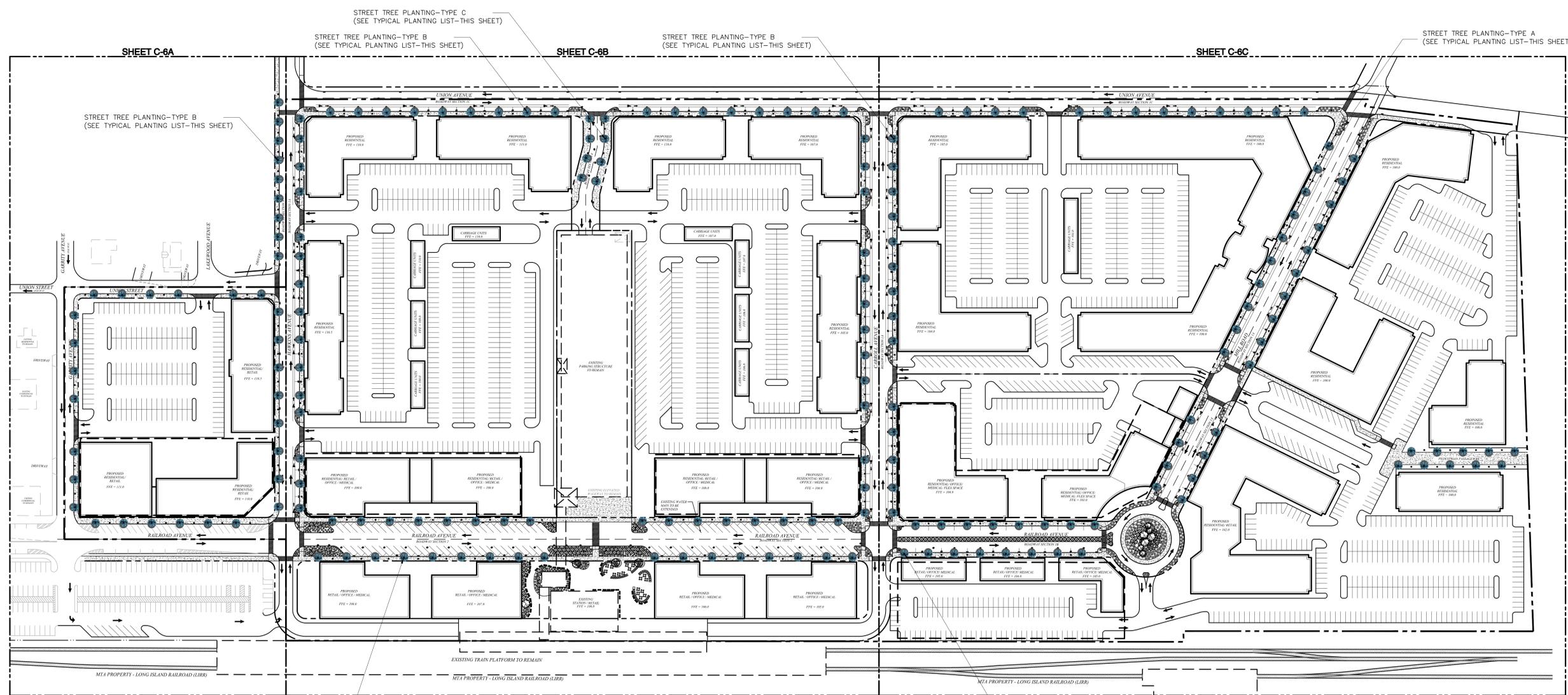
No.	Revision	Date	Appr.

Ronkoma HUB TOD
 Ronkoma, New York
 Town of Brookhaven

Town of Brookhaven, NY
 Issued for
 DSGEIS/Preliminary
 Engineering

Not Approved for Construction
 Drawing Title
Grading, Drainage & Utilities Plan - B





TYPICAL PLANT SPECIES LIST

TYPICAL STREET TREES

TYPE A - RAILROAD AVENUE AND MILL ROAD

ACER RUBRUM (RED MAPLE)
 LIQUIDAMBER STYRACIFLUA (SWEETGUM)
 ZELCOVA SERRATA (JAPANESE ZELCOVA)

TYPE B - HAWKINS AVENUE, CARROLL AVENUE AND UNION AVENUE

GINKGO BILOBA (GINKGO) (MALE, SEEDLESS)
 PYRUS CALLERYANA 'CHANTICLEER' (CALLERY PEAR)

TYPE C - SECONDARY STREET

NYSSA SYLVATICA (TUPELO)
 PRUNUS SARGENTII 'COLUMNARIS' (COLUMNAR SARGENT CHERRY)

TYPICAL ORNAMENTAL/FEATURE TREES

TYPE D - STATION PLAZA AND ROUNDABOUT

PRUNUS SARGENTII (SARGENT CHERRY)
 AMELANCHIER SSP. (SERVICEBERRY)
 MALUS SSP. (CRABAPPLE)

TYPICAL SHRUB/PERENNIAL AND GRASSES

TYPE E - STATION PLAZA AND ROUNDABOUT PLANTING

HAMAMELIS VIRGINICA (WITCH HAZEL)
 ILEX GLABRA (INK BERRY)
 SPIRAEA LATIFOLIA (SPIREA)
 RHUS AROMATICA 'GRO LOW' (LOW GROWING FRAGRANT SUMA)C

TYPE F - CENTRAL MEDIAN AND STREET PLANTING

ANDROPOGON SCOPARIUS (LITTLE BLUESTEM)
 PENNISETUM VAR. (FOUNTAIN GRASS)
 HOSTA VAR. (HOSTA)
 HEMEROCALLIS VAR. (DAY LILY)
 LIROPE MUSCARI (LILY TURF)
 ILEX GLABRA (INK BERRY)
 RHODODENDRON AZALEA 'OLGA METZIT' (LITTLE OLGA RHODODENDRON)
 ROSA 'KNOCKOUT' (KNOCKOUT ROSE)
 PENNISETUM VAR. (FOUNTAIN GRASS)
 HOSTA VAR. (HOSTA)

LANDSCAPING NOTES

- LANDSCAPING FOR INDIVIDUAL DEVELOPMENT BLOCKS SUBJECT TO REVIEW & APPROVAL BY THE TOWN PLANNING BOARD.
- STREETSCAPE IMPROVEMENTS (INCLUDING STREET TREES, STREET FURNITURE & PUBLIC SPACES) TO BE COORDINATED WITH INDIVIDUAL SITE PLANS IN CONFORMANCE WITH THE TOD CODE.
- DECORATIVE STREET LIGHTING SHALL BE INSTALLED AT REGULAR INTERVALS, COORDINATE WITH INDIVIDUAL SITE PLANS AND PUBLIC SPACES, SUBJECT TO APPROVAL BY THE PLANNING BOARD.

No.	Revision	Date	Appr.

Designed by: _____ Drawn by: _____ Checked by: _____
 CAD checked by: _____ Approved by: _____
 Scale: 1"=80' Date: October 11, 2013
 Project Title: _____

Ronkonkoma HUB TOD
Ronkonkoma, New York
Town of Brookhaven

Town of Brookhaven, NY
 Issued for:
DSGEIS/Preliminary
Engineering

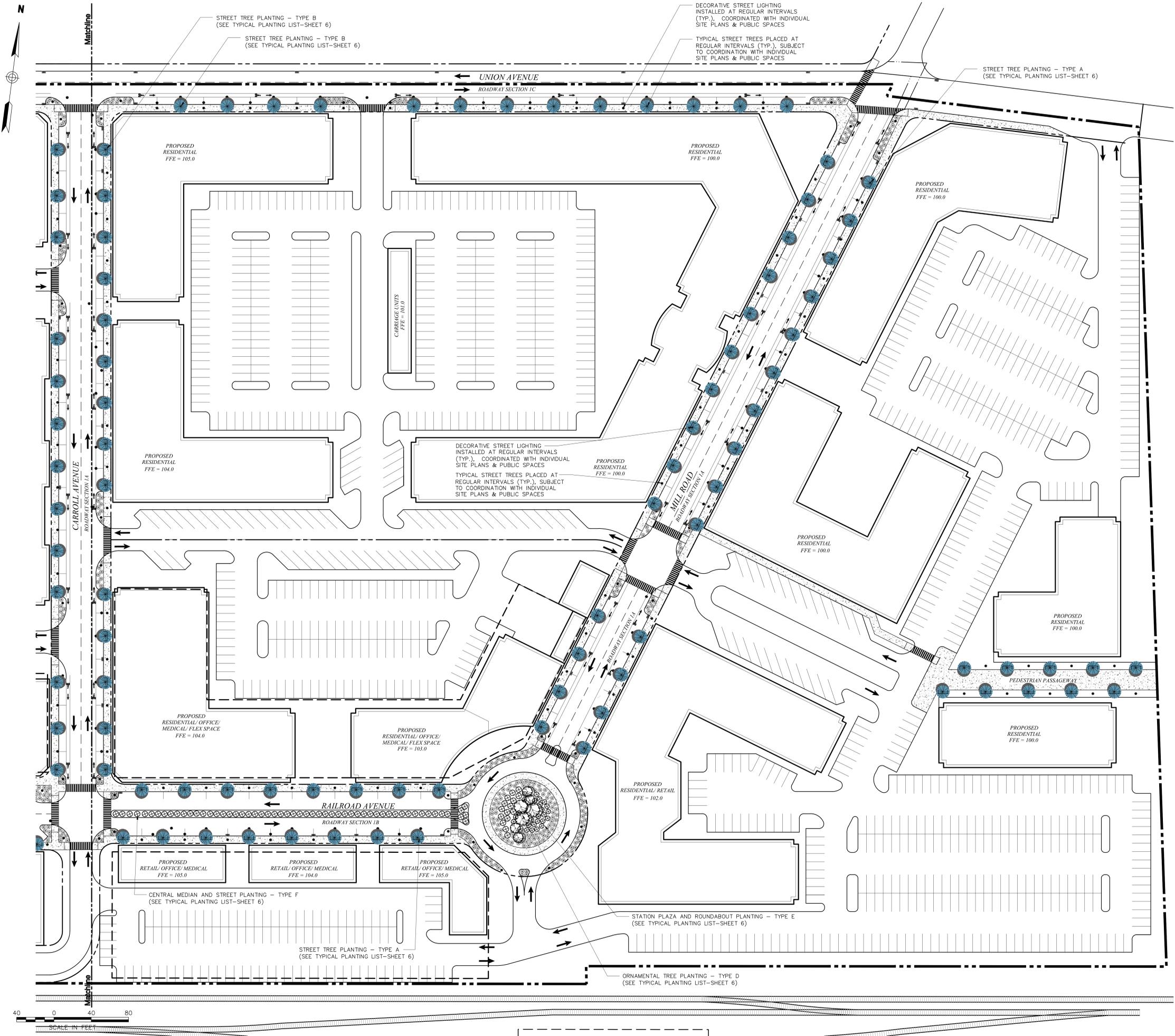
Not Approved for Construction
 Drawing Title:

Landscape Plan -
Total Development





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Hauppauge, New York 11788
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No.	Revision	Date	Appr.

Designed by	Drawn by	Checked by

CAD checked by	Approved by

Scale	Date
1"=40'	October 11, 2013

Project Title
Ronkonkoma HUB TOD
Ronkonkoma, New York
Town of Brookhaven

Town of Brookhaven, NY
Issued for
DSGEIS/Preliminary
Engineering

Not Approved for Construction
Drawing Title

Landscape Plan - C

Drawing Number

C-6C

Sheet of 12 12

Project Number
28743.00



20143.0A

SUFFOLK COUNTY WATER AUTHORITY

Herman J. Miller
Deputy Chief Executive Officer
for Operations

Administrative Offices: 4060 Sunrise Highway, Oakdale, New York 11769-0901
(631) 563-0203
Fax (631) 563-0358

June 27, 2013

Mr. Kevin P. Walsh, P.E.
Managing Director, Long Island Operations
VHB Engineering Surveying and Landscape Architecture, P.C.
2150 Joshua's Path, Suite 300
Hauppauge, New York 11788

Dear Mr. Walsh:

SCWA has reviewed the revised water demand requirements for the Ronkonkoma Hub Transit-Oriented Development as outlined in your letter of June 13, 2013.

The projected water demand has increased by over forty-five percent. The existing customer water demand in the project area is a little less than 20 gpd. Based on current conditions, SCWA can provide the volume of water required for the domestic water service and fire protection.

The required distribution system improvements have been re-estimated using 2013 construction costs. The new estimate is approximately \$275,000. These improvements can be installed under our standard SCWA contracts.

While your letter addresses the potential need for onsite systems to provide the pressure required for certain structures, I did not see any information on the location of the proposed sewage treatment plant. As I stated previously, the project location is near source water contributing areas for several SCWA wells. The sewage treatment plant must be properly designed and located so as to reduce any potential negative impact on SCWA's water supply system.

This letter of availability is not to be considered an Action by the SCWA as defined by SEQRA regulations, and this response does not commit SCWA to commence, engage or otherwise participate or approve an action where SEQRA is applicable until all aspects of the SEQRA process are complete and the Lead Agency has made a final determination and finding as related to the project.

Very truly yours,

Herman J. Miller, P.E.
Deputy CEO for Operations

HJM:ms

Cc: L. Cetta



June 13, 2013

Ref: 28743.04

Mr. James Domozych
Design Engineer
Electric Design & Construction
LIPA
448 East Main Street
Patchogue, NY 11772

Re: Ronkonkoma Hub Transit-Oriented Development
Request for Updated Letter of Gas Availability

Dear Mr. Domozych:

On August 19, 2010, your office responded to a request from our office (copy attached) regarding the availability of electric service for the above-referenced project. At the time, you indicated that electric service would be available for the project.

In recent months the project has undergone certain revisions as a developer has taken over the project and the project has been reconfigured to take advantage of additional sewage capacity and other factors. In conjunction with these revisions, the maximum build-out plan has been adjusted, and now includes the following elements:

- 1,450 residential units
- 195,000 sf of Retail space
- 360,000 sf of Medical/Office space
- 60,000 sf of Flex space

The current version of the Maximum Density Concept Plan is attached for your reference.

Based on the foregoing, we respectfully request an updated letter of availability for the project. Should you have any questions or require any further information for processing this request, please do not hesitate to contact our office.

Thank you for your cooperation in this matter.

Very truly yours,

VHB Engineering, Surveying & Landscape Architecture, P.C.

Kevin P. Walsh, P.E.
Managing Director, Long Island Operations
KPW/lm

VHB Engineering, Surveying
and Landscape Architecture, P.C.
2150 Joshua's Path, Suite 300
Hauppauge, New York 11788
631.234.3444 • FAX 631.234.3477



448 East Main Street
Patchogue, NY 11772

August 19, 2010

Bruce Mawhirter
VHB Engineering
215 Joshua's Path
Suite 300
Hauppauge, NY 11788

Re: Ronkonkoma Hub
Transit Oriented Land Use

Dear Sir:

As requested, please be advised that LIPA will provide electric service to the above-referenced project in accordance with our filed tariff and schedules in effect at the time service is required.

Please feel free to contact James Domozych at (631)758-5122 if you require any further information.

Very truly yours,

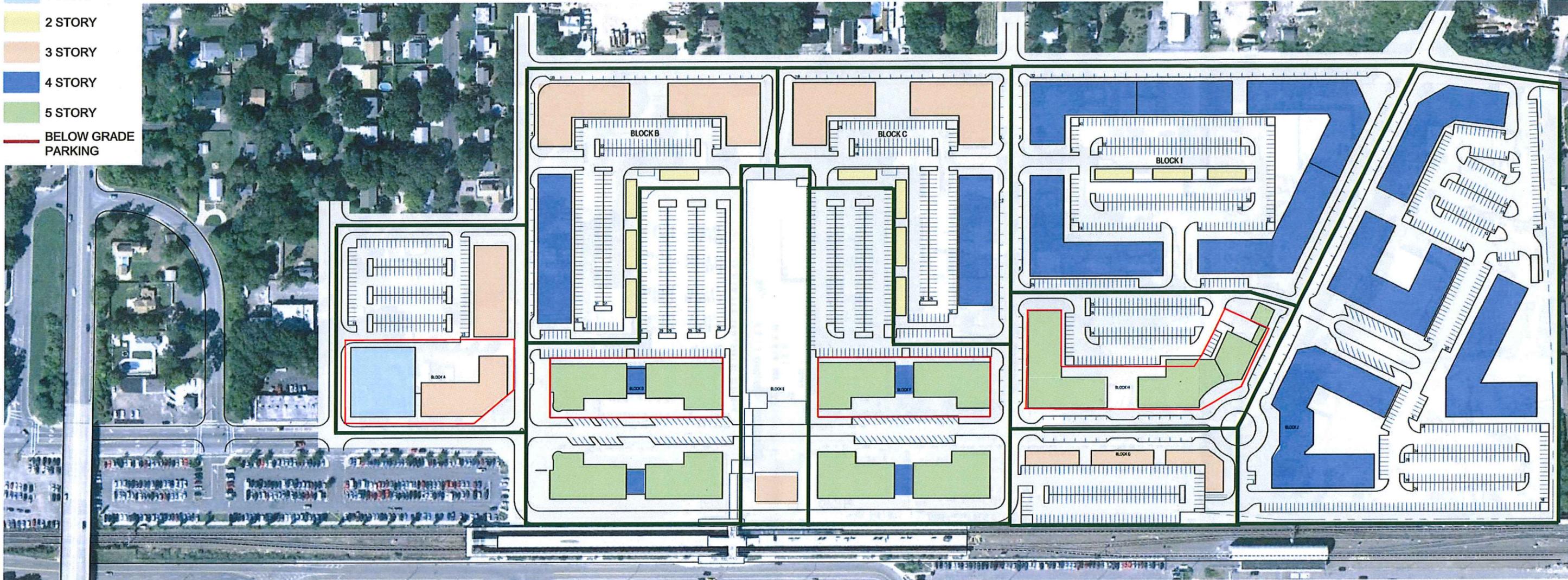
A handwritten signature in black ink, appearing to read "James Domozych", is written over the typed name.

James Domozych
Design Engineer
Electric Design & Construction

JD/md

Ronkonkoma HUB • Maximum Density Concept Plan

- LEGEND**
- 1 STORY
 - 2 STORY
 - 3 STORY
 - 4 STORY
 - 5 STORY
 - BELOW GRADE PARKING



<p>BLOCK A RESIDENTIAL: 45 UNITS RETAIL: 47,580 sq.ft.</p> <p>PARKING ON PLAN: SURFACE SPACES: 164 STREET SPACES: N/A 1 LEVEL GARAGE SHOWN: 116</p> <p>PARKING REQUIRED: RESIDENTIAL: 54 SPACES RETAIL: 126 SPACES</p>	<p>BLOCK B RESIDENTIAL: 171 UNITS CARRIAGE UNITS: 8 TOTAL UNITS: 179</p> <p>PARKING: SURFACE SPACES: 218 STREET SPACES: 26 TOTAL SPACES: 244</p> <p>PARKING REQUIRED: RESIDENTIAL: 215 SPACES</p>	<p>BLOCK C RESIDENTIAL: 153 UNITS CARRIAGE UNITS: 8 TOTAL UNITS: 161</p> <p>PARKING: SURFACE SPACES: 228 STREET SPACES: 35 TOTAL SPACES: 263</p> <p>PARKING REQUIRED: RESIDENTIAL: 193 SPACES</p>	<p>BLOCK D RESIDENTIAL: 51 UNITS RETAIL: 38,900 sq.ft. OFFICE/MEDICAL: 181,370 sq.ft.</p> <p>PARKING: SURFACE SPACES: 217 STREET SPACES: 61 GARAGE PARKING: 282 TOTAL SPACES: 560</p> <p>PARKING REQUIRED: RESIDENTIAL: 61 SPACES RETAIL: 106 SPACES OFFICE/MEDICAL: 519 SPACES</p>	<p>BLOCK E RETAIL: 18,900 sq.ft.</p> <p>PARKING: EXISTING GARAGE: 1043</p>	<p>TOTAL DEVELOPMENT: TOTAL RESIDENTIAL: 1,450 UNITS TOTAL RETAIL: 195,000 sq.ft. TOTAL OFFICE/MEDICAL: 360,000 sq.ft. TOTAL FLEX SPACE: 60,000 sq.ft.</p> <p>TOTAL PARKING: 3,658 SPACES* *This does NOT include the existing parking garage.</p> <p>UNIT SIZE: 905 AVE. GROSS SQ.FT. with an 80% efficiency factor per building.</p> <p>PARKING REQUIRED: RESIDENTIAL: 1,740 SPACES RETAIL: 467 SPACES OFFICE/MEDICAL: 1030 SPACES FLEX SPACE: 172 SPACES</p> <p>PARKING RATIO: RESIDENTIAL: 1.20 SPACES/UNIT. RETAIL: 2.65/ 1000 sq.ft. OFFICE/MEDICAL: 2.86/ 1000 sq.ft. FLEX SPACE: 2.86/ 1000 sq.ft.</p>
<p>BLOCK F RESIDENTIAL: 102 UNITS RETAIL: 53,200 sq.ft. OFFICE/MEDICAL: 109,370 sq.ft.</p> <p>PARKING: SURFACE SPACES: 221 STREET SPACES: 64 GARAGE PARKING: 282 TOTAL SPACES: 567</p> <p>PARKING REQUIRED: RESIDENTIAL: 122 SPACES RETAIL: 141 SPACES OFFICE/MEDICAL: 313 SPACES</p>	<p>BLOCK G RESIDENTIAL: NONE RETAIL: 9,800 sq.ft. OFFICE/MEDICAL: 38,425 sq.ft.</p> <p>PARKING: GARAGE SPACES @ 4 STY: 588 STREET SPACES: 11 TOTAL SPACES: 599</p> <p>PARKING REQUIRED: RESIDENTIAL: NONE RETAIL: 26 SPACES OFFICE/MEDICAL: 110 SPACES</p>	<p>BLOCK H RESIDENTIAL: 62 UNITS RETAIL: 17,400 sq.ft. OFFICE/MED.: 30,835 sq.ft. FLEX SPACE: 60,000 q.ft.</p> <p>PARKING: SURFACE SPACES: 123 STREET SPACES: 43 GARAGE: 140 TOTAL SPACES: 306</p> <p>PARKING REQUIRED: RESIDENTIAL: 74 SPACES RETAIL: 46 SPACES OFFICE/MED.: 88 SPACES FLEX SPACE: 172 SPACES</p>	<p>BLOCK I RESIDENTIAL: 413 UNITS</p> <p>PARKING: SURFACE SPACES: 252 STREET SPACES: 101 TOTAL SPACES: 353</p> <p>PARKING REQUIRED: RESIDENTIAL: 496 SPACES</p>	<p>BLOCK J RESIDENTIAL: 437 UNITS RETAIL: 8,200 sq.ft.</p> <p>PARKING: SURFACE SPACES: 461 STREET SPACES: 31 TOTAL SPACES: 492</p> <p>PARKING REQUIRED: RESIDENTIAL: 524 SPACES RETAIL: 22 SPACES</p>	





June 13, 2013

Ref: 28743.04

Mr. Raymond Homburger
Lead Account Executive
Major Accounts
Energy Solutions Services
National Grid LIPA
25 Hub Drive
Melville, NY 11747

Re: Ronkonkoma Hub Transit-Oriented Development
Request for Updated Letter of ~~Electric~~ ^{Gas} Availability

Dear Mr. Homburger:

On August 26, 2010, your office responded by email (copy attached) to a request from our office regarding the availability of gas service for the above-referenced project. At the time, you indicated that natural gas would be available to service the project.

In recent months the project has undergone certain revisions as a developer has taken over the project and the project has been reconfigured to take advantage of additional sewage capacity and other factors. In conjunction with these revisions, the maximum build-out plan has been adjusted, and now includes the following elements:

- 1,450 residential units
- 195,000 sf of Retail space
- 360,000 sf of Medical/Office space
- 60,000 sf of Flex space

The current version of the Maximum Density Concept Plan is attached for your reference.

Based on the foregoing, we respectfully request an updated letter of availability for the project. Should you have any questions or require any further information for processing this request, please do not hesitate to contact our office.

Thank you for your cooperation in this matter.

Very truly yours,

VHB Engineering, Surveying & Landscape Architecture, P.C.


Kevin P. Walsh, P.E.
Managing Director, Long Island Operations
KPW/lm

VHB Engineering, Surveying
and Landscape Architecture, P.C.
2150 Joshua's Path, Suite 300
Hauppauge, New York 11788
631.234.3444 • FAX 631.234.3477
www.vhb.com

Sheridan, Katie

From: Gennaro, Kim
Sent: Thursday, August 26, 2010 10:46 AM
To: Sheridan, Katie
Subject: FW: Natural Gas Availability for The Ronkonkoma Hub - Town of Brookhaven/LIRR

Kim A. Gennaro, AICP
VHB Engineering, Surveying & Landscape Architecture, P.C.
Director, Environmental Division

Sent from my Verizon Wireless Phone

From: Homburger, Raymond C. <Raymond.Homburger@lipangrid.com>
Sent: Thursday, August 26, 2010 9:48 AM
To: Mawhirter, Bruce <BMawhirter@VHB.com>; Gennaro, Kim <KGennaro@VHB.com>
Cc: Frigeria III, Vincent <Vincent.Frigeria@us.ngrid.com>; dmanning@mjbradley.com <dmanning@mjbradley.com>; Keating, John J. <John.Keating@lipangrid.com>
Subject: Natural Gas Availability for The Ronkonkoma Hub - Town of Brookhaven/LIRR

Hello Bruce and Kim,

I am the Major Account Executive for National Grid and LIPA for Federal, State and Public Transportation customers in our service territory on Long Island. The MTA - LIRR is one of my larger customers.

I have had our Gas Engineering department review your plans on the proposed Ronkonkoma Hub project slated for construction in 2014 through 2019. The plans detailed the approximate square footage for Residential, Retail, Office, Health Club and Restaurant use. Using approximate heating values for each specific application yields a usage of ~ 55 Decatherms of Natural gas/hour. That particular site is well suited for natural gas availability. There is a 6" - 60 pound high pressure gas main already in the ground in the area, and National Grid will be able to provide the gas for this load.

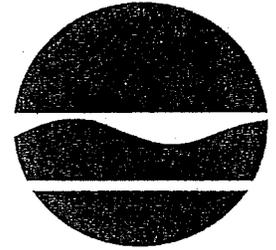
I understand you are already in receipt of a letter from LIPA confirming the availability to also provide electric for your anticipated load for the project.

Please add my contact information to your distribution list for future communication concerning the project and I will be sure to assist in any way I can.

Sincerely,
Ray

Raymond Homburger
Lead Account Executive
Major Accounts
Energy Solutions Services
National Grid LIPA
25 Hub Drive
Melville, N.Y. 11747
631 755-5349 (office)
516 807-3854 (mobile)
raymond.homburger@lipangrid.com

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Division of Fish, Wildlife & Marine Resources
New York Natural Heritage Program
625 Broadway, 5th Floor, Albany, New York 12233-4757
Phone: (518) 402-8935 • Fax: (518) 402-8925
Website: www.dec.ny.gov



Alexander B. Grannis
Commissioner

June 30, 2010

David Kennedy
Vanasse Hangen Brustlin
2150 Joshuas Path, Suite 300
Hauppauge, NY 11788

Dear Mr. Kennedy:

In response to your recent request, we have reviewed the New York Natural Heritage Program database with respect to an Environmental Assessment for the proposed Ronkonkoma Hub Transit-Oriented Development – 53.73 Acres, area as indicated on the map you provided, located in the Towns of Brookhaven and Islip, Suffolk County.

Enclosed is a report of rare or state-listed animals and plants, significant natural communities, and other significant habitats, which our databases indicate occur, or may occur, on your site or in the immediate vicinity of your site. For most sites, comprehensive field surveys have not been conducted; the enclosed report only includes records from our databases. We cannot provide a definitive statement as to the presence or absence of all rare or state-listed species or natural communities. This information should not be substituted for on-site surveys that may be required for environmental impact assessment.

The enclosed report may be included in documents that will be available to the public. However, any enclosed maps displaying locations of rare species are considered sensitive information, and are intended only for the internal use of the recipient; they should not be included in any document that will be made available to the public, without permission from the New York Natural Heritage Program.

The presence of the plants and animals identified in the enclosed report may result in this project requiring additional review or permit conditions. For further guidance, and for information regarding other permits that may be required under state law for regulated areas or activities (e.g. regulated wetlands), please contact the appropriate NYS DEC Regional Office, Division of Environmental Permits, as listed at www.dec.ny.gov/about/39381.html.

Our databases are continually growing as records are added and updated. If this proposed project is still under development one year from now, we recommend that you contact us again so that we may update this response with the most current information.

Sincerely,

Tara Salerno
Tara Salerno, Information Services

New York Natural Heritage Program # 684

Enc.

cc: Reg. 1, Wildlife Mgr.

Natural Heritage Report on Rare Species and Ecological Communities



NY Natural Heritage Program, NYS DEC, 625 Broadway, 5th Floor,
Albany, NY 12233-4757
(518) 402-8935

The information in this report includes only records entered into the NY Natural Heritage databases as of the date of the report. This report is not a definitive statement on the presence or absence of all rare species or significant natural communities at or in the vicinity of this site. Refer to the User's Guide for explanations of codes, ranks and fields. Location maps for certain species and communities may not be provided 1) if the species is vulnerable to disturbance, 2) if the location and/or extent is not precisely known, 3) if the location and/or extent is too large to display, and/or 4) if the animal is listed as Endangered or Threatened by New York State.

Natural Heritage Report on Rare Species and Ecological Communities



ASCULAR PLANTS

Eurybia spectabilis

Showy Aster

NY Legal Status: Threatened

NYS Rank: S2 - Imperiled

Office Use
9726

Federal Listing:

Global Rank: G5 - Secure

Last Report: 1991-09-10

EO Rank: Extant

County: Suffolk

Town: Islip

Location: MacArthur Airport

General Quality and Habitat: The plants are in the fields around the landing strips.

Liatris scariosa var. novae-angliae

Northern
Blazing-star

NY Legal Status: Threatened

NYS Rank: S2 - Imperiled

Office Use
9334

Federal Listing:

Global Rank: G5?T3 - Vulnerable

Last Report: 1991-09-10

EO Rank: Good

County: Suffolk

Town: Islip

Location: MacArthur Airport

General Quality and Habitat: There are 150-220 plants in a large artificial grassland. The plants are in fields around landing strips.

Sericocarpus linifolius

Flax-leaf Whitetop

NY Legal Status: Threatened

NYS Rank: S2 - Imperiled

Office Use
4910

Federal Listing:

Global Rank: G5 - Secure

Last Report: 1991-09-10

EO Rank: Extant

County: Suffolk

Town: Islip

Location: MacArthur Airport

General Quality and Habitat: The plants are in the fields around the landing strips.



3 Records Processed

detailed information about many of the rare and listed animals and plants in New York, including biology, identification, habitat, conservation, and management, are available online in Natural Heritage's Conservation Guides at www.acris.nynhp.org, from NatureServe Explorer at <http://www.natureserve.org/explorer>, from NYSDEC at <http://www.dec.ny.gov/animals/7494.html> (for animals), and from USDA's Plants Database at <http://plants.usda.gov/index.html> (for plants).

More detailed information about many of the natural community types in New York, including identification, dominant and characteristic vegetation, distribution, conservation, and management, is available online in Natural Heritage's Conservation Guides at www.acris.nynhp.org. For descriptions of all community types, go to <http://www.dec.ny.gov/animals/29384.html> and click on Draft Ecological Communities of New York State.

Natural Heritage Report on Rare Species and Ecological Communities



NY Natural Heritage Program, NYS DEC, 625 Broadway, 5th Floor,
Albany, NY 12233-4757
(518) 402-8935

HISTORICAL RECORDS

The following plants and animals were documented in the vicinity of the project site at one time, but have not been documented there since 1979 or earlier.

There is no recent information on these plants and animals in the vicinity of the project site and their current status there is unknown. In most cases the precise location of the plant or animal in this vicinity at the time it was last documented is also unknown and therefore location maps are generally not provided.

If appropriate habitat for these plants or animals is present in the vicinity of the project site, it is possible that they may still occur there.

Natural Heritage Report on Rare Species and Ecological Communities



VASCULAR PLANTS

Lespedeza stuevei

Velvety
Bush-clover

NY Legal Status: Threatened

NYS Rank: S2 - Imperiled

Office Use
3860

Federal Listing:

Global Rank: G4? - Apparently secure

Last Report: 1928-09-11

EO Rank: Historical, no recent
information

County: Suffolk

Town: Islip

Location: Ronkonkoma

Directions: Ronkonkoma.

General Quality and Habitat: Dry pine barrens.

M

Linum medium var. texanum

Southern Yellow
Flax

NY Legal Status: Threatened

NYS Rank: S2 - Imperiled

Office Use
5488.

Federal Listing:

Global Rank: G5T5 - Secure

Last Report: 1925-09-23

EO Rank: Historical, no recent
information

County: Suffolk

Town: Brookhaven, Islip, Smithtown

Location: Ronkonkoma

Directions: Ronkonkoma.

General Quality and Habitat: Dry, sandy, oak woods.

M

Use:
3800

M



Scleria pauciflora var. caroliniana

White-flowered
nutrush

NY Legal Status: Endangered
Federal Listing:
Last Report: 1922-09-25
County: Suffolk
Town: Brookhaven, Islip, Smithtown
Location: Ronkonkoma
Directions: Ronkonkoma.
General Quality
and Habitat:

NYS Rank: S1 - Critically imperiled
Global Rank: G5T4T5 - Apparently secure
EO Rank: Historical, no recent
information

Office Use
4847

M

Symphotrichum concolor var. concolor

Silvery Aster

NY Legal Status: Endangered
Federal Listing:
Last Report: 1928-09-20
County: Suffolk
Town: Brookhaven, Islip, Smithtown
Location: Ronkonkoma
Directions: Ronkonkoma.
General Quality
and Habitat: Dry sandy barrens.

NYS Rank: S1 - Critically imperiled
Global Rank: G5T5 - Secure
EO Rank: Historical, no recent
information

Office Use
7593

M

Records Processed

More detailed information about many of the rare and listed animals and plants in New York, including biology, identification, habitat, conservation, and management, are available online in Natural Heritage's Conservation Guides at www.acris.nynhp.org, from NatureServe Explorer at <http://www.natureserve.org/explorer>, from NYSDEC at <http://www.dec.ny.gov/animals/7494.html> (for animals), and from USDA's Plants Database at <http://plants.usda.gov/index.html> (for plants).

USERS GUIDE TO NY NATURAL HERITAGE DATA

New York Natural Heritage Program, 625 Broadway, 5th Floor, Albany, NY 12233-4757 phone: (518)402-8935



NATURAL HERITAGE PROGRAM: The NY Natural Heritage Program is a partnership between the NYS Department of Environmental Conservation (NYS DEC) and The Nature Conservancy. Our Mission is to facilitate the conservation of New York's biodiversity by providing comprehensive information and scientific expertise on rare species and natural ecosystems to resource managers and other conservation partners. We accomplish this mission by combining thorough field inventories, scientific analyses, expert interpretation, and the most comprehensive database on New York's distinctive biodiversity to deliver the highest quality information for natural resource planning, protection, and management.

DATA SENSITIVITY: The data provided in the report are ecologically sensitive and should be treated in a sensitive manner. The report is for your in-house use and should not be released, distributed or incorporated in a public document without prior permission from the Natural Heritage Program.

EO RANK: A letter code for the quality of the occurrence of the rare species or significant natural community, based on population size or area, condition, and landscape context.

- A-E = Extant: A=Excellent, B=Good, C=Fair, D=Poor, E=Extant but with insufficient data to assign a rank of A-D.
- F = Failed to find. Did not locate species during a limited search, but habitat is still there and further field work is justified.
- H = Historical. Historical occurrence without any recent field information.
- X = Extirpated. Field/other data indicates element/habitat is destroyed and the element no longer exists at this location.
- U = Extant/Historical status uncertain.
- Blank = Not assigned.

LAST REPORT: The date that the rare species or significant natural community was last observed at this location, as documented in the Natural Heritage databases. The format is most often YYYY-MM-DD.

NY LEGAL STATUS – Animals:

Categories of Endangered and Threatened species are defined in New York State Environmental Conservation Law section 11-0535. Animals listed as Endangered, Threatened, or Special Concern are protected against taking, importation, transportation, possession, or sale without a permit. Endangered, Threatened, and Special Concern species are listed in regulation 6NYCRR 182.5.

E - Endangered Species: any species which meet one of the following criteria:

- Any native species in imminent danger of extirpation or extinction in New York.
- Any species listed as endangered by the United States Department of the Interior, as enumerated in the Code of Federal Regulations 50 CFR 17.11.

T - Threatened Species: any species which meet one of the following criteria:

- Any native species likely to become an endangered species within the foreseeable future in NY.
- Any species listed as threatened by the U.S. Department of the Interior, as enumerated in the Code of the Federal Regulations 50 CFR 17.11.

SC - Special Concern Species: those species which are not yet recognized as endangered or threatened, but for which documented concern exists for their continued welfare in New York.

P - Protected Wildlife (defined in Environmental Conservation Law section 11-0103): wild game, protected wild birds, and endangered species of wildlife.

U - Unprotected (defined in Environmental Conservation Law section 11-0103): the species may be taken at any time without limit; however a license to take may be required.

G - Game (defined in Environmental Conservation Law section 11-0103): any of a variety of big game or small game species as stated in the Environmental Conservation Law; many normally have an open season for at least part of the year, and are protected at other times.

NY LEGAL STATUS – Plants:

The following categories are defined in regulation 6NYCRR part 193.3 and apply to NYS Environmental Conservation Law section 9-1503.

E - Endangered Species: listed species are those with:

- 5 or fewer extant sites, or
- fewer than 1,000 individuals, or
- restricted to fewer than 4 U.S.G.S. 7 ½ minute topographical maps, or
- species listed as endangered by U.S. Dept. of Interior, as enumerated in Code of Federal Regulations 50 CFR 17.11.

T - Threatened: listed species are those with:

- 6 to fewer than 20 extant sites, or
- 1,000 to fewer than 3,000 individuals, or
- restricted to not less than 4 or more than 7 U.S.G.S. 7 and ½ minute topographical maps, or
- listed as threatened by U.S. Department of Interior, as enumerated in Code of Federal Regulations 50 CFR 17.11.

Proposed Ronkonkoma Hub Transit-Oriented Development (TOD)

Ronkonkoma, Town of Brookhaven,
Suffolk County, New York

Prepared for **Town of Brookhaven Town Board**
Farmingville, New York

Prepared by  *Engineering, Surveying and Landscape Architecture, P.C.*

Hauppauge, New York

October 2013



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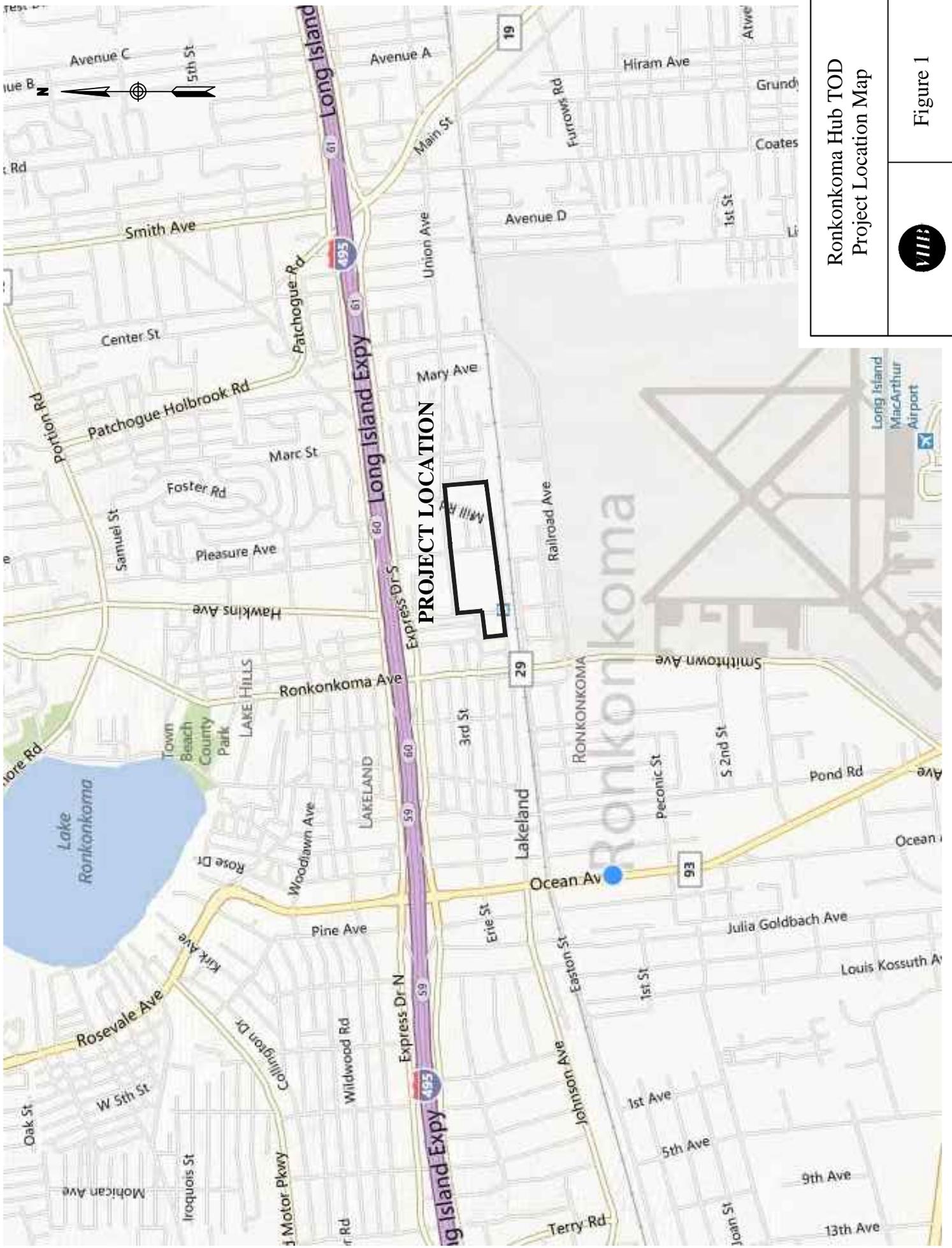
1

Introduction

This study summarizes the evaluation of the potential traffic impacts associated with the proposed development of the Ronkonkoma Hub Transit-Oriented Development (TOD), located on the north side of the MTA Long Island Rail Road's Ronkonkoma Station. This proposed TOD has been the subject of previous studies by the Town of Brookhaven Town Board in the DGEIS that was prepared for the Ronkonkoma Hub TOD, which was the subject of a public hearing on October 19, 2010. This study refines the traffic and parking studies performed previously to reflect the more refined redevelopment concepts that would be permitted, based upon the Ronkonkoma Hub Form-Based Code being considered by the Town Board.

The Ronkonkoma Hub TOD area consists of approximately 53.73 acres, and is generally bounded by Union Avenue and Union Street to the north; Village Plaza Drive to the east; County Road 29 (Ronkonkoma Avenue), Garrity Avenue and Hawkins Avenue to the west; and the railroad tracks of the Long Island Railroad to the south, in the hamlet of Ronkonkoma, Town of Brookhaven, Suffolk County, New York (see Figure 1).

The purpose of this study is to determine whether significant adverse traffic impacts would result from the proposed action and to propose and evaluate mitigation measures for such impacts, if required. The study also evaluates the expected parking needs, assesses the sufficiency of parking spaces to meet the needs after the completion of the project. This report presents the findings of the traffic and parking study and summarizes the data collection process, traffic analysis procedures, and study conclusions.



Ronkonkoma Hub TOD
Project Location Map

Figure 1





Project Description

The Town Board of the Town of Brookhaven has selected a Master Developer for the Ronkonkoma TOD. Among other things, the proposed action includes the adoption of the TOD District, the rezoning of properties to TOD District (as a form-based code) and the development of the Ronkonkoma Hub area in accordance with the TOD District.

A Maximum Density Plan has been prepared, which includes the following:

- 1,450 Residential Units¹
- 195,000 square feet – Retail (including restaurant space)
- 360,000 square feet – Office (including medical office)
- 60,000 square feet – Flex Space²

Study Methodology

The following describes the methodology used in this traffic study:

- The Maximum Density Concept Plan and related documents were reviewed to obtain an understanding of the project scope and layout
- Based on a review of the adjacent roadway system and review of previous studies, eight signalized and two unsignalized intersections were identified as key intersections that may be impacted by the project
- The prevailing traffic conditions, geometric parameters, traffic control devices and the number and direction of travel lanes at the key locations were observed and inventories were made
- Manual turning movement counts collected at six key intersections for a previous 2010 study were adjusted to 2013 using a growth factor; and the turning movement counts at four new intersections added in this study were counted using Miovision cameras as on a typical weekday during the weekday a.m. and p.m. peak periods
- The existing traffic volumes at the previously-identified key intersections were expanded to the future No-Build year, assumed of 2020
- The traffic generated by the proposed development mix, in accordance with the Maximum Density Concept Plan, was estimated based on recognized traffic engineering standards

¹ For analysis purposes, the distribution of unit types used was 50% rental apartments and 50% ownership condos/townhouses. However, the actual unit-type distribution would be based upon market demand at the time of construction.

²The Master Developer has indicated that the component of the Maximum Density Plan denoted as Flex Space may be a 120 room hotel.



- The site-generated volumes were distributed along the adjacent roadway network and added to the 2020 No-Build volumes to produce the 2020 Build volumes
- Capacity analyses were performed at the key intersections for the Existing, 2020 No-Build, 2020 Build Conditions
- The results of the analyses for the Existing, No-Build and Build Conditions were compared to assess any significant traffic impacts that may result from the proposed project
- The need for traffic mitigation measures was evaluated
- A parking analysis was conducted to determine that sufficient parking would be provided for the TOD as well as to evaluate the adequacy of replacement parking to be provided to account for existing railroad station parking areas to be displaced with the development of the TOD
- An evaluation of the potential cumulative effects of Other Planned Developments which may affect traffic conditions in the study area, consisting of the Metropolitan Transportation Authority's Double Track Project, was performed



2

Existing Conditions

Evaluation of the transportation impacts associated with the proposed TOD requires a thorough understanding of the current transportation system in the project study area. Existing transportation conditions include roadway geometry, traffic control devices, peak-hour traffic volumes, roadway operating characteristics, and parking availability. An inventory of available information on local roadways and traffic control in the vicinity of the TOD area was compiled. The following sections present a summary of this information.

Roadway and Intersection Conditions

The principal roadways and intersections in the TOD area are described below. The descriptions of the roadways and key intersections include the geometric conditions and traffic control characteristics.

Roadways

Long Island Expressway North and South Service Roads

The Long Island Expressway (LIE) North Service Road runs on the north side of the LIE (Interstate Route 495) and allows only westbound traffic. The *LIE South Service Road* runs on the south side of the LIE and allows only eastbound traffic. The maintenance of the service roads comes under the jurisdiction of Suffolk County Department of Public Works (SCDPW). However, the traffic signals are maintained by New York State Department of Transportation (NYSDOT). Both service roads provide two travel lanes in the study area with additional turn lanes at major intersections. Available 2010 NYSDOT hourly count data on the service roads between Ronkonkoma Avenue and Hawkins Avenue show the Average Annual Daily Traffic (AADT) on the South Service Road to be 10,037 vehicles per day and on the North Service Road the AADT to be 13,783 vehicles per day. The posted speed on this section of the service roads is 40 miles per hour.



While sidewalk is present and continuous on the south side of the South Service Road, sidewalk on the North Service Road is discontinuous with a number of segments where sidewalk is not provided. Shoulders on both service roads are either not present or narrow, making on-street parking impermissible. No dedicated bicycle facilities are provided on either service road in the study area.

Hawkins Avenue

Hawkins Avenue is a north-south collector distributor road under the jurisdiction of the Town of Brookhaven. The road is on the National Highway System (NHS). It runs north from Railroad Avenue, crosses Route 25 in Lake Grove and eventually become Stony Brook Road. It provides one travel lane in each direction, with additional turn lanes at key intersections. The 2010 NYSDOT AADT estimate on Hawkins Avenue in the vicinity of the TOD area is approximately 16,000 vehicles per day (vpd). The posted speed on this roadway is 30 miles per hour.

Sidewalk is provided on both sides of the Hawkins Avenue bridge over the LIE. South of that point, sidewalk is spotty, provided only in some areas of commercial roadside development and absent from others. Shoulders are not provided on the bridge and are variable in width or not present south of that point to Railroad Avenue. Parking is permitted in some areas near the south end of the roadway where the shoulder width allows, but is time limited (2 hours) during weekday periods. No dedicated bicycle facilities are provided on Hawkins Avenue in the study area.

Ronkonkoma Avenue

Ronkonkoma Avenue is a north-south collector distributor road under the jurisdiction of the Town of Brookhaven. It runs north from Railroad Avenue to merge with Hawkins Avenue at a location north of CR 16 (Portion Road). South of Railroad Avenue, Ronkonkoma Avenue is designated as Smithtown Avenue. Ronkonkoma Avenue runs generally to the west of the project area. In the vicinity of the TOD area, it provides two travel lanes in each direction with additional turn lanes at key intersections. The 2010 NYSDOT AADT estimate on Ronkonkoma Avenue in the vicinity of the TOD District area is about 30,000 vpd. The posted speed on this roadway is 30 miles per hour.

Sidewalk is provided on both sides of the Ronkonkoma Avenue bridge over the LIE and extends sound on both sides of the roadway to Powell Street, the south end of the study area, where it terminates. No shoulders are provided on this section of Ronkonkoma Avenue, so parking is not permitted. No dedicated bicycle facilities are provided on Ronkonkoma Avenue in the study area.



Railroad Avenue / Mill Road

Railroad Avenue is an east-west Town of Brookhaven road that runs east from Ronkonkoma Avenue to the LIRR station. This section of Railroad Avenue is on the NHS. West of Ronkonkoma Avenue the road is designated as Johnson Avenue. East of the station it runs in a north-south direction and is designated *Mill Road*. Mill Road terminates at the LIE South Service Road. It provides one travel lane in each direction with additional turning lanes at key intersections. The 2010 NYSDOT AADT estimate on Railroad Avenue is about 5,000 vehicles per day. The posted speed on this roadway is 30 miles per hour.

Sidewalk on Railroad Avenue in the study area is provided on both sides with the exception of the frontage of two unimproved properties on the north side of the roadway, east of the parking garage. Mill Road provides some sidewalk south of Union Avenue, but these segments do not provide a connection to the sidewalk on Railroad Avenue. There are no significant areas of shoulder on Railroad Avenue in the study area as the immediate curbside is either travel lane or parking. There is no striped shoulder on Mill Road south of Union Avenue. Parking is permitted in designated stalls only on Railroad Avenue but is time limited (two hours) during weekday periods. Parking is prohibited on Mill Road in the study area by posting or pavement width, with the exception of a small segment on the west side just south of Union Avenue. There are no dedicated bicycle facilities on Railroad Avenue or Mill Road in the study area. However, there are dedicated bicycle lanes provided on Union Avenue east of the Mill Road intersection.

Union Avenue

Union Avenue is an east-west Town of Brookhaven road that runs east from Hawkins Avenue to CR 19, Patchogue Holbrook Road. It provides one travel lane in each direction with additional turning lanes at key intersections. The 2010 NYSDOT AADT estimate on Union Avenue is about 9,400 vehicles per day. The posted speed on this roadway is 30 miles per hour.

Sidewalk on Union Avenue in the study area is provided only along the frontage of some commercial properties on each side of the roadway. There are no striped shoulders on this section of Union Avenue of any significant width. While there are isolated areas along the south side of Union Avenue where the pavement width would support parking, none was evidenced during field investigations. While there are no dedicated bicycle facilities on the segment of Union Avenue west of Mill Road, there are bicycle lanes provided on both sides of the roadway east of Mill Road.



Powell Street

Powell Street is a short local street that connects Railroad Avenue to Ronkonkoma Avenue. Powell Street provides one travel lane in each direction with additional turning lanes at Railroad Avenue. There is no posted speed on Powell Street.

Powell Street provides continuous sidewalk along its west side from Railroad Avenue to Ronkonkoma Avenue. No shoulders are provided. No parking is permitted on Powell Street by posting and lane width. No dedicated bicycle facilities are provided on Powell Street.

Northwest Link

Northwest Link is short local street that connects Johnson Avenue to 2nd Street and Ronkonkoma Avenue. Northwest Link provides one travel lane in each direction with additional turning lane at Johnson Avenue. There is no posted speed on Northwest Link.

Northwest Link provides continuous sidewalk along its west side from Railroad Avenue to Ronkonkoma Avenue. No shoulders are provided. No parking is permitted on Northwest Link by posting and lane width. No dedicated bicycle facilities are provided on Northwest Link.

Study Area Intersections

To determine the potential traffic impacts of the proposed TOD, ten key intersections were analyzed for the Existing, No-Build and Build conditions:

1. LIE North Service Road at Hawkins Avenue (Signalized)
2. LIE South Service Road at Hawkins Avenue (Signalized)
3. LIE North Service Road at Ronkonkoma Avenue (Signalized)
4. LIE South Service Road at Ronkonkoma Avenue (Signalized)
5. Hawkins Avenue at Union Avenue (Signalized)
6. Union Avenue at Mill Road (Signalized)
7. Railroad Avenue at Powell Street (Signalized)
8. Johnson Avenue at Northwest Link (Signalized)
9. Hawkins Avenue at Railroad Avenue (Unsignalized)
10. Ronkonkoma Avenue at 2nd Street/Powell Street (Unsignalized)

The key intersections are shown in Figure 2.



Ronkonkoma Hub TOD
Study Intersections



Figure 2



LIE North Service Road at Hawkins Avenue



The signalized intersection of the LIE North Service Road and Hawkins Avenue is a four-legged intersection with three active approaches. The traffic flows one-way in the westerly direction on the North Service Road which provides an exclusive left-turn lane, one through lane and a shared right-turn and through lane. Hawkins Avenue provides an exclusive left-turn lane and two through lanes in the northbound direction, a through and a shared through lane and right-turn lane in the southbound direction. The intersection is controlled by a three-phase actuated signal that is coordinated with the signal at the intersection of the LIE South Service Road and Hawkins Avenue.

The phasing is as follow:

- Westbound movement
- North-south movements with permitted northbound left-turns
- Lagging protected northbound left-turns and northbound throughs



LIE South Service Road at Hawkins Avenue

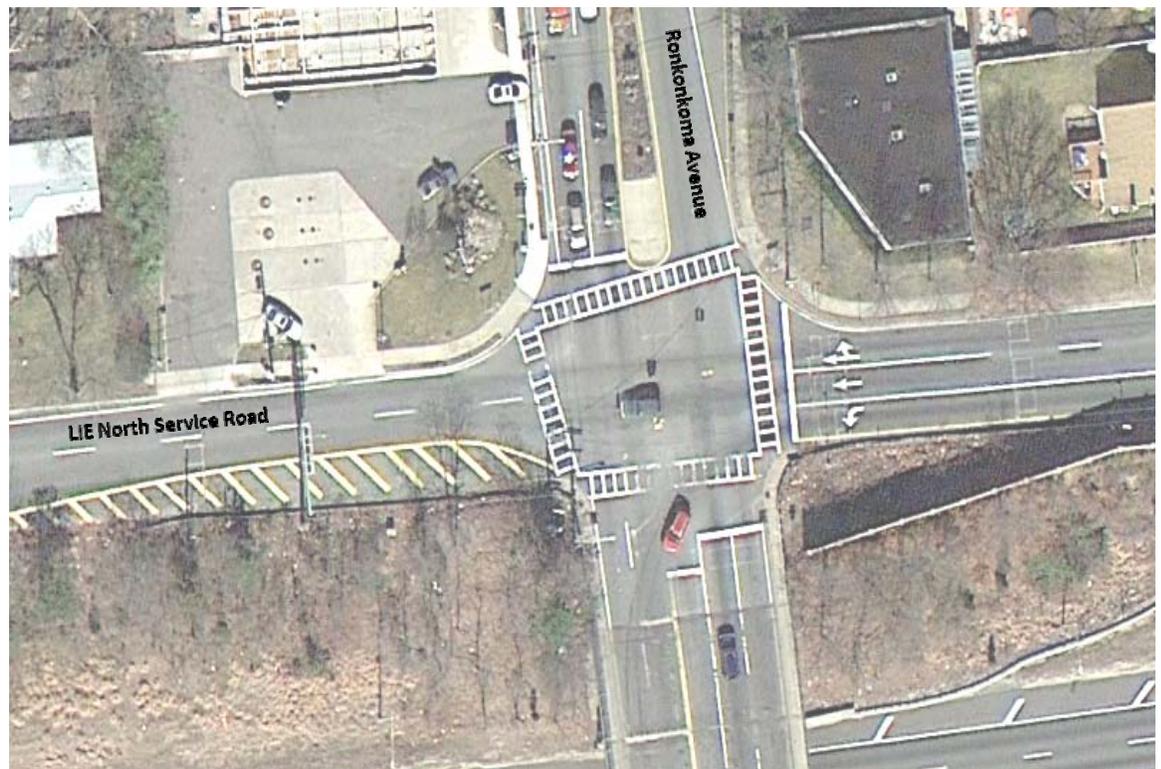


The signalized intersection of the LIE South Service Road and Hawkins Avenue is a four-legged intersection with three active approaches. The traffic flows one-way in the easterly direction on the South Service Road that provides an exclusive left-turn lane, one through lane and a shared right-turn and through lane, with a right-turn channel at the stop bar. Hawkins Avenue provides a through and a shared through and right-turn lane in the northbound direction, an exclusive left-turn lane and two through lanes in the southbound direction. The intersection is controlled by a three-phase actuated signal and that is coordinated with the signal at the intersection of LIE North Service Road and Hawkins Avenue.

The phasing is as follows:

- Eastbound movement
- North-south movements with permitted southbound left-turns
- Lagging protected southbound left-turns and southbound throughs

LIE North Service Road at Ronkonkoma Avenue



The signalized intersection of the LIE North Service Road and Ronkonkoma Avenue is a four-legged intersection with three active approaches. The traffic flows one-way in the westerly direction on the North Service Road that provides an exclusive left-turn lane, one through lane and a shared right-turn and through lane. Ronkonkoma Avenue provides an exclusive left-turn lane and two through lanes in the northbound direction, a through and a shared through lane and right-turn lane in the southbound direction. The intersection is controlled by a three-phase actuated signal that is coordinated with the signal at the intersection of LIE South Service Road and Ronkonkoma Avenue.

The phasing is as follow:

- Westbound movement
- North-south movements with permitted northbound left-turns
- Lagging protected northbound left-turns and northbound throughs

LIE South Service Road at Ronkonkoma Avenue



The signalized intersection of the LIE South Service Road and Ronkonkoma Avenue is a four-legged intersection with three active approaches. The traffic flows one-way in the easterly direction on the South Service Road that provides an exclusive left-turn lane, one through lane and a shared right-turn and through lane, with a right-turn channel at the stop bar. Ronkonkoma Avenue provides a through and a shared through and right-turn lane in the northbound direction, an exclusive left-turn lane and two through lanes in the southbound direction. The intersection is controlled by a three-phase actuated signal and that is coordinated with the signal at the intersection of LIE North Service Road and Ronkonkoma Avenue.

The phasing is as follows:

- Eastbound movement
- North-south movements with permitted southbound left-turns
- Lagging protected southbound left-turns and southbound throughs

Hawkins Avenue at Union Avenue



The signalized intersection of Hawkins Avenue and Union Avenue is a three-legged intersection. Westbound Union Avenue provides a left-turn lane and a right-turn lane. Hawkins Avenue provides a shared through and right-turn lane in the northbound direction, an exclusive left-turn lane and a through lane in the southbound direction. The intersection is controlled by a three-phase actuated signal.

The phasing is as follows:

- Southbound protected left-turns and southbound throughs with westbound right-turn overlap
- North-south movements with permitted southbound left-turns
- Westbound movement



Union Avenue at Mill Road



The signalized intersection of Union Avenue and Mill Road is a four-legged intersection. The east-west Union Avenue approaches provide an exclusive left-turn lane and shared through and right-turn lane in both directions. Mill Road provides a single, shared left-turn, through and right-turn lane in both northbound and southbound directions. The intersection is controlled by a two-phase actuated signal.



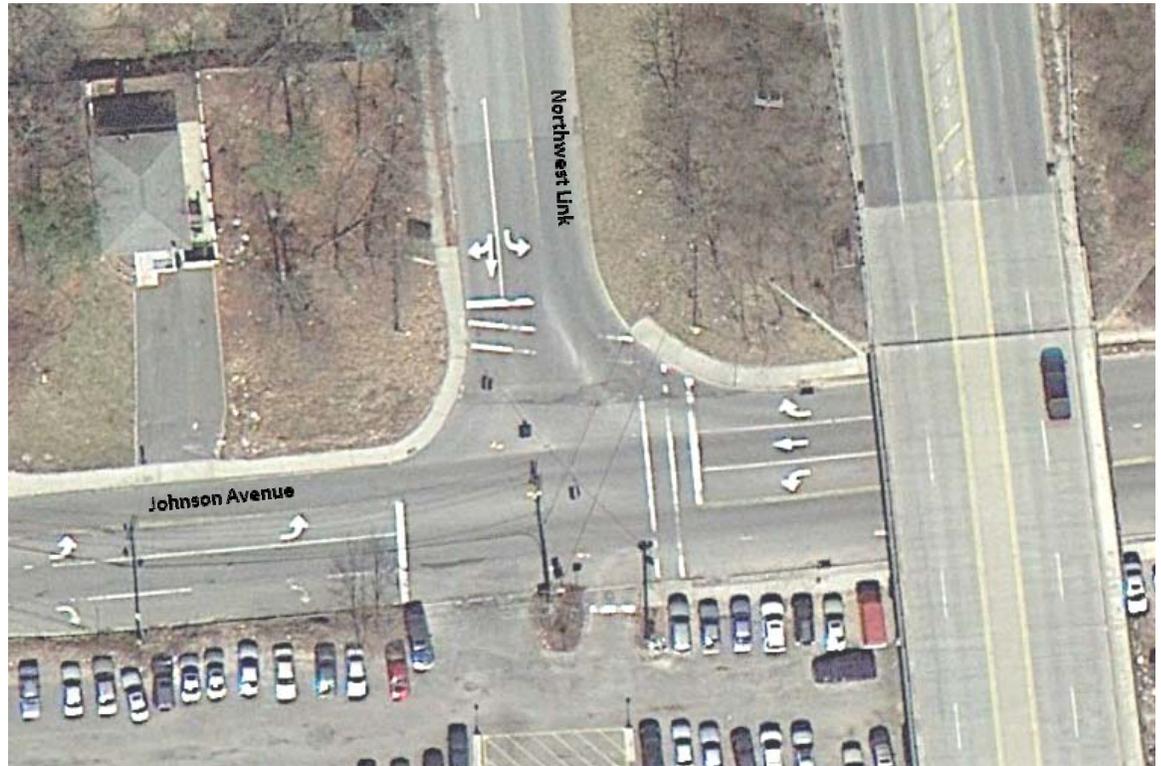
Railroad Avenue at Powell Street



The signalized intersection of Railroad Avenue and Powell Street is a four-legged intersection. The east-west Railroad Avenue approaches provide an exclusive left-turn lane, a through and shared through and right-turn lane in the westbound direction, and an exclusive left-turn lane, a through and an exclusive right-turn lane in the eastbound direction. The northbound approach is the exit to a parking lot on the south side of Railroad Avenue and provides an exclusive left-turn lane and a shared through and right-turn lane. The southbound Powell Street approach provides an exclusive left-turn lane and a shared through and right-turn lane. The intersection is controlled by a two-phase actuated signal.



Johnson Avenue at Northwest Link



The signalized intersection of Johnson Avenue and Northwest Link is a four-legged intersection. The east-west Johnson Avenue approaches provide an exclusive left-turn lane, a through and an exclusive right-turn lane in both directions. The northbound approach is the exit to a parking lot on the south side of Johnson Avenue and provides a single shared left, through and right-turn lane. The southbound Northwest Link provides an exclusive left-turn lane and a shared through and right-turn lane. The intersection is controlled by a two-phase actuated signal.



Hawkins Avenue at Railroad Avenue



The unsignalized intersection of Hawkins Avenue and Railroad Avenue is a four-legged intersection with three active approaches. The northbound approach is one-way southbound only. Hawkins Avenue forms the southbound approach and provides a shared left-turn and through lane and an exclusive right-turn lane. The east-west Railroad Avenue approaches provide an exclusive left-turn and a shared through and right-turn lane in the eastbound direction and an exclusive left-turn, a through and an exclusive right-turn lane in the westbound direction. The southbound approach is stop controlled.



Ronkonkoma Avenue at 2nd Street / Powell Street



The un-signalized intersection of Ronkonkoma Avenue and 2nd Street/Powell Street is a four-legged intersection. No left-turns from any of the approaches or east-west through movements are allowed at this intersection. Effectively, Powell Street and 2nd Street operate as right-in-right-out only. The portion of Ronkonkoma Avenue that runs north-south provides a through and a shared through and right-turn lane in both directions. Both the westbound Powell Street and eastbound 2nd Street provide a right-turn lane. Powell Street and 2nd Street are stop controlled.

Existing Traffic Volume Data

Intersection turning movement counts were manually collected on May 13, 2010 during the weekday a.m. peak period (7:00 a.m. to 9:00 a.m.) and weekday p.m. peak period (5:00 p.m. to 7:00 p.m.) at the following six key intersections:

- LIE North Service Road at Hawkins Avenue (Signalized)
- LIE South Service Road at Hawkins Avenue (Signalized)
- Hawkins Avenue at Union Avenue (Signalized)
- Union Avenue at Mill Road (Signalized)
- Hawkins Avenue at Railroad Avenue (Unsignalized)
- Ronkonkoma Avenue at 2nd Street/Powell Street (Unsignalized)

These 2010 volumes were adjusted to 2013 using a growth factor obtained from a New York Metropolitan Transportation Council (NYMTC) study.

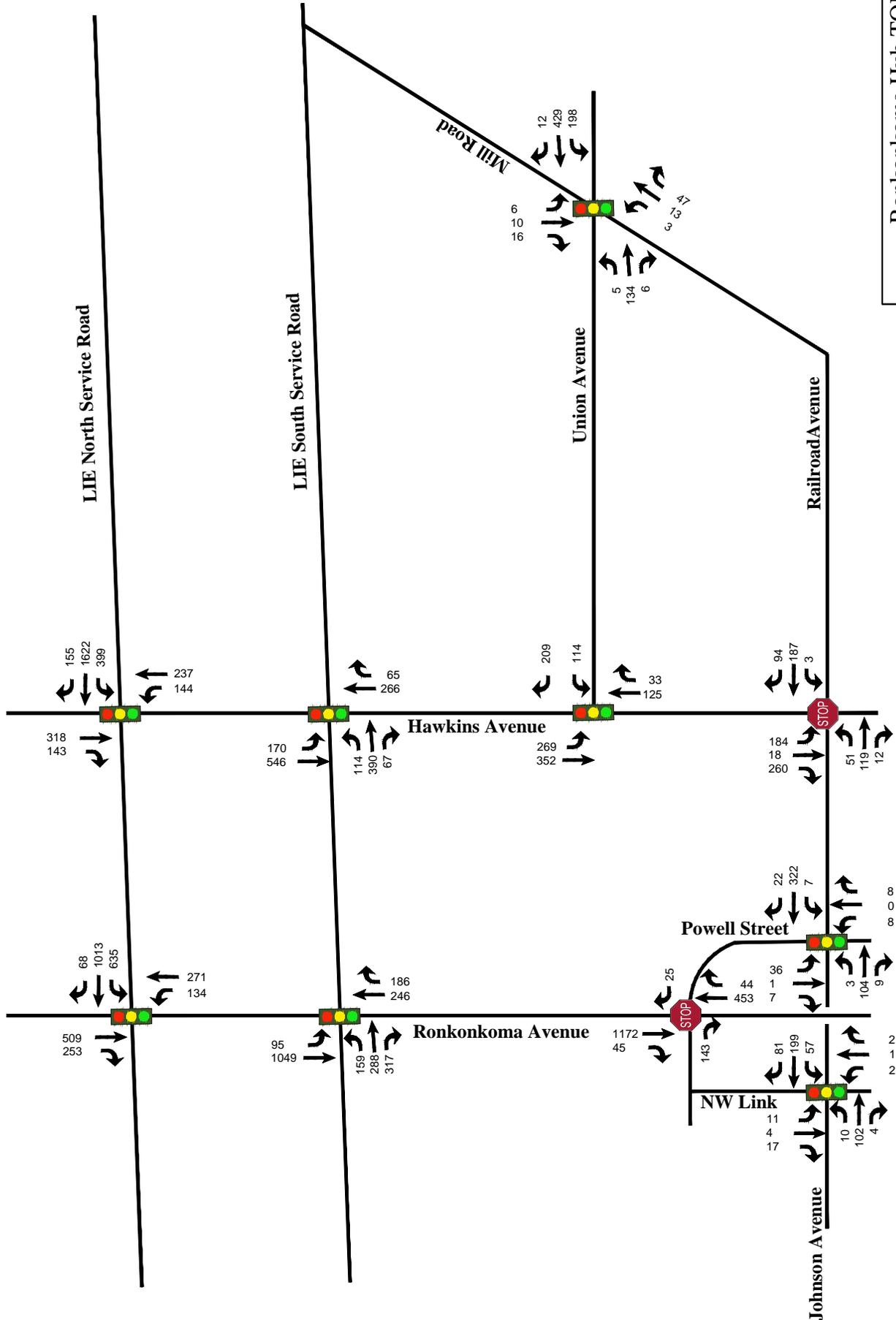


Additional turning movement counts were collected on February 26, 2013 during the weekday a.m. peak period (7:00 a.m. to 9:00 a.m.) and weekday p.m. peak period (4:00 p.m. to 7:00 p.m.) using the Miovision cameras at the following four key intersections:

- LIE North Service Road at Ronkonkoma Avenue (Signalized)
- LIE South Service Road at Ronkonkoma Avenue (Signalized)
- Railroad Avenue at Powell Street (Signalized)
- Johnson Avenue at Northwest Link (Signalized)

These periods typically reflect the heaviest traffic flows coinciding with commuter activity at the Ronkonkoma LIRR station. Detailed summaries of the turning movement counts are provided in Appendix A.

The existing peak hour traffic volumes for the weekday a.m. and p.m. peak hours are shown in Figures 3 and 4, respectively.

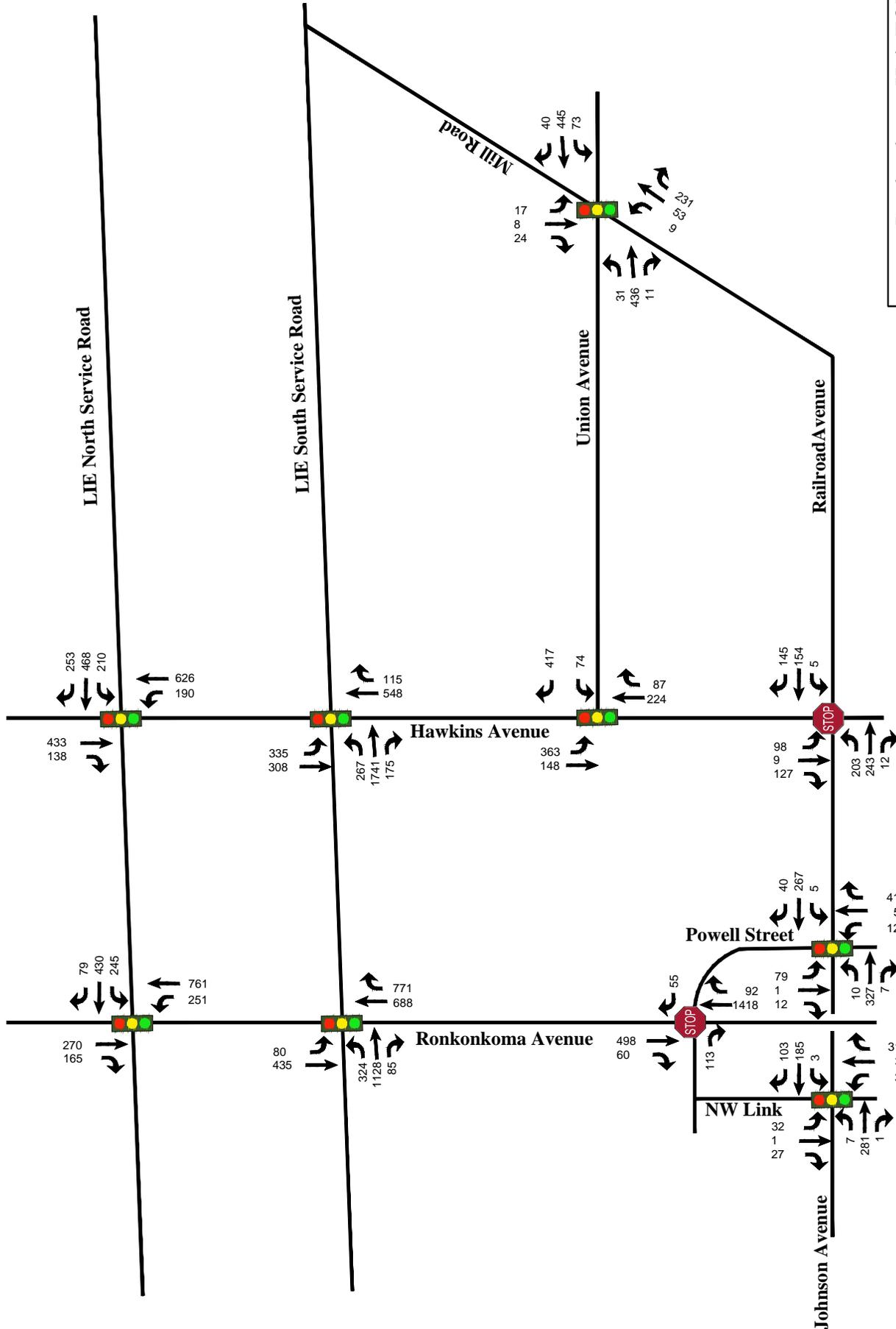
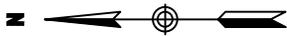


Ronkonkoma Hub TOD
Existing Traffic Volumes
AM Peak Hour

VIII

Figure 3

(Not to scale)



Ronkonkoma Hub TOD
Existing Traffic Volumes
PM Peak Hour

VIII

Figure 4

(Not to scale)



Accident History

Accident data from NYSDOT Accident Location Information System (ALIS) records for the most recent available three-year period was requested. Accident Verbal Description Reports (VDRs) for the period February 1, 2009 through January 31, 2012 were obtained for the key intersections and principal roadway segments in the study area.

Table 1 provides a summary by severity and accident type of accidents history at the following ten key intersections:

- LIE North Service Road at Hawkins Avenue (Signalized)
- LE South Service Road at Hawkins Avenue (Signalized)
- LIE North Service Road at Ronkonkoma Avenue (Signalized)
- LIE South Service Road at Ronkonkoma Avenue (Signalized)
- Hawkins Avenue at Union Avenue (Signalized)
- Union Avenue at Mill Road (Signalized)
- Railroad Avenue at Powell Street (Signalized)
- Johnson Avenue at Northwest Link (Signalized)
- Hawkins Avenue at Railroad Avenue (Unsignalized)
- Ronkonkoma Avenue at 2nd Street/Powell Street (Unsignalized)

Table 2 provides a summary of non-intersection accidents on the principal roadways in the study area.

- Segment of Ronkonkoma Avenue - 5th Street to Bergen Street
- Segment of Hawkins Avenue - LIE South Service Road to Railroad Avenue
- Segment of Railroad Avenue - Northwest Link to Mill Road
- Segment of Union Avenue - Hawkins Avenue to Mill Road

The Accident VDRs are included in Appendix F.



Table 1 – Accident Data at Key Intersections

KEY INTERSECTIONS IN THE CURRENT STUDY	Accident Severity				Total	Accident Type									
	Fatality	Injury	Property Damage Only	Non-reportable		Right Angle	Rear-end	Left-turn	Right-turn	Fixed Object	Side-Swipe	Over- Taking	Pedestrian/Bicycle	Parked Vehicle	Other/ Unknown
LIE North Service Road at Hawkins Avenue	1	15	6	-	22	11	8	-	-	-	-	2	-	-	1
LIE South Service Road at Hawkins Avenue	-	13	10	-	23	12	4	6	-	1	-	-	-	-	-
LIE North Service Road at Ronkonkoma Avenue	-	16	10	2	28	9	11	3	1	1	-	-	-	-	1
LIE South Service Road at Ronkonkoma Avenue	-	9	14	2	25	6	12	1	-	2	-	3	1	-	-
Hawkins Avenue at Union Avenue	-	6	1	1	8	-	5	-	-	1	-	1	-	-	1
Union Avenue at Mill Road	-	2	3	3	8	4	1	1	-	-	-	1	-	-	1
Hawkins Avenue and Railroad Avenue	-	6	2	2	10	4	2	3	-	-	-	-	-	-	1
Ronkonkoma Avenue at Powell Street / 2 nd Street	-	2	1	-	3	1	-	-	-	2	-	-	-	-	-

At the LIE North Service Road and Hawkins Avenue during the three-year period from February 1, 2009 through January 31, 2012, there occurred a total of 22 accidents. There was one fatality, 15 accidents involved injuries and six resulted in property damage only. The accident types with the highest incident rates were right angle (11 accidents), accounting for 50% of the total, and rear-end (eight accidents), which accounted for 36% of the total. No other accident type exceeded 10% of the total.

The fatality at this intersection occurred on 4/30/2011 just after midnight and was assigned case number 2011-33934290. It was the result of a right angle collision between a vehicle travelling west on the service road and a vehicle travelling north on Hawkins Avenue. Light condition was dark-road lighted, weather cloudy and road surface dry. The apparent contributing factors included traffic control devices disregarded (failure to yield).

At the LIE South Service Road and Hawkins Avenue, there occurred a total of 23 accidents. There were no reported fatalities, 13 accidents involved injuries and 10 resulted in property damage only. The accident types with the highest incident rates were right angle (12 accidents), accounting for 52% of the total, left-turn (six accidents), accounting for 26% of the total, and rear-end (four accidents), which accounted for 17% of the total. No other accident type exceeded 10% of the total accidents at the intersection.



At the LIE North Service Road and Ronkonkoma Avenue, there occurred a total of 28 accidents. There were no reported fatalities, 16 accidents involved injuries, 10 resulted in property damage only and two were classified as non-reportable. The accident types with the highest incident rates were rear-end collisions (11 accidents), which accounted for 39% of the total, right angle (nine accidents), accounting for 32% of the total, and left-turns (three accidents), which accounted for 11% of the total. No other accident type exceeded 10% of the total at the intersection.

At the LIE South Service Road and Ronkonkoma Avenue there occurred a total of 25 accidents. There were no reported fatalities, nine accidents involved injuries, 14 resulted in property damage only and two were classified as non-reportable. The accident types with the highest incident rates were rear-end collisions (12 accidents), accounting for 48% of the total, right angle (six accidents), accounting for 24% of the total, and overtaking (three accidents), which accounted for 12% of the total. No other accident type exceeded 10% of the total at the intersection.

At Hawkins Avenue and Union Avenue, there occurred a total of eight accidents. There were no reported fatalities, 6 accidents involved injuries, one resulted in property damage only and one was classified as non-reportable. The accident type with the highest incident rate was rear-end collision (five accidents), accounting for 63% of the total. No other accident type exceeded 10% of the total.

At Union Avenue and Mill Road there occurred a total of eight accidents. There were no reported fatalities, two accidents involved injuries, three resulted in property damage and three were classified as non-reportable. The accident type with the highest incident rate was rear-end collision (four accidents), accounting for 50% of the total.

At Hawkins Avenue and Railroad Avenue, there occurred a total of 10 accidents. There were no reported fatalities, six accidents involved injuries, two resulted in property damage only and two were classified as non-reportable. The accident types with the highest incident rates were right angle (four accidents), accounting for 40% of the total, left-turns (three accidents), accounting for 30% of the total, and rear-end collisions (two accidents), which accounted for 20% of the total. No other accident type exceeded 10% of the total.

At Ronkonkoma Avenue and Powell Street/2nd Street, there occurred a total of three accidents. There were no reported fatalities, two accidents involved injuries, and one resulted in property damage only. Two of the accidents were collisions with fixed objects and the third was a right angle.

There were no accidents recorded at the intersections of Railroad Avenue and Powell Street or Johnson Avenue and Northwest Link.



Table 2 – Non-Intersection Accident Data

ROADWAY SEGMENT	Accident Severity				Total	Accident Type									
	Fatality	Injury	Property Damage Only	Non-reportable		Right Angle	Rear-end	Left-turn	Right-turn	Fixed Objects	Side-Swipe	Over-Taking	Pedestrian/Bicycle	Parked Vehicle	Other/ Unknown
Ronkonkoma Ave 5 th Street to Bergen Street	-	7	3	1	11	2	4	-	-	-	-	5	-	-	-
Hawkins Avenue LIE South Service Road to Railroad Avenue	-	-	4	1	5	-	1	1	-	-	1	1	-	1	-
Railroad Avenue Northwest Link to Mill Road	-	4	9	1	14	3	3	1	-	1	-	2	1	1	2
Union Avenue Hawkins Avenue to Mill Road	-	12	4	-	16	13	1	-	-	-	-	-	1	-	1

On the segment of Ronkonkoma Avenue from 5th Street to Bergen Street during the three-year period from February 1, 2009 through January 31, 2012, there occurred a total of 11 accidents. There were no fatalities, seven accidents involved injuries, three resulted in property damage only and one was classified as non-reportable. The accident types with the highest incident rates were, overtaking (five accidents), accounting for 45% of the total, rear-end collision (4 accidents), which accounted for 37% of the total and right angle (two accidents), which accounted for 18% of the total. No other accident type exceeded 10% of the total.

On the segment of Hawkins Avenue from LIE South Service Road to Railroad Avenue, there occurred a total of five accidents. There were no fatalities, four resulted in property damage only and one was classified as non-reportable. The accident types were evenly distributed with one accident each of rear-end collision, left-turn, side-swipe, overtaking and parked vehicle.

On the segment of Railroad Avenue from Northwest Link to Mill Road, there occurred a total of 14 accidents. There were no fatalities, four accidents involved injuries, nine resulted in property damage only and one was classified as non-reportable. The accident types with the highest incident rates were, right angle (three accidents), accounting for 21% of the total, rear-end collision (three accidents), which accounted for 21% of the total and overtaking (two accidents), which accounted for 14% of the total. No other accident type exceeded 10% of the total.

On the segment of Union Avenue from Hawkins Avenue to Mill Road, there occurred a total of 16 accidents. There were no fatalities, 12 accidents involved injuries, four resulted in property damage only. The accident type with the highest



incident rate was, rear-end collision (13 accidents), accounting for 81% of the total. No other accident type exceeded 10% of the total.

There were no accidents recorded on the segment of Mill Road from Railroad Avenue to Union Avenue.

Suffolk County Transit

The LIRR Ronkonkoma Station serves as a regional transit hub, served by not only the LIRR but multiple Suffolk County Transit bus routes that stop on the Brookhaven side of the station. Four bus routes service the station, stopping in the bus and taxi loop located immediately west of the ticket office. Details of the schedules for these routes along with route maps are included in Appendix E. A summary description of each route is below.

The Suffolk County Transit S57 bus operates daily (Monday through Saturday) between Sayville and the Smith Haven Mall in Lake Grove providing northbound and southbound service. Service in each direction is approximately hourly with the first stop at the LIRR Ronkonkoma station at 7:40 a.m. and 6:40 a.m. for northbound and southbound service, respectively. The last stop at the station is scheduled at 7:05 p.m. and 7:42 p.m. for northbound and southbound service, respectively.

The Suffolk County Transit S59 also operates daily between Sayville and the Smith Haven Mall in Lake Grove providing northbound and southbound service. Service in each direction is approximately hourly with the first stop at the LIRR Ronkonkoma station at 6:16 a.m. and 7:15 a.m. for northbound and southbound service, respectively. The last stop at the station is scheduled at 7:40 p.m. and 8:00 p.m. for northbound and southbound service, respectively.

The Suffolk County Transit 6A bus operates daily (Monday through Saturday) between the Ronkonkoma Station and Coram providing eastbound and westbound service. Service in both directions is approximately hourly.

The Suffolk County Transit 7A bus operates daily (Monday through Saturday) between the Ronkonkoma Station and the Long Island Railroad Patchogue Station provide in northbound and southbound service. Service in both directions is approximately hourly.

The presence of both the Long Island Railroad, with service to New York City and points west, and bus service from Suffolk County Transit, will significantly reduce the use of private vehicles by residents, employees and visitors to the Ronkonkoma Hub TOD. The effects of transit usage on trip making activity are discussed later in this study.



3

Future Conditions

An analysis of future conditions, both with and without the proposed action (“Build” and “No-Build” conditions, respectively), was performed to evaluate the effect of the proposed TOD project on future traffic conditions in the area. The No-Build condition represents the future traffic conditions that can be expected to occur, were the proposed TOD not constructed. The No-Build condition serves to provide a comparison to the Build condition, which represents expected future traffic conditions resulting from both project and non-project-generated traffic. Background traffic volumes in the study area were projected to the year 2020, reflecting the year when the proposed action is expected to be completed and operational.

No-Build Condition

No-Build (2020) traffic volumes include all existing traffic, new traffic due to background traffic growth and new traffic due to other planned developments in the area.

Background Traffic Growth

To account for increases in general population and background growth not related to the proposed action, an annual growth factor was applied to the existing traffic volumes. Based on study data and the findings of the New York Metropolitan Transportation Council (NYMTC), the growth rate anticipated for Suffolk County is 0.63% per annum. For presenting a more conservative analysis, a growth rate of 0.65% per annum was adopted. A total growth rate of 4.5% percent was applied to the existing 2013 traffic data to develop the background traffic for the anticipated Build Year of 2020.



Other Planned Developments

The Town of Brookhaven identified two Other Planned Developments within the study area. They are:

- Southwest corner of the LIE South Service Road at Ronkonkoma Avenue – redevelopment of a former shuttered gasoline station with repair service to a gasoline station
- Southeast corner of the LIE South Service Road at Hawkins Avenue – development of a currently vacant site to a restaurant use

Discussions with Town of Brookhaven representatives indicate neither of these developments is likely to significantly influence traffic volumes or patterns in the study area. Therefore, they are covered by the background traffic growth rate utilized in this study and discussed previously. It was also indicated that the Town will seek property dedications along both street frontages of each of these sites from the developers for use in potential future roadway widenings.

MTA LIRR Double Track Project

The MTA Long Island Railroad prepared an Environmental Assessment (EA) for the Double Track Project. This project will provide for the completion of two tracks between Farmingdale and Ronkonkoma. Currently, only small sections of two tracks are provided in some areas of this length of the Ronkonkoma Branch. Double Track would fill in and complete the double-tracking of the LIRR Ronkonkoma Branch between Farmingdale and Ronkonkoma to increase service reliability and flexibility and allow increased off-peak service.

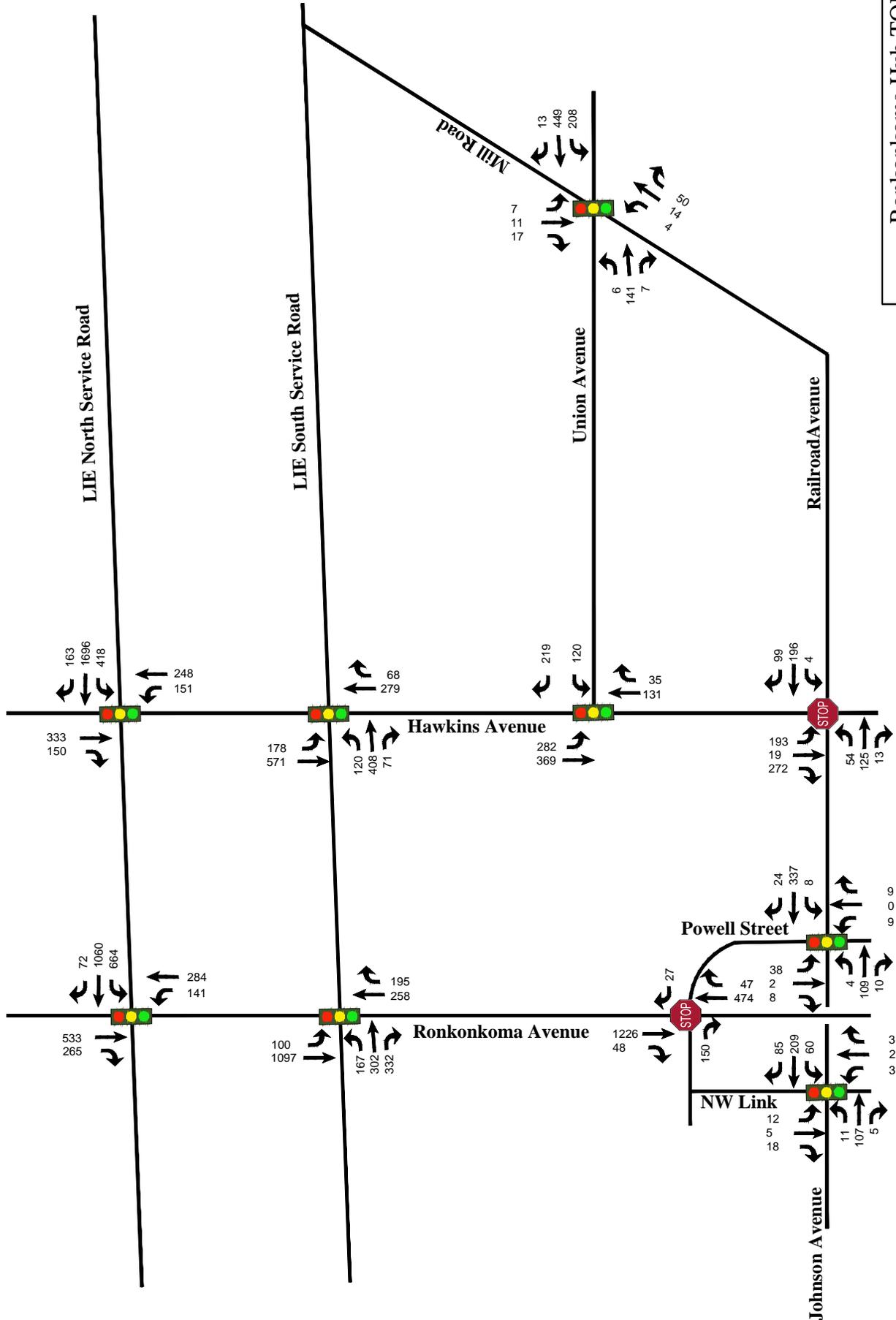
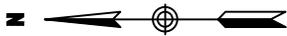
The EA was reviewed with respect to traffic and transportation to determine if any changes to peak vehicle traffic volume or conditions could be expected as a result of Double Track that should be accounted for in this study, as Double Track is expected to be completed in 2018, prior to completion of the Ronkonkoma HUB TOD.

Review of the EA reveals a projected increase in *off-peak train service only* as a result of the Double Track Project within the vicinity of the Ronkonkoma Station. The number of trains operating west of the station during the weekday a.m. and p.m. peak hours is unchanged from the No-Build condition, increasing by one train in each direction during only the midday peak hour. As the EA forecasts only increases in off-peak trains near Ronkonkoma, any increases in vehicle trips near the Ronkonkoma station as a result would be limited to off-peak periods when traffic levels in the area are significantly lower than the commuter peak periods. The development proposed with the Ronkonkoma HUB TOD would generate peak traffic



levels within the typical a.m. and p.m. peak commuter periods when the Double Track Project would not. Therefore, the Double Track Project will not create any impacts to traffic conditions that require evaluation as part of this study.

The No-Build traffic volumes for the weekday a.m. and p.m. peak hours are shown in Figures 5 and 6, respectively.

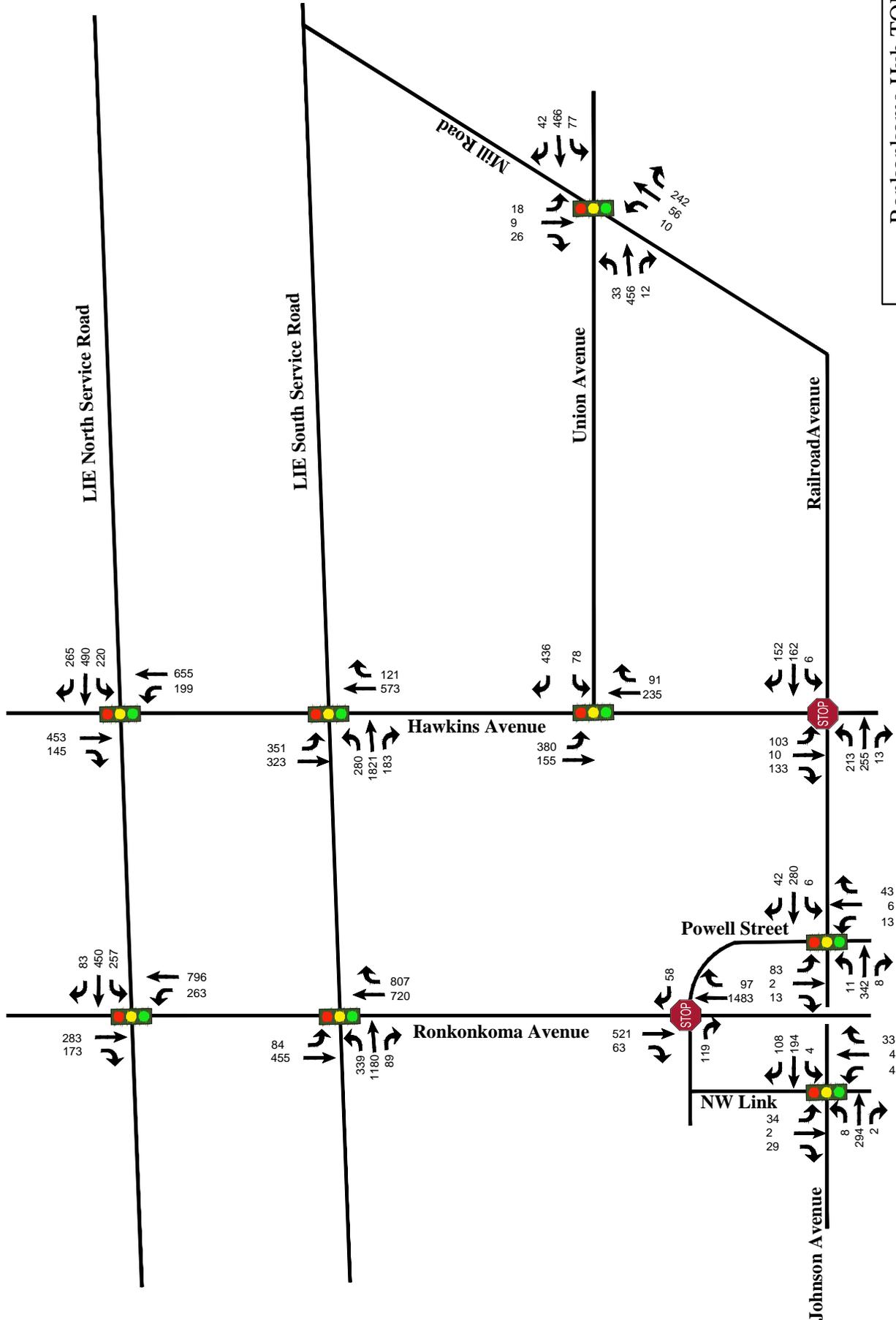
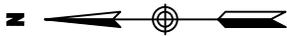


Ronkonkoma Hub TOD
No Build Traffic Volumes
AM Peak Hour



Figure 5

(Not to scale)



(Not to scale)

Figure 6



Build Condition

To estimate the traffic impact of the proposed TOD, it is necessary to determine the traffic volumes expected to be generated by the proposed action.

Project-Generated Traffic Volumes

To obtain more specific information regarding the breakdown of the potential uses for the Ronkonkoma TOD area, discussions were held with representatives of the Town of Brookhaven and the Master Developer selected by the Town for the TOD. Based on these discussions, and review of the Maximum Density Plan, the following breakdown of the development was utilized in this analysis:³

- 1,450 Residential Units⁴
- 360,000 square feet – Office (including medical office)
- 155,000 square feet – Retail
- 306,000 square feet – Office
- 54,000 square feet – Medical Office
- 540 seats – 4-5 Quality Restaurants (10% open during a.m. peak)
- 540 seats – 4-5 High Turnover Sit Down Restaurants (10% open during a.m. peak)
- 120 Rooms – Hotel⁵

To estimate the project-generated traffic for the above mix of uses, a review was undertaken of the available trip generation data sources, including the reference published by the Institute of Transportation Engineers (ITE), Trip Generation, 9th Edition. This widely utilized reference source contains trip generation rates for related uses, “Apartments” (Land Use Code #220), “Residential Condos” (Land Use Code #230), “Retail Space” (Land Use Code #820), “General Office Building” (Land Use Code #710), “Medical Office Building” (Land Use Code #720), “Hotel” (Land Use Code #310), “Quality Restaurant” (Land Use Code #931) and “High Turnover Sit Down Restaurant” (Land Use Code #932).

Table 3 summarizes the full build trip generation data for the Maximum Density Concept Plan.

³ This breakdown was used for analysis purposes and represents a reasonable worst-case condition, based on the Maximum Density Plan. However, the actual development will be based upon market demand at the time of construction.

⁴ For analysis purposes, the distribution of unit types used was 50% rental apartments and 50% ownership condos/townhouses. However, the actual unit-type distribution would be based upon market demand at the time of construction.

⁵ The Master Developer has indicated that the component of the Maximum Density Concept Plan denoted as Flex Space may be a 120 room hotel.



Table 3 – Trip Generation – Ronkonkoma Hub TOD

Project Component	Component Size	AM Peak Hour			PM Peak Hour		
		Entering	Exiting	Total	Entering	Exiting	Total
APARTMENTS ITE # 220 Rental Apartment	725 Units	72	287	359	270	146	416
RESIDENTIAL ITE # 230 Condos/Townhouses	725 Units	43	209	252	204	101	305
HOSPITALITY ⁶ ITE # 310 HOTEL	120 Rooms	81	42	123	81	84	165
OFFICE/COMMERCIAL ITE # 710 General Office Building	306,000 SF	412	56	468	72	349	421
MEDICAL OFFICES ITE # 720 Medical-Dental Building	54,000 SF	102	27	129	47	120	167
RETAIL SPACE ITE # 820 Shopping Center	155,000 SF	92	57	149	276	300	576
RESTAURANT ITE # 931 Quality Restaurant (10% open a.m. Peak)	540 Seats (20,000 SF)	6	3	9	94	47	141
RESTAURANT ITE # 932 High Turnover Sit Down (10% open a.m. Peak)	540 Seats (20,000 SF)	13	12	25	127	95	222
Total		821	693	1514	1171	1242	2413

Source: *Trip Generation* (ITE, 9th Edition). Rates are for weekday a.m. and PM peak hours of adjacent street traffic. Rates for building areas are per 1,000 square feet.

Using the ITE rates, the development is likely to generate a gross 1,516 trips (entering 823 trips & exiting 693 trips) during a.m. peak hour and 2,413 trips (entering 1,171 trips and exiting 1,242 trips) during p.m. peak hour. However, this estimate does not account for the TOD nature of the proposal.

⁶ The Master Developer has indicated that the component of the Maximum Density Concept Plan denoted as Flex Space may be a 120 room hotel (ITE Land Use Code # 310). The trip generation figures in this table, and used subsequently in the analysis, were calculated based on this component being a Recreational Community Center (ITE Land Use Code #495). The peak period trip generation of a 120 room hotel is significantly less than the Recreational Community Center (approximately half). Therefore, the analysis performed in this study accounts for the presence of the hotel.



Transit -Oriented Development

The proposed mixed-use project is a transit-oriented development based on its proximity to mass transit. The entirety of development is located at or within approximately one-quarter mile of the LIRR-Ronkonkoma station. Ronkonkoma is the east-end terminus of electric car service on the Ronkonkoma branch of LIRR, and is well served by train services. The frequency of the service is good, with express trains during the peak periods, with convenient connections to reach New York City and parts of Suffolk, Nassau, and Queens Counties.

The Ronkonkoma LIRR station is also well served by Suffolk Transit Bus, as discussed in Section 2 of this report. Routes S57 (Sayville to Smithhaven Mall), S59 (Sayville to Smithhaven Mall), 6A (Ronkonkoma Railroad to Coram), and 7A (Ronkonkoma Railroad to Patchogue Railroad) provide convenient connections to all over Suffolk, Nassau, and Queens Counties.

The proximity of the development to mass transit works to reduce vehicle trips, as a significant percentage of people residing there would use the train and bus services for their commute to and from work. Similarly, a significant percentage of people employed in the retail and office portion of the development would arrive and leave by transit. The residents and other commuters using the LIRR may choose to shop at the retail outlets and patronize restaurants located within the development, thereby reducing the vehicle trips. It is also possible that a percentage of people would both live and work within the development, further reducing vehicle trips.

To estimate the reduction in vehicle trips in a transit-oriented development, various studies were reviewed. Available studies on TODs show a reduction in vehicle trips by almost 50%. In order to take a conservative approach, this study assumes only a 25% reduction in trip generation. Table 4 shows the trip generation from Table 3 adjusted to conservatively reflect the nature of this TOD.



Table 4 – TOD Trip Generation – Ronkonkoma HUB TOD

ITE Trip Generation (Table 3)	AM Peak Hour Trips		PM Peak Hour Trips	
	Entering	Exiting	Entering	Exiting
	821	693	1,171	1,242
	1,514		2,413	
Trip generation adjusted for Transit Oriented Development at 75% of the normal rate	AM Peak Hour Trips		PM Peak Hour Trips	
	Entering	Exiting	Entering	Exiting
	615	520	878	932
	1,135		1,810	

As shown in Table 4, the proposed TOD is projected to generate 1,135 trips during the weekday a.m. peak hour and 1,810 trips during the weekday p.m. peak hour.

Pass-by Trips

ITE defines pass-by trips as *trips made as intermediate stops on the way from an origin to a primary trip destination without diversion*. Pass-by trips are attracted from the adjacent street. The concept of pass-by would apply to a variety of land uses including retail and restaurant. Commuters on a primary trip stopping at a retail outlet to make a purchase or stopping at a restaurant to eat before continuing are good examples of pass-by retail trips in the context of this development. Pass-by trip rates would depend on the type and size of the development.

The ITE Trip Generation Manual and Handbook gives the following pass-by trip rate for retail and restaurants.

- LUC #820 – Shopping Center – p.m. – 34%
- LUC #931 – Quality Restaurant – p.m. – 44%
- LUC #932 – High Turnover Restaurant – p.m. – 43%

For a more conservative analysis, a pass-by rate of 20% was used for the above land uses during the p.m. peak only. No credit was taken for a.m. peak trips. This reduction was applied to the trip generation assigned to the various intersections in the Build Condition.

Table 5 summarizes the p.m. peak hour pass-by trips and Table 6 shows the resulting net trip generation for the weekday a.m. and p.m. peak hours (after pass-by credit).



Table 5 – Pass-by Trips – PM Peak Hour

Trips	Entering	Exiting
Generated by site	878	932
Pass-by Rate Applied to Retail & Restaurants	20%	
Total Pass-by	99	99

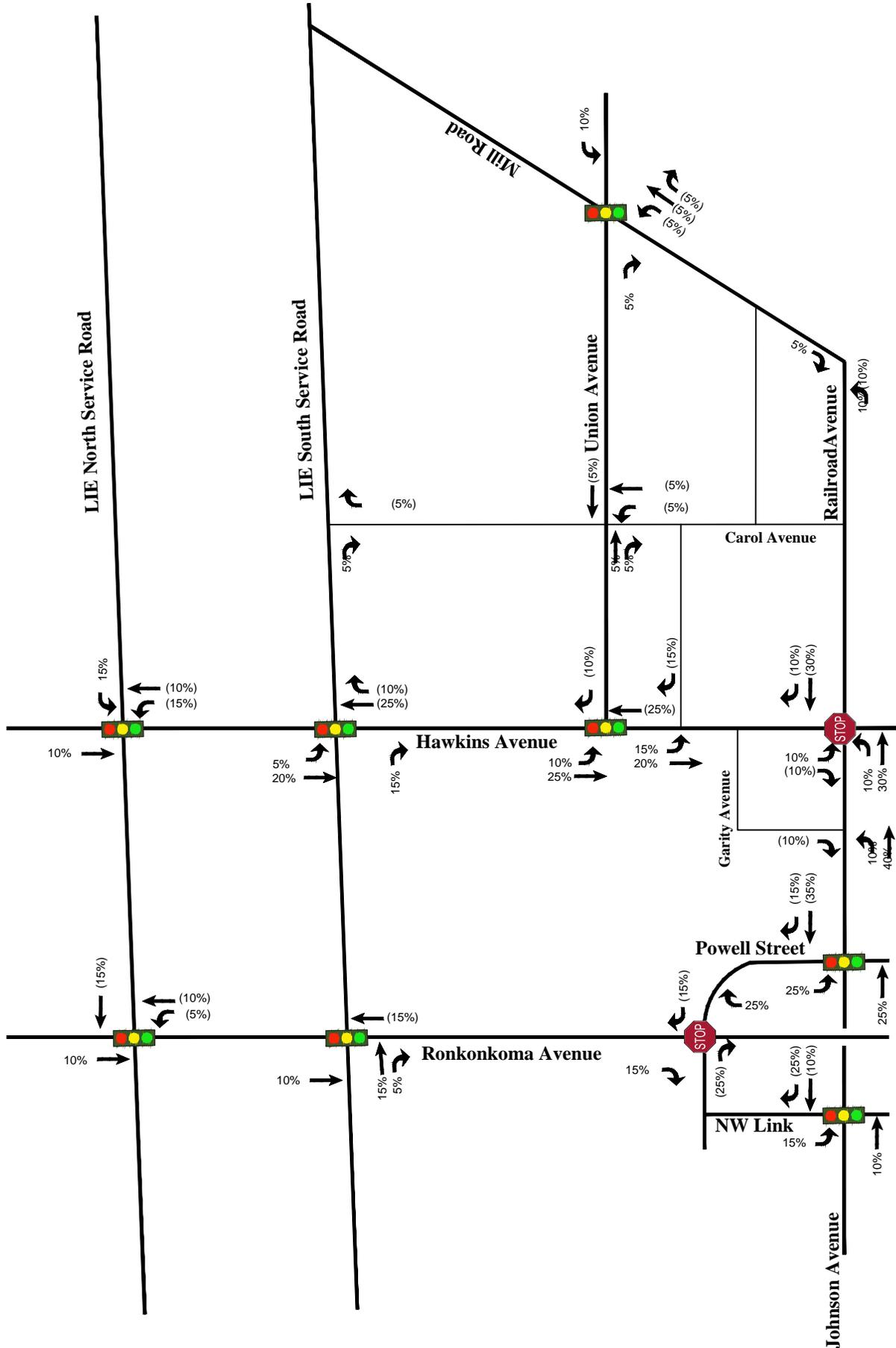
Table 6 – Net Trip Generation after TOD & Pass-by Credits

ITE Trip Generation (Table 3)	AM Peak Hour Trips		PM Peak Hour Trips	
	Entering	Exiting	Entering	Exiting
	615	520	779	833
	1,135		1,612	

Trip Distribution and Assignment

The vehicle trips originating from and destined to the TOD were assigned to the adjacent roadways based on characteristics of the roadway network and existing travel patterns in the area. Figure 7 shows the trip distribution percentages. These distribution percentages were then applied to the site-generated traffic volumes and site trips assigned to the roadway network. The resulting project-generated traffic volumes for the weekday a.m. and p.m. peak hours are shown in Figures 8 and 9, respectively.

To determine the future Build traffic volumes, the project-generated trips were added to the No-Build traffic volumes at the study intersections. The resulting Build traffic volumes for the weekday a.m. and p.m. peak hours are shown in Figures 10 and 11, respectively.



Ronkonkoma Hub TOD
Trip Distribution

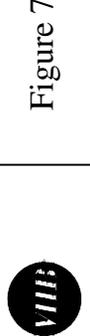
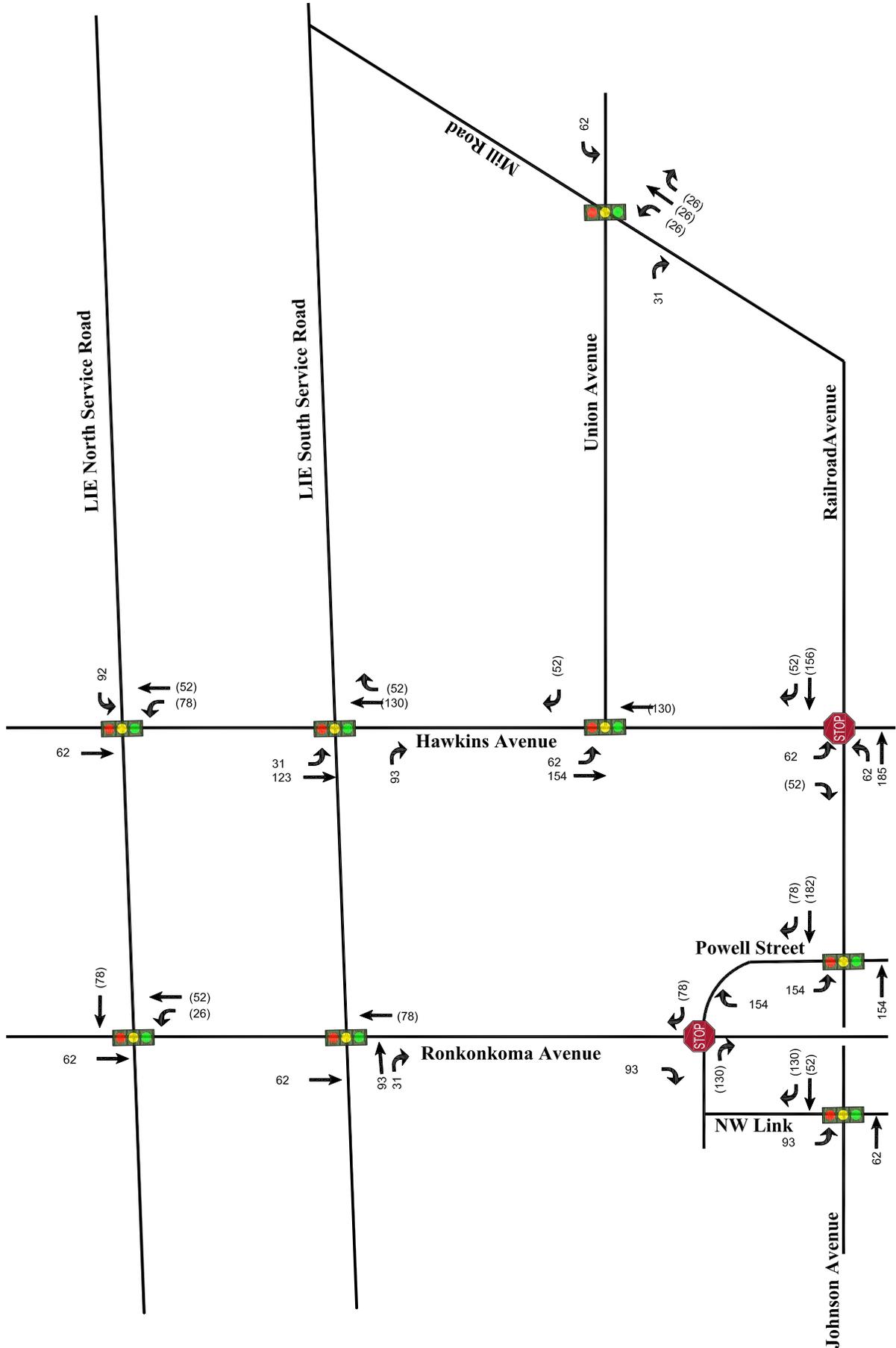
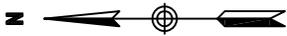


Figure 7

Legend
 Entering Traffic - xx
 Exiting Traffic - (xx)

(Not to scale)



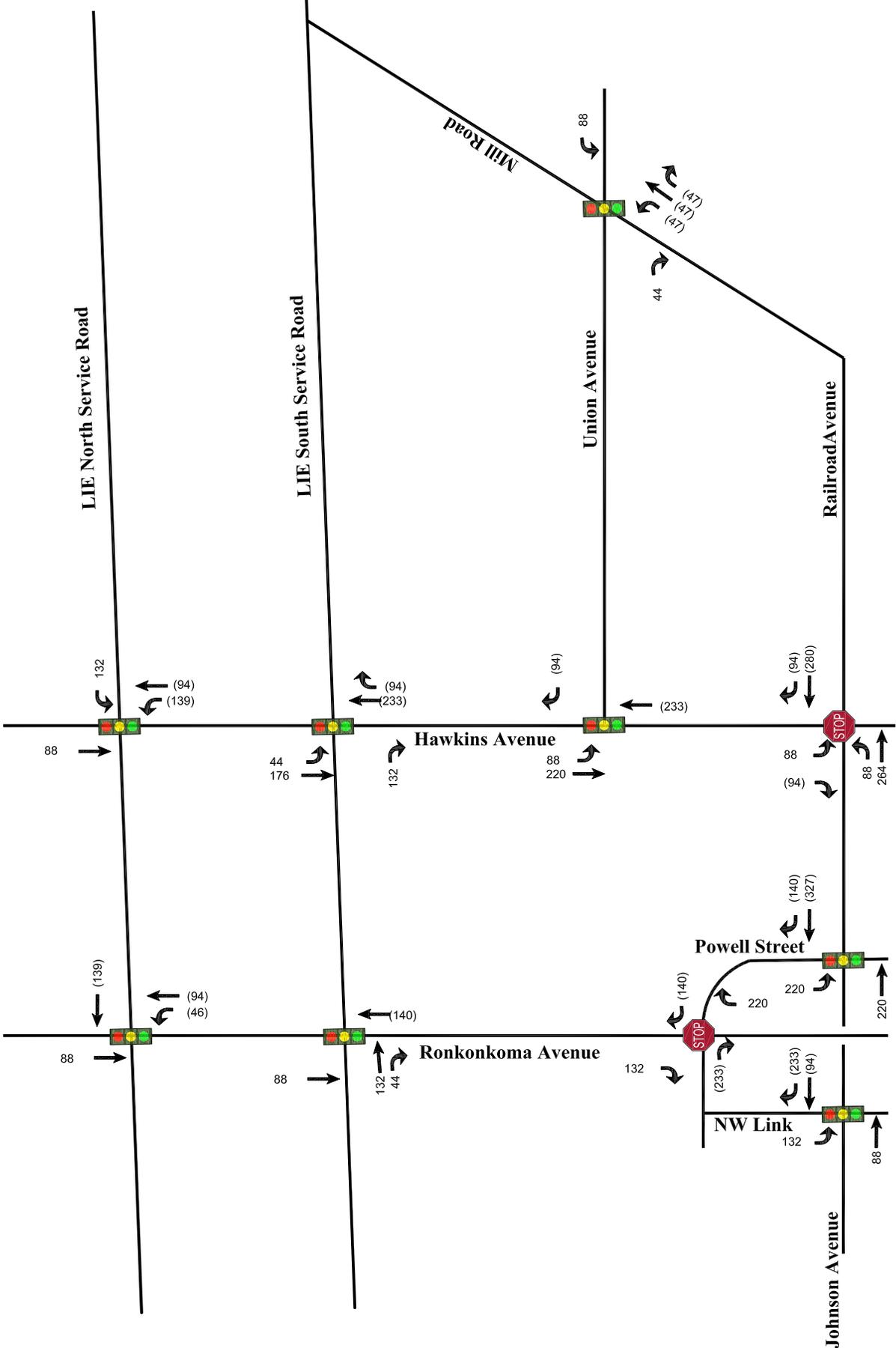
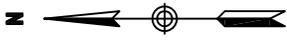
Legend
 Entering Traffic - (xx)
 Exiting Traffic - (xx)

Ronkonkoma Hub TOD
 Site Generated Traffic Volumes
 AM Peak Hour



Figure 8

(Not to scale)



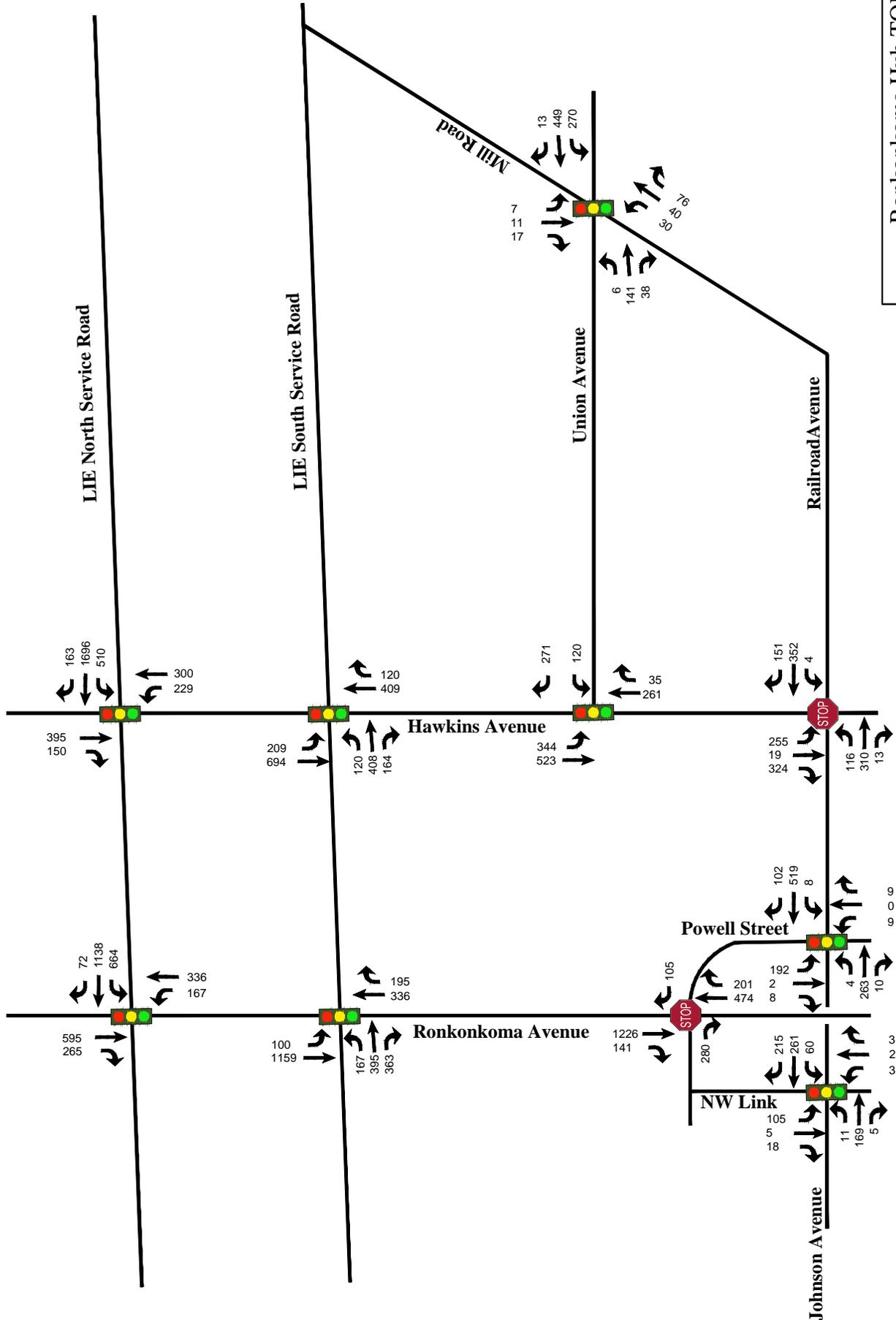
Legend
 Entering Traffic - (xx)
 Exiting Traffic - (xx)

Ronkonkoma Hub TOD
 Site Generated Traffic Volumes
 PM Peak Hour



Figure 9

(Not to scale)

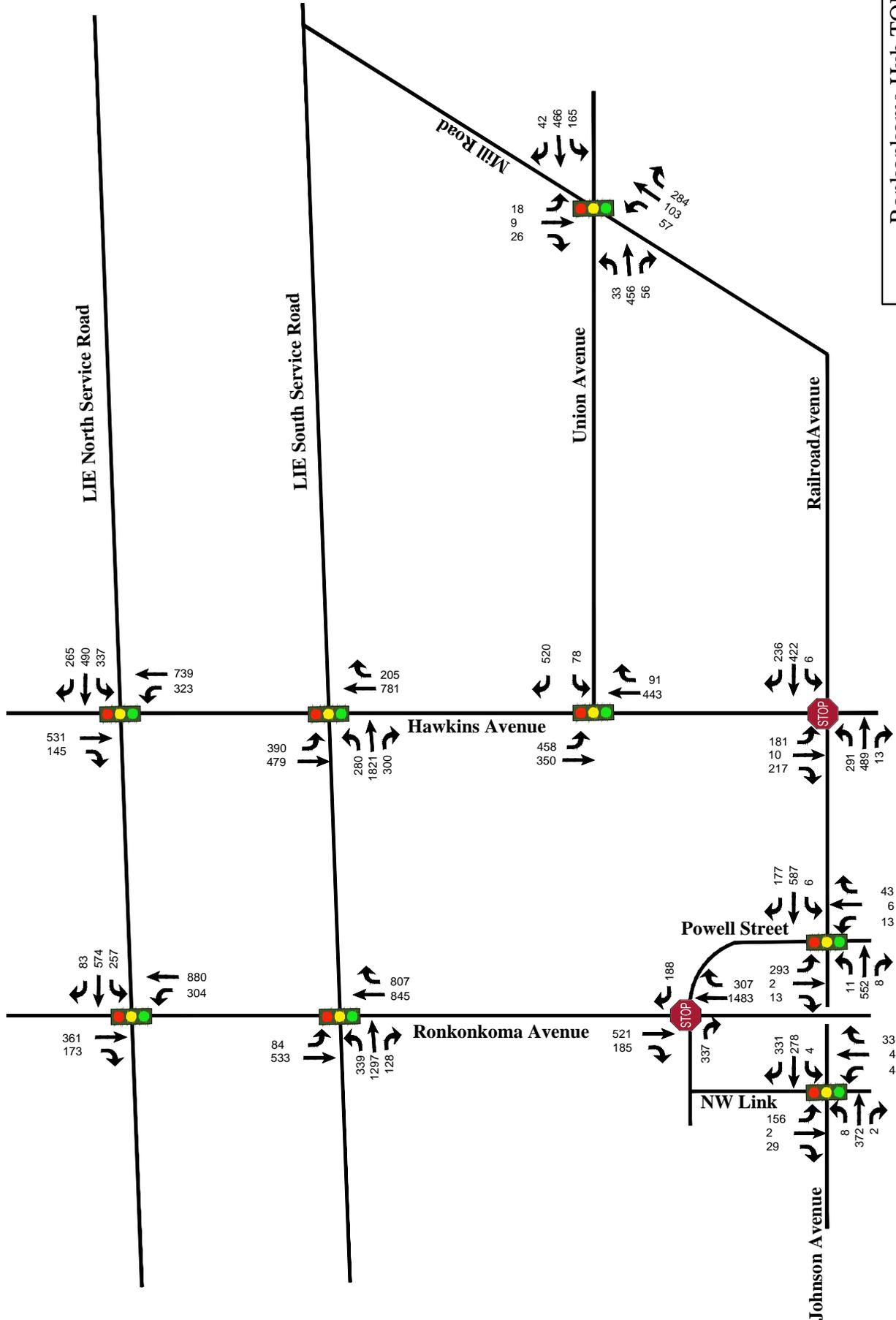


Ronkonkoma Hub TOD
Build Traffic Volumes
AM Peak Hour

VIII

Figure 10

(Not to scale)



Ronkonkoma Hub TOD
Build Traffic Volumes
PM Peak Hour



Figure 11

(Not to scale)

4

Traffic Operations Analysis

Measuring existing traffic volumes and projecting future traffic volumes quantifies traffic flow within the study area. To assess quality of traffic flow, roadway capacity analyses were conducted with respect to the Existing, No-Build and future Build conditions. These capacity analyses provide an indication of the adequacy of the roadway facilities to serve the anticipated traffic demands.

Level of Service and Delay Criteria

The evaluation criteria used to analyze area intersections in this traffic study are based on the 2000 & 2010 Highway Capacity Manual (HCM). The term 'level of service' (LOS) is used to denote the different operating conditions that occur at an intersection under various traffic volume loads. It is a qualitative measure that considers a number of factors including roadway geometry, speed, travel delay and freedom to maneuver. Level of service provides an index to the operational qualities of a roadway segment or an intersection. Level of service designations range from A to F, with LOS A representing the best operating conditions and LOS F representing the worst operating conditions.

In addition to LOS, vehicle delay time (expressed in seconds per vehicle) is typically used to quantify the traffic operations at intersections. For example, a delay of 15 seconds for a particular vehicular movement or approach indicates that vehicles on the movement or approach will experience an average additional travel time of 15 seconds. It should be noted that delay time has a range of values for a given LOS letter designation. Therefore, when evaluating intersection capacity results, in addition to the LOS, vehicle delay time should also be considered.

The levels of service designations, which are based on delay, are reported differently for signalized and unsignalized intersections. For signalized intersections, the analysis considers the operation of all traffic entering the intersection and the LOS designation is for overall conditions at the intersection. For unsignalized intersections, however, the analysis assumes that traffic on the mainline is not



affected by traffic on the side streets. Thus the LOS designation is for the critical movement exiting the side street, which is generally the left-turn out of the side street or side driveway.

It should be noted that the analytical methodologies typically used for the analysis of unsignalized intersections use conservative parameters such as long critical gaps. Actual field observations indicate that drivers on minor streets generally accept shorter gaps in traffic than those used in the analysis procedures, and therefore, experience less delay than reported by the analysis software. The analysis methodologies also do not take into account the beneficial grouping effects caused by nearby signalized intersections. The net effect of these analysis procedures is the over-estimation of calculated delay at unsignalized intersections in the study area. Cautious judgment should therefore be exercised when interpreting the capacity analysis results at unsignalized intersections.

The level of service (LOS) definitions for both the signalized and unsignalized intersections can be found in Appendix B of the report.

Software

The capacity analyses were done using the traffic analysis software Synchro, *version 8*, a computer program developed by Trafficware Ltd. Synchro is a complete software package for modeling and optimizing traffic signal timing. Synchro adheres to and implements the guidelines and methods set forth in the 2000 Highway Capacity Manual and the newly released 2010 Highway Capacity Manual. This analysis methodology was used to evaluate the ability of an intersection or roadway to efficiently handle the number of vehicles using the facility. Synchro was used to model and analyze the Existing, No-Build and Build conditions at the key intersections.

Level of Service Analysis

Level of Service (LOS) analyses were conducted for the Existing, 2020 No-Build and 2020 Build conditions for each of the key intersections.

Analysis results

The results of the capacity analyses for the eight signalized intersections for the weekday a.m. and p.m. peak hours are summarized in Tables 7 and 9, respectively. The results for the unsignalized intersections of Hawkins Avenue at Railroad Avenue and Ronkonkoma Avenue at 2nd Street/Powell Street for the weekday a.m. and p.m. peak hours are summarized in Tables 8 and 10, respectively. The tables



show the results for the Existing, No-Build and Build conditions. The detailed capacity analysis worksheets are contained in Appendix C.



Table 7 – Signalized Intersections Level of Service Summary – Weekday AM Peak Hour

Intersection	Movement	Lane Group	Existing 2013		No-Build 2020		Build 2020	
			Delay	LOS	Delay	LOS	Delay	LOS
LIE North Service Road & Hawkins Avenue	WB	L	14.9	B	15.4	B	17.9	B
		TR / LTR	38.1	D	50.8	D	57.2	E
		Approach	33.9	C	44.3	D	48.7	D
	NB	L	38.3	D	44.0	D	145.0	F
		T	15.6	B	15.4	B	13.2	B
		Approach	24.2	C	26.2	C	70.2	E
	SB	TR	46.3	D	50.7	D	100.1	F
		Approach	46.3	D	50.7	D	100.1	F
	Overall			34.7	C	43.0	D	61.2
LIE South Service Road & Hawkins Avenue	EB	L	18.4	B	18.6	B	18.6	B
		TR	19.6	B	19.9	B	19.7	B
		Approach	19.3	B	19.6	B	19.5	B
	NB	TR	25.1	C	25.5	C	29.2	C
		Approach	25.1	C	25.5	C	29.2	C
	SB	L	27.0	C	28.0	C	45.6	D
		T	23.3	C	23.5	C	26.9	C
		Approach	24.2	C	24.5	C	31.2	C
	Overall			22.6	C	23.0	C	26.9
LIE North Service Road & Ronkonkoma Avenue	WB	L	31.2	C	34.8	C	32.3	C
		TR	22.6	C	23.7	C	25.0	C
		Approach	25.8	C	27.8	C	27.6	C
	NB	L	47.2	D	53.4	D	67.3	E
		T	14.7	B	14.6	B	11.1	B
		Approach	25.5	C	27.5	C	29.8	C
	SB	TR	44.5	D	55.2	E	94.8	F
		Approach	44.5	D	55.2	E	94.8	F
	Overall			31.0	C	35.5	D	47.0
LIE South Service Road & Ronkonkoma Avenue	EB	L	29.4	C	29.7	C	29.7	C
		TR	32.6	C	34.3	C	43.0	D
		Approach	31.9	C	33.3	C	40.6	D
	NB	TR	26.2	C	26.3	C	31.8	C
		Approach	26.2	C	26.3	C	31.8	C
	SB	L	12.1	B	12.6	B	12.4	B
		T	18.6	B	21.4	C	27.6	C
		Approach	18.1	B	20.6	C	26.4	C
	Overall			23.7	C	25.5	C	31.9



Table 7 – Signalized Intersections Level of Service Summary – Weekday AM Peak Hourcontinued 2

Intersection	Movement	Lane Group	Existing 2013		No-Build 2020		Build 2020		
			Delay	LOS	Delay	LOS	Delay	LOS	
Hawkins Avenue & Union Avenue	WB	L	37.2	D	37.8	D	38.8	D	
		R	3.5	A	3.5	A	3.6	A	
		Approach	15.4	B	15.7	B	14.4	B	
	NB	TR	10.9	B	11.3	B	14.4	B	
		Approach	10.9	B	11.3	B	14.4	B	
	SB	L	6.2	A	6.6	A	10.9	B	
		T	5.9	A	6.2	A	8.3	A	
		Approach	6.0	A	6.4	A	9.3	A	
	Overall			9.3	A	9.7	A	11.4	B
	Mill Road & Union Avenue	EB	L	3.8	A	3.8	A	4.8	A
TR			3.6	A	3.6	A	4.7	A	
Approach			3.6	A	3.6	A	4.7	A	
WB		L	4.6	A	4.7	A	8.2	A	
		TR	4.7	A	4.8	A	7.4	A	
		Approach	4.7	A	4.8	A	7.7	A	
NB		LTR	11.8	B	11.8	B	18.3	B	
		Approach	11.8	B	11.8	B	18.3	B	
SB		LTR	15.8	B	16.0	B	14.8	B	
		Approach	15.8	B	16.0	B	14.8	B	
Overall			5.5	A	5.7	A	9.0	A	
Railroad Avenue & Powell Street		EB	L	12.0	B	3.5	A	8.0	A
	T		15.5	B	2.7	A	10.3	B	
	R		2.1	A	1.2	A	1.6	A	
	Approach		14.4	B	2.6	A	9.9	A	
	WB	L	12.0	B	3.2	A	8.0	A	
		TR	15.1	B	2.3	A	8.4	A	
		Approach	15.0	B	2.3	A	8.4	A	
	NB	L	5.9	A	5.8	A	9.7	A	
		TR	3.9	A	4.3	A	6.2	A	
		Approach	4.8	A	5.0	A	7.9	A	
	SB	L	6.1	A	5.3	A	13.9	B	
		TR	4.1	A	4.3	A	6.7	A	
		Approach	5.7	A	5.1	A	13.5	B	
	Overall			13.7	B	2.7	A	9.8	A



Table 7 – Signalized Intersections Level of Service Summary – Weekday AM Peak Hourcontinued 3

Intersection	Movement	Lane Group	Existing 2013		No-Build 2020		Build 2020	
			Delay	LOS	Delay	LOS	Delay	LOS
Johnson Avenue & Northwest Link	EB	L	10.7	B	2.8	A	6.9	A
		T	14.0	B	2.7	A	7.4	A
		R	0.0	A	0.4	A	0.6	A
		Approach	13.2	B	2.6	A	7.2	A
	WB	L	12.6	B	2.7	A	7.2	A
		T	15.5	B	2.8	A	7.4	A
		R	4.4	A	1.4	A	2.3	A
		Approach	12.3	B	2.5	A	5.3	A
	NB	LTR	6.0	A	5.5	A	7.9	A
		Approach	6.0	A	5.5	A	7.9	A
	SB	L	6.9	A	6.2	A	10.3	B
		TR	4.3	A	4.4	A	5.9	A
		Approach	5.7	A	5.1	A	9.6	A
Overall			6.1	A	2.8	A	6.5	A

Table 8 – Unsignalized Intersections Level of Service Summary – Weekday AM Peak Hour

Intersection	Critical Approach/ Movement	Existing 2013		No-Build 2020		Build 2020	
		Delay	LOS	Delay	LOS	Delay	LOS
Hawkins Avenue & Railroad Avenue	SB	15.1	C	17.3	C	119.1	F
Ronkonkoma Avenue & Powell Street/2nd Street	EB	21.3	C	23.5	C	54.9	F
	WB	10.3	B	10.4	B	11.4	B

Table 7 indicates that during the a.m. peak hour in the Build Condition the LIE North Service Road intersections with Hawkins Avenue and Ronkonkoma Avenue operates at a LOS E and D respectively with one or two individual movements operating with a high delay and a LOS F. All other signalized intersections operate at levels consistent with No-Build conditions.

Table 8 shows during the weekday a.m. peak in the Build Condition the unsignalized intersection of Hawkins Avenue and Railroad Avenue operates at a LOS F and the eastbound approach at Ronkonkoma Avenue and Powell Street/2nd Street operates at LOS F.



Table 9 – Signalized Intersections Level of Service Summary – Weekday PM Peak Hour

Intersection	Movement	Lane Group	Existing 2013		No-Build 2020		Build 2020	
			Delay	LOS	Delay	LOS	Delay	LOS
LIE North Service Road & Hawkins Avenue	WB	L	19.9	B	20.2	C	23.7	C
		TR	19.1	B	19.9	B	21.0	C
		Approach	19.3	B	20.0	C	21.9	C
	NB	L	24.1	C	27.1	C	170.4	F
		T	12.9	B	13.1	B	12.1	B
		Approach	15.5	B	16.3	B	60.2	E
	SB	TR	28.2	C	28.7	C	31.0	C
		Approach	28.2	C	28.7	C	31.0	C
	Overall			20.1	C	20.8	C	38.2
LIE South Service Road & Hawkins Avenue	EB	L	18.5	B	18.8	B	18.8	B
		TR	143.7	F	168.6	F	203.5	F
		Approach	128.4	F	150.2	F	181.9	F
	NB	TR	106.7	F	125.4	F	332.2	F
		Approach	106.7	F	125.4	F	332.2	F
	SB	L	83.9	F	98.0	F	140.1	F
		T	11.7	B	11.6	B	13.1	B
		Approach	49.3	D	56.5	E	70.1	E
	Overall			109.3	F	127.8	F	194.8
LIE North Service Road & Ronkonkoma Avenue	WB	L	21.4	C	22.9	C	24.9	C
		TR	19.9	B	21.3	C	24.5	C
		Approach	20.4	C	21.8	C	24.6	C
	NB	L	31.7	C	31.2	C	27.0	C
		T	23.5	C	22.1	C	15.9	B
		Approach	25.5	C	24.4	C	18.7	B
	SB	TR	29.6	C	30.4	C	34.6	C
		Approach	29.6	C	30.4	C	34.6	C
	Overall			24.7	C	24.8	C	24.2
LIE South Service Road & Ronkonkoma Avenue	EB	L	31.4	C	32.3	C	32.3	C
		TR	101.4	F	122.4	F	183.8	F
		Approach	86.6	F	103.4	F	154.6	F
	NB	TR	124.7	F	149.2	F	190.5	F
		Approach	124.7	F	149.2	F	190.5	F
	SB	L	43.2	D	44.2	D	37.4	D
		T	15.7	B	15.7	B	11.7	B
		Approach	20.0	C	20.1	C	15.2	B
	Overall			92.6	F	110.2	F	148.1



Table 9 – Signalized Intersections Level of Service Summary – Weekday PM Peak Hourcontinued 2

Intersection	Movement	Lane Group	Existing 2013		No-Build 2020		Build 2020		
			Delay	LOS	Delay	LOS	Delay	LOS	
Hawkins Avenue & Union Avenue	WB	L	32.7	C	33.2	C	35.3	D	
		R	4.9	A	5.1	A	22.5	C	
		Approach	9.0	A	9.4	A	24.1	C	
	NB	TR	10.6	B	11.0	B	17.0	B	
		Approach	10.6	B	11.0	B	17.0	B	
	SB	L	6.1	A	6.7	A	31.0	C	
		T	3.2	A	3.2	A	3.7	A	
		Approach	5.3	A	5.7	A	19.2	B	
	Overall			7.9	A	8.3	A	20.1	C
	Mill Road & Union Avenue	EB	L	6.6	A	7.1	A	7.7	A
TR			8.7	A	9.2	A	11.3	B	
Approach			8.5	A	9.1	A	11.1	B	
WB		L	7.4	A	7.9	A	17.3	B	
		TR	10.3	B	11.2	B	13.0	B	
		Approach	9.9	A	10.7	B	14.1	B	
NB		LTR	18.6	B	20.6	C	152.1	F	
		Approach	18.6	B	20.6	C	152.1	F	
SB		LTR	16.6	B	16.4	B	14.0	B	
		Approach	16.6	B	16.4	B	14.0	B	
Overall			11.9	B	12.9	B	55.5	E	
Railroad Avenue & Powell Street		EB	L	5.8	A	5.9	A	6.8	A
	T		6.9	A	7.0	A	16.2	B	
	R		0.4	A	0.6	A	0.2	A	
	Approach		6.7	A	6.8	A	15.8	B	
	WB	L	5.8	A	5.8	A	6.3	A	
		TR	4.8	A	4.8	A	9.4	A	
		Approach	4.8	A	4.8	A	9.4	A	
	NB	L	9.8	A	10.2	B	15.2	B	
		TR	4.5	A	4.8	A	6.3	A	
		Approach	5.6	A	5.9	A	8.2	A	
	SB	L	9.9	A	10.4	B	50.5	D	
		TR	6.2	A	6.6	A	9.3	A	
		Approach	9.4	A	9.8	A	48.4	D	
Overall			6.2	A	6.3	A	18.6	B	



Table 9 – Signalized Intersections Level of Service Summary – Weekday PM Peak Hourcontinued 3

Intersection	Movement	Lane Group	Existing 2013		No-Build 2020		Build 2020	
			Delay	LOS	Delay	LOS	Delay	LOS
Johnson Avenue & Northwest Link	EB	L	4.6	A	5.2	A	7.1	A
		T	5.0	A	6.9	A	14.7	B
		R	0.0	A	0.0	A	0.0	A
		Approach	5.0	A	6.8	A	14.5	B
	WB	L	4.7	A	5.2	A	7.0	A
		T	4.5	A	6.0	A	11.2	B
		R	1.9	A	2.0	A	3.1	A
		Approach	3.6	A	4.6	A	6.8	A
	NB	LTR	4.6	A	5.0	A	5.5	A
		Approach	4.6	A	5.0	A	5.5	A
	SB	L	8.4	A	9.6	A	21.1	C
		TR	4.7	A	4.9	A	5.4	A
		Approach	6.7	A	7.3	A	18.5	B
Overall			4.6	A	5.8	A	11.2	B

Table 10 – Unsignalized Intersections Level of Service Summary – Weekday PM Peak Hour

Intersection	Critical Approach/Movement	Existing 2013		No-Build 2020		Build 2020	
		Delay	LOS	Delay	LOS	Delay	LOS
Hawkins Avenue & Railroad Avenue	SB	23.7	C	53.3	F	1684.3	F
Ronkonkoma Avenue & Powell Street/2nd Street	EB	12.1	B	12.4	B	28.2	D
	WB	19.9	C	21.4	C	63.8	F

Table 9 shows that during the p.m. weekday peak hour in the Build Condition the LIE South Service Road intersections with Hawkins Avenue and Ronkonkoma Avenue operate at a LOS F. The LIE North Service Road at Hawkins Avenue moves from a LOS C to LOS D, Hawkins Avenue of Union Avenue moves from a LOS A to LOS C and Union Avenue at Mill Road moves from a LOS B to LOS E. The other signalized intersections operate at levels consistent with No-Build conditions.



Table 10 shows that during the weekday p.m. peak hour in the Build Condition the unsignalized intersection of Hawkins Avenue and Railroad Avenue operates at a LOS F and the westbound approach at Ronkonkoma Avenue and Powell Street/2nd Street operates at LOS F.

This analysis shows that mitigation is necessary at a number of study intersections. Traffic conditions were simulated and the roadway segments and intersections that require mitigation were identified. These measures of mitigation are necessary to ensure that the roadway network operates well with the additional volumes generated by the TOD. Further analysis performed with identified mitigation is detailed in the next section of this report.

Mitigation

Based on the Build condition results, traffic mitigation measures were developed to address project impacts. The mitigation plan developed for the TOD includes improvements to intersections as well as additional travel lanes on roadway segments. The measures discussed below have been developed to mitigate the potential traffic impacts of the development of the Ronkonkoma HUB TOD at full-build.

Improvements are proposed at the ten study intersections which range from roadway widening to add additional lanes to signal timing and phasing changes. The ten intersections are listed below:

1. LIE North Service Road and Hawkins Avenue
2. LIE South Service Road and Hawkins Avenue
3. LIE North Service Road and Ronkonkoma Avenue
4. LIE South Service Road and Ronkonkoma Avenue
5. Hawkins Avenue and Union Avenue
6. Union Avenue and Mill Road
7. Ronkonkoma Avenue and Powell Street/2nd Street
8. Railroad Avenue & Powell Street
9. Johnson Avenue & Northwest Link
10. Hawkins and Railroad Avenue

The proposed mitigation recommended at the study intersections are summarized in Table 11.



Table 11 – Proposed Mitigation at Study Intersections

Location		Capacity Improvements		Signal Improvements
		Existing Conditions	Proposed Mitigation	
1	LIE North Service Road & Hawkins Avenue	Westbound – One exclusive left-turn lane, one through lane and a shared through and right-turn lane	Restripe approach to: One shared left-turn and through lane, one through lane and a shared through and right-turn lane	Change PM-cycle length to 120 seconds. Optimize AM / PM phase-splits
		Northbound - One exclusive left-turn lane, two through lanes	Increase left-turn storage lane by removing a portion of the raised median	
2	LIE South Service Road & Hawkins Avenue	Eastbound – One exclusive left-turn lane, one through lane and a shared through and right-turn lane	Widen and add a 4 th approach lane. New configuration: One left-turn lane, two through lanes and a shared through and right-turn lane	Change PM-cycle length to 120 seconds. Optimize AM / PM phase-splits
		Northbound – One through lane and a shared through and right-turn lane	Restripe approach to add an exclusive right-turn lane. New configuration: Two through lanes and an exclusive right-turn lane	
		Southbound - One left-turn lane, two through lanes	Increase left-turn storage lane by removing a portion of the raised median	
3	LIE North Service Road & Ronkonkoma Avenue	Westbound – One exclusive left-turn lane, one through lane and a shared through and right-turn lane	Restripe approach to: One shared left-turn and through lane, one through lane and a shared through and right-turn lane	Change PM-cycle length to 120 seconds. Optimize AM / PM phase-splits
4	LIE South Service Road & Ronkonkoma Avenue	Eastbound – One exclusive left-turn lane, one through lane and a shared through and right-turn lane	Widen and add a 4 th approach lane. New configuration: One exclusive left-turn lane, two through lanes and a shared through and right-turn lane	Change PM-cycle length to 120 seconds. Optimize AM / PM phase-splits
		Northbound – One through lane and a shared through and right-turn lane	Widen and add a 3 rd approach lane. New configuration: Two through lanes and an exclusive right-turn lane	



Table 11 – Proposed Mitigation at Study Intersections....continued 2

Location		Capacity Improvements		Signal Improvements
		Existing Conditions	Proposed Mitigation	
5	Hawkins Avenue & Union Avenue	Westbound – One exclusive left-turn lane with storage & one right-turn lane	Widen and add 3 rd approach lane. New configuration: One exclusive left-turn lane and two right-turn lanes	Change PM-cycle length to 100 seconds. Optimize AM / PM phase-splits Prohibit right-turns on red westbound
		Northbound – One shared through and right-turn lane	New configuration: One through and a shared through and right-turn lane	
6	Union Avenue & Mill Road	Northbound – One shared left-turn, through and right-turn lane	Widen and add 2 nd approach lane. New configuration: One shared left-turn and through lane and an exclusive right-turn lane with storage	Change AM / PM-cycle length to 80 seconds. Optimize AM / PM phase-splits
7	Ronkonkoma Avenue & Powell Street / 2 nd Street	Northbound – One through and one shared through and right-turn lane	Restripe median as left turn lane. New configuration: One exclusive left-turn lane, one through and one shared through and right-turn lane.	Add new three phase traffic signal with leading southbound left turn phase. Side streets remain right turn out only. Signal cycle length same as LIE Service Roads with suitable offset to ensure signal progression
		Southbound – One through and one shared through and right-turn lane	Restripe median as left turn lane. New configuration: One exclusive left-turn lane, one through and one shared through and right-turn lane.	



Table 11 – Proposed Mitigation at Study Intersectionscontinued 3

Location		Capacity Improvements		Signal Improvements
		Existing Conditions	Proposed Mitigation	
8 and 9	Railroad Avenue & Powell Street / Parking Lot & Johnson Avenue at Northwest Link / Parking Lot		No proposed capacity changes	Run both the intersections off one controller for improved coordination. At Powell Street add protected permitted southbound left-turn phase.
10	Hawkins Avenue & Railroad Avenue	Westbound – One exclusive left-turn lane, one through and one exclusive right-turn lane	Channelized westbound right turn lane.	Add new three phase traffic signal with leading eastbound left turn phase.
		Southbound – One shared left-turn and through, one exclusive right-turn lane	Channelize southbound right turn lane.	



In addition to improvements proposed at study intersections, roadway widenings were identified for key roadway segments within the study area. These widenings serve as receiving lanes for approach lanes added at the intersections as well as add mid-block capacity to address future volumes. To better illustrate the proposed intersection improvements and roadway widenings, graphics were developed. Figure 12 presents the improvements proposed in the northern portion of the study area around the Long Island Expressway. Figure 13 presents similar information for the balance of the study area.

Figure 12 indicates that, in addition to the intersection-specific improvements proposed at the service road intersections, a combination of widening and restriping are proposed that would essentially result in both service roads improved to three travel lanes each through the study area. Additional details are provided on Figure 12. Issues related to the availability of right-of-way are discussed in a subsequent section.

Figure 13 presents intersections and midblock improvements identified for the study area south of the LIE. Included here is the improvement of Hawkins Avenue two northbound lanes. On Railroad Avenue, between Hawkins Avenue and Powell Street, a second westbound lane is proposed, requiring elimination of existing on-street parking along the north shoulder. A roundabout is proposed at the Railroad Avenue at Mill Road intersection which will also serve as an access to a portion of the TOD development area. Issues related to availability of right-of-way are discussed in a subsequent section.

The network was reanalyzed with the mitigation in order to measure the effectiveness of the proposed improvements at the various intersections. Tables 12 and 13 present the results of this analysis for the weekday a.m. and p.m. peak hours, respectively. For ease of comparison, the table also includes the corresponding No-Build and Build condition results.



Figure 12
Proposed Mitigation Plan
North Study Area
Ronkonkoma Hub TOD



Figure 13
Proposed Mitigation Plan
South Study Area
Ronkonkoma Hub TOD





Table 12 – No-Build, Build and Build with Mitigation – Weekday AM Peak Hour

Intersection	Movement	Lane Group	No-Build 2020		Build 2020		Build with Mitigation	
			Delay	LOS	Delay	LOS	Delay	LOS
LIE North Service Road & Hawkins Avenue	WB	L	15.4	B	17.9	B		
		TR / LTR	50.8	D	57.2	E	50.8	D
		Approach	44.3	D	48.7	D	50.8	D
	NB	L	44.0	D	145.0	F	51.9	D
		T	15.4	B	13.2	B	12.6	B
		Approach	26.2	C	70.2	E	29.6	C
	SB	TR	50.7	D	100.1	F	55.3	E
		Approach	50.7	D	100.1	F	55.3	E
	Overall			43.0	D	61.2	E	48.2
LIE South Service Road & Hawkins Avenue	EB	L	18.6	B	18.6	B	17.9	B
		TR / LTR	19.9	B	19.7	B	16.7	B
		Approach	19.6	B	19.5	B	16.9	B
	NB	TR / T	25.5	C	29.2	C	29.7	C
		R					6.9	A
		Approach	25.5	C	29.2	C	24.5	C
	SB	L	28.0	C	45.6	D	28.0	C
		T	23.5	C	26.9	C	21.2	C
		Approach	24.5	C	31.2	C	22.8	C
	Overall			23.0	C	26.9	C	21.3
LIE North Service Road & Ronkonkoma Avenue	WB	L	34.8	C	32.3	C		
		TR / LTR	23.7	C	25.0	C	54.2	D
		Approach	27.8	C	27.6	C	54.2	D
	NB	L	53.4	D	67.3	E	64.5	E
		T	14.6	B	11.1	B	9.1	A
		Approach	27.5	C	29.8	C	27.6	C
	SB	TR	55.2	E	94.8	F	65.6	E
		Approach	55.2	E	94.8	F	65.6	E
	Overall			35.5	D	47.0	D	53.4
LIE South Service Road & Ronkonkoma Avenue	EB	L	29.7	C	29.7	C	26.1	C
		TR / LTR	34.3	C	43.0	D	27.0	C
		Approach	33.3	C	40.6	D	26.8	C
	NB	TR / T	26.3	C	31.8	C	26.0	C
		R					36.1	D
		Approach	26.3	C	31.8	C	29.8	C
	SB	L	12.6	B	12.4	B	9.4	A
		T	21.4	C	27.6	C	22.7	C
		Approach	20.6	C	26.4	C	21.7	C
	Overall			25.5	C	31.9	C	24.9



Table 12 – No-Build, Build and Build with Mitigation – Weekday AM Peak Hourcontinued 2

Intersection	Movement	Lane Group	No-Build 2020		Build 2020		Build with Mitigation	
			Delay	LOS	Delay	LOS	Delay	LOS
Hawkins Avenue & Union Avenue	WB	L	37.8	D	38.8	D	43.5	D
		R	3.5	A	3.6	A	19.2	B
		Approach	15.7	B	14.4	B	26.7	C
	NB	TR	11.3	B	14.4	B	11.2	B
		Approach	11.3	B	14.4	B	11.2	B
	SB	L	6.6	A	10.9	B	8.9	A
		T	6.2	A	8.3	A	7.8	A
		Approach	6.4	A	9.3	A	8.2	A
	Overall		9.7	A	11.4	B	13.3	B
	Mill Road & Union Avenue	EB	L	3.8	A	4.8	A	9.0
TR			3.6	A	4.7	A	9.3	A
Approach			3.6	A	4.7	A	9.3	A
WB		L	4.7	A	8.2	A	4.5	A
		TR	4.8	A	7.4	A	5.4	A
		Approach	4.8	A	7.7	A	5.1	A
NB		LTR / LT	11.8	B	18.3	B	33.5	C
		R					9.8	A
		Approach	11.8	B	18.3	B	21.2	C
SB		LTR	16.0	B	14.8	B	18.9	B
		Approach	16.0	B	14.8	B	18.9	B
Overall		5.7	A	9.0	A	8.7	A	
Railroad Avenue & Powell Street		EB	L	3.5	A	8.0	A	5.5
	T		2.7	A	10.3	B	6.4	A
	R		1.2	A	1.6	A	0.1	A
	Approach		2.6	A	9.9	A	6.0	A
	WB	L	3.2	A	8.0	A	11.9	B
		TR	2.3	A	8.4	A	12.6	B
		Approach	2.3	A	8.4	A	12.6	B
	NB	L	5.8	A	9.7	A	28.8	C
		TR	4.3	A	6.2	A	18.4	B
		Approach	5.0	A	7.9	A	23.4	C
	SB	L	5.3	A	13.9	B	15.4	B
		TR	4.3	A	6.7	A	9.3	A
		Approach	5.1	A	13.5	B	15.3	B
Overall		2.7	A	9.8	A	12.3	B	



Table 12 – No-Build, Build and Build with Mitigation – Weekday AM Peak Hourcontinued 3

Intersection	Movement	Lane Group	No-Build 2020		Build 2020		Build with Mitigation	
			Delay	LOS	Delay	LOS	Delay	LOS
Johnson Avenue & Northwest Link	EB	L	2.8	A	6.9	A	12.1	B
		T	2.7	A	7.4	A	13.7	B
		R	0.4	A	0.6	A	0.0	A
		Approach	2.6	A	7.2	A	13.2	B
	WB	L	2.7	A	7.2	A	5.8	A
		T	2.8	A	7.4	A	6.8	A
		R	1.4	A	2.3	A	1.2	A
		Approach	2.5	A	5.3	A	4.4	A
	NB	LTR	5.5	A	7.9	A	24.2	C
		Approach	5.5	A	7.9	A	24.3	C
	SB	L	6.2	A	10.3	B	11.3	B
		TR	4.4	A	5.9	A	5.5	A
		Approach	5.1	A	9.6	A	6.9	A
Overall			2.8	A	6.5	A	7.5	A
Ronkonkoma Avenue & Powell Street/2nd Street	EB	R					43.6	D
		Approach					43.6	D
	WB	R					0.6	A
		Approach					0.6	A
	NB	L					11.9	B
		TR					10.9	B
		Approach					10.9	B
	SB	L					4.0	A
		TR					9.9	A
		Approach					9.5	A
Overall							13.1	B
Hawkins Avenue & Railroad Avenue	EB	L					9.1	A
		TR					9.8	A
		Approach					9.6	A
	WB	L					15.8	B
		T					26.9	C
		R					0.2	A
		Approach					18.8	B
	SB	LT					26.9	C
		R					0.4	A
		Approach					12.6	B
Overall							13.8	B



Table 13 – No-Build, Build and Build with Mitigation – Weekday PM Peak Hour

Intersection	Movement	Lane Group	No-Build 2020		Build 2020		Build with Mitigation		
			Delay	LOS	Delay	LOS	Delay	LOS	
LIE North Service Road & Hawkins Avenue	WB	L	20.2	C	23.7	C			
		TR / LTR	19.9	B	21.0	C	37.6	D	
		Approach	20.0	C	21.9	C	37.6	D	
	NB	L	27.1	C	170.4	F	24.8	C	
		T	13.1	B	12.1	B	13.4	B	
		Approach	16.3	B	60.2	E	16.9	B	
	SB	TR	28.7	C	31.0	C	40.0	D	
		Approach	28.7	C	31.0	C	40.0	D	
	Overall			20.8	C	38.2	D	30.5	C
	LIE South Service Road & Hawkins Avenue	EB	L	18.8	B	18.8	B	27.8	C
TR / LTR			168.6	F	203.5	F	90.7	F	
Approach			150.2	F	181.9	F	83.3	F	
NB		TR / T	125.4	F	332.2	F	94.4	F	
		R					29.6	C	
		Approach	125.4	F	332.2	F	80.9	F	
SB		L	98.0	F	140.1	F	73.8	E	
		T	11.6	B	13.1	B	10.5	B	
		Approach	56.5	E	70.1	E	38.9	D	
Overall			127.8	F	194.8	F	73.6	E	
LIE North Service Road & Ronkonkoma Avenue	WB	L	22.9	C	24.9	C			
		TR / LTR	21.3	C	24.5	C	23.5	C	
		Approach	21.8	C	24.6	C	23.5	C	
	NB	L	31.2	C	27.0	C	50.4	D	
		T	22.1	C	15.9	B	16.9	B	
		Approach	24.4	C	18.7	B	25.5	C	
	SB	TR	30.4	C	34.6	C	45.4	D	
		Approach	30.4	C	34.6	C	45.4	D	
	Overall			24.8	C	24.2	C	29.2	C
	LIE South Service Road & Ronkonkoma Avenue	EB	L	32.3	C	32.3	C	41.9	D
TR			122.4	F	183.8	F	62.2	E	
Approach			103.4	F	154.6	F	58.3	E	
NB		TR / T	149.2	F	190.5	F	15.1	B	
		R					107.3	F	
		Approach	149.2	F	190.5	F	60.2	E	
SB		L	44.2	D	37.4	D	18.5	B	
		T	15.7	B	11.7	B	12.0	B	
		Approach	20.1	C	15.2	B	12.9	B	
Overall			110.2	F	148.1	F	52.2	D	



Table 13 – No-Build, Build and Build with Mitigation – Weekday PM Peak Hour.....continued 2

Intersection	Movement	Lane Group	No-Build 2020		Build 2020		Build with Mitigation	
			Delay	LOS	Delay	LOS	Delay	LOS
Hawkins Avenue & Union Avenue	WB	L	33.2	C	35.3	D	52.7	D
		R	5.1	A	22.5	C	26.6	C
		Approach	9.4	A	24.1	C	30.1	C
	NB	TR	11.0	B	17.0	B	15.4	B
		Approach	11.0	B	17.0	B	15.4	B
	SB	L	6.7	A	31.0	C	7.8	A
		T	3.2	A	3.7	A	3.1	A
		Approach	5.7	A	19.2	B	5.7	A
	Overall		8.3	A	20.1	C	15.9	B
	Mill Road & Union Avenue	EB	L	7.1	A	7.7	A	13.4
TR			9.2	A	11.3	B	20.7	C
Approach			9.1	A	11.1	B	20.2	C
WB		L	7.9	A	17.3	B	11.5	B
		TR	11.2	B	13.0	B	12.3	B
		Approach	10.7	B	14.1	B	12.1	B
NB		LTR / LT	20.6	C	152.1	F	38.2	D
		R					12.2	B
		Approach	20.6	C	152.1	F	21.5	C
SB		LTR	16.4	B	14.0	B	14.6	B
		Approach	16.4	B	14.0	B	14.6	B
Overall			12.9	B	55.5	E	17.3	B
Railroad Avenue & Powell Street		EB	L	5.9	A	6.8	A	19.2
	T		7.0	A	16.2	B	20.5	C
	R		0.6	A	0.2	A	0.1	A
	Approach		6.8	A	15.8	B	20.0	B
	WB	L	5.8	A	6.3	A	19.8	B
		TR	4.8	A	9.4	A	27.1	C
		Approach	4.8	A	9.4	A	27.1	C
	NB	L	10.2	B	15.2	B	36.5	D
		TR	4.8	A	6.3	A	16.6	B
		Approach	5.9	A	8.2	A	20.8	C
	SB	L	10.4	B	50.5	D	17.5	B
		TR	6.6	A	9.3	A	7.0	A
		Approach	9.8	A	48.4	D	17.5	B
Overall		6.3	A	18.6	B	22.5	C	



Table 13 – No-Build, Build and Build with Mitigation – Weekday PM Peak Hour continued 3

Intersection	Movement	Lane Group	No-Build 2020		Build 2020		Build with Mitigation	
			Delay	LOS	Delay	LOS	Delay	LOS
Johnson Avenue & Northwest Link	EB	L	5.2	A	7.1	A	19.5	B
		T	6.9	A	14.7	B	32.3	C
		R	0.0	A	0.0	A	0.0	A
		Approach	6.8	A	14.5	B	31.9	C
	WB	L	5.2	A	7.0	A	18.2	B
		T	6.0	A	11.2	B	16.3	B
		R	2.0	A	3.1	A	6.3	A
		Approach	4.6	A	6.8	A	10.8	B
	NB	LTR	5.0	A	5.5	A	17.9	B
		Approach	5.0	A	5.5	A	17.9	B
	SB	L	9.6	A	21.1	C	10.4	B
		TR	4.9	A	5.4	A	2.7	A
		Approach	7.3	A	18.5	B	4.1	A
	Overall		5.8	A	11.2	B	17.9	B
Ronkonkoma Avenue & Powell Street/2nd Street	EB	R					45.6	D
		Approach						
	WB	L					37.4	D
		Approach						
	NB	L					9.2	A
		TR					29.6	C
		Approach					29.5	C
	SB	L					53.6	D
		TR					6.7	A
		Approach					16.6	B
Overall					29.4	C		
Hawkins Avenue & Railroad Avenue	EB	L					32.2	C
		TR					10.3	B
		Approach					18.3	B
	WB	L					16.7	B
		T					38.4	D
		R					0.3	A
		Approach					24.7	C
	SB	LT					35.5	D
		R					0.2	A
		Approach					16.7	B
Overall					20.3	C		



Tables 12 and 13 indicate that the proposed improvements would help to mitigate the various intersections to levels of service that are equal to or better than the No-Build level of service.

Some components of the mitigation identified to accommodate the full-build of the Ronkonkoma HUB TOD will require the taking of private property for roadway widening. To determine the level of development that can be supported without acquisition of private property additional analyses were performed.

Right-of-Way Considerations

When developing the roadway mitigation plan for the TOD, consideration was given to developing improvements, to the extent possible, which could be put in place without the need for acquisition of private property. This includes the use of public property in the form of existing highway right-of-way, land anticipated to become available for public use via dedications, and property that is part of the TOD that would be dedicated for that purpose.

The mitigation presented on Figures 12 and 13 include two areas of property which is expected to be made available via dedication to the Town as the properties are developed. These include the additional eastbound lane at the LIE South Service Road and Ronkonkoma Avenue and the northbound right-turn lane on Hawkins Avenue at the LIE South Service Road. The Town has indicated that each of these sites have applications pending that are undergoing review by the Town, and dedications are being sought which would support necessary roadway improvements.

There is, however, one location where, based upon the traffic analyses conducted for maximum-density development, mitigation would be necessary that would require property acquisition. Under the mitigation plan, and as shown in Figure 13, Hawkins Avenue between Union Avenue and the LIE South Service Road would ultimately require improvement to two lanes in each direction. Available information indicates that the public right-of-way on Hawkins Avenue for a distance north of Union Avenue is approximately 50 feet. Assuming the available public information is accurate (it would ultimately be confirmed with a survey), this width would not support the construction of four lanes.

Given the constraints in this area, the level of development that could be supported with a three lane roadway section in this area was determined. This included analyzing traffic conditions with increasing levels of TOD development with three lanes until Hawkins Avenue conditions worsen to the point where the roadway failed and disruptive queue spillback occurred. Prior to this level of development, the roadway adequately handles the projected traffic volumes.



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The results of this effort indicate that the four lanes north of Union Avenue, which also allow for the westbound dual right-turn lane on Union Avenue, will become necessary when the TOD is developed to the point where the net weekday p.m. peak hour trip generation exceeds 1,100 vehicles per hour (combined entering and exiting). This level of trips (1,100 vehicles per hour) represents 68 percent of the net weekday p.m. peak hour trips presented previously in Table 6. It is noted that the net trip generation represents the anticipated trips after adjustments for the TOD and pass-by credits are applied. Below this level of trip generation, a single northbound lane north of Union Avenue will be adequate.

Steps, therefore, should be taken to obtain additional property here for roadway widening prior to the build-out reaching the threshold of 1,100 net trips in the weekday p.m. peak hour.

Tables 14 and 15 present the results of the analysis performed for this reduced traffic volume (at or below 1,100 net trips in the weekday p.m. peak hour) and with the mitigation described previously, but with the reduced roadway section on this section of Hawkins Avenue, for the weekday a.m. and p.m. peak hours, respectively. For ease of comparison, the table also shows the corresponding No-Build and Full-Build condition results.



Table 14 – Reduced Build Level Without ROW – Weekday AM Peak

Intersection	Movement	Lane Group	No-Build 2020		Full-Build 2020 w/mitigation		Reduced Build Level w/mitigation	
			Delay	LOS	Delay	LOS	Delay	LOS
LIE North Service Road & Hawkins Avenue	WB	L	15.4	B	17.9	B		
		TR / LTR	50.8	D	57.2	E	36.7	D
		Approach	44.3	D	48.7	D	36.7	D
	NB	L	44.0	D	145.0	F	40.2	D
		T	15.4	B	13.2	B	14.2	B
		Approach	26.2	C	70.2	E	25.0	C
	SB	TR	50.7	D	100.1	F	52.2	D
		Approach	50.7	D	100.1	F	52.2	D
	Overall			43.0	D	61.2	E	37.6
LIE South Service Road & Hawkins Avenue	EB	L	18.6	B	18.6	B	18.6	B
		TR / LTR	19.9	B	19.7	B	16.2	B
		Approach	19.6	B	19.5	B	16.6	B
	NB	TR / T	25.5	C	29.2	C	27.8	C
		R					5.8	A
		Approach	25.5	C	29.2	C	23.1	C
	SB	L	28.0	C	45.6	D	24.3	C
		T	23.5	C	26.9	C	20.5	C
		Approach	24.5	C	31.2	C	21.4	C
	Overall			23.0	C	26.9	C	20.1
LIE North Service Road & Ronkonkoma Avenue	WB	L	34.8	C	32.3	C		
		TR / LTR	23.7	C	25.0	C	51.2	D
		Approach	27.8	C	27.6	C	51.2	D
	NB	L	53.4	D	67.3	E	51.9	D
		T	14.6	B	11.1	B	9.7	A
		Approach	27.5	C	29.8	C	23.7	C
	SB	TR	55.2	E	94.8	F	52.9	D
		Approach	55.2	E	94.8	F	52.9	D
Overall			35.5	D	47.0	D	47.7	D
LIE South Service Road & Ronkonkoma Avenue	EB	L	29.7	C	29.7	C	26.1	C
		TR / LTR	34.3	C	43.0	D	26.2	C
		Approach	33.3	C	40.6	D	26.2	C
	NB	TR / T	26.3	C	31.8	C	33.8	C
		R					15.3	B
		Approach	26.3	C	31.8	C	26.6	C
	SB	L	12.6	B	12.4	B	9.5	A
		T	21.4	C	27.6	C	21.1	C
		Approach	20.6	C	26.4	C	20.1	C
Overall			25.5	C	31.9	C	23.3	C



Table 14 – Reduced Build Level Without ROW – Weekday AM Peak
continued 2

Intersection	Movement	Lane Group	No-Build 2020		Full-Build 2020 w/mitigation		Reduced Build Level w/mitigation		
			Delay	LOS	Delay	LOS	Delay	LOS	
Hawkins Avenue & Union Avenue	WB	L	37.8	D	38.8	D	38.3	D	
		R	3.5	A	3.6	A	3.6	A	
		Approach	15.7	B	14.4	B	14.8	B	
	NB	TR	11.3	B	14.4	B	13.8	B	
		Approach	11.3	B	14.4	B	13.8	B	
	SB	L	6.6	A	10.9	B	7.9	A	
		T	6.2	A	8.3	A	7.3	A	
		Approach	6.4	A	9.3	A	7.6	A	
	Overall			9.7	A	11.4	B	10.4	B
	Mill Road & Union Avenue	EB	L	3.8	A	4.8	A	8.3	A
TR			3.6	A	4.7	A	9.0	A	
Approach			3.6	A	4.7	A	9.0	A	
WB		L	4.7	A	8.2	A	4.0	A	
		TR	4.8	A	7.4	A	5.0	A	
		Approach	4.8	A	7.7	A	4.6	A	
NB		LTR / LT	11.8	B	18.3	B	31.5	C	
		R					8.9	A	
		Approach	11.8	B	18.3	B	18.6	B	
SB		LTR	16.0	B	14.8	B	19.6	B	
		Approach	16.0	B	14.8	B	19.6	B	
Overall			5.7	A	9.0	A	7.8	A	
Railroad Avenue & Powell Street		EB	L	3.5	A	8.0	A	5.0	A
	T		2.7	A	10.3	B	5.2	A	
	R		1.2	A	1.6	A	0.0	A	
	Approach		2.6	A	9.9	A	4.8	A	
	WB	L	3.2	A	8.0	A	10.1	B	
		TR	2.3	A	8.4	A	9.4	A	
		Approach	2.3	A	8.4	A	9.4	A	
	NB	L	5.8	A	9.7	A	25.8	C	
		TR	4.3	A	6.2	A	17.0	B	
		Approach	5.0	A	7.9	A	21.2	C	
	SB	L	5.3	A	13.9	B	12.4	B	
		TR	4.3	A	6.7	A	10.0	A	
		Approach	5.1	A	13.5	B	12.3	B	
Overall			2.7	A	9.8	A	9.4	A	



Table 14 – Reduced Build Level Without ROW – Weekday AM Peak
continued 3

Intersection	Movement	Lane Group	No-Build 2020		Full-Build 2020 w/mitigation		Reduced Build Level w/mitigation	
			Delay	LOS	Delay	LOS	Delay	LOS
Johnson Avenue & Northwest Link	EB	L	2.8	A	6.9	A	10.3	B
		T	2.7	A	7.4	A	10.7	B
		R	0.4	A	0.6	A	0.0	A
		Approach	2.6	A	7.2	A	10.3	B
	WB	L	2.7	A	7.2	A	5.2	A
		T	2.8	A	7.4	A	5.5	A
		R	1.4	A	2.3	A	0.7	A
		Approach	2.5	A	5.3	A	3.7	A
	NB	LTR	5.5	A	7.9	A	21.9	C
		Approach	5.5	A	7.9	A	21.9	C
	SB	L	6.2	A	10.3	B	11.2	B
		TR	4.4	A	5.9	A	5.9	A
		Approach	5.1	A	9.6	A	6.6	A
Overall			2.8	A	6.5	A	6.2	A
Ronkonkoma Avenue & Powell Street/2nd Street	EB	R					40.7	D
		Approach					40.7	D
	WB	R					0.4	A
		Approach					0.4	A
	NB	L					10.6	B
		TR					9.4	A
		Approach					9.5	A
	SB	L					1.6	A
		TR					3.7	A
		Approach					3.6	A
Overall							8.6	A
Hawkins Avenue & Railroad Avenue	EB	L					8.5	A
		TR					8.9	A
		Approach					8.8	A
	WB	L					16.2	B
		T					24.6	C
		Approach					17.0	B
	SB	LT					23.3	C
		R					0.4	A
		Approach					10.7	B
Overall							12.2	B



Table 15 – Reduced Build Level Without ROW – Weekday PM Peak

Intersection	Movement	Lane Group	No-Build 2020		Full-Build 2020 w/mitigation		Reduced Build Level w/mitigation		
			Delay	LOS	Delay	LOS	Delay	LOS	
LIE North Service Road & Hawkins Avenue	WB	L	20.2	C	23.7	C			
		TR / LTR	19.9	B	21.0	C	32.9	C	
		Approach	20.0	C	21.9	C	32.9	C	
	NB	L	27.1	C	170.4	F	23.0	C	
		T	13.1	B	12.1	B	13.4	B	
		Approach	16.3	B	60.2	E	16.1	B	
	SB	TR	28.7	C	31.0	C	39.1	D	
		Approach	28.7	C	31.0	C	39.1	D	
	Overall			20.8	C	38.2	D	28.2	C
	LIE South Service Road & Hawkins Avenue	EB	L	18.8	B	18.8	B	29.1	C
TR / LTR			168.6	F	203.5	F	94.7	F	
Approach			150.2	F	181.9	F	86.9	F	
NB		TR / T	125.4	F	332.2	F	71.5	E	
		R					25.4	C	
		Approach	125.4	F	332.2	F	62.3	E	
SB		L	98.0	F	140.1	F	56.7	E	
		T	11.6	B	13.1	B	10.9	B	
		Approach	56.5	E	70.1	E	32.4	C	
Overall			127.8	F	194.8	F	70.4	E	
LIE North Service Road & Ronkonkoma Avenue	WB	L	22.9	C	24.9	C			
		TR / LTR	21.3	C	24.5	C	21.3	C	
		Approach	21.8	C	24.6	C	21.3	C	
	NB	L	31.2	C	27.0	C	57.3	E	
		T	22.1	C	15.9	B	22.7	C	
		Approach	24.4	C	18.7	B	31.5	C	
	SB	TR	30.4	C	34.6	C	44.8	D	
		Approach	30.4	C	34.6	C	44.8	D	
	Overall			24.8	C	24.2	C	30.9	C
	LIE South Service Road & Ronkonkoma Avenue	EB	L	32.3	C	32.3	C	45.2	D
TR			122.4	F	183.8	F	67.6	E	
Approach			103.4	F	154.6	F	63.1	E	
NB		TR / T	149.2	F	190.5	F	25.5	C	
		R					99.8	F	
		Approach	149.2	F	190.5	F	62.7	E	
SB		L	44.2	D	37.4	D	16.8	B	
		T	15.7	B	11.7	B	11.3	B	
		Approach	20.1	C	15.2	B	12.1	B	
Overall			110.2	F	148.1	F	55.3	E	



Table 15 – Reduced Build Level Without ROW – Weekday PM Peak
continued 2

Intersection	Movement	Lane Group	No-Build 2020		Full-Build 2020 w/mitigation		Reduced Build Level w/mitigation		
			Delay	LOS	Delay	LOS	Delay	LOS	
Hawkins Avenue & Union Avenue	WB	L	33.2	C	35.3	D	52.9	D	
		R	5.1	A	22.5	C	23.5	C	
		Approach	9.4	A	24.1	C	27.6	C	
	NB	TR	11.0	B	17.0	B	20.7	C	
		Approach	11.0	B	17.0	B	20.7	C	
	SB	L	6.7	A	31.0	C	8.4	A	
		T	3.2	A	3.7	A	2.8	A	
		Approach	5.7	A	19.2	B	6.2	A	
	Overall			8.3	A	20.1	C	17.0	B
	Mill Road & Union Avenue	EB	L	7.1	A	7.7	A	12.4	B
TR			9.2	A	11.3	B	18.8	B	
Approach			9.1	A	11.1	B	18.4	B	
WB		L	7.9	A	17.3	B	7.9	A	
		TR	11.2	B	13.0	B	10.9	B	
		Approach	10.7	B	14.1	B	10.3	B	
NB		LTR / LT	20.6	C	152.1	F	32.9	C	
		R					13.2	B	
		Approach	20.6	C	152.1	F	19.3	B	
SB		LTR	16.4	B	14.0	B	14.9	B	
		Approach	16.4	B	14.0	B	14.9	B	
Overall			12.9	B	55.5	E	15.4	B	
Railroad Avenue & Powell Street		EB	L	5.9	A	6.8	A	5.9	A
	T		7.0	A	16.2	B	9.2	A	
	R		0.6	A	0.2	A	0.0	A	
	Approach		6.8	A	15.8	B	8.9	A	
	WB	L	5.8	A	6.3	A	12.2	B	
		TR	4.8	A	9.4	A	14.8	B	
		Approach	4.8	A	9.4	A	14.8	B	
	NB	L	10.2	B	15.2	B	33.8	C	
		TR	4.8	A	6.3	A	15.1	B	
		Approach	5.9	A	8.2	A	19.1	B	
	SB	L	10.4	B	50.5	D	20.3	C	
		TR	6.6	A	9.3	A	12.3	B	
		Approach	9.8	A	48.4	D	20.2	C	
Overall			6.3	A	18.6	B	15.0	B	



Table 15 – Reduced Build Level Without ROW – Weekday PM Peak
continued 3

Intersection	Movement	Lane Group	No-Build 2020		Full-Build 2020 w/mitigation		Reduced Build Level w/mitigation		
			Delay	LOS	Delay	LOS	Delay	LOS	
Johnson Avenue & Northwest Link	EB	L	5.2	A	7.1	A	12.1	B	
		T	6.9	A	14.7	B	19.5	B	
		R	0.0	A	0.0	A	0.0	A	
		Approach	6.8	A	14.5	B	19.2	B	
	WB	L	5.2	A	7.0	A	5.2	A	
		T	6.0	A	11.2	B	7.0	A	
		R	2.0	A	3.1	A	1.5	A	
		Approach	4.6	A	6.8	A	4.2	A	
	NB	LTR	5.0	A	5.5	A	16.5	B	
		Approach	5.0	A	5.5	A	16.5	B	
	SB	L	9.6	A	21.1	C	15.6	B	
		TR	4.9	A	5.4	A	4.8	A	
		Approach	7.3	A	18.5	B	6.8	A	
	Overall			5.8	A	11.2	B	10.6	B
	Ronkonkoma Avenue & Powell Street/2nd Street	EB	R					23.3	C
Approach							23.3	C	
WB		L					38.8	D	
		Approach					38.8	D	
NB		L					7.1	A	
		TR					16.3	B	
		Approach					16.2	B	
SB		L					47.5	D	
		TR					1.2	A	
		Approach					9.1	A	
Overall							16.7	B	
Hawkins Avenue & Railroad Avenue	EB	L					12.8	B	
		TR					7.9	A	
		Approach					9.8	A	
	WB	L					15.8	B	
		T					30.5	C	
		R					0.3	A	
		Approach					18.8	B	
	SB	LT					34.2	C	
		R					0.2	A	
		Approach					16.1	B	
Overall							14.2	B	

Tables 15 and 16 show that at the reduced traffic volumes the network can be successfully mitigated with property acquisitions.



Development Scenarios without Property Taking

As discussed above, when evaluating the roadway mitigation plan for the TOD, consideration was given to developing improvements, to the extent possible, which could be put in place without the need for acquisition of private property. There is, however, one location where, based upon the traffic analyses conducted for maximum-density development, mitigation would be necessary that would require property acquisition. Under the mitigation plan, Hawkins Avenue between Union Avenue and the LIE South Service Road would be improved to two lanes in each direction. Available information indicates that the public right-of-way on Hawkins Avenue for a distance north of Union Avenue is approximately 50 feet. Assuming the available public information is accurate (it would ultimately have to be confirmed with a survey), this width would not support the construction of four lanes.

Accordingly, the level of development that could be supported with a three lane roadway section in this area was assessed. This included analyzing traffic conditions with increasing levels of TOD development with three lanes until Hawkins Avenue conditions worsen to the point where the roadway failed and disruptive queue spillback occurred.

The results of this assessment indicate that the four lanes north of Union Avenue, which also allow for the westbound dual right-turn lane on Union Avenue, will become necessary when the TOD is developed to the point where the net trips produced by the site exceed 1,100 vehicles per hour in the critical weekday p.m. peak hour (combined entering and exiting trips). These are external trips, expected to be generated by the uses in the HUB after reductions for the TOD and pass-by trips are considered.

Given the diversity of land uses contemplated under the Maximum Density Plan, it is possible to stage the development of the HUB to approach the trip threshold where takings are required with various combinations of land uses and sizes. To illustrate some of the potential mixes of development that could be constructed up to the 1,100 vehicle per weekday p.m. peak hour volume threshold, Table 16 was prepared. Table 16 presents four differing potential scenarios that represent development of the HUB, without the need for ROW taking for mitigation along Hawkins Avenue between Union Avenue and the LIE South Service Road. These include:

- **Balanced** – under this scenario each of the components of the Maximum Density Plan are reduced proportionately, to 64% of the full-build sizes
- **Retail Heavy** – this scenario constructs all of the retail, restaurant and hotel space and portions of the other uses



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- Residential Heavy - this scenario constructs all of the residential units and hotel rooms as well as portions of the other uses
- Office Heavy - this scenario constructs all of the office space and hotel rooms as well as portions of the other uses



Table 16 – Representative Build Scenarios Without Right of Way (1,100 Net Trips)

SCENARIO	RESIDENTIAL	HOTEL	OFFICE COMMERCIAL	MEDICAL OFFICE	RETAIL SPACE ⁷	QUALITY RESTAURANT ¹	HI-TURNOVER RESTAURANT ¹	TRIPS	TOD ADJUSTED (75% OF GROSS)	TARGET TRIPS - 1100 (PM Peak)
FULL BUILD	Units	Rooms	SF	SF	SF	Seats	Seats	2413	1810	1100
	1,450	120	306,000	54,000	155,000	540	540			
BALANCED	Units	Rooms	SF	SF	SF	Seats	Seats	1464	1098	1100
	928	77	195,840	34,560	99,200	346	346			
	Trips	Trips	Trips	Trips	Trips	Trips	Trips			
	528	47	298	112	294	72	113			
RETAIL HEAVY	Units	Rooms	SF	SF	SF	Seats	Seats	1465	1099	1100
	510	120	100,000	50,000	155,000	540	540			
	Trips	Trips	Trips	Trips	Trips	Trips	Trips			
	298	72	190	156	460	112	177			
RESIDENTIAL HEAVY	Units	Rooms	SF	SF	SF	Seats	Seats	1464	1098	1100
	1,450	120	75,000	30,000	75,000	175	175			
	Trips	Trips	Trips	Trips	Trips	Trips	Trips			
	815	72	162	99	223	36	57			
OFFICE HEAVY	Units	Rooms	SF	SF	SF	Seats	Seats	1465	1099	1100
	520	120	306,000	54,000	115,000	300	300			
	Trips	Trips	Trips	Trips	Trips	Trips	Trips			
	304	72	421	167	341	62	98			

⁷Trips for these uses reflect adjustment for pass-by trips of (-) 20%



Table 16 illustrates that significant portions of the full-build out of the HUB can be accomplished prior to requiring off-site mitigation that would necessitate property taking. While four scenarios are presented here, they are only examples. A number of combinations of uses and sizes could be developed within the 1,100 p.m. peak hour trip threshold, and they would be assessed based upon the trip generation of the specific uses ultimately applied for and developed.

Roundabout Considerations

The intersection of Railroad Avenue at Mill Road was analyzed under the Build with Mitigation Condition as a roundabout as depicted on the Maximum Density Concept Plan. This roundabout would also contain a third leg which would serve as access to and from development at the southeast portion of the TOD. Table 17 presents the results of this evaluation for the weekday a.m. and p.m. peak hours.

Table 17 – Roundabout Operations

Intersection	Critical Approach/Movement	Build with Mitigation			
		AM Peak		PM Peak	
		Delay	LOS	Delay	LOS
Railroad Avenue and Mill Road	EB	4.1	A	9.3	A
	WB	4.8	A	6.5	A
	SB	6.8	A	5.5	A
Overall		5.9	A	7.8	A

The results of the analysis performed indicate that the roundabout would operate well, as can be seen from the above table. Level-of-service A is expected to prevail at the roundabout during both peak periods.

Mitigation Phasing

The impact analysis identified a range of roadway improvements to mitigate identified impacts. The proposed size of the Ronkonkoma Hub area, both in terms of development area and square footage of buildings, is such that construction will take place in phases over an extended time-frame. In addition, significant infrastructure work, including the development of new roadways and improvements to existing roadways, are included in the development of the TOD.

With some exceptions (discussed below) the development or improvement of the internal and immediate perimeter roadway systems within and around the TOD should be performed as the parcels adjacent to those roads are developed to ensure adequate and safe access to surrounding roadways. Functionally, the proposed



improvements to the majority of these roads are to provide parking areas and other roadside amenities and would not add significant vehicle capacity. The roundabout proposed at Railroad Avenue and Mill Road need not be constructed until such time as the adjacent development access which forms the south leg is developed. The northbound right turn lane proposed at the intersection of Mill Road at Union Avenue (described in Table 11 for location 6 and depicted on Figure 13) can be constructed when either the adjacent Parcel I or Parcel K, as shown on the Maximum Density Concept Plan, is developed.

The following discussion focuses on the off-site mitigation phasing, and identifies trip generation thresholds at which certain mitigation must be in place. It is noted that these thresholds are based on the net trip generation, which represents the anticipated trips after adjustments for the TOD and pass-by credits have been applied.

Initial Construction – Hawkins Avenue, in the vicinity of the TOD, south of the LIE, is a primary route of arrival and departure for the TOD and the LIRR Ronkonkoma Station. Currently, delays are experienced on this route, particularly in the evening, coinciding with the daily commuting periods. Prior to occupancy of the initially constructed building(s) within the TOD, Hawkins Avenue should be improved from Railroad Avenue to just south of the LIE. This includes the installation of a new traffic signal at Railroad Avenue. The mitigation detailed in Table 11 for locations 5 and 10 and depicted on Figure 13, shall be completed during this initial phase and prior to building occupancy, with the following exceptions due to the need for additional right-of-way on Hawkins Avenue north of Union Avenue that are not currently available:

- Hawkins Avenue north of Union Avenue to be constructed as two southbound and one northbound lane
- The northbound Hawkins Avenue approach to Union Avenue striped as a through and a right turn lane
- The westbound Union Avenue approach widened for four lanes but striped for one eastbound and two westbound lanes (a left turn and a right turn lane)
- The southbound right turn lane at Railroad Avenue to be controlled by the traffic signal rather than channelized

As discussed below, the second northbound lane shall be added in a subsequent phase prior to reaching a trip generation threshold of 1,100 vehicle trips in the p.m. peak hour, as this improvement requires that additional land be acquired for roadway widening that is not available currently. The southbound right turn lane to Railroad Avenue shall be modified to a channelized lane upon the development of Parcel A, as shown on the Maximum Density Concept Plan, and the associated conversion of abutting on-street parking to a second westbound through lane.



Mitigation Level Two – Prior to occupancy of buildings in the TOD that increase net trip generation of the development during the weekday p.m. peak period above 400 vehicles per hour (combined entering and exiting), the mitigation detailed in Table 11 for locations 7, 8 and 9 and depicted on Figure 13 shall be completed.

Mitigation Level Three - Prior to occupancy of buildings in the TOD that increase net trip generation of the development during the weekday p.m. peak period above 500 vehicles per hour (combined entering and exiting), the mitigation detailed in Table 11 for locations 2 and 4 and depicted on Figure 12, along the entirety of the LIE South Service Road shall be completed.

Mitigation Level Four – Prior to occupancy of buildings in the TOD that increase net trip generation of the development during the weekday p.m. peak period above 700 vehicles per hour (combined entering and exiting), the mitigation detailed in Table 11 for locations 1 and 3 and depicted on Figure 12, along the entirety of the LIE North Service Road shall be completed.

Mitigation Level Five – Prior to occupancy of buildings in the TOD that increase net trip generation of the development during the weekday p.m. peak period above 1,100 vehicles per hour (combined entering and exiting) the mitigation detailed in Table 11 for location 5 and depicted on Figure 12, performed in part, under the initial mitigation phase described above, shall be completed. This includes the construction of the second northbound lane on Hawkins Avenue from Union Avenue to the LIE South Service Road and the striping of the westbound Union Avenue approach to three lanes as depicted on Figure 12.

Pedestrian and Bicycle Accommodations

The TOD District, prepared by the Town of Brookhaven, specifies the geometry to be utilized for the construction/reconstruction of the roadways within the TOD. This includes cross-sectional elements such as the location and widths of parking, vehicle and bicycle lanes and sidewalk areas, which the Town has designed to accommodate vehicular, bicycle and pedestrian traffic.

Significant infrastructure will be provided within the Ronkonkoma HUB TOD dedicated to pedestrians and bicyclists. The Town has designed these elements to facilitate increased use of non-motorized transportation within as well as to and from the TOD.



Construction Impacts

A preliminary project schedule has been developed based upon the current status of the proposed action, as follows.

- Urban Renewal Area Designation: 3rd Quarter 2012 - 4th Quarter 2013
- SEQRA Approval and Change of Zone: 3rd Quarter 2012 - 4th Quarter 2013
- Road and Infrastructure Financing: 2nd Quarter 2012 - 2nd Quarter 2014
- STP Design and Construction: 4th Quarter 2012 - 4th Quarter 2016
- Property Acquisition: 4th Quarter 2012 - 4th Quarter 2016
- Site Plan Approval: 1st Quarter 2013 - 4th Quarter 2017
- Vertical Development: 4th Quarter 2014 - 4th Quarter 2020

Based on the above, construction in the TOD would commence 4th quarter of 2014 and continue for an approximately six year period through the end of 2020. Traffic impacts related to construction could potentially exist during this period.

While the Maximum Density Concept Plan presents the proposed development plan in concept, at this early stage it cannot be known with any certainty what the specifics of the construction schedules for the specific components are or what construction traffic related to that construction would be.

Based on the scale of the development, the Town should require a construction traffic management and logistics plan be developed with each site plan application. This plan should indicate the following:

- Days/Hours of proposed construction activity
- Designated routes of heavy vehicles to and from the site
- Parking areas for workers and heavy vehicles so as not to add to the burden on commuter lots
- Construction staging areas



5

Parking

Parking

The proposed TOD District, prepared by the Town of Brookhaven, includes required parking ratios for the land uses to be constructed within the TOD. These ratios are based on previous studies performed for the TOD site and differ from the basic Town Code in that they account for the specific nature of the TOD. The parking requirements that shall be specifically applicable in the Ronkonkoma Hub TOD are shown in Table 18, below.

Table 18 – Ronkonkoma Hub TOD Parking Requirement Ratios

Land Use	Minimum Parking Requirement	
Residential	1.20	spaces/unit
Retail	2.65	spaces/1000 SF
Office	2.86	spaces/1000 SF
Restaurant	0.33	Per seat

The ratios provided in Table 19 were applied to the land use components and sizes in the Maximum Density Concept Plan to obtain the associated required minimum parking under the proposed code. The results of this exercise are presented below in Table 19, below.



Table 19 – Minimum Parking Requirements for Maximum Density Concept Plan

Use	Size		Number of Spaces	
			Town Parking Requirements (spaces)	Total Parking required (Spaces)
Residential	1450	units	1.2 / Unit	1740
Retail	195,000	SF	2.65 / 1000 SF	517
Office/Medical	360,000	SF	2.86 / 1000 SF	1030
Flex Space	60,000	SF	2.86/1000 SF*	172
Total				3,459

*Flex Space is treated as office space for the purpose of calculating parking requirements.

As shown in Table 19, 3,459 parking spaces are required, based on the proposed code for the Ronkonkoma Hub TOD. The Maximum Density Concept Plan indicates the construction of 3,638 parking stalls within the TOD; this exceeds the TOD District parking requirements.

LIRR Parking

The development of the Ronkonkoma Hub TOD would involve construction on areas that are currently used for commuter parking. The Maximum Density Concept Plan includes redevelopment of what are now parking areas south of the Railroad Avenue and east of the current ticket office. Reestablishing the bus loop and taxi staging area on Parcel K will also eliminate some parking stalls at the southeast end of the commuter lot west of the station. These areas are indicated on Figure 14. In addition, there is a private parking lot immediately west of the parking garage that is used by commuters that will also be displaced. This lot is also shown on Figure 14.

In terms of displaced stalls, the MTA lots south of the Railroad Avenue and east of the station contain a total of 343 stalls. The stalls that would be lost as a result of relocating the bus loop and taxi staging area total 31 stalls. However, 16 of these are handicap stalls, which would likely be relocated within the same area given the need to keep them close to the station. Each pair of handicap stalls would displace three standard stalls. Therefore, the relocation of the bus loop and taxi staging area would result in a loss of 39 stalls in this lot. This brings the total loss of public commuter stalls on the Brookhaven side of the station to 382.

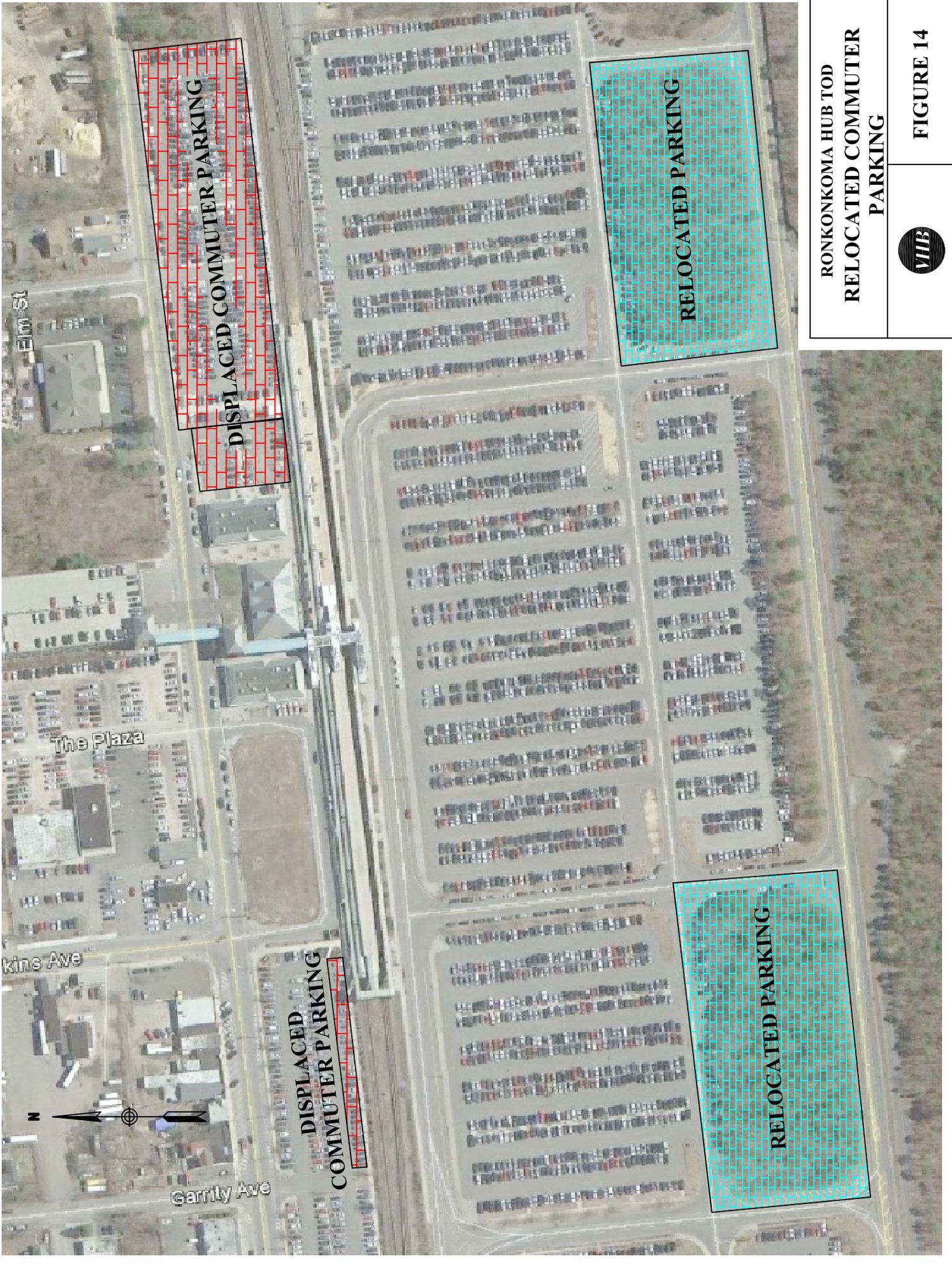
A spot parking count was performed during the mid-morning on Thursday the 11th of April, 2013, at the LIRR parking lots on Railroad Avenue and it was found that the



lots, except for lot #1, were almost fully utilized. These parking counts can be found in Appendix D.

The Master Developer for the Ronkonkoma Hub TOD has proposed to the MTA that it would construct additional parking on the south side of the station to replace parking that is displaced on the north side. The two areas which have been identified to be improved to provide parking are indicated on Figure 14. These two areas total over seven acres in size.

Based on the geometry of the parking lot areas available, at least 130 stalls can be provided per acre. This equates to the potential to build over 900 parking stalls in the two identified areas, more than enough to replace parking displaced on the north side as a result of construction of the TOD.



**RONKOMA HUB TOD
RELOCATED COMMUTER
PARKING**



FIGURE 14



6

Conclusions

Based on the results of the analyses conducted for this study, VHB has arrived at the following conclusions:

- The development of the proposed Ronkonkoma HUB TOD will increase traffic levels on the roadways in the vicinity of the site. New trips generated by the proposed TOD are estimated to be approximately 1,135 trips (entering trips - 615 and exiting trips - 520) during the weekday a.m. peak hour, and 1,612 trips (entering trips - 779 and exiting trips - 833) during the weekday p.m. peak hour.
- The location of the proposed Ronkonkoma HUB TOD is well served by mass transit due to its location at the Ronkonkoma station. The availability of this service, as well ample bus service provided by Suffolk Transit, will act to reduce the use of private vehicles by residents, employees and visitors to the TOD.
- The traffic generated by the TOD can be accommodated by the adjacent roadway network with the recommended mitigation measures in place.
- When the level of development of the TOD reaches the point that the net trip generation in the critical weekday p.m. peak hour exceeds 1,100 vehicles per hour, acquisition of private property in one location is necessary for roadway widening to mitigate impacts. Prior to this level, all mitigation can be performed on existing public property, land anticipated to become available for public use via dedications, and property that is part of the TOD that would be dedicated for that purpose.
- The roundabout proposed at the intersection of Railroad Avenue and Mill Road will operate with good levels of traffic service.
- The parking to be provided will be in accordance with the requirements of the Form-Based Code developed for the TOD and will provide for parking at levels sufficient to meet the needs of the development. Each site plan submitted for approval within the TOD should be reviewed for compliance with this code.



- Existing public parking used by commuters at the railroad station that is displaced by the TOD will be replaced in kind, in currently unimproved areas, ensuring the development of the HUB does not contribute to parking deficiencies at the station.
- The development of the Ronkonkoma HUB TOD as proposed, in conjunction with the identified roadway mitigation in this study, will not result in a significant negative impact on traffic conditions in the study area. While the development will result in an increase in traffic levels in the vicinity of the site, this increase can be handled by the roadway system with the implementation of the identified mitigation.



Engineering, Surveying and Landscape Architecture, P.C.

Appendix A

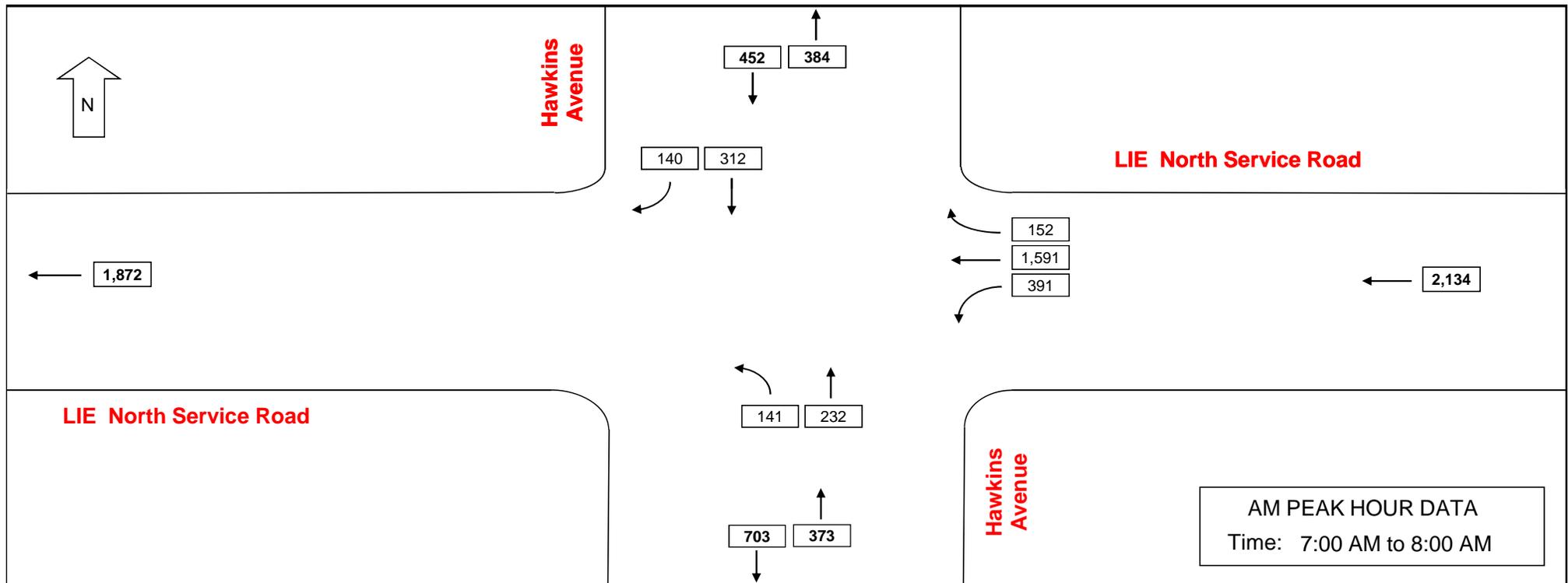
Description

Turning Movement Counts

**HAWKINS AVENUE @ LIE NORTH SERVICE ROAD
RONKONKOMA, NY**

Date Collected: 05/13/2010 (Thursday)

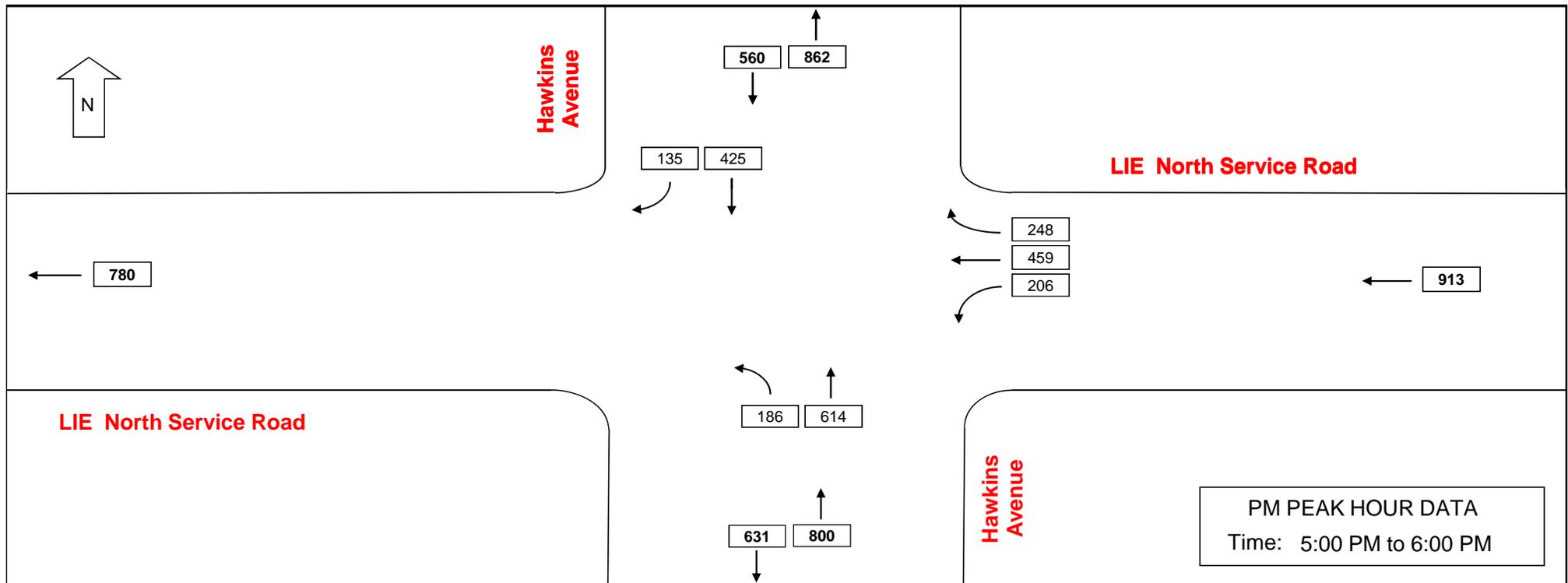
Start Time	Eastbound				Westbound				Northbound				Southbound				TOTAL	Cum. Hourly
	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total		
7:00 AM					165	322	44	531	27	49		76		61	43	104	711	
7:15 AM					79	395	37	511	39	52		91		97	37	134	736	
7:30 AM					92	415	32	539	40	60		100		74	34	108	747	
7:45 AM					55	459	39	553	35	71		106		80	26	106	765	2,959
8:00 AM					48	387	20	455	45	66		111		77	36	113	679	2,927
8:15 AM					39	439	33	511	50	58		108		85	26	111	730	2,921
8:30 AM					35	453	46	534	37	65		102		76	32	108	744	2,918
8:45 AM					35	424	34	493	38	76		114		98	28	126	733	2,886
Peak Hour 7:00 AM to 8:00 AM					391	1,591	152	2,134	141	232	0	373	0	312	140	452	2,959	
PHF								0.96				0.88				0.84		
HV%								2%				5%				3%		



**HAWKINS AVENUE@ LIE NORTH SERVICE ROAD
RONKONKOMA, NY**

Date Collected: 05/13/2010 (Thursday)

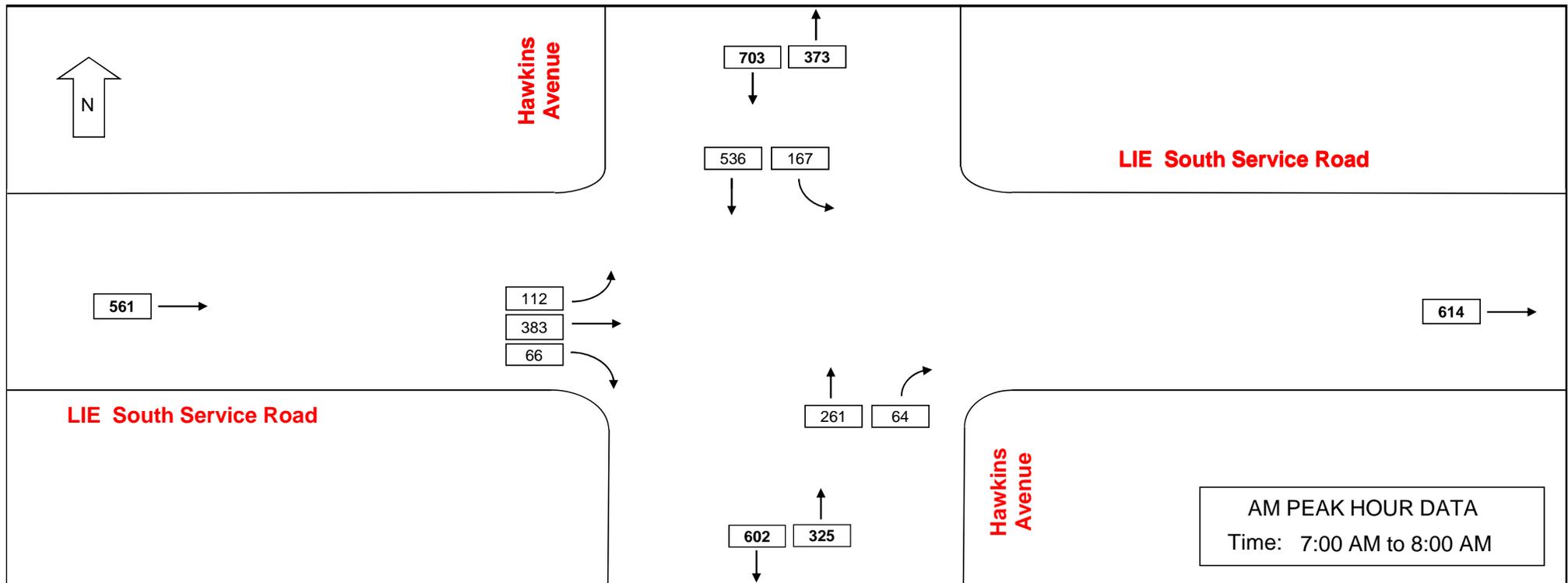
Start Time	Eastbound				Westbound				Northbound				Southbound				TOTAL	Cum. Hourly
	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total		
5:00 PM					49	103	44	196	52	169		221		109	43	152	569	
5:15 PM					54	129	82	265	44	145		189		91	29	120	574	
5:30 PM					48	118	65	231	47	146		193		115	31	146	570	
5:45 PM					55	109	57	221	43	154		197		110	32	142	560	2,273
6:00 PM					55	94	20	169	31	143		174		104	30	134	477	2,181
6:15 PM					54	95	60	209	40	144		184		107	26	133	526	2,133
6:30 PM					57	85	55	197	24	120		144		110	41	151	492	2,055
6:45 PM					54	101	79	234	27	130		157		97	24	121	512	2,007
Peak Hour 5:00 PM to 6:00 PM					206	459	248	913	186	614	0	800	0	425	135	560	2,273	
PHF								0.86				0.90				0.92		
HV%								2%				1%				1%		



**HAWKINS AVENUE@ LIE SOUTH SERVICE ROAD
RONKONKOMA, NY**

Date Collected: 05/13/2010 (Thursday)

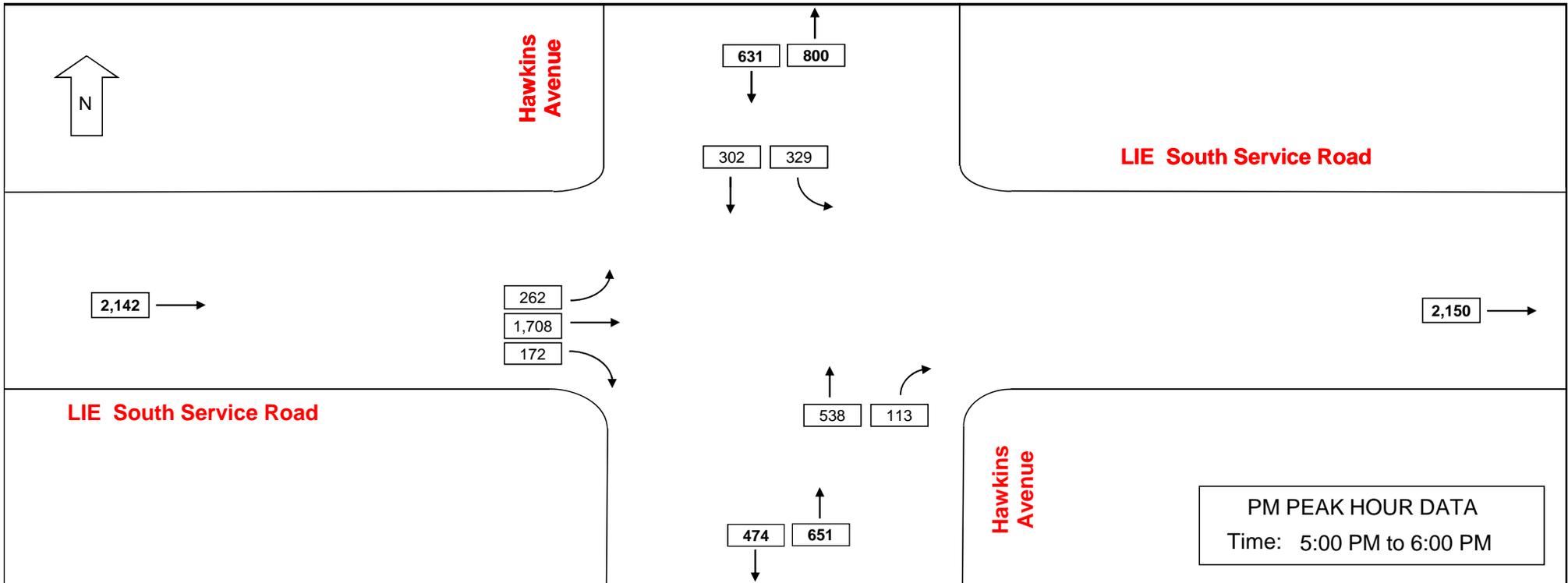
Start Time	Eastbound				Westbound				Northbound				Southbound				TOTAL	Cum. Hourly
	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total		
7:00 AM	25	77	14	116						49	22	71	27	192		219	406	
7:15 AM	25	91	12	128						62	22	84	53	123		176	388	
7:30 AM	29	124	18	171						65	13	78	36	134		170	419	
7:45 AM	33	91	22	146						85	7	92	51	87		138	376	1,589
8:00 AM	31	76	20	127						77	10	87	38	84		122	336	1,519
8:15 AM	28	74	4	106						89	16	105	43	76		119	330	1,461
8:30 AM	36	116	15	167						62	18	80	47	71		118	365	1,407
8:45 AM	36	88	16	140						83	17	100	46	93		139	379	1,410
Peak Hour 7:00 AM to 8:00 AM	112	383	66	561					0	261	64	325	167	536	0	703	1,589	
PHF				0.82								0.88				0.80		
HV%				12%								8%				3%		



**HAWKINS AVENUE@ LIE SOUTH SERVICE ROAD
RONKONKOMA, NY**

Date Collected: 05/13/2010 (Thursday)

Start Time	Eastbound				Westbound				Northbound				Southbound				TOTAL	Cum. Hourly
	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total		
5:00 PM	68	426	32	526						154	22	176	77	83		160	862	
5:15 PM	67	424	35	526						131	38	169	77	69		146	841	
5:30 PM	59	445	48	552						124	22	146	89	69		158	856	
5:45 PM	68	413	57	538						129	31	160	86	81		167	865	3,424
6:00 PM	68	388	40	496						103	74	177	79	80		159	832	3,394
6:15 PM	75	362	29	466						105	50	155	55	102		157	778	3,331
6:30 PM	69	235	15	319						75	47	122	70	96		166	607	3,082
6:45 PM	44	260	25	329						112	101	213	79	78		157	699	2,916
Peak Hour 5:00 PM to 6:00 PM	262	1,708	172	2,142					0	538	113	651	329	302	0	631	3,424	
PHF				0.97								0.92				0.94		
HV%				2%								1%				2%		

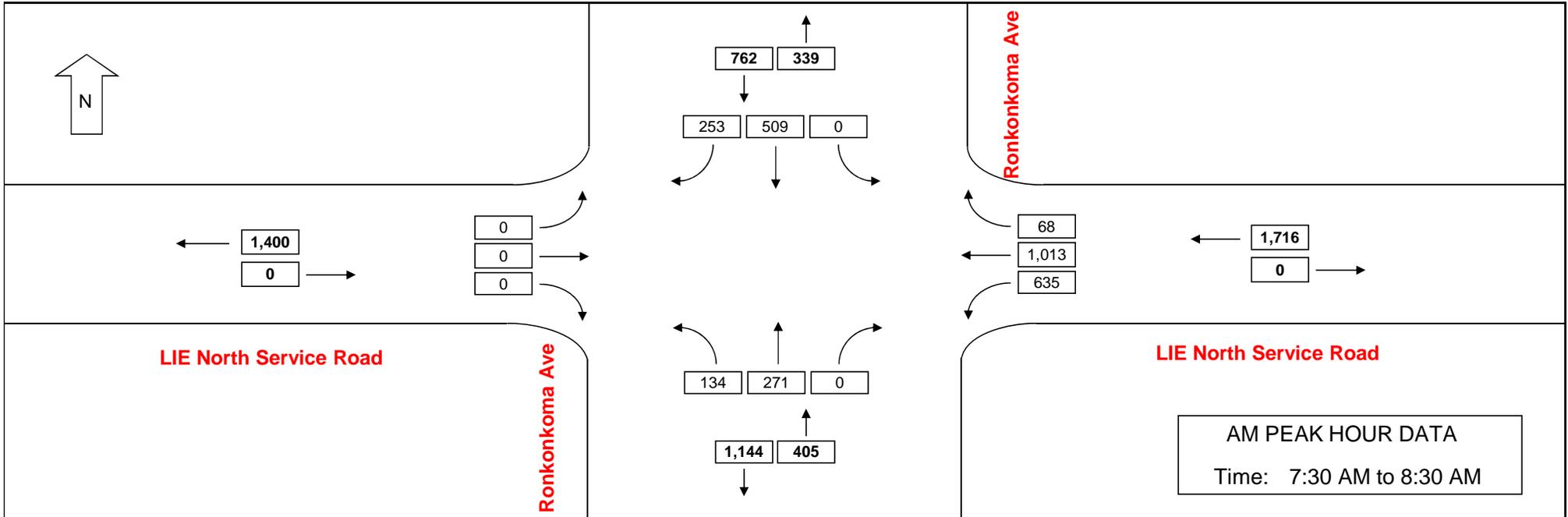


TRAFFIC VOLUME DATA

**RONKONKOMA AVENUE @ LIE NORTH SERVICE ROAD
RONKONKOMA, NY**

Date Collected: 2/26/2013 (TUESDAY)

Start Time	Eastbound				Westbound				Northbound				Southbound				TOTAL	Cum. Hourly
	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total		
7:00 AM				0	180	198	6	384	32	46		78		101	58	159	621	
7:15 AM				0	160	212	6	378	33	53		86		129	69	198	662	
7:30 AM				0	171	274	14	459	32	61		93		109	64	173	725	
7:45 AM				0	190	243	16	449	35	65		100		156	68	224	773	2,781
8:00 AM				0	131	265	23	419	26	78		104		105	56	161	684	2,844
8:15 AM				0	143	231	15	389	41	67		108		139	65	204	701	2,883
8:30 AM				0	152	198	6	356	30	77		107		118	69	187	650	2,808
8:45 AM				0	180	129	15	324	23	81		104		129	45	174	602	2,637
Peak Hour 7:30 AM to 8:30 AM	0	0	0	0	635	1,013	68	1,716	134	271	0	405	0	509	253	762	2,883	
PHF				#DIV/0!				0.93				0.94				0.85		
HV%								3%				8%				4%		

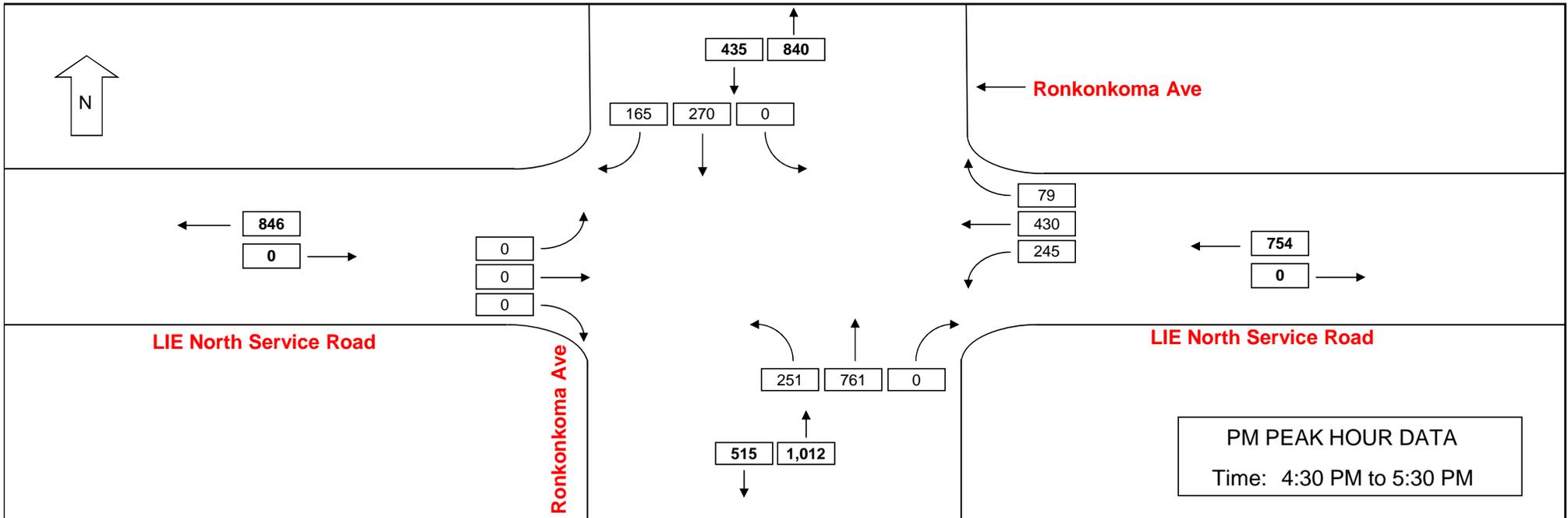


TRAFFIC VOLUME DATA

**RONKONKOMA AVENUE @ LIE NORTH SERVICE ROAD
RONKONKOMA, NY**

Date Collected: 2/26/2013 (TUESDAY)

Start Time	Eastbound				Westbound				Northbound				Southbound				TOTAL	Cum. Hourly
	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total		
4:00 PM				0	61	80	26	167	64	164		228		77	66	143	538	
4:15 PM				0	66	92	13	171	47	152		199		73	41	114	484	
4:30 PM				0	66	109	16	191	53	184		237		81	49	130	558	
4:45 PM				0	61	88	21	170	54	200		254		58	38	96	520	2,100
5:00 PM				0	58	119	25	202	66	179		245		61	44	105	552	2,114
5:15 PM				0	60	114	17	191	78	198		276		70	34	104	571	2,201
5:30 PM				0	53	110	22	185	71	160		231		84	41	125	541	2,184
5:45 PM				0	51	96	14	161	61	168		229		76	37	113	503	2,167
6:00 PM				0	46	116	14	176	64	180		244		69	39	108	528	2,143
6:15 PM				0	50	85	11	146	46	177		223		55	43	98	467	2,039
6:30 PM				0	46	74	25	145	43	153		196		68	37	105	446	1,944
6:45 PM				0	47	71	18	136	33	152		185		73	32	105	426	1,867
Peak Hour 4:30 PM to 5:30 PM PHF HV%	0	0	0	0 #DIV/0!	245	430	79	754 0.93 4%	251	761	0	1,012 0.92 1%	0	270	165	435 0.84 2%	2,201	

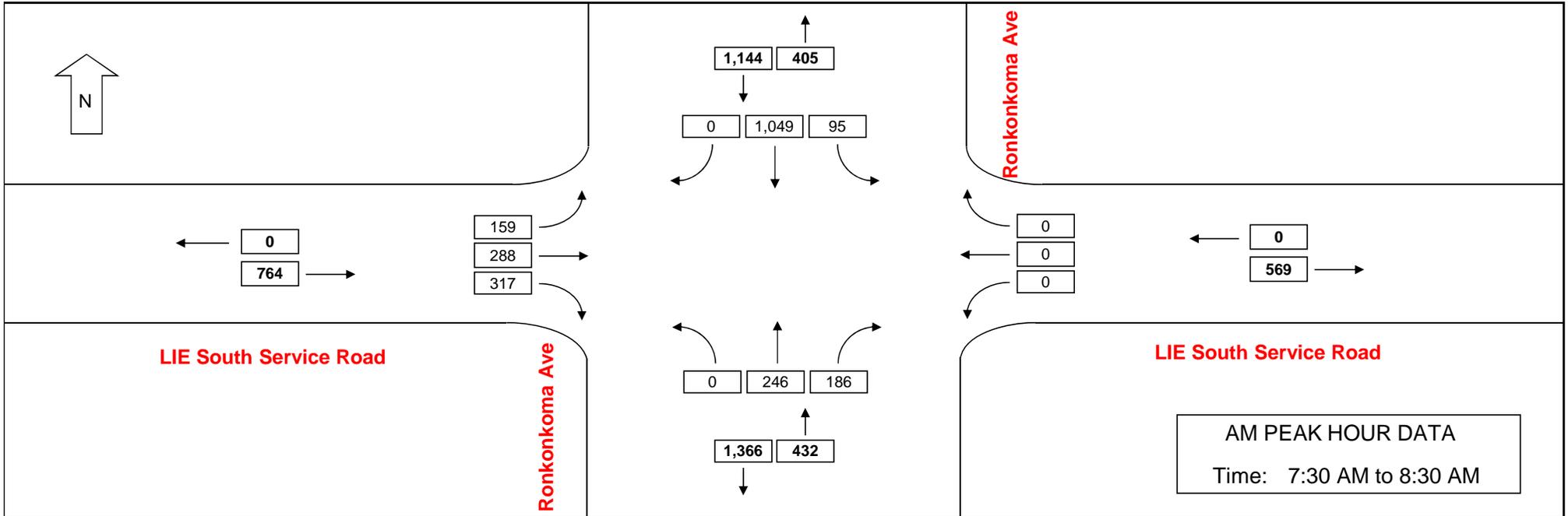


TRAFFIC VOLUME DATA

**RONKONKOMA AVENUE @ LIE SOUTH SERVICE ROAD
RONKONKOMA, NY**

Date Collected: 2/26/2013 (TUESDAY)

Start Time	Eastbound				Westbound				Northbound				Southbound				TOTAL	Cum. Hourly
	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total		
7:00 AM	24	47	36	107				0		56	38	94	20	261		281	482	
7:15 AM	29	65	62	156				0		58	39	97	12	286		298	551	
7:30 AM	47	81	82	210				0		56	51	107	21	243		264	581	
7:45 AM	31	73	87	191				0		67	46	113	18	329		347	651	
8:00 AM	40	60	71	171				0		61	44	105	20	223		243	519	
8:15 AM	41	74	77	192				0		62	45	107	36	254		290	589	
8:30 AM	42	69	74	185				0		64	57	121	16	258		274	580	
8:45 AM	32	70	65	167				0		58	53	111	25	289		314	592	
Peak Hour 7:30 AM to 8:30 AM	159	288	317	764	0	0	0	0	0	246	186	432	95	1,049	0	1,144	2,340	
PHF				0.91				#DIV/0!				0.96				0.82		
HV%				7%								14%				3%		

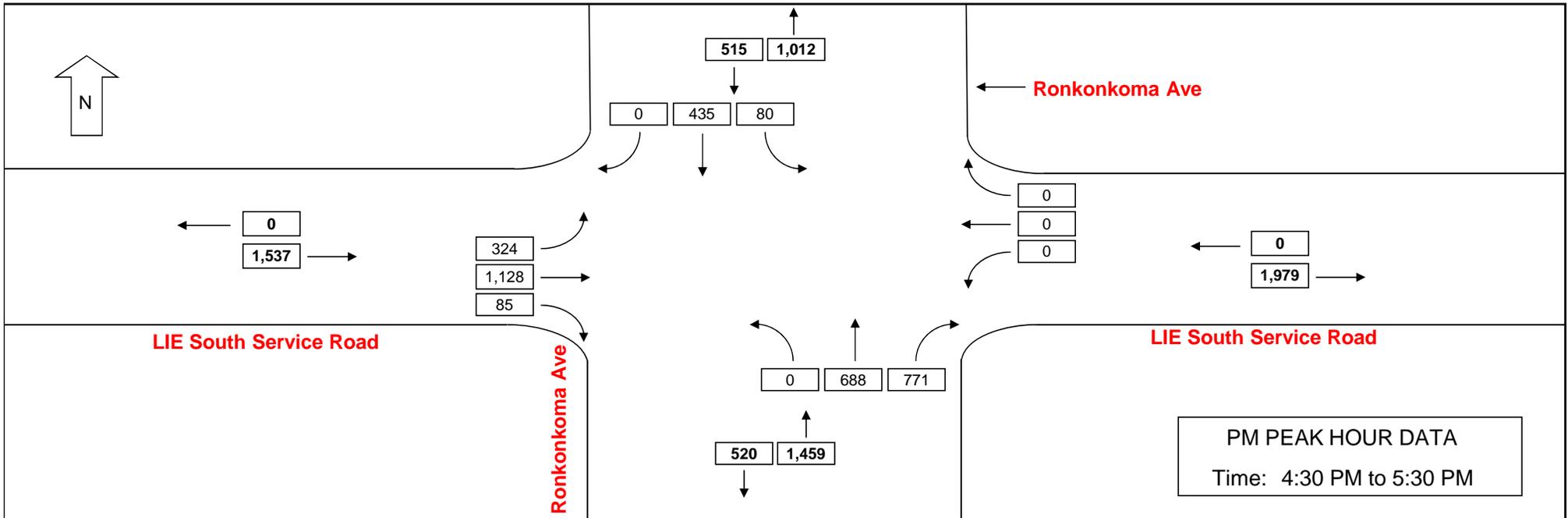


TRAFFIC VOLUME DATA

**RONKONKOMA AVENUE @ LIE SOUTH SERVICE ROAD
RONKONKOMA, NY**

Date Collected: 2/26/2013 (TUESDAY)

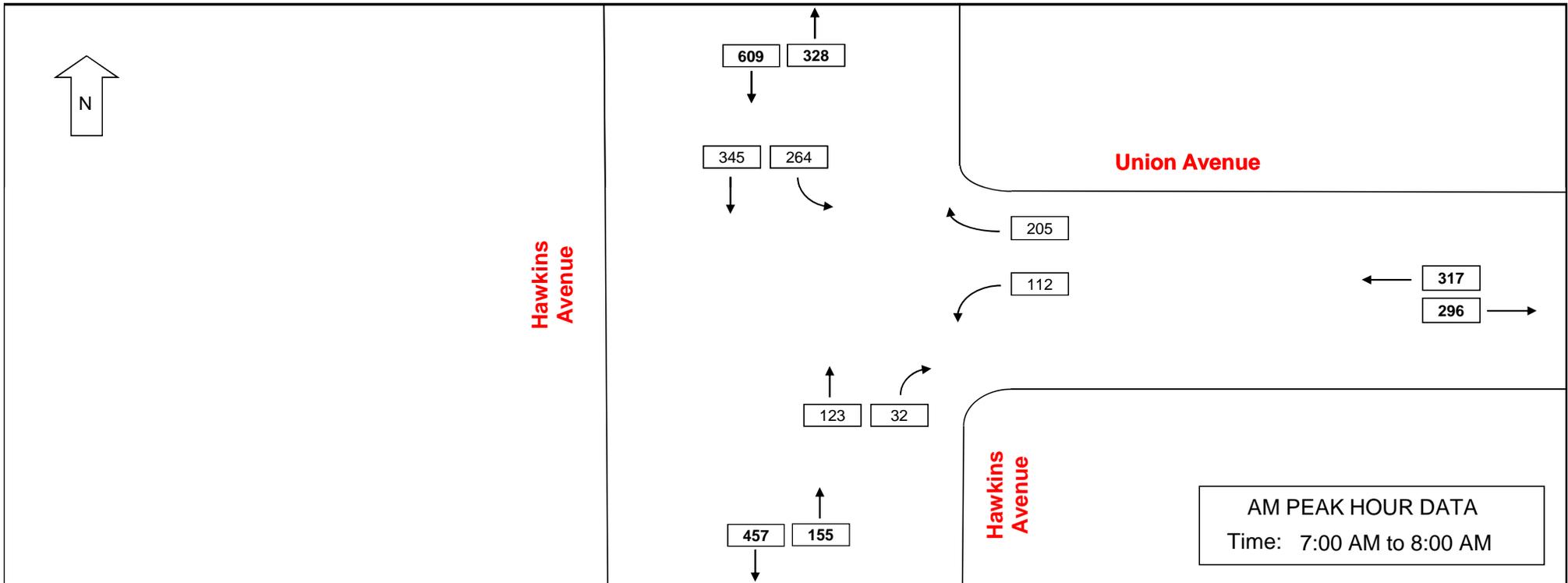
Start Time	Eastbound				Westbound				Northbound				Southbound				TOTAL	Cum. Hourly
	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total		
4:00 PM	79	186	32	297				0		155	167	322	30	107		137	756	
4:15 PM	80	189	34	303				0		123	127	250	26	114		140	693	
4:30 PM	79	324	33	436				0		165	194	359	20	123		143	938	
4:45 PM	99	271	21	391				0		153	181	334	15	107		122	847	3,234
5:00 PM	74	239	11	324				0		171	189	360	20	100		120	804	3,282
5:15 PM	72	294	20	386				0		199	207	406	25	105		130	922	3,511
5:30 PM	82	215	20	317				0		151	172	323	34	101		135	775	3,348
5:45 PM	65	288	29	382				0		160	170	330	27	100		127	839	3,340
6:00 PM	84	275	19	378				0		161	167	328	18	92		110	816	3,352
6:15 PM	83	184	15	282				0		133	151	284	20	87		107	673	3,103
6:30 PM	80	131	16	227				0		121	148	269	22	87		109	605	2,933
6:45 PM	76	135	14	225				0		107	119	226	39	81		120	571	2,665
Peak Hour 4:30 PM to 5:30 PM PHF HV%	324	1,128	85	1,537	0	0	0	0 #DIV/0!	0	688	771	1,459	80	435	0	515	3,511	
				0.88								0.90				0.90		
				2%								2%				5%		



**HAWKINS AVENUE @ UNION AVENUE
RONKONKOMA, NY**

Date Collected: 05/13/2010 (Thursday)

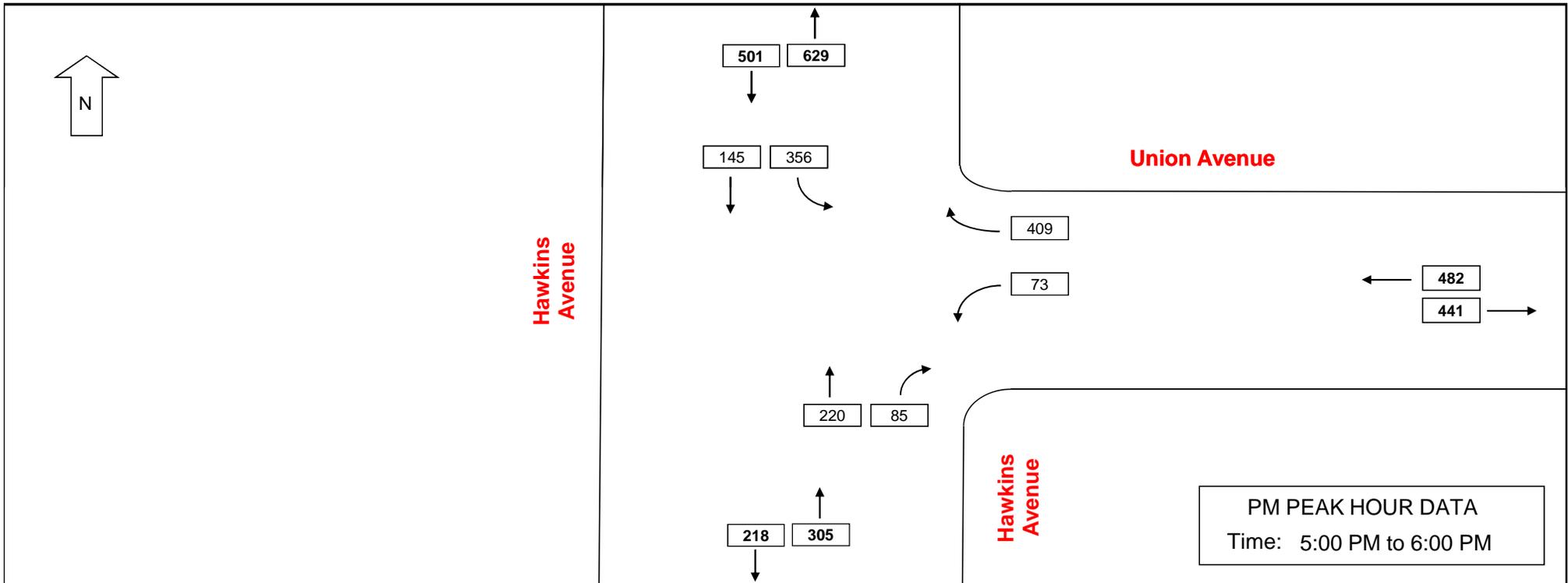
Start Time	Eastbound				Westbound				Northbound				Southbound				TOTAL	Cum. Hourly
	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total		
7:00 AM					16		43	59		33	13	46	88	123		211	316	
7:15 AM					19		49	68		39	5	44	67	82		149	261	
7:30 AM					36		51	87		25	6	31	55	84		139	257	
7:45 AM					41		62	103		26	8	34	54	56		110	247	1,081
8:00 AM					35		65	100		22	10	32	45	58		103	235	1,000
8:15 AM					46		68	114		32	6	38	22	56		78	230	969
8:30 AM					27		54	81		27	6	33	33	50		83	197	909
8:45 AM					37		75	112		23	11	34	35	72		107	253	915
Peak Hour 7:00 AM to 8:00 AM					112		205	317		123	32	155	264	345		609	1,081	
PHF								0.77				0.84				0.72		
HV%								6%				9%				3%		



**HAWKINS AVENUE @ UNION AVENUE
RONKONKOMA, NY**

Date Collected: 05/13/2010 (Thursday)

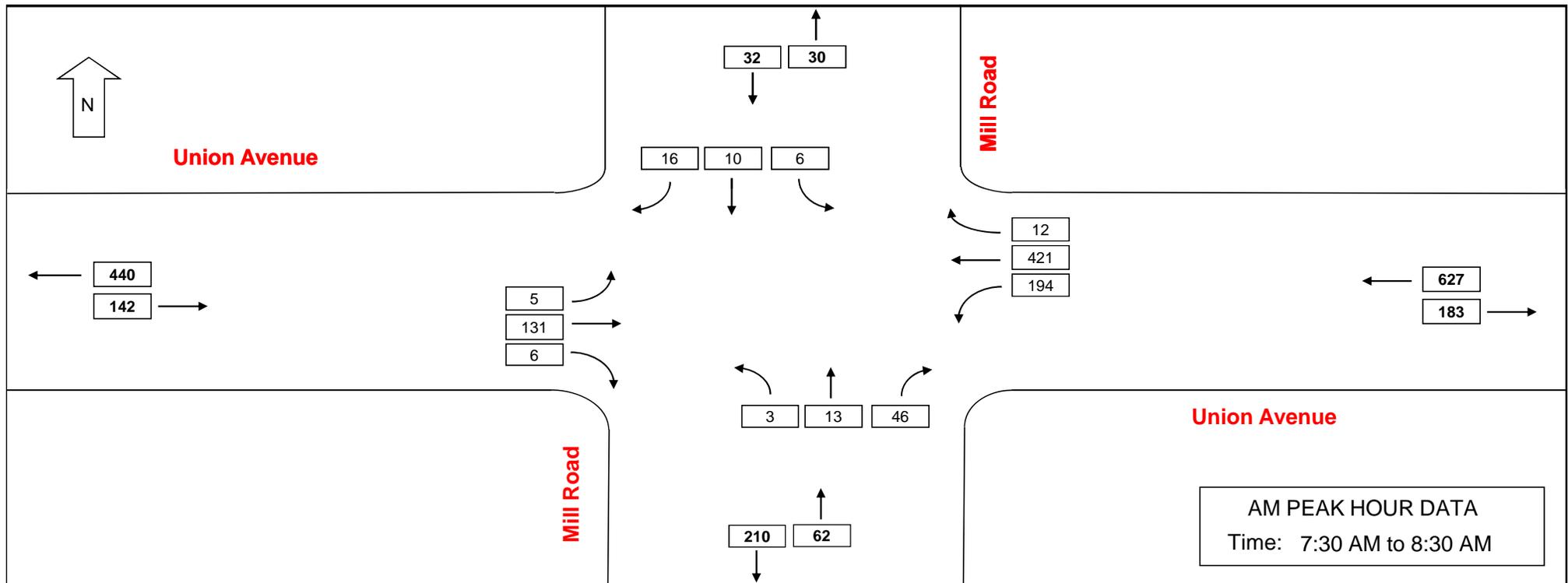
Start Time	Eastbound				Westbound				Northbound				Southbound				TOTAL	Cum. Hourly
	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total		
5:00 PM					17		118	135		46	33	79	83	26		109	323	
5:15 PM					20		95	115		69	20	89	80	44		124	328	
5:30 PM					25		90	115		50	19	69	102	38		140	324	
5:45 PM					11		106	117		55	13	68	91	37		128	313	1,288
6:00 PM					12		64	76		92	24	116	82	47		129	321	1,286
6:15 PM					14		63	77		90	18	108	89	45		134	319	1,277
6:30 PM					12		61	73		78	16	94	56	48		104	271	1,224
6:45 PM					20		103	123		116	15	131	59	60		119	373	1,284
Peak Hour 5:00 PM to 6:00 PM					73		409	482		220	85	305	356	145		501	1,288	
PHF								0.89				0.86				0.89		
HV%								1%				3%				3%		



**UNION AVENUE @ MILL ROAD
RONKONKOMA, NY**

Date Collected: 05/13/2010 (Thursday)

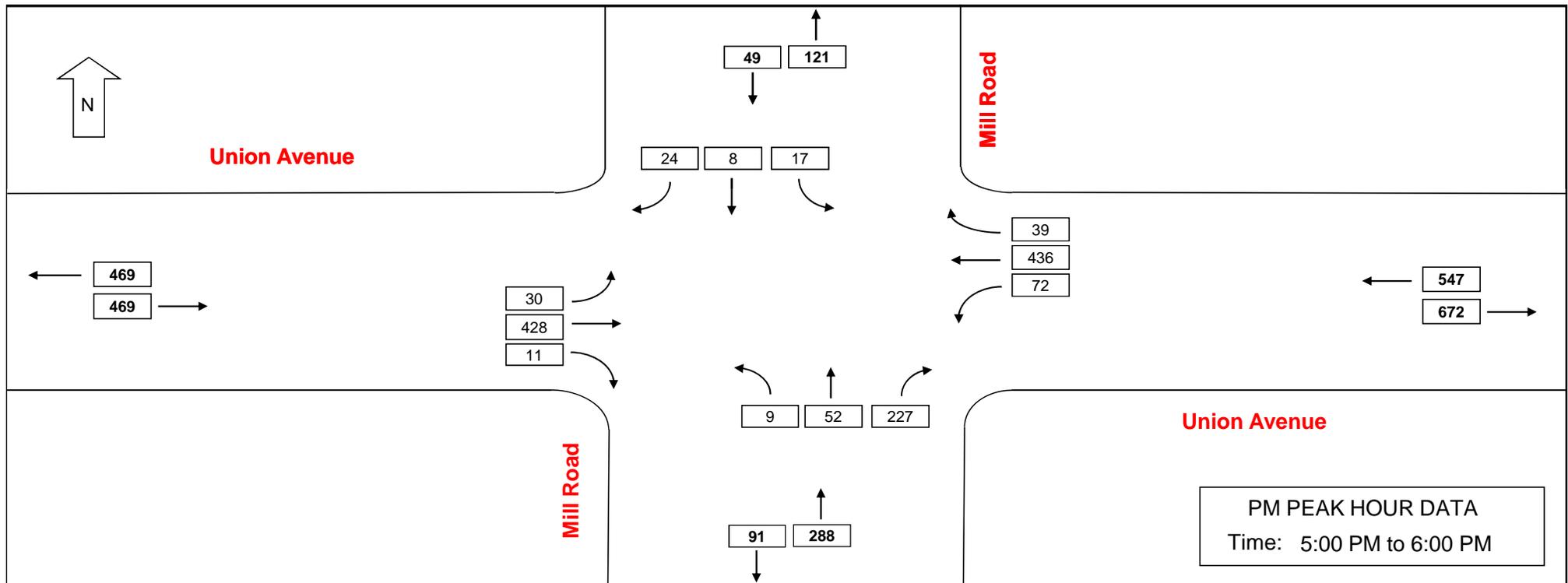
Start Time	Eastbound				Westbound				Northbound				Southbound				TOTAL	Cum. Hourly
	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total		
7:00 AM	1	28	1	30	37	79	2	118	0	6	9	15	1	1	0	2	165	
7:15 AM	1	29	4	34	35	74	3	112	1	11	13	25	0	2	2	4	175	
7:30 AM	2	26	0	28	39	97	6	142	0	3	17	20	2	2	7	11	201	
7:45 AM	0	39	1	40	55	115	1	171	0	3	12	15	2	5	0	7	233	774
8:00 AM	2	39	4	45	50	94	1	145	3	2	12	17	1	1	3	5	212	821
8:15 AM	1	27	1	29	50	115	4	169	0	5	5	10	1	2	6	9	217	863
8:30 AM	0	31	6	37	48	77	3	128	1	1	15	17	1	5	5	11	193	855
8:45 AM	0	43	0	43	26	100	4	130	0	2	12	14	2	2	10	14	201	823
Peak Hour 7:30 AM to 8:30 AM	5	131	6	142	194	421	12	627	3	13	46	62	6	10	16	32	863	
PHF				0.79				0.92				0.78				0.73		
HV%				7%				3%				5%				3%		



**UNION AVENUE @ MILL ROAD
RONKONKOMA, NY**

Date Collected: 05/13/2010 (Thursday)

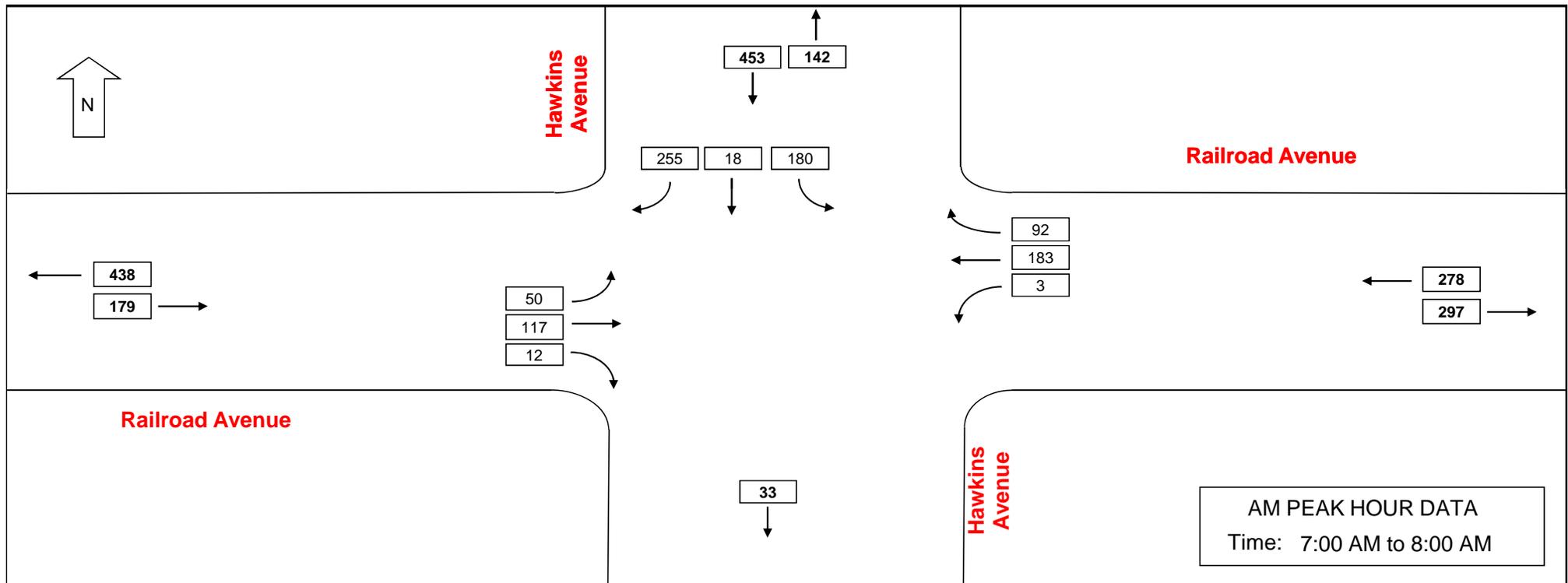
Start Time	Eastbound				Westbound				Northbound				Southbound				TOTAL	Cum. Hourly
	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total		
5:00 PM	5	100	6	111	27	141	9	177	2	5	45	52	2	1	7	10	350	
5:15 PM	17	113	4	134	20	117	9	146	3	29	79	111	5	3	5	13	404	
5:30 PM	3	103	1	107	14	88	13	115	3	7	62	72	6	0	7	13	307	
5:45 PM	5	112	0	117	11	90	8	109	1	11	41	53	4	4	5	13	292	1,353
6:00 PM	9	108	2	119	18	54	3	75	1	19	60	80	5	1	4	10	284	1,287
6:15 PM	2	107	0	109	13	56	8	77	5	12	34	51	6	3	10	19	256	1,139
6:30 PM	2	86	1	89	25	49	10	84	1	14	27	42	6	2	3	11	226	1,058
6:45 PM	12	90	1	103	13	49	2	64	1	24	45	70	6	3	8	17	254	1,020
Peak Hour 5:00 PM to 6:00 PM	30	428	11	469	72	436	39	547	9	52	227	288	17	8	24	49	1,353	
PHF				0.88				0.77				0.65				0.94		
HV%				1%				1%				1%				1%		



**HAWKINS AVENUE @ RAILROAD AVENUE
RONKONKOMA, NY**

Date Collected: 05/13/2010 (Thursday)

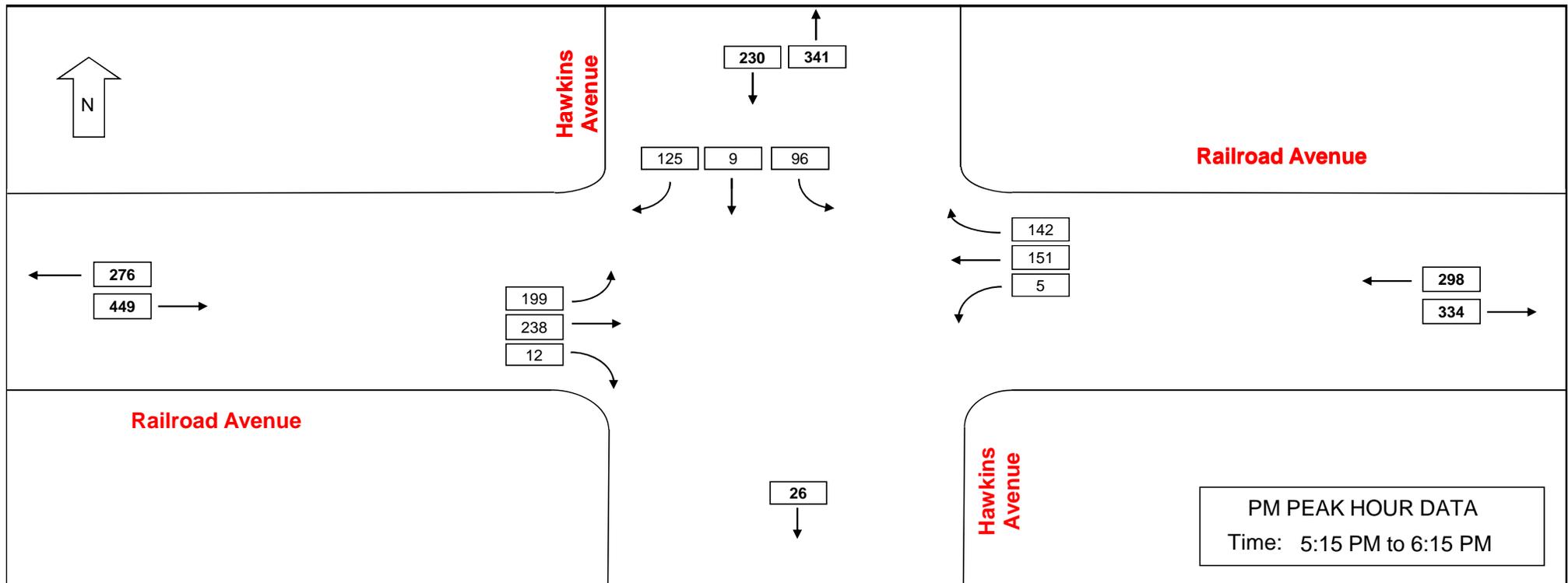
Start Time	Eastbound				Westbound				Northbound				Southbound				TOTAL	Cum. Hourly
	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total		
7:00 AM	17	29	3	49	2	29	24	55					73	5	57	135	239	
7:15 AM	7	34	3	44	0	40	33	73					44	8	51	103	220	
7:30 AM	6	31	3	40	0	46	26	72					45	1	73	119	231	
7:45 AM	20	23	3	46	1	68	9	78					18	4	74	96	220	
8:00 AM	12	17	3	32	0	59	10	69					26	0	63	89	190	
8:15 AM	22	12	0	34	5	50	19	74					23	3	74	100	208	
8:30 AM	14	15	2	31	0	44	13	57					20	1	54	75	163	
8:45 AM	20	29	2	51	4	38	12	54					34	4	68	106	211	
Peak Hour 7:00 AM to 8:00 AM	50	117	12	179	3	183	92	278					180	18	255	453	910	
PHF				0.91				0.89								0.84		
HV%				6%				5%								4%		



**HAWKINS AVENUE @ RAILROAD AVENUE
RONKONKOMA, NY**

Date Collected: 05/13/2010 (Thursday)

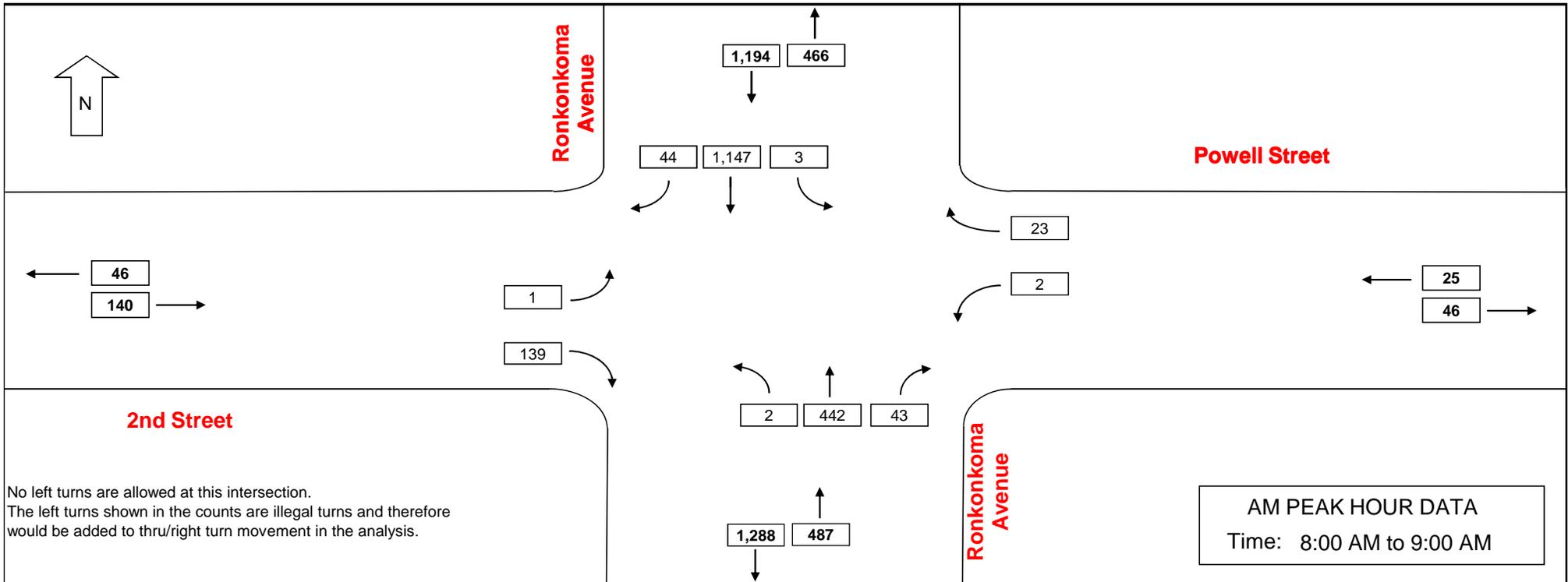
Start Time	Eastbound				Westbound				Northbound				Southbound				TOTAL	Cum. Hourly
	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total		
5:00 PM	80	57	5	142	0	46	8	54					11	0	38	49	245	
5:15 PM	65	85	2	152	3	54	45	102					26	4	40	70	324	
5:30 PM	41	59	3	103	0	27	15	42					12	1	40	53	198	
5:45 PM	40	49	2	91	1	29	27	57					23	3	21	47	195	962
6:00 PM	53	45	5	103	1	41	55	97					35	1	24	60	260	977
6:15 PM	50	22	7	79	1	30	50	81					25	3	25	53	213	866
6:30 PM	54	32	2	88	0	33	37	70					31	3	27	61	219	887
6:45 PM	57	31	2	90	0	39	68	107					35	2	33	70	267	959
Peak Hour 5:15 PM to 6:15 PM	199	238	12	449	5	151	142	298					96	9	125	230	977	
PHF				0.74				0.73								0.82		
HV%				1%				1%								1%		



**RONKONKOMA AVENUE @ POWELL STREET / 2ND STREET
RONKONKOMA, NY**

Date Collected: 05/13/2010 (Thursday)

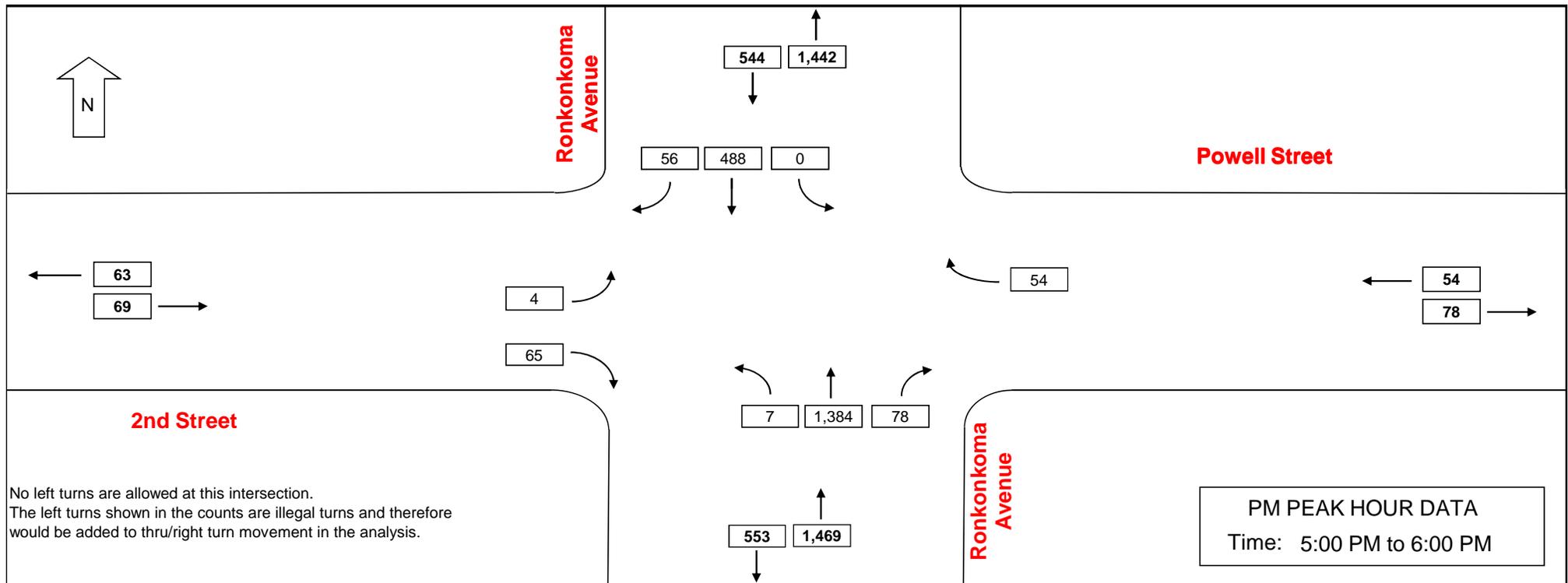
Start Time	Eastbound				Westbound				Northbound				Southbound				TOTAL	Cum. Hourly
	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total		
7:00 AM	0		19	19	0		0	0	1	84	9	94	0	276	22	298	411	
7:15 AM	0		25	25	0		7	7	0	85	15	100	0	304	12	316	448	
7:30 AM	1		20	21	0		6	6	0	101	2	103	1	308	14	323	453	
7:45 AM	1		36	37	0		6	6	0	107	12	119	0	351	12	363	525	
8:00 AM	1		38	39	1		7	8	1	80	10	91	2	234	9	245	383	
8:15 AM	0		33	33	0		4	4	0	120	7	127	1	285	13	299	463	
8:30 AM	0		32	32	0		5	5	0	128	9	137	0	278	14	292	466	
8:45 AM	0		36	36	1		7	8	1	114	17	132	0	350	8	358	534	
Peak Hour 8:00 AM to 9:00 AM	1		139	140	2		23	25	2	442	43	487	3	1,147	44	1,194	1,846	
PHF				0.90				0.78				0.89				0.83		
HV%				3%				14%				12%				3%		



**RONKONKOMA AVENUE @ POWELL STREET / 2ND STREET
RONKONKOMA, NY**

Date Collected: 05/13/2010 (Thursday)

Start Time	Eastbound				Westbound				Northbound				Southbound				TOTAL	Cum. Hourly
	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total		
5:00 PM	1		13	14			15	15	0	394	24	418	0	113	7	120	567	
5:15 PM	1		27	28			19	19	4	367	26	397	0	108	17	125	569	
5:30 PM	1		15	16			17	17	1	314	13	328	0	144	21	165	526	
5:45 PM	1		10	11			3	3	2	309	15	326	0	123	11	134	474	2,136
6:00 PM	0		13	13			14	14	0	344	26	370	2	140	17	159	556	2,125
6:15 PM	0		11	11			13	13	1	250	14	265	0	106	16	122	411	1,967
6:30 PM	0		10	10			7	7	0	263	8	271	0	101	12	113	401	1,842
6:45 PM	2		18	20			12	12	1	294	19	314	6	111	13	130	476	1,844
Peak Hour 5:00 PM to 6:00 PM	4		65	69			54	54	7	1,384	78	1,469	0	488	56	544	2,136	
PHF				0.62				0.71				0.88				0.82		
HV%				1%				5%				1%				5%		

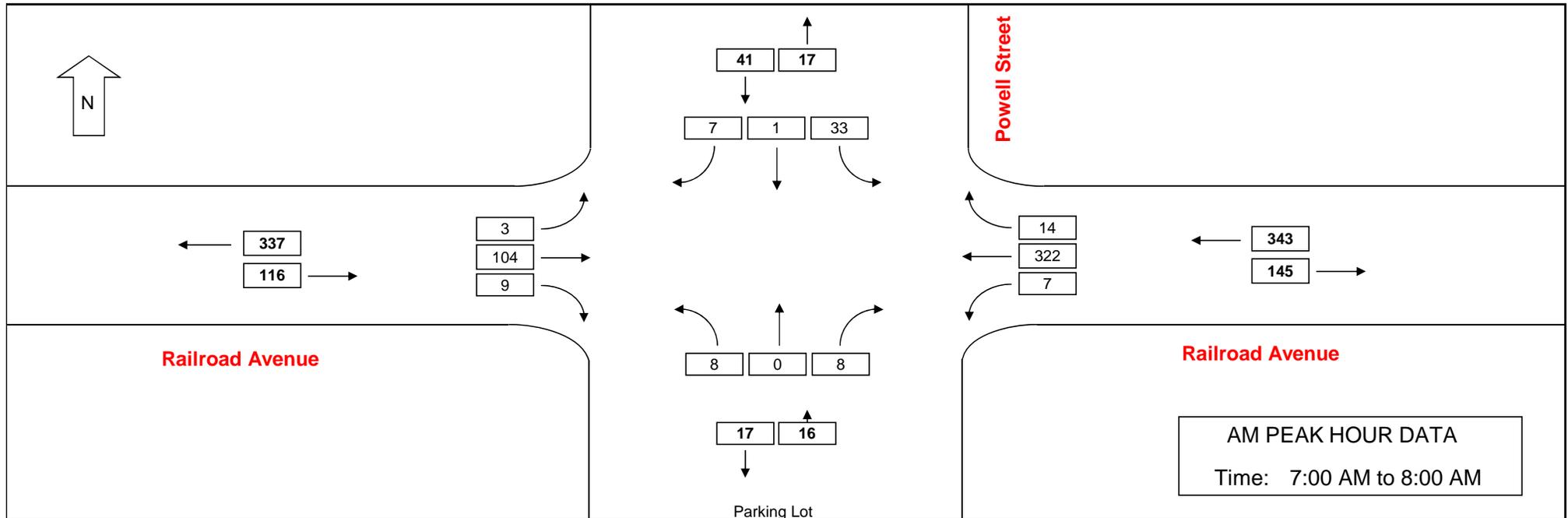


TRAFFIC VOLUME DATA

**RAILROAD AVENUE @ POWELL STREET
RONKONKOMA, NY**

Date Collected: 2/26/2013 (TUESDAY)

Start Time	Eastbound				Westbound				Northbound				Southbound				TOTAL	Cum. Hourly
	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total		
7:00 AM	0	35	4	39	1	89	4	94	3	0	1	4	12	0	0	12	149	
7:15 AM	2	22	3	27	1	70	4	75	2	0	3	5	6	1	3	10	117	
7:30 AM	1	25	0	26	3	87	3	93	2	0	3	5	7	0	3	10	134	
7:45 AM	0	22	2	24	2	76	3	81	1	0	1	2	8	0	1	9	116	516
8:00 AM	0	13	0	13	0	60	4	64	1	0	2	3	8	1	4	13	93	460
8:15 AM	3	25	0	28	0	86	5	91	3	0	0	3	14	1	3	18	140	483
8:30 AM	2	27	1	30	2	64	0	66	3	1	2	6	4	0	5	9	111	460
8:45 AM	0	31	1	32	2	68	4	74	4	0	0	4	7	0	3	10	120	464
Peak Hour 7:00 AM to 8:00 AM	3	104	9	116	7	322	14	343	8	0	8	16	33	1	7	41	516	
PHF				0.74				0.91				0.80				0.85		
HV%				6%				4%				3%				4%		

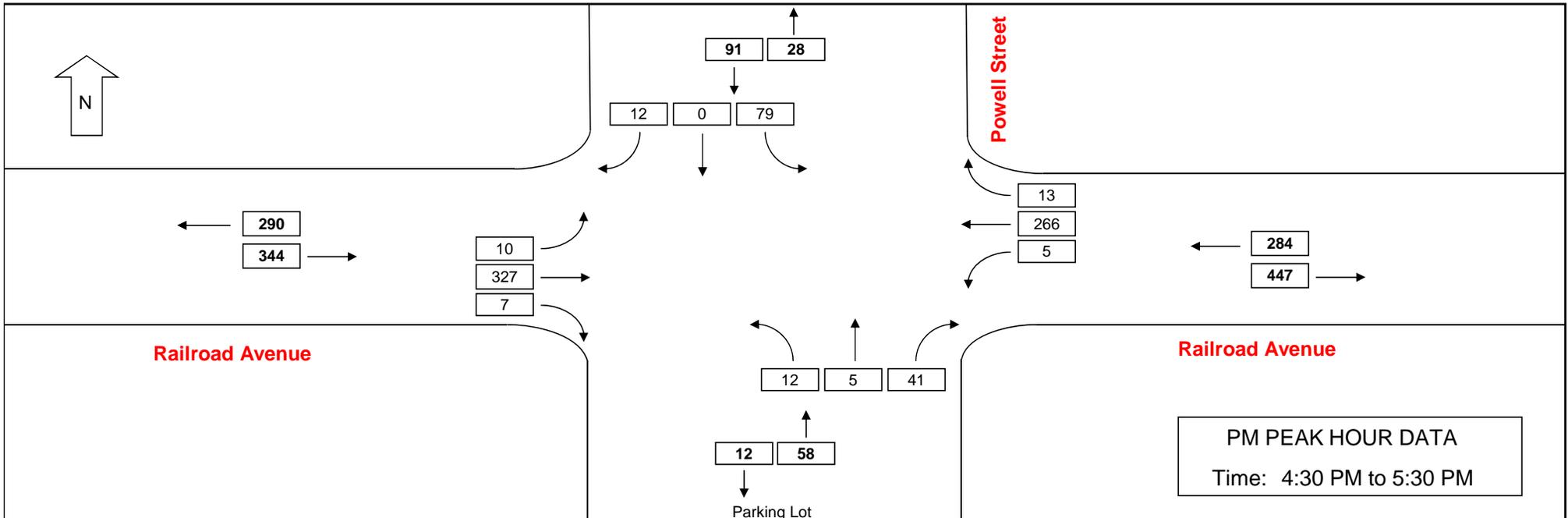


TRAFFIC VOLUME DATA

**RAILROAD AVENUE @ POWELL STREET
RONKONKOMA, NY**

Date Collected: 2/26/2013 (TUESDAY)

Start Time	Eastbound				Westbound				Northbound				Southbound				TOTAL	Cum. Hourly
	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total		
4:00 PM	1	51	2	54	1	39	6	46	1	0	0	1	17	0	3	20	121	
4:15 PM	3	68	2	73	0	42	8	50	1	0	1	2	12	2	2	16	141	
4:30 PM	2	83	2	87	3	78	6	87	8	4	19	31	12	0	3	15	220	
4:45 PM	5	61	2	68	1	58	2	61	1	0	2	3	19	0	2	21	153	635
5:00 PM	1	91	1	93	0	64	3	67	0	0	0	0	25	0	4	29	189	703
5:15 PM	2	92	2	96	1	66	2	69	3	1	20	24	23	0	3	26	215	777
5:30 PM	2	78	3	83	2	44	2	48	1	0	5	6	9	1	4	14	151	708
5:45 PM	4	71	3	78	0	56	9	65	2	1	8	11	10	0	1	11	165	720
6:00 PM	6	60	4	70	1	57	5	63	1	1	7	9	15	0	4	19	161	692
6:15 PM	3	50	1	54	0	44	4	48	1	0	3	4	10	0	1	11	117	594
6:30 PM	6	39	1	46	1	48	3	52	0	0	2	2	15	0	0	15	115	558
6:45 PM	4	49	3	56	0	45	5	50	1	0	5	6	17	1	0	18	130	523
Peak Hour 4:30 PM to 5:30 PM	10	327	7	344	5	266	13	284	12	5	41	58	79	0	12	91	777	
PHF				0.90				0.82				0.47				0.78		
HV%				2%				2%				0%				3%		

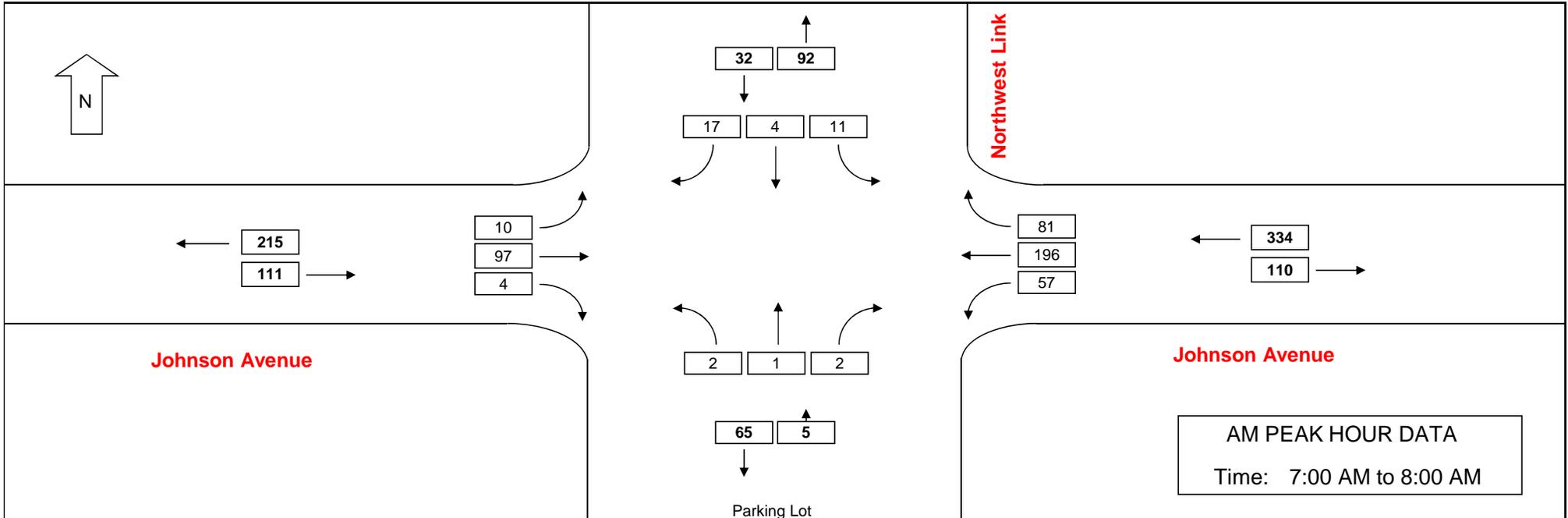


TRAFFIC VOLUME DATA

**JOHNSON AVENUE @ NORTHWEST LINK
RONKONKOMA, NY**

Date Collected: 2/26/2013 (TUESDAY)

Start Time	Eastbound				Westbound				Northbound				Southbound				TOTAL	Cum. Hourly
	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total		
7:00 AM	3	37	2	42	36	39	16	91	0	1	1	2	3	1	5	9	144	
7:15 AM	0	19	1	20	13	47	17	77	1	0	0	1	4	2	4	10	108	
7:30 AM	3	22	0	25	5	59	25	89	0	0	0	0	1	0	3	4	118	
7:45 AM	4	19	1	24	3	51	23	77	1	0	1	2	3	1	5	9	112	482
8:00 AM	2	12	0	14	1	46	17	64	0	0	0	0	4	0	8	12	90	428
8:15 AM	2	26	0	28	5	63	27	95	1	0	1	2	4	0	4	8	133	453
8:30 AM	2	23	0	25	3	50	18	71	1	0	0	1	3	1	3	7	104	439
8:45 AM	2	27	0	29	4	46	26	76	1	0	0	1	3	0	4	7	113	440
Peak Hour 7:00 AM to 8:00 AM	10	97	4	111	57	196	81	334	2	1	2	5	11	4	17	32	482	
PHF				0.66				0.92				0.63				0.80		
HV%				5%				3%				0%				18%		

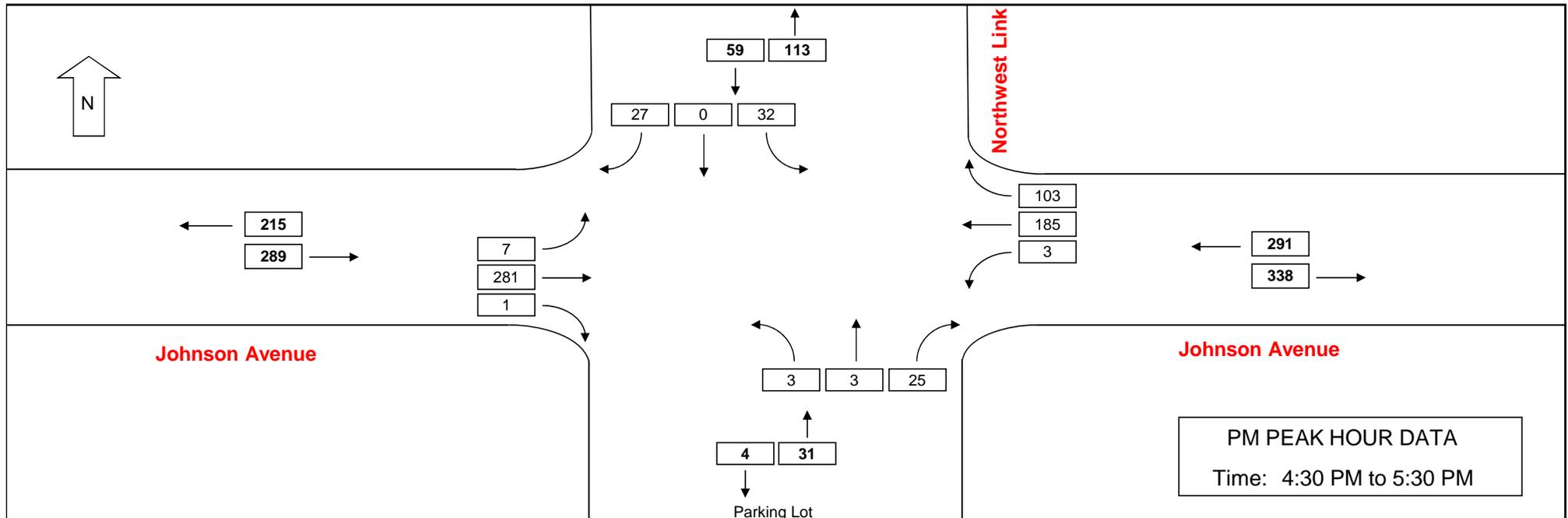


TRAFFIC VOLUME DATA

**JOHNSON AVENUE @ NORTHWEST LINK
RONKONKOMA, NY**

Date Collected: 2/26/2013 (TUESDAY)

Start Time	Eastbound				Westbound				Northbound				Southbound				TOTAL	Cum. Hourly
	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total	Left	Thru	Right	Total		
4:00 PM	2	45	1	48	0	28	14	42	0	0	1	1	7	0	2	9	100	
4:15 PM	1	66	0	67	0	37	10	47	0	0	1	1	9	1	3	13	128	
4:30 PM	0	63	1	64	1	56	33	90	1	0	9	10	16	0	8	24	188	
4:45 PM	2	60	0	62	1	38	20	59	0	0	4	4	1	0	2	3	128	544
5:00 PM	2	86	0	88	0	44	25	69	0	0	1	1	7	0	5	12	170	614
5:15 PM	3	72	0	75	1	47	25	73	2	3	11	16	8	0	12	20	184	670
5:30 PM	6	74	0	80	0	37	9	46	0	0	4	4	10	0	3	13	143	625
5:45 PM	0	61	1	62	0	42	18	60	1	0	6	7	9	0	5	14	143	640
6:00 PM	1	48	0	49	1	45	16	62	3	0	16	19	4	0	5	9	139	609
6:15 PM	2	35	0	37	0	31	14	45	2	1	8	11	5	0	4	9	102	527
6:30 PM	0	28	0	28	0	29	16	45	1	1	11	13	6	0	3	9	95	479
6:45 PM	1	39	0	40	1	32	13	46	4	0	11	15	1	0	2	3	104	440
Peak Hour 4:30 PM to 5:30 PM	7	281	1	289	3	185	103	291	3	3	25	31	32	0	27	59	670	
PHF				0.82				0.81				0.48				0.61		
HV%				2%				2%				0%				7%		





Engineering, Surveying and Landscape Architecture, P.C.

Appendix B

Description

Level of Service Definitions



Level of Service Definitions

Signal Controlled Intersections

The level of service and capacity of a signalized intersection are the criteria by which the quality of traffic service is measured. The levels of service range between level of service A (relatively congestion-free) and level of service F (congested).

The capacity of a signalized intersection is based upon the concepts of saturation flow and saturation flow rate. This is the maximum rate of flow that can pass through a given lane group under prevailing traffic and roadway conditions. The volume-to-capacity ratio is the ratio of the traffic flow for a given lane group or approach to the capacity. A V/C ratio of 1.0 indicates that the flow rate equals the capacity. Values over 1.0 indicate a temporary excess of demand. This does not necessarily indicate an intersection failure.

The level of service of a signalized intersection is evaluated on the basis of average control delay per vehicle for various movements within the intersection. The control delay is a function of the arrivals, delay from queuing and over saturation.

The following general statements may be made regarding the level of service of a signalized intersection.

- *Level of service A* describes operations with a very low delay. This occurs when progression is extremely favorable and most vehicles arrive during the green phase. Most vehicles do not stop at all. Short traffic signal cycles may contribute to low delay.
- *Level of service B* generally occurs with good progression and/or short traffic signal cycle lengths. More vehicles stop than for level of service A, causing higher average delays.
- *Level of service C* has higher delays than level of service B. These higher delays may result from fair progression and/or longer cycle lengths. Individual cycle failures, where motorists are required to wait through an entire signal cycle, may



begin to appear in this level. The number of vehicles stopping is significant at this level, although many still pass through the intersection without stopping.

- *Level of service D* means the influence of congestion has become more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths or high volume to capacity ratios. Many vehicles stop and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.
- *Level of service E* is considered the limit of acceptable delay. These high delay values generally indicate poor progression, long cycle lengths and high volume to capacity ratios. Individual cycle failures are frequent occurrences.
- *Level of Service F* has delays that are considered unacceptable to most drivers. This condition often occurs with over saturations, i.e., when arrival flow rates exceed the capacity of the intersection. It may occur at volume to capacity ratios below 1.0 with many individual cycle failures. Poor progression and long cycle lengths may also be major contributing causes to such delay levels.

The following average stopped delays are utilized to determine intersection and approach roadway levels of service for signalized intersections:

LEVEL OF SERVICE	CONTROL DELAY PER VEHICLE (SEC)
A	≤ 10.0
B	> 10.0 and ≤ 20.0
C	> 20.0 and ≤ 35.0
D	> 35.0 and ≤ 55.0
E	> 55.0 and ≤ 80.0
F	> 80.0

Two Way Stop Controlled Intersections

The level of service and capacity of a two-way stop controlled (TWSC) intersection are the criteria that are used to measure the quality of the traffic operations. The levels of service range between level of service A (relatively congestion-free) and level of service F (very congested).

The right of way at the TWSC intersection is controlled by stop signs on two opposing minor-street approaches (or on one leg of a "T"-type intersection). The capacity of a controlled approach is based on the distribution of gaps in the major street traffic flow, driver judgment in selecting a gap through which to execute the desired maneuver and the follow up time required by each driver in a queue.



The level of service for the subject lane group movement of an approach of a TWSC intersection is evaluated based on the average total delay per vehicle. Control delay is a function of the capacity of the approach and the degree of saturation. It is defined as the total elapsed time from the time a vehicle stops at the end of the queue to the time the vehicle departs from the stop line. This includes the time required for the vehicle to travel from the end of the queue position to the first-in-queue position, including deceleration of vehicles from free-flow speed to the speed of vehicles in the queue. The average approach delay for all vehicles on a particular approach is computed as the weighted average of the control delay estimates for each individual movement on the approach.

The following levels of average control delay are used to determine approach levels of service:

LEVEL OF SERVICE	CONTROL DELAY PER VEHICLE (SEC)
A	< 10.0
B	> 10.0 and < 15.0
C	> 15.0 and < 25.0
D	> 25.0 and < 35.0
E	> 35.0 and < 50.0
F	> 50.0

While the level of service criteria are applied to each approach of a TWSC intersection, the average delay for an entire intersection can be calculated by taking a weighted average of the vehicles stopped on the minor approaches and the vehicles in the major street traffic flow, which suffer no delays. This total average control delay provides a means of comparison for two intersections.

All Way Stop Controlled Intersections

The level of service and capacity of an all way stop controlled (AWSC) intersection are the criteria by which the quality of traffic service is measured. The levels of service range between level of service A (relatively congestion-free) and level of service F (very congested).

The key variable in determining the capacity of an AWSC intersection is the distribution of traffic volumes among the approaches. Under ideal conditions traffic would be evenly distributed among the approaches. The flow rate for any given approach increases as the traffic decreases on the other approaches, allowing a smaller headway between vehicles departing from the stop line.

The capacity of each approach is computed under the assumption that the flows on the opposing and conflicting approaches are constant. The level of service of an



AWSC intersection is evaluated based on the average total delay per vehicle. Total delay is defined as the total elapsed time from when a vehicle stops at the end of a queue until the vehicle departs from the stop line. This includes the time required for the vehicle to travel from the end of the queue position to the first-in-queue position, including deceleration of vehicles from free-flow speed to the speed of vehicles in the queue. This delay is based on the flow rate for each approach. As indicated above, the flow rate and therefore the delay, is directly proportional to the distribution of vehicles among the approaches.

The following levels of average control delay are used to determine approach levels of service:

LEVEL OF SERVICE	CONTROL DELAY PER VEHICLE (SEC)
A	≤ 10.0
B	> 10.0 and ≤ 15.0
C	> 15.0 and ≤ 25.0
D	> 25.0 and ≤ 35.0
E	> 35.0 and ≤ 50.0
F	> 50.0

The average control delay is the most effective measure for indicating the performance of an AWSC intersection because it can readily be measured by a transportation analyst and can be clearly communicated to a lay person. In addition, the use of delay will result in a consistent measure for both signalized and unsignalized intersections. While both types of intersections are evaluated in terms of average delay, the level of service criteria are different. This is due to drivers who expect different levels of performance from different types of intersection controls. Since signalized intersections are designed to carry higher traffic volumes compared with AWSC intersections, higher levels of control delay are more acceptable at signalized intersections for the same level of service.



Engineering, Surveying and Landscape Architecture, P.C.

Appendix C

Description

Synchro – Level of Service Analysis Worksheets

11: Hawkins Avenue & LIE North Service Road Lanes, Volumes, Timings

Existing 2013
AM PEAK



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↖	↕		↖	↕			↕	
Volume (vph)	0	0	0	399	1622	155	144	237	0	0	318	143
Satd. Flow (prot)	0	0	0	1711	3377	0	1662	3323	0	0	3344	0
Flt Permitted				0.950			0.277					
Satd. Flow (perm)	0	0	0	1711	3377	0	485	3323	0	0	3344	0
Satd. Flow (RTOR)					16						48	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.25	0.25	0.25	0.96	0.96	0.96	0.88	0.88	0.25	0.25	0.84	0.84
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	2%	2%	2%	5%	5%	5%	3%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	416	1851	0	164	269	0	0	549	0
Turn Type				Perm	NA		pm+pt	NA			NA	
Protected Phases					1			8			3	
Permitted Phases				1			3					7
Detector Phase				1	1		8	3				7
Switch Phase												
Minimum Initial (s)				25.0	25.0		4.0	16.0			16.0	
Minimum Split (s)				31.3	31.3		10.0	23.0			23.0	
Total Split (s)				61.0	61.0		14.0	39.0			25.0	
Total Split (%)				61.0%	61.0%		14.0%	39.0%			25.0%	
Yellow Time (s)				4.3	4.3		4.0	4.0			4.0	
All-Red Time (s)				2.0	2.0		2.0	2.0			2.0	
Lost Time Adjust (s)				0.0	0.0		0.0	0.0			0.0	
Total Lost Time (s)				6.3	6.3		6.0	6.0			6.0	
Lead/Lag							Lag				Lead	
Lead-Lag Optimize?												
Recall Mode				C-Max	C-Max		Min	Min			Max	
Act Effct Green (s)				56.0	56.0		31.7	31.7			19.0	
Actuated g/C Ratio				0.56	0.56		0.32	0.32			0.19	
v/c Ratio				0.43	0.98		0.70	0.26			0.81	
Control Delay				14.9	38.1		38.3	15.6			46.3	
Queue Delay				0.0	0.0		0.0	0.0			0.0	
Total Delay				14.9	38.1		38.3	15.6			46.3	
LOS				B	D		D	B			D	
Approach Delay					33.9			24.2			46.3	
Approach LOS					C			C			D	
Queue Length 50th (ft)				150	582		45	38			163	
Queue Length 95th (ft)				224	#786		#93	53			205	
Internal Link Dist (ft)		204			499			339			118	
Turn Bay Length (ft)							100					
Base Capacity (vph)				957	1896		254	1096			674	
Starvation Cap Reductn				0	0		0	0			0	
Spillback Cap Reductn				0	0		0	0			0	
Storage Cap Reductn				0	0		0	0			0	
Reduced v/c Ratio				0.43	0.98		0.65	0.25			0.81	

Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 10 (10%), Referenced to phase 1:WBTL, Start of Yellow

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.98

Intersection Signal Delay: 34.7

Intersection LOS: C

Intersection Capacity Utilization 86.4%

ICU Level of Service E

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

11: Hawkins Avenue & LIE North Service Road Lanes, Volumes, Timings

Existing 2013
AM PEAK

Queue shown is maximum after two cycles.

Splits and Phases: 11: Hawkins Avenue & LIE North Service Road



12: Hawkins Avenue & LIE South Service Road Lanes, Volumes, Timings

Existing 2013
AM PEAK



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	114	390	67	0	0	0	0	266	65	170	546	0
Satd. Flow (prot)	1558	3047	0	0	0	0	0	3134	0	1694	3388	0
Flt Permitted	0.950									0.495		
Satd. Flow (perm)	1558	3047	0	0	0	0	0	3134	0	883	3388	0
Satd. Flow (RTOR)		25						32				
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.82	0.82	0.82	0.25	0.25	0.25	0.25	0.88	0.88	0.80	0.80	0.25
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	12%	12%	12%	0%	0%	0%	0%	8%	8%	3%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	139	558	0	0	0	0	0	376	0	212	682	0
Turn Type	Perm	NA						NA		pm+pt	NA	
Protected Phases		1						7		8	3	
Permitted Phases	1									3		
Detector Phase	1	1						7		8	3	
Switch Phase												
Minimum Initial (s)	25.0	25.0						16.0		4.0	16.0	
Minimum Split (s)	31.3	31.3						24.0		10.0	26.0	
Total Split (s)	50.0	50.0						38.0		12.0	50.0	
Total Split (%)	50.0%	50.0%						38.0%		12.0%	50.0%	
Yellow Time (s)	4.3	4.3						4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0						2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0						0.0		0.0	0.0	
Total Lost Time (s)	6.3	6.3						6.0		6.0	6.0	
Lead/Lag								Lead		Lag		
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max						Max		Min	Min	
Act Effct Green (s)	43.7	43.7						32.0		44.0	44.0	
Actuated g/C Ratio	0.44	0.44						0.32		0.44	0.44	
v/c Ratio	0.20	0.41						0.37		0.49	0.46	
Control Delay	18.4	19.6						25.1		27.0	22.3	
Queue Delay	0.0	0.0						0.0		0.0	1.0	
Total Delay	18.4	19.6						25.1		27.0	23.3	
LOS	B	B						C		C	C	
Approach Delay		19.3						25.1			24.2	
Approach LOS		B						C			C	
Queue Length 50th (ft)	53	119						87		79	138	
Queue Length 95th (ft)	84	145						125		m104	152	
Internal Link Dist (ft)		477			203			243			339	
Turn Bay Length (ft)	400									100		
Base Capacity (vph)	681	1346						1024		437	1490	
Starvation Cap Reductn	0	0						0		0	522	
Spillback Cap Reductn	0	0						0		0	0	
Storage Cap Reductn	0	0						0		0	0	
Reduced v/c Ratio	0.20	0.41						0.37		0.49	0.70	

Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 10 (10%), Referenced to phase 1:EBTL, Start of Yellow

Natural Cycle: 70

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.49

Intersection Signal Delay: 22.6

Intersection LOS: C

Intersection Capacity Utilization 86.4%

ICU Level of Service E

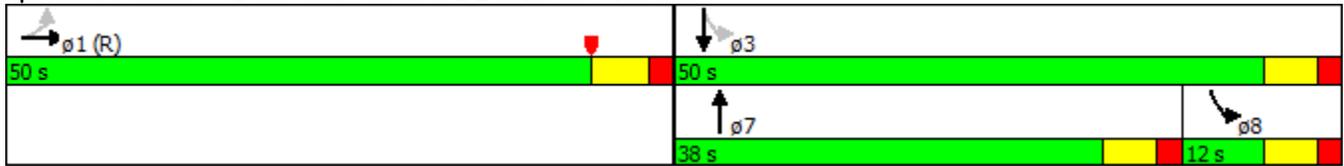
Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

12: Hawkins Avenue & LIE South Service Road Lanes, Volumes, Timings

Existing 2013
AM PEAK

Splits and Phases: 12: Hawkins Avenue & LIE South Service Road



13: Ronkonkoma Avenue & LIE North Service Road

Lanes, Volumes, Timings

Existing 2013
AM PEAK



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↖	↕		↖	↕			↕	
Volume (vph)	0	0	0	635	1013	68	134	271	0	0	509	253
Satd. Flow (prot)	0	0	0	1694	3358	0	1671	3343	0	0	3298	0
Flt Permitted				0.950			0.143					
Satd. Flow (perm)	0	0	0	1694	3358	0	252	3343	0	0	3298	0
Satd. Flow (RTOR)					9						74	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.25	0.25	0.25	0.93	0.93	0.93	0.94	0.94	0.25	0.25	0.85	0.85
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	3%	3%	3%	8%	8%	0%	0%	4%	4%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	683	1162	0	143	288	0	0	897	0
Turn Type				Perm	NA		pm+pt	NA			NA	
Protected Phases					1			8			3	
Permitted Phases				1			3					7
Detector Phase				1	1		8	3				7
Switch Phase												
Minimum Initial (s)				24.0	24.0		4.0	17.0			17.0	
Minimum Split (s)				30.7	30.7		10.0	25.9			25.9	
Total Split (s)				50.0	50.0		14.0	50.0			36.0	
Total Split (%)				50.0%	50.0%		14.0%	50.0%			36.0%	
Yellow Time (s)				4.7	4.7		3.9	3.9			3.9	
All-Red Time (s)				2.0	2.0		2.0	2.0			2.0	
Lost Time Adjust (s)				0.0	0.0		0.0	0.0			0.0	
Total Lost Time (s)				6.7	6.7		5.9	5.9			5.9	
Lead/Lag							Lag				Lead	
Lead-Lag Optimize?												
Recall Mode				C-Max	C-Max		Min	Min			Ped	
Act Effct Green (s)				44.8	44.8		42.6	42.6			29.2	
Actuated g/C Ratio				0.45	0.45		0.43	0.43			0.29	
v/c Ratio				0.90	0.77		0.67	0.20			0.88	
Control Delay				31.2	22.6		47.2	14.7			42.3	
Queue Delay				0.0	0.0		0.0	0.0			2.3	
Total Delay				31.2	22.6		47.2	14.7			44.5	
LOS				C	C		D	B			D	
Approach Delay					25.8			25.5			44.5	
Approach LOS					C			C			D	
Queue Length 50th (ft)				306	218		54	54			262	
Queue Length 95th (ft)				m358	m242		#124	72			314	
Internal Link Dist (ft)		318			725			397			224	
Turn Bay Length (ft)				650			250					
Base Capacity (vph)				758	1508		224	1474			1044	
Starvation Cap Reductn				0	0		0	0			0	
Spillback Cap Reductn				0	0		0	0			65	
Storage Cap Reductn				0	0		0	0			0	
Reduced v/c Ratio				0.90	0.77		0.64	0.20			0.92	

Intersection Summary

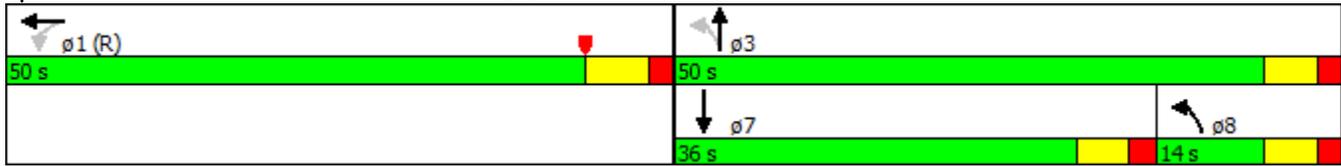
Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 12 (12%), Referenced to phase 1:WBTL, Start of Yellow
 Natural Cycle: 80
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.90
 Intersection Signal Delay: 31.0
 Intersection LOS: C
 Intersection Capacity Utilization 80.2%
 ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.

13: Ronkonkoma Avenue & LIE North Service Road Lanes, Volumes, Timings

Existing 2013
AM PEAK

Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 13: Ronkonkoma Avenue & LIE North Service Road



14: Ronkonkoma Avenue & LIE South Service Road

Lanes, Volumes, Timings

Existing 2013
AM PEAK



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	159	288	317	0	0	0	0	246	186	95	1049	0
Satd. Flow (prot)	1631	3004	0	0	0	0	0	2961	0	1752	3505	0
Flt Permitted	0.950									0.289		
Satd. Flow (perm)	1631	3004	0	0	0	0	0	2961	0	533	3505	0
Satd. Flow (RTOR)		51						227				
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.25	0.25	0.25	0.25	0.82	0.82	0.80	0.80	0.25
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	7%	7%	7%	0%	0%	0%	0%	14%	14%	3%	3%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	175	664	0	0	0	0	0	527	0	119	1311	0
Turn Type	Perm	NA						NA		pm+pt	NA	
Protected Phases		1						7		8	3	
Permitted Phases	1									3		
Detector Phase	1	1						7		8	3	
Switch Phase												
Minimum Initial (s)	24.0	24.0						17.0		4.0	17.0	
Minimum Split (s)	30.3	30.3						25.6		10.0	25.6	
Total Split (s)	37.0	37.0						51.0		12.0	51.0	
Total Split (%)	37.0%	37.0%						51.0%		12.0%	51.0%	
Yellow Time (s)	4.3	4.3						3.6		3.6	3.6	
All-Red Time (s)	2.0	2.0						2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0						0.0		0.0	0.0	
Total Lost Time (s)	6.3	6.3						5.6		5.6	5.6	
Lead/Lag								Lead		Lag		
Lead-Lag Optimize?								Yes		Yes		
Recall Mode	C-Max	C-Max						Min		Max	Max	
Act Effct Green (s)	30.7	30.7						19.2		57.4	57.4	
Actuated g/C Ratio	0.31	0.31						0.19		0.57	0.57	
v/c Ratio	0.35	0.69						0.70		0.17	0.65	
Control Delay	29.4	32.6						26.2		12.1	15.4	
Queue Delay	0.0	0.0						0.0		0.0	3.2	
Total Delay	29.4	32.6						26.2		12.1	18.6	
LOS	C	C						C		B	B	
Approach Delay		31.9						26.2			18.1	
Approach LOS		C						C			B	
Queue Length 50th (ft)	86	180						96		34	267	
Queue Length 95th (ft)	145	245						118		m38	270	
Internal Link Dist (ft)		267			295			185			397	
Turn Bay Length (ft)										125		
Base Capacity (vph)	500	957						1468		703	2011	
Starvation Cap Reductn	0	0						0		0	579	
Spillback Cap Reductn	0	0						0		0	0	
Storage Cap Reductn	0	0						0		0	0	
Reduced v/c Ratio	0.35	0.69						0.36		0.17	0.92	

Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 7 (7%), Referenced to phase 1:EBTL, Start of Yellow

Natural Cycle: 70

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.70

Intersection Signal Delay: 23.7

Intersection LOS: C

Intersection Capacity Utilization 80.2%

ICU Level of Service D

Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

14: Ronkonkoma Avenue & LIE South Service Road Lanes, Volumes, Timings

Existing 2013
AM PEAK

Splits and Phases: 14: Ronkonkoma Avenue & LIE South Service Road



15: Hawkins Avenue & Union Avenue
Lanes, Volumes, Timings

Existing 2013
AM PEAK



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	114	209	125	33	269	352
Satd. Flow (prot)	1646	1473	1864	0	1636	1783
Flt Permitted	0.950				0.574	
Satd. Flow (perm)	1646	1473	1864	0	988	1783
Satd. Flow (RTOR)		271	20			
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.77	0.77	0.84	0.84	0.72	0.72
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	6%	6%	9%	9%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	148	271	188	0	374	489
Turn Type	NA	pm+ov	NA		pm+pt	NA
Protected Phases	8	1	2		1	6
Permitted Phases		8			6	
Detector Phase	8	1	2		1	6
Switch Phase						
Minimum Initial (s)	8.0	8.0	35.0		8.0	35.0
Minimum Split (s)	22.0	12.0	40.0		12.0	40.0
Total Split (s)	22.0	19.0	40.0		19.0	59.0
Total Split (%)	27.2%	23.5%	49.4%		23.5%	72.8%
Yellow Time (s)	3.5	3.0	3.5		3.0	3.5
All-Red Time (s)	1.5	1.0	1.5		1.0	1.5
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	5.0	4.0	5.0		4.0	5.0
Lead/Lag		Lead	Lag		Lead	
Lead-Lag Optimize?		Yes	Yes		Yes	
Recall Mode	None	None	Min		None	Min
Act Effct Green (s)	11.2	26.7	35.2		50.8	49.7
Actuated g/C Ratio	0.16	0.38	0.50		0.72	0.70
v/c Ratio	0.57	0.37	0.20		0.47	0.39
Control Delay	37.2	3.5	10.9		6.2	5.9
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	37.2	3.5	10.9		6.2	5.9
LOS	D	A	B		A	A
Approach Delay	15.4		10.9			6.0
Approach LOS	B		B			A
Queue Length 50th (ft)	60	0	37		46	69
Queue Length 95th (ft)	101	21	85		77	107
Internal Link Dist (ft)	974		310			399
Turn Bay Length (ft)	170				125	
Base Capacity (vph)	396	801	934		844	1364
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.37	0.34	0.20		0.44	0.36

Intersection Summary

Cycle Length: 81
 Actuated Cycle Length: 71
 Natural Cycle: 75
 Control Type: Semi Act-Uncoord
 Maximum v/c Ratio: 0.57
 Intersection Signal Delay: 9.3
 Intersection Capacity Utilization 62.4%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service B

15: Hawkins Avenue & Union Avenue Lanes, Volumes, Timings

Existing 2013
AM PEAK

Splits and Phases: 15: Hawkins Avenue & Union Avenue



**16: Mill Road & Union Avenue
Lanes, Volumes, Timings**

**Existing 2013
AM PEAK**



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	5	134	6	198	429	12	3	13	47	6	10	16
Satd. Flow (prot)	1574	1704	0	1694	1776	0	0	1842	0	0	1647	0
Flt Permitted	0.489			0.645				0.979			0.917	
Satd. Flow (perm)	810	1704	0	1150	1776	0	0	1807	0	0	1524	0
Satd. Flow (RTOR)		6			4			60			22	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.79	0.79	0.79	0.92	0.92	0.92	0.78	0.78	0.78	0.73	0.73	0.73
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	7%	7%	7%	3%	3%	3%	5%	5%	5%	3%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	6	178	0	215	479	0	0	81	0	0	44	0
Turn Type	Perm	NA										
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	35.0	35.0		35.0	35.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	41.0	41.0		41.0	41.0		27.0	27.0		27.0	27.0	
Total Split (s)	41.0	41.0		41.0	41.0		21.0	21.0		21.0	21.0	
Total Split (%)	66.1%	66.1%		66.1%	66.1%		33.9%	33.9%		33.9%	33.9%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Min	Min		Min	Min		None	None		None	None	
Act Effct Green (s)	41.4	41.4		41.4	41.4			8.1			8.1	
Actuated g/C Ratio	0.78	0.78		0.78	0.78			0.15			0.15	
v/c Ratio	0.01	0.13		0.24	0.34			0.25			0.18	
Control Delay	3.8	3.6		4.6	4.7			11.8			15.8	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	3.8	3.6		4.6	4.7			11.8			15.8	
LOS	A	A		A	A			B			B	
Approach Delay		3.6			4.7			11.8			15.8	
Approach LOS		A			A			B			B	
Queue Length 50th (ft)	1	19		26	63			6			6	
Queue Length 95th (ft)	3	32		53	110			29			22	
Internal Link Dist (ft)		780			237			676			298	
Turn Bay Length (ft)	75			175								
Base Capacity (vph)	633	1333		899	1389			559			451	
Starvation Cap Reductn	0	0		0	0			0			0	
Spillback Cap Reductn	0	0		0	0			0			0	
Storage Cap Reductn	0	0		0	0			0			0	
Reduced v/c Ratio	0.01	0.13		0.24	0.34			0.14			0.10	

Intersection Summary

Cycle Length: 62
 Actuated Cycle Length: 52.9
 Natural Cycle: 70
 Control Type: Semi Act-Uncoord
 Maximum v/c Ratio: 0.34
 Intersection Signal Delay: 5.5
 Intersection Capacity Utilization 80.0%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service D

16: Mill Road & Union Avenue
Lanes, Volumes, Timings

Existing 2013
AM PEAK

Splits and Phases: 16: Mill Road & Union Avenue



17: Parking Lot/Powell Street & Railroad Avenue

Lanes, Volumes, Timings

Existing 2013
AM PEAK



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	104	9	7	322	22	8	1	8	36	1	7
Satd. Flow (prot)	1646	1733	1473	1562	3322	0	1752	1647	0	1736	1584	0
Flt Permitted	0.528			0.667			0.752			0.750		
Satd. Flow (perm)	915	1733	1473	1097	3322	0	1387	1647	0	1370	1584	0
Satd. Flow (RTOR)			36		15			10			8	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.74	0.74	0.74	0.91	0.91	0.91	0.80	0.80	0.80	0.85	0.85	0.85
Growth Factor	50%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	6%	6%	6%	4%	4%	4%	3%	3%	3%	4%	4%	4%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	2	141	12	8	378	0	10	11	0	42	9	0
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2		2		6
Permitted Phases	4		4	8			2			6		
Detector Phase	4	4	4	8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0	21.0	21.0	21.0		21.0	21.0		21.0	21.0	
Total Split (s)	33.0	33.0	33.0	33.0	33.0		27.0	27.0		27.0	27.0	
Total Split (%)	55.0%	55.0%	55.0%	55.0%	55.0%		45.0%	45.0%		45.0%	45.0%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None		Max	Max		Max	Max	
Act Effct Green (s)	10.1	10.1	10.1	10.1	10.1		22.1	22.1		22.1	22.1	
Actuated g/C Ratio	0.24	0.24	0.24	0.24	0.24		0.52	0.52		0.52	0.52	
v/c Ratio	0.01	0.34	0.03	0.03	0.47		0.01	0.01		0.06	0.01	
Control Delay	12.0	15.5	2.1	12.0	15.1		5.9	3.9		6.1	4.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	12.0	15.5	2.1	12.0	15.1		5.9	3.9		6.1	4.1	
LOS	B	B	A	B	B		A	A		A	A	
Approach Delay		14.4			15.0			4.8			5.7	
Approach LOS		B			B			A			A	
Queue Length 50th (ft)	0	28	0	2	38		1	0		4	0	
Queue Length 95th (ft)	3	49	2	8	67		6	5		15	5	
Internal Link Dist (ft)		331			196			24			192	
Turn Bay Length (ft)	110			120								
Base Capacity (vph)	608	1153	992	730	2216		725	866		716	832	
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.00	0.12	0.01	0.01	0.17		0.01	0.01		0.06	0.01	

Intersection Summary

Cycle Length: 60

Actuated Cycle Length: 42.2

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.47

Intersection Signal Delay: 13.7

Intersection LOS: B

Intersection Capacity Utilization 26.6%

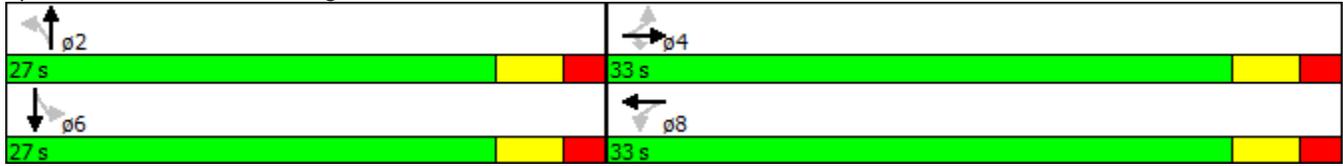
ICU Level of Service A

Analysis Period (min) 15

17: Parking Lot/Powell Street & Railroad Avenue Lanes, Volumes, Timings

Existing 2013
AM PEAK

Splits and Phases: 17: Parking Lot/Powell Street & Railroad Avenue



18: Parking Lot/Northwest Link & Johnson Avenue Lanes, Volumes, Timings

Existing 2013
AM PEAK



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	102	4	57	199	81	2	1	2	11	4	17
Satd. Flow (prot)	1604	1689	1436	1694	1783	1516	0	1889	0	1530	1415	0
Flt Permitted	0.623			0.659				0.957		0.752		
Satd. Flow (perm)	1052	1689	1436	1175	1783	1516	0	1841	0	1211	1415	0
Satd. Flow (RTOR)			36			88		3			21	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.66	0.66	0.66	0.92	0.92	0.92	0.63	0.63	0.63	0.80	0.80	0.80
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	5%	5%	5%	3%	3%	3%	0%	0%	0%	18%	18%	18%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	15	155	6	62	216	88	0	8	0	14	26	0
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2			6		
Detector Phase	4	4	4	8	8	8	2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0		21.0	21.0	
Total Split (s)	36.0	36.0	36.0	36.0	36.0	36.0	24.0	24.0		24.0	24.0	
Total Split (%)	60.0%	60.0%	60.0%	60.0%	60.0%	60.0%	40.0%	40.0%		40.0%	40.0%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0		5.0		5.0	5.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None	None	Max	Max		Max	Max	
Act Effct Green (s)	10.3	10.3	10.3	10.5	10.5	10.5		23.2		23.2	23.2	
Actuated g/C Ratio	0.26	0.26	0.26	0.26	0.26	0.26		0.58		0.58	0.58	
v/c Ratio	0.06	0.36	0.02	0.20	0.47	0.19		0.01		0.02	0.03	
Control Delay	10.7	14.0	0.0	12.6	15.5	4.4		6.0		6.9	4.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0		0.0	0.0	
Total Delay	10.7	14.0	0.0	12.6	15.5	4.4		6.0		6.9	4.3	
LOS	B	B	A	B	B	A		A		A	A	
Approach Delay		13.2			12.3			6.0			5.2	
Approach LOS		B			B			A			A	
Queue Length 50th (ft)	2	27	0	11	39	0		1		1	1	
Queue Length 95th (ft)	8	41	0	30	80	20		4		8	9	
Internal Link Dist (ft)		151			331			6			181	
Turn Bay Length (ft)	130		130	200								
Base Capacity (vph)	814	1307	1119	909	1379	1193		1063		698	825	
Starvation Cap Reductn	0	0	0	0	0	0		0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0		0		0	0	
Storage Cap Reductn	0	0	0	0	0	0		0		0	0	
Reduced v/c Ratio	0.02	0.12	0.01	0.07	0.16	0.07		0.01		0.02	0.03	

Intersection Summary

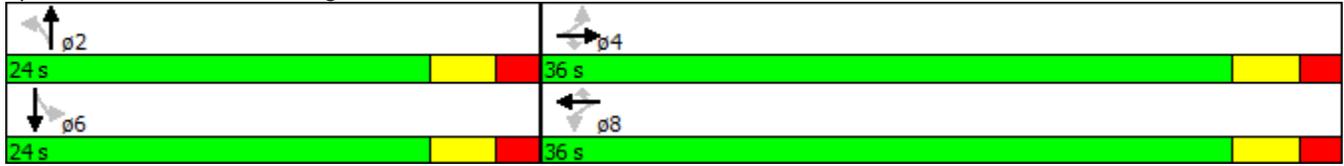
Cycle Length: 60
 Actuated Cycle Length: 40.2
 Natural Cycle: 45
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.47
 Intersection Signal Delay: 12.0
 Intersection Capacity Utilization 24.2%
 Analysis Period (min) 15

Intersection LOS: B
 ICU Level of Service A

18: Parking Lot/Northwest Link & Johnson Avenue Lanes, Volumes, Timings

Existing 2013
AM PEAK

Splits and Phases: 18: Parking Lot/Northwest Link & Johnson Avenue



19: Hawkins Avenue & Railroad Avenue
 HCM 2010 TWSC

Existing 2013
 AM PEAK

Intersection												
Intersection Delay, s/veh	8.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	51	119	12	3	187	94	0	0	0	184	18	260
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	None											
Storage Length	75		0	175		175	0		0	125		0
Median Width		9			9			10			10	
Grade, %		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.89	0.89	0.89	0.25	0.25	0.25	0.84	0.84	0.84
Heavy Vehicles, %	6	6	6	5	5	5	0	0	0	4	4	4
Mvmt Flow	56	131	13	3	210	106	0	0	0	219	21	310
Number of Lanes	1	1	0	1	1	1	0	0	0	1	1	0

Major/Minor	Major 1			Major 2			Minor 2			
Conflicting Flow All	210	0	0	144	0	0		466	473	210
Stage 1	-	-	-	-	-	-		217	217	-
Stage 2	-	-	-	-	-	-		249	256	-
Follow-up Headway	2.254	-	-	2.245	-	-		3.536	4.036	3.336
Pot Capacity-1 Maneuver	1337	-	-	1420	-	-		551	487	825
Stage 1	-	-	-	-	-	-		814	720	-
Stage 2	-	-	-	-	-	-		788	692	-
Time blocked-Platoon, %	0	-	-	0	-	-		0	0	0
Mov Capacity-1 Maneuver	1337	-	-	1420	-	-		527	# 0	825
Mov Capacity-2 Maneuver	-	-	-	-	-	-		527	# 0	-
Stage 1	-	-	-	-	-	-		812	# 0	-
Stage 2	-	-	-	-	-	-		755	# 0	-

Approach	EB	WB	SB
HCM Control Delay, s	2.2	0.1	15.1
HCM LOS	-	-	C

Minor Lane / Major Mvmt	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Cap, veh/h	1337	-	-	1420	-	-	527	745
HCM Control Delay, s	7.81	-	-	7.541	-	-	14.4	15.4
HCM Lane V/C Ratio	0.04	-	-	0.00	-	-	0.28	0.54
HCM Lane LOS	A	-	-	A	-	-	B	C
HCM 95th-tile Q, veh	0.1	-	-	0.0	-	-	1.1	3.3

Notes

~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

20: Ronkonkoma Avenue & 2nd Street/Powell Street
 HCM 2010 TWSC

Existing 2013
 AM PEAK

Intersection												
Intersection Delay, s/veh	1.7											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	0	142	0	0	25	0	453	44	0	1172	45
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	Free											
Storage Length	0		0	0		0	0		0	0		0
Median Width		0			0			10			10	
Grade, %		0%			0%			0%			0%	
Peak Hour Factor	0.25	0.25	0.90	0.25	0.25	0.78	0.25	0.89	0.89	0.25	0.83	0.83
Heavy Vehicles, %	0	0	3	0	0	14	0	12	12	0	3	3
Mvmt Flow	0	0	158	0	0	32	0	509	49	0	1412	54
Number of Lanes	0	0	1	0	0	1	0	2	0	0	2	0

Major/Minor	Minor 2			Minor 1			Major 1			Major 2		
Conflicting Flow All	1666	1921	706	1215	1921	254	1412	0	0	509	0	0
Stage 1	1412	1412	-	509	509	-	-	-	-	-	-	-
Stage 2	254	509	-	706	1412	-	-	-	-	-	-	-
Follow-up Headway	3.5	4	3.33	3.5	4	3.44	2.2	-	-	2.2	-	-
Pot Capacity-1 Maneuver	65	68	376	139	68	710	489	-	-	1066	-	-
Stage 1	148	206	-	520	541	-	-	-	-	-	-	-
Stage 2	734	541	-	397	206	-	-	-	-	-	-	-
Time blocked-Platoon, %	0	0	0	0	0	0	0	-	-	0	-	-
Mov Capacity-1 Maneuver	62	68	376	81	68	710	489	-	-	1066	-	-
Mov Capacity-2 Maneuver	62	68	-	81	68	-	-	-	-	-	-	-
Stage 1	148	206	-	520	541	-	-	-	-	-	-	-
Stage 2	701	541	-	230	206	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	21.3	10.3	0	0
HCM LOS	C	B	-	-

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Cap, veh/h	489	-	-	376	710	1066	-	-
HCM Control Delay, s	0	-	-	21.3	10.3	0	-	-
HCM Lane V/C Ratio	-	-	-	0.42	0.04	-	-	-
HCM Lane LOS	A	-	-	C	B	A	-	-
HCM 95th-tile Q, veh	0.0	-	-	2.0	0.1	0.0	-	-

Notes
 ~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

11: Hawkins Avenue & LIE North Service Road Lanes, Volumes, Timings

Existing 2013
PM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↖	↕		↖	↕			↕	↗
Volume (vph)	0	0	0	210	468	253	190	626	0	0	433	138
Satd. Flow (prot)	0	0	0	1711	3240	0	1711	3421	0	0	3412	0
Flt Permitted				0.950			0.317					
Satd. Flow (perm)	0	0	0	1711	3240	0	571	3421	0	0	3412	0
Satd. Flow (RTOR)					128						45	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.25	0.25	0.25	0.86	0.86	0.86	0.90	0.90	0.25	0.25	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	244	838	0	211	696	0	0	621	0
Turn Type				Perm	NA		pm+pt	NA			NA	
Protected Phases					1		8	3			7	
Permitted Phases				1			3					
Detector Phase				1	1		8	3			7	
Switch Phase												
Minimum Initial (s)				25.0	25.0		4.0	16.0			16.0	
Minimum Split (s)				31.3	31.3		10.0	23.0			23.0	
Total Split (s)				50.0	50.0		12.0	38.0			38.0	
Total Split (%)				50.0%	50.0%		12.0%	38.0%			38.0%	
Yellow Time (s)				4.3	4.3		4.0	4.0			4.0	
All-Red Time (s)				2.0	2.0		2.0	2.0			2.0	
Lost Time Adjust (s)				0.0	0.0		0.0	0.0			0.0	
Total Lost Time (s)				6.3	6.3		6.0	6.0			6.0	
Lead/Lag							Lag				Lead	
Lead-Lag Optimize?												
Recall Mode				C-Max	C-Max		Min	Min			Max	
Act Effct Green (s)				44.1	44.1		43.6	43.6			32.0	
Actuated g/C Ratio				0.44	0.44		0.44	0.44			0.32	
v/c Ratio				0.32	0.56		0.67	0.47			0.55	
Control Delay				19.9	19.1		24.1	11.8			28.2	
Queue Delay				0.0	0.0		0.0	1.1			0.0	
Total Delay				19.9	19.1		24.1	12.9			28.2	
LOS				B	B		C	B			C	
Approach Delay					19.3			15.5			28.2	
Approach LOS					B			B			C	
Queue Length 50th (ft)				99	172		47	84			158	
Queue Length 95th (ft)				149	215		m52	m85			214	
Internal Link Dist (ft)		204			499			339			118	
Turn Bay Length (ft)							100					
Base Capacity (vph)				754	1499		319	1505			1122	
Starvation Cap Reductn				0	0		0	536			0	
Spillback Cap Reductn				0	0		0	0			0	
Storage Cap Reductn				0	0		0	0			0	
Reduced v/c Ratio				0.32	0.56		0.66	0.72			0.55	

Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 89 (89%), Referenced to phase 1:WBTL, Start of Yellow

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.67

Intersection Signal Delay: 20.1

Intersection LOS: C

Intersection Capacity Utilization 106.3%

ICU Level of Service G

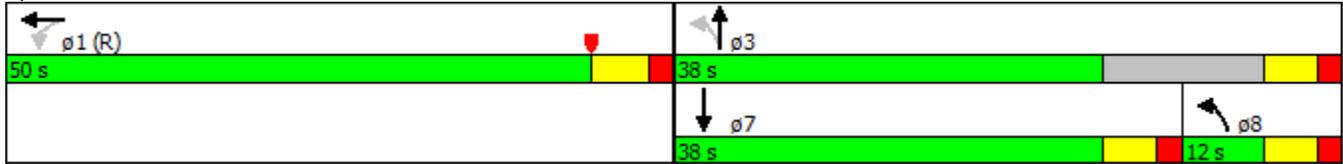
Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

11: Hawkins Avenue & LIE North Service Road Lanes, Volumes, Timings

Existing 2013
PM Peak

Splits and Phases: 11: Hawkins Avenue & LIE North Service Road



12: Hawkins Avenue & LIE South Service Road

Lanes, Volumes, Timings

Existing 2013
PM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	267	1741	175	0	0	0	0	548	115	335	308	0
Satd. Flow (prot)	1711	3373	0	0	0	0	0	3332	0	1711	3421	0
Flt Permitted	0.950									0.160		
Satd. Flow (perm)	1711	3373	0	0	0	0	0	3332	0	288	3421	0
Satd. Flow (RTOR)		14						22				
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.97	0.97	0.97	0.25	0.25	0.25	0.25	0.92	0.92	0.94	0.94	0.25
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	0%	0%	0%	0%	2%	2%	2%	2%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	275	1975	0	0	0	0	0	721	0	356	328	0
Turn Type	Perm	NA						NA		pm+pt	NA	
Protected Phases		1						7		8	3	
Permitted Phases	1									3		
Detector Phase	1	1						7		8	3	
Switch Phase												
Minimum Initial (s)	25.0	25.0						16.0		4.0	16.0	
Minimum Split (s)	31.3	31.3						23.0		10.0	23.0	
Total Split (s)	53.0	53.0						25.0		22.0	25.0	
Total Split (%)	53.0%	53.0%						25.0%		22.0%	25.0%	
Yellow Time (s)	4.3	4.3						4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0						2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0						0.0		0.0	0.0	
Total Lost Time (s)	6.3	6.3						6.0		6.0	6.0	
Lead/Lag								Lead		Lag		
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max						Max		Min	Min	
Act Effct Green (s)	46.7	46.7						19.0		41.0	41.0	
Actuated g/C Ratio	0.47	0.47						0.19		0.41	0.41	
v/c Ratio	0.34	1.25						1.11		1.03	0.23	
Control Delay	18.5	143.7						106.7		83.9	11.7	
Queue Delay	0.0	0.0						0.0		0.0	0.0	
Total Delay	18.5	143.7						106.7		83.9	11.7	
LOS	B	F						F		F	B	
Approach Delay		128.4						106.7			49.3	
Approach LOS		F						F			D	
Queue Length 50th (ft)	108	~834						~272		~196	42	
Queue Length 95th (ft)	169	#975						#391		#379	58	
Internal Link Dist (ft)		477			203			243			339	
Turn Bay Length (ft)	400									100		
Base Capacity (vph)	799	1582						650		345	1402	
Starvation Cap Reductn	0	0						0		0	0	
Spillback Cap Reductn	0	0						0		0	0	
Storage Cap Reductn	0	0						0		0	0	
Reduced v/c Ratio	0.34	1.25						1.11		1.03	0.23	

Intersection Summary

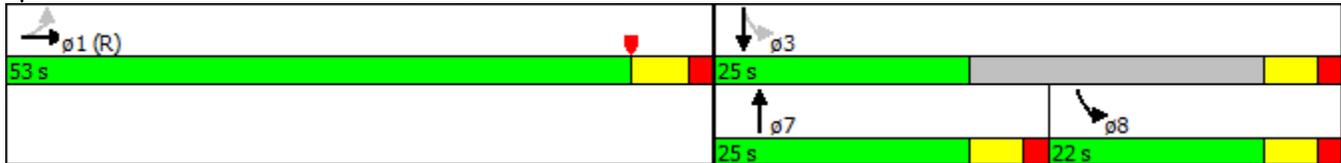
Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 89 (89%), Referenced to phase 1:EBTL, Start of Yellow
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.25
 Intersection Signal Delay: 109.3
 Intersection Capacity Utilization 106.3%
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.

12: Hawkins Avenue & LIE South Service Road Lanes, Volumes, Timings

Existing 2013
PM Peak

Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 12: Hawkins Avenue & LIE South Service Road



13: Ronkonkoma Avenue & LIE North Service Road

Lanes, Volumes, Timings

Existing 2013
PM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↖	↕		↖	↕			↕	
Volume (vph)	0	0	0	245	430	79	251	760	0	0	270	165
Satd. Flow (prot)	0	0	0	1678	3278	0	1770	3539	0	0	3337	0
Flt Permitted				0.950			0.320					
Satd. Flow (perm)	0	0	0	1678	3278	0	596	3539	0	0	3337	0
Satd. Flow (RTOR)					22						143	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.25	0.25	0.25	0.93	0.93	0.93	0.92	0.92	0.25	0.25	0.84	0.84
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	4%	4%	4%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	263	547	0	273	826	0	0	517	0
Turn Type				Perm	NA		pm+pt	NA			NA	
Protected Phases					1			8			3	
Permitted Phases				1			3					7
Detector Phase				1	1		8	3				7
Switch Phase												
Minimum Initial (s)				24.0	24.0		4.0	17.0				17.0
Minimum Split (s)				30.7	30.7		10.0	25.9				25.9
Total Split (s)				39.0	39.0		20.0	41.0				41.0
Total Split (%)				39.0%	39.0%		20.0%	41.0%				41.0%
Yellow Time (s)				4.7	4.7		3.9	3.9				3.9
All-Red Time (s)				2.0	2.0		2.0	2.0				2.0
Lost Time Adjust (s)				0.0	0.0		0.0	0.0				0.0
Total Lost Time (s)				6.7	6.7		5.9	5.9				5.9
Lead/Lag							Lag				Lead	
Lead-Lag Optimize?												
Recall Mode				C-Max	C-Max		Min	Min				Ped
Act Effct Green (s)				51.3	51.3		36.1	36.1				20.9
Actuated g/C Ratio				0.51	0.51		0.36	0.36				0.21
v/c Ratio				0.31	0.32		0.84	0.65				0.64
Control Delay				21.4	19.9		31.7	23.4				29.6
Queue Delay				0.0	0.0		0.0	0.1				0.0
Total Delay				21.4	19.9		31.7	23.5				29.6
LOS				C	B		C	C				C
Approach Delay					20.4			25.5				29.6
Approach LOS					C			C				C
Queue Length 50th (ft)				97	104		113	181				116
Queue Length 95th (ft)				199	184		m83	m126				146
Internal Link Dist (ft)		318			725			397				224
Turn Bay Length (ft)				650			250					
Base Capacity (vph)				860	1692		410	1949				1264
Starvation Cap Reductn				0	0		0	185				0
Spillback Cap Reductn				0	0		0	0				0
Storage Cap Reductn				0	0		0	0				0
Reduced v/c Ratio				0.31	0.32		0.67	0.47				0.41

Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 74 (74%), Referenced to phase 1:WBTL, Start of Yellow

Natural Cycle: 70

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.84

Intersection Signal Delay: 24.7

Intersection LOS: C

Intersection Capacity Utilization 96.7%

ICU Level of Service F

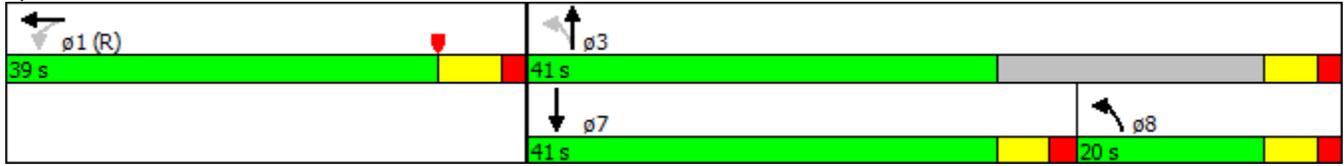
Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

13: Ronkonkoma Avenue & LIE North Service Road Lanes, Volumes, Timings

Existing 2013
PM Peak

Splits and Phases: 13: Ronkonkoma Avenue & LIE North Service Road



14: Ronkonkoma Avenue & LIE South Service Road

Lanes, Volumes, Timings

Existing 2013
PM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔↔						↔↔		↔	↔↔	
Volume (vph)	324	1128	85	0	0	0	0	688	771	80	435	0
Satd. Flow (prot)	1711	3387	0	0	0	0	0	3260	0	1719	3438	0
Flt Permitted	0.950									0.087		
Satd. Flow (perm)	1711	3387	0	0	0	0	0	3260	0	157	3438	0
Satd. Flow (RTOR)		8						62				
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.88	0.88	0.92	0.25	0.25	0.25	0.25	0.90	0.90	0.90	0.90	0.25
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	0%	0%	0%	0%	2%	2%	5%	5%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												0
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	368	1374	0	0	0	0	0	1621	0	89	483	0
Turn Type	Perm	NA						NA		pm+pt	NA	
Protected Phases		1						7		8	3	
Permitted Phases	1									3		
Detector Phase	1	1						7		8	3	
Switch Phase												
Minimum Initial (s)	24.0	24.0						17.0		4.0	17.0	
Minimum Split (s)	30.3	30.3						25.6		10.0	25.6	
Total Split (s)	42.0	42.0						46.0		12.0	46.0	
Total Split (%)	42.0%	42.0%						46.0%		12.0%	46.0%	
Yellow Time (s)	4.3	4.3						3.6		3.6	3.6	
All-Red Time (s)	2.0	2.0						2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0						0.0		0.0	0.0	
Total Lost Time (s)	6.3	6.3						5.6		5.6	5.6	
Lead/Lag								Lead		Lag		
Lead-Lag Optimize?								Yes		Yes		
Recall Mode	C-Max	C-Max						Min		Max	Max	
Act Effct Green (s)	35.7	35.7						40.4		52.4	52.4	
Actuated g/C Ratio	0.36	0.36						0.40		0.52	0.52	
v/c Ratio	0.60	1.13						1.25dr		0.49	0.27	
Control Delay	31.4	101.4						124.7		43.2	15.7	
Queue Delay	0.0	0.0						0.0		0.0	0.0	
Total Delay	31.4	101.4						124.7		43.2	15.7	
LOS	C	F						F		D	B	
Approach Delay		86.6						124.7			20.0	
Approach LOS		F						F			B	
Queue Length 50th (ft)	190	~538						~653		29	84	
Queue Length 95th (ft)	278	#651						#792		77	114	
Internal Link Dist (ft)		267			295			185			397	
Turn Bay Length (ft)										125		
Base Capacity (vph)	610	1214						1353		182	1801	
Starvation Cap Reductn	0	0						0		0	0	
Spillback Cap Reductn	0	0						0		0	0	
Storage Cap Reductn	0	0						0		0	0	
Reduced v/c Ratio	0.60	1.13						1.20		0.49	0.27	

Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 74 (74%), Referenced to phase 1:EBTL, Start of Yellow

Natural Cycle: 150

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.20

Intersection Signal Delay: 92.6

Intersection LOS: F

Intersection Capacity Utilization 96.7%

ICU Level of Service F

Analysis Period (min) 15

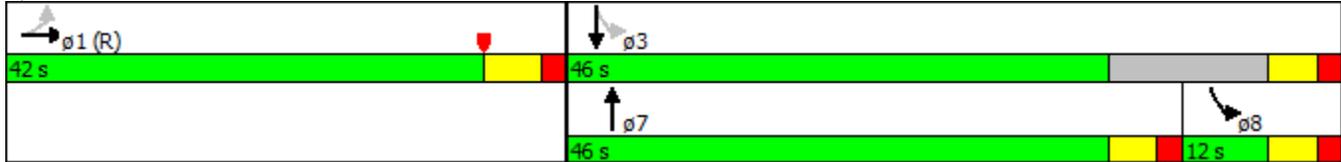
~ Volume exceeds capacity, queue is theoretically infinite.

14: Ronkonkoma Avenue & LIE South Service Road Lanes, Volumes, Timings

Existing 2013
PM Peak

- Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
- Queue shown is maximum after two cycles.
- dr Defacto Right Lane. Recode with 1 though lane as a right lane.

Splits and Phases: 14: Ronkonkoma Avenue & LIE South Service Road



15: Hawkins Avenue & Union Avenue Lanes, Volumes, Timings

Existing 2013
PM Peak



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	74	417	224	87	363	148
Satd. Flow (prot)	1711	1531	1952	0	1636	1783
Flt Permitted	0.950				0.451	
Satd. Flow (perm)	1711	1531	1952	0	776	1783
Satd. Flow (RTOR)		469	30			
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.89	0.89	0.86	0.86	0.89	0.89
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	3%	3%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	83	469	361	0	408	166
Turn Type	NA	pm+ov	NA		pm+pt	NA
Protected Phases	8	1	2		1	6
Permitted Phases		8			6	
Detector Phase	8	1	2		1	6
Switch Phase						
Minimum Initial (s)	8.0	8.0	35.0		8.0	35.0
Minimum Split (s)	22.0	12.0	40.0		12.0	40.0
Total Split (s)	22.0	19.0	40.0		19.0	59.0
Total Split (%)	27.2%	23.5%	49.4%		23.5%	72.8%
Yellow Time (s)	3.5	3.0	3.5		3.0	3.5
All-Red Time (s)	1.5	1.0	1.5		1.0	1.5
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	5.0	4.0	5.0		4.0	5.0
Lead/Lag		Lead	Lag		Lead	
Lead-Lag Optimize?		Yes	Yes		Yes	
Recall Mode	None	None	Min		None	Min
Act Effct Green (s)	8.9	21.1	35.5		51.0	51.3
Actuated g/C Ratio	0.14	0.32	0.54		0.78	0.78
v/c Ratio	0.36	0.58	0.34		0.55	0.12
Control Delay	32.7	4.9	10.6		6.1	3.2
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	32.7	4.9	10.6		6.1	3.2
LOS	C	A	B		A	A
Approach Delay	9.0		10.6			5.3
Approach LOS	A		B			A
Queue Length 50th (ft)	32	0	71		42	15
Queue Length 95th (ft)	74	50	148		87	35
Internal Link Dist (ft)	974		310			399
Turn Bay Length (ft)	170				125	
Base Capacity (vph)	448	887	1068		800	1471
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.19	0.53	0.34		0.51	0.11

Intersection Summary

Cycle Length: 81
 Actuated Cycle Length: 65.8
 Natural Cycle: 75
 Control Type: Semi Act-Uncoord
 Maximum v/c Ratio: 0.58
 Intersection Signal Delay: 7.9
 Intersection Capacity Utilization 67.6%
 Analysis Period (min) 15

Intersection LOS: A
 ICU Level of Service C

15: Hawkins Avenue & Union Avenue Lanes, Volumes, Timings

Existing 2013
PM Peak

Splits and Phases: 15: Hawkins Avenue & Union Avenue



16: Mill Road & Union Avenue Lanes, Volumes, Timings

Existing 2013
PM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	31	436	11	73	445	40	9	53	231	17	8	24
Satd. Flow (prot)	1652	1793	0	1711	1779	0	0	1884	0	0	1653	0
Flt Permitted	0.349			0.437				0.988			0.524	
Satd. Flow (perm)	607	1793	0	787	1779	0	0	1865	0	0	881	0
Satd. Flow (RTOR)		3			12			283			26	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.88	0.88	0.88	0.77	0.77	0.77	0.65	0.65	0.65	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	35	507	0	95	630	0	0	451	0	0	53	0
Turn Type	Perm	NA										
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	35.0	35.0		35.0	35.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	41.0	41.0		41.0	41.0		27.0	27.0		27.0	27.0	
Total Split (s)	41.0	41.0		41.0	41.0		21.0	21.0		21.0	21.0	
Total Split (%)	66.1%	66.1%		66.1%	66.1%		33.9%	33.9%		33.9%	33.9%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Min	Min		Min	Min		None	None		None	None	
Act Effct Green (s)	35.1	35.1		35.1	35.1			10.9			10.9	
Actuated g/C Ratio	0.61	0.61		0.61	0.61			0.19			0.19	
v/c Ratio	0.10	0.47		0.20	0.58			0.78			0.28	
Control Delay	6.6	8.7		7.4	10.3			18.6			16.6	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	6.6	8.7		7.4	10.3			18.6			16.6	
LOS	A	A		A	B			B			B	
Approach Delay		8.5			9.9			18.6			16.6	
Approach LOS		A			A			B			B	
Queue Length 50th (ft)	4	80		12	108			53			8	
Queue Length 95th (ft)	17	165		31	176			58			34	
Internal Link Dist (ft)		780			237			676			298	
Turn Bay Length (ft)	75			175								
Base Capacity (vph)	366	1085		475	1080			692			247	
Starvation Cap Reductn	0	0		0	0			0			0	
Spillback Cap Reductn	0	0		0	0			0			0	
Storage Cap Reductn	0	0		0	0			0			0	
Reduced v/c Ratio	0.10	0.47		0.20	0.58			0.65			0.21	

Intersection Summary

Cycle Length: 62
 Actuated Cycle Length: 58
 Natural Cycle: 70
 Control Type: Semi Act-Uncoord
 Maximum v/c Ratio: 0.78
 Intersection Signal Delay: 11.9
 Intersection Capacity Utilization 88.4%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service E

16: Mill Road & Union Avenue
Lanes, Volumes, Timings

Existing 2013
 PM Peak

Splits and Phases: 16: Mill Road & Union Avenue



17: Parking Lot/Powell Street & Railroad Avenue Lanes, Volumes, Timings

Existing 2013
PM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	327	7	5	267	40	12	5	41	79	1	12
Satd. Flow (prot)	1711	1801	1531	1593	3353	0	1805	1702	0	1752	1585	0
Flt Permitted	0.529			0.545			0.976			0.976		
Satd. Flow (perm)	953	1801	1531	914	3353	0	1854	1702	0	1800	1585	0
Satd. Flow (RTOR)			36		48			87			15	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	0.82	0.82	0.82	0.47	0.47	0.47	0.78	0.78	0.78
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	0%	0%	0%	3%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	11	363	8	6	375	0	26	98	0	101	16	0
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6			8			4		
Detector Phase	2	2	2	6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	11.0	11.0	11.0	11.0	11.0		10.0	10.0		10.0	10.0	
Total Split (s)	40.0	40.0	40.0	40.0	40.0		20.0	20.0		20.0	20.0	
Total Split (%)	66.7%	66.7%	66.7%	66.7%	66.7%		33.3%	33.3%		33.3%	33.3%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None		None	None		None	None	
Act Effct Green (s)	14.6	14.6	14.6	14.4	14.4		8.8	8.8		9.2	9.2	
Actuated g/C Ratio	0.58	0.58	0.58	0.57	0.57		0.35	0.35		0.37	0.37	
v/c Ratio	0.02	0.35	0.01	0.01	0.19		0.04	0.15		0.15	0.03	
Control Delay	5.8	6.9	0.4	5.8	4.8		9.8	4.5		9.9	6.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	5.8	6.9	0.4	5.8	4.8		9.8	4.5		9.9	6.2	
LOS	A	A	A	A	A		A	A		A	A	
Approach Delay		6.7			4.8			5.6			9.4	
Approach LOS		A			A			A			A	
Queue Length 50th (ft)	1	37	0	1	15		3	1		11	0	
Queue Length 95th (ft)	6	94	1	4	33		8	5		35	7	
Internal Link Dist (ft)		331			196			24			192	
Turn Bay Length (ft)	110			120								
Base Capacity (vph)	931	1760	1497	893	3278		1245	1171		1208	1069	
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.01	0.21	0.01	0.01	0.11		0.02	0.08		0.08	0.01	

Intersection Summary

Cycle Length: 60

Actuated Cycle Length: 25.1

Natural Cycle: 40

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.35

Intersection Signal Delay: 6.2

Intersection LOS: A

Intersection Capacity Utilization 36.6%

ICU Level of Service A

Analysis Period (min) 15

17: Parking Lot/Powell Street & Railroad Avenue Lanes, Volumes, Timings

Existing 2013
PM Peak

Splits and Phases: 17: Parking Lot/Powell Street & Railroad Avenue



18: Parking Lot/Northwest Link & Railroad Avenue

Lanes, Volumes, Timings

Existing 2013
PM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	7	281	1	3	185	103	3	3	31	32	1	27
Satd. Flow (prot)	1652	1739	1478	1711	1801	1531	0	1788	0	1687	1522	0
Flt Permitted	0.635			0.635								
Satd. Flow (perm)	1104	1739	1478	1143	1801	1531	0	1796	0	1776	1522	0
Satd. Flow (RTOR)			36			127		65			44	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.82	0.82	0.82	0.81	0.81	0.81	0.48	0.48	0.48	0.61	0.61	0.61
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	0%	0%	0%	7%	7%	7%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	9	343	1	4	228	127	0	77	0	52	46	0
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6		6	8			4		
Detector Phase	2	2	2	6	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0	6.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	11.0	11.0	11.0	11.0	11.0	11.0	10.0	10.0		10.0	10.0	
Total Split (s)	40.0	40.0	40.0	40.0	40.0	40.0	20.0	20.0		20.0	20.0	
Total Split (%)	66.7%	66.7%	66.7%	66.7%	66.7%	66.7%	33.3%	33.3%		33.3%	33.3%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0		5.0		5.0	5.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None		None	None								
Act Effct Green (s)	12.9	12.9	12.9	12.4	12.4	12.4		7.8		8.1	8.1	
Actuated g/C Ratio	0.64	0.64	0.64	0.61	0.61	0.61		0.39		0.40	0.40	
v/c Ratio	0.01	0.31	0.00	0.01	0.21	0.13		0.11		0.07	0.07	
Control Delay	4.6	5.0	0.0	4.7	4.5	1.9		4.6		8.4	4.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0		0.0	0.0	
Total Delay	4.6	5.0	0.0	4.7	4.5	1.9		4.6		8.4	4.7	
LOS	A	A	A	A	A	A		A		A	A	
Approach Delay		5.0			3.6			4.6			6.7	
Approach LOS		A			A			A			A	
Queue Length 50th (ft)	0	0	0	0	0	0		1		1	0	
Queue Length 95th (ft)	4	66	0	3	42	11		6		15	7	
Internal Link Dist (ft)		151			331			6			181	
Turn Bay Length (ft)	130		130	200								
Base Capacity (vph)	1102	1736	1475	1141	1798	1529		1418		1388	1199	
Starvation Cap Reductn	0	0	0	0	0	0		0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0		0		0	0	
Storage Cap Reductn	0	0	0	0	0	0		0		0	0	
Reduced v/c Ratio	0.01	0.20	0.00	0.00	0.13	0.08		0.05		0.04	0.04	

Intersection Summary

Cycle Length: 60

Actuated Cycle Length: 20.2

Natural Cycle: 40

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.31

Intersection Signal Delay: 4.6

Intersection LOS: A

Intersection Capacity Utilization 31.6%

ICU Level of Service A

Analysis Period (min) 15

18: Parking Lot/Northwest Link & Railroad Avenue Lanes, Volumes, Timings

Existing 2013
PM Peak

Splits and Phases: 18: Parking Lot/Northwest Link & Railroad Avenue



19: Hawkins Avenue & Railroad Avenue
 HCM 2010 TWSC

Existing 2013
 PM Peak

Intersection												
Intersection Delay, s/veh	6.9											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	203	243	12	5	154	145	0	0	0	98	9	127
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	None											
Storage Length	75		0	175		175	0		0	125		0
Median Width		9			9			10			10	
Grade, %		0%			0%			0%			0%	
Peak Hour Factor	0.74	0.74	0.74	0.73	0.73	0.73	0.25	0.25	0.25	0.82	0.82	0.82
Heavy Vehicles, %	2	2	2	2	2	2	0	0	0	2	2	2
Mvmt Flow	274	328	16	7	211	199	0	0	0	120	11	155
Number of Lanes	1	1	0	1	1	1	0	0	0	1	1	0

Major/Minor	Major 1			Major 2			Minor 2			
Conflicting Flow All	211	0	0	345	0	0		1110	1118	211
Stage 1	-	-	-	-	-	-		225	225	-
Stage 2	-	-	-	-	-	-		885	893	-
Follow-up Headway	2.218	-	-	2.218	-	-		3.518	4.018	3.318
Pot Capacity-1 Maneuver	1360	-	-	1214	-	-		232	207	829
Stage 1	-	-	-	-	-	-		812	718	-
Stage 2	-	-	-	-	-	-		403	360	-
Time blocked-Platoon, %	0	-	-	0	-	-		0	0	0
Mov Capacity-1 Maneuver	1360	-	-	1214	-	-		184	# 0	829
Mov Capacity-2 Maneuver	-	-	-	-	-	-		184	# 0	-
Stage 1	-	-	-	-	-	-		807	# 0	-
Stage 2	-	-	-	-	-	-		322	# 0	-

Approach	EB	WB	SB
HCM Control Delay, s	3.7	0.1	23.7
HCM LOS	-	-	C

Minor Lane / Major Mvmt	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Cap, veh/h	1360	-	-	1214	-	-	184	483
HCM Control Delay, s	8.315	-	-	7.982	-	-	38.7	17.9
HCM Lane V/C Ratio	0.20	-	-	0.01	-	-	0.43	0.43
HCM Lane LOS	A	-	-	A	-	-	E	C
HCM 95th-tile Q, veh	0.8	-	-	0.0	-	-	2.0	2.1

Notes
 ~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

20: Ronkonkoma Avenue & 2nd Street/Powell Street
 HCM 2010 TWSC

Existing 2013
 PM Peak

Intersection

Intersection Delay, s/veh 1.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	0	113	0	0	55	0	1418	92	0	498	60
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	Free											
Storage Length	0		0	0		0	0		0	0		0
Median Width		0			0			10			10	
Grade, %		0%			0%			0%			0%	
Peak Hour Factor	0.25	0.25	0.62	0.25	0.25	0.71	0.25	0.88	0.88	0.25	0.82	0.82
Heavy Vehicles, %	0	0	2	0	0	5	0	2	2	0	5	5
Mvmt Flow	0	0	182	0	0	77	0	1611	105	0	607	73
Number of Lanes	0	0	1	0	0	1	0	2	0	0	2	0

Major/Minor	Minor 2			Minor 1			Major 1			Major 2		
Conflicting Flow All	1413	2218	304	1915	2218	806	607	0	0	1611	0	0
Stage 1	607	607	-	1611	1611	-	-	-	-	-	-	-
Stage 2	806	1611	-	304	607	-	-	-	-	-	-	-
Follow-up Headway	3.5	4	3.32	3.5	4	3.35	2.2	-	-	2.2	-	-
Pot Capacity-1 Maneuver	100	44	692	42	44	319	981	-	-	411	-	-
Stage 1	455	489	-	111	165	-	-	-	-	-	-	-
Stage 2	346	165	-	686	489	-	-	-	-	-	-	-
Time blocked-Platoon, %	0	0	0	0	0	0	0	-	-	0	-	-
Mov Capacity-1 Maneuver	76	44	692	31	44	319	981	-	-	411	-	-
Mov Capacity-2 Maneuver	76	44	-	31	44	-	-	-	-	-	-	-
Stage 1	455	489	-	111	165	-	-	-	-	-	-	-
Stage 2	262	165	-	505	489	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.1	19.9	0	0
HCM LOS	B	C	-	-

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Cap, veh/h	981	-	-	692	319	411	-	-
HCM Control Delay, s	0	-	-	12.1	19.9	0	-	-
HCM Lane V/C Ratio	-	-	-	0.26	0.24	-	-	-
HCM Lane LOS	A	-	-	B	C	A	-	-
HCM 95th-tile Q, veh	0.0	-	-	1.1	0.9	0.0	-	-

Notes

~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

11: Hawkins Avenue & LIE North Service Road Lanes, Volumes, Timings

No Build 2020
AM PEAK



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↖	↕	↗	↖	↕	↗		↕	
Volume (vph)	0	0	0	418	1696	163	151	248	0	0	333	150
Satd. Flow (prot)	0	0	0	1711	3377	0	1662	3323	0	0	3340	0
Flt Permitted				0.950			0.255					
Satd. Flow (perm)	0	0	0	1711	3377	0	446	3323	0	0	3340	0
Satd. Flow (RTOR)					16						42	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.25	0.25	0.25	0.96	0.96	0.96	0.88	0.88	0.25	0.25	0.84	0.84
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	2%	2%	2%	5%	5%	5%	3%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	435	1937	0	172	282	0	0	575	0
Turn Type				Perm	NA		pm+pt	NA			NA	
Protected Phases					1			8			3	
Permitted Phases				1			3					
Detector Phase				1	1		8	3				7
Switch Phase												
Minimum Initial (s)				25.0	25.0		4.0	16.0			16.0	
Minimum Split (s)				31.3	31.3		10.0	23.0			23.0	
Total Split (s)				61.0	61.0		14.0	39.0			25.0	
Total Split (%)				61.0%	61.0%		14.0%	39.0%			25.0%	
Yellow Time (s)				4.3	4.3		4.0	4.0			4.0	
All-Red Time (s)				2.0	2.0		2.0	2.0			2.0	
Lost Time Adjust (s)				0.0	0.0		0.0	0.0			0.0	
Total Lost Time (s)				6.3	6.3		6.0	6.0			6.0	
Lead/Lag							Lag				Lead	
Lead-Lag Optimize?												
Recall Mode				C-Max	C-Max		Min	Min			Max	
Act Effct Green (s)				55.7	55.7		32.0	32.0			19.0	
Actuated g/C Ratio				0.56	0.56		0.32	0.32			0.19	
v/c Ratio				0.46	1.03		0.76	0.27			0.86	
Control Delay				15.4	50.8		44.0	15.4			50.7	
Queue Delay				0.0	0.0		0.0	0.0			0.0	
Total Delay				15.4	50.8		44.0	15.4			50.7	
LOS				B	D		D	B			D	
Approach Delay					44.3			26.2			50.7	
Approach LOS					D			C			D	
Queue Length 50th (ft)				159	~707		47	40			175	
Queue Length 95th (ft)				238	#848		#123	55			#225	
Internal Link Dist (ft)		204			499			339			118	
Turn Bay Length (ft)							100					
Base Capacity (vph)				953	1888		244	1096			668	
Starvation Cap Reductn				0	0		0	0			0	
Spillback Cap Reductn				0	0		0	0			0	
Storage Cap Reductn				0	0		0	0			0	
Reduced v/c Ratio				0.46	1.03		0.70	0.26			0.86	

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 10 (10%), Referenced to phase 1:WBTL, Start of Yellow
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.03
 Intersection Signal Delay: 43.0
 Intersection LOS: D
 Intersection Capacity Utilization 89.7%
 ICU Level of Service E
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.

11: Hawkins Avenue & LIE North Service Road

Lanes, Volumes, Timings

No Build 2020
AM PEAK

Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 11: Hawkins Avenue & LIE North Service Road



12: Hawkins Avenue & LIE South Service Road Lanes, Volumes, Timings

No Build 2020
AM PEAK



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	120	408	71	0	0	0	0	279	68	178	571	0
Satd. Flow (prot)	1558	3047	0	0	0	0	0	3137	0	1694	3388	0
Flt Permitted	0.950									0.480		
Satd. Flow (perm)	1558	3047	0	0	0	0	0	3137	0	856	3388	0
Satd. Flow (RTOR)		25						31				
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.82	0.82	0.82	0.25	0.25	0.25	0.25	0.88	0.88	0.80	0.80	0.25
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	12%	12%	12%	0%	0%	0%	0%	8%	8%	3%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	146	585	0	0	0	0	0	394	0	222	714	0
Turn Type	Perm	NA						NA		pm+pt	NA	
Protected Phases		1						7		8	3	
Permitted Phases	1									3		
Detector Phase	1	1						7		8	3	
Switch Phase												
Minimum Initial (s)	25.0	25.0						16.0		4.0	16.0	
Minimum Split (s)	31.3	31.3						24.0		10.0	26.0	
Total Split (s)	50.0	50.0						38.0		12.0	50.0	
Total Split (%)	50.0%	50.0%						38.0%		12.0%	50.0%	
Yellow Time (s)	4.3	4.3						4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0						2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0						0.0		0.0	0.0	
Total Lost Time (s)	6.3	6.3						6.0		6.0	6.0	
Lead/Lag								Lead		Lag		
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max						Max		Min	Min	
Act Effct Green (s)	43.7	43.7						32.0		44.0	44.0	
Actuated g/C Ratio	0.44	0.44						0.32		0.44	0.44	
v/c Ratio	0.21	0.43						0.38		0.52	0.48	
Control Delay	18.6	19.9						25.5		28.0	22.3	
Queue Delay	0.0	0.0						0.0		0.0	1.2	
Total Delay	18.6	19.9						25.5		28.0	23.5	
LOS	B	B						C		C	C	
Approach Delay		19.6						25.5			24.5	
Approach LOS		B						C			C	
Queue Length 50th (ft)	56	126						93		83	144	
Queue Length 95th (ft)	88	153						131		m106	157	
Internal Link Dist (ft)		477			203			243			339	
Turn Bay Length (ft)	400									100		
Base Capacity (vph)	680	1346						1024		426	1490	
Starvation Cap Reductn	0	0						0		0	522	
Spillback Cap Reductn	0	0						0		0	0	
Storage Cap Reductn	0	0						0		0	0	
Reduced v/c Ratio	0.21	0.43						0.38		0.52	0.74	

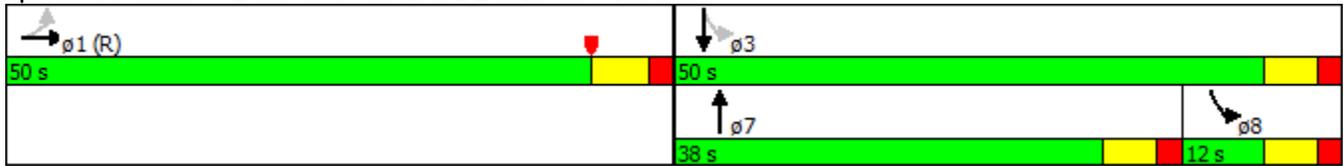
Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 10 (10%), Referenced to phase 1:EBTL, Start of Yellow
 Natural Cycle: 70
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.52
 Intersection Signal Delay: 23.0
 Intersection LOS: C
 Intersection Capacity Utilization 89.7%
 ICU Level of Service E
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

12: Hawkins Avenue & LIE South Service Road Lanes, Volumes, Timings

No Build 2020
AM PEAK

Splits and Phases: 12: Hawkins Avenue & LIE South Service Road



13: Ronkonkoma Avenue & LIE North Service Road

Lanes, Volumes, Timings

No Build 2020
AM PEAK



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↔	↔		↔	↔			↔	
Volume (vph)	0	0	0	664	1060	72	141	284	0	0	533	265
Satd. Flow (prot)	0	0	0	1694	3358	0	1671	3343	0	0	3298	0
Flt Permitted				0.950			0.127					
Satd. Flow (perm)	0	0	0	1694	3358	0	223	3343	0	0	3298	0
Satd. Flow (RTOR)					9						64	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.25	0.25	0.25	0.93	0.93	0.93	0.94	0.94	0.25	0.25	0.85	0.85
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	3%	3%	3%	8%	8%	0%	0%	4%	4%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	714	1217	0	150	302	0	0	939	0
Turn Type				Perm	NA		pm+pt	NA			NA	
Protected Phases					1			8			3	
Permitted Phases				1			3					7
Detector Phase				1	1		8	3				7
Switch Phase												
Minimum Initial (s)				24.0	24.0		4.0	17.0			17.0	
Minimum Split (s)				30.7	30.7		10.0	25.9			25.9	
Total Split (s)				50.0	50.0		14.0	50.0			36.0	
Total Split (%)				50.0%	50.0%		14.0%	50.0%			36.0%	
Yellow Time (s)				4.7	4.7		3.9	3.9			3.9	
All-Red Time (s)				2.0	2.0		2.0	2.0			2.0	
Lost Time Adjust (s)				0.0	0.0		0.0	0.0			0.0	
Total Lost Time (s)				6.7	6.7		5.9	5.9			5.9	
Lead/Lag							Lag				Lead	
Lead-Lag Optimize?												
Recall Mode				C-Max	C-Max		Min	Min			Ped	
Act Effct Green (s)				44.2	44.2		43.2	43.2			29.6	
Actuated g/C Ratio				0.44	0.44		0.43	0.43			0.30	
v/c Ratio				0.95	0.82		0.73	0.21			0.92	
Control Delay				34.8	23.7		53.4	14.6			46.6	
Queue Delay				0.0	0.0		0.0	0.0			8.6	
Total Delay				34.8	23.7		53.4	14.6			55.2	
LOS				C	C		D	B			E	
Approach Delay					27.8			27.5			55.2	
Approach LOS					C			C			E	
Queue Length 50th (ft)				346	243		69	56			283	
Queue Length 95th (ft)				m357	m246		#148	75			#347	
Internal Link Dist (ft)		318			725			397			224	
Turn Bay Length (ft)				650			250					
Base Capacity (vph)				749	1490		214	1474			1037	
Starvation Cap Reductn				0	0		0	0			0	
Spillback Cap Reductn				0	0		0	0			85	
Storage Cap Reductn				0	0		0	0			0	
Reduced v/c Ratio				0.95	0.82		0.70	0.20			0.99	

Intersection Summary

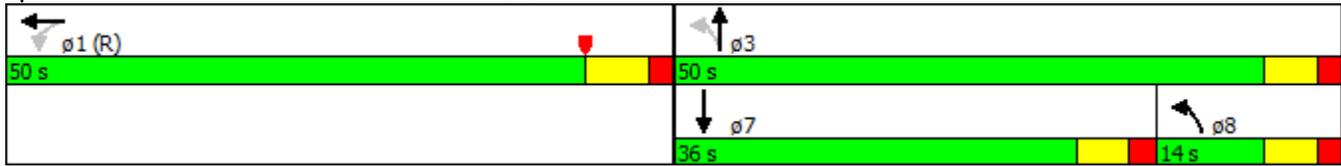
Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 12 (12%), Referenced to phase 1:WBTL, Start of Yellow
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.95
 Intersection Signal Delay: 35.5
 Intersection LOS: D
 Intersection Capacity Utilization 83.2%
 ICU Level of Service E
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.

13: Ronkonkoma Avenue & LIE North Service Road Lanes, Volumes, Timings

No Build 2020
AM PEAK

Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 13: Ronkonkoma Avenue & LIE North Service Road



14: Ronkonkoma Avenue & LIE South Service Road

Lanes, Volumes, Timings

No Build 2020
AM PEAK



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	167	302	332	0	0	0	0	258	195	100	1097	0
Satd. Flow (prot)	1631	3004	0	0	0	0	0	2961	0	1752	3505	0
Flt Permitted	0.950									0.270		
Satd. Flow (perm)	1631	3004	0	0	0	0	0	2961	0	498	3505	0
Satd. Flow (RTOR)		44						238				
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.25	0.25	0.25	0.25	0.82	0.82	0.80	0.80	0.25
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	7%	7%	7%	0%	0%	0%	0%	14%	14%	3%	3%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	184	697	0	0	0	0	0	553	0	125	1371	0
Turn Type	Perm	NA						NA		pm+pt	NA	
Protected Phases		1						7		8	3	
Permitted Phases	1									3		
Detector Phase	1	1						7		8	3	
Switch Phase												
Minimum Initial (s)	24.0	24.0						17.0		4.0	17.0	
Minimum Split (s)	30.3	30.3						25.6		10.0	25.6	
Total Split (s)	37.0	37.0						51.0		12.0	51.0	
Total Split (%)	37.0%	37.0%						51.0%		12.0%	51.0%	
Yellow Time (s)	4.3	4.3						3.6		3.6	3.6	
All-Red Time (s)	2.0	2.0						2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0						0.0		0.0	0.0	
Total Lost Time (s)	6.3	6.3						5.6		5.6	5.6	
Lead/Lag								Lead		Lag		
Lead-Lag Optimize?								Yes		Yes		
Recall Mode	C-Max	C-Max						Min		Max	Max	
Act Effct Green (s)	30.7	30.7						19.6		57.4	57.4	
Actuated g/C Ratio	0.31	0.31						0.20		0.57	0.57	
v/c Ratio	0.37	0.73						0.72		0.18	0.68	
Control Delay	29.7	34.3						26.3		12.6	15.6	
Queue Delay	0.0	0.0						0.0		0.0	5.8	
Total Delay	29.7	34.3						26.3		12.6	21.4	
LOS	C	C						C		B	C	
Approach Delay		33.3						26.3			20.6	
Approach LOS		C						C			C	
Queue Length 50th (ft)	91	195						101		35	277	
Queue Length 95th (ft)	152	264						122		m38	281	
Internal Link Dist (ft)		267			295			185			397	
Turn Bay Length (ft)										125		
Base Capacity (vph)	500	952						1474		689	2011	
Starvation Cap Reductn	0	0						0		0	579	
Spillback Cap Reductn	0	0						0		0	0	
Storage Cap Reductn	0	0						0		0	0	
Reduced v/c Ratio	0.37	0.73						0.38		0.18	0.96	

Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 7 (7%), Referenced to phase 1:EBTL, Start of Yellow

Natural Cycle: 70

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.73

Intersection Signal Delay: 25.5

Intersection LOS: C

Intersection Capacity Utilization 83.2%

ICU Level of Service E

Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

14: Ronkonkoma Avenue & LIE South Service Road Lanes, Volumes, Timings

No Build 2020
AM PEAK

Splits and Phases: 14: Ronkonkoma Avenue & LIE South Service Road



15: Hawkins Avenue & Union Avenue Lanes, Volumes, Timings

No Build 2020
AM PEAK



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	120	219	131	35	282	369
Satd. Flow (prot)	1646	1473	1862	0	1636	1783
Flt Permitted	0.950				0.569	
Satd. Flow (perm)	1646	1473	1862	0	980	1783
Satd. Flow (RTOR)		284	21			
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.77	0.77	0.84	0.84	0.72	0.72
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	6%	6%	9%	9%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	156	284	198	0	392	512
Turn Type	NA	pm+ov	NA		pm+pt	NA
Protected Phases	8	1	2		1	6
Permitted Phases		8			6	
Detector Phase	8	1	2		1	6
Switch Phase						
Minimum Initial (s)	8.0	8.0	35.0		8.0	35.0
Minimum Split (s)	22.0	12.0	40.0		12.0	40.0
Total Split (s)	22.0	19.0	40.0		19.0	59.0
Total Split (%)	27.2%	23.5%	49.4%		23.5%	72.8%
Yellow Time (s)	3.5	3.0	3.5		3.0	3.5
All-Red Time (s)	1.5	1.0	1.5		1.0	1.5
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	5.0	4.0	5.0		4.0	5.0
Lead/Lag		Lead	Lag		Lead	
Lead-Lag Optimize?		Yes	Yes		Yes	
Recall Mode	None	None	Min		None	Min
Act Effct Green (s)	11.5	27.4	35.2		51.1	50.1
Actuated g/C Ratio	0.16	0.38	0.49		0.71	0.70
v/c Ratio	0.59	0.38	0.21		0.49	0.41
Control Delay	37.8	3.5	11.3		6.6	6.2
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	37.8	3.5	11.3		6.6	6.2
LOS	D	A	B		A	A
Approach Delay	15.7		11.3			6.4
Approach LOS	B		B			A
Queue Length 50th (ft)	64	0	40		51	75
Queue Length 95th (ft)	106	22	90		83	115
Internal Link Dist (ft)	974		310			399
Turn Bay Length (ft)	170				125	
Base Capacity (vph)	392	809	925		836	1352
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.40	0.35	0.21		0.47	0.38

Intersection Summary

Cycle Length: 81
 Actuated Cycle Length: 71.7
 Natural Cycle: 75
 Control Type: Semi Act-Uncoord
 Maximum v/c Ratio: 0.59
 Intersection Signal Delay: 9.7
 Intersection Capacity Utilization 63.1%
 Analysis Period (min) 15

Intersection LOS: A
 ICU Level of Service B

15: Hawkins Avenue & Union Avenue Lanes, Volumes, Timings

No Build 2020
AM PEAK

Splits and Phases: 15: Hawkins Avenue & Union Avenue



16: Mill Road & Union Avenue Lanes, Volumes, Timings

No Build 2020
AM PEAK



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	6	141	7	208	449	13	4	14	50	7	11	17
Satd. Flow (prot)	1574	1704	0	1694	1776	0	0	1842	0	0	1651	0
Flt Permitted	0.474			0.640				0.975			0.904	
Satd. Flow (perm)	786	1704	0	1141	1776	0	0	1802	0	0	1507	0
Satd. Flow (RTOR)		7			4			64			23	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.79	0.79	0.79	0.92	0.92	0.92	0.78	0.78	0.78	0.73	0.73	0.73
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	7%	7%	7%	3%	3%	3%	5%	5%	5%	3%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	8	187	0	226	502	0	0	87	0	0	48	0
Turn Type	Perm	NA										
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	35.0	35.0		35.0	35.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	41.0	41.0		41.0	41.0		27.0	27.0		27.0	27.0	
Total Split (s)	41.0	41.0		41.0	41.0		21.0	21.0		21.0	21.0	
Total Split (%)	66.1%	66.1%		66.1%	66.1%		33.9%	33.9%		33.9%	33.9%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Min	Min		Min	Min		None	None		None	None	
Act Effct Green (s)	41.0	41.0		41.0	41.0			8.1			8.1	
Actuated g/C Ratio	0.78	0.78		0.78	0.78			0.15			0.15	
v/c Ratio	0.01	0.14		0.25	0.36			0.26			0.19	
Control Delay	3.8	3.6		4.7	4.8			11.8			16.0	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	3.8	3.6		4.7	4.8			11.8			16.0	
LOS	A	A		A	A			B			B	
Approach Delay		3.6			4.8			11.8			16.0	
Approach LOS		A			A			B			B	
Queue Length 50th (ft)	1	20		27	68			7			7	
Queue Length 95th (ft)	4	33		56	117			30			24	
Internal Link Dist (ft)		780			237			676			298	
Turn Bay Length (ft)	75			175								
Base Capacity (vph)	614	1333		892	1389			568			453	
Starvation Cap Reductn	0	0		0	0			0			0	
Spillback Cap Reductn	0	0		0	0			0			0	
Storage Cap Reductn	0	0		0	0			0			0	
Reduced v/c Ratio	0.01	0.14		0.25	0.36			0.15			0.11	

Intersection Summary

Cycle Length: 62	
Actuated Cycle Length: 52.4	
Natural Cycle: 70	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.36	
Intersection Signal Delay: 5.7	Intersection LOS: A
Intersection Capacity Utilization 80.0%	ICU Level of Service D
Analysis Period (min) 15	

16: Mill Road & Union Avenue
Lanes, Volumes, Timings

No Build 2020
 AM PEAK

Splits and Phases: 16: Mill Road & Union Avenue



17: Parking Lot/Powell Street & Railroad Avenue

Lanes, Volumes, Timings

No Build 2020
AM PEAK



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	4	109	10	8	337	24	9	1	9	38	2	8
Satd. Flow (prot)	1646	1733	1473	1562	3322	0	1752	1643	0	1736	1602	0
Flt Permitted	0.580			0.663								
Satd. Flow (perm)	1005	1733	1473	1090	3322	0	1845	1643	0	1827	1602	0
Satd. Flow (RTOR)			36		16			11			9	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.74	0.74	0.74	0.91	0.91	0.91	0.80	0.80	0.80	0.85	0.85	0.85
Growth Factor	50%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	6%	6%	6%	4%	4%	4%	3%	3%	3%	4%	4%	4%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	3	147	14	9	396	0	11	12	0	45	11	0
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8			2			6		
Detector Phase	4	4	4	8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0	21.0	21.0	21.0		21.0	21.0		21.0	21.0	
Total Split (s)	33.0	33.0	33.0	33.0	33.0		27.0	27.0		27.0	27.0	
Total Split (%)	55.0%	55.0%	55.0%	55.0%	55.0%		45.0%	45.0%		45.0%	45.0%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None		None	None		None	None	
Act Effct Green (s)	12.3	12.3	12.3	12.4	12.4		6.6	6.6		6.9	6.9	
Actuated g/C Ratio	0.78	0.78	0.78	0.78	0.78		0.42	0.42		0.44	0.44	
v/c Ratio	0.00	0.11	0.01	0.01	0.15		0.01	0.02		0.06	0.02	
Control Delay	3.5	2.7	1.2	3.2	2.3		5.8	4.3		5.3	4.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	3.5	2.7	1.2	3.2	2.3		5.8	4.3		5.3	4.3	
LOS	A	A	A	A	A		A	A		A	A	
Approach Delay		2.6			2.3			5.0			5.1	
Approach LOS		A			A			A			A	
Queue Length 50th (ft)	0	0	0	0	0		0	0		0	0	
Queue Length 95th (ft)	2	24	1	4	33		6	5		15	5	
Internal Link Dist (ft)		331			196			24			192	
Turn Bay Length (ft)	110			120								
Base Capacity (vph)	992	1711	1455	1076	3280		1747	1557		1730	1518	
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.00	0.09	0.01	0.01	0.12		0.01	0.01		0.03	0.01	

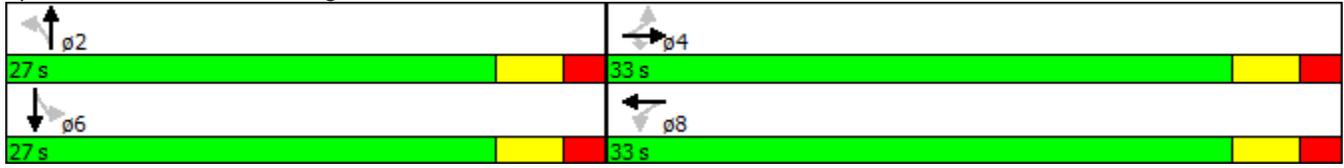
Intersection Summary

Cycle Length: 60	
Actuated Cycle Length: 15.8	
Natural Cycle: 45	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.15	
Intersection Signal Delay: 2.7	Intersection LOS: A
Intersection Capacity Utilization 27.2%	ICU Level of Service A
Analysis Period (min) 15	

17: Parking Lot/Powell Street & Railroad Avenue Lanes, Volumes, Timings

No Build 2020
AM PEAK

Splits and Phases: 17: Parking Lot/Powell Street & Railroad Avenue



18: Parking Lot/Northwest Link & Johnson Avenue

Lanes, Volumes, Timings

No Build 2020
AM PEAK



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	107	5	60	209	85	3	2	3	12	5	18
Satd. Flow (prot)	1604	1689	1436	1694	1783	1516	0	1885	0	1530	1420	0
Flt Permitted	0.702			0.702								
Satd. Flow (perm)	1186	1689	1436	1252	1783	1516	0	1921	0	1610	1420	0
Satd. Flow (RTOR)			36			92		5			22	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.66	0.66	0.66	0.92	0.92	0.92	0.63	0.63	0.63	0.80	0.80	0.80
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	5%	5%	5%	3%	3%	3%	0%	0%	0%	18%	18%	18%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	17	162	8	65	227	92	0	13	0	15	28	0
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2			6		
Detector Phase	4	4	4	8	8	8	2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0		21.0	21.0	
Total Split (s)	36.0	36.0	36.0	36.0	36.0	36.0	24.0	24.0		24.0	24.0	
Total Split (%)	60.0%	60.0%	60.0%	60.0%	60.0%	60.0%	40.0%	40.0%		40.0%	40.0%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0		5.0		5.0	5.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None		None	None								
Act Effct Green (s)	11.3	11.3	11.3	11.5	11.5	11.5		6.6		6.7	6.7	
Actuated g/C Ratio	0.67	0.67	0.67	0.68	0.68	0.68		0.39		0.40	0.40	
v/c Ratio	0.02	0.14	0.01	0.08	0.19	0.09		0.02		0.02	0.05	
Control Delay	2.8	2.7	0.4	2.7	2.8	1.4		5.5		6.2	4.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0		0.0	0.0	
Total Delay	2.8	2.7	0.4	2.7	2.8	1.4		5.5		6.2	4.4	
LOS	A	A	A	A	A	A		A		A	A	
Approach Delay		2.6			2.5			5.5			5.1	
Approach LOS		A			A			A			A	
Queue Length 50th (ft)	0	0	0	0	0	0		0		1	0	
Queue Length 95th (ft)	4	21	0	15	41	10		5		7	8	
Internal Link Dist (ft)		151			331			6			181	
Turn Bay Length (ft)	130		130	200								
Base Capacity (vph)	1186	1689	1436	1252	1783	1516		1784		1495	1320	
Starvation Cap Reductn	0	0	0	0	0	0		0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0		0		0	0	
Storage Cap Reductn	0	0	0	0	0	0		0		0	0	
Reduced v/c Ratio	0.01	0.10	0.01	0.05	0.13	0.06		0.01		0.01	0.02	

Intersection Summary

Cycle Length: 60

Actuated Cycle Length: 16.9

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.19

Intersection Signal Delay: 2.8

Intersection LOS: A

Intersection Capacity Utilization 24.4%

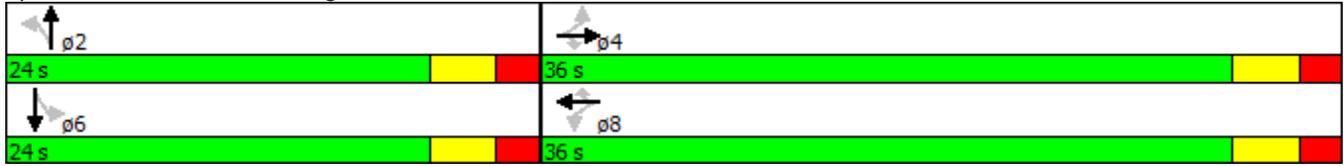
ICU Level of Service A

Analysis Period (min) 15

18: Parking Lot/Northwest Link & Johnson Avenue Lanes, Volumes, Timings

No Build 2020
AM PEAK

Splits and Phases: 18: Parking Lot/Northwest Link & Johnson Avenue



19: Hawkins Avenue & Railroad Avenue
 HCM 2010 TWSC

No Build 2020
 AM PEAK

Intersection	
Intersection Delay, s/veh	9.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	54	125	13	4	196	99	0	0	0	193	19	272
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	None											
Storage Length	75		0	175		175	0		0	0		175
Median Width		9			9			0				0
Grade, %		0%			0%			0%				0%
Peak Hour Factor	0.91	0.91	0.91	0.89	0.89	0.89	0.25	0.25	0.25	0.84	0.84	0.84
Heavy Vehicles, %	6	6	6	5	5	5	0	0	0	4	4	4
Mvmt Flow	59	137	14	4	220	111	0	0	0	230	23	324
Number of Lanes	1	1	0	1	1	1	0	0	0	0	1	1

Major/Minor	Major 1			Major 2			Minor 2				
Conflicting Flow All	220	0	0	152	0	0			492	499	220
Stage 1	-	-	-	-	-	-			229	229	-
Stage 2	-	-	-	-	-	-			263	270	-
Follow-up Headway	2.254	-	-	2.245	-	-			3.536	4.036	3.336
Pot Capacity-1 Maneuver	1326	-	-	1411	-	-			532	470	815
Stage 1	-	-	-	-	-	-			804	711	-
Stage 2	-	-	-	-	-	-			776	682	-
Time blocked-Platoon, %	0	-	-	0	-	-			0	0	0
Mov Capacity-1 Maneuver	1326	-	-	1411	-	-			507	# 0	815
Mov Capacity-2 Maneuver	-	-	-	-	-	-			507	# 0	-
Stage 1	-	-	-	-	-	-			802	# 0	-
Stage 2	-	-	-	-	-	-			741	# 0	-

Approach	EB	WB	SB
HCM Control Delay, s	2.2	0.1	17.3
HCM LOS	-	-	C

Minor Lane / Major Mvmt	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Cap, veh/h	1326	-	-	1411	-	-	577	815
HCM Control Delay, s	7.842	-	-	7.56	-	-	21	11
HCM Lane V/C Ratio	0.04	-	-	0.00	-	-	0.62	0.27
HCM Lane LOS	A	-	-	A	-	-	C	B
HCM 95th-tile Q, veh	0.1	-	-	0.0	-	-	4.3	1.1

Notes
 ~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

20: Ronkonkoma Avenue & 2nd Street/Powell Street
 HCM 2010 TWSC

No Build 2020
 AM PEAK

Intersection												
Intersection Delay, s/veh	1.8											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	0	150	0	0	27	0	474	47	0	1226	48
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	Free											
Storage Length	0		0	0		0	0		0	0		0
Median Width		0			0			10			10	
Grade, %		0%			0%			0%			0%	
Peak Hour Factor	0.25	0.25	0.90	0.25	0.25	0.78	0.25	0.89	0.89	0.25	0.83	0.83
Heavy Vehicles, %	0	0	3	0	0	14	0	12	12	0	3	3
Mvmt Flow	0	0	167	0	0	35	0	533	53	0	1477	58
Number of Lanes	0	0	1	0	0	1	0	2	0	0	2	0

Major/Minor	Minor 2			Minor 1			Major 1			Major 2		
Conflicting Flow All	1743	2010	739	1272	2010	266	1477	0	0	533	0	0
Stage 1	1477	1477	-	533	533	-	-	-	-	-	-	-
Stage 2	266	533	-	739	1477	-	-	-	-	-	-	-
Follow-up Headway	3.5	4	3.33	3.5	4	3.44	2.2	-	-	2.2	-	-
Pot Capacity-1 Maneuver	57	60	358	127	60	697	462	-	-	1045	-	-
Stage 1	135	192	-	503	528	-	-	-	-	-	-	-
Stage 2	722	528	-	380	192	-	-	-	-	-	-	-
Time blocked-Platoon, %	0	0	0	0	0	0	0	-	-	0	-	-
Mov Capacity-1 Maneuver	54	60	358	68	60	697	462	-	-	1045	-	-
Mov Capacity-2 Maneuver	54	60	-	68	60	-	-	-	-	-	-	-
Stage 1	135	192	-	503	528	-	-	-	-	-	-	-
Stage 2	686	528	-	203	192	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	23.5	10.4	0	0
HCM LOS	C	B	-	-

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Cap, veh/h	462	-	-	358	697	1045	-	-
HCM Control Delay, s	0	-	-	23.5	10.4	0	-	-
HCM Lane V/C Ratio	-	-	-	0.47	0.05	-	-	-
HCM Lane LOS	A	-	-	C	B	A	-	-
HCM 95th-tile Q, veh	0.0	-	-	2.4	0.2	0.0	-	-

Notes
 ~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

11: Hawkins Avenue & LIE North Service Road Lanes, Volumes, Timings

No Build 2020
PM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↖	↕		↖	↕			↕	
Volume (vph)	0	0	0	220	490	265	199	655	0	0	453	145
Satd. Flow (prot)	0	0	0	1711	3240	0	1711	3421	0	0	3412	0
Flt Permitted				0.950			0.299					
Satd. Flow (perm)	0	0	0	1711	3240	0	538	3421	0	0	3412	0
Satd. Flow (RTOR)					123						45	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.25	0.25	0.25	0.86	0.86	0.86	0.90	0.90	0.25	0.25	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	256	878	0	221	728	0	0	650	0
Turn Type				Perm	NA		pm+pt	NA			NA	
Protected Phases					1		8	3			7	
Permitted Phases				1			3					
Detector Phase				1	1		8	3			7	
Switch Phase												
Minimum Initial (s)				25.0	25.0		4.0	16.0			16.0	
Minimum Split (s)				31.3	31.3		10.0	23.0			23.0	
Total Split (s)				50.0	50.0		12.0	38.0			38.0	
Total Split (%)				50.0%	50.0%		12.0%	38.0%			38.0%	
Yellow Time (s)				4.3	4.3		4.0	4.0			4.0	
All-Red Time (s)				2.0	2.0		2.0	2.0			2.0	
Lost Time Adjust (s)				0.0	0.0		0.0	0.0			0.0	
Total Lost Time (s)				6.3	6.3		6.0	6.0			6.0	
Lead/Lag							Lag				Lead	
Lead-Lag Optimize?												
Recall Mode				C-Max	C-Max		Min	Min			Max	
Act Effct Green (s)				44.0	44.0		43.7	43.7			32.0	
Actuated g/C Ratio				0.44	0.44		0.44	0.44			0.32	
v/c Ratio				0.34	0.59		0.73	0.49			0.58	
Control Delay				20.2	19.9		27.1	11.8			28.7	
Queue Delay				0.0	0.0		0.0	1.3			0.0	
Total Delay				20.2	19.9		27.1	13.1			28.7	
LOS				C	B		C	B			C	
Approach Delay					20.0			16.3			28.7	
Approach LOS					B			B			C	
Queue Length 50th (ft)				105	186		50	88			167	
Queue Length 95th (ft)				157	231		m54	m87			226	
Internal Link Dist (ft)		204			499			339			118	
Turn Bay Length (ft)							100					
Base Capacity (vph)				752	1494		307	1505			1122	
Starvation Cap Reductn				0	0		0	536			0	
Spillback Cap Reductn				0	0		0	0			0	
Storage Cap Reductn				0	0		0	0			0	
Reduced v/c Ratio				0.34	0.59		0.72	0.75			0.58	

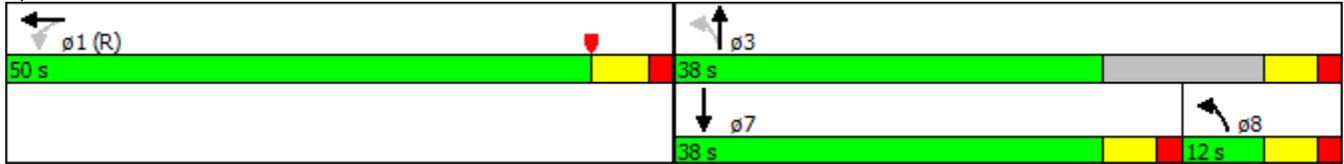
Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 89 (89%), Referenced to phase 1:WBTL, Start of Yellow
 Natural Cycle: 65
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.73
 Intersection Signal Delay: 20.8
 Intersection LOS: C
 Intersection Capacity Utilization 110.6%
 ICU Level of Service H
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

11: Hawkins Avenue & LIE North Service Road Lanes, Volumes, Timings

No Build 2020
PM Peak

Splits and Phases: 11: Hawkins Avenue & LIE North Service Road



12: Hawkins Avenue & LIE South Service Road Lanes, Volumes, Timings

No Build 2020
PM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	280	1821	183	0	0	0	0	573	121	351	323	0
Satd. Flow (prot)	1711	3373	0	0	0	0	0	3332	0	1711	3421	0
Flt Permitted	0.950									0.160		
Satd. Flow (perm)	1711	3373	0	0	0	0	0	3332	0	288	3421	0
Satd. Flow (RTOR)		14						22				
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.97	0.97	0.97	0.25	0.25	0.25	0.25	0.92	0.92	0.94	0.94	0.25
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	0%	0%	0%	0%	2%	2%	2%	2%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	289	2066	0	0	0	0	0	755	0	373	344	0
Turn Type	Perm	NA						NA		pm+pt	NA	
Protected Phases		1						7		8	3	
Permitted Phases	1									3		
Detector Phase	1	1						7		8	3	
Switch Phase												
Minimum Initial (s)	25.0	25.0						16.0		4.0	16.0	
Minimum Split (s)	31.3	31.3						23.0		10.0	23.0	
Total Split (s)	53.0	53.0						25.0		22.0	25.0	
Total Split (%)	53.0%	53.0%						25.0%		22.0%	25.0%	
Yellow Time (s)	4.3	4.3						4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0						2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0						0.0		0.0	0.0	
Total Lost Time (s)	6.3	6.3						6.0		6.0	6.0	
Lead/Lag								Lead		Lag		
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max						Max		Min	Min	
Act Effct Green (s)	46.7	46.7						19.0		41.0	41.0	
Actuated g/C Ratio	0.47	0.47						0.19		0.41	0.41	
v/c Ratio	0.36	1.31						1.16		1.08	0.25	
Control Delay	18.8	168.6						125.4		98.0	11.6	
Queue Delay	0.0	0.0						0.0		0.0	0.0	
Total Delay	18.8	168.6						125.4		98.0	11.6	
LOS	B	F						F		F	B	
Approach Delay		150.2						125.4			56.5	
Approach LOS		F						F			E	
Queue Length 50th (ft)	114	~899						~296		~223	44	
Queue Length 95th (ft)	178	#1041						#416		#444	61	
Internal Link Dist (ft)		477			203			243			339	
Turn Bay Length (ft)	400									100		
Base Capacity (vph)	799	1582						650		345	1402	
Starvation Cap Reductn	0	0						0		0	0	
Spillback Cap Reductn	0	0						0		0	0	
Storage Cap Reductn	0	0						0		0	0	
Reduced v/c Ratio	0.36	1.31						1.16		1.08	0.25	

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 89 (89%), Referenced to phase 1:EBTL, Start of Yellow
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.31
 Intersection Signal Delay: 127.8
 Intersection Capacity Utilization 110.6%
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.

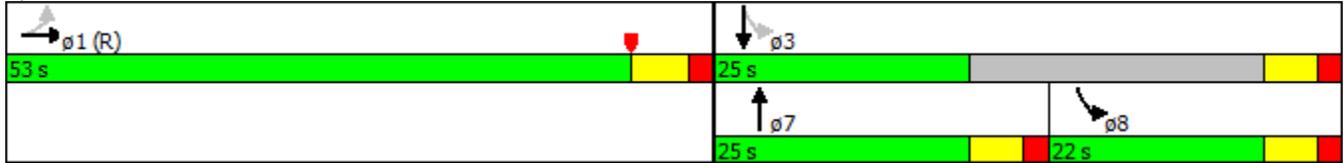
12: Hawkins Avenue & LIE South Service Road

Lanes, Volumes, Timings

No Build 2020
PM Peak

Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

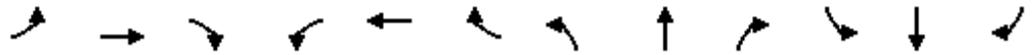
Splits and Phases: 12: Hawkins Avenue & LIE South Service Road



13: Ronkonkoma Avenue & LIE North Service Road

Lanes, Volumes, Timings

No Build 2020
PM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↖	↕		↖	↕			↕	
Volume (vph)	0	0	0	257	450	83	263	796	0	0	283	173
Satd. Flow (prot)	0	0	0	1678	3278	0	1770	3539	0	0	3337	0
Flt Permitted				0.950			0.301					
Satd. Flow (perm)	0	0	0	1678	3278	0	561	3539	0	0	3337	0
Satd. Flow (RTOR)					22						143	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.25	0.25	0.25	0.93	0.93	0.93	0.92	0.92	0.25	0.25	0.84	0.84
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	4%	4%	4%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	276	573	0	286	865	0	0	543	0
Turn Type				Perm	NA		pm+pt	NA			NA	
Protected Phases					1		8	3			7	
Permitted Phases				1			3					
Detector Phase				1	1		8	3			7	
Switch Phase												
Minimum Initial (s)				24.0	24.0		4.0	17.0			17.0	
Minimum Split (s)				30.7	30.7		10.0	25.9			25.9	
Total Split (s)				39.0	39.0		20.0	41.0			41.0	
Total Split (%)				39.0%	39.0%		20.0%	41.0%			41.0%	
Yellow Time (s)				4.7	4.7		3.9	3.9			3.9	
All-Red Time (s)				2.0	2.0		2.0	2.0			2.0	
Lost Time Adjust (s)				0.0	0.0		0.0	0.0			0.0	
Total Lost Time (s)				6.7	6.7		5.9	5.9			5.9	
Lead/Lag							Lag				Lead	
Lead-Lag Optimize?												
Recall Mode				C-Max	C-Max		Min	Min			Ped	
Act Effct Green (s)				50.1	50.1		37.3	37.3			21.2	
Actuated g/C Ratio				0.50	0.50		0.37	0.37			0.21	
v/c Ratio				0.33	0.35		0.86	0.66			0.66	
Control Delay				22.9	21.3		31.2	22.0			30.4	
Queue Delay				0.0	0.0		0.0	0.1			0.0	
Total Delay				22.9	21.3		31.2	22.1			30.4	
LOS				C	C		C	C			C	
Approach Delay					21.8			24.4			30.4	
Approach LOS					C			C			C	
Queue Length 50th (ft)				109	116		114	183			125	
Queue Length 95th (ft)				m211	198		m79	m118			154	
Internal Link Dist (ft)		318			725			397			224	
Turn Bay Length (ft)				650			250					
Base Capacity (vph)				840	1653		406	1949			1264	
Starvation Cap Reductn				0	0		0	218			0	
Spillback Cap Reductn				0	0		0	0			0	
Storage Cap Reductn				0	0		0	0			0	
Reduced v/c Ratio				0.33	0.35		0.70	0.50			0.43	

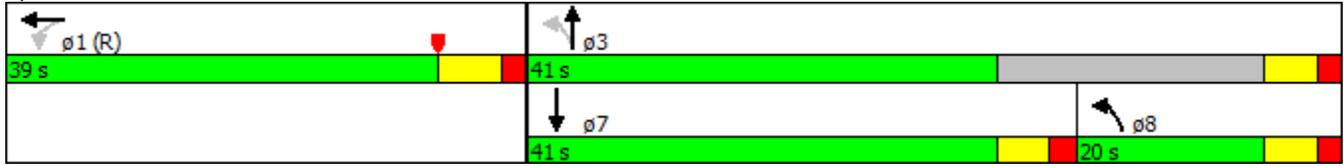
Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 74 (74%), Referenced to phase 1:WBTL, Start of Yellow
 Natural Cycle: 70
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.86
 Intersection Signal Delay: 24.8
 Intersection LOS: C
 Intersection Capacity Utilization 100.5%
 ICU Level of Service G
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

13: Ronkonkoma Avenue & LIE North Service Road Lanes, Volumes, Timings

No Build 2020
PM Peak

Splits and Phases: 13: Ronkonkoma Avenue & LIE North Service Road



14: Ronkonkoma Avenue & LIE South Service Road

Lanes, Volumes, Timings

No Build 2020
PM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	339	1180	89	0	0	0	0	720	807	84	455	0
Satd. Flow (prot)	1711	3387	0	0	0	0	0	3260	0	1719	3438	0
Flt Permitted	0.950									0.087		
Satd. Flow (perm)	1711	3387	0	0	0	0	0	3260	0	157	3438	0
Satd. Flow (RTOR)		8						58				
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.88	0.88	0.92	0.25	0.25	0.25	0.25	0.90	0.90	0.90	0.90	0.25
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	0%	0%	0%	0%	2%	2%	5%	5%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												0
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	385	1438	0	0	0	0	0	1697	0	93	506	0
Turn Type	Perm	NA						NA		pm+pt	NA	
Protected Phases		1						7		8	3	
Permitted Phases	1									3		
Detector Phase	1	1						7		8	3	
Switch Phase												
Minimum Initial (s)	24.0	24.0						17.0		4.0	17.0	
Minimum Split (s)	30.3	30.3						25.6		10.0	25.6	
Total Split (s)	42.0	42.0						46.0		12.0	46.0	
Total Split (%)	42.0%	42.0%						46.0%		12.0%	46.0%	
Yellow Time (s)	4.3	4.3						3.6		3.6	3.6	
All-Red Time (s)	2.0	2.0						2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0						0.0		0.0	0.0	
Total Lost Time (s)	6.3	6.3						5.6		5.6	5.6	
Lead/Lag								Lead		Lag		
Lead-Lag Optimize?								Yes		Yes		
Recall Mode	C-Max	C-Max						Min		Max	Max	
Act Effct Green (s)	35.7	35.7						40.4		52.4	52.4	
Actuated g/C Ratio	0.36	0.36						0.40		0.52	0.52	
v/c Ratio	0.63	1.18						1.31dr		0.51	0.28	
Control Delay	32.3	122.4						149.2		44.2	15.7	
Queue Delay	0.0	0.0						0.0		0.0	0.0	
Total Delay	32.3	122.4						149.2		44.2	15.7	
LOS	C	F						F		D	B	
Approach Delay		103.4						149.2			20.1	
Approach LOS		F						F			C	
Queue Length 50th (ft)	201	~584						~709		31	90	
Queue Length 95th (ft)	295	#697						#850		80	119	
Internal Link Dist (ft)		267			295			185			397	
Turn Bay Length (ft)										125		
Base Capacity (vph)	610	1214						1351		182	1801	
Starvation Cap Reductn	0	0						0		0	0	
Spillback Cap Reductn	0	0						0		0	0	
Storage Cap Reductn	0	0						0		0	0	
Reduced v/c Ratio	0.63	1.18						1.26		0.51	0.28	

Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 74 (74%), Referenced to phase 1:EBTL, Start of Yellow

Natural Cycle: 150

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.26

Intersection Signal Delay: 110.2

Intersection LOS: F

Intersection Capacity Utilization 100.5%

ICU Level of Service G

Analysis Period (min) 15

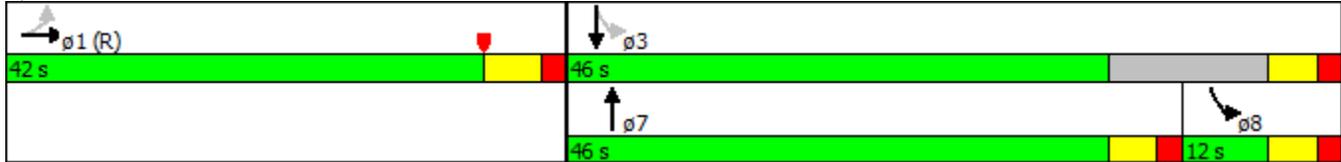
~ Volume exceeds capacity, queue is theoretically infinite.

14: Ronkonkoma Avenue & LIE South Service Road Lanes, Volumes, Timings

No Build 2020
PM Peak

- Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
- Queue shown is maximum after two cycles.
- dr Defacto Right Lane. Recode with 1 though lane as a right lane.

Splits and Phases: 14: Ronkonkoma Avenue & LIE South Service Road



15: Hawkins Avenue & Union Avenue Lanes, Volumes, Timings

No Build 2020
PM Peak



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	78	436	235	91	380	155
Satd. Flow (prot)	1711	1531	1952	0	1636	1783
Flt Permitted	0.950				0.436	
Satd. Flow (perm)	1711	1531	1952	0	751	1783
Satd. Flow (RTOR)		484	30			
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.89	0.89	0.86	0.86	0.89	0.89
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	3%	3%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	88	490	379	0	427	174
Turn Type	NA	pm+ov	NA		pm+pt	NA
Protected Phases	8	1	2		1	6
Permitted Phases		8			6	
Detector Phase	8	1	2		1	6
Switch Phase						
Minimum Initial (s)	8.0	8.0	35.0		8.0	35.0
Minimum Split (s)	22.0	12.0	40.0		12.0	40.0
Total Split (s)	22.0	19.0	40.0		19.0	59.0
Total Split (%)	27.2%	23.5%	49.4%		23.5%	72.8%
Yellow Time (s)	3.5	3.0	3.5		3.0	3.5
All-Red Time (s)	1.5	1.0	1.5		1.0	1.5
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	5.0	4.0	5.0		4.0	5.0
Lead/Lag		Lead	Lag		Lead	
Lead-Lag Optimize?		Yes	Yes		Yes	
Recall Mode	None	None	Min		None	Min
Act Effct Green (s)	9.1	21.5	35.6		51.3	51.6
Actuated g/C Ratio	0.14	0.32	0.54		0.77	0.78
v/c Ratio	0.38	0.60	0.36		0.59	0.13
Control Delay	33.2	5.1	11.0		6.7	3.2
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	33.2	5.1	11.0		6.7	3.2
LOS	C	A	B		A	A
Approach Delay	9.4		11.0			5.7
Approach LOS	A		B			A
Queue Length 50th (ft)	34	2	77		44	16
Queue Length 95th (ft)	77	52	158		94	37
Internal Link Dist (ft)	974		310			399
Turn Bay Length (ft)	170				125	
Base Capacity (vph)	446	896	1062		785	1464
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.20	0.55	0.36		0.54	0.12

Intersection Summary

Cycle Length: 81
 Actuated Cycle Length: 66.2
 Natural Cycle: 75
 Control Type: Semi Act-Uncoord
 Maximum v/c Ratio: 0.60
 Intersection Signal Delay: 8.3
 Intersection Capacity Utilization 68.6%
 Analysis Period (min) 15

Intersection LOS: A
 ICU Level of Service C

15: Hawkins Avenue & Union Avenue Lanes, Volumes, Timings

No Build 2020
PM Peak

Splits and Phases: 15: Hawkins Avenue & Union Avenue



16: Mill Road & Union Avenue Lanes, Volumes, Timings

No Build 2020
PM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	33	456	12	77	466	42	10	56	242	18	9	26
Satd. Flow (prot)	1652	1793	0	1711	1777	0	0	1884	0	0	1655	0
Flt Permitted	0.325			0.415				0.988			0.528	
Satd. Flow (perm)	565	1793	0	747	1777	0	0	1865	0	0	888	0
Satd. Flow (RTOR)		4			12			282			28	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.88	0.88	0.88	0.77	0.77	0.77	0.65	0.65	0.65	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	38	532	0	100	660	0	0	473	0	0	57	0
Turn Type	Perm	NA										
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	35.0	35.0		35.0	35.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	41.0	41.0		41.0	41.0		27.0	27.0		27.0	27.0	
Total Split (s)	41.0	41.0		41.0	41.0		21.0	21.0		21.0	21.0	
Total Split (%)	66.1%	66.1%		66.1%	66.1%		33.9%	33.9%		33.9%	33.9%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Min	Min		Min	Min		None	None		None	None	
Act Effct Green (s)	35.1	35.1		35.1	35.1			11.4			11.4	
Actuated g/C Ratio	0.60	0.60		0.60	0.60			0.19			0.19	
v/c Ratio	0.11	0.49		0.22	0.62			0.80			0.29	
Control Delay	7.1	9.2		7.9	11.2			20.6			16.4	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	7.1	9.2		7.9	11.2			20.6			16.4	
LOS	A	A		A	B			C			B	
Approach Delay		9.1			10.7			20.6			16.4	
Approach LOS		A			B			C			B	
Queue Length 50th (ft)	5	90		14	124			61			9	
Queue Length 95th (ft)	18	176		33	188			65			35	
Internal Link Dist (ft)		780			237			676			298	
Turn Bay Length (ft)	75			175								
Base Capacity (vph)	338	1077		448	1071			688			249	
Starvation Cap Reductn	0	0		0	0			0			0	
Spillback Cap Reductn	0	0		0	0			0			0	
Storage Cap Reductn	0	0		0	0			0			0	
Reduced v/c Ratio	0.11	0.49		0.22	0.62			0.69			0.23	

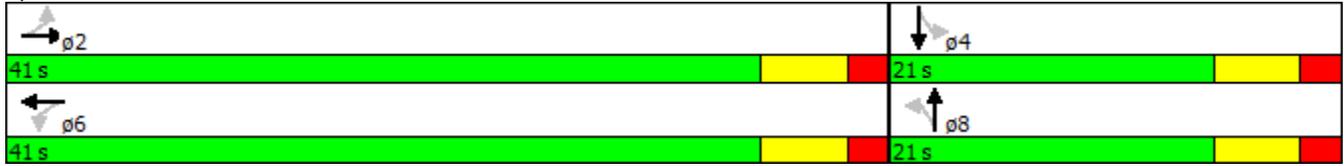
Intersection Summary

Cycle Length: 62	
Actuated Cycle Length: 58.5	
Natural Cycle: 70	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay: 12.9	Intersection LOS: B
Intersection Capacity Utilization 92.0%	ICU Level of Service F
Analysis Period (min) 15	

16: Mill Road & Union Avenue Lanes, Volumes, Timings

No Build 2020
PM Peak

Splits and Phases: 16: Mill Road & Union Avenue



17: Parking Lot/Powell Street & Railroad Avenue Lanes, Volumes, Timings

No Build 2020
PM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	342	8	6	280	42	13	6	43	83	2	13
Satd. Flow (prot)	1711	1801	1531	1593	3353	0	1805	1706	0	1752	1609	0
Flt Permitted	0.520			0.536			0.952			0.952		
Satd. Flow (perm)	936	1801	1531	899	3353	0	1809	1706	0	1756	1609	0
Satd. Flow (RTOR)			36		47			91			17	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	0.82	0.82	0.82	0.47	0.47	0.47	0.78	0.78	0.78
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	0%	0%	0%	3%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	12	380	9	7	392	0	28	104	0	106	20	0
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6			8			4		
Detector Phase	2	2	2	6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	11.0	11.0	11.0	11.0	11.0		10.0	10.0		10.0	10.0	
Total Split (s)	40.0	40.0	40.0	40.0	40.0		20.0	20.0		20.0	20.0	
Total Split (%)	66.7%	66.7%	66.7%	66.7%	66.7%		33.3%	33.3%		33.3%	33.3%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None		None	None		None	None	
Act Effct Green (s)	15.3	15.3	15.3	15.0	15.0		9.1	9.1		9.5	9.5	
Actuated g/C Ratio	0.59	0.59	0.59	0.58	0.58		0.35	0.35		0.37	0.37	
v/c Ratio	0.02	0.36	0.01	0.01	0.20		0.04	0.16		0.17	0.03	
Control Delay	5.9	7.0	0.6	5.8	4.8		10.2	4.8		10.4	6.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	5.9	7.0	0.6	5.8	4.8		10.2	4.8		10.4	6.6	
LOS	A	A	A	A	A		B	A		B	A	
Approach Delay		6.8			4.8			5.9			9.8	
Approach LOS		A			A			A			A	
Queue Length 50th (ft)	1	39	0	1	16		3	1		12	0	
Queue Length 95th (ft)	7	102	2	5	35		9	5		39	9	
Internal Link Dist (ft)		331			196			24			192	
Turn Bay Length (ft)	110			120								
Base Capacity (vph)	904	1740	1480	869	3241		1199	1161		1164	1072	
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.01	0.22	0.01	0.01	0.12		0.02	0.09		0.09	0.02	

Intersection Summary

Cycle Length: 60

Actuated Cycle Length: 25.9

Natural Cycle: 40

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.36

Intersection Signal Delay: 6.3

Intersection LOS: A

Intersection Capacity Utilization 37.6%

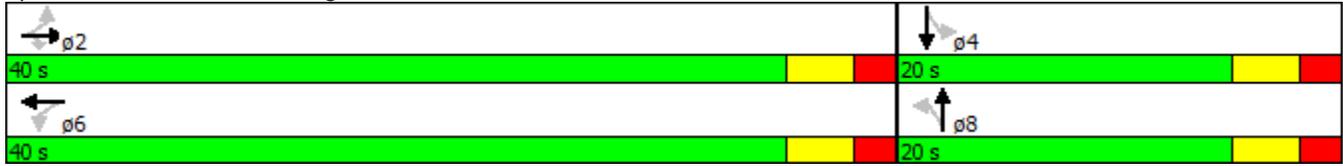
ICU Level of Service A

Analysis Period (min) 15

17: Parking Lot/Powell Street & Railroad Avenue Lanes, Volumes, Timings

No Build 2020
PM Peak

Splits and Phases: 17: Parking Lot/Powell Street & Railroad Avenue



18: Parking Lot/Northwest Link & Railroad Avenue

Lanes, Volumes, Timings

No Build 2020
PM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	8	294	2	4	194	108	4	4	33	34	2	29
Satd. Flow (prot)	1652	1739	1478	1711	1801	1531	0	1795	0	1687	1525	0
Flt Permitted	0.690			0.690				0.959				
Satd. Flow (perm)	1200	1739	1478	1242	1801	1531	0	1730	0	1776	1525	0
Satd. Flow (RTOR)			36			133		69			48	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.82	0.82	0.82	0.81	0.81	0.81	0.48	0.48	0.48	0.61	0.61	0.61
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	0%	0%	0%	7%	7%	7%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	10	359	2	5	240	133	0	85	0	56	51	0
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6		6	8			4		
Detector Phase	2	2	2	6	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0	6.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	11.0	11.0	11.0	11.0	11.0	11.0	10.0	10.0		10.0	10.0	
Total Split (s)	40.0	40.0	40.0	40.0	40.0	40.0	20.0	20.0		20.0	20.0	
Total Split (%)	66.7%	66.7%	66.7%	66.7%	66.7%	66.7%	33.3%	33.3%		33.3%	33.3%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0		5.0		5.0	5.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None		None	None								
Act Effct Green (s)	12.0	12.0	12.0	11.5	11.5	11.5		8.4		8.5	8.5	
Actuated g/C Ratio	0.53	0.53	0.53	0.51	0.51	0.51		0.37		0.37	0.37	
v/c Ratio	0.02	0.39	0.00	0.01	0.26	0.16		0.12		0.08	0.09	
Control Delay	5.2	6.9	0.0	5.2	6.0	2.0		5.0		9.6	4.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0		0.0	0.0	
Total Delay	5.2	6.9	0.0	5.2	6.0	2.0		5.0		9.6	4.9	
LOS	A	A	A	A	A	A		A		A	A	
Approach Delay		6.8			4.6			5.0			7.3	
Approach LOS		A			A			A			A	
Queue Length 50th (ft)	1	34	0	1	20	0		2		6	0	
Queue Length 95th (ft)	5	71	0	3	45	12		6		17	8	
Internal Link Dist (ft)		151			331			49			181	
Turn Bay Length (ft)	130		130	200								
Base Capacity (vph)	1191	1726	1468	1233	1788	1521		1218		1229	1070	
Starvation Cap Reductn	0	0	0	0	0	0		0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0		0		0	0	
Storage Cap Reductn	0	0	0	0	0	0		0		0	0	
Reduced v/c Ratio	0.01	0.21	0.00	0.00	0.13	0.09		0.07		0.05	0.05	

Intersection Summary

Cycle Length: 60

Actuated Cycle Length: 22.7

Natural Cycle: 40

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.39

Intersection Signal Delay: 5.8

Intersection LOS: A

Intersection Capacity Utilization 32.4%

ICU Level of Service A

Analysis Period (min) 15

18: Parking Lot/Northwest Link & Railroad Avenue Lanes, Volumes, Timings

No Build 2020
PM Peak

Splits and Phases: 18: Parking Lot/Northwest Link & Railroad Avenue



19: Hawkins Avenue & Railroad Avenue
 HCM 2010 TWSC

No Build 2020
 PM Peak

Intersection												
Intersection Delay, s/veh	13.3											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	213	255	13	6	162	152	0	0	0	103	10	133
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	None											
Storage Length	75		0	175		175	0		0	0		175
Median Width		9			9			0				0
Grade, %		0%			0%			0%				0%
Peak Hour Factor	0.74	0.74	0.74	0.73	0.73	0.73	0.25	0.25	0.25	0.82	0.82	0.82
Heavy Vehicles, %	2	2	2	2	2	2	0	0	0	2	2	2
Mvmt Flow	288	345	18	8	222	208	0	0	0	126	12	162
Number of Lanes	1	1	0	1	1	1	0	0	0	0	1	1

Major/Minor	Major 1			Major 2			Minor 2			
Conflicting Flow All	222	0	0	362	0	0		1167	1176	222
Stage 1	-	-	-	-	-	-		238	238	-
Stage 2	-	-	-	-	-	-		929	938	-
Follow-up Headway	2.218	-	-	2.218	-	-		3.518	4.018	3.318
Pot Capacity-1 Maneuver	1347	-	-	1197	-	-		214	191	818
Stage 1	-	-	-	-	-	-		802	708	-
Stage 2	-	-	-	-	-	-		385	343	-
Time blocked-Platoon, %	0	-	-	0	-	-		0	0	0
Mov Capacity-1 Maneuver	1347	-	-	1197	-	-		167	#0	818
Mov Capacity-2 Maneuver	-	-	-	-	-	-		167	#0	-
Stage 1	-	-	-	-	-	-		797	#0	-
Stage 2	-	-	-	-	-	-		303	#0	-

Approach	EB	WB	SB
HCM Control Delay, s	3.7	0.2	53.3
HCM LOS	-	-	F

Minor Lane / Major Mvmt	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Cap, veh/h	1347	-	-	1197	-	-	220	818
HCM Control Delay, s	8.397	-	-	8.028	-	-	77.7	10.1
HCM Lane V/C Ratio	0.21	-	-	0.01	-	-	0.87	0.13
HCM Lane LOS	A	-	-	A	-	-	F	B
HCM 95th-tile Q, veh	0.8	-	-	0.0	-	-	6.9	0.5

Notes
 ~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

20: Ronkonkoma Avenue & 2nd Street/Powell Street
 HCM 2010 TWSC

No Build 2020
 PM Peak

Intersection												
Intersection Delay, s/veh	1.5											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	0	119	0	0	58	0	1483	97	0	521	63
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	Free											
Storage Length	0		0	0		0	0		0	0		0
Median Width		0			0			10			10	
Grade, %		0%			0%			0%			0%	
Peak Hour Factor	0.25	0.25	0.62	0.25	0.25	0.71	0.25	0.88	0.88	0.25	0.82	0.82
Heavy Vehicles, %	0	0	2	0	0	5	0	2	2	0	5	5
Mvmt Flow	0	0	192	0	0	82	0	1685	110	0	635	77
Number of Lanes	0	0	1	0	0	1	0	2	0	0	2	0

Major/Minor	Minor 2			Minor 1			Major 1			Major 2		
Conflicting Flow All	1478	2320	318	2003	2320	843	635	0	0	1685	0	0
Stage 1	635	635	-	1685	1685	-	-	-	-	-	-	-
Stage 2	843	1685	-	318	635	-	-	-	-	-	-	-
Follow-up Headway	3.5	4	3.32	3.5	4	3.35	2.2	-	-	2.2	-	-
Pot Capacity-1 Maneuver	89	38	678	36	38	301	958	-	-	385	-	-
Stage 1	438	476	-	100	152	-	-	-	-	-	-	-
Stage 2	329	152	-	673	476	-	-	-	-	-	-	-
Time blocked-Platoon, %	0	0	0	0	0	0	0	-	-	0	-	-
Mov Capacity-1 Maneuver	65	38	678	26	38	301	958	-	-	385	-	-
Mov Capacity-2 Maneuver	65	38	-	26	38	-	-	-	-	-	-	-
Stage 1	438	476	-	100	152	-	-	-	-	-	-	-
Stage 2	240	152	-	482	476	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.4	21.4	0	0
HCM LOS	B	C	-	-

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Cap, veh/h	958	-	-	678	301	385	-	-
HCM Control Delay, s	0	-	-	12.4	21.4	0	-	-
HCM Lane V/C Ratio	-	-	-	0.28	0.27	-	-	-
HCM Lane LOS	A	-	-	B	C	A	-	-
HCM 95th-tile Q, veh	0.0	-	-	1.2	1.1	0.0	-	-

Notes
 ~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

11: Hawkins Avenue & LIE North Service Road

Lanes, Volumes, Timings

Build 2020
AM PEAK



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↖	↕		↖	↕			↕	
Volume (vph)	0	0	0	510	1696	163	229	300	0	0	395	150
Satd. Flow (prot)	0	0	0	1711	3377	0	1662	3323	0	0	3361	0
Flt Permitted				0.950			0.195					
Satd. Flow (perm)	0	0	0	1711	3377	0	341	3323	0	0	3361	0
Satd. Flow (RTOR)					16						21	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.25	0.25	0.25	0.96	0.96	0.96	0.88	0.88	0.25	0.25	0.84	0.84
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	2%	2%	2%	5%	5%	5%	3%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	531	1937	0	260	341	0	0	649	0
Turn Type				Perm	NA		pm+pt	NA			NA	
Protected Phases					1			8			3	
Permitted Phases				1			3					7
Detector Phase				1	1		8	3				7
Switch Phase												
Minimum Initial (s)				25.0	25.0		4.0	16.0			16.0	
Minimum Split (s)				31.3	31.3		10.0	23.0			23.0	
Total Split (s)				61.0	61.0		14.0	39.0			25.0	
Total Split (%)				61.0%	61.0%		14.0%	39.0%			25.0%	
Yellow Time (s)				4.3	4.3		4.0	4.0			4.0	
All-Red Time (s)				2.0	2.0		2.0	2.0			2.0	
Lost Time Adjust (s)				0.0	0.0		0.0	0.0			0.0	
Total Lost Time (s)				6.3	6.3		6.0	6.0			6.0	
Lead/Lag							Lag				Lead	
Lead-Lag Optimize?												
Recall Mode				C-Max	C-Max		Min	Min			Max	
Act Effct Green (s)				54.7	54.7		33.0	33.0			19.0	
Actuated g/C Ratio				0.55	0.55		0.33	0.33			0.19	
v/c Ratio				0.57	1.04		1.19	0.31			0.99	
Control Delay				17.9	57.2		145.0	13.2			73.1	
Queue Delay				0.0	0.0		0.0	0.0			26.9	
Total Delay				17.9	57.2		145.0	13.2			100.1	
LOS				B	E		F	B			F	
Approach Delay					48.7			70.2			100.1	
Approach LOS					D			E			F	
Queue Length 50th (ft)				210	~707		~146	39			212	
Queue Length 95th (ft)				310	#848		#213	53			#295	
Internal Link Dist (ft)		204			499			339			118	
Turn Bay Length (ft)							100					
Base Capacity (vph)				935	1854		218	1096			655	
Starvation Cap Reductn				0	0		0	0			0	
Spillback Cap Reductn				0	0		0	0			52	
Storage Cap Reductn				0	0		0	0			0	
Reduced v/c Ratio				0.57	1.04		1.19	0.31			1.08	

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 10 (10%), Referenced to phase 1:WBTL, Start of Yellow
 Natural Cycle: 140
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.19
 Intersection Signal Delay: 61.2
 Intersection LOS: E
 Intersection Capacity Utilization 95.7%
 ICU Level of Service F
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.

11: Hawkins Avenue & LIE North Service Road

Lanes, Volumes, Timings

Build 2020
AM PEAK

Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 11: Hawkins Avenue & LIE North Service Road



12: Hawkins Avenue & LIE South Service Road

Lanes, Volumes, Timings

Build 2020
AM PEAK



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	120	408	164	0	0	0	0	409	120	209	694	0
Satd. Flow (prot)	1558	2982	0	0	0	0	0	3121	0	1694	3388	0
Flt Permitted	0.950									0.330		
Satd. Flow (perm)	1558	2982	0	0	0	0	0	3121	0	588	3388	0
Satd. Flow (RTOR)		77						40				
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.82	0.82	0.82	0.25	0.25	0.25	0.25	0.88	0.88	0.80	0.80	0.25
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	12%	12%	12%	0%	0%	0%	0%	8%	8%	3%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	146	698	0	0	0	0	0	601	0	261	868	0
Turn Type	Perm	NA						NA		pm+pt	NA	
Protected Phases		1						7		8	3	
Permitted Phases	1									3		
Detector Phase	1	1						7		8	3	
Switch Phase												
Minimum Initial (s)	25.0	25.0						16.0		4.0	16.0	
Minimum Split (s)	31.3	31.3						24.0		10.0	26.0	
Total Split (s)	50.0	50.0						38.0		12.0	50.0	
Total Split (%)	50.0%	50.0%						38.0%		12.0%	50.0%	
Yellow Time (s)	4.3	4.3						4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0						2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0						0.0		0.0	0.0	
Total Lost Time (s)	6.3	6.3						6.0		6.0	6.0	
Lead/Lag								Lead		Lag		
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max						Max		Min	Min	
Act Effct Green (s)	43.7	43.7						32.0		44.0	44.0	
Actuated g/C Ratio	0.44	0.44						0.32		0.44	0.44	
v/c Ratio	0.21	0.52						0.59		0.80	0.58	
Control Delay	18.6	19.7						29.2		45.6	23.1	
Queue Delay	0.0	0.0						0.0		0.0	3.8	
Total Delay	18.6	19.7						29.2		45.6	26.9	
LOS	B	B						C		D	C	
Approach Delay		19.5						29.2			31.2	
Approach LOS		B						C			C	
Queue Length 50th (ft)	56	146						156		98	175	
Queue Length 95th (ft)	88	174						207		m116	m183	
Internal Link Dist (ft)		477			203			243			339	
Turn Bay Length (ft)	400									100		
Base Capacity (vph)	680	1346						1025		325	1490	
Starvation Cap Reductn	0	0						0		0	519	
Spillback Cap Reductn	0	0						0		0	0	
Storage Cap Reductn	0	0						0		0	0	
Reduced v/c Ratio	0.21	0.52						0.59		0.80	0.89	

Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 10 (10%), Referenced to phase 1:EBTL, Start of Yellow

Natural Cycle: 70

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.80

Intersection Signal Delay: 26.9

Intersection LOS: C

Intersection Capacity Utilization 95.7%

ICU Level of Service F

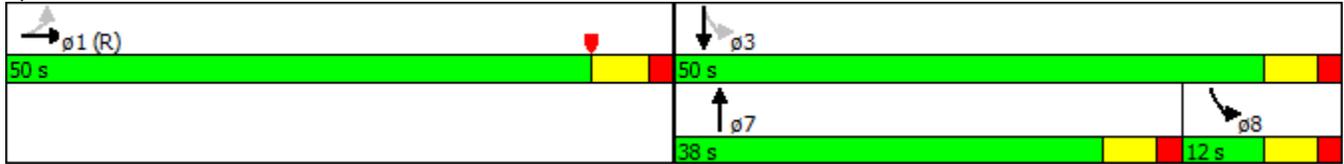
Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

12: Hawkins Avenue & LIE South Service Road Lanes, Volumes, Timings

Build 2020
AM PEAK

Splits and Phases: 12: Hawkins Avenue & LIE South Service Road



13: Ronkonkoma Avenue & LIE North Service Road

Lanes, Volumes, Timings

Build 2020
AM PEAK



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↔	↔↔		↔	↔↔			↔↔	
Volume (vph)	0	0	0	664	1138	72	167	336	0	0	595	265
Satd. Flow (prot)	0	0	0	1694	3358	0	1671	3343	0	0	3311	0
Flt Permitted				0.950			0.111					
Satd. Flow (perm)	0	0	0	1694	3358	0	195	3343	0	0	3311	0
Satd. Flow (RTOR)					8						45	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.25	0.25	0.25	0.93	0.93	0.93	0.94	0.94	0.25	0.25	0.85	0.85
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	3%	3%	3%	8%	8%	0%	0%	4%	4%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	714	1301	0	178	357	0	0	1012	0
Turn Type				Perm	NA		pm+pt	NA			NA	
Protected Phases					1			8			3	
Permitted Phases				1			3					7
Detector Phase				1	1		8	3				7
Switch Phase												
Minimum Initial (s)				24.0	24.0		4.0	17.0			17.0	
Minimum Split (s)				30.7	30.7		10.0	25.9			25.9	
Total Split (s)				50.0	50.0		14.0	50.0			36.0	
Total Split (%)				50.0%	50.0%		14.0%	50.0%			36.0%	
Yellow Time (s)				4.7	4.7		3.9	3.9			3.9	
All-Red Time (s)				2.0	2.0		2.0	2.0			2.0	
Lost Time Adjust (s)				0.0	0.0		0.0	0.0			0.0	
Total Lost Time (s)				6.7	6.7		5.9	5.9			5.9	
Lead/Lag							Lag				Lead	
Lead-Lag Optimize?												
Recall Mode				C-Max	C-Max		Min	Min			Ped	
Act Effct Green (s)				43.3	43.3		44.1	44.1			30.1	
Actuated g/C Ratio				0.43	0.43		0.44	0.44			0.30	
v/c Ratio				0.97	0.89		0.87	0.24			0.98	
Control Delay				32.3	25.0		67.3	11.1			58.6	
Queue Delay				0.0	0.0		0.0	0.0			36.1	
Total Delay				32.3	25.0		67.3	11.1			94.8	
LOS				C	C		E	B			F	
Approach Delay					27.6			29.8			94.8	
Approach LOS					C			C			F	
Queue Length 50th (ft)				363	303		86	51			324	
Queue Length 95th (ft)				m317	m268		#208	67			#420	
Internal Link Dist (ft)		318			725			397			224	
Turn Bay Length (ft)				650			250					
Base Capacity (vph)				733	1458		205	1474			1028	
Starvation Cap Reductn				0	0		0	0			0	
Spillback Cap Reductn				0	0		0	0			103	
Storage Cap Reductn				0	0		0	0			0	
Reduced v/c Ratio				0.97	0.89		0.87	0.24			1.09	

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 12 (12%), Referenced to phase 1:WBTL, Start of Yellow
 Natural Cycle: 100
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.98
 Intersection Signal Delay: 47.0
 Intersection LOS: D
 Intersection Capacity Utilization 86.4%
 ICU Level of Service E
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.

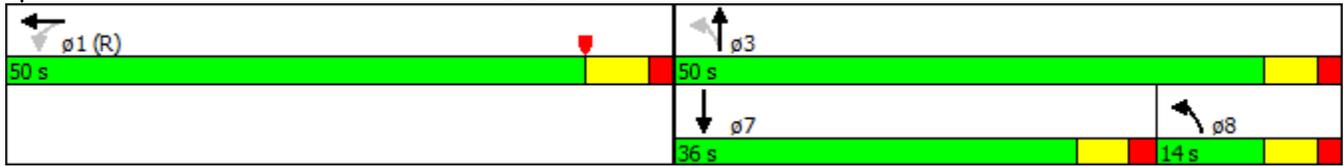
13: Ronkonkoma Avenue & LIE North Service Road Lanes, Volumes, Timings

Build 2020
AM PEAK

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

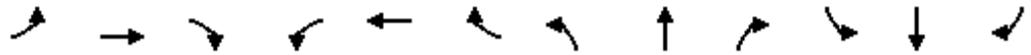
Splits and Phases: 13: Ronkonkoma Avenue & LIE North Service Road



14: Ronkonkoma Avenue & LIE South Service Road

Lanes, Volumes, Timings

Build 2020
AM PEAK



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	167	395	363	0	0	0	0	335	195	100	1159	0
Satd. Flow (prot)	1631	3027	0	0	0	0	0	2992	0	1752	3505	0
Flt Permitted	0.950									0.246		
Satd. Flow (perm)	1631	3027	0	0	0	0	0	2992	0	454	3505	0
Satd. Flow (RTOR)		36						152				
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.25	0.25	0.25	0.25	0.82	0.82	0.80	0.80	0.25
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	7%	7%	7%	0%	0%	0%	0%	14%	14%	3%	3%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	184	833	0	0	0	0	0	647	0	125	1449	0
Turn Type	Perm	NA						NA		pm+pt	NA	
Protected Phases		1						7		8	3	
Permitted Phases	1									3		
Detector Phase	1	1						7		8	3	
Switch Phase												
Minimum Initial (s)	24.0	24.0						17.0		4.0	17.0	
Minimum Split (s)	30.3	30.3						25.6		10.0	25.6	
Total Split (s)	37.0	37.0						51.0		12.0	51.0	
Total Split (%)	37.0%	37.0%						51.0%		12.0%	51.0%	
Yellow Time (s)	4.3	4.3						3.6		3.6	3.6	
All-Red Time (s)	2.0	2.0						2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0						0.0		0.0	0.0	
Total Lost Time (s)	6.3	6.3						5.6		5.6	5.6	
Lead/Lag								Lead		Lag		
Lead-Lag Optimize?								Yes		Yes		
Recall Mode	C-Max	C-Max						Min		Max	Max	
Act Effct Green (s)	30.7	30.7						24.8		57.4	57.4	
Actuated g/C Ratio	0.31	0.31						0.25		0.57	0.57	
v/c Ratio	0.37	0.87						0.76		0.20	0.72	
Control Delay	29.7	43.0						31.8		12.4	15.0	
Queue Delay	0.0	0.0						0.0		0.0	12.6	
Total Delay	29.7	43.0						31.8		12.4	27.6	
LOS	C	D						C		B	C	
Approach Delay		40.6						31.8			26.4	
Approach LOS		D						C			C	
Queue Length 50th (ft)	91	253						155		33	277	
Queue Length 95th (ft)	152	#363						168		m34	279	
Internal Link Dist (ft)		267			295			185			397	
Turn Bay Length (ft)										125		
Base Capacity (vph)	500	954						1441		611	2011	
Starvation Cap Reductn	0	0						0		0	564	
Spillback Cap Reductn	0	0						0		0	0	
Storage Cap Reductn	0	0						0		0	0	
Reduced v/c Ratio	0.37	0.87						0.45		0.20	1.00	

Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 7 (7%), Referenced to phase 1:EBTL, Start of Yellow

Natural Cycle: 70

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.87

Intersection Signal Delay: 31.9

Intersection LOS: C

Intersection Capacity Utilization 86.4%

ICU Level of Service E

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

14: Ronkonkoma Avenue & LIE South Service Road Lanes, Volumes, Timings

Build 2020
AM PEAK

Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 14: Ronkonkoma Avenue & LIE South Service Road



15: Hawkins Avenue & Union Avenue Lanes, Volumes, Timings

Build 2020
AM PEAK



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	120	271	261	35	344	523
Satd. Flow (prot)	1646	1473	1887	0	1636	1783
Flt Permitted	0.950				0.435	
Satd. Flow (perm)	1646	1473	1887	0	749	1783
Satd. Flow (RTOR)		352	11			
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.77	0.77	0.84	0.84	0.72	0.72
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	6%	6%	9%	9%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	156	352	353	0	478	726
Turn Type	NA	pm+ov	NA		pm+pt	NA
Protected Phases	8	1	2		1	6
Permitted Phases		8			6	
Detector Phase	8	1	2		1	6
Switch Phase						
Minimum Initial (s)	8.0	8.0	35.0		8.0	35.0
Minimum Split (s)	22.0	12.0	40.0		12.0	40.0
Total Split (s)	22.0	19.0	40.0		19.0	59.0
Total Split (%)	27.2%	23.5%	49.4%		23.5%	72.8%
Yellow Time (s)	3.5	3.0	3.5		3.0	3.5
All-Red Time (s)	1.5	1.0	1.5		1.0	1.5
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	5.0	4.0	5.0		4.0	5.0
Lead/Lag		Lead	Lag		Lead	
Lead-Lag Optimize?		Yes	Yes		Yes	
Recall Mode	None	None	Min		None	Min
Act Effct Green (s)	11.6	28.7	35.2		52.3	51.3
Actuated g/C Ratio	0.16	0.39	0.48		0.72	0.70
v/c Ratio	0.60	0.44	0.39		0.70	0.58
Control Delay	38.8	3.6	14.4		10.9	8.3
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	38.8	3.6	14.4		10.9	8.3
LOS	D	A	B		B	A
Approach Delay	14.4		14.4			9.3
Approach LOS	B		B			A
Queue Length 50th (ft)	67	0	93		68	131
Queue Length 95th (ft)	106	22	169		105	183
Internal Link Dist (ft)	974		310			399
Turn Bay Length (ft)	170				125	
Base Capacity (vph)	385	839	916		719	1327
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.41	0.42	0.39		0.66	0.55

Intersection Summary

Cycle Length: 81
 Actuated Cycle Length: 73
 Natural Cycle: 75
 Control Type: Semi Act-Uncoord
 Maximum v/c Ratio: 0.70
 Intersection Signal Delay: 11.4
 Intersection Capacity Utilization 66.6%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service C

15: Hawkins Avenue & Union Avenue Lanes, Volumes, Timings

Build 2020
AM PEAK

Splits and Phases: 15: Hawkins Avenue & Union Avenue



16: Mill Road & Union Avenue Lanes, Volumes, Timings

Build 2020
AM PEAK



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	6	141	38	270	449	13	30	40	76	7	11	17
Satd. Flow (prot)	1574	1662	0	1694	1776	0	0	1888	0	0	1651	0
Flt Permitted	0.450			0.617				0.916			0.915	
Satd. Flow (perm)	746	1662	0	1100	1776	0	0	1747	0	0	1526	0
Satd. Flow (RTOR)		36			4			83			23	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.79	0.79	0.79	0.92	0.92	0.92	0.78	0.78	0.78	0.73	0.73	0.73
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	7%	7%	7%	3%	3%	3%	5%	5%	5%	3%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	8	226	0	293	502	0	0	186	0	0	48	0
Turn Type	Perm	NA										
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	35.0	35.0		35.0	35.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	41.0	41.0		41.0	41.0		27.0	27.0		27.0	27.0	
Total Split (s)	41.0	41.0		41.0	41.0		21.0	21.0		21.0	21.0	
Total Split (%)	66.1%	66.1%		66.1%	66.1%		33.9%	33.9%		33.9%	33.9%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Min	Min		Min	Min		None	None		None	None	
Act Effct Green (s)	35.7	35.7		35.7	35.7			9.2			9.2	
Actuated g/C Ratio	0.63	0.63		0.63	0.63			0.16			0.16	
v/c Ratio	0.02	0.21		0.42	0.45			0.53			0.18	
Control Delay	4.8	4.7		8.2	7.4			18.3			14.8	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	4.8	4.7		8.2	7.4			18.3			14.8	
LOS	A	A		A	A			B			B	
Approach Delay		4.7			7.7			18.3			14.8	
Approach LOS		A			A			B			B	
Queue Length 50th (ft)	1	21		39	68			31			7	
Queue Length 95th (ft)	5	46		102	151			64			23	
Internal Link Dist (ft)		780			237			676			298	
Turn Bay Length (ft)	75			175								
Base Capacity (vph)	467	1056		690	1115			521			419	
Starvation Cap Reductn	0	0		0	0			0			0	
Spillback Cap Reductn	0	0		0	0			0			0	
Storage Cap Reductn	0	0		0	0			0			0	
Reduced v/c Ratio	0.02	0.21		0.42	0.45			0.36			0.11	

Intersection Summary

Cycle Length: 62

Actuated Cycle Length: 56.9

Natural Cycle: 70

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.53

Intersection Signal Delay: 9.0

Intersection LOS: A

Intersection Capacity Utilization 84.7%

ICU Level of Service E

Analysis Period (min) 15

16: Mill Road & Union Avenue
Lanes, Volumes, Timings

Build 2020
 AM PEAK

Splits and Phases: 16: Mill Road & Union Avenue



17: Parking Lot/Powell Street & Railroad Avenue

Lanes, Volumes, Timings

Build 2020
AM PEAK



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	4	263	10	8	518	101	9	1	9	192	2	8
Satd. Flow (prot)	1646	1733	1473	1562	3275	0	1752	1643	0	1736	1602	0
Flt Permitted	0.393			0.549			0.750			0.750		
Satd. Flow (perm)	681	1733	1473	903	3275	0	1383	1643	0	1370	1602	0
Satd. Flow (RTOR)			36		48			11			9	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.74	0.74	0.74	0.91	0.91	0.91	0.80	0.80	0.80	0.85	0.85	0.85
Growth Factor	50%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	6%	6%	6%	4%	4%	4%	3%	3%	3%	4%	4%	4%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	3	355	14	9	680	0	11	12	0	226	11	0
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8			2			6		
Detector Phase	4	4	4	8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0	21.0	21.5	21.5		21.0	21.0		21.5	21.5	
Total Split (s)	31.0	31.0	31.0	31.0	31.0		29.0	29.0		29.0	29.0	
Total Split (%)	51.7%	51.7%	51.7%	51.7%	51.7%		48.3%	48.3%		48.3%	48.3%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None		None	None		None	None	
Act Effct Green (s)	17.6	17.6	17.6	17.6	17.6		11.9	11.9		12.6	12.6	
Actuated g/C Ratio	0.52	0.52	0.52	0.52	0.52		0.35	0.35		0.37	0.37	
v/c Ratio	0.01	0.39	0.02	0.02	0.39		0.02	0.02		0.45	0.02	
Control Delay	8.0	10.3	1.6	8.0	8.4		9.7	6.2		13.9	6.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	8.0	10.3	1.6	8.0	8.4		9.7	6.2		13.9	6.7	
LOS	A	B	A	A	A		A	A		B	A	
Approach Delay		9.9			8.4			7.9			13.5	
Approach LOS		A			A			A			B	
Queue Length 50th (ft)	0	47	0	1	43		1	0		33	0	
Queue Length 95th (ft)	3	99	2	8	103		9	7		91	7	
Internal Link Dist (ft)		331			196			24			192	
Turn Bay Length (ft)	110			120								
Base Capacity (vph)	512	1304	1117	679	2477		982	1170		973	1140	
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.01	0.27	0.01	0.01	0.27		0.01	0.01		0.23	0.01	

Intersection Summary

Cycle Length: 60

Actuated Cycle Length: 33.9

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.45

Intersection Signal Delay: 9.8

Intersection LOS: A

Intersection Capacity Utilization 43.2%

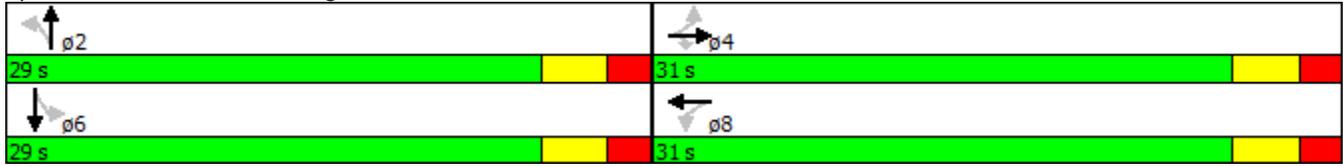
ICU Level of Service A

Analysis Period (min) 15

17: Parking Lot/Powell Street & Railroad Avenue Lanes, Volumes, Timings

Build 2020
AM PEAK

Splits and Phases: 17: Parking Lot/Powell Street & Railroad Avenue



18: Parking Lot/Northwest Link & Johnson Avenue

Lanes, Volumes, Timings

Build 2020
AM PEAK



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	169	5	60	260	214	3	2	3	105	5	18
Satd. Flow (prot)	1604	1689	1436	1694	1783	1516	0	1885	0	1530	1420	0
Flt Permitted	0.586			0.601				0.862		0.833		
Satd. Flow (perm)	990	1689	1436	1072	1783	1516	0	1656	0	1341	1420	0
Satd. Flow (RTOR)			36			233		5			22	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.66	0.66	0.66	0.92	0.92	0.92	0.63	0.63	0.63	0.80	0.80	0.80
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	5%	5%	5%	3%	3%	3%	0%	0%	0%	18%	18%	18%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	17	256	8	65	283	233	0	13	0	131	28	0
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2			6		
Detector Phase	4	4	4	8	8	8	2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0		21.0	21.0	
Total Split (s)	31.0	31.0	31.0	31.0	31.0	31.0	29.0	29.0		29.0	29.0	
Total Split (%)	51.7%	51.7%	51.7%	51.7%	51.7%	51.7%	48.3%	48.3%		48.3%	48.3%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0		5.0		5.0	5.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None		None	None								
Act Effct Green (s)	14.5	14.5	14.5	14.6	14.6	14.6		9.8		10.5	10.5	
Actuated g/C Ratio	0.56	0.56	0.56	0.56	0.56	0.56		0.38		0.41	0.41	
v/c Ratio	0.03	0.27	0.01	0.11	0.28	0.24		0.02		0.24	0.05	
Control Delay	6.9	7.4	0.6	7.2	7.4	2.3		7.9		10.3	5.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0		0.0	0.0	
Total Delay	6.9	7.4	0.6	7.2	7.4	2.3		7.9		10.3	5.9	
LOS	A	A	A	A	A	A		A		B	A	
Approach Delay		7.2			5.3			7.9			9.6	
Approach LOS		A			A			A			A	
Queue Length 50th (ft)	2	26	0	6	30	0		1		15	1	
Queue Length 95th (ft)	7	52	0	25	84	27		6		47	11	
Internal Link Dist (ft)		151			331			6			181	
Turn Bay Length (ft)	130		130	200								
Base Capacity (vph)	843	1438	1228	912	1518	1325		1353		1095	1163	
Starvation Cap Reductn	0	0	0	0	0	0		0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0		0		0	0	
Storage Cap Reductn	0	0	0	0	0	0		0		0	0	
Reduced v/c Ratio	0.02	0.18	0.01	0.07	0.19	0.18		0.01		0.12	0.02	

Intersection Summary

Cycle Length: 60

Actuated Cycle Length: 25.9

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.28

Intersection Signal Delay: 6.5

Intersection LOS: A

Intersection Capacity Utilization 42.0%

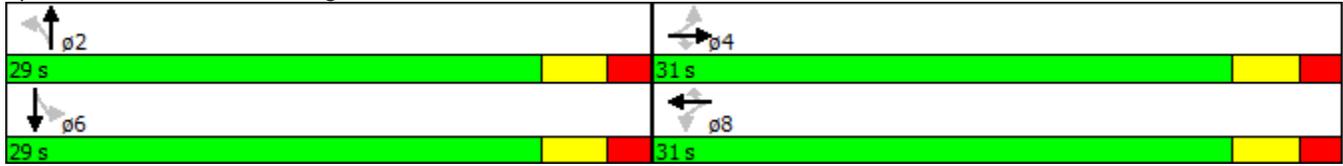
ICU Level of Service A

Analysis Period (min) 15

18: Parking Lot/Northwest Link & Johnson Avenue Lanes, Volumes, Timings

Build 2020
AM PEAK

Splits and Phases: 18: Parking Lot/Northwest Link & Johnson Avenue



19: Hawkins Avenue & Railroad Avenue
 HCM 2010 TWSC

Build 2020
 AM PEAK

Intersection												
Intersection Delay, s/veh	81											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	116	310	13	4	352	151	0	0	0	255	19	324
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	None											
Storage Length	75		0	175		175	0		0	0		175
Median Width		9			9			0				0
Grade, %		0%			0%			0%				0%
Peak Hour Factor	0.91	0.91	0.91	0.89	0.89	0.89	0.25	0.25	0.25	0.84	0.84	0.84
Heavy Vehicles, %	6	6	6	5	5	5	0	0	0	4	4	4
Mvmt Flow	127	341	14	4	396	170	0	0	0	304	23	386
Number of Lanes	1	1	0	1	1	1	0	0	0	0	1	1

Major/Minor	Major 1			Major 2			Minor 2			
Conflicting Flow All	396	0	0	355	0	0		1007	1014	396
Stage 1	-	-	-	-	-	-		404	404	-
Stage 2	-	-	-	-	-	-		603	610	-
Follow-up Headway	2.254	-	-	2.245	-	-		3.536	4.036	3.336
Pot Capacity-1 Maneuver	1141	-	-	1187	-	-		# 265	237	649
Stage 1	-	-	-	-	-	-		670	596	-
Stage 2	-	-	-	-	-	-		542	482	-
Time blocked-Platoon, %	0	-	-	0	-	-		0	0	0
Mov Capacity-1 Maneuver	1141	-	-	1187	-	-		# 235	# 0	649
Mov Capacity-2 Maneuver	-	-	-	-	-	-		# 235	# 0	-
Stage 1	-	-	-	-	-	-		668	# 0	-
Stage 2	-	-	-	-	-	-		482	# 0	-

Approach	EB	WB	SB
HCM Control Delay, s	2.3	0.1	199.1
HCM LOS	-	-	F

Minor Lane / Major Mvmt	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Cap, veh/h	1141	-	-	1187	-	-	290	649
HCM Control Delay, s	8.552	-	-	8.044	-	-	\$ -1	14.1
HCM Lane V/C Ratio	0.11	-	-	0.00	-	-	1.57	0.40
HCM Lane LOS	A	-	-	A	-	-	F	B
HCM 95th-tile Q, veh	0.4	-	-	0.0	-	-	26.9	1.9

Notes
 ~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

20: Ronkonkoma Avenue & 2nd Street/Powell Street
 HCM 2010 TWSC

Build 2020
 AM PEAK

Intersection												
Intersection Delay, s/veh	6.5											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	0	280	0	0	104	0	474	201	0	1226	141
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	Free											
Storage Length	0		0	0		0	0		0	0		0
Median Width		0			0			10			10	
Grade, %		0%			0%			0%			0%	
Peak Hour Factor	0.25	0.25	0.90	0.25	0.25	0.78	0.89	0.89	0.89	0.83	0.83	0.83
Heavy Vehicles, %	0	0	3	0	0	14	12	12	12	3	3	3
Mvmt Flow	0	0	311	0	0	133	0	533	226	0	1477	170
Number of Lanes	0	0	1	0	0	1	0	2	0	0	2	0

Major/Minor	Minor 2			Minor 1			Major 1			Major 2		
Conflicting Flow All	1743	2010	739	1272	2010	266	1477	0	0	533	0	0
Stage 1	1477	1477	-	533	533	-	-	-	-	-	-	-
Stage 2	266	533	-	739	1477	-	-	-	-	-	-	-
Follow-up Headway	3.5	4	3.33	3.5	4	3.44	2.32	-	-	2.23	-	-
Pot Capacity-1 Maneuver	57	60	358	127	60	697	405	-	-	1024	-	-
Stage 1	135	192	-	503	528	-	-	-	-	-	-	-
Stage 2	722	528	-	380	192	-	-	-	-	-	-	-
Time blocked-Platoon, %	0	0	0	0	0	0	0	-	-	0	-	-
Mov Capacity-1 Maneuver	46	60	358	17	60	697	405	-	-	1024	-	-
Mov Capacity-2 Maneuver	46	60	-	17	60	-	-	-	-	-	-	-
Stage 1	135	192	-	503	528	-	-	-	-	-	-	-
Stage 2	584	528	-	50	192	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	54.9	11.4	0	0
HCM LOS	F	B	-	-

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Cap, veh/h	405	-	-	358	697	1024	-	-
HCM Control Delay, s	0	-	-	54.9	11.4	0	-	-
HCM Lane V/C Ratio	-	-	-	0.87	0.19	-	-	-
HCM Lane LOS	A	-	-	F	B	A	-	-
HCM 95th-tile Q, veh	0.0	-	-	8.3	0.7	0.0	-	-

Notes
 ~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

11: Hawkins Avenue & LIE North Service Road Lanes, Volumes, Timings

Build 2020
PM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↖	↕		↖	↕			↕	↗
Volume (vph)	0	0	0	337	490	265	323	739	0	0	531	145
Satd. Flow (prot)	0	0	0	1711	3240	0	1711	3421	0	0	3426	0
Flt Permitted				0.950			0.249					
Satd. Flow (perm)	0	0	0	1711	3240	0	448	3421	0	0	3426	0
Satd. Flow (RTOR)					92						37	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.25	0.25	0.25	0.86	0.86	0.86	0.90	0.90	0.25	0.25	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	392	878	0	359	821	0	0	735	0
Turn Type				Perm	NA		pm+pt	NA			NA	
Protected Phases					1			8				7
Permitted Phases				1			3					
Detector Phase				1	1		8	3				7
Switch Phase												
Minimum Initial (s)				25.0	25.0		4.0	16.0			16.0	
Minimum Split (s)				31.3	31.3		10.0	23.0			23.0	
Total Split (s)				50.0	50.0		12.0	38.0			38.0	
Total Split (%)				50.0%	50.0%		12.0%	38.0%			38.0%	
Yellow Time (s)				4.3	4.3		4.0	4.0			4.0	
All-Red Time (s)				2.0	2.0		2.0	2.0			2.0	
Lost Time Adjust (s)				0.0	0.0		0.0	0.0			0.0	
Total Lost Time (s)				6.3	6.3		6.0	6.0			6.0	
Lead/Lag							Lag				Lead	
Lead-Lag Optimize?												
Recall Mode				C-Max	C-Max		Min	Min			Max	
Act Effct Green (s)				43.7	43.7		44.0	44.0			32.0	
Actuated g/C Ratio				0.44	0.44		0.44	0.44			0.32	
v/c Ratio				0.52	0.60		1.32	0.55			0.66	
Control Delay				23.7	21.0		170.4	9.5			31.0	
Queue Delay				0.0	0.0		0.0	2.6			0.0	
Total Delay				23.7	21.0		170.4	12.1			31.0	
LOS				C	C		F	B			C	
Approach Delay					21.9			60.2			31.0	
Approach LOS					C			E			C	
Queue Length 50th (ft)				178	195		~220	81			200	
Queue Length 95th (ft)				250	241		m#128	m62			265	
Internal Link Dist (ft)		204			499			339			118	
Turn Bay Length (ft)							100					
Base Capacity (vph)				747	1467		272	1505			1121	
Starvation Cap Reductn				0	0		0	540			0	
Spillback Cap Reductn				0	0		0	0			0	
Storage Cap Reductn				0	0		0	0			0	
Reduced v/c Ratio				0.52	0.60		1.32	0.85			0.66	

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 89 (89%), Referenced to phase 1:WBTL, Start of Yellow
 Natural Cycle: 75
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.32
 Intersection Signal Delay: 38.2
 Intersection Capacity Utilization 124.9%
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.

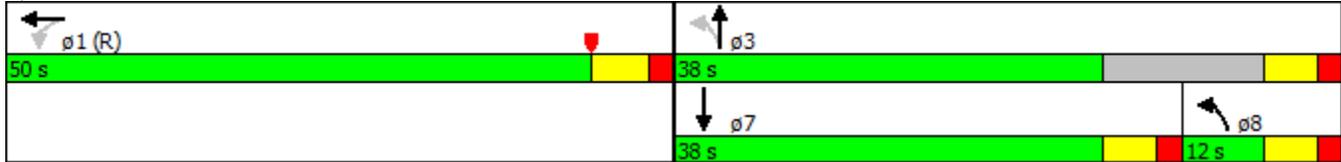
11: Hawkins Avenue & LIE North Service Road

Lanes, Volumes, Timings

Build 2020
PM Peak

- Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
- Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 11: Hawkins Avenue & LIE North Service Road



12: Hawkins Avenue & LIE South Service Road

Lanes, Volumes, Timings

Build 2020
PM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	280	1821	300	0	0	0	0	781	205	390	479	0
Satd. Flow (prot)	1711	3349	0	0	0	0	0	3315	0	1711	3421	0
Flt Permitted	0.950									0.160		
Satd. Flow (perm)	1711	3349	0	0	0	0	0	3315	0	288	3421	0
Satd. Flow (RTOR)		25						21				
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.97	0.97	0.97	0.25	0.25	0.25	0.25	0.92	0.92	0.94	0.94	0.25
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	0%	0%	0%	0%	2%	2%	2%	2%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	289	2186	0	0	0	0	0	1072	0	415	510	0
Turn Type	Perm	NA						NA		pm+pt	NA	
Protected Phases		1						7		8	3	
Permitted Phases	1									3		
Detector Phase	1	1						7		8	3	
Switch Phase												
Minimum Initial (s)	25.0	25.0						16.0		4.0	16.0	
Minimum Split (s)	31.3	31.3						23.0		10.0	23.0	
Total Split (s)	53.0	53.0						25.0		22.0	25.0	
Total Split (%)	53.0%	53.0%						25.0%		22.0%	25.0%	
Yellow Time (s)	4.3	4.3						4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0						2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0						0.0		0.0	0.0	
Total Lost Time (s)	6.3	6.3						6.0		6.0	6.0	
Lead/Lag								Lead		Lag		
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max						Max		Min	Min	
Act Effct Green (s)	46.7	46.7						19.0		41.0	41.0	
Actuated g/C Ratio	0.47	0.47						0.19		0.41	0.41	
v/c Ratio	0.36	1.39						1.66		1.20	0.36	
Control Delay	18.8	203.5						332.2		140.1	13.1	
Queue Delay	0.0	0.0						0.0		0.0	0.0	
Total Delay	18.8	203.5						332.2		140.1	13.1	
LOS	B	F						F		F	B	
Approach Delay		181.9						332.2			70.1	
Approach LOS		F						F			E	
Queue Length 50th (ft)	114	~985						~525		~280	76	
Queue Length 95th (ft)	178	#1125						#657		#521	100	
Internal Link Dist (ft)		477			203			243			339	
Turn Bay Length (ft)	400									100		
Base Capacity (vph)	799	1577						646		345	1402	
Starvation Cap Reductn	0	0						0		0	0	
Spillback Cap Reductn	0	0						0		0	0	
Storage Cap Reductn	0	0						0		0	0	
Reduced v/c Ratio	0.36	1.39						1.66		1.20	0.36	

Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 89 (89%), Referenced to phase 1:EBTL, Start of Yellow

Natural Cycle: 150

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.66

Intersection Signal Delay: 194.8

Intersection LOS: F

Intersection Capacity Utilization 124.9%

ICU Level of Service H

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

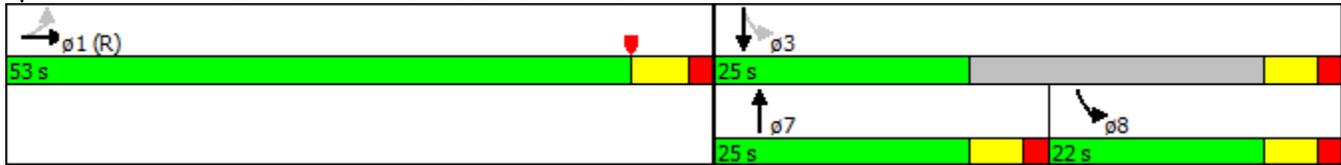
12: Hawkins Avenue & LIE South Service Road

Lanes, Volumes, Timings

Build 2020
PM Peak

Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 12: Hawkins Avenue & LIE South Service Road



13: Ronkonkoma Avenue & LIE North Service Road

Lanes, Volumes, Timings

Build 2020
PM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↖	↕		↖	↕			↕	↗
Volume (vph)	0	0	0	257	574	83	304	880	0	0	361	173
Satd. Flow (prot)	0	0	0	1678	3292	0	1770	3539	0	0	3366	0
Flt Permitted				0.950			0.254					
Satd. Flow (perm)	0	0	0	1678	3292	0	473	3539	0	0	3366	0
Satd. Flow (RTOR)					17						89	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.25	0.25	0.25	0.93	0.93	0.93	0.92	0.92	0.25	0.25	0.84	0.84
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	4%	4%	4%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	276	706	0	330	957	0	0	636	0
Turn Type				Perm	NA		pm+pt	NA			NA	
Protected Phases					1		8	3			7	
Permitted Phases				1			3					
Detector Phase				1	1		8	3			7	
Switch Phase												
Minimum Initial (s)				24.0	24.0		4.0	17.0			17.0	
Minimum Split (s)				30.7	30.7		10.0	25.9			25.9	
Total Split (s)				39.0	39.0		20.0	41.0			41.0	
Total Split (%)				39.0%	39.0%		20.0%	41.0%			41.0%	
Yellow Time (s)				4.7	4.7		3.9	3.9			3.9	
All-Red Time (s)				2.0	2.0		2.0	2.0			2.0	
Lost Time Adjust (s)				0.0	0.0		0.0	0.0			0.0	
Total Lost Time (s)				6.7	6.7		5.9	5.9			5.9	
Lead/Lag							Lag				Lead	
Lead-Lag Optimize?												
Recall Mode				C-Max	C-Max		Min	Min			Ped	
Act Effct Green (s)				44.3	44.3		43.1	43.1			24.1	
Actuated g/C Ratio				0.44	0.44		0.43	0.43			0.24	
v/c Ratio				0.37	0.48		0.88	0.63			0.73	
Control Delay				24.9	24.5		27.0	15.6			34.6	
Queue Delay				0.0	0.0		0.0	0.3			0.0	
Total Delay				24.9	24.5		27.0	15.9			34.6	
LOS				C	C		C	B			C	
Approach Delay					24.6			18.7			34.6	
Approach LOS					C			B			C	
Queue Length 50th (ft)				114	162		99	153			170	
Queue Length 95th (ft)				m178	m213		m62	m90			193	
Internal Link Dist (ft)		318			725			397			224	
Turn Bay Length (ft)				650			250					
Base Capacity (vph)				743	1467		413	1949			1239	
Starvation Cap Reductn				0	0		0	393			0	
Spillback Cap Reductn				0	0		0	0			0	
Storage Cap Reductn				0	0		0	0			0	
Reduced v/c Ratio				0.37	0.48		0.80	0.62			0.51	

Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 74 (74%), Referenced to phase 1:WBTL, Start of Yellow

Natural Cycle: 70

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.88

Intersection Signal Delay: 24.2

Intersection LOS: C

Intersection Capacity Utilization 108.4%

ICU Level of Service G

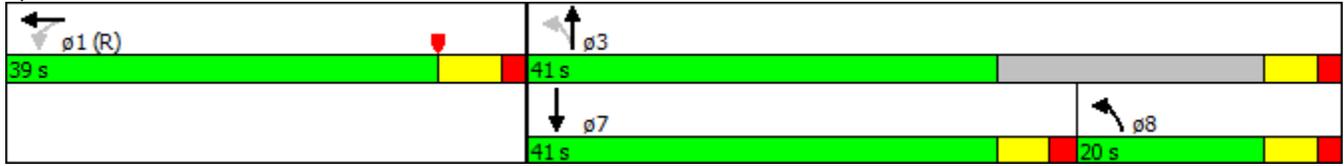
Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

13: Ronkonkoma Avenue & LIE North Service Road Lanes, Volumes, Timings

Build 2020
PM Peak

Splits and Phases: 13: Ronkonkoma Avenue & LIE North Service Road



14: Ronkonkoma Avenue & LIE South Service Road

Lanes, Volumes, Timings

Build 2020
PM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	339	1297	128	0	0	0	0	845	807	84	533	0
Satd. Flow (prot)	1711	3377	0	0	0	0	0	3281	0	1719	3438	0
Flt Permitted	0.950									0.087		
Satd. Flow (perm)	1711	3377	0	0	0	0	0	3281	0	157	3438	0
Satd. Flow (RTOR)		11						56				
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.88	0.88	0.92	0.25	0.25	0.25	0.25	0.90	0.90	0.90	0.90	0.25
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	0%	0%	0%	0%	2%	2%	5%	5%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												0
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	385	1613	0	0	0	0	0	1836	0	93	592	0
Turn Type	Perm	NA						NA		pm+pt	NA	
Protected Phases		1						7		8	3	
Permitted Phases	1									3		
Detector Phase	1	1						7		8	3	
Switch Phase												
Minimum Initial (s)	24.0	24.0						17.0		4.0	17.0	
Minimum Split (s)	30.3	30.3						25.6		10.0	25.6	
Total Split (s)	42.0	42.0						46.0		12.0	46.0	
Total Split (%)	42.0%	42.0%						46.0%		12.0%	46.0%	
Yellow Time (s)	4.3	4.3						3.6		3.6	3.6	
All-Red Time (s)	2.0	2.0						2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0						0.0		0.0	0.0	
Total Lost Time (s)	6.3	6.3						5.6		5.6	5.6	
Lead/Lag								Lead		Lag		
Lead-Lag Optimize?								Yes		Yes		
Recall Mode	C-Max	C-Max						Min		Max	Max	
Act Effct Green (s)	35.7	35.7						40.4		52.4	52.4	
Actuated g/C Ratio	0.36	0.36						0.40		0.52	0.52	
v/c Ratio	0.63	1.33						1.35		0.51	0.33	
Control Delay	32.3	183.8						190.5		37.4	11.7	
Queue Delay	0.0	0.0						0.0		0.0	0.0	
Total Delay	32.3	183.8						190.5		37.4	11.7	
LOS	C	F						F		D	B	
Approach Delay		154.6						190.5			15.2	
Approach LOS		F						F			B	
Queue Length 50th (ft)	201	~710						~806		26	87	
Queue Length 95th (ft)	295	#821						#947		75	113	
Internal Link Dist (ft)		267			295			185			397	
Turn Bay Length (ft)										125		
Base Capacity (vph)	610	1212						1358		182	1801	
Starvation Cap Reductn	0	0						0		0	0	
Spillback Cap Reductn	0	0						0		0	0	
Storage Cap Reductn	0	0						0		0	0	
Reduced v/c Ratio	0.63	1.33						1.35		0.51	0.33	

Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 74 (74%), Referenced to phase 1:EBTL, Start of Yellow

Natural Cycle: 150

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.35

Intersection Signal Delay: 148.1

Intersection LOS: F

Intersection Capacity Utilization 108.4%

ICU Level of Service G

Analysis Period (min) 15

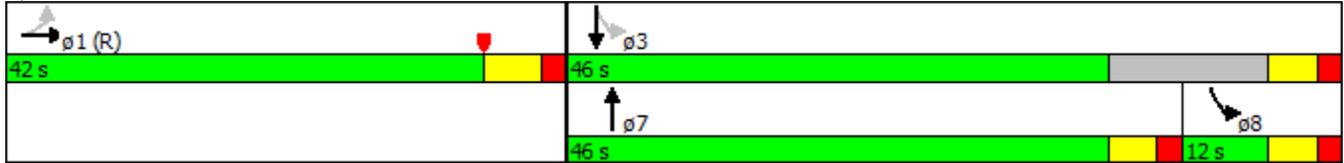
~ Volume exceeds capacity, queue is theoretically infinite.

14: Ronkonkoma Avenue & LIE South Service Road Lanes, Volumes, Timings

Build 2020
PM Peak

Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 14: Ronkonkoma Avenue & LIE South Service Road



15: Hawkins Avenue & Union Avenue Lanes, Volumes, Timings

Build 2020
PM Peak



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	78	520	443	91	458	350
Satd. Flow (prot)	1711	1531	1982	0	1636	1783
Flt Permitted	0.950				0.232	
Satd. Flow (perm)	1711	1531	1982	0	399	1783
Satd. Flow (RTOR)		230	16			
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.89	0.89	0.86	0.86	0.89	0.89
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	3%	3%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	88	584	621	0	515	393
Turn Type	NA	pm+ov	NA		pm+pt	NA
Protected Phases	8	1	2		1	6
Permitted Phases		8			6	
Detector Phase	8	1	2		1	6
Switch Phase						
Minimum Initial (s)	8.0	8.0	35.0		8.0	35.0
Minimum Split (s)	22.0	12.0	40.0		12.0	40.0
Total Split (s)	22.0	19.0	40.0		19.0	59.0
Total Split (%)	27.2%	23.5%	49.4%		23.5%	72.8%
Yellow Time (s)	3.5	3.0	3.5		3.0	3.5
All-Red Time (s)	1.5	1.0	1.5		1.0	1.5
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	5.0	4.0	5.0		4.0	5.0
Lead/Lag		Lead	Lag		Lead	
Lead-Lag Optimize?		Yes	Yes		Yes	
Recall Mode	None	None	Min		None	Min
Act Effct Green (s)	9.1	26.1	35.3		55.5	55.7
Actuated g/C Ratio	0.13	0.37	0.50		0.79	0.79
v/c Ratio	0.40	0.82	0.62		0.89	0.28
Control Delay	35.3	22.5	17.0		31.0	3.7
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	35.3	22.5	17.0		31.0	3.7
LOS	D	C	B		C	A
Approach Delay	24.1		17.0			19.2
Approach LOS	C		B			B
Queue Length 50th (ft)	37	136	189		105	42
Queue Length 95th (ft)	77	263	301		#311	87
Internal Link Dist (ft)	974		310			399
Turn Bay Length (ft)	170				125	
Base Capacity (vph)	416	712	1000		579	1407
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.21	0.82	0.62		0.89	0.28

Intersection Summary

Cycle Length: 81

Actuated Cycle Length: 70.5

Natural Cycle: 90

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.89

Intersection Signal Delay: 20.1

Intersection LOS: C

Intersection Capacity Utilization 72.9%

ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

15: Hawkins Avenue & Union Avenue Lanes, Volumes, Timings

Build 2020
PM Peak

Splits and Phases: 15: Hawkins Avenue & Union Avenue



16: Mill Road & Union Avenue Lanes, Volumes, Timings

Build 2020
PM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	33	456	56	165	466	42	57	103	284	18	9	26
Satd. Flow (prot)	1652	1772	0	1711	1777	0	0	1918	0	0	1655	0
Flt Permitted	0.300			0.357				0.944			0.616	
Satd. Flow (perm)	522	1772	0	643	1777	0	0	1822	0	0	1036	0
Satd. Flow (RTOR)		16			12			136			28	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.88	0.88	0.88	0.77	0.77	0.77	0.65	0.65	0.65	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	38	582	0	214	660	0	0	683	0	0	57	0
Turn Type	Perm	NA										
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	35.0	35.0		35.0	35.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	41.0	41.0		41.0	41.0		27.0	27.0		27.0	27.0	
Total Split (s)	41.0	41.0		41.0	41.0		21.0	21.0		21.0	21.0	
Total Split (%)	66.1%	66.1%		66.1%	66.1%		33.9%	33.9%		33.9%	33.9%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Min	Min		Min	Min		None	None		None	None	
Act Effct Green (s)	35.0	35.0		35.0	35.0			15.0			15.0	
Actuated g/C Ratio	0.56	0.56		0.56	0.56			0.24			0.24	
v/c Ratio	0.13	0.58		0.59	0.65			1.26			0.21	
Control Delay	7.7	11.3		17.3	13.0			152.1			14.0	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	7.7	11.3		17.3	13.0			152.1			14.0	
LOS	A	B		B	B			F			B	
Approach Delay		11.1			14.1			152.1			14.0	
Approach LOS		B			B			F			B	
Queue Length 50th (ft)	6	122		47	150			~291			9	
Queue Length 95th (ft)	18	197		85	188			#269			35	
Internal Link Dist (ft)		780			237			676			298	
Turn Bay Length (ft)	75			175								
Base Capacity (vph)	294	1007		362	1008			543			271	
Starvation Cap Reductn	0	0		0	0			0			0	
Spillback Cap Reductn	0	0		0	0			0			0	
Storage Cap Reductn	0	0		0	0			0			0	
Reduced v/c Ratio	0.13	0.58		0.59	0.65			1.26			0.21	

Intersection Summary

Cycle Length: 62
 Actuated Cycle Length: 62
 Natural Cycle: 75
 Control Type: Semi Act-Uncoord
 Maximum v/c Ratio: 1.26
 Intersection Signal Delay: 55.5
 Intersection LOS: E
 Intersection Capacity Utilization 101.3%
 ICU Level of Service G
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.

16: Mill Road & Union Avenue Lanes, Volumes, Timings

Build 2020
PM Peak

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 16: Mill Road & Union Avenue



17: Parking Lot/Powell Street & Railroad Avenue

Lanes, Volumes, Timings

Build 2020
PM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	552	8	6	587	177	13	6	43	293	2	13
Satd. Flow (prot)	1711	1801	1531	1593	3301	0	1805	1706	0	1752	1609	0
Flt Permitted	0.243			0.271			0.744			0.690		
Satd. Flow (perm)	438	1801	1531	454	3301	0	1414	1706	0	1273	1609	0
Satd. Flow (RTOR)			36		113			91			17	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	0.82	0.82	0.82	0.47	0.47	0.47	0.78	0.78	0.78
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	0%	0%	0%	3%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	12	613	9	7	932	0	28	104	0	376	20	0
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8		8		4
Permitted Phases	2		2	6			8			4		
Detector Phase	2	2	2	6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	11.0	11.0	11.0	11.0	11.0		10.0	10.0		10.0	10.0	
Total Split (s)	40.0	40.0	40.0	40.0	40.0		20.0	20.0		20.0	20.0	
Total Split (%)	66.7%	66.7%	66.7%	66.7%	66.7%		33.3%	33.3%		33.3%	33.3%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None		None	None		None	None	
Act Effct Green (s)	21.7	21.7	21.7	21.7	21.7		15.4	15.4		15.4	15.4	
Actuated g/C Ratio	0.46	0.46	0.46	0.46	0.46		0.33	0.33		0.33	0.33	
v/c Ratio	0.06	0.74	0.01	0.03	0.59		0.06	0.17		0.91	0.04	
Control Delay	6.8	16.1	0.2	6.3	9.4		15.2	6.3		50.5	9.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	6.8	16.2	0.2	6.3	9.4		15.2	6.3		50.5	9.3	
LOS	A	B	A	A	A		B	A		D	A	
Approach Delay		15.8			9.4			8.2			48.4	
Approach LOS		B			A			A			D	
Queue Length 50th (ft)	2	123	0	1	76		5	2		95	1	
Queue Length 95th (ft)	8	207	1	5	96		12	5		#252	12	
Internal Link Dist (ft)		331			196			24			192	
Turn Bay Length (ft)	110			120								
Base Capacity (vph)	331	1365	1169	344	2530		459	615		413	534	
Starvation Cap Reductn	0	45	0	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.04	0.46	0.01	0.02	0.37		0.06	0.17		0.91	0.04	

Intersection Summary

Cycle Length: 60

Actuated Cycle Length: 47.3

Natural Cycle: 55

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.91

Intersection Signal Delay: 18.6

Intersection LOS: B

Intersection Capacity Utilization 60.3%

ICU Level of Service B

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

17: Parking Lot/Powell Street & Railroad Avenue Lanes, Volumes, Timings

Build 2020
PM Peak

Splits and Phases: 17: Parking Lot/Powell Street & Railroad Avenue



18: Parking Lot/Northwest Link & Railroad Avenue

Lanes, Volumes, Timings

Build 2020
PM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	8	372	2	4	278	331	4	4	33	156	2	29
Satd. Flow (prot)	1652	1739	1478	1711	1801	1531	0	1795	0	1687	1525	0
Flt Permitted	0.538			0.410				0.978		0.702		
Satd. Flow (perm)	935	1739	1478	738	1801	1531	0	1764	0	1247	1525	0
Satd. Flow (RTOR)			36			409		69			48	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.82	0.82	0.82	0.81	0.81	0.81	0.48	0.48	0.48	0.61	0.61	0.61
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	0%	0%	0%	7%	7%	7%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	10	454	2	5	343	409	0	85	0	256	51	0
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6		6	8			4		
Detector Phase	2	2	2	6	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0	6.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	11.0	11.0	11.0	11.0	11.0	11.0	10.0	10.0		10.0	10.0	
Total Split (s)	40.0	40.0	40.0	40.0	40.0	40.0	20.0	20.0		20.0	20.0	
Total Split (%)	66.7%	66.7%	66.7%	66.7%	66.7%	66.7%	33.3%	33.3%		33.3%	33.3%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0		5.0		5.0	5.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None		None	None								
Act Effct Green (s)	15.7	15.7	15.7	15.7	15.7	15.7		13.3		13.3	13.3	
Actuated g/C Ratio	0.40	0.40	0.40	0.40	0.40	0.40		0.34		0.34	0.34	
v/c Ratio	0.03	0.66	0.00	0.02	0.48	0.48		0.13		0.61	0.09	
Control Delay	7.1	14.7	0.0	7.0	11.2	3.1		5.5		21.1	5.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0		0.0	0.0	
Total Delay	7.1	14.7	0.0	7.0	11.2	3.1		5.5		21.1	5.4	
LOS	A	B	A	A	B	A		A		C	A	
Approach Delay		14.5			6.8			5.5			18.5	
Approach LOS		B			A			A			B	
Queue Length 50th (ft)	1	81	0	1	56	0		2		43	1	
Queue Length 95th (ft)	6	127	0	4	88	22		7		76	9	
Internal Link Dist (ft)		151			331			6			181	
Turn Bay Length (ft)	130		130	200								
Base Capacity (vph)	818	1522	1298	646	1576	1391		737		491	630	
Starvation Cap Reductn	0	0	0	0	0	0		0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0		0		0	0	
Storage Cap Reductn	0	0	0	0	0	0		0		0	0	
Reduced v/c Ratio	0.01	0.30	0.00	0.01	0.22	0.29		0.12		0.52	0.08	

Intersection Summary

Cycle Length: 60

Actuated Cycle Length: 39.4

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.66

Intersection Signal Delay: 11.2

Intersection LOS: B

Intersection Capacity Utilization 43.2%

ICU Level of Service A

Analysis Period (min) 15

18: Parking Lot/Northwest Link & Railroad Avenue Lanes, Volumes, Timings

Build 2020
PM Peak

Splits and Phases: 18: Parking Lot/Northwest Link & Railroad Avenue



19: Hawkins Avenue & Railroad Avenue
 HCM 2010 TWSC

Build 2020
 PM Peak

Intersection

Intersection Delay, s/veh \$ 339.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	291	489	13	6	422	236	0	0	0	181	10	217
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	None											
Storage Length	75		0	175		175	0		0	0		175
Median Width		9			9			0			0	
Grade, %		0%			0%			0%			0%	
Peak Hour Factor	0.74	0.74	0.74	0.73	0.73	0.73	0.25	0.25	0.25	0.82	0.82	0.82
Heavy Vehicles, %	2	2	2	2	2	2	0	0	0	2	2	2
Mvmt Flow	393	661	18	8	578	323	0	0	0	221	12	265
Number of Lanes	1	1	0	1	1	1	0	0	0	0	1	1

Major/Minor	Major 1			Major 2			Minor 2			
Conflicting Flow All	578	0	0	678	0	0		2051	2060	578
Stage 1	-	-	-	-	-	-		595	595	-
Stage 2	-	-	-	-	-	-		1456	1465	-
Follow-up Headway	2.218	-	-	2.218	-	-		3.518	4.018	3.318
Pot Capacity-1 Maneuver	996	-	-	914	-	-		# 61	55	516
Stage 1	-	-	-	-	-	-		551	492	-
Stage 2	-	-	-	-	-	-		# 214	193	-
Time blocked-Platoon, %	0	-	-	0	-	-		0	0	0
Mov Capacity-1 Maneuver	996	-	-	914	-	-		# 37	# 0	516
Mov Capacity-2 Maneuver	-	-	-	-	-	-		# 37	# 0	-
Stage 1	-	-	-	-	-	-		546	# 0	-
Stage 2	-	-	-	-	-	-		# 130	# 0	-

Approach	EB	WB	SB
HCM Control Delay, s	4	0.1	\$ 1683.4
HCM LOS	-	-	F

Minor Lane / Major Mvmt	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Cap, veh/h	996	-	-	914	-	-	50	516
HCM Control Delay, s	10.952	-	-	8.974	-	-	\$ -1	15.6
HCM Lane V/C Ratio	0.40	-	-	0.01	-	-	6.42	0.34
HCM Lane LOS	B	-	-	A	-	-	F	C
HCM 95th-tile Q, veh	1.9	-	-	0.0	-	-	37.1	1.5

Notes

~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

20: Ronkonkoma Avenue & 2nd Street/Powell Street
 HCM 2010 TWSC

Build 2020
 PM Peak

Intersection

Intersection Delay, s/veh 8.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	0	337	0	0	188	0	1483	307	0	521	185
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	Free											
Storage Length	0		0	0		0	0		0	0		0
Median Width		0			0			10			10	
Grade, %		0%			0%			0%			0%	
Peak Hour Factor	0.25	0.25	0.62	0.25	0.25	0.71	0.88	0.88	0.88	0.82	0.82	0.82
Heavy Vehicles, %	0	0	2	0	0	5	0	2	2	0	5	5
Mvmt Flow	0	0	544	0	0	265	0	1685	349	0	635	226
Number of Lanes	0	0	1	0	0	1	0	2	0	0	2	0

Major/Minor	Minor 2			Minor 1			Major 1			Major 2		
Conflicting Flow All	1478	2320	318	2003	2320	843	635	0	0	1685	0	0
Stage 1	635	635	-	1685	1685	-	-	-	-	-	-	-
Stage 2	843	1685	-	318	635	-	-	-	-	-	-	-
Follow-up Headway	3.5	4	3.32	3.5	4	3.35	2.2	-	-	2.2	-	-
Pot Capacity-1 Maneuver	89	38	678	36	38	301	958	-	-	385	-	-
Stage 1	438	476	-	100	152	-	-	-	-	-	-	-
Stage 2	329	152	-	673	476	-	-	-	-	-	-	-
Time blocked-Platoon, %	0	0	0	0	0	0	0	-	-	0	-	-
Mov Capacity-1 Maneuver	11	38	678	7	38	301	958	-	-	385	-	-
Mov Capacity-2 Maneuver	11	38	-	7	38	-	-	-	-	-	-	-
Stage 1	438	476	-	100	152	-	-	-	-	-	-	-
Stage 2	40	152	-	133	476	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	28.2	63.8	0	0
HCM LOS	D	F	-	-

Minor Lane / Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Cap, veh/h	958	-	-	678	301	385	-	-
HCM Control Delay, s	0	-	-	28.2	63.8	0	-	-
HCM Lane V/C Ratio	-	-	-	0.80	0.88	-	-	-
HCM Lane LOS	A	-	-	D	F	A	-	-
HCM 95th-tile Q, veh	0.0	-	-	8.2	8.0	0.0	-	-

Notes

~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

11: Hawkins Avenue & LIE North Service Road Lanes, Volumes, Timings

Build 2020 Mit-FullBld wRW
AM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕↕		↕	↕↕			↕↕	
Volume (vph)	0	0	0	510	1696	163	229	300	0	0	395	150
Satd. Flow (prot)	0	0	0	0	4813	0	1662	3323	0	0	3361	0
Flt Permitted					0.989		0.218					
Satd. Flow (perm)	0	0	0	0	4813	0	381	3323	0	0	3361	0
Satd. Flow (RTOR)					17						34	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.25	0.25	0.25	0.96	0.96	0.96	0.88	0.88	0.25	0.25	0.84	0.84
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	2%	2%	2%	5%	5%	5%	3%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	2468	0	260	341	0	0	649	0
Turn Type				Perm	NA		pm+pt	NA			NA	
Protected Phases					1		8	3			7	
Permitted Phases				1			3					
Detector Phase				1	1		8	3			7	
Switch Phase												
Minimum Initial (s)				25.0	25.0		4.0	16.0			16.0	
Minimum Split (s)				31.3	31.3		10.0	23.0			23.0	
Total Split (s)				56.0	56.0		17.0	44.0			27.0	
Total Split (%)				56.0%	56.0%		17.0%	44.0%			27.0%	
Yellow Time (s)				4.3	4.3		4.0	4.0			4.0	
All-Red Time (s)				2.0	2.0		2.0	2.0			2.0	
Lost Time Adjust (s)					0.0		0.0	0.0			0.0	
Total Lost Time (s)					6.3		6.0	6.0			6.0	
Lead/Lag							Lag				Lead	
Lead-Lag Optimize?												
Recall Mode				C-Max	C-Max		Min	Min			Max	
Act Effct Green (s)					49.8		37.9	37.9			21.0	
Actuated g/C Ratio					0.50		0.38	0.38			0.21	
v/c Ratio					1.03		0.92	0.27			0.89	
Control Delay					50.8		51.9	12.6			51.9	
Queue Delay					0.0		0.0	0.0			3.4	
Total Delay					50.8		51.9	12.6			55.3	
LOS					D		D	B			E	
Approach Delay					50.8			29.6			55.3	
Approach LOS					D			C			E	
Queue Length 50th (ft)					~617		106	43			202	
Queue Length 95th (ft)					#714		#233	59			#264	
Internal Link Dist (ft)		204			499			339			134	
Turn Bay Length (ft)							150					
Base Capacity (vph)					2407		285	1262			732	
Starvation Cap Reductn					0		0	0			0	
Spillback Cap Reductn					0		0	0			38	
Storage Cap Reductn					0		0	0			0	
Reduced v/c Ratio					1.03		0.91	0.27			0.94	

Intersection Summary

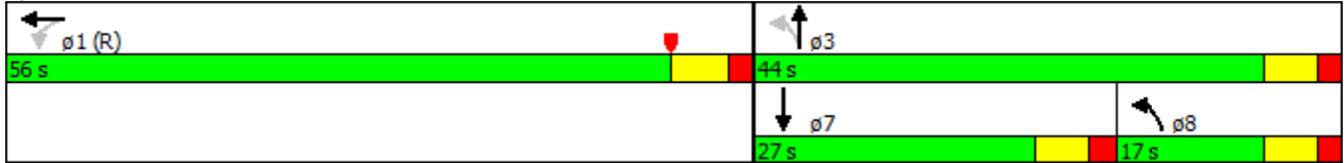
Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 10 (10%), Referenced to phase 1:WBTL, Start of Yellow
 Natural Cycle: 100
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.03
 Intersection Signal Delay: 48.2
 Intersection Capacity Utilization 90.4%
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.

11: Hawkins Avenue & LIE North Service Road Lanes, Volumes, Timings

Build 2020 Mit-FullBld wRW
AM Peak

Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 11: Hawkins Avenue & LIE North Service Road



12: Hawkins Avenue & LIE South Service Road Lanes, Volumes, Timings

Build 2020 Mit-FullBld wRW
AM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	120	408	164	0	0	0	0	409	120	209	694	0
Satd. Flow (prot)	1558	4284	0	0	0	0	0	3231	1446	1694	3388	0
Flt Permitted	0.950									0.421		
Satd. Flow (perm)	1558	4284	0	0	0	0	0	3231	1446	751	3388	0
Satd. Flow (RTOR)		74							127			
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.82	0.82	0.82	0.25	0.25	0.25	0.25	0.88	0.88	0.80	0.80	0.25
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	12%	12%	12%	0%	0%	0%	0%	8%	8%	3%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	146	698	0	0	0	0	0	465	136	261	868	0
Turn Type	Perm	NA						NA	Perm	pm+pt	NA	
Protected Phases		1						7		8	3	
Permitted Phases	1								7	3		
Detector Phase	1	1						7	7	8	3	
Switch Phase												
Minimum Initial (s)	25.0	25.0						16.0	16.0	4.0	16.0	
Minimum Split (s)	31.3	31.3						24.0	24.0	10.0	26.0	
Total Split (s)	51.0	51.0						37.0	37.0	12.0	49.0	
Total Split (%)	51.0%	51.0%						37.0%	37.0%	12.0%	49.0%	
Yellow Time (s)	4.3	4.3						4.0	4.0	4.0	4.0	
All-Red Time (s)	2.0	2.0						2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.3	6.3						6.0	6.0	6.0	6.0	
Lead/Lag								Lead	Lead	Lag		
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max						Max	Max	Min	Min	
Act Effct Green (s)	44.7	44.7						31.0	31.0	43.0	43.0	
Actuated g/C Ratio	0.45	0.45						0.31	0.31	0.43	0.43	
v/c Ratio	0.21	0.36						0.46	0.25	0.69	0.60	
Control Delay	17.9	16.7						29.7	6.9	28.0	18.6	
Queue Delay	0.0	0.0						0.0	0.0	0.0	2.6	
Total Delay	17.9	16.7						29.7	6.9	28.0	21.2	
LOS	B	B						C	A	C	C	
Approach Delay		16.9						24.5			22.8	
Approach LOS		B						C			C	
Queue Length 50th (ft)	55	92						125	4	99	176	
Queue Length 95th (ft)	86	108						168	44	m107	m180	
Internal Link Dist (ft)		477			203			244			339	
Turn Bay Length (ft)									85	150		
Base Capacity (vph)	696	1956						1001	535	379	1456	
Starvation Cap Reductn	0	0						0	0	0	448	
Spillback Cap Reductn	0	0						0	0	0	0	
Storage Cap Reductn	0	0						0	0	0	0	
Reduced v/c Ratio	0.21	0.36						0.46	0.25	0.69	0.86	

Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 10 (10%), Referenced to phase 1:EBTL, Start of Yellow

Natural Cycle: 70

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.69

Intersection Signal Delay: 21.3

Intersection LOS: C

Intersection Capacity Utilization 90.4%

ICU Level of Service E

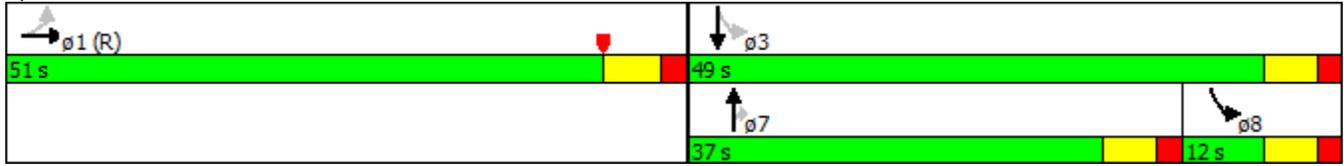
Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

12: Hawkins Avenue & LIE South Service Road Lanes, Volumes, Timings

Build 2020 Mit-FullBld wRW
AM Peak

Splits and Phases: 12: Hawkins Avenue & LIE South Service Road



13: Ronkonkoma Avenue & LIE North Service Road Lanes, Volumes, Timings

Build 2020 Mit-FullBld wRW
AM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕↕		↕	↕↕			↕↕	
Volume (vph)	0	0	0	664	1138	72	167	336	0	0	595	265
Satd. Flow (prot)	0	0	0	0	4757	0	1671	3343	0	0	3311	0
Flt Permitted					0.983		0.111					
Satd. Flow (perm)	0	0	0	0	4757	0	195	3343	0	0	3311	0
Satd. Flow (RTOR)					7						57	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.25	0.25	0.25	0.93	0.93	0.93	0.94	0.94	0.25	0.25	0.85	0.85
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	3%	3%	3%	8%	8%	0%	0%	4%	4%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	2015	0	178	357	0	0	1012	0
Turn Type				Perm	NA		pm+pt	NA			NA	
Protected Phases					1			8			3	
Permitted Phases				1			3					7
Detector Phase				1	1		8	3				7
Switch Phase												
Minimum Initial (s)				24.0	24.0		4.0	17.0			17.0	
Minimum Split (s)				30.7	30.7		10.0	25.9			25.9	
Total Split (s)				46.0	46.0		16.0	54.0			38.0	
Total Split (%)				46.0%	46.0%		16.0%	54.0%			38.0%	
Yellow Time (s)				4.7	4.7		3.9	3.9			3.9	
All-Red Time (s)				2.0	2.0		2.0	2.0			2.0	
Lost Time Adjust (s)					0.0		0.0	0.0			0.0	
Total Lost Time (s)					6.7		5.9	5.9			5.9	
Lead/Lag							Lag				Lead	
Lead-Lag Optimize?												
Recall Mode				C-Max	C-Max		Min	Min			Ped	
Act Effct Green (s)					40.3		47.1	47.1			31.7	
Actuated g/C Ratio					0.40		0.47	0.47			0.32	
v/c Ratio					1.05		0.77	0.23			0.93	
Control Delay					65.4		53.1	9.1			46.8	
Queue Delay					0.0		0.0	0.0			17.3	
Total Delay					65.4		53.1	9.1			64.1	
LOS					E		D	A			E	
Approach Delay					65.4			23.7			64.1	
Approach LOS					E			C			E	
Queue Length 50th (ft)					~527		92	40			309	
Queue Length 95th (ft)					#625		#183	55			#391	
Internal Link Dist (ft)		318			629			397			224	
Turn Bay Length (ft)							250					
Base Capacity (vph)					1920		241	1607			1101	
Starvation Cap Reductn					0		0	0			0	
Spillback Cap Reductn					0		0	0			113	
Storage Cap Reductn					0		0	0			0	
Reduced v/c Ratio					1.05		0.74	0.22			1.02	

Intersection Summary

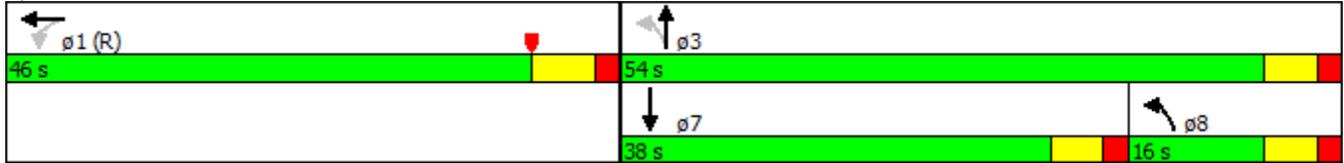
Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 12 (12%), Referenced to phase 1:WBTL, Start of Yellow
 Natural Cycle: 100
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.05
 Intersection Signal Delay: 58.8
 Intersection Capacity Utilization 86.7%
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.

13: Ronkonkoma Avenue & LIE North Service Road Lanes, Volumes, Timings

Build 2020 Mit-FullBld wRW
AM Peak

Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 13: Ronkonkoma Avenue & LIE North Service Road



14: Ronkonkoma Avenue & LIE South Service Road

Lanes, Volumes, Timings

Build 2020 Mit-FullBld wRW
AM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	167	395	363	0	0	0	0	335	195	100	1159	0
Satd. Flow (prot)	1631	4349	0	0	0	0	0	3167	1369	1752	3505	0
Flt Permitted	0.950									0.435		
Satd. Flow (perm)	1631	4349	0	0	0	0	0	3167	1369	802	3505	0
Satd. Flow (RTOR)		28										
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.25	0.25	0.25	0.25	0.82	0.82	0.80	0.80	0.25
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	7%	7%	7%	0%	0%	0%	0%	14%	14%	3%	3%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	184	833	0	0	0	0	0	409	238	125	1449	0
Turn Type	Perm	NA						NA	Perm	pm+pt	NA	
Protected Phases		1						7		8	3	
Permitted Phases	1								7	3		
Detector Phase	1	1						7	7	8	3	
Switch Phase												
Minimum Initial (s)	24.0	24.0						17.0	17.0	4.0	17.0	
Minimum Split (s)	30.3	30.3						25.6	25.6	10.0	25.6	
Total Split (s)	41.0	41.0						47.0	47.0	12.0	51.0	
Total Split (%)	41.0%	41.0%						47.0%	47.0%	12.0%	51.0%	
Yellow Time (s)	4.3	4.3						3.6	3.6	3.6	3.6	
All-Red Time (s)	2.0	2.0						2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.3	6.3						5.6	5.6	5.6	5.6	
Lead/Lag								Lead	Lead	Lag		
Lead-Lag Optimize?								Yes	Yes	Yes		
Recall Mode	C-Max	C-Max						Min	Min	Max	Max	
Act Effct Green (s)	34.7	34.7						24.9	24.9	53.4	53.4	
Actuated g/C Ratio	0.35	0.35						0.25	0.25	0.53	0.53	
v/c Ratio	0.33	0.55						0.52	0.70	0.19	0.77	
Control Delay	26.1	27.0						26.0	36.1	9.1	14.8	
Queue Delay	0.0	0.0						0.0	0.0	0.0	7.6	
Total Delay	26.1	27.0						26.0	36.1	9.1	22.4	
LOS	C	C						C	D	A	C	
Approach Delay		26.8						29.8			21.4	
Approach LOS		C						C			C	
Queue Length 50th (ft)	85	149						118	139	31	281	
Queue Length 95th (ft)	143	191						135	181	m34	m275	
Internal Link Dist (ft)		267			295			185			397	
Turn Bay Length (ft)										125		
Base Capacity (vph)	565	1527						1311	566	645	1871	
Starvation Cap Reductn	0	0						0	0	0	389	
Spillback Cap Reductn	0	0						0	0	0	0	
Storage Cap Reductn	0	0						0	0	0	0	
Reduced v/c Ratio	0.33	0.55						0.31	0.42	0.19	0.98	

Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 7 (7%), Referenced to phase 1:EBTL, Start of Yellow

Natural Cycle: 70

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.77

Intersection Signal Delay: 24.8

Intersection LOS: C

Intersection Capacity Utilization 86.7%

ICU Level of Service E

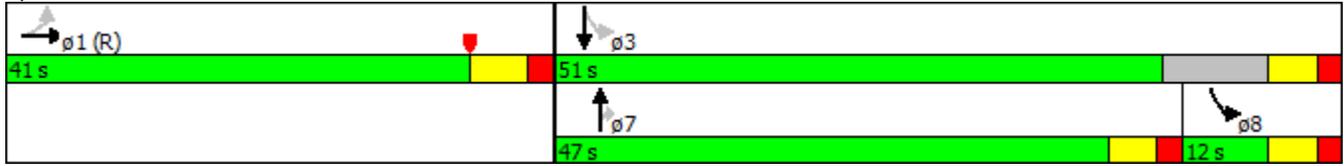
Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

14: Ronkonkoma Avenue & LIE South Service Road Lanes, Volumes, Timings

Build 2020 Mit-FullBld wRW
AM Peak

Splits and Phases: 14: Ronkonkoma Avenue & LIE South Service Road



15: Hawkins Avenue & Union Avenue Lanes, Volumes, Timings

Build 2020 Mit-FullBld wRW
AM Peak



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	120	271	261	35	344	523
Satd. Flow (prot)	1646	2592	3144	0	1636	1783
Flt Permitted	0.950				0.494	
Satd. Flow (perm)	1646	2592	3144	0	851	1783
Satd. Flow (RTOR)			23			
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.77	0.77	0.84	0.84	0.72	0.72
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	6%	6%	9%	9%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	156	352	353	0	478	726
Turn Type	NA	pm+ov	NA		pm+pt	NA
Protected Phases	8	1	2		1	6
Permitted Phases		8			6	
Detector Phase	8	1	2		1	6
Switch Phase						
Minimum Initial (s)	8.0	8.0	35.0		8.0	35.0
Minimum Split (s)	22.0	12.0	40.0		12.0	40.0
Total Split (s)	22.0	19.0	40.0		19.0	59.0
Total Split (%)	27.2%	23.5%	49.4%		23.5%	72.8%
Yellow Time (s)	3.5	3.0	3.5		3.0	3.5
All-Red Time (s)	1.5	1.0	1.5		1.0	1.5
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	5.0	4.0	5.0		4.0	5.0
Lead/Lag		Lead	Lag		Lead	
Lead-Lag Optimize?		Yes	Yes		Yes	
Recall Mode	None	None	C-Min		None	C-Min
Act Effct Green (s)	12.1	29.4	42.6		59.9	58.9
Actuated g/C Ratio	0.15	0.36	0.53		0.74	0.73
v/c Ratio	0.63	0.37	0.21		0.64	0.56
Control Delay	43.5	19.2	11.2		8.9	7.8
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	43.5	19.2	11.2		8.9	7.8
LOS	D	B	B		A	A
Approach Delay	26.7		11.2			8.2
Approach LOS	C		B			A
Queue Length 50th (ft)	76	73	43		70	135
Queue Length 95th (ft)	106	77	76		105	183
Internal Link Dist (ft)	974		698			114
Turn Bay Length (ft)	250	250				
Base Capacity (vph)	345	1033	1665		775	1295
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.45	0.34	0.21		0.62	0.56

Intersection Summary

Cycle Length: 81
 Actuated Cycle Length: 81
 Offset: 53 (65%), Referenced to phase 2:NBT and 6:SBTL, Start of Yellow
 Natural Cycle: 75
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.64
 Intersection Signal Delay: 13.3
 Intersection LOS: B
 Intersection Capacity Utilization 66.6%
 ICU Level of Service C
 Analysis Period (min) 15

15: Hawkins Avenue & Union Avenue Lanes, Volumes, Timings

Build 2020 Mit-FullBld wRW
AM Peak

Splits and Phases: 15: Hawkins Avenue & Union Avenue



**16: Mill Road & Union Avenue
Lanes, Volumes, Timings**

Build 2020 Mit-FullBld wRW
AM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	6	141	38	270	449	13	30	40	76	7	11	17
Satd. Flow (prot)	1574	1662	0	1694	1776	0	0	1772	1538	0	1651	0
Flt Permitted	0.479			0.555				0.840			0.904	
Satd. Flow (perm)	794	1662	0	990	1776	0	0	1520	1538	0	1507	0
Satd. Flow (RTOR)		22			3				97		23	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.79	0.79	0.79	0.92	0.92	0.92	0.78	0.78	0.78	0.73	0.73	0.73
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	7%	7%	7%	3%	3%	3%	5%	5%	5%	3%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	8	226	0	293	502	0	0	89	97	0	48	0
Turn Type	Perm	NA		pm+pt	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		2		1	6			8			4	
Permitted Phases	2			6			8		8	4		
Detector Phase	2	2		1	6		8	8	8	4	4	
Switch Phase												
Minimum Initial (s)	35.0	35.0		4.0	35.0		8.0	8.0	8.0	8.0	8.0	
Minimum Split (s)	41.0	41.0		9.0	41.0		27.0	27.0	27.0	27.0	27.0	
Total Split (s)	41.0	41.0		12.0	52.0		27.0	27.0	27.0	27.0	27.0	
Total Split (%)	51.3%	51.3%		15.0%	65.0%		33.8%	33.8%	33.8%	33.8%	33.8%	
Yellow Time (s)	4.0	4.0		3.0	4.0		4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	2.0	2.0		1.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0		4.0	6.0		6.0	6.0	6.0	6.0	6.0	
Lead/Lag	Lag	Lag		Lead								
Lead-Lag Optimize?												
Recall Mode	Min	Min		None	Min		None	None	None	None	None	
Act Effct Green (s)	35.5	35.5		49.1	48.6		9.1	9.1	9.1	9.1	9.1	
Actuated g/C Ratio	0.55	0.55		0.76	0.75		0.14	0.14	0.14	0.14	0.14	
v/c Ratio	0.02	0.25		0.35	0.38		0.42	0.32	0.32	0.21	0.21	
Control Delay	9.0	9.3		4.5	5.4		33.5	9.8	9.8	18.9	18.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	9.0	9.3		4.5	5.4		33.5	9.8	9.8	18.9	18.9	
LOS	A	A		A	A		C	A	A	B	B	
Approach Delay		9.3			5.1		21.2			18.9	18.9	
Approach LOS		A			A		C			B	B	
Queue Length 50th (ft)	2	42		30	68		35	0	0	9	9	
Queue Length 95th (ft)	7	75		66	139		64	27	27	28	28	
Internal Link Dist (ft)		780			237		676			298	298	
Turn Bay Length (ft)	75			175				250				
Base Capacity (vph)	435	921		839	1309		500	571	571	511	511	
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	
Reduced v/c Ratio	0.02	0.25		0.35	0.38		0.18	0.17	0.17	0.09	0.09	

Intersection Summary

Cycle Length: 80	
Actuated Cycle Length: 64.7	
Natural Cycle: 80	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.42	
Intersection Signal Delay: 8.7	Intersection LOS: A
Intersection Capacity Utilization 81.4%	ICU Level of Service D
Analysis Period (min) 15	

16: Mill Road & Union Avenue
Lanes, Volumes, Timings

Build 2020 Mit-FullBld wRW
 AM Peak

Splits and Phases: 16: Mill Road & Union Avenue



17: Parking Lot/Powell Street & Railroad Avenue Lanes, Volumes, Timings

Build 2020 Mit-FullBld wRW
AM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	4	170	10	8	518	101	9	1	9	296	2	1
Satd. Flow (prot)	1646	1733	1473	1562	3275	0	1752	1643	0	1736	1736	0
Flt Permitted	0.340			0.615						0.741		
Satd. Flow (perm)	589	1733	1473	1011	3275	0	1845	1643	0	1354	1736	0
Satd. Flow (RTOR)			94		39			11			1	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.74	0.74	0.74	0.91	0.91	0.91	0.80	0.80	0.80	0.85	0.85	0.85
Growth Factor	50%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	6%	6%	6%	4%	4%	4%	3%	3%	3%	4%	4%	4%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	3	230	14	9	680	0	11	12	0	348	3	0
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		2			6			8		7	4	
Permitted Phases	2		2	6			8			4		
Detector Phase	2	2	2	6	6		8	8		7	4	
Switch Phase												
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	11.0	11.0	11.0	11.0	11.0		10.0	10.0		8.0	10.0	
Total Split (s)	33.0	33.0	33.0	33.0	33.0		10.0	10.0		27.0	37.0	
Total Split (%)	47.1%	47.1%	47.1%	47.1%	47.1%		14.3%	14.3%		38.6%	52.9%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0		1.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		4.0	5.0	
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None		None	None		None	None	
Act Effct Green (s)	19.6	19.6	19.6	19.6	19.6		5.7	5.7		18.2	17.1	
Actuated g/C Ratio	0.41	0.41	0.41	0.41	0.41		0.12	0.12		0.38	0.36	
v/c Ratio	0.01	0.33	0.02	0.02	0.50		0.05	0.06		0.55	0.00	
Control Delay	5.5	6.4	0.1	11.9	12.6		28.8	18.4		15.4	9.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	5.5	6.4	0.1	11.9	12.6		28.8	18.4		15.4	9.3	
LOS	A	A	A	B	B		C	B		B	A	
Approach Delay		6.1			12.6			23.4			15.3	
Approach LOS		A			B			C			B	
Queue Length 50th (ft)	0	17	0	1	50		2	0		65	0	
Queue Length 95th (ft)	m1	25	0	10	152		17	13		144	4	
Internal Link Dist (ft)		331			196			80			192	
Turn Bay Length (ft)	110			120								
Base Capacity (vph)	390	1148	1007	670	2183		219	205		1022	1265	
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.01	0.20	0.01	0.01	0.31		0.05	0.06		0.34	0.00	

Intersection Summary

Cycle Length: 70

Actuated Cycle Length: 48.1

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.55

Intersection Signal Delay: 12.3

Intersection LOS: B

Intersection Capacity Utilization 48.9%

ICU Level of Service A

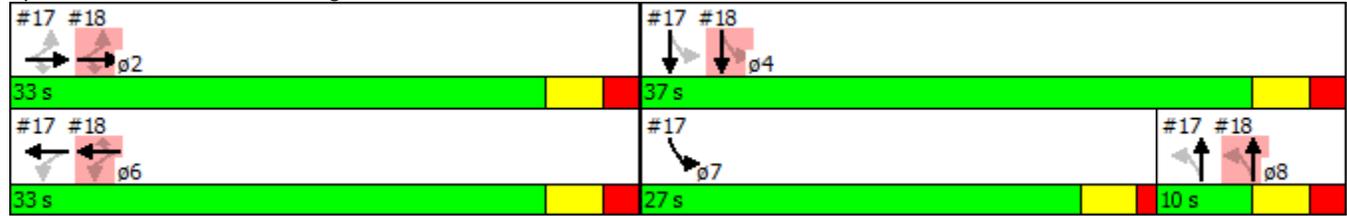
Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

**17: Parking Lot/Powell Street & Railroad Avenue
Lanes, Volumes, Timings**

**Build 2020 Mit-FullBld wRW
AM Peak**

Splits and Phases: 17: Parking Lot/Powell Street & Railroad Avenue



18: Parking Lot/Northwest Link & Railroad Avenue Lanes, Volumes, Timings

Build 2020 Mit-FullBld wRW
AM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	169	5	60	254	214	3	2	3	10	5	26
Satd. Flow (prot)	1604	1689	1436	1694	1783	1516	0	1885	0	1530	1407	0
Flt Permitted	0.572			0.597						0.412		
Satd. Flow (perm)	966	1689	1436	1065	1783	1516	0	1921	0	663	1407	0
Satd. Flow (RTOR)			94			233		5			32	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.66	0.66	0.66	0.92	0.92	0.92	0.63	0.63	0.63	0.80	0.80	0.80
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	5%	5%	5%	3%	3%	3%	0%	0%	0%	18%	18%	18%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	17	256	8	65	276	233	0	13	0	12	38	0
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6		6	8			4		
Detector Phase	2	2	2	6	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0	6.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	11.0	11.0	11.0	11.0	11.0	11.0	10.0	10.0		10.0	10.0	
Total Split (s)	33.0	33.0	33.0	33.0	33.0	33.0	10.0	10.0		37.0	37.0	
Total Split (%)	47.1%	47.1%	47.1%	47.1%	47.1%	47.1%	14.3%	14.3%		52.9%	52.9%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0		5.0		5.0	5.0	
Lead/Lag							Lag	Lag				
Lead-Lag Optimize?												
Recall Mode	None		None	None								
Act Effct Green (s)	19.6	19.6	19.6	19.6	19.6	19.6		5.7		17.1	17.1	
Actuated g/C Ratio	0.41	0.41	0.41	0.41	0.41	0.41		0.12		0.36	0.36	
v/c Ratio	0.04	0.37	0.01	0.15	0.38	0.31		0.06		0.05	0.07	
Control Delay	12.1	13.7	0.0	5.8	6.8	1.2		24.2		11.3	5.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0		0.0	0.0	
Total Delay	12.1	13.7	0.0	5.8	6.8	1.2		24.2		11.3	5.5	
LOS	B	B	A	A	A	A		C		B	A	
Approach Delay		13.2			4.4			24.3			6.9	
Approach LOS		B			A			C			A	
Queue Length 50th (ft)	2	36	0	4	19	0		2		2	1	
Queue Length 95th (ft)	12	89	0	10	31	3		13		10	13	
Internal Link Dist (ft)		151			331			92			181	
Turn Bay Length (ft)	130		130	200								
Base Capacity (vph)	640	1119	983	705	1181	1083		233		483	1034	
Starvation Cap Reductn	0	0	0	0	0	0		0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0		0		0	0	
Storage Cap Reductn	0	0	0	0	0	0		0		0	0	
Reduced v/c Ratio	0.03	0.23	0.01	0.09	0.23	0.22		0.06		0.02	0.04	

Intersection Summary

Cycle Length: 70

Actuated Cycle Length: 48.1

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.55

Intersection Signal Delay: 7.5

Intersection LOS: A

Intersection Capacity Utilization 34.2%

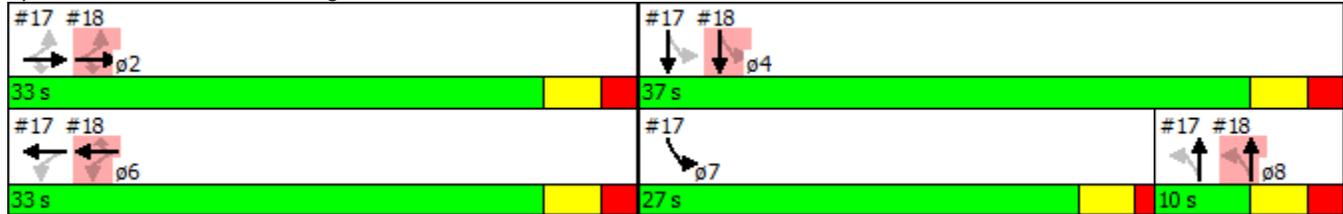
ICU Level of Service A

Analysis Period (min) 15

18: Parking Lot/Northwest Link & Railroad Avenue Lanes, Volumes, Timings

Build 2020 Mit-FullBld wRW
AM Peak

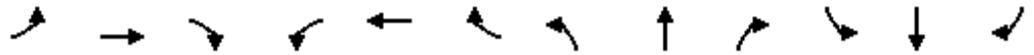
Splits and Phases: 18: Parking Lot/Northwest Link & Railroad Avenue



Lane Group	ø7
Lane Configurations	
Volume (vph)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Satd. Flow (RTOR)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Growth Factor	
Heavy Vehicles (%)	
Bus Blockages (#/hr)	
Parking (#/hr)	
Mid-Block Traffic (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	7
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	8.0
Total Split (s)	27.0
Total Split (%)	39%
Yellow Time (s)	3.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

19: Hawkins Avenue & Railroad Avenue Lanes, Volumes, Timings

Build 2020 Mit-FullBld wRW
AM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	116	310	13	4	352	151	0	0	0	255	19	324
Satd. Flow (prot)	1646	1722	0	1547	1749	1487	0	0	0	0	1688	1501
Flt Permitted	0.277			0.549							0.956	
Satd. Flow (perm)	480	1722	0	894	1749	1487	0	0	0	0	1688	1501
Satd. Flow (RTOR)		5				187						386
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.89	0.89	0.89	0.25	0.25	0.25	0.84	0.84	0.84
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	6%	6%	6%	5%	5%	5%	0%	0%	0%	4%	4%	4%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	127	355	0	4	396	170	0	0	0	0	327	386
Turn Type	pm+pt	NA		Perm	NA	Free				Perm	NA	Free
Protected Phases	7	4			8						6	
Permitted Phases	4			8		Free				6		Free
Detector Phase	7	4		8	8					6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0					4.0	4.0	
Minimum Split (s)	9.0	21.0		21.0	21.0					21.0	21.0	
Total Split (s)	15.0	43.0		28.0	28.0					27.0	27.0	
Total Split (%)	21.4%	61.4%		40.0%	40.0%					38.6%	38.6%	
Yellow Time (s)	3.0	3.0		3.0	3.0					3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0					2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0						0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0						5.0	
Lead/Lag	Lead			Lag	Lag							
Lead-Lag Optimize?												
Recall Mode	None	None		None	None					Min	Min	
Act Effct Green (s)	27.4	27.4		17.3	17.3	54.6					15.8	54.6
Actuated g/C Ratio	0.50	0.50		0.32	0.32	1.00					0.29	1.00
v/c Ratio	0.29	0.41		0.01	0.72	0.11					0.67	0.26
Control Delay	9.1	9.8		15.8	26.9	0.2					26.9	0.4
Queue Delay	0.0	0.0		0.0	0.0	0.0					0.0	0.0
Total Delay	9.1	9.8		15.8	26.9	0.2					26.9	0.4
LOS	A	A		B	C	A					C	A
Approach Delay		9.6			18.8						12.6	
Approach LOS		A			B						B	
Queue Length 50th (ft)	19	62		1	123	0					102	0
Queue Length 95th (ft)	49	133		7	236	0					181	0
Internal Link Dist (ft)		310			412			51			698	
Turn Bay Length (ft)				175		175						250
Base Capacity (vph)	488	1213		427	835	1487					771	1501
Starvation Cap Reductn	0	0		0	0	0					0	0
Spillback Cap Reductn	0	0		0	0	0					0	0
Storage Cap Reductn	0	0		0	0	0					0	0
Reduced v/c Ratio	0.26	0.29		0.01	0.47	0.11					0.42	0.26

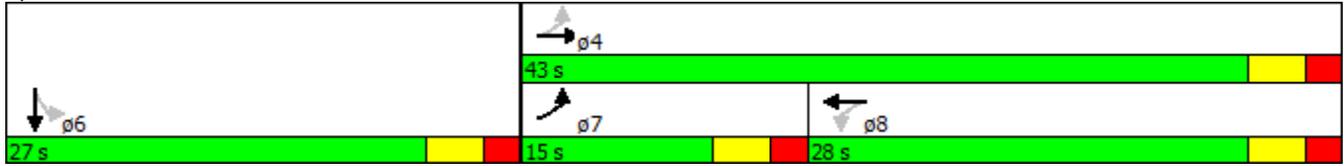
Intersection Summary

Cycle Length: 70
 Actuated Cycle Length: 54.6
 Natural Cycle: 60
 Control Type: Semi Act-Uncoord
 Maximum v/c Ratio: 0.72
 Intersection Signal Delay: 13.8
 Intersection Capacity Utilization 52.6%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service A

19: Hawkins Avenue & Railroad Avenue Lanes, Volumes, Timings

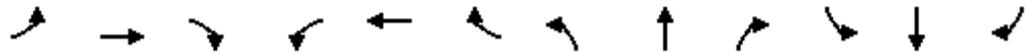
Build 2020 Mit-FullBld wRW
AM Peak

Splits and Phases: 19: Hawkins Avenue & Railroad Avenue



20: Ronkonkoma Avenue & 2nd Street/Powell Street
Lanes, Volumes, Timings

Build 2020 Mit-FullBld wRW
AM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗			↗	↗	↕↔		↗	↕↔	
Volume (vph)	0	0	280	0	0	104	8	474	193	105	1226	36
Satd. Flow (prot)	0	0	1808	0	0	1634	1558	2982	0	1694	3374	0
Flt Permitted							0.157			0.303		
Satd. Flow (perm)	0	0	1808	0	0	1634	257	2982	0	540	3374	0
Satd. Flow (RTOR)			87			307		96			6	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.25	0.25	0.90	0.25	0.25	0.78	0.89	0.89	0.89	0.83	0.83	0.83
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	3%	0%	0%	14%	12%	12%	12%	3%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	311	0	0	133	9	750	0	127	1520	0
Turn Type			custom			custom	Perm	NA		pm+pt	NA	
Protected Phases						1		2		1	6	
Permitted Phases			4			4	2			6		
Detector Phase			4			1	2	2		1	6	
Switch Phase												
Minimum Initial (s)			4.0			4.0	20.0	20.0		4.0	20.0	
Minimum Split (s)			20.0			9.5	26.5	26.5		9.5	26.5	
Total Split (s)			28.0			12.0	60.0	60.0		12.0	72.0	
Total Split (%)			28.0%			12.0%	60.0%	60.0%		12.0%	72.0%	
Yellow Time (s)			3.0			3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)			2.0			2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)			0.0			0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)			5.0			5.5	5.5	5.5		5.5	5.5	
Lead/Lag						Lead	Lag	Lag		Lead		
Lead-Lag Optimize?												
Recall Mode			None			None	C-Max	C-Max		None	C-Max	
Act Effct Green (s)			17.5			29.6	59.4	59.4		72.0	72.0	
Actuated g/C Ratio			0.18			0.30	0.59	0.59		0.72	0.72	
v/c Ratio			0.80			0.19	0.06	0.41		0.27	0.63	
Control Delay			43.6			0.6	11.9	10.9		4.0	9.9	
Queue Delay			0.0			0.0	0.0	0.0		0.0	0.0	
Total Delay			43.6			0.6	11.9	10.9		4.0	9.9	
LOS			D			A	B	B		A	A	
Approach Delay								10.9			9.5	
Approach LOS								B			A	
Queue Length 50th (ft)			138			0	2	111		17	411	
Queue Length 95th (ft)			223			0	11	165		m31	463	
Internal Link Dist (ft)		32			359			519			659	
Turn Bay Length (ft)							71			400		
Base Capacity (vph)			482			700	152	1811		471	2430	
Starvation Cap Reductn			0			0	0	0		0	0	
Spillback Cap Reductn			0			0	0	0		0	0	
Storage Cap Reductn			0			0	0	0		0	0	
Reduced v/c Ratio			0.65			0.19	0.06	0.41		0.27	0.63	

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 21 (21%), Referenced to phase 2:NBT and 6:SBTL, Start of Yellow
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.80
 Intersection Signal Delay: 13.1
 Intersection LOS: B
 Intersection Capacity Utilization 61.1%
 ICU Level of Service B
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

20: Ronkonkoma Avenue & 2nd Street/Powell Street
Lanes, Volumes, Timings

Build 2020 Mit-FullBld wRW
AM Peak

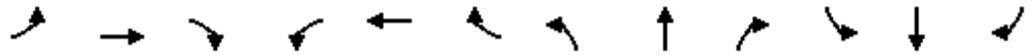
Splits and Phases: 20: Ronkonkoma Avenue & 2nd Street/Powell Street



Intersection			
Intersection Delay, s/veh	5.9		
Intersection LOS	A		
Approach	EB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	77	163	346
Demand Flow Rate, veh/h	79	166	353
Vehicles Circulating, veh/h	55	51	55
Vehicles Exiting, veh/h	353	83	162
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	4.1	4.8	6.8
Approach LOS	A	A	A
Lane	Left	Left	Left
Designated Moves	LR	LT	TR
Assumed Moves	LR	LT	TR
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	79	166	353
Cap Entry Lane, veh/h	1069	1074	1069
Entry HV Adj Factor	0.975	0.981	0.980
Flow Entry, veh/h	77	163	346
Cap Entry, veh/h	1042	1053	1048
V/C Ratio	0.074	0.155	0.330
Control Delay, s/veh	4.1	4.8	6.8
LOS	A	A	A
95th %tile Queue, veh	0	1	1

11: Hawkins Avenue & LIE North Service Road Lanes, Volumes, Timings

Build 2020 Mit-FullBld wRW
PM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕↕		↕	↕↕			↕↕	
Volume (vph)	0	0	0	337	490	265	323	739	0	0	531	145
Satd. Flow (prot)	0	0	0	0	4668	0	1711	3421	0	0	3426	0
Flt Permitted					0.985		0.222					
Satd. Flow (perm)	0	0	0	0	4668	0	400	3421	0	0	3426	0
Satd. Flow (RTOR)					67						30	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.25	0.25	0.25	0.86	0.86	0.86	0.90	0.90	0.25	0.25	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	1270	0	359	821	0	0	735	0
Turn Type				Perm	NA		pm+pt	NA			NA	
Protected Phases					1		8	3			7	
Permitted Phases				1			3					
Detector Phase				1	1		8	3			7	
Switch Phase												
Minimum Initial (s)				25.0	25.0		4.0	16.0			16.0	
Minimum Split (s)				31.3	31.3		10.0	23.0			23.0	
Total Split (s)				40.0	40.0		38.0	80.0			42.0	
Total Split (%)				33.3%	33.3%		31.7%	66.7%			35.0%	
Yellow Time (s)				4.3	4.3		4.0	4.0			4.0	
All-Red Time (s)				2.0	2.0		2.0	2.0			2.0	
Lost Time Adjust (s)					0.0		0.0	0.0			0.0	
Total Lost Time (s)					6.3		6.0	6.0			6.0	
Lead/Lag							Lag				Lead	
Lead-Lag Optimize?												
Recall Mode				C-Max	C-Max		Min	Min			Max	
Act Effct Green (s)					41.6		66.1	66.1			36.0	
Actuated g/C Ratio					0.35		0.55	0.55			0.30	
v/c Ratio					0.77		0.74	0.44			0.70	
Control Delay					37.6		24.8	12.2			39.9	
Queue Delay					0.0		0.0	1.2			0.1	
Total Delay					37.6		24.8	13.4			40.0	
LOS					D		C	B			D	
Approach Delay					37.6			16.9			40.0	
Approach LOS					D			B			D	
Queue Length 50th (ft)					304		180	115			255	
Queue Length 95th (ft)					#378		m163	m114			325	
Internal Link Dist (ft)		204			499			339			134	
Turn Bay Length (ft)							150					
Base Capacity (vph)					1660		596	2109			1048	
Starvation Cap Reductn					0		0	999			0	
Spillback Cap Reductn					0		0	0			23	
Storage Cap Reductn					0		0	0			0	
Reduced v/c Ratio					0.77		0.60	0.74			0.72	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 1:WBTL, Start of Yellow
 Natural Cycle: 75
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.77
 Intersection Signal Delay: 30.5
 Intersection LOS: C
 Intersection Capacity Utilization 100.3%
 ICU Level of Service G
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.

11: Hawkins Avenue & LIE North Service Road Lanes, Volumes, Timings

Build 2020 Mit-FullBld wRW
PM Peak

Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 11: Hawkins Avenue & LIE North Service Road



12: Hawkins Avenue & LIE South Service Road Lanes, Volumes, Timings

Build 2020 Mit-FullBld wRW
PM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	280	1821	300	0	0	0	0	781	205	390	479	0
Satd. Flow (prot)	1711	4813	0	0	0	0	0	3421	1531	1711	3421	0
Flt Permitted	0.950									0.118		
Satd. Flow (perm)	1711	4813	0	0	0	0	0	3421	1531	212	3421	0
Satd. Flow (RTOR)		32							85			
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.97	0.97	0.97	0.25	0.25	0.25	0.25	0.92	0.92	0.94	0.94	0.25
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	0%	0%	0%	0%	2%	2%	2%	2%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	289	2186	0	0	0	0	0	849	223	415	510	0
Turn Type	Perm	NA						NA	Perm	pm+pt	NA	
Protected Phases		1						7		8	3	
Permitted Phases	1								7	3		
Detector Phase	1	1						7	7	8	3	
Switch Phase												
Minimum Initial (s)	25.0	25.0						16.0	16.0	4.0	16.0	
Minimum Split (s)	31.3	31.3						23.0	23.0	10.0	23.0	
Total Split (s)	55.0	55.0						34.0	34.0	31.0	65.0	
Total Split (%)	45.8%	45.8%						28.3%	28.3%	25.8%	54.2%	
Yellow Time (s)	4.3	4.3						4.0	4.0	4.0	4.0	
All-Red Time (s)	2.0	2.0						2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.3	6.3						6.0	6.0	6.0	6.0	
Lead/Lag								Lead	Lead	Lag		
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max						Max	Max	Min	Min	
Act Effct Green (s)	48.7	48.7						28.0	28.0	59.0	59.0	
Actuated g/C Ratio	0.41	0.41						0.23	0.23	0.49	0.49	
v/c Ratio	0.42	1.11						1.06	0.53	1.00	0.30	
Control Delay	27.8	90.7						94.4	29.6	73.8	10.5	
Queue Delay	0.0	0.0						0.0	0.0	0.0	0.0	
Total Delay	27.8	90.7						94.4	29.6	73.8	10.5	
LOS	C	F						F	C	E	B	
Approach Delay		83.3						80.9			38.9	
Approach LOS		F						F			D	
Queue Length 50th (ft)	158	~704						~381	92	295	89	
Queue Length 95th (ft)	235	#800						#510	175	#538	113	
Internal Link Dist (ft)		477			203			244			339	
Turn Bay Length (ft)									85	150		
Base Capacity (vph)	694	1972						798	422	416	1681	
Starvation Cap Reductn	0	0						0	0	0	0	
Spillback Cap Reductn	0	0						0	0	0	0	
Storage Cap Reductn	0	0						0	0	0	0	
Reduced v/c Ratio	0.42	1.11						1.06	0.53	1.00	0.30	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 1:EBTL, Start of Yellow

Natural Cycle: 120

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.11

Intersection Signal Delay: 73.6

Intersection LOS: E

Intersection Capacity Utilization 100.3%

ICU Level of Service G

Analysis Period (min) 15

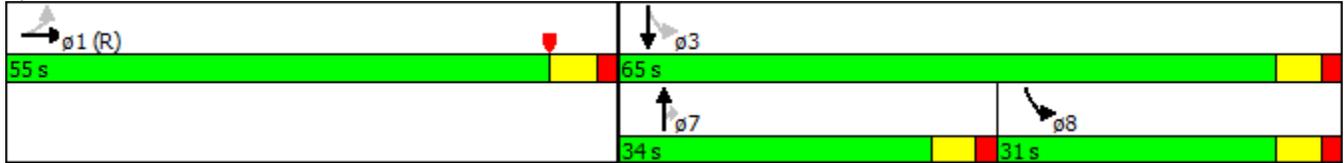
~ Volume exceeds capacity, queue is theoretically infinite.

12: Hawkins Avenue & LIE South Service Road Lanes, Volumes, Timings

Build 2020 Mit-FullBld wRW
PM Peak

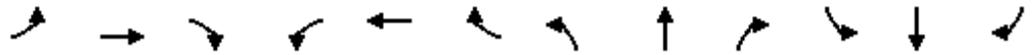
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 12: Hawkins Avenue & LIE South Service Road



13: Ronkonkoma Avenue & LIE North Service Road Lanes, Volumes, Timings

Build 2020 Mit-FullBld wRW
PM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕↕		↕	↕↕			↕↕	
Volume (vph)	0	0	0	257	574	83	304	880	0	0	361	173
Satd. Flow (prot)	0	0	0	0	4687	0	1770	3539	0	0	3366	0
Flt Permitted					0.986		0.220					
Satd. Flow (perm)	0	0	0	0	4687	0	410	3539	0	0	3366	0
Satd. Flow (RTOR)					12						70	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.25	0.25	0.25	0.93	0.93	0.93	0.92	0.92	0.25	0.25	0.84	0.84
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	4%	4%	4%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	982	0	330	957	0	0	636	0
Turn Type				Perm	NA		pm+pt	NA			NA	
Protected Phases					1		8	3			7	
Permitted Phases				1			3					
Detector Phase				1	1		8	3			7	
Switch Phase												
Minimum Initial (s)				24.0	24.0		4.0	17.0			17.0	
Minimum Split (s)				30.7	30.7		10.0	25.9			25.9	
Total Split (s)				31.0	31.0		45.0	89.0			44.0	
Total Split (%)				25.8%	25.8%		37.5%	74.2%			36.7%	
Yellow Time (s)				4.7	4.7		3.9	3.9			3.9	
All-Red Time (s)				2.0	2.0		2.0	2.0			2.0	
Lost Time Adjust (s)					0.0		0.0	0.0			0.0	
Total Lost Time (s)					6.7		5.9	5.9			5.9	
Lead/Lag							Lag				Lead	
Lead-Lag Optimize?												
Recall Mode				C-Max	C-Max		Min	Min			Ped	
Act Effct Green (s)					56.7		50.7	50.7			27.1	
Actuated g/C Ratio					0.47		0.42	0.42			0.23	
v/c Ratio					0.44		0.88	0.64			0.78	
Control Delay					23.5		49.6	16.9			45.4	
Queue Delay					0.0		0.8	0.0			0.0	
Total Delay					23.5		50.4	16.9			45.4	
LOS					C		D	B			D	
Approach Delay					23.5			25.5			45.4	
Approach LOS					C			C			D	
Queue Length 50th (ft)					177		159	181			220	
Queue Length 95th (ft)					272		214	146			241	
Internal Link Dist (ft)		318			629			397			224	
Turn Bay Length (ft)							250					
Base Capacity (vph)					2219		689	2450			1116	
Starvation Cap Reductn					0		146	222			0	
Spillback Cap Reductn					0		0	0			0	
Storage Cap Reductn					0		0	0			0	
Reduced v/c Ratio					0.44		0.61	0.43			0.57	

Intersection Summary
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 1:WBTL, Start of Yellow
 Natural Cycle: 70
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.88
 Intersection Signal Delay: 29.2
 Intersection Capacity Utilization 97.1%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service F

13: Ronkonkoma Avenue & LIE North Service Road Lanes, Volumes, Timings

Build 2020 Mit-FullBld wRW
PM Peak

Splits and Phases: 13: Ronkonkoma Avenue & LIE North Service Road



14: Ronkonkoma Avenue & LIE South Service Road Lanes, Volumes, Timings

Build 2020 Mit-FullBld wRW
PM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	339	1297	128	0	0	0	0	845	807	84	533	0
Satd. Flow (prot)	1711	4852	0	0	0	0	0	3421	1531	1719	3438	0
Flt Permitted	0.950									0.214		
Satd. Flow (perm)	1711	4852	0	0	0	0	0	3421	1531	387	3438	0
Satd. Flow (RTOR)		14							81			
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.88	0.88	0.92	0.25	0.25	0.25	0.25	0.90	0.90	0.90	0.90	0.25
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	0%	0%	0%	0%	2%	2%	5%	5%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												0
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	385	1613	0	0	0	0	0	939	897	93	592	0
Turn Type	Perm	NA						NA	Perm	pm+pt	NA	
Protected Phases		1						7		8	3	
Permitted Phases	1								7	3		
Detector Phase	1	1						7	7	8	3	
Switch Phase												
Minimum Initial (s)	24.0	24.0						17.0	17.0	4.0	17.0	
Minimum Split (s)	30.3	30.3						25.6	25.6	10.0	25.6	
Total Split (s)	46.0	46.0						62.0	62.0	12.0	74.0	
Total Split (%)	38.3%	38.3%						51.7%	51.7%	10.0%	61.7%	
Yellow Time (s)	4.3	4.3						3.6	3.6	3.6	3.6	
All-Red Time (s)	2.0	2.0						2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.3	6.3						5.6	5.6	5.6	5.6	
Lead/Lag								Lead	Lead	Lag		
Lead-Lag Optimize?								Yes	Yes	Yes		
Recall Mode	C-Max	C-Max						Min	Min	Max	Max	
Act Effct Green (s)	39.7	39.7						56.4	56.4	68.4	68.4	
Actuated g/C Ratio	0.33	0.33						0.47	0.47	0.57	0.57	
v/c Ratio	0.68	1.00						0.58	1.18	0.32	0.30	
Control Delay	41.9	62.2						15.1	107.3	18.5	12.0	
Queue Delay	0.0	0.0						0.0	0.0	0.0	0.0	
Total Delay	41.9	62.2						15.1	107.3	18.5	12.0	
LOS	D	E						B	F	B	B	
Approach Delay		58.3						60.2			12.9	
Approach LOS		E						E			B	
Queue Length 50th (ft)	257	452						170	~798	29	103	
Queue Length 95th (ft)	359	#547						m210	m#920	53	132	
Internal Link Dist (ft)		267			295			185			397	
Turn Bay Length (ft)										125		
Base Capacity (vph)	566	1614						1607	762	291	1959	
Starvation Cap Reductn	0	0						0	0	0	0	
Spillback Cap Reductn	0	0						0	0	0	0	
Storage Cap Reductn	0	0						0	0	0	0	
Reduced v/c Ratio	0.68	1.00						0.58	1.18	0.32	0.30	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 1:EBTL, Start of Yellow

Natural Cycle: 140

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.18

Intersection Signal Delay: 52.2

Intersection LOS: D

Intersection Capacity Utilization 97.1%

ICU Level of Service F

Analysis Period (min) 15

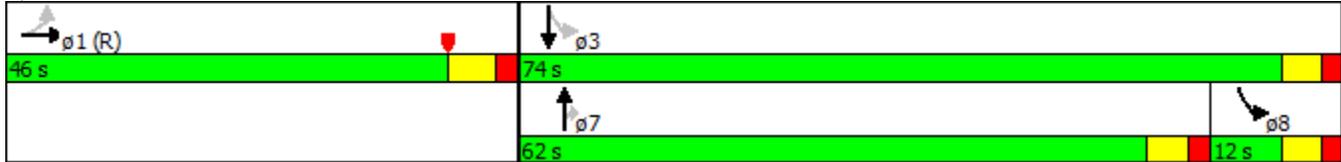
~ Volume exceeds capacity, queue is theoretically infinite.

14: Ronkonkoma Avenue & LIE South Service Road Lanes, Volumes, Timings

Build 2020 Mit-FullBld wRW
PM Peak

- Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
- Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 14: Ronkonkoma Avenue & LIE South Service Road



15: Hawkins Avenue & Union Avenue Lanes, Volumes, Timings

Build 2020 Mit-FullBld wRW
PM Peak



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	78	520	443	91	458	350
Satd. Flow (prot)	1711	2694	3300	0	1694	1783
Flt Permitted	0.950				0.348	
Satd. Flow (perm)	1711	2694	3300	0	621	1783
Satd. Flow (RTOR)			24			
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.89	0.89	0.86	0.86	0.89	0.89
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	3%	3%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	88	584	621	0	515	393
Turn Type	NA	pm+ov	NA		pm+pt	NA
Protected Phases	8	1	2		1	6
Permitted Phases		8			6	
Detector Phase	8	1	2		1	6
Switch Phase						
Minimum Initial (s)	8.0	8.0	25.0		8.0	35.0
Minimum Split (s)	22.0	12.0	30.0		12.0	40.0
Total Split (s)	35.0	32.0	33.0		32.0	65.0
Total Split (%)	35.0%	32.0%	33.0%		32.0%	65.0%
Yellow Time (s)	3.5	3.0	3.5		3.0	3.5
All-Red Time (s)	1.5	1.0	1.5		1.0	1.5
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	5.0	4.0	5.0		4.0	5.0
Lead/Lag		Lead	Lag		Lead	
Lead-Lag Optimize?						
Recall Mode	None	None	C-Min		None	C-Min
Act Effct Green (s)	10.1	36.9	54.1		83.5	83.5
Actuated g/C Ratio	0.10	0.37	0.54		0.84	0.84
v/c Ratio	0.51	0.59	0.35		0.66	0.26
Control Delay	52.7	26.6	15.4		7.8	3.1
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	52.7	26.6	15.4		7.8	3.1
LOS	D	C	B		A	A
Approach Delay	30.1		15.4			5.7
Approach LOS	C		B			A
Queue Length 50th (ft)	55	165	108		64	47
Queue Length 95th (ft)	99	164	188		143	91
Internal Link Dist (ft)	974		698			114
Turn Bay Length (ft)	250	250				
Base Capacity (vph)	513	1121	1795		831	1489
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.17	0.52	0.35		0.62	0.26

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 2 (2%), Referenced to phase 2:NBT and 6:SBTL, Start of Yellow
 Natural Cycle: 70
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.66
 Intersection Signal Delay: 15.9
 Intersection LOS: B
 Intersection Capacity Utilization 64.5%
 ICU Level of Service C
 Analysis Period (min) 15

15: Hawkins Avenue & Union Avenue Lanes, Volumes, Timings

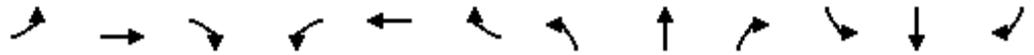
Build 2020 Mit-FullBld wRW
PM Peak

Splits and Phases: 15: Hawkins Avenue & Union Avenue



16: Mill Road & Union Avenue Lanes, Volumes, Timings

Build 2020 Mit-FullBld wRW
PM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	33	456	56	165	466	42	57	103	284	18	9	26
Satd. Flow (prot)	1652	1772	0	1711	1777	0	0	1829	1583	0	1655	0
Flt Permitted	0.413			0.263				0.858			0.844	
Satd. Flow (perm)	718	1772	0	474	1777	0	0	1598	1583	0	1419	0
Satd. Flow (RTOR)		10			9				358		28	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.88	0.88	0.88	0.77	0.77	0.77	0.65	0.65	0.65	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	38	582	0	214	660	0	0	246	437	0	57	0
Turn Type	Perm	NA		pm+pt	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		2		1	6			8			4	
Permitted Phases	2			6			8		8	4		
Detector Phase	2	2		1	6		8	8	8	4	4	
Switch Phase												
Minimum Initial (s)	35.0	35.0		4.0	35.0		8.0	8.0	8.0	8.0	8.0	
Minimum Split (s)	41.0	41.0		8.5	41.0		27.0	27.0	27.0	27.0	27.0	
Total Split (s)	41.0	41.0		10.0	51.0		29.0	29.0	29.0	29.0	29.0	
Total Split (%)	51.3%	51.3%		12.5%	63.8%		36.3%	36.3%	36.3%	36.3%	36.3%	
Yellow Time (s)	4.0	4.0		3.0	4.0		4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	2.0	2.0		1.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0		4.0	6.0		6.0	6.0	6.0	6.0	6.0	
Lead/Lag	Lag	Lag		Lead								
Lead-Lag Optimize?												
Recall Mode	Min	Min		None	Min		None	None	None	None	None	
Act Effct Green (s)	35.2	35.2		47.2	45.2		15.8	15.8	15.8	15.8	15.8	
Actuated g/C Ratio	0.48	0.48		0.65	0.62		0.22	0.22	0.22	0.22	0.22	
v/c Ratio	0.11	0.68		0.52	0.60		0.71	0.70	0.70	0.70	0.17	
Control Delay	13.4	20.6		11.5	12.3		38.2	12.2	12.2	12.2	14.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	13.4	20.6		11.5	12.3		38.2	12.2	12.2	12.2	14.6	
LOS	B	C		B	B		D	B	B	B	B	
Approach Delay		20.2			12.1		21.5				14.6	
Approach LOS		C			B		C				B	
Queue Length 50th (ft)	9	190		34	159		103	29	29		11	
Queue Length 95th (ft)	29	344		65	244		116	28	28		37	
Internal Link Dist (ft)		780			237		676				298	
Turn Bay Length (ft)	75			175				250				
Base Capacity (vph)	345	857		408	1102		505	745	745		467	
Starvation Cap Reductn	0	0		0	0		0	0	0		0	
Spillback Cap Reductn	0	0		0	0		0	0	0		0	
Storage Cap Reductn	0	0		0	0		0	0	0		0	
Reduced v/c Ratio	0.11	0.68		0.52	0.60		0.49	0.59	0.59		0.12	

Intersection Summary

Cycle Length: 80	
Actuated Cycle Length: 73.1	
Natural Cycle: 80	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 17.3	Intersection LOS: B
Intersection Capacity Utilization 84.8%	ICU Level of Service E
Analysis Period (min) 15	

16: Mill Road & Union Avenue Lanes, Volumes, Timings

Build 2020 Mit-FullBld wRW
PM Peak

Splits and Phases: 16: Mill Road & Union Avenue



17: Parking Lot/Powell Street & Railroad Avenue

Lanes, Volumes, Timings

Build 2020 Mit-FullBld wRW
PM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	396	8	6	587	177	13	6	43	441	2	1
Satd. Flow (prot)	1711	1801	1531	1593	3301	0	1805	1706	0	1752	1775	0
Flt Permitted	0.166			0.303			0.833			0.455		
Satd. Flow (perm)	299	1801	1531	508	3301	0	1583	1706	0	839	1775	0
Satd. Flow (RTOR)			82		51			91			1	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	0.82	0.82	0.82	0.47	0.47	0.47	0.78	0.78	0.78
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	0%	0%	0%	3%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	12	440	9	7	932	0	28	104	0	565	4	0
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		2			6			8			7	4
Permitted Phases	2		2	6			8			4		
Detector Phase	2	2	2	6	6		8	8		7	4	
Switch Phase												
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	11.0	11.0	11.0	11.0	11.0		10.0	10.0		8.0	10.0	
Total Split (s)	30.0	30.0	30.0	30.0	30.0		12.0	12.0		38.0	50.0	
Total Split (%)	37.5%	37.5%	37.5%	37.5%	37.5%		15.0%	15.0%		47.5%	62.5%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0		1.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		4.0	5.0	
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None		None	None		None	None	
Act Effct Green (s)	24.1	24.1	24.1	24.1	24.1		6.6	6.6		35.0	33.9	
Actuated g/C Ratio	0.35	0.35	0.35	0.35	0.35		0.10	0.10		0.51	0.49	
v/c Ratio	0.12	0.70	0.02	0.04	0.78		0.19	0.42		0.72	0.00	
Control Delay	19.2	20.5	0.1	19.8	27.1		36.5	16.6		17.5	7.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	19.2	20.5	0.1	19.8	27.1		36.5	16.6		17.5	7.0	
LOS	B	C	A	B	C		D	B		B	A	
Approach Delay		20.0			27.1			20.8			17.5	
Approach LOS		C			C			C			B	
Queue Length 50th (ft)	1	63	0	2	191		12	6		162	1	
Queue Length 95th (ft)	m4	#314	m0	11	257		19	5		199	4	
Internal Link Dist (ft)		331			196			97			192	
Turn Bay Length (ft)	110			120								
Base Capacity (vph)	115	697	643	196	1310		171	266		987	1205	
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.10	0.63	0.01	0.04	0.71		0.16	0.39		0.57	0.00	

Intersection Summary

Cycle Length: 80

Actuated Cycle Length: 68.6

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.78

Intersection Signal Delay: 22.5

Intersection LOS: C

Intersection Capacity Utilization 61.3%

ICU Level of Service B

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

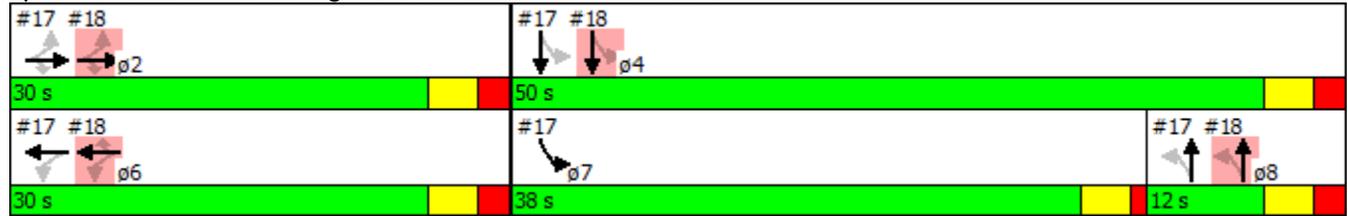
Queue shown is maximum after two cycles.

17: Parking Lot/Powell Street & Railroad Avenue Lanes, Volumes, Timings

Build 2020 Mit-FullBld wRW
PM Peak

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 17: Parking Lot/Powell Street & Railroad Avenue



18: Parking Lot/Northwest Link & Railroad Avenue

Lanes, Volumes, Timings

Build 2020 Mit-FullBld wRW
PM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	8	372	2	4	266	331	4	4	33	10	2	42
Satd. Flow (prot)	1652	1739	1478	1711	1801	1531	0	1795	0	1687	1520	0
Flt Permitted	0.443			0.287				0.956		0.169		
Satd. Flow (perm)	770	1739	1478	517	1801	1531	0	1724	0	300	1520	0
Satd. Flow (RTOR)			82			409		69			69	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.82	0.82	0.82	0.81	0.81	0.81	0.48	0.48	0.48	0.61	0.61	0.61
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	0%	0%	0%	7%	7%	7%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	10	454	2	5	328	409	0	85	0	16	72	0
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6		6	8			4		
Detector Phase	2	2	2	6	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0	6.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	11.0	11.0	11.0	11.0	11.0	11.0	10.0	10.0		10.0	10.0	
Total Split (s)	30.0	30.0	30.0	30.0	30.0	30.0	12.0	12.0		50.0	50.0	
Total Split (%)	37.5%	37.5%	37.5%	37.5%	37.5%	37.5%	15.0%	15.0%		62.5%	62.5%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0		5.0		5.0	5.0	
Lead/Lag							Lag	Lag				
Lead-Lag Optimize?												
Recall Mode	None		None	None								
Act Effct Green (s)	24.1	24.1	24.1	24.1	24.1	24.1		6.6		33.9	33.9	
Actuated g/C Ratio	0.35	0.35	0.35	0.35	0.35	0.35		0.10		0.49	0.49	
v/c Ratio	0.04	0.75	0.00	0.03	0.52	0.51		0.37		0.11	0.09	
Control Delay	19.5	32.2	0.0	18.2	16.3	5.4		17.9		10.4	2.7	
Queue Delay	0.0	0.1	0.0	0.0	0.0	0.9		0.0		0.0	0.0	
Total Delay	19.5	32.3	0.0	18.2	16.3	6.3		17.9		10.4	2.7	
LOS	B	C	A	B	B	A		B		B	A	
Approach Delay		31.9			10.8			17.9			4.1	
Approach LOS		C			B			B			A	
Queue Length 50th (ft)	3	184	0	1	39	0		7		3	1	
Queue Length 95th (ft)	13	#310	0	m1	98	72		10		9	7	
Internal Link Dist (ft)		151			331			90			181	
Turn Bay Length (ft)	130		130	200								
Base Capacity (vph)	298	674	623	200	697	843		248		203	1054	
Starvation Cap Reductn	0	0	0	0	0	201		0		0	0	
Spillback Cap Reductn	0	13	0	0	0	0		0		0	0	
Storage Cap Reductn	0	0	0	0	0	0		0		0	0	
Reduced v/c Ratio	0.03	0.69	0.00	0.03	0.47	0.64		0.34		0.08	0.07	

Intersection Summary

Cycle Length: 80

Actuated Cycle Length: 68.6

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.78

Intersection Signal Delay: 17.9

Intersection LOS: B

Intersection Capacity Utilization 41.3%

ICU Level of Service A

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

**18: Parking Lot/Northwest Link & Railroad Avenue
Lanes, Volumes, Timings**

Build 2020 Mit-FullBld wRW
PM Peak

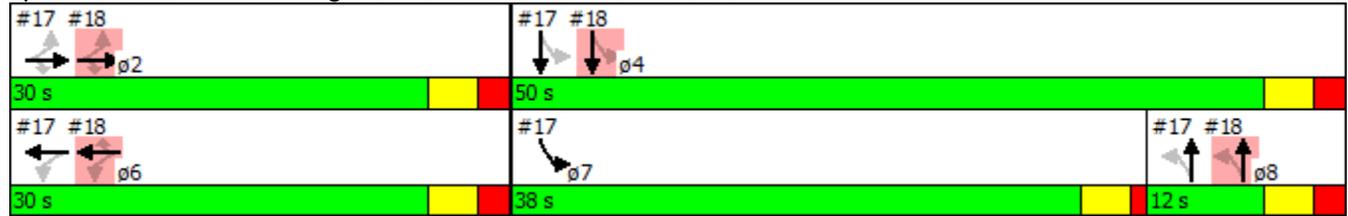
Lane Group	ø7
Lane Configurations	
Volume (vph)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Satd. Flow (RTOR)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Growth Factor	
Heavy Vehicles (%)	
Bus Blockages (#/hr)	
Parking (#/hr)	
Mid-Block Traffic (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	7
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	8.0
Total Split (s)	38.0
Total Split (%)	48%
Yellow Time (s)	3.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

18: Parking Lot/Northwest Link & Railroad Avenue Lanes, Volumes, Timings

Build 2020 Mit-FullBld wRW
PM Peak

m Volume for 95th percentile queue is metered by upstream signal.

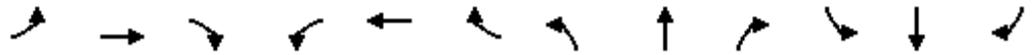
Splits and Phases: 18: Parking Lot/Northwest Link & Railroad Avenue



19: Hawkins Avenue & Railroad Avenue

Lanes, Volumes, Timings

Build 2020 Mit-FullBld wRW
PM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	291	489	13	6	422	236	0	0	0	181	10	217
Satd. Flow (prot)	1711	1793	0	1593	1801	1531	0	0	0	0	1720	1531
Flt Permitted	0.143			0.407							0.955	
Satd. Flow (perm)	257	1793	0	682	1801	1531	0	0	0	0	1720	1531
Satd. Flow (RTOR)		3				201						265
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.74	0.74	0.74	0.73	0.73	0.73	0.25	0.25	0.25	0.82	0.82	0.82
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	0%	0%	0%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	393	679	0	8	578	323	0	0	0	0	233	265
Turn Type	pm+pt	NA		Perm	NA	Free				Perm	NA	Free
Protected Phases	7	4		8	8						6	
Permitted Phases	4			8		Free				6		Free
Detector Phase	7	4		8	8					6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0					4.0	4.0	
Minimum Split (s)	9.0	21.0		21.0	21.0					21.0	21.0	
Total Split (s)	20.0	53.0		33.0	33.0					27.0	27.0	
Total Split (%)	25.0%	66.3%		41.3%	41.3%					33.8%	33.8%	
Yellow Time (s)	3.0	3.0		3.0	3.0					3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0					2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0						0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0						5.0	
Lead/Lag	Lead			Lag	Lag							
Lead-Lag Optimize?												
Recall Mode	None	None		None	None					Min	Min	
Act Effct Green (s)	46.4	46.4		26.2	26.2	71.2					14.7	71.2
Actuated g/C Ratio	0.65	0.65		0.37	0.37	1.00					0.21	1.00
v/c Ratio	0.83	0.58		0.03	0.87	0.21					0.66	0.17
Control Delay	32.2	10.3		16.7	38.4	0.3					35.5	0.2
Queue Delay	0.0	0.0		0.0	0.0	0.0					0.0	0.0
Total Delay	32.2	10.3		16.7	38.4	0.3					35.5	0.2
LOS	C	B		B	D	A					D	A
Approach Delay		18.3			24.7						16.7	
Approach LOS		B			C						B	
Queue Length 50th (ft)	107	142		2	229	0					97	0
Queue Length 95th (ft)	#192	211		9	297	0					148	0
Internal Link Dist (ft)		310			412			51			698	
Turn Bay Length (ft)				175		175						250
Base Capacity (vph)	476	1222		270	715	1531					537	1531
Starvation Cap Reductn	0	0		0	0	0					0	0
Spillback Cap Reductn	0	0		0	0	0					0	0
Storage Cap Reductn	0	0		0	0	0					0	0
Reduced v/c Ratio	0.83	0.56		0.03	0.81	0.21					0.43	0.17

Intersection Summary

Cycle Length: 80
 Actuated Cycle Length: 71.2
 Natural Cycle: 70
 Control Type: Semi Act-Uncoord
 Maximum v/c Ratio: 0.87
 Intersection Signal Delay: 20.3
 Intersection LOS: C
 Intersection Capacity Utilization 61.4%
 ICU Level of Service B
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

19: Hawkins Avenue & Railroad Avenue Lanes, Volumes, Timings

Build 2020 Mit-FullBld wRW
PM Peak

Splits and Phases: 19: Hawkins Avenue & Railroad Avenue



20: Ronkonkoma Avenue & 2nd Street/Powell Street Lanes, Volumes, Timings

Build 2020 Mit-FullBld wRW
PM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗			↗	↗	↕↗		↗	↕↗	
Volume (vph)	0	0	337	0	0	188	13	1483	294	150	521	35
Satd. Flow (prot)	0	0	1826	0	0	1774	1745	3336	0	1745	3290	0
Flt Permitted							0.394			0.048		
Satd. Flow (perm)	0	0	1826	0	0	1774	724	3336	0	88	3290	0
Satd. Flow (RTOR)			376			28		36			18	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.25	0.25	0.62	0.25	0.25	0.71	0.88	0.88	0.88	0.82	0.82	0.82
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	2%	0%	0%	5%	0%	2%	2%	0%	5%	5%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	544	0	0	265	15	2019	0	183	678	0
Turn Type			custom			custom	Perm	NA		pm+pt	NA	
Protected Phases						1		2		1	6	
Permitted Phases			4			4	2			6		
Detector Phase			4			1	2	2		1	6	
Switch Phase												
Minimum Initial (s)			4.0			4.0	20.0	20.0		4.0	20.0	
Minimum Split (s)			20.0			9.5	26.5	26.5		9.5	26.5	
Total Split (s)			22.0			18.0	80.0	80.0		18.0	98.0	
Total Split (%)			18.3%			15.0%	66.7%	66.7%		15.0%	81.7%	
Yellow Time (s)			3.0			3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)			2.0			2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)			0.0			0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)			5.0			5.5	5.5	5.5		5.5	5.5	
Lead/Lag						Lead	Lag	Lag		Lead		
Lead-Lag Optimize?												
Recall Mode			None			None	C-Max	C-Max		None	C-Max	
Act Effct Green (s)			15.7			31.9	77.1	77.1		93.8	93.8	
Actuated g/C Ratio			0.13			0.27	0.64	0.64		0.78	0.78	
v/c Ratio			0.96			0.54	0.03	0.94		0.82	0.26	
Control Delay			45.6			37.4	9.2	29.6		53.6	6.7	
Queue Delay			0.0			0.0	0.0	0.0		0.0	0.0	
Total Delay			45.6			37.4	9.2	29.6		53.6	6.7	
LOS			D			D	A	C		D	A	
Approach Delay								29.5			16.6	
Approach LOS								C			B	
Queue Length 50th (ft)			139			153	4	724		106	87	
Queue Length 95th (ft)			64			174	13	#920		m154	m106	
Internal Link Dist (ft)		32			359			519				659
Turn Bay Length (ft)							71			400		
Base Capacity (vph)			581			510	465	2156		241	2575	
Starvation Cap Reductn			0			0	0	0		0	0	
Spillback Cap Reductn			0			0	0	0		0	0	
Storage Cap Reductn			0			0	0	0		0	0	
Reduced v/c Ratio			0.94			0.52	0.03	0.94		0.76	0.26	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 47 (39%), Referenced to phase 2:NBT and 6:SBTL, Start of Yellow

Natural Cycle: 110

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.96

Intersection Signal Delay: 29.4

Intersection LOS: C

Intersection Capacity Utilization 71.2%

ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

20: Ronkonkoma Avenue & 2nd Street/Powell Street Lanes, Volumes, Timings

Build 2020 Mit-FullBld wRW
PM Peak

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

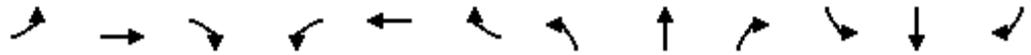
Splits and Phases: 20: Ronkonkoma Avenue & 2nd Street/Powell Street



Intersection			
Intersection Delay, s/veh	7.8		
Intersection LOS	A		
Approach	EB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	483	109	250
Demand Flow Rate, veh/h	493	112	255
Vehicles Circulating, veh/h	84	409	28
Vehicles Exiting, veh/h	199	168	493
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	100	0	0
Ped Cap Adj	0.986	1.000	1.000
Approach Delay, s/veh	9.3	6.5	5.5
Approach LOS	A	A	A
Lane	Left	Left	Left
Designated Moves	LR	LT	TR
Assumed Moves	LR	LT	TR
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	493	112	255
Cap Entry Lane, veh/h	1039	751	1099
Entry HV Adj Factor	0.980	0.976	0.982
Flow Entry, veh/h	483	109	250
Cap Entry, veh/h	1004	733	1079
V/C Ratio	0.481	0.149	0.232
Control Delay, s/veh	9.3	6.5	5.5
LOS	A	A	A
95th %tile Queue, veh	3	1	1

11: Hawkins Avenue & LIE North Service Road Lanes, Volumes, Timings

Build 2020 Mit-60% of Bld Volume
AM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕↕		↗	↕↕			↕↕	
Volume (vph)	0	0	0	473	1696	163	198	279	0	0	370	150
Satd. Flow (prot)	0	0	0	0	4818	0	1662	3323	0	0	3354	0
Flt Permitted					0.990		0.230					
Satd. Flow (perm)	0	0	0	0	4818	0	402	3323	0	0	3354	0
Satd. Flow (RTOR)					17						43	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.25	0.25	0.25	0.96	0.96	0.96	0.88	0.88	0.25	0.25	0.84	0.84
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	2%	2%	2%	5%	5%	5%	3%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	2430	0	225	317	0	0	619	0
Turn Type				Perm	NA		pm+pt	NA			NA	
Protected Phases					1		8	3			7	
Permitted Phases				1			3					
Detector Phase				1	1		8	3			7	
Switch Phase												
Minimum Initial (s)				25.0	25.0		4.0	16.0			16.0	
Minimum Split (s)				31.3	31.3		10.0	23.0			23.0	
Total Split (s)				57.0	57.0		17.0	43.0			26.0	
Total Split (%)				57.0%	57.0%		17.0%	43.0%			26.0%	
Yellow Time (s)				4.3	4.3		4.0	4.0			4.0	
All-Red Time (s)				2.0	2.0		2.0	2.0			2.0	
Lost Time Adjust (s)					0.0		0.0	0.0			0.0	
Total Lost Time (s)					6.3		6.0	6.0			6.0	
Lead/Lag							Lag				Lead	
Lead-Lag Optimize?												
Recall Mode				C-Max	C-Max		Min	Min			Max	
Act Effct Green (s)					51.7		36.0	36.0			20.0	
Actuated g/C Ratio					0.52		0.36	0.36			0.20	
v/c Ratio					0.97		0.83	0.27			0.88	
Control Delay					36.7		40.2	14.2			51.3	
Queue Delay					0.0		0.0	0.0			0.9	
Total Delay					36.7		40.2	14.2			52.2	
LOS					D		D	B			D	
Approach Delay					36.7			25.0			52.2	
Approach LOS					D			C			D	
Queue Length 50th (ft)					535		83	44			190	
Queue Length 95th (ft)					#683		#183	61			#250	
Internal Link Dist (ft)		204			499			339			134	
Turn Bay Length (ft)							150					
Base Capacity (vph)					2501		287	1229			705	
Starvation Cap Reductn					0		0	0			0	
Spillback Cap Reductn					0		0	0			14	
Storage Cap Reductn					0		0	0			0	
Reduced v/c Ratio					0.97		0.78	0.26			0.90	

Intersection Summary

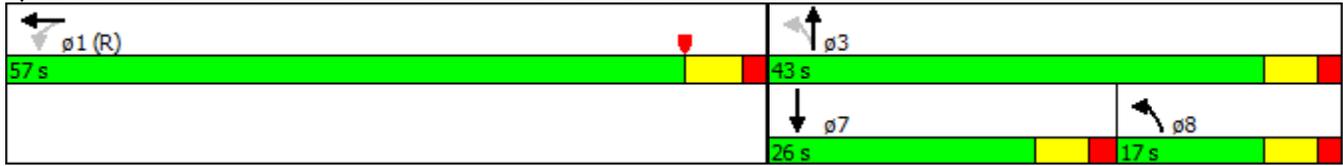
Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 10 (10%), Referenced to phase 1:WBTL, Start of Yellow
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.97
 Intersection Signal Delay: 37.6
 Intersection LOS: D
 Intersection Capacity Utilization 87.2%
 ICU Level of Service E
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.

11: Hawkins Avenue & LIE North Service Road Lanes, Volumes, Timings

Build 2020 Mit-60% of Bld Volume
AM Peak

Queue shown is maximum after two cycles.

Splits and Phases: 11: Hawkins Avenue & LIE North Service Road



12: Hawkins Avenue & LIE South Service Road Lanes, Volumes, Timings

Build 2020 Mit-60% of Bld Volume
AM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	120	408	126	0	0	0	0	357	99	196	645	0
Satd. Flow (prot)	1558	4320	0	0	0	0	0	3231	1446	1694	3388	0
Flt Permitted	0.950									0.471		
Satd. Flow (perm)	1558	4320	0	0	0	0	0	3231	1446	840	3388	0
Satd. Flow (RTOR)		96							112			
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.82	0.82	0.82	0.25	0.25	0.25	0.25	0.88	0.88	0.80	0.80	0.25
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	12%	12%	12%	0%	0%	0%	0%	8%	8%	3%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	146	652	0	0	0	0	0	406	112	245	806	0
Turn Type	Perm	NA						NA	Perm	pm+pt	NA	
Protected Phases		1						7		8	3	
Permitted Phases	1								7	3		
Detector Phase	1	1						7	7	8	3	
Switch Phase												
Minimum Initial (s)	25.0	25.0						16.0	16.0	4.0	16.0	
Minimum Split (s)	31.3	31.3						24.0	24.0	10.0	26.0	
Total Split (s)	50.0	50.0						38.0	38.0	12.0	50.0	
Total Split (%)	50.0%	50.0%						38.0%	38.0%	12.0%	50.0%	
Yellow Time (s)	4.3	4.3						4.0	4.0	4.0	4.0	
All-Red Time (s)	2.0	2.0						2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.3	6.3						6.0	6.0	6.0	6.0	
Lead/Lag								Lead	Lead	Lag		
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max						Max	Max	Min	Min	
Act Effct Green (s)	43.7	43.7						32.0	32.0	44.0	44.0	
Actuated g/C Ratio	0.44	0.44						0.32	0.32	0.44	0.44	
v/c Ratio	0.21	0.34						0.39	0.21	0.58	0.54	
Control Delay	18.6	16.2						27.8	5.8	24.3	18.6	
Queue Delay	0.0	0.0						0.0	0.0	0.0	1.9	
Total Delay	18.6	16.2						27.8	5.8	24.3	20.5	
LOS	B	B						C	A	C	C	
Approach Delay		16.6						23.1			21.4	
Approach LOS		B						C			C	
Queue Length 50th (ft)	56	82						105	0	92	164	
Queue Length 95th (ft)	88	97						144	36	m102	m173	
Internal Link Dist (ft)		477			203			244			339	
Turn Bay Length (ft)									85	150		
Base Capacity (vph)	680	1942						1033	538	420	1490	
Starvation Cap Reductn	0	0						0	0	0	501	
Spillback Cap Reductn	0	0						0	0	0	0	
Storage Cap Reductn	0	0						0	0	0	0	
Reduced v/c Ratio	0.21	0.34						0.39	0.21	0.58	0.81	

Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 10 (10%), Referenced to phase 1:EBTL, Start of Yellow

Natural Cycle: 70

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.58

Intersection Signal Delay: 20.1

Intersection LOS: C

Intersection Capacity Utilization 87.2%

ICU Level of Service E

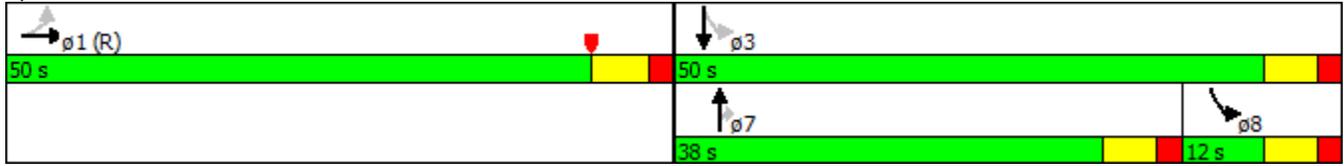
Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

12: Hawkins Avenue & LIE South Service Road Lanes, Volumes, Timings

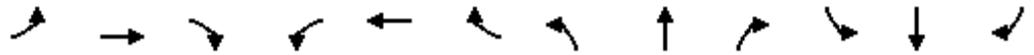
Build 2020 Mit-60% of Bld Volume
AM Peak

Splits and Phases: 12: Hawkins Avenue & LIE South Service Road



13: Ronkonkoma Avenue & LIE North Service Road Build 2020 Mit-60% of Bld Volume Lanes, Volumes, Timings

AM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕↕		↕	↕↕			↕↕	
Volume (vph)	0	0	0	664	1107	72	157	315	0	0	570	265
Satd. Flow (prot)	0	0	0	0	4752	0	1671	3343	0	0	3305	0
Flt Permitted					0.982		0.121					
Satd. Flow (perm)	0	0	0	0	4752	0	213	3343	0	0	3305	0
Satd. Flow (RTOR)					7						58	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.25	0.25	0.25	0.93	0.93	0.93	0.94	0.94	0.25	0.25	0.85	0.85
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	3%	3%	3%	8%	8%	0%	0%	4%	4%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	1981	0	167	335	0	0	983	0
Turn Type				Perm	NA		pm+pt	NA			NA	
Protected Phases					1		8	3			7	
Permitted Phases				1			3					
Detector Phase				1	1		8	3			7	
Switch Phase												
Minimum Initial (s)				24.0	24.0		4.0	17.0			17.0	
Minimum Split (s)				30.7	30.7		10.0	25.9			25.9	
Total Split (s)				47.0	47.0		15.0	53.0			38.0	
Total Split (%)				47.0%	47.0%		15.0%	53.0%			38.0%	
Yellow Time (s)				4.7	4.7		3.9	3.9			3.9	
All-Red Time (s)				2.0	2.0		2.0	2.0			2.0	
Lost Time Adjust (s)					0.0		0.0	0.0			0.0	
Total Lost Time (s)					6.7		5.9	5.9			5.9	
Lead/Lag							Lag				Lead	
Lead-Lag Optimize?												
Recall Mode				C-Max	C-Max		Min	Min			Ped	
Act Effct Green (s)					41.5		45.9	45.9			31.4	
Actuated g/C Ratio					0.42		0.46	0.46			0.31	
v/c Ratio					1.00		0.75	0.22			0.91	
Control Delay					51.2		51.9	9.7			44.5	
Queue Delay					0.0		0.0	0.0			8.5	
Total Delay					51.2		51.9	9.7			52.9	
LOS					D		D	A			D	
Approach Delay					51.2			23.7			52.9	
Approach LOS					D			C			D	
Queue Length 50th (ft)					~498		88	40			296	
Queue Length 95th (ft)					#597		#177	56			350	
Internal Link Dist (ft)		318			629			397			224	
Turn Bay Length (ft)							250					
Base Capacity (vph)					1975		231	1574			1100	
Starvation Cap Reductn					0		0	0			0	
Spillback Cap Reductn					0		0	0			101	
Storage Cap Reductn					0		0	0			0	
Reduced v/c Ratio					1.00		0.72	0.21			0.98	

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 12 (12%), Referenced to phase 1:WBTL, Start of Yellow
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.00
 Intersection Signal Delay: 47.7
 Intersection Capacity Utilization 84.8%
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.

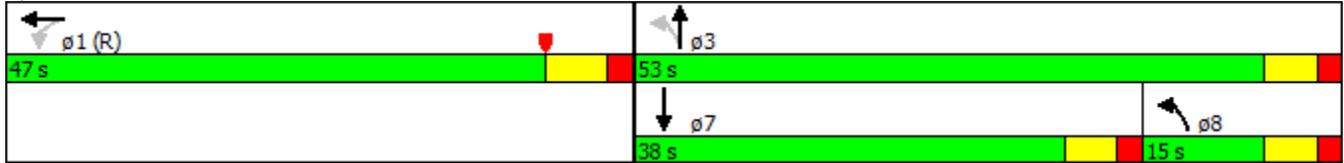
Intersection LOS: D
 ICU Level of Service E

13: Ronkonkoma Avenue & LIE North Service Road Build 2020 Mit-60% of Bld Volume Lanes, Volumes, Timings

AM Peak

Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 13: Ronkonkoma Avenue & LIE North Service Road



14: Ronkonkoma Avenue & LIE South Service Road Build 2020 Mit-60% of Bld Volume Lanes, Volumes, Timings

AM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	167	357	350	0	0	0	0	305	195	100	1134	0
Satd. Flow (prot)	1631	4339	0	0	0	0	0	3061	1369	1752	3505	0
Flt Permitted	0.950									0.442		
Satd. Flow (perm)	1631	4339	0	0	0	0	0	3061	1369	815	3505	0
Satd. Flow (RTOR)		30							238			
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.25	0.25	0.25	0.25	0.82	0.82	0.80	0.80	0.25
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	7%	7%	7%	0%	0%	0%	0%	14%	14%	3%	3%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	184	777	0	0	0	0	0	372	238	125	1418	0
Turn Type	Perm	NA						NA	Perm	pm+pt	NA	
Protected Phases		1						7		8	3	
Permitted Phases	1								7	3		
Detector Phase	1	1						7	7	8	3	
Switch Phase												
Minimum Initial (s)	24.0	24.0						17.0	17.0	4.0	17.0	
Minimum Split (s)	30.3	30.3						25.6	25.6	10.0	25.6	
Total Split (s)	41.0	41.0						47.0	47.0	12.0	51.0	
Total Split (%)	41.0%	41.0%						47.0%	47.0%	12.0%	51.0%	
Yellow Time (s)	4.3	4.3						3.6	3.6	3.6	3.6	
All-Red Time (s)	2.0	2.0						2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.3	6.3						5.6	5.6	5.6	5.6	
Lead/Lag								Lead	Lead	Lag		
Lead-Lag Optimize?								Yes	Yes	Yes		
Recall Mode	C-Max	C-Max						Min	Min	Max	Max	
Act Effct Green (s)	34.7	34.7						19.7	19.7	53.4	53.4	
Actuated g/C Ratio	0.35	0.35						0.20	0.20	0.53	0.53	
v/c Ratio	0.33	0.51						0.62	0.52	0.18	0.76	
Control Delay	26.1	26.2						33.8	15.3	9.5	15.4	
Queue Delay	0.0	0.0						0.0	0.0	0.0	5.7	
Total Delay	26.1	26.2						33.8	15.3	9.5	21.1	
LOS	C	C						C	B	A	C	
Approach Delay		26.2						26.6			20.1	
Approach LOS		C						C			C	
Queue Length 50th (ft)	85	136						117	48	32	281	
Queue Length 95th (ft)	143	176						142	111	m36	m281	
Internal Link Dist (ft)		267			295			185			397	
Turn Bay Length (ft)										125		
Base Capacity (vph)	565	1525						1267	706	698	1871	
Starvation Cap Reductn	0	0						0	0	0	396	
Spillback Cap Reductn	0	0						0	0	0	0	
Storage Cap Reductn	0	0						0	0	0	0	
Reduced v/c Ratio	0.33	0.51						0.29	0.34	0.18	0.96	

Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 7 (7%), Referenced to phase 1:EBTL, Start of Yellow

Natural Cycle: 70

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.76

Intersection Signal Delay: 23.3

Intersection LOS: C

Intersection Capacity Utilization 84.8%

ICU Level of Service E

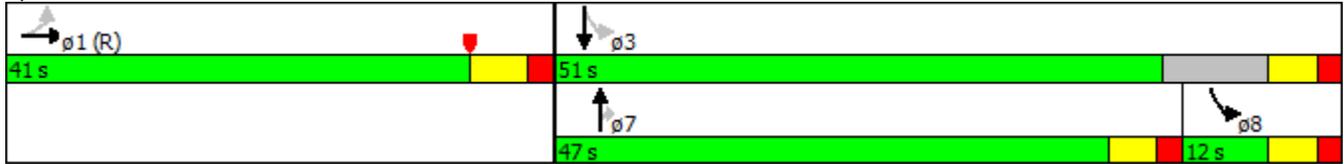
Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

14: Ronkonkoma Avenue & LIE South Service Road Build 2020 Mit-60% of Bld Volume Lanes, Volumes, Timings

AM Peak

Splits and Phases: 14: Ronkonkoma Avenue & LIE South Service Road



15: Hawkins Avenue & Union Avenue Lanes, Volumes, Timings

Build 2020 Mit-60% of Bld Volume
AM Peak



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	120	250	209	35	319	461
Satd. Flow (prot)	1646	1473	1653	0	1694	1783
Flt Permitted	0.950				0.492	
Satd. Flow (perm)	1646	1473	1653	0	877	1783
Satd. Flow (RTOR)		325	13			
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.77	0.77	0.84	0.84	0.72	0.72
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	6%	6%	9%	9%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	156	325	291	0	443	640
Turn Type	NA	pm+ov	NA		pm+pt	NA
Protected Phases	8	1	2		1	6
Permitted Phases		8			6	
Detector Phase	8	1	2		1	6
Switch Phase						
Minimum Initial (s)	8.0	8.0	35.0		8.0	35.0
Minimum Split (s)	22.0	12.0	40.0		12.0	40.0
Total Split (s)	22.0	19.0	40.0		19.0	59.0
Total Split (%)	27.2%	23.5%	49.4%		23.5%	72.8%
Yellow Time (s)	3.5	3.0	3.5		3.0	3.5
All-Red Time (s)	1.5	1.0	1.5		1.0	1.5
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	5.0	4.0	5.0		4.0	5.0
Lead/Lag		Lead	Lag		Lead	
Lead-Lag Optimize?		Yes	Yes		Yes	
Recall Mode	None	None	Min		None	Min
Act Effct Green (s)	11.5	27.7	35.2		51.4	50.4
Actuated g/C Ratio	0.16	0.38	0.49		0.71	0.70
v/c Ratio	0.59	0.42	0.36		0.59	0.51
Control Delay	38.3	3.6	13.8		7.9	7.3
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	38.3	3.6	13.8		7.9	7.3
LOS	D	A	B		A	A
Approach Delay	14.8		13.8			7.6
Approach LOS	B		B			A
Queue Length 50th (ft)	65	0	70		59	105
Queue Length 95th (ft)	106	22	142		95	153
Internal Link Dist (ft)	974		698			171
Turn Bay Length (ft)	250					
Base Capacity (vph)	391	829	815		797	1345
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.40	0.39	0.36		0.56	0.48

Intersection Summary

Cycle Length: 81
 Actuated Cycle Length: 72
 Natural Cycle: 75
 Control Type: Semi Act-Uncoord
 Maximum v/c Ratio: 0.59
 Intersection Signal Delay: 10.4
 Intersection Capacity Utilization 65.2%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service C

15: Hawkins Avenue & Union Avenue Lanes, Volumes, Timings

Build 2020 Mit-60% of Bld Volume
AM Peak

Splits and Phases: 15: Hawkins Avenue & Union Avenue



16: Mill Road & Union Avenue Lanes, Volumes, Timings

Build 2020 Mit-60% of Bld Volume
AM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	6	141	25	245	449	13	20	30	66	7	11	17
Satd. Flow (prot)	1574	1677	0	1694	1776	0	0	1773	1538	0	1651	0
Flt Permitted	0.479			0.563				0.846			0.910	
Satd. Flow (perm)	794	1677	0	1004	1776	0	0	1531	1538	0	1517	0
Satd. Flow (RTOR)		14			3				95		23	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.79	0.79	0.79	0.92	0.92	0.92	0.78	0.78	0.78	0.73	0.73	0.73
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	7%	7%	7%	3%	3%	3%	5%	5%	5%	3%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	8	210	0	266	502	0	0	64	85	0	48	0
Turn Type	Perm	NA		pm+pt	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		2		1	6			8			4	
Permitted Phases	2			6			8		8	4		
Detector Phase	2	2		1	6		8	8	8	4	4	
Switch Phase												
Minimum Initial (s)	35.0	35.0		4.0	35.0		8.0	8.0	8.0	8.0	8.0	
Minimum Split (s)	41.0	41.0		8.0	41.0		27.0	27.0	27.0	27.0	27.0	
Total Split (s)	41.0	41.0		12.0	53.0		27.0	27.0	27.0	27.0	27.0	
Total Split (%)	51.3%	51.3%		15.0%	66.3%		33.8%	33.8%	33.8%	33.8%	33.8%	
Yellow Time (s)	4.0	4.0		3.0	4.0		4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	2.0	2.0		1.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0		4.0	6.0		6.0	6.0	6.0	6.0	6.0	
Lead/Lag	Lag	Lag		Lead								
Lead-Lag Optimize?	Yes	Yes										
Recall Mode	Min	Min		None	Min		None	None	None	None	None	
Act Effct Green (s)	35.5	35.5		49.0	48.5		8.5	8.5	8.5	8.5	8.5	
Actuated g/C Ratio	0.55	0.55		0.76	0.76		0.13	0.13	0.13	0.13	0.13	
v/c Ratio	0.02	0.22		0.31	0.37		0.32	0.30	0.32	0.30	0.22	
Control Delay	8.3	9.0		4.0	5.0		31.5	8.9	31.5	8.9	19.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	8.3	9.0		4.0	5.0		31.5	8.9	31.5	8.9	19.6	
LOS	A	A		A	A		C	A	C	A	B	
Approach Delay		9.0			4.6		18.6		18.6		19.6	
Approach LOS		A			A		B		B		B	
Queue Length 50th (ft)	2	40		26	68		25	0	25	0	9	
Queue Length 95th (ft)	7	68		53	124		50	22	50	22	28	
Internal Link Dist (ft)		780			237		676		676		298	
Turn Bay Length (ft)	75			175					250			
Base Capacity (vph)	439	935		855	1321		508	574	508	574	519	
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	
Reduced v/c Ratio	0.02	0.22		0.31	0.38		0.13	0.15	0.13	0.15	0.09	

Intersection Summary

Cycle Length: 80
 Actuated Cycle Length: 64.1
 Natural Cycle: 80
 Control Type: Semi Act-Uncoord
 Maximum v/c Ratio: 0.37
 Intersection Signal Delay: 7.8
 Intersection Capacity Utilization 81.4%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service D

16: Mill Road & Union Avenue Lanes, Volumes, Timings

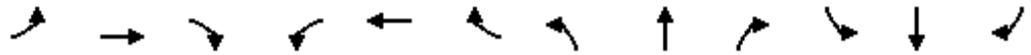
Build 2020 Mit-60% of Bld Volume
AM Peak

Splits and Phases: 16: Mill Road & Union Avenue



17: Parking Lot/Powell Street & Railroad Avenue Lanes, Volumes, Timings

Build 2020 Mit-60% of Bld Volume
AM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	4	140	10	8	446	71	9	1	9	198	2	1
Satd. Flow (prot)	1646	1733	1473	1562	3285	0	1752	1643	0	1736	1736	0
Flt Permitted	0.439			0.639						0.755		
Satd. Flow (perm)	761	1733	1473	1051	3285	0	1845	1643	0	1379	1736	0
Satd. Flow (RTOR)			94		33			11			1	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.74	0.74	0.74	0.91	0.91	0.91	0.80	0.80	0.80	0.85	0.85	0.85
Growth Factor	50%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	6%	6%	6%	4%	4%	4%	3%	3%	3%	4%	4%	4%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	3	189	14	9	568	0	11	12	0	233	3	0
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		2			6			8		7	4	
Permitted Phases	2		2	6			8			4		
Detector Phase	2	2	2	6	6		8	8		7	4	
Switch Phase												
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	11.0	11.0	11.0	11.0	11.0		10.0	10.0		8.0	10.0	
Total Split (s)	36.0	36.0	36.0	36.0	36.0		10.0	10.0		24.0	34.0	
Total Split (%)	51.4%	51.4%	51.4%	51.4%	51.4%		14.3%	14.3%		34.3%	48.6%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0		1.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		4.0	5.0	
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None		None	None		None	None	
Act Effct Green (s)	21.3	21.3	21.3	21.3	21.3		6.9	6.9		15.6	14.1	
Actuated g/C Ratio	0.53	0.53	0.53	0.53	0.53		0.17	0.17		0.39	0.35	
v/c Ratio	0.01	0.20	0.02	0.02	0.32		0.03	0.04		0.36	0.00	
Control Delay	5.0	5.2	0.0	10.1	9.4		25.8	17.0		12.4	10.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	5.0	5.2	0.0	10.1	9.4		25.8	17.0		12.4	10.0	
LOS	A	A	A	B	A		C	B		B	A	
Approach Delay		4.8			9.4			21.2			12.3	
Approach LOS		A			A			C			B	
Queue Length 50th (ft)	0	12	0	1	30		2	0		33	0	
Queue Length 95th (ft)	m1	19	0	10	113		17	13		104	5	
Internal Link Dist (ft)		331			196			79			192	
Turn Bay Length (ft)	110			120								
Base Capacity (vph)	599	1364	1180	827	2594		318	292		1083	1324	
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.01	0.14	0.01	0.01	0.22		0.03	0.04		0.22	0.00	

Intersection Summary

Cycle Length: 70

Actuated Cycle Length: 40

Natural Cycle: 40

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.36

Intersection Signal Delay: 9.4

Intersection LOS: A

Intersection Capacity Utilization 40.6%

ICU Level of Service A

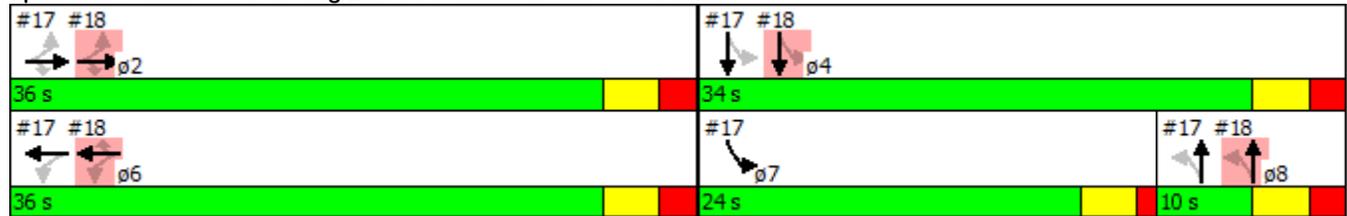
Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

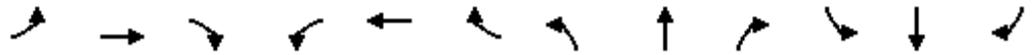
**17: Parking Lot/Powell Street & Railroad Avenue
Lanes, Volumes, Timings**

Build 2020 Mit-60% of Bld Volume
AM Peak

Splits and Phases: 17: Parking Lot/Powell Street & Railroad Avenue



18: Parking Lot/Northwest Link & Railroad Avenue **Build 2020 Mit-60% of Bld Volume**
Lanes, Volumes, Timings AM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	144	5	60	233	163	3	2	3	5	5	26
Satd. Flow (prot)	1604	1689	1436	1694	1783	1516	0	1885	0	1530	1407	0
Flt Permitted	0.602			0.622						0.433		
Satd. Flow (perm)	1017	1689	1436	1109	1783	1516	0	1921	0	697	1407	0
Satd. Flow (RTOR)			94			177		5			32	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.66	0.66	0.66	0.92	0.92	0.92	0.63	0.63	0.63	0.80	0.80	0.80
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	5%	5%	5%	3%	3%	3%	0%	0%	0%	18%	18%	18%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	17	218	8	65	253	177	0	13	0	6	38	0
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6		6	8			4		
Detector Phase	2	2	2	6	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0	6.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	11.0	11.0	11.0	11.0	11.0	11.0	10.0	10.0		10.0	10.0	
Total Split (s)	36.0	36.0	36.0	36.0	36.0	36.0	10.0	10.0		34.0	34.0	
Total Split (%)	51.4%	51.4%	51.4%	51.4%	51.4%	51.4%	14.3%	14.3%		48.6%	48.6%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0		5.0		5.0	5.0	
Lead/Lag							Lag	Lag				
Lead-Lag Optimize?												
Recall Mode	None		None	None								
Act Effct Green (s)	21.3	21.3	21.3	21.3	21.3	21.3		6.9		14.1	14.1	
Actuated g/C Ratio	0.53	0.53	0.53	0.53	0.53	0.53		0.17		0.35	0.35	
v/c Ratio	0.03	0.24	0.01	0.11	0.27	0.20		0.04		0.02	0.07	
Control Delay	10.3	10.7	0.0	5.2	5.5	0.7		21.9		11.2	5.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0		0.0	0.0	
Total Delay	10.3	10.7	0.0	5.2	5.5	0.7		21.9		11.2	5.9	
LOS	B	B	A	A	A	A		C		B	A	
Approach Delay		10.3			3.7			21.9			6.6	
Approach LOS		B			A			C			A	
Queue Length 50th (ft)	2	23	0	4	17	0		1		1	1	
Queue Length 95th (ft)	10	70	0	10	28	3		12		7	14	
Internal Link Dist (ft)		151			331			68			181	
Turn Bay Length (ft)	130		130	200								
Base Capacity (vph)	801	1330	1150	873	1404	1231		335		531	1080	
Starvation Cap Reductn	0	0	0	0	0	0		0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0		0		0	0	
Storage Cap Reductn	0	0	0	0	0	0		0		0	0	
Reduced v/c Ratio	0.02	0.16	0.01	0.07	0.18	0.14		0.04		0.01	0.04	

Intersection Summary

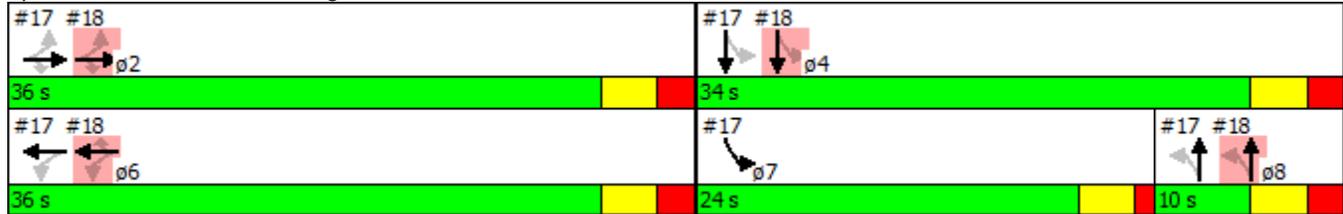
Cycle Length: 70
 Actuated Cycle Length: 40
 Natural Cycle: 40
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.36
 Intersection Signal Delay: 6.2 Intersection LOS: A
 Intersection Capacity Utilization 33.1% ICU Level of Service A
 Analysis Period (min) 15

18: Parking Lot/Northwest Link & Railroad Avenue Lanes, Volumes, Timings

Build 2020 Mit-60% of Bld Volume

AM Peak

Splits and Phases: 18: Parking Lot/Northwest Link & Railroad Avenue



Lane Group		ø7
Lane Configurations		
Volume (vph)		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Satd. Flow (RTOR)		
Confl. Peds. (#/hr)		
Confl. Bikes (#/hr)		
Peak Hour Factor		
Growth Factor		
Heavy Vehicles (%)		
Bus Blockages (#/hr)		
Parking (#/hr)		
Mid-Block Traffic (%)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Turn Type		
Protected Phases		7
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)		4.0
Minimum Split (s)		8.0
Total Split (s)		24.0
Total Split (%)		34%
Yellow Time (s)		3.0
All-Red Time (s)		1.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag		Lead
Lead-Lag Optimize?		
Recall Mode		None
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		

19: Hawkins Avenue & Railroad Avenue

Lanes, Volumes, Timings

Build 2020 Mit-60% of Bld Volume
AM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	91	236	13	4	290	130	0	0	0	230	19	303
Satd. Flow (prot)	1646	1719	0	1547	1749	1487	0	0	0	0	1688	1501
Flt Permitted	0.336			0.591							0.956	
Satd. Flow (perm)	582	1719	0	962	1749	1487	0	0	0	0	1688	1501
Satd. Flow (RTOR)		6				187						361
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.89	0.89	0.89	0.25	0.25	0.25	0.84	0.84	0.84
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	6%	6%	6%	5%	5%	5%	0%	0%	0%	4%	4%	4%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	100	273	0	4	326	146	0	0	0	0	297	361
Turn Type	pm+pt	NA		Perm	NA	Free				Perm	NA	Free
Protected Phases	7	4			8						6	
Permitted Phases	4			8		Free				6		Free
Detector Phase	7	4		8	8					6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0					4.0	4.0	
Minimum Split (s)	9.0	21.0		21.0	21.0					21.0	21.0	
Total Split (s)	15.0	41.0		26.0	26.0					29.0	29.0	
Total Split (%)	21.4%	58.6%		37.1%	37.1%					41.4%	41.4%	
Yellow Time (s)	3.0	3.0		3.0	3.0					3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0					2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0						0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0						5.0	
Lead/Lag	Lead			Lag	Lag							
Lead-Lag Optimize?												
Recall Mode	None	None		None	None					Min	Min	
Act Effct Green (s)	24.5	24.5		14.6	14.6	50.4					14.6	50.4
Actuated g/C Ratio	0.49	0.49		0.29	0.29	1.00					0.29	1.00
v/c Ratio	0.22	0.33		0.01	0.64	0.10					0.61	0.24
Control Delay	8.5	8.9		16.2	24.6	0.1					23.3	0.4
Queue Delay	0.0	0.0		0.0	0.0	0.0					0.0	0.0
Total Delay	8.5	8.9		16.2	24.6	0.1					23.3	0.4
LOS	A	A		B	C	A					C	A
Approach Delay		8.8			17.0						10.7	
Approach LOS		A			B						B	
Queue Length 50th (ft)	13	40		1	88	0					80	0
Queue Length 95th (ft)	42	104		8	194	0					156	0
Internal Link Dist (ft)		310			412			51			698	
Turn Bay Length (ft)				175		175						250
Base Capacity (vph)	532	1240		453	825	1487					910	1501
Starvation Cap Reductn	0	0		0	0	0					0	0
Spillback Cap Reductn	0	0		0	0	0					0	0
Storage Cap Reductn	0	0		0	0	0					0	0
Reduced v/c Ratio	0.19	0.22		0.01	0.40	0.10					0.33	0.24

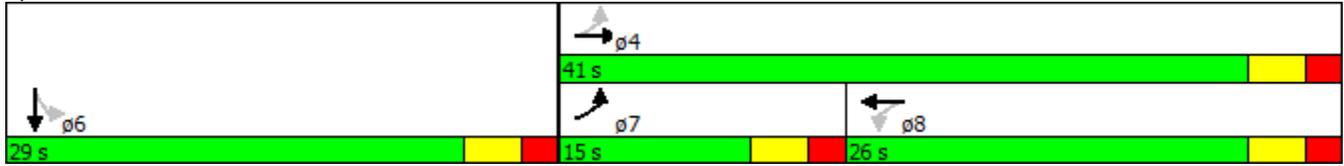
Intersection Summary

Cycle Length: 70
 Actuated Cycle Length: 50.4
 Natural Cycle: 55
 Control Type: Semi Act-Uncoord
 Maximum v/c Ratio: 0.64
 Intersection Signal Delay: 12.2
 Intersection Capacity Utilization 46.5%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service A

19: Hawkins Avenue & Railroad Avenue Lanes, Volumes, Timings

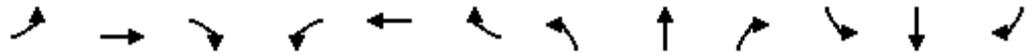
Build 2020 Mit-60% of Bld Volume
AM Peak

Splits and Phases: 19: Hawkins Avenue & Railroad Avenue



20: Ronkonkoma Avenue & 2nd Street/Powell Street Build 2020 Mit-60% of Bld Volume Lanes, Volumes, Timings

AM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗			↗	↗	↕↔		↗	↕↔	
Volume (vph)	0	0	228	0	0	74	8	474	131	67	1226	36
Satd. Flow (prot)	0	0	1808	0	0	1634	1558	3016	0	1694	3374	0
Flt Permitted							0.160			0.340		
Satd. Flow (perm)	0	0	1808	0	0	1634	262	3016	0	606	3374	0
Satd. Flow (RTOR)			76			310		56			6	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.25	0.25	0.90	0.25	0.25	0.78	0.89	0.89	0.89	0.83	0.83	0.83
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	3%	0%	0%	14%	12%	12%	12%	3%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	253	0	0	95	9	680	0	81	1520	0
Turn Type			custom			custom	Perm	NA		pm+pt	NA	
Protected Phases						1		2		1	6	
Permitted Phases			4			4	2			6		
Detector Phase			4			1	2	2		1	6	
Switch Phase												
Minimum Initial (s)			4.0			4.0	20.0	20.0		4.0	20.0	
Minimum Split (s)			20.0			9.5	26.5	26.5		9.5	26.5	
Total Split (s)			28.0			12.0	60.0	60.0		12.0	72.0	
Total Split (%)			28.0%			12.0%	60.0%	60.0%		12.0%	72.0%	
Yellow Time (s)			3.0			3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)			2.0			2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)			0.0			0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)			5.0			5.0	5.0	5.0		5.0	5.0	
Lead/Lag						Lead	Lag	Lag		Lead		
Lead-Lag Optimize?												
Recall Mode			None			None	C-Max	C-Max		None	C-Max	
Act Effct Green (s)			15.3			27.0	63.0	63.0		74.7	74.7	
Actuated g/C Ratio			0.15			0.27	0.63	0.63		0.75	0.75	
v/c Ratio			0.74			0.14	0.05	0.35		0.15	0.60	
Control Delay			40.7			0.4	10.6	9.4		1.6	3.7	
Queue Delay			0.0			0.0	0.0	0.0		0.0	0.0	
Total Delay			40.7			0.4	10.6	9.4		1.6	3.7	
LOS			D			A	B	A		A	A	
Approach Delay								9.5			3.6	
Approach LOS								A			A	
Queue Length 50th (ft)			109			0	2	89		2	21	
Queue Length 95th (ft)			180			0	11	151		m8	204	
Internal Link Dist (ft)		32			359			519			659	
Turn Bay Length (ft)							71			400		
Base Capacity (vph)			474			674	165	1920		530	2520	
Starvation Cap Reductn			0			0	0	0		0	0	
Spillback Cap Reductn			0			0	0	0		0	0	
Storage Cap Reductn			0			0	0	0		0	0	
Reduced v/c Ratio			0.53			0.14	0.05	0.35		0.15	0.60	

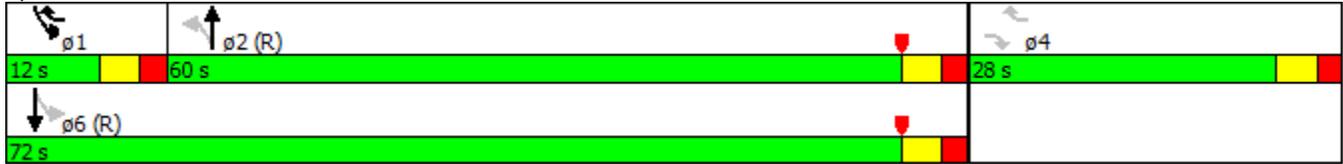
Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 12 (12%), Referenced to phase 2:NBT and 6:SBTL, Start of Yellow
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.74
 Intersection Signal Delay: 8.6
 Intersection LOS: A
 Intersection Capacity Utilization 59.8%
 ICU Level of Service B
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

20: Ronkonkoma Avenue & 2nd Street/Powell Street Build 2020 Mit-60% of Bld Volume Lanes, Volumes, Timings

AM Peak

Splits and Phases: 20: Ronkonkoma Avenue & 2nd Street/Powell Street



**16: Mill Road & Union Avenue
HCM 2010 Roundabout**

Build 2020 Mit-60% Bld NRW
AM Peak

Intersection				
Intersection Delay, s/veh	13.8			
Intersection LOS	B			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	218	768	149	48
Demand Flow Rate, veh/h	233	791	156	49
Vehicles Circulating, veh/h	299	76	209	804
Vehicles Exiting, veh/h	554	289	323	63
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	7.8	17.3	5.8	8.6
Approach LOS	A	C	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	233	791	156	49
Cap Entry Lane, veh/h	838	1047	917	506
Entry HV Adj Factor	0.934	0.971	0.956	0.971
Flow Entry, veh/h	218	768	149	48
Cap Entry, veh/h	782	1017	876	491
V/C Ratio	0.278	0.755	0.170	0.097
Control Delay, s/veh	7.8	17.3	5.8	8.6
LOS	A	C	A	A
95th %tile Queue, veh	1	7	1	0

**19: Hawkins Avenue & Railroad Avenue
HCM 2010 Roundabout**

Build 2020 Mit-60% Bld NRW
AM Peak

Intersection					
Intersection Delay, s/veh	6.3				
Intersection LOS	A				
Approach	EB	WB	NB	SB	
Entry Lanes	1	1	0	1	
Conflicting Circle Lanes	1	1	1	1	
Adj Approach Flow, veh/h	373	476	0	658	
Demand Flow Rate, veh/h	396	499	0	684	
Vehicles Circulating, veh/h	313	106	666	346	
Vehicles Exiting, veh/h	342	560	43	106	
Follow-Up Headway, s	3.186	3.186	3.186	3.186	
Ped Vol Crossing Leg, #/h	0	0	0	0	
Ped Cap Adj	1.000	1.000	1.000	1.000	
Approach Delay, s/veh	11.2	5.1	0.0	4.3	
Approach LOS	B	A	-	A	
Lane	Left	Left	Bypass	Left	Bypass
Designated Moves	LTR	LT	R	LT	R
Assumed Moves	LTR	LT	R	LT	R
RT Channelized			Free		Free
Lane Util	1.000	1.000		1.000	
Critical Headway, s	5.193	5.193		5.193	
Entry Flow, veh/h	396	346	153	309	375
Cap Entry Lane, veh/h	826	1016	1995	799	1976
Entry HV Adj Factor	0.943	0.953	0.952	0.961	0.962
Flow Entry, veh/h	373	330	146	297	361
Cap Entry, veh/h	779	968	1900	769	1900
V/C Ratio	0.479	0.340	0.077	0.387	0.190
Control Delay, s/veh	11.2	7.3	0.0	9.5	0.0
LOS	B	A	A	A	A
95th %tile Queue, veh	3	2	0	2	1

11: Hawkins Avenue & LIE North Service Road Lanes, Volumes, Timings

Build 2020 Mit-60% of Bld Volume
PM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕↕		↕	↕↕			↕↕	
Volume (vph)	0	0	0	300	490	265	283	711	0	0	506	145
Satd. Flow (prot)	0	0	0	0	4663	0	1711	3421	0	0	3422	0
Flt Permitted					0.986		0.237					
Satd. Flow (perm)	0	0	0	0	4663	0	427	3421	0	0	3422	0
Satd. Flow (RTOR)					70						31	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.25	0.25	0.25	0.86	0.86	0.86	0.90	0.90	0.25	0.25	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	1227	0	314	790	0	0	708	0
Turn Type				Perm	NA		pm+pt	NA			NA	
Protected Phases					1		8	3			7	
Permitted Phases				1			3					
Detector Phase				1	1		8	3			7	
Switch Phase												
Minimum Initial (s)				25.0	25.0		4.0	16.0			16.0	
Minimum Split (s)				31.3	31.3		10.0	23.0			23.0	
Total Split (s)				40.0	40.0		37.5	80.0			42.0	
Total Split (%)				33.3%	33.3%		31.3%	66.7%			35.0%	
Yellow Time (s)				4.3	4.3		4.0	4.0			4.0	
All-Red Time (s)				2.0	2.0		2.0	2.0			2.0	
Lost Time Adjust (s)					0.0		0.0	0.0			0.0	
Total Lost Time (s)					6.3		6.0	6.0			6.0	
Lead/Lag							Lag				Lead	
Lead-Lag Optimize?												
Recall Mode				C-Max	C-Max		Min	Min			Max	
Act Effct Green (s)					45.1		62.6	62.6			36.0	
Actuated g/C Ratio					0.38		0.52	0.52			0.30	
v/c Ratio					0.68		0.71	0.44			0.68	
Control Delay					32.9		23.0	12.7			39.0	
Queue Delay					0.0		0.0	0.7			0.1	
Total Delay					32.9		23.0	13.4			39.1	
LOS					C		C	B			D	
Approach Delay					32.9			16.1			39.1	
Approach LOS					C			B			D	
Queue Length 50th (ft)					273		141	117			242	
Queue Length 95th (ft)					343		m144	m123			311	
Internal Link Dist (ft)		204			499			339			134	
Turn Bay Length (ft)							150					
Base Capacity (vph)					1796		605	2109			1048	
Starvation Cap Reductn					0		0	894			0	
Spillback Cap Reductn					0		0	0			18	
Storage Cap Reductn					0		0	0			0	
Reduced v/c Ratio					0.68		0.52	0.65			0.69	

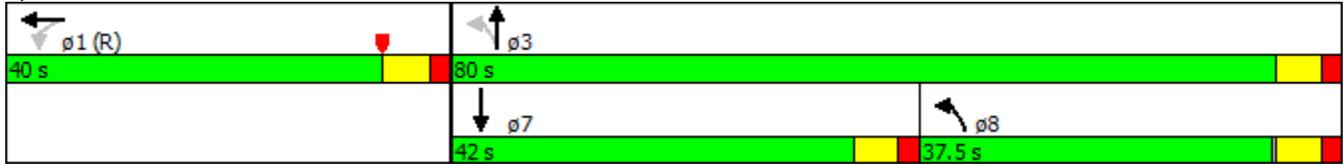
Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 1:WBTL, Start of Yellow
 Natural Cycle: 70
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.71
 Intersection Signal Delay: 28.2
 Intersection LOS: C
 Intersection Capacity Utilization 96.9%
 ICU Level of Service F
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

11: Hawkins Avenue & LIE North Service Road Lanes, Volumes, Timings

Build 2020 Mit-60% of Bld Volume
PM Peak

Splits and Phases: 11: Hawkins Avenue & LIE North Service Road



12: Hawkins Avenue & LIE South Service Road Lanes, Volumes, Timings

Build 2020 Mit-60% of Bld Volume
PM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	280	1821	263	0	0	0	0	713	177	378	429	0
Satd. Flow (prot)	1711	4822	0	0	0	0	0	3421	1531	1711	3421	0
Flt Permitted	0.950									0.137		
Satd. Flow (perm)	1711	4822	0	0	0	0	0	3421	1531	247	3421	0
Satd. Flow (RTOR)		26								85		
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.97	0.97	0.97	0.25	0.25	0.25	0.25	0.92	0.92	0.94	0.94	0.25
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	0%	0%	0%	0%	2%	2%	2%	2%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	289	2148	0	0	0	0	0	775	192	402	456	0
Turn Type	Perm	NA						NA	Perm	pm+pt	NA	
Protected Phases		1						7		8	3	
Permitted Phases	1								7	3		
Detector Phase	1	1						7	7	8	3	
Switch Phase												
Minimum Initial (s)	25.0	25.0						16.0	16.0	4.0	16.0	
Minimum Split (s)	31.3	31.3						23.0	23.0	10.0	23.0	
Total Split (s)	53.0	53.0						34.0	34.0	33.0	67.0	
Total Split (%)	44.2%	44.2%						28.3%	28.3%	27.5%	55.8%	
Yellow Time (s)	4.3	4.3						4.0	4.0	4.0	4.0	
All-Red Time (s)	2.0	2.0						2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.3	6.3						6.0	6.0	6.0	6.0	
Lead/Lag								Lead	Lead	Lag		
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max						Max	Max	None	None	
Act Effct Green (s)	47.5	47.5						28.0	28.0	60.2	60.2	
Actuated g/C Ratio	0.40	0.40						0.23	0.23	0.50	0.50	
v/c Ratio	0.43	1.12						0.97	0.45	0.91	0.27	
Control Delay	29.1	94.7						71.5	25.4	56.7	10.9	
Queue Delay	0.0	0.0						0.0	0.0	0.0	0.0	
Total Delay	29.1	94.7						71.5	25.4	56.7	10.9	
LOS	C	F						E	C	E	B	
Approach Delay		86.9						62.3			32.4	
Approach LOS		F						E			C	
Queue Length 50th (ft)	162	~707						314	69	276	75	
Queue Length 95th (ft)	243	#804						#444	143	#431	96	
Internal Link Dist (ft)		477			203			244			339	
Turn Bay Length (ft)									85	150		
Base Capacity (vph)	676	1923						798	422	454	1739	
Starvation Cap Reductn	0	0						0	0	0	0	
Spillback Cap Reductn	0	0						0	0	0	0	
Storage Cap Reductn	0	0						0	0	0	0	
Reduced v/c Ratio	0.43	1.12						0.97	0.45	0.89	0.26	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 1:EBTL, Start of Yellow

Natural Cycle: 110

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.12

Intersection Signal Delay: 70.4

Intersection LOS: E

Intersection Capacity Utilization 96.9%

ICU Level of Service F

Analysis Period (min) 15

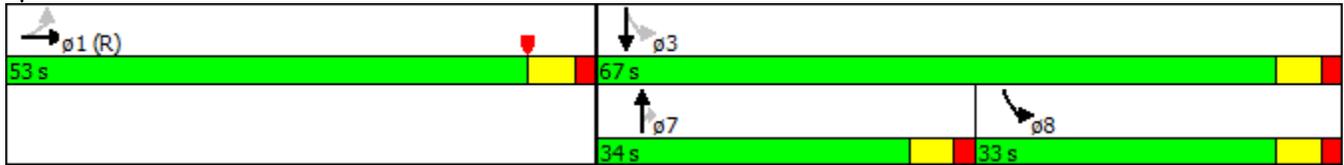
~ Volume exceeds capacity, queue is theoretically infinite.

12: Hawkins Avenue & LIE South Service Road Lanes, Volumes, Timings

Build 2020 Mit-60% of Bld Volume
PM Peak

Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 12: Hawkins Avenue & LIE South Service Road



13: Ronkonkoma Avenue & LIE North Service Road Build 2020 Mit-60% of Bld Volume Lanes, Volumes, Timings

PM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕↕		↕	↕↕			↕↕	
Volume (vph)	0	0	0	257	534	83	291	852	0	0	336	173
Satd. Flow (prot)	0	0	0	0	4687	0	1770	3539	0	0	3359	0
Flt Permitted					0.986		0.232					
Satd. Flow (perm)	0	0	0	0	4687	0	432	3539	0	0	3359	0
Satd. Flow (RTOR)					13						80	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.25	0.25	0.25	0.93	0.93	0.93	0.92	0.92	0.25	0.25	0.84	0.84
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	4%	4%	4%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	939	0	316	926	0	0	606	0
Turn Type				Perm	NA		pm+pt	NA			NA	
Protected Phases					1		8	3			7	
Permitted Phases				1			3					
Detector Phase				1	1		8	3			7	
Switch Phase												
Minimum Initial (s)				24.0	24.0		4.0	17.0			17.0	
Minimum Split (s)				30.7	30.7		10.0	25.9			25.9	
Total Split (s)				31.0	31.0		45.0	89.0			44.0	
Total Split (%)				25.8%	25.8%		37.5%	74.2%			36.7%	
Yellow Time (s)				4.7	4.7		3.9	3.9			3.9	
All-Red Time (s)				2.0	2.0		2.0	2.0			2.0	
Lost Time Adjust (s)					0.0		0.0	0.0			0.0	
Total Lost Time (s)					6.7		5.9	5.9			5.9	
Lead/Lag							Lag				Lead	
Lead-Lag Optimize?												
Recall Mode				C-Max	C-Max		Min	Min			Ped	
Act Effct Green (s)					59.2		48.2	48.2			25.9	
Actuated g/C Ratio					0.49		0.40	0.40			0.22	
v/c Ratio					0.40		0.89	0.65			0.77	
Control Delay					21.3		56.5	22.7			44.8	
Queue Delay					0.0		0.8	0.0			0.0	
Total Delay					21.3		57.3	22.7			44.8	
LOS					C		E	C			D	
Approach Delay					21.3			31.5			44.8	
Approach LOS					C			C			D	
Queue Length 50th (ft)					158		153	202			205	
Queue Length 95th (ft)					247		203	167			229	
Internal Link Dist (ft)		318			629			397			224	
Turn Bay Length (ft)							250					
Base Capacity (vph)					2320		691	2450			1121	
Starvation Cap Reductn					0		156	194			0	
Spillback Cap Reductn					0		0	0			0	
Storage Cap Reductn					0		0	0			0	
Reduced v/c Ratio					0.40		0.59	0.41			0.54	

Intersection Summary

Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 1:WBTL, Start of Yellow	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay: 31.0	Intersection LOS: C
Intersection Capacity Utilization 96.1%	ICU Level of Service F
Analysis Period (min) 15	

13: Ronkonkoma Avenue & LIE North Service Road Build 2020 Mit-60% of Bld Volume Lanes, Volumes, Timings

PM Peak

Splits and Phases: 13: Ronkonkoma Avenue & LIE North Service Road



14: Ronkonkoma Avenue & LIE South Service Road Build 2020 Mit-60% of Bld Volume Lanes, Volumes, Timings

PM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	339	1260	116	0	0	0	0	804	807	84	508	0
Satd. Flow (prot)	1711	4857	0	0	0	0	0	3421	1531	1719	3438	0
Flt Permitted	0.950									0.238		
Satd. Flow (perm)	1711	4857	0	0	0	0	0	3421	1531	431	3438	0
Satd. Flow (RTOR)		12							85			
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.88	0.88	0.92	0.25	0.25	0.25	0.25	0.90	0.90	0.90	0.90	0.25
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	0%	0%	0%	0%	2%	2%	5%	5%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												0
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	385	1558	0	0	0	0	0	893	897	93	564	0
Turn Type	Perm	NA						NA	Perm	pm+pt	NA	
Protected Phases		1						7		8	3	
Permitted Phases	1								7	3		
Detector Phase	1	1						7	7	8	3	
Switch Phase												
Minimum Initial (s)	24.0	24.0						17.0	17.0	4.0	17.0	
Minimum Split (s)	30.3	30.3						25.6	25.6	10.0	25.6	
Total Split (s)	44.0	44.0						64.0	64.0	12.0	76.0	
Total Split (%)	36.7%	36.7%						53.3%	53.3%	10.0%	63.3%	
Yellow Time (s)	4.3	4.3						3.6	3.6	3.6	3.6	
All-Red Time (s)	2.0	2.0						2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0						0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.3	6.3						5.6	5.6	5.6	5.6	
Lead/Lag								Lead	Lead	Lag		
Lead-Lag Optimize?								Yes	Yes	Yes		
Recall Mode	C-Max	C-Max						Min	Min	Max	Max	
Act Effct Green (s)	37.7	37.7						58.4	58.4	70.4	70.4	
Actuated g/C Ratio	0.31	0.31						0.49	0.49	0.59	0.59	
v/c Ratio	0.72	1.02						0.54	1.14	0.29	0.28	
Control Delay	45.2	67.6						25.5	99.9	16.8	11.3	
Queue Delay	0.0	0.0						0.0	0.0	0.0	0.0	
Total Delay	45.2	67.6						25.5	99.9	16.8	11.3	
LOS	D	E						C	F	B	B	
Approach Delay		63.1						62.8			12.1	
Approach LOS		E						E			B	
Queue Length 50th (ft)	263	~452						225	~768	24	80	
Queue Length 95th (ft)	369	#540						330	#1021	56	133	
Internal Link Dist (ft)		267			295			185			397	
Turn Bay Length (ft)										125		
Base Capacity (vph)	537	1534						1664	788	321	2016	
Starvation Cap Reductn	0	0						0	0	0	0	
Spillback Cap Reductn	0	0						0	0	0	0	
Storage Cap Reductn	0	0						0	0	0	0	
Reduced v/c Ratio	0.72	1.02						0.54	1.14	0.29	0.28	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 1:EBTL, Start of Yellow
 Natural Cycle: 140
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.14
 Intersection Signal Delay: 55.3
 Intersection LOS: E
 Intersection Capacity Utilization 96.1%
 ICU Level of Service F
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.

14: Ronkonkoma Avenue & LIE South Service Road Build 2020 Mit-60% of Bld Volume Lanes, Volumes, Timings

PM Peak

Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 14: Ronkonkoma Avenue & LIE South Service Road



15: Hawkins Avenue & Union Avenue Lanes, Volumes, Timings

Build 2020 Mit-60% of Bld Volume
PM Peak



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	78	492	375	91	433	287
Satd. Flow (prot)	1711	1531	1737	0	1694	1783
Flt Permitted	0.950				0.315	
Satd. Flow (perm)	1711	1531	1737	0	562	1783
Satd. Flow (RTOR)		234	14			
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.89	0.89	0.86	0.86	0.89	0.89
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	3%	3%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	88	553	542	0	487	322
Turn Type	NA	pm+ov	NA		pm+pt	NA
Protected Phases	8	1	2		1	6
Permitted Phases		8			6	
Detector Phase	8	1	2		1	6
Switch Phase						
Minimum Initial (s)	8.0	8.0	35.0		8.0	35.0
Minimum Split (s)	22.0	12.0	40.0		12.0	40.0
Total Split (s)	25.0	33.0	42.0		33.0	75.0
Total Split (%)	25.0%	33.0%	42.0%		33.0%	75.0%
Yellow Time (s)	3.5	3.0	3.5		3.0	3.5
All-Red Time (s)	1.5	1.0	1.5		1.0	1.5
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	5.0	4.0	5.0		4.0	5.0
Lead/Lag		Lead	Lag		Lead	
Lead-Lag Optimize?						
Recall Mode	None	None	C-Min		None	C-Min
Act Effct Green (s)	10.0	35.5	55.5		83.6	83.6
Actuated g/C Ratio	0.10	0.36	0.56		0.84	0.84
v/c Ratio	0.51	0.80	0.56		0.67	0.22
Control Delay	52.9	23.5	20.7		8.4	2.8
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	52.9	23.5	20.7		8.4	2.8
LOS	D	C	C		A	A
Approach Delay	27.6		20.7			6.2
Approach LOS	C		C			A
Queue Length 50th (ft)	55	184	210		59	37
Queue Length 95th (ft)	99	227	407		146	72
Internal Link Dist (ft)	974		698			177
Turn Bay Length (ft)	250					
Base Capacity (vph)	342	785	970		809	1490
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.26	0.70	0.56		0.60	0.22

Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 2 (2%), Referenced to phase 2:NBT and 6:SBTL, Start of Yellow

Natural Cycle: 80

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.80

Intersection Signal Delay: 17.0

Intersection LOS: B

Intersection Capacity Utilization 71.5%

ICU Level of Service C

Analysis Period (min) 15

15: Hawkins Avenue & Union Avenue Lanes, Volumes, Timings

Build 2020 Mit-60% of Bld Volume
PM Peak

Splits and Phases: 15: Hawkins Avenue & Union Avenue



16: Mill Road & Union Avenue Lanes, Volumes, Timings

Build 2020 Mit-60% of Bld Volume
PM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	33	456	39	130	466	42	38	84	270	18	9	26
Satd. Flow (prot)	1652	1779	0	1711	1777	0	0	1835	1583	0	1655	0
Flt Permitted	0.414			0.281				0.875			0.848	
Satd. Flow (perm)	720	1779	0	506	1777	0	0	1630	1583	0	1426	0
Satd. Flow (RTOR)		6			9				341		28	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.88	0.88	0.88	0.77	0.77	0.77	0.65	0.65	0.65	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	38	562	0	169	660	0	0	187	415	0	57	0
Turn Type	Perm	NA		pm+pt	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		2		1	6			8			4	
Permitted Phases	2			6			8		8	4		
Detector Phase	2	2		1	6		8	8	8	4	4	
Switch Phase												
Minimum Initial (s)	35.0	35.0		4.0	35.0		8.0	8.0	8.0	8.0	8.0	
Minimum Split (s)	41.0	41.0		8.0	41.0		27.0	27.0	27.0	27.0	27.0	
Total Split (s)	38.0	38.0		10.0	48.0		32.0	32.0	32.0	32.0	32.0	
Total Split (%)	47.5%	47.5%		12.5%	60.0%		40.0%	40.0%	40.0%	40.0%	40.0%	
Yellow Time (s)	4.0	4.0		3.0	4.0		4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	2.0	2.0		1.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0		4.0	6.0		6.0	6.0	6.0	6.0	6.0	
Lead/Lag	Lag	Lag		Lead								
Lead-Lag Optimize?	Yes	Yes										
Recall Mode	Min	Min		None	Min		None	None	None	None	None	
Act Effct Green (s)	32.1	32.1		44.2	42.2		12.8	12.8	12.8	12.8	12.8	
Actuated g/C Ratio	0.48	0.48		0.66	0.63		0.19	0.19	0.19	0.19	0.19	
v/c Ratio	0.11	0.66		0.38	0.59		0.60	0.72	0.72	0.72	0.19	
Control Delay	12.4	18.8		7.9	10.9		32.9	13.2	13.2	13.2	14.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	12.4	18.8		7.9	10.9		32.9	13.2	13.2	13.2	14.9	
LOS	B	B		A	B		C	B	B	B	B	
Approach Delay		18.4			10.3		19.3				14.9	
Approach LOS		B			B		B				B	
Queue Length 50th (ft)	8	161		22	133		70	26	26	26	10	
Queue Length 95th (ft)	28	313		49	227		86	28	28	28	36	
Internal Link Dist (ft)		780			237		676				298	
Turn Bay Length (ft)	75			175				250				
Base Capacity (vph)	345	855		441	1121		634	824	824	824	572	
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	
Reduced v/c Ratio	0.11	0.66		0.38	0.59		0.29	0.50	0.50	0.50	0.10	

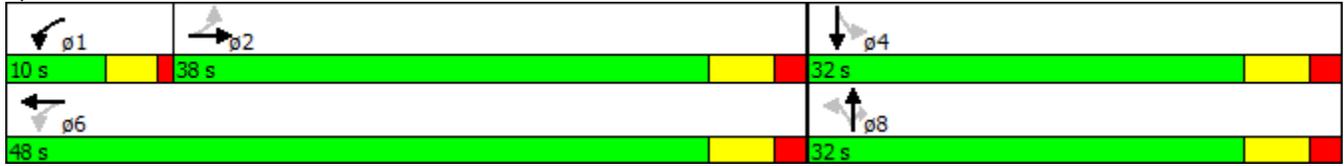
Intersection Summary

Cycle Length: 80
 Actuated Cycle Length: 67
 Natural Cycle: 80
 Control Type: Semi Act-Uncoord
 Maximum v/c Ratio: 0.72
 Intersection Signal Delay: 15.4
 Intersection Capacity Utilization 83.1%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service E

16: Mill Road & Union Avenue Lanes, Volumes, Timings

Build 2020 Mit-60% of Bld Volume
PM Peak

Splits and Phases: 16: Mill Road & Union Avenue



17: Parking Lot/Powell Street & Railroad Avenue Lanes, Volumes, Timings

Build 2020 Mit-60% of Bld Volume
PM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	371	8	6	476	126	13	6	43	329	2	1
Satd. Flow (prot)	1711	1801	1531	1593	3315	0	1805	1706	0	1752	1775	0
Flt Permitted	0.296			0.395			0.851			0.460		
Satd. Flow (perm)	533	1801	1531	662	3315	0	1617	1706	0	849	1775	0
Satd. Flow (RTOR)			82		57			91			1	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	0.82	0.82	0.82	0.47	0.47	0.47	0.78	0.78	0.78
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	0%	0%	0%	3%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	12	412	9	7	734	0	28	104	0	422	4	0
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		2			6			8		7	4	
Permitted Phases	2		2	6			8			4		
Detector Phase	2	2	2	6	6		8	8		7	4	
Switch Phase												
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	11.0	11.0	11.0	11.0	11.0		10.0	10.0		8.0	10.0	
Total Split (s)	43.0	43.0	43.0	43.0	43.0		12.0	12.0		25.0	37.0	
Total Split (%)	53.8%	53.8%	53.8%	53.8%	53.8%		15.0%	15.0%		31.3%	46.3%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0		1.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		4.0	5.0	
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None		None	None		None	None	
Act Effct Green (s)	24.6	24.6	24.6	24.6	24.6		6.9	6.9		26.5	25.4	
Actuated g/C Ratio	0.40	0.40	0.40	0.40	0.40		0.11	0.11		0.43	0.41	
v/c Ratio	0.06	0.57	0.01	0.03	0.54		0.16	0.38		0.66	0.01	
Control Delay	5.9	9.2	0.0	12.2	14.8		33.8	15.1		20.3	12.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	5.9	9.2	0.0	12.2	14.8		33.8	15.1		20.3	12.3	
LOS	A	A	A	B	B		C	B		C	B	
Approach Delay		8.9			14.8			19.1			20.2	
Approach LOS		A			B			B			C	
Queue Length 50th (ft)	1	41	0	2	111		11	5		108	1	
Queue Length 95th (ft)	m3	56	m0	8	137		19	5		203	6	
Internal Link Dist (ft)		331			196			83			192	
Turn Bay Length (ft)	110			120								
Base Capacity (vph)	346	1170	1023	430	2174		207	298		776	1027	
Starvation Cap Reductn	0	18	0	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.03	0.36	0.01	0.02	0.34		0.14	0.35		0.54	0.00	

Intersection Summary

Cycle Length: 80

Actuated Cycle Length: 61.3

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.66

Intersection Signal Delay: 15.0

Intersection LOS: B

Intersection Capacity Utilization 52.8%

ICU Level of Service A

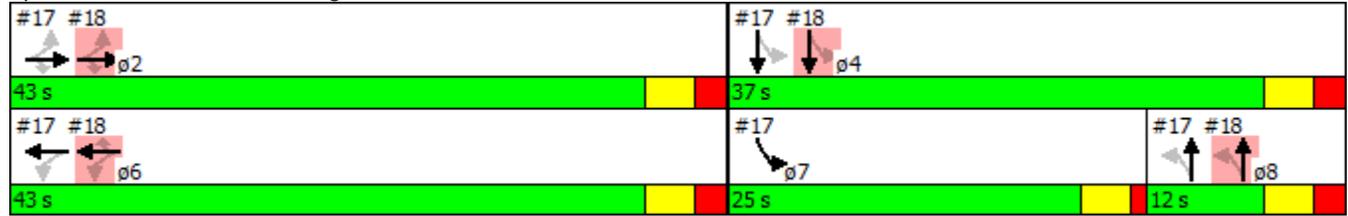
Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

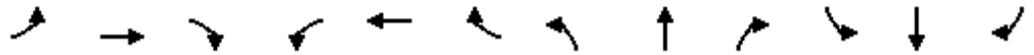
**17: Parking Lot/Powell Street & Railroad Avenue
Lanes, Volumes, Timings**

Build 2020 Mit-60% of Bld Volume
PM Peak

Splits and Phases: 17: Parking Lot/Powell Street & Railroad Avenue



18: Parking Lot/Northwest Link & Railroad Avenue **Build 2020 Mit-60% of Bld Volume**
Lanes, Volumes, Timings PM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	8	347	2	4	238	248	4	4	33	10	2	42
Satd. Flow (prot)	1652	1739	1478	1711	1801	1531	0	1795	0	1687	1520	0
Flt Permitted	0.528			0.383				0.956		0.215		
Satd. Flow (perm)	918	1739	1478	690	1801	1531	0	1724	0	382	1520	0
Satd. Flow (RTOR)			82			306		69			69	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.82	0.82	0.82	0.81	0.81	0.81	0.48	0.48	0.48	0.61	0.61	0.61
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	0%	0%	0%	7%	7%	7%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	10	423	2	5	294	306	0	85	0	16	72	0
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6		6	8			4		
Detector Phase	2	2	2	6	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0	6.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	11.0	11.0	11.0	11.0	11.0	11.0	10.0	10.0		10.0	10.0	
Total Split (s)	43.0	43.0	43.0	43.0	43.0	43.0	12.0	12.0		37.0	37.0	
Total Split (%)	53.8%	53.8%	53.8%	53.8%	53.8%	53.8%	15.0%	15.0%		46.3%	46.3%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0		5.0		5.0	5.0	
Lead/Lag							Lag	Lag				
Lead-Lag Optimize?												
Recall Mode	None		None	None								
Act Effct Green (s)	24.6	24.6	24.6	24.6	24.6	24.6		6.9		25.4	25.4	
Actuated g/C Ratio	0.40	0.40	0.40	0.40	0.40	0.40		0.11		0.41	0.41	
v/c Ratio	0.03	0.61	0.00	0.02	0.41	0.38		0.33		0.10	0.11	
Control Delay	12.1	19.5	0.0	5.2	7.0	1.5		16.5		15.6	4.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0		0.0	0.0	
Total Delay	12.1	19.5	0.0	5.2	7.0	1.5		16.5		15.6	4.8	
LOS	B	B	A	A	A	A		B		B	A	
Approach Delay		19.2			4.2			16.5			6.8	
Approach LOS		B			A			B			A	
Queue Length 50th (ft)	2	138	0	0	23	0		6		3	1	
Queue Length 95th (ft)	10	192	0	m1	29	2		10		12	10	
Internal Link Dist (ft)		151			331			70			181	
Turn Bay Length (ft)	130		130	200								
Base Capacity (vph)	596	1130	989	448	1170	1102		281		221	908	
Starvation Cap Reductn	0	0	0	0	0	0		0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0		0		0	0	
Storage Cap Reductn	0	0	0	0	0	0		0		0	0	
Reduced v/c Ratio	0.02	0.37	0.00	0.01	0.25	0.28		0.30		0.07	0.08	

Intersection Summary

Cycle Length: 80
 Actuated Cycle Length: 61.3
 Natural Cycle: 45
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.66
 Intersection Signal Delay: 10.6 Intersection LOS: B
 Intersection Capacity Utilization 36.2% ICU Level of Service A
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

18: Parking Lot/Northwest Link & Railroad Avenue Lanes, Volumes, Timings

Build 2020 Mit-60% of Bld Volume

PM Peak

Splits and Phases: 18: Parking Lot/Northwest Link & Railroad Avenue

#17 #18 → → ø2 43 s	#17 #18 ↓ ↓ ø4 37 s
#17 #18 ← ← ø6 43 s	#17 #18 ↘ ↘ ø7 25 s
	#17 #18 ↑ ↑ ø8 12 s

Lane Group	ø7
Lane Configurations	
Volume (vph)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Satd. Flow (RTOR)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Growth Factor	
Heavy Vehicles (%)	
Bus Blockages (#/hr)	
Parking (#/hr)	
Mid-Block Traffic (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	7
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	8.0
Total Split (s)	25.0
Total Split (%)	31%
Yellow Time (s)	3.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

19: Hawkins Avenue & Railroad Avenue

Lanes, Volumes, Timings

Build 2020 Mit-60% of Bld Volume
PM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	266	414	13	6	330	208	0	0	0	156	10	189
Satd. Flow (prot)	1711	1792	0	1593	1801	1531	0	0	0	0	1720	1531
Flt Permitted	0.224			0.447							0.955	
Satd. Flow (perm)	403	1792	0	749	1801	1531	0	0	0	0	1720	1531
Satd. Flow (RTOR)		4				227						230
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.74	0.74	0.74	0.73	0.73	0.73	0.25	0.25	0.25	0.82	0.82	0.82
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	0%	0%	0%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	359	577	0	8	452	285	0	0	0	0	202	230
Turn Type	pm+pt	NA		Perm	NA	Free				Perm	NA	Free
Protected Phases	7	4		8							6	
Permitted Phases	4			8		Free				6		Free
Detector Phase	7	4		8	8					6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0					4.0	4.0	
Minimum Split (s)	9.0	21.0		21.0	21.0					21.0	21.0	
Total Split (s)	22.0	58.0		36.0	36.0					22.0	22.0	
Total Split (%)	27.5%	72.5%		45.0%	45.0%					27.5%	27.5%	
Yellow Time (s)	3.0	3.0		3.0	3.0					3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0					2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0						0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0						5.0	
Lead/Lag	Lead			Lag	Lag							
Lead-Lag Optimize?												
Recall Mode	None	None		None	None					Min	Min	
Act Effct Green (s)	40.5	40.5		20.2	20.2	63.1					12.1	63.1
Actuated g/C Ratio	0.64	0.64		0.32	0.32	1.00					0.19	1.00
v/c Ratio	0.63	0.50		0.03	0.78	0.19					0.61	0.15
Control Delay	12.8	7.9		15.8	30.5	0.3					34.2	0.2
Queue Delay	0.0	0.0		0.0	0.0	0.0					0.0	0.0
Total Delay	12.8	7.9		15.8	30.5	0.3					34.2	0.2
LOS	B	A		B	C	A					C	A
Approach Delay		9.8			18.8						16.1	
Approach LOS		A			B						B	
Queue Length 50th (ft)	51	95		2	160	0					73	0
Queue Length 95th (ft)	87	138		9	208	0					140	0
Internal Link Dist (ft)		310			412			51			698	
Turn Bay Length (ft)				175		175						250
Base Capacity (vph)	628	1501		386	927	1531					486	1531
Starvation Cap Reductn	0	0		0	0	0					0	0
Spillback Cap Reductn	0	0		0	0	0					0	0
Storage Cap Reductn	0	0		0	0	0					0	0
Reduced v/c Ratio	0.57	0.38		0.02	0.49	0.19					0.42	0.15

Intersection Summary

Cycle Length: 80
 Actuated Cycle Length: 63.1
 Natural Cycle: 60
 Control Type: Semi Act-Uncoord
 Maximum v/c Ratio: 0.78
 Intersection Signal Delay: 14.2
 Intersection Capacity Utilization 53.8%
 Analysis Period (min) 15

Intersection LOS: B
 ICU Level of Service A

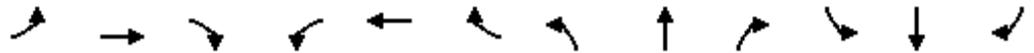
19: Hawkins Avenue & Railroad Avenue Lanes, Volumes, Timings

Build 2020 Mit-60% of Bld Volume
PM Peak

Splits and Phases: 19: Hawkins Avenue & Railroad Avenue



20: Ronkonkoma Avenue & 2nd Street/Powell Street Build 2020 Mit-60% of Bld Volume Lanes, Volumes, Timings PM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗			↗	↗	↕↗		↗	↕↗	
Volume (vph)	0	0	259	0	0	142	13	1483	216	114	521	29
Satd. Flow (prot)	0	0	1826	0	0	1774	1745	3356	0	1745	3297	0
Flt Permitted							0.397			0.056		
Satd. Flow (perm)	0	0	1826	0	0	1774	729	3356	0	103	3297	0
Satd. Flow (RTOR)			379			33		27			15	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.25	0.25	0.62	0.25	0.25	0.71	0.88	0.88	0.88	0.82	0.82	0.82
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	2%	0%	0%	5%	0%	2%	2%	0%	5%	5%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	418	0	0	200	15	1930	0	139	670	0
Turn Type			custom			custom	Perm	NA		pm+pt	NA	
Protected Phases						1		2		1	6	
Permitted Phases			4			4	2			6		
Detector Phase			4			1	2	2		1	6	
Switch Phase												
Minimum Initial (s)			4.0			4.0	20.0	20.0		4.0	20.0	
Minimum Split (s)			20.0			9.5	26.5	26.5		9.5	26.5	
Total Split (s)			22.0			15.0	83.0	83.0		15.0	98.0	
Total Split (%)			18.3%			12.5%	69.2%	69.2%		12.5%	81.7%	
Yellow Time (s)			3.0			3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)			2.0			2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)			0.0			0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)			5.0			5.0	5.0	5.0		5.0	5.0	
Lead/Lag						Lead	Lag	Lag		Lead		
Lead-Lag Optimize?												
Recall Mode			None			None	C-Max	C-Max		None	C-Max	
Act Effct Green (s)			9.9			24.5	85.5	85.5		100.1	100.1	
Actuated g/C Ratio			0.08			0.20	0.71	0.71		0.83	0.83	
v/c Ratio			0.84			0.52	0.03	0.80		0.64	0.24	
Control Delay			23.3			38.8	7.1	16.3		47.5	1.2	
Queue Delay			0.0			0.0	0.0	0.0		0.0	0.0	
Total Delay			23.3			38.8	7.1	16.3		47.5	1.2	
LOS			C			D	A	B		D	A	
Approach Delay								16.2			9.1	
Approach LOS								B			A	
Queue Length 50th (ft)			29			116	3	454		48	22	
Queue Length 95th (ft)			0			129	12	680		m95	m27	
Internal Link Dist (ft)		32			359			519				659
Turn Bay Length (ft)							71			400		
Base Capacity (vph)			583			403	519	2399		231	2752	
Starvation Cap Reductn			0			0	0	0		0	0	
Spillback Cap Reductn			0			0	0	0		0	0	
Storage Cap Reductn			0			0	0	0		0	0	
Reduced v/c Ratio			0.72			0.50	0.03	0.80		0.60	0.24	

Intersection Summary
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 96.5 (80%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.84
 Intersection Signal Delay: 16.7 Intersection LOS: B
 Intersection Capacity Utilization 65.0% ICU Level of Service C
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

20: Ronkonkoma Avenue & 2nd Street/Powell Street Build 2020 Mit-60% of Bld Volume Lanes, Volumes, Timings

PM Peak

Splits and Phases: 20: Ronkonkoma Avenue & 2nd Street/Powell Street



**16: Mill Road & Union Avenue
HCM 2010 Roundabout**

Build 2020 Mit-60% Bld NRW
PM Peak

Intersection				
Intersection Delay, s/veh	36.3			
Intersection LOS	E			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	600	829	602	57
Demand Flow Rate, veh/h	612	845	614	58
Vehicles Circulating, veh/h	201	230	586	848
Vehicles Exiting, veh/h	705	970	227	227
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	14.7	39.2	56.3	9.2
Approach LOS	B	E	F	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	612	845	614	58
Cap Entry Lane, veh/h	924	898	629	484
Entry HV Adj Factor	0.980	0.981	0.981	0.979
Flow Entry, veh/h	600	829	602	57
Cap Entry, veh/h	906	881	617	474
V/C Ratio	0.662	0.941	0.976	0.120
Control Delay, s/veh	14.7	39.2	56.3	9.2
LOS	B	E	F	A
95th %tile Queue, veh	5	15	14	0

**19: Hawkins Avenue & Railroad Avenue
HCM 2010 Roundabout**

Build 2020 Mit-60% Bld NRW
PM Peak

Intersection					
Intersection Delay, s/veh	32.3				
Intersection LOS	D				
Approach	EB	WB	NB	SB	
Entry Lanes	1	1	0	1	
Conflicting Circle Lanes	1	1	1	1	
Adj Approach Flow, veh/h	936	745	0	432	
Demand Flow Rate, veh/h	954	760	0	441	
Vehicles Circulating, veh/h	214	366	1130	469	
Vehicles Exiting, veh/h	461	764	38	366	
Follow-Up Headway, s	3.186	3.186	3.186	3.186	
Ped Vol Crossing Leg, #/h	0	0	0	0	
Ped Cap Adj	1.000	1.000	1.000	1.000	
Approach Delay, s/veh	64.0	8.9	0.0	4.1	
Approach LOS	F	A	-	A	
Lane	Left	Left	Bypass	Left	Bypass
Designated Moves	LTR	LT	R	LT	R
Assumed Moves	LTR	LT	R	LT	R
RT Channelized			Free		Free
Lane Util	1.000	1.000		1.000	
Critical Headway, s	5.193	5.193		5.193	
Entry Flow, veh/h	954	469	291	206	235
Cap Entry Lane, veh/h	912	784	1938	707	1938
Entry HV Adj Factor	0.981	0.981	0.980	0.979	0.980
Flow Entry, veh/h	936	460	285	202	230
Cap Entry, veh/h	895	769	1900	692	1900
V/C Ratio	1.046	0.599	0.150	0.291	0.121
Control Delay, s/veh	64.0	14.4	0.0	8.8	0.0
LOS	F	B	A	A	A
95th %tile Queue, veh	21	4	1	1	0



Engineering, Surveying and Landscape Architecture, P.C.

Appendix D

Description

Parking Counts



Spot parking counts at LIRR parking lots on Railroad Avenue

Thursday, April 11, 2013

Spot Parking counts
Ronkonkoma LIRR Train Station Parking Lots on Railroad Avenue
 Thursday April 11, 2013 - 10:00 AM

Lot #	Legally Parked	Illegally Parked	Marked Stalls	Restrictions
1	72		Unpaved	
2	184		Unstriped	
3	327	14	333	
4	8	0	8	For Taxis Only
5	43	0	47	For Retail Stores Only
6	294	2	296	
Total	3251	88	3218	



Engineering, Surveying and Landscape Architecture, P.C.

Appendix E

Description

Suffolk County Bus Schedules

SUFFOLK COUNTY TRANSIT



SCHEDULE

\$57

Sayville to Smith Haven Mall

- Serving
- Sayville
- Bohemia
- Lakeland
- L.I. MacArthur Airport
- Ronkonkoma Railroad
- Ronkonkoma
- Lake Ronkonkoma
- Lake Grove
- Smith Haven Mall

Suffolk County Transit Fares & Information

Full fare \$2.00 (except Bus Routes S92 & 10C)
Full fare for S92 & 10C Bus Routes \$2.25
Student fare \$1.25
 Between 14 to 22 years old. High School/College ID required.
Children under 5 years old FREE
 Limit 3 children accompanied by adult.
Senior, Person with Disabilities and Medicare Card Holders 75 cents
Personal Care Attendant FREE
 When traveling to assist passenger with disabilities.
Transfer, 25 cents
 Available on request when paying fare.
 Good for two (2) connecting buses.
 Valid for two (2) hours from time received.
 Not valid for return trip.
 Special restrictions may apply (see transfer).

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- Have exact fare ready; Driver cannot handle money.
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- Arrive earlier than scheduled departure time.
- Tell driver your destination.
- SCT Drivers announce Major Bus Stop locations.
- Smoking, drinking, eating & playing radios prohibited on buses.

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- NICE, Nassau Inter-County Express ... 516.228.4000
- MTA LONG ISLAND RAIL ROAD 718.217.5477
- 511NYRideshare 511 and say "Rideshare"

www.sct-bus.org



S57 Northbound Service												
Sayville	Sayville	Bohemia	Lakeland	Ronkonkoma	Ronkonkoma	Ronkonkoma	Lake Ronkonkoma Beach	Lake Ronkonkoma Portion Rd. Hawkins Ave.	Lake Ronkonkoma School St. Hans Blvd.	Lake Ronkonkoma Smith Rd. The Waterfalls	Lake Grove Hawkins Ave. Middle Country Rd.	Lake Grove Smith Haven Mall
Main St.	Smithtown Ave. Sunrise Hwy.	Church St. Ocean Ave.	5th Ave. Peconic St.	L.I. MacArthur Airport	Ronkonkoma Railroad	Ronkonkoma Beach	Ronkonkoma Portion Rd. Hawkins Ave.	Ronkonkoma School St. Hans Blvd.	Ronkonkoma Smith Rd. The Waterfalls	Lake Grove Hawkins Ave. Middle Country Rd.	Smith Haven Mall	
7:05	7:30	7:45	7:55	8:05	8:15	8:25	8:35	8:45	8:55	9:05	9:15	9:25
10:25	10:30	10:35	10:45	10:55	11:05	11:10	11:15	11:18	11:25	11:32	11:40	11:40
11:25	11:30	11:35	11:45	11:55	12:05	12:10	12:15	12:18	12:25	12:32	12:40	12:40
12:25	12:30	12:35	12:45	12:55	1:05	1:10	1:15	1:18	1:25	1:32	1:40	1:40
1:25	1:30	1:35	1:45	1:55	2:05	2:10	2:15	2:18	2:25	2:32	2:40	2:40
2:25	2:30	2:35	2:45	2:55	3:05	3:10	3:15	3:18	3:25	3:32	3:40	3:40
3:25	3:30	3:35	3:45	3:55	4:05	4:10	4:15	4:18	4:25	4:32	4:40	4:40
4:25	4:30	4:35	4:45	4:55	5:05	5:10	5:15	5:18	5:25	5:32	5:40	5:40
5:25	5:30	5:35	5:45	5:55	6:05	6:10	6:15	6:18	6:25	6:32	6:40	6:40
6:25	6:30	6:35	6:45	6:55	7:05	7:10	7:15	7:18	7:25	7:32	7:40	7:40

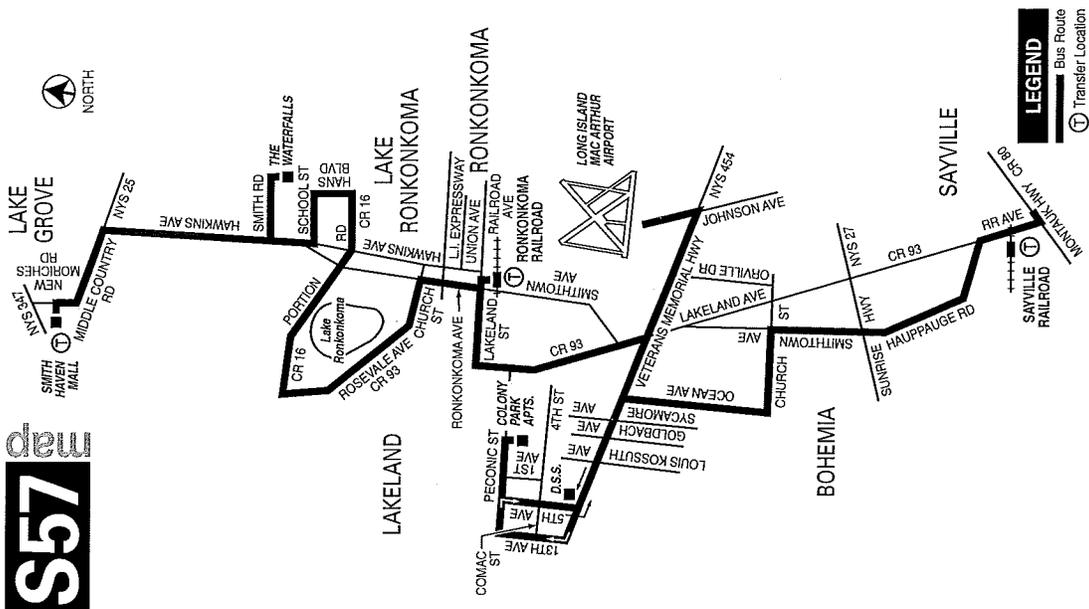
S57 Southbound Service													
Lake Grove Smith Haven Mall	Lake Grove Hawkins Ave. Middle Country Rd.	Lake Ronkonkoma Smith Rd. The Waterfalls	Lake Ronkonkoma School St. Hans Blvd.	Lake Ronkonkoma Portion Rd. Hawkins Ave.	Lake Ronkonkoma Beach	Lake Ronkonkoma Beach	Ronkonkoma Railroad	Ronkonkoma L.I. MacArthur Airport	Ronkonkoma School St. Hans Blvd.	Ronkonkoma Smith Rd. The Waterfalls	Bohemia Church St. Ocean Ave.	Sayville Smithtown Ave. Sunrise Hwy.	Sayville Main St.
7:10	7:15	7:22	7:26	7:32	7:40	7:40	7:40	7:45	7:45	7:50	7:50	7:50	7:55
8:10	8:15	8:22	8:26	8:32	8:40	8:40	8:40	8:45	8:45	8:50	8:50	8:50	8:55
9:00	9:07	9:15	9:26	9:32	9:40	9:40	9:40	9:45	9:45	9:50	9:50	9:50	9:55
10:00	10:06	10:15	10:22	10:32	10:40	10:40	10:40	10:45	10:45	10:50	10:50	10:50	10:55
11:10	11:16	11:24	11:34	11:40	11:45	11:45	11:45	11:50	11:50	11:55	11:55	11:55	12:00
12:10	12:16	12:24	12:34	12:40	12:45	12:45	12:45	12:50	12:50	12:55	12:55	12:55	13:00
1:10	1:16	1:24	1:34	1:40	1:45	1:45	1:45	1:50	1:50	1:55	1:55	1:55	2:00
2:00	2:07	2:15	2:26	2:32	2:40	2:40	2:40	2:45	2:45	2:50	2:50	2:50	2:55
3:00	3:07	3:15	3:26	3:32	3:40	3:40	3:40	3:45	3:45	3:50	3:50	3:50	3:55
4:00	4:07	4:15	4:26	4:32	4:40	4:40	4:40	4:45	4:45	4:50	4:50	4:50	4:55
5:00	5:07	5:15	5:26	5:32	5:40	5:40	5:40	5:45	5:45	5:50	5:50	5:50	5:55
6:00	6:07	6:15	6:26	6:32	6:40	6:40	6:40	6:45	6:45	6:50	6:50	6:50	6:55
7:00	7:07	7:15	7:26	7:32	7:40	7:40	7:40	7:45	7:45	7:50	7:50	7:50	7:55

S57 service available Monday thru Saturday only.
 *No Saturday service on these trips.
 † S57 bus service to Colony Park Apartments.
 AM-LIGHTFACE PM-BOLDFACE
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Where to Board For your safety, please wait for the bus at a designated bus stop.

S57 Connecting Bus Service

Route No.	Location
S40, S59	Sayville
S54, S59	Bohemia
S56, S58, S59	Smith Haven Mall
S60, S62, S63	Smith Haven Mall
S69, 3D, 6B	Smith Haven Mall
S59, 6A, 7A	Ronkonkoma Railroad

Long Island Rail Road
 Ronkonkoma – Ronkonkoma Branch
 Sayville – Montauk Branch



LEGEND
 Bus Route
 Transfer Location

SUFFOLK COUNTY TRANSIT

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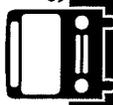
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 NICE, Nassau Inter-County Express 516.228.4000
 MTA LONG ISLAND RAIL ROAD 718.217.5477
 511NYRideshare 511 and say "Rideshare"



SCHEDULE

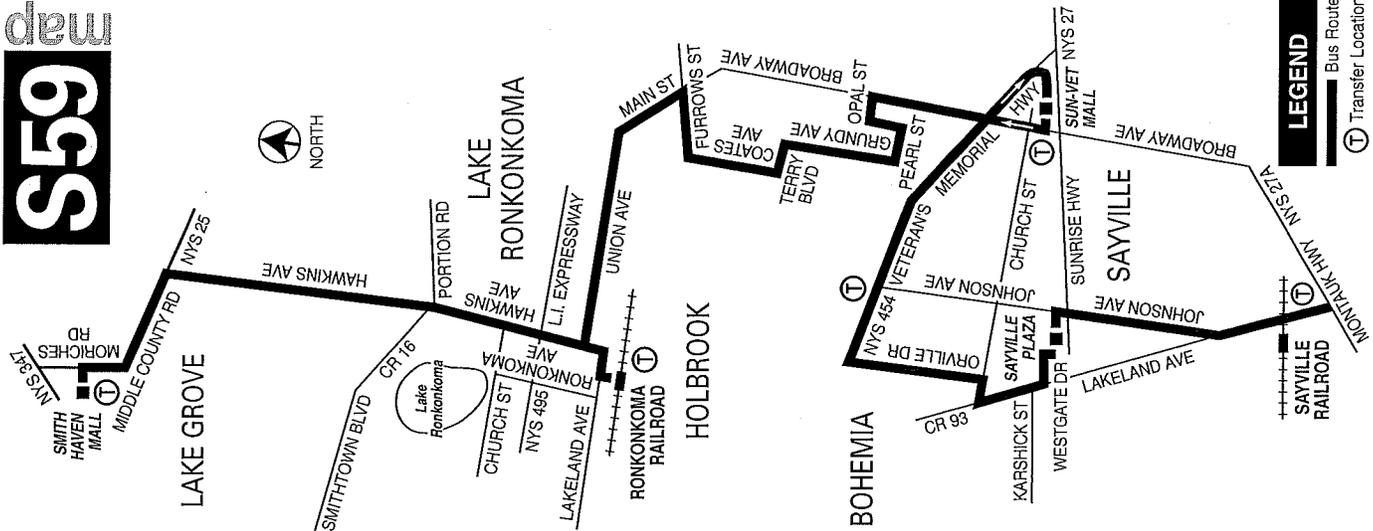
\$59

Sayville to Smith Haven Mall

- Serving
- Sayville
- Sun-Vet Mall
- Bohemia
- Holbrook
- Ronkonkoma
- Lake Ronkonkoma
- Lake Grove
- Smith Haven Mall

www.sct-bus.org

S59 map



LEGEND
 Bus Route
 Transfer Location

S59 Northbound Service							Sayville to Smith Haven Mall				
Sayville Main St.	Sayville Sayville Plaza	Bohemia Orville Dr. Veterans Memorial Hwy.	Holbrook Sun-Vet Mall	Holbrook Furrows Rd. Main St.	Ronkonkoma Railroad	Lake Ronkonkoma Hawkins Ave. Portion Rd.	Lake Grove Hawkins Ave. Middle Country Rd.	Lake Grove Smith Haven Mall			
*5:45	—	5:55	—	6:10	6:16	—	—	—			
*6:10	—	6:20	—	6:35	6:40	6:45	6:50	6:55			
*6:30	—	6:40	—	6:55	7:00	—	—	—			
7:15	7:22	7:27	—	7:42	7:47	7:52	8:00	8:05			
8:15	8:22	8:27	8:34	8:45	8:50	8:57	9:05	9:10			
9:15	9:22	9:27	9:34	9:45	9:50	9:57	10:05	10:10			
10:25	10:32	10:37	10:44	10:55	11:00	11:07	11:15	11:20			
11:25	11:32	11:37	11:44	11:55	12:00	12:07	12:15	12:20			
12:25	12:32	12:37	12:44	12:55	1:00	1:07	1:15	1:20			
1:25	1:32	1:37	1:44	1:55	2:00	2:07	2:15	2:20			
2:25	2:32	2:37	2:44	2:55	3:00	3:07	3:15	3:20			
3:25	3:32	3:37	3:44	3:55	4:00	4:07	4:15	4:20			
4:35	4:44	4:50	5:00	5:12	5:20	5:25	5:31	5:35			
5:40	5:48	5:54	6:02	6:14	6:20	6:25	6:31	6:35			
7:00	7:08	7:14	7:22	7:34	7:40	7:45	7:51	7:55			

S59 Southbound Service							Smith Haven Mall to Sayville				
Lake Grove Smith Haven Mall	Lake Grove Hawkins Ave. Middle Country Rd.	Lake Ronkonkoma Hawkins Ave. Portion Rd.	Ronkonkoma Railroad	Holbrook Furrows Rd. Main St.	Holbrook Sun-Vet Mall	Bohemia Orville Dr. Veterans Memorial Hwy.	Sayville Sayville Plaza	Sayville Main St.			
7:00	7:04	7:10	7:15	7:22	7:34	7:42	7:47	7:55			
8:10	8:14	8:20	8:25	8:32	8:44	8:52	8:57	9:05			
9:30	9:33	9:40	9:45	9:50	10:01	10:08	10:13	10:20			
10:30	10:33	10:40	10:45	10:50	11:01	11:08	11:13	11:20			
11:30	11:33	11:40	11:45	11:50	12:01	12:08	12:13	12:20			
12:30	12:33	12:40	12:45	12:50	1:01	1:08	1:13	1:20			
1:30	1:33	1:40	1:45	1:50	2:01	2:08	2:13	2:20			
2:30	2:33	2:40	2:45	2:50	3:01	3:08	3:13	3:20			
3:30	3:34	3:40	3:45	3:52	4:04	4:12	4:17	4:25			
4:30	4:34	4:40	4:45	4:52	5:04	5:13	5:20	5:30			
5:45	5:49	6:00	6:10	6:15	6:26	6:33	6:38	6:45			
6:45	6:48	6:55	7:00	7:06	7:16	7:23	7:28	7:35			

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AM-LIGHTFACE PM-BOLDFACE

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S59 Connecting Bus Service

Route No.	Location
S40	Sayville
S54	Bohemia
S56, S58, S60, S62	Smith Haven Mall
S63, 3D, 6B	Smith Haven Mall
S57	Ronkonkoma, Sayville, Smith Haven Mall
6A, 7A	Ronkonkoma

Long Island Rail Road

Ronkonkoma – Ronkonkoma Branch
 Sayville – Montauk Branch

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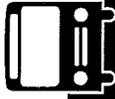
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MTA LONG ISLAND RAIL ROAD 718.217.5477
511NYRideshare 511 and say "Rideshare"



SCHEDULE

6A/6B

**Ronkonkoma Railroad
to Coram
Farmingville to
Smith Haven Mall**

**6A Serving
Ronkonkoma Railroad
Lake Ronkonkoma
Ronkonkoma
Selden
Coram**

**6B Serving
Farmingville
Selden
Terryville
North Centereach
Smith Haven Mall**



6A Eastbound Service					Ronkonkoma Railroad to Coram				
Ronkonkoma Railroad	Lake Ronkonkoma	Ronkonkoma	Selden Suffolk Cty. College	Selden Suffolk Cty. College	Coram Plaza	Coram Plaza	Coram Plaza	Coram Plaza	Coram Link Circle
*6:15	6:19	6:22	6:30	6:35	6:45	—	—	—	—
*6:45	6:50	6:55	7:05	—	—	—	—	—	—
7:20	7:24	7:27	7:35	7:40	7:50	—	—	—	—
8:30	8:34	8:37	8:45	8:50	9:00	9:05	—	—	—
9:45	9:49	9:52	10:00	10:05	10:15	10:20	—	—	—
11:05	11:09	11:12	11:20	11:25	11:35	11:40	—	—	—
12:40	12:44	12:47	12:55	1:00	1:10	1:15	—	—	—
1:55	1:59	2:02	2:10	2:15	2:25	2:30	—	—	—
3:15	3:19	3:22	3:30	3:35	3:45	3:50	—	—	—
4:35	4:39	4:42	4:50	4:55	5:05	5:10	—	—	—
5:50	5:54	5:57	6:05	6:10	6:20	—	—	—	—
*7:00	7:04	7:07	7:15	7:20	7:30	—	—	—	—

6A Westbound Service					Coram to Ronkonkoma Railroad				
Coram Link Circle	Coram Plaza	Selden Mooney Pond Rd. Blue Point Rd.	Selden Suffolk Cty. College	Ronkonkoma Portion Rd. University Dr.	Lake Ronkonkoma Portion Rd.	Ronkonkoma Railroad	Ronkonkoma Railroad	Ronkonkoma Railroad	Ronkonkoma Railroad
—	*5:50	5:57	6:02	6:08	6:11	6:15	—	—	—
—	*6:20	6:27	6:32	6:38	6:41	6:45	—	—	—
—	*6:45	6:55	7:00	7:08	7:11	7:15	—	—	—
—	7:55	8:05	8:10	8:18	8:21	8:25	—	—	—
9:05	9:10	9:20	9:25	9:33	9:36	9:40	—	—	—
10:20	10:25	10:35	10:40	10:48	10:51	10:55	—	—	—
11:40	11:45	11:55	12:00	12:08	12:11	12:15	—	—	—
1:15	1:20	1:30	1:35	1:43	1:46	1:50	—	—	—
2:30	2:35	2:45	2:50	2:58	3:01	3:05	—	—	—
3:50	3:55	4:05	4:10	4:18	4:21	4:25	—	—	—
5:10	5:15	5:25	5:30	5:38	5:41	5:45	—	—	—
—	6:25	6:35	6:40	6:48	6:51	6:55	—	—	—

6A and 6B service available Monday thru Saturday only.

***No Saturday service on these trips.**

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Where to Board For your safety, please wait for the bus at a designated bus stop.

6A Connecting Bus Service
Route No. S57, S59, 7A
Location Ronkonkoma

S58, S60, S61
 Coram

S58, S63, S71, 6B
 Suffolk County Community College, Selden

6B Connecting Bus Service
Route No. S56, S57, S58
 Smith Haven Mall

S59, S60, S62
 Smith Haven Mall

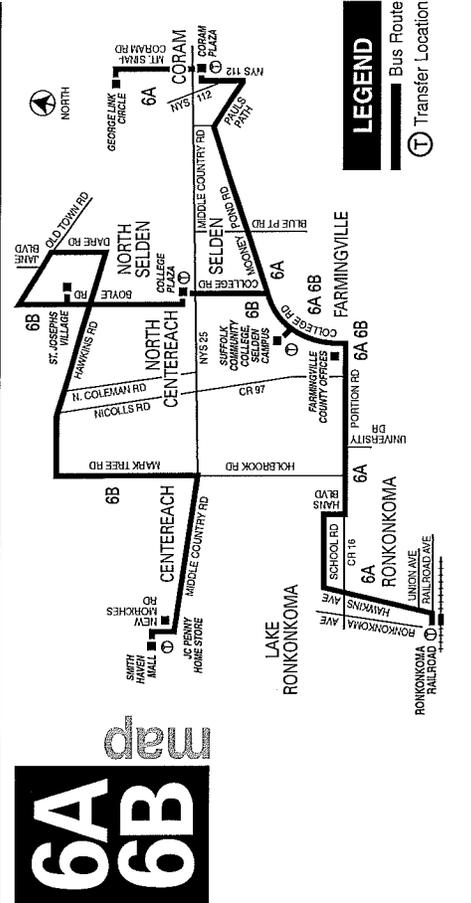
S63, S69, 3D
 Smith Haven Mall

S58, S63, S71, 6A
 Suffolk County Community College, Selden

Long Island Rail Road
 Ronkonkoma – Ronkonkoma Branch

6B Eastbound Service							Smith Haven Mall to Farmingville				
Lake Grove Smith Haven Mall	Centerreach Mark Middle Country Rd.	Centerreach Mark Tree Rd. Hawkins Rd.	North Centerreach Hawkins Rd. N. Coleman Rd.	Terryville Old Town Rd. Jayne Blvd.	Selden College Plaza	Selden Suffolk Cty. Community College	Farmingville County Offices				
*7:00	7:10	7:15	7:20	7:30	7:40	7:45	—				
8:00	8:10	8:15	8:20	8:30	8:35	8:45	—				
9:00	9:10	9:15	9:20	9:30	9:35	9:45	—				
10:00	10:10	10:15	10:20	10:30	10:35	10:45	—				
11:00	11:10	11:15	11:20	11:30	11:35	11:45	—				
12:30	12:40	12:45	12:50	1:00	1:05	1:15	—				
1:30	1:40	1:45	1:50	2:00	2:05	2:15	—				
2:15	2:25	2:30	2:35	2:45	2:50	3:00	—				
3:15	3:25	3:30	3:35	3:45	3:50	4:00	—				
4:05	4:15	4:20	4:25	4:35	4:40	4:50	—				
5:15	5:25	5:30	5:35	5:45	5:50	6:00	—				
6:00	6:10	6:15	6:20	6:30	6:35	6:45	—				

6B Westbound Service							Farmingville to Smith Haven Mall				
Farmingville County Offices	Selden Suffolk Cty. Community College	Terryville Old Town Rd. Jayne Blvd.	North Centerreach Hawkins Rd. N. Coleman Rd.	Centerreach Mark Tree Rd. Hawkins Rd.	Centerreach Mark Tree Rd. Middle Country Rd.	Lake Grove Smith Haven Mall					
*7:00	7:05	7:10	7:15	7:25	7:30	7:45					
8:00	8:05	8:10	8:15	8:25	8:30	8:45					
9:00	9:05	9:10	9:15	9:25	9:30	9:45					
10:00	10:05	10:10	10:15	10:25	10:30	10:45					
11:00	11:05	11:10	11:15	11:25	11:30	11:45					
12:00	12:05	12:10	12:15	12:25	12:30	12:45					
1:20	1:25	1:30	1:35	1:45	1:50	2:05					
2:20	2:25	2:30	2:35	2:45	2:50	3:05					
3:10	3:15	3:20	3:25	3:35	3:40	3:55					
4:10	4:15	4:20	4:25	4:35	4:40	4:55					
5:10	5:15	5:20	5:25	5:35	5:40	5:55					
6:15	6:20	6:25	6:30	6:40	6:45	7:00					



LEGEND
 — Bus Route
 ⊕ Transfer Location

SUFFOLK COUNTY TRANSIT

Suffolk County Transit Fares & Information

Full fare \$2.00 (except Bus Routes S92 & 10C)
Full fare for S92 & 10C Bus Routes \$2.25
Student fare \$1.25
 Between 14 to 22 years old. High School/College ID required.
Children under 5 years old FREE
 Limit 3 children accompanied by adult.
Senior, Person with Disabilities and Medicare Card Holders 75 cents
Personal Care Attendant FREE
 When traveling to assist passenger with disabilities.
Transfer 25 cents

Available on request when paying fare.
 Good for two (2) connecting buses.
 Valid for two (2) hours from time received.
 Not valid for return trip.
 Special restrictions may apply (see transfer).
Passengers Please

- Have exact fare ready. Driver cannot handle money.
- Passengers must deposit their own fare.
- Arrive earlier than scheduled departure time.
- Tell driver your destination.
- SCT Drivers announce Major Bus Stop locations.
- Smoking, drinking, eating & playing radios prohibited on buses.

Bike Racks

Available on all Suffolk County Transit (SCT) bus routes.
Reduced Fare for Seniors, Persons with Disabilities and Medicare Card Holders

Persons with valid, municipally issued cards identifying them as at least 60 years old or having a mental or physical disability may ride for the reduced, one-way fare. A valid Medicare Card is also accepted as ID.
 Persons must display their ID card to the driver when paying the fare to ride at the reduced rate.

For ID information:
 Seniors ID call 631.853.8200
 Disability ID call 631.853.8333
 Hearing Impaired TTY 631.853.5658

Suffolk County Transit Service: Monday - Saturday

No service Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving or Christmas Day.
 *Saturday Schedule in effect Martin Luther King's Day, Presidents Day and Veterans Day.

Persons with Disabilities

Upon request, drivers will assist wheelchair passengers while boarding and leaving lift/ramp and with use of securing device. Use of wheelchair lifts/ramps also available to passengers using walkers, canes, braces or who are otherwise mobility-impaired. Person traveling with respirator or portable oxygen supply are permitted to ride SCT buses. Service animals to accompany disabled passengers are also permitted.

Suffolk County Transit Bus Information

Questions, Suggestions, Complaints?
 Call Suffolk County Transit Information Service
631.852.5200
 Monday to Friday 8:00am to 4:30pm

SCAT Paratransit Service

Paratransit Bus Service is available to ADA eligible passengers. To register or for more information, call Office for People with Disabilities at 631.853.8333.

Large Print Bus Schedules

To obtain a large print copy of this or other Suffolk County Transit bus schedules, call 631.852.5200 or visit www.sct-bus.org.

Additional Transportation Services

HART 631.427.8287
 NICE, Nassau Inter-County Express... 516.228.4000
 MTA LONG ISLAND RAIL ROAD 718.217.5477
 511NYRideshare 511 and say "Rideshare"

www.sct-bus.org



SCHEDULE

7A/7B

Patchogue Railroad to Ronkonkoma Railroad
Patchogue Railroad to Medford, Bellport

7A Serving
 Patchogue Railroad
 Patchogue
 North Patchogue
 Gateway Shopping Center
 Holbrook
 Ronkonkoma Railroad

7B Serving
 Patchogue Railroad
 Patchogue
 East Patchogue
 Brookhaven Memorial Hospital
 Conifer Village
 Medford
 Eagle Estates
 North Bellport
 Bellport



SUFFOLK TRANSIT

7A service available Monday thru Saturday only.

*No Saturday service on these trips.
 AM-LIGHTFACE PM-BOLDFACE
 Schedules subject to change without notice.
 Suffolk County cannot assume responsibility for inconvenience, expense or damage resulting from timetable errors, delayed buses or failure to make connections.
Where to Board For your safety, please wait for the bus at a designated bus stop.

7A Connecting Bus Service

Route No.	Location
S64, S61	Patchogue
S63	Patchogue
S57, S59, 6A	Ronkonkoma
S54, S61, S63, 7B	Patchogue Railroad

Long Island Rail Road

Patchogue - Montauk Branch
 Ronkonkoma - Ronkonkoma Branch

7A Southbound Service					Ronkonkoma Railroad to Patchogue Railroad				
Patchogue Railroad	North Patchogue Traction Blvd, Prince St.	North Patchogue Gateway Shopping Center, Crossway Dr.	Holbrook Main St, Furrows Rd.	Holbrook Woodgate Village	Ronkonkoma Railroad	North Patchogue Traction Blvd, Prince St.	North Patchogue Gateway Shopping Center, Crossway Dr.	Holbrook Main St, Furrows Rd.	Holbrook Woodgate Village
*6:30	6:39	10:48	9:45	11:05	7:00	7:15	11:30	11:37	11:41
7:30	7:39	12:28	7:44	12:45	8:00	8:15	11:30	11:37	11:41
8:30	8:34	1:38	8:44	1:55	9:00	9:15	11:30	11:37	11:41
9:30	9:34	2:48	9:45	3:00	10:05	10:20	11:30	11:37	11:41
10:40	10:48	3:58	10:55	4:10	11:15	11:25	11:30	11:37	11:41
12:20	12:24	5:08	12:45	5:20	12:55	1:10	11:30	11:37	11:41
1:30	1:34	6:23	1:55	6:33	2:05	2:20	11:30	11:37	11:41
2:40	2:44	—	3:00	3:10	3:15	3:30	11:30	11:37	11:41
3:50	3:54	—	4:15	4:20	4:25	4:40	11:30	11:37	11:41
5:00	5:04	—	5:25	5:30	5:35	5:50	11:30	11:37	11:41
6:15	6:19	—	6:33	6:40	*6:50	7:05	11:30	11:37	11:41

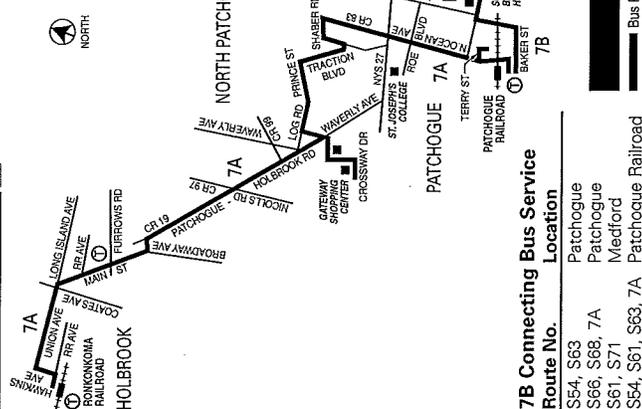
7A Northbound Service					Patchogue Railroad to Ronkonkoma Railroad				
Patchogue Railroad	North Patchogue Traction Blvd, Prince St.	North Patchogue Gateway Shopping Center, Crossway Dr.	Holbrook Woodgate Village	Holbrook Main St, Furrows Rd.	Ronkonkoma Railroad	North Patchogue Traction Blvd, Prince St.	North Patchogue Gateway Shopping Center, Crossway Dr.	Holbrook Main St, Furrows Rd.	Holbrook Woodgate Village
*6:30	6:34	10:48	6:44	6:49	6:55	7:15	11:30	11:37	11:41
7:30	7:34	12:28	7:44	7:49	7:55	8:15	11:30	11:37	11:41
8:30	8:34	1:38	8:44	8:49	8:55	9:15	11:30	11:37	11:41
9:30	9:34	2:48	9:45	9:50	10:00	10:20	11:30	11:37	11:41
10:40	10:44	3:58	10:55	11:05	11:10	11:25	11:30	11:37	11:41
12:20	12:24	5:08	12:45	12:50	12:55	1:10	11:30	11:37	11:41
1:30	1:34	6:23	1:55	2:00	2:05	2:20	11:30	11:37	11:41
2:40	2:44	—	3:00	3:10	3:15	3:30	11:30	11:37	11:41
3:50	3:54	—	4:15	4:20	4:25	4:40	11:30	11:37	11:41
5:00	5:04	—	5:25	5:30	5:35	5:50	11:30	11:37	11:41
6:15	6:19	—	6:33	6:40	*6:50	7:05	11:30	11:37	11:41



7B Northbound Service										
Patchogue Railroad	Patchogue South Brookhaven Health Ctr.	E. Patchogue Yaphank Rd.	Medford Montauk Hwy.	Medford Plaza	Medford Estates	Medford Sipp Ave, Southaven Ave.	Medford Brookhaven Memorial Hospital	Medford Sipp Ave, Southaven Ave.	Medford Sipp Ave, Southaven Ave.	Bellport Station Rd, South Country Rd.
*6:45	6:49	6:54	7:02	7:11	7:15	7:06	7:06	7:11	7:15	8:20
7:50	7:54	7:59	8:07	8:11	8:16	8:07	8:07	8:11	8:16	8:20
9:00	9:04	9:09	9:13	9:21	9:26	9:21	9:21	9:26	9:30	—
10:10	10:14	10:19	10:23	10:31	10:36	10:31	10:31	10:36	10:40	—
11:20	11:24	11:29	11:33	11:38	11:43	11:33	11:33	11:38	11:43	12:00
12:45	12:49	12:54	12:58	1:06	1:11	1:06	1:06	1:11	1:15	12:00
2:00	2:04	2:09	2:13	2:18	2:23	2:13	2:13	2:18	2:23	2:40
3:30	3:34	3:39	3:43	3:51	3:56	3:43	3:43	3:51	3:56	5:25
4:45	4:49	4:54	4:58	5:03	5:08	4:58	4:58	5:03	5:08	5:25
6:15	6:19	6:24	6:28	6:36	6:41	6:28	6:28	6:36	6:41	—

7B Southbound Service										
Bellport Station Rd, South Country Rd.	Bellport Montauk Hwy.	Medford S. Village Dr.	Medford Plaza	Medford Eagle Estates	Medford Sipp Ave, Southaven Ave.	Bellport Station Rd, South Country Rd.				
—	—	—	7:15	7:19	7:24	7:28	7:32	7:36	7:41	7:45
8:20	8:24	8:34	8:35	8:39	8:44	8:48	8:52	8:56	9:01	9:05
—	—	—	9:35	9:39	9:44	9:48	9:52	9:56	10:01	10:05
—	—	—	10:45	10:49	10:54	10:58	11:02	11:06	11:11	11:15
12:00	12:05	12:17	1:25	1:29	1:34	1:38	1:42	1:46	1:51	1:55
2:40	2:45	2:57	4:05	4:10	4:15	4:20	4:25	4:30	4:36	4:40
—	—	—	4:05	4:10	4:15	4:20	4:25	4:30	4:36	4:40
5:25	5:30	5:42	6:45	6:49	6:54	6:58	7:02	7:06	7:11	7:15
—	—	—	*6:45	6:49	6:54	6:58	7:02	7:06	7:11	7:15

7B service available Monday thru Saturday only.
 *No Saturday service on this trip.
 † Brookhaven Ave. H.E.L.P. Housing Complex Trips.



7A Connecting Bus Service

Route No.	Location
S54, S63	Patchogue
S66, S68, 7A	Patchogue
S61, S71	Medford
S54, S61, S63, 7A	Patchogue Railroad

7B Connecting Bus Service

Route No.	Location
S54, S63	Patchogue
S66, S68, 7A	Patchogue
S61, S71	Medford
S54, S61, S63, 7A	Patchogue Railroad

AM-LIGHTFACE PM-BOLDFACE
 Schedules subject to change without notice.



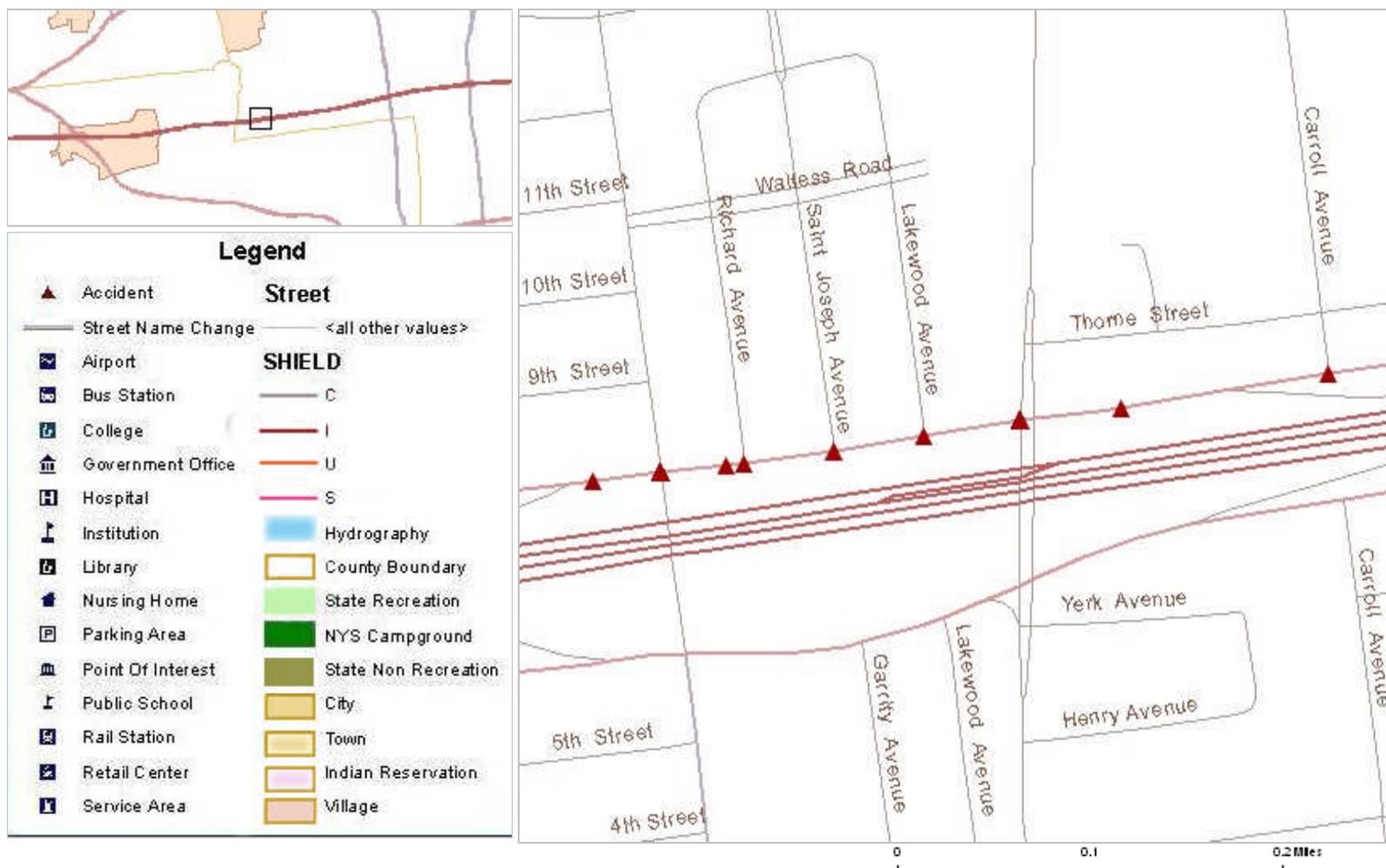
Engineering, Surveying and Landscape Architecture, P.C.

Appendix F

Description

Accident Data

8737 VDR LIE N Service Rd from bay Ave to Carroll Ave, Suffolk



Accident Location Information System (ALIS)

Date: 01/03/13

02:55

Accident Verbal Description Report

Page: 1

8737 VDR LIE N Service Rd from bay Ave to Carroll Ave, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR N
4/6/2009 Mon 06:58 AM Persons Killed: 0 Persons Injured: 4 Extent of Injuries: CCCC **Case: 2009-33019734**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 3
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: OTHER Weather: CLOUDY
 Road Surface Condition: DRY Road Char.: STRAIGHT AT HILLCREST Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 2857 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 29 Sex: M Citation Issued: N
 Direction of Travel: UNKNOWN Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: UNKNOWN
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :2 CAR/VAN/PICKUP Registered Weight: 4016 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 38 Sex: M Citation Issued: N
 Direction of Travel: UNKNOWN Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: UNKNOWN
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :3 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
 Num of Occupants: 2 Driver's Age: 45 Sex: M Citation Issued: N
 Direction of Travel: UNKNOWN Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: UNKNOWN
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE
 AT INTERSECTION WITH Express Dr N
4/25/2009 Sat 12:55 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2009-33036026**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: UNKNOWN Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: UNKNOWN
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3401 State of Registration: NY

**1-OTHER
 INJ**

	Num of Occupants: 1	Driver's Age: 26	Sex: F	Citation Issued: N
	Direction of Travel: UNKNOWN	Public Property Damage: N		School Bus Involved: N
	Pre-Accd Action: GOING STRAIGHT AHEAD			
	Apparent Factors: UNKNOWN, UNKNOWN			
Veh :1	CAR/VAN/PICKUP	Registered Weight: 4017		State of Registration: NY
	Num of Occupants: 1	Driver's Age: 68	Sex: M	Citation Issued: N
	Direction of Travel: WEST	Public Property Damage: N		School Bus Involved: N
	Pre-Accd Action: GOING STRAIGHT AHEAD			
	Apparent Factors: UNKNOWN, UNKNOWN			

Accident Location Information System (ALIS)

Date: 01/03/13

02:55

Accident Verbal Description Report

Page: 2

8737 VDR LIE N Service Rd from bay Ave to Carroll Ave, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: HAWKINS AVE
AT INTERSECTION WITH Express Dr N

2/21/2009 Sat 17:51 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2009-33120586**
 Accident Class: INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: UNKNOWN Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
 Num of Occupants: 3 Driver's Age: 34 Sex: M Citation Issued: N
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: MAKING RIGHT TURN
 Apparent Factors: TURNING IMPROPER, UNKNOWN

6-RE

INJ

Veh :1 CAR/VAN/PICKUP Registered Weight: 2886 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 29 Sex: M Citation Issued: N
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, NOT APPLICABLE

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR N
AT INTERSECTION WITH RONKONKOMA AVE

9/14/2009 Mon 19:50 PM Persons Killed: 0 Persons Injured: 2 Extent of Injuries: AC **Case: 2009-33205248**
 Accident Class: INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: RIGHT ANGLE Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 2375 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 18 Sex: F Citation Issued: N
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

1-RA

INJ

Veh :2 CAR/VAN/PICKUP Registered Weight: 2864 State of Registration: NY

Num of Occupants: 1	Driver's Age: 22	Sex: M	Citation Issued: N
Direction of Travel: SOUTH	Public Property Damage: N		School Bus Involved: N
Pre-Accd Action: GOING STRAIGHT AHEAD			
Apparent Factors: TRAFFIC CONTROL DEVICES DISREGARDED, UNKNOWN			

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE
 AT INTERSECTION WITH Express Dr N

6/28/2009	Sun 01:45 AM	Persons Killed: 0	Persons Injured: 0	Extent of Injuries:	Case: 2009-33353719
Accident Class: PROPERTY DAMAGE				Police Agency:	Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE				Traffic Control: TRAFFIC SIGNAL	
Manner of Collision: LEFT TURN (AGAINST OTHER CAR)				Weather: CLEAR	
Road Surface Condition: DRY		Road Char.: STRAIGHT AND LEVEL		Light Condition: DARK-ROAD LIGHTED	
Loc. of Ped/Bicycle: NOT APPLICABLE				Action of Ped/Bicycle: NOT APPLICABLE	

1-LT

PDO

Accident Location Information System (ALIS)

Date: 01/03/13

02:55

Accident Verbal Description Report

Page: 3

8737 VDR LIE N Service Rd from bay Ave to Carroll Ave, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE

***** CONTINUED

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: PA
 Num of Occupants: 1 Driver's Age: Sex: Citation Issued:
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: MAKING LEFT TURN
 Apparent Factors: TURNING IMPROPER, FAILURE TO YIELD RIGHT OF WAY

Veh :1 CAR/VAN/PICKUP Registered Weight: 5117 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 26 Sex: F Citation Issued: N
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: NOT APPLICABLE, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR N
 AT INTERSECTION WITH HAWKINS AVE

11/30/2009 Mon 12:25 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: B **Case: 2009-33272351**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: RIGHT ANGLE Weather: RAIN
 Road Surface Condition: WET Road Char.: STRAIGHT/ GRADE Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 2290 State of Registration: NY
 Num of Occupants: 2 Driver's Age: 67 Sex: F Citation Issued: N
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: FAILURE TO YIELD RIGHT OF WAY, TRAFFIC CONTROL DEVICES DISREGARDED

6-RA**INJ**

Veh :1 CAR/VAN/PICKUP Registered Weight: 3014 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 76 Sex: M Citation Issued: N
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: NOT APPLICABLE, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE
AT INTERSECTION WITH EXPRESS DR N

1/21/2010 Thu 16:07 PM Persons Killed: 0 Persons Injured: 3 Extent of Injuries: CCC **Case: 2010-33338945**
Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: RIGHT ANGLE Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

1-RA

Veh :1 CAR/VAN/PICKUP Registered Weight: 3444 State of Registration: NY
Num of Occupants: 2 Driver's Age: 26 Sex: F Citation Issued: N
Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

INJ

Accident Location Information System (ALIS)

Date: 01/03/13

02:55

Accident Verbal Description Report

Page: 4

8737 VDR LIE N Service Rd from bay Ave to Carroll Ave, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE

***** CONTINUED

Veh :2 CAR/VAN/PICKUP Registered Weight: 3116 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 24 Sex: M Citation Issued: N
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: NOT APPLICABLE, TRAFFIC CONTROL DEVICES DISREGARDED

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE

AT INTERSECTION WITH EXPRESS DR N

4/9/2010 Fri 13:39 PM Persons Killed: 0 Persons Injured: 2 Extent of Injuries: CC **Case: 2010-33431425**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: REAR END Weather: RAIN
 Road Surface Condition: WET Road Char.: STRAIGHT/ GRADE Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3752 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 44 Sex: F Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: STOPPED IN TRAFFIC
 Apparent Factors: UNKNOWN, UNKNOWN

1-RE
INJ

Veh :2 CAR/VAN/PICKUP Registered Weight: 2863 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 27 Sex: M Citation Issued: Y
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: FOLLOWING TOO CLOSELY, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE

AT INTERSECTION WITH EXPRESS DR N

4/13/2010 Tue 22:07 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2010-33453641**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: RIGHT ANGLE Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

1-RA
INJ

Veh :1	CAR/VAN/PICKUP	Registered Weight: 3960	State of Registration: NY
	Num of Occupants: 1	Driver's Age: 39	Sex: M Citation Issued: N
	Direction of Travel: NORTH	Public Property Damage: N	School Bus Involved: N
	Pre-Accd Action: GOING STRAIGHT AHEAD		
	Apparent Factors: UNKNOWN, UNKNOWN		
Veh :2	CAR/VAN/PICKUP	Registered Weight: 3322	State of Registration: NY
	Num of Occupants: 2	Driver's Age: 27	Sex: M Citation Issued: Y
	Direction of Travel: WEST	Public Property Damage: N	School Bus Involved: N
	Pre-Accd Action: GOING STRAIGHT AHEAD		
	Apparent Factors: UNKNOWN, UNKNOWN		

Accident Location Information System (ALIS)

Date: 01/03/13

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8737 VDR LIE N Service Rd from bay Ave to Carroll Ave, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR N
22 Meters East of Ramp

9/24/2009 Thu 09:15 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2009-33463377**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
 Manner of Collision: OVERTAKING Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT/ GRADE Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3409 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 25 Sex: F Citation Issued: N
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: CHANGING LANES
 Apparent Factors: UNKNOWN, UNSAFE LANE CHANGE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3184 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 65 Sex: F Citation Issued: N
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR N
AT INTERSECTION WITH HAWKINS AVE

4/5/2010 Mon 22:30 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2010-33471682**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: RIGHT ANGLE Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NJ
 Num of Occupants: 1 Driver's Age: 25 Sex: M Citation Issued: N
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, TRAFFIC CONTROL DEVICES DISREGARDED

Veh :1 CAR/VAN/PICKUP Registered Weight: 4205 State of Registration: NY

6-RA

INJ

Num of Occupants: 1	Driver's Age: 38	Sex: F	Citation Issued: N
Direction of Travel: WEST	Public Property Damage: N		School Bus Involved: N
Pre-Accd Action: GOING STRAIGHT AHEAD			
Apparent Factors: UNKNOWN, UNKNOWN			

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE
 AT INTERSECTION WITH EXPRESS DR N

5/20/2010	Thu 17:00 PM	Persons Killed: 0	Persons Injured: 0	Extent of Injuries:	Case: 2010-33472322
	Accident Class: PROPERTY DAMAGE			Police Agency:	Num of Veh: 2
	Type Of Accident: COLLISION WITH MOTOR VEHICLE				Traffic Control: UNKNOWN
	Manner of Collision: UNKNOWN			Weather: UNKNOWN	
	Road Surface Condition: UNKNOWN		Road Char.: UNKNOWN		Light Condition: UNKNOWN
	Loc. of Ped/Bicycle: NOT APPLICABLE		Action of Ped/Bicycle: NOT APPLICABLE		

1-OTHER
 PDO

Accident Location Information System (ALIS)

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8737 VDR LIE N Service Rd from bay Ave to Carroll Ave, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE

***** CONTINUED

Veh :2 OTHER Registered Weight: State of Registration:
 Num of Occupants: 0 Driver's Age: Sex: Citation Issued:
 Direction of Travel: UNKNOWN Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: UNKNOWN
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :1 CAR/VAN/PICKUP Registered Weight: 3806 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 46 Sex: M Citation Issued: N
 Direction of Travel: UNKNOWN Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: UNKNOWN
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: HAWKINS AVE

AT INTERSECTION WITH EXPRESS DR N

10/23/2009 Fri 06:35 AM Persons Killed: 0 Persons Injured: 2 Extent of Injuries: CC **Case: 2009-33501025**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: REAR END Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 5101 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 53 Sex: M Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: STOPPED IN TRAFFIC
 Apparent Factors: UNKNOWN, UNKNOWN

6-RE**INJ**

Veh :2 CAR/VAN/PICKUP Registered Weight: 3216 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 26 Sex: M Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: SLOWED OR STOPPING
 Apparent Factors: UNKNOWN, DRIVER INATTENTION

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR N
AT INTERSECTION WITH HAWKINS AVE

10/24/2009 Sat 10:18 AM Persons Killed: 0 Persons Injured: 2 Extent of Injuries: CC **Case: 2009-3352196**
Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: RIGHT ANGLE Weather: CLOUDY
Road Surface Condition: WET Road Char.: STRAIGHT/ GRADE Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

6-RA

Veh :1 CAR/VAN/PICKUP Registered Weight: 2466 State of Registration: NY
Num of Occupants: 2 Driver's Age: 66 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

INJ

Accident Location Information System (ALIS)

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8737 VDR LIE N Service Rd from bay Ave to Carroll Ave, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR N

***** CONTINUED

Veh :2 TRUCK Registered Weight: 25999 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 43 Sex: M Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: UNKNOWN
 Apparent Factors: NOT APPLICABLE, TRAFFIC CONTROL DEVICES DISREGARDED

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR N

AT INTERSECTION WITH HAWKINS AVE

1/10/2010 Sun 10:18 AM Persons Killed: 0 Persons Injured: 2 Extent of Injuries: CC **Case: 2010-33598567**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: FLASHING LIGHT
 Manner of Collision: RIGHT ANGLE Weather: CLEAR
 Road Surface Condition: OTHER Road Char.: STRAIGHT/ GRADE Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

6-RA

INJ

Veh :1 CAR/VAN/PICKUP Registered Weight: 4424 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 33 Sex: M Citation Issued: N
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: MAKING LEFT TURN
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :2 CAR/VAN/PICKUP Registered Weight: 5615 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 38 Sex: F Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR N

AT INTERSECTION WITH HAWKINS AVE

9/28/2010 Tue 06:14 AM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2010-33613823**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: RIGHT ANGLE Weather: CLOUDY
 Road Surface Condition: WET Road Char.: STRAIGHT AND LEVEL Light Condition: DAWN
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

6-RA

INJ

Veh :1	CAR/VAN/PICKUP	Registered Weight: 2797	State of Registration: NY
	Num of Occupants: 1	Driver's Age: 75	Sex: F Citation Issued: N
	Direction of Travel: WEST	Public Property Damage: N	School Bus Involved: N
	Pre-Accd Action: GOING STRAIGHT AHEAD		
	Apparent Factors: UNKNOWN, UNKNOWN		
Veh :2	CAR/VAN/PICKUP	Registered Weight: 3832	State of Registration: NY
	Num of Occupants: 2	Driver's Age: 23	Sex: M Citation Issued: Y
	Direction of Travel: SOUTH	Public Property Damage: N	School Bus Involved: N
	Pre-Accd Action: GOING STRAIGHT AHEAD		
	Apparent Factors: TRAFFIC CONTROL DEVICES DISREGARDED, UNKNOWN		

Accident Location Information System (ALIS)

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8737 VDR LIE N Service Rd from bay Ave to Carroll Ave, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR N
AT INTERSECTION WITH RONKONKOMA AVE

3/13/2010 Sat 20:36 PM Persons Killed: 0 Persons Injured: 2 Extent of Injuries: CC **Case: 2010-33646175**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: RIGHT ANGLE Weather: CLOUDY
 Road Surface Condition: WET Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

1-RA

Veh :2 CAR/VAN/PICKUP Registered Weight: 4948 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 38 Sex: M Citation Issued: N
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: TRAF CNTRL DEV IMPROPER/NON-WRKing, NOT APPLICABLE

INJ

Veh :1 CAR/VAN/PICKUP Registered Weight: 3005 State of Registration: NY
 Num of Occupants: 2 Driver's Age: 66 Sex: F Citation Issued: N
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: TRAF CNTRL DEV IMPROPER/NON-WRKing, NOT APPLICABLE

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR N
81 Meters East of HAWKINS AVE

2/9/2010 Tue 08:40 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2010-33678294**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
 Manner of Collision: REAR END Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAWN
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

6-RE

Veh :1 CAR/VAN/PICKUP Registered Weight: 4089 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 61 Sex: F Citation Issued: N
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, NOT APPLICABLE

PDO

Veh :2 CAR/VAN/PICKUP Registered Weight: 2010 State of Registration: NY

Num of Occupants: 1	Driver's Age: 19	Sex: F	Citation Issued: N
Direction of Travel: WEST	Public Property Damage: N		School Bus Involved: N
Pre-Accd Action: GOING STRAIGHT AHEAD			
Apparent Factors: UNSAFE SPEED, FOLLOWING TOO CLOSELY			

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR N
 AT INTERSECTION WITH RONKONKOMA AVE

3/12/2010	Fri 20:48 PM	Persons Killed: 0	Persons Injured: 0	Extent of Injuries:	Case: 2010-33758588
	Accident Class: PROPERTY DAMAGE			Police Agency:	Num of Veh: 2
	Type Of Accident: COLLISION WITH MOTOR VEHICLE				Traffic Control: NONE
	Manner of Collision: RIGHT TURN (WITH OTHER CAR)				Weather: RAIN
	Road Surface Condition: WET	Road Char.: STRAIGHT/ GRADE		Light Condition: DARK-ROAD LIGHTED	
	Loc. of Ped/Bicycle: NOT APPLICABLE			Action of Ped/Bicycle: NOT APPLICABLE	

1-RT

PDO

Accident Location Information System (ALIS)**Accident Verbal Description Report****8737 VDR LIE N Service Rd from bay Ave to Carroll Ave, Suffolk****Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

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County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR N

***** CONTINUED

Veh :2 OTHER Registered Weight: State of Registration: NJ
 Num of Occupants: 2 Driver's Age: 23 Sex: F Citation Issued: N
 Direction of Travel: SOUTH-WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: MAKING RIGHT TURN
 Apparent Factors: TURNING IMPROPER, FAILURE TO YIELD RIGHT OF WAY

Veh :1 CAR/VAN/PICKUP Registered Weight: 4076 State of Registration: NY
 Num of Occupants: 2 Driver's Age: 41 Sex: M Citation Issued: Y
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR N

AT INTERSECTION WITH RONKONKOMA AVE

3/13/2010 Sat 20:00 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2010-33758615**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: RIGHT ANGLE Weather: RAIN
 Road Surface Condition: WET Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3505 State of Registration: NY
 Num of Occupants: 2 Driver's Age: 53 Sex: F Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, TRAF CNTRL DEV IMPROPER/NON-WRKing

Veh :1 CAR/VAN/PICKUP Registered Weight: 4053 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 57 Sex: M Citation Issued: N
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, TRAF CNTRL DEV IMPROPER/NON-WRKing

1-RA
PDO

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: HAWKINS AVE
AT INTERSECTION WITH EXPRESS DR N

3/13/2010 Sat 23:00 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2010-33758614**
Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: UNKNOWN Weather: RAIN
Road Surface Condition: WET Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

6-RA
INJ

Veh :2 CAR/VAN/PICKUP Registered Weight: 2542 State of Registration: NY
Num of Occupants: 1 Driver's Age: 23 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: UNKNOWN, TRAF CNTRL DEV IMPROPER/NON-WRKING

Accident Location Information System (ALIS)

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Accident Verbal Description Report

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8737 VDR LIE N Service Rd from bay Ave to Carroll Ave, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

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***** CONTINUED

Veh :1 CAR/VAN/PICKUP Registered Weight: 3179 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 65 Sex: M Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, TRAF CNTRL DEV IMPROPER/NON-WRKing

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: STATE RTE 906B
 AT INTERSECTION WITH RONKONKOMA AVE

12/22/2010 Wed 10:20 AM Persons Killed: 0 Persons Injured: 4 Extent of Injuries: CCCC **Case: 2010-33764160**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: REAR END Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3846 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 28 Sex: M Citation Issued: N
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: SLOWED OR STOPPING
 Apparent Factors: FOLLOWING TOO CLOSELY, DRIVER INATTENTION

1-RE

INJ

Veh :1 CAR/VAN/PICKUP Registered Weight: 2623 State of Registration: NY
 Num of Occupants: 5 Driver's Age: 69 Sex: F Citation Issued: N
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: STOPPED IN TRAFFIC
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE
 AT INTERSECTION WITH EXPRESS DR N

4/20/2010 Tue 09:15 AM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2010-33815610**
 Accident Class: INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: REAR END Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

1-RE

INJ

Veh :1	CAR/VAN/PICKUP	Registered Weight: 3411	State of Registration: NY
	Num of Occupants: 1	Driver's Age: 47	Sex: F Citation Issued: N
	Direction of Travel: SOUTH-WEST	Public Property Damage: N	School Bus Involved: N
	Pre-Accd Action: MAKING RIGHT TURN		
	Apparent Factors: UNKNOWN, UNKNOWN		
Veh :2	CAR/VAN/PICKUP	Registered Weight: 3536	State of Registration: NY
	Num of Occupants: 1	Driver's Age: 47	Sex: M Citation Issued: N
	Direction of Travel: SOUTH-WEST	Public Property Damage: N	School Bus Involved: N
	Pre-Accd Action: MAKING RIGHT TURN		
	Apparent Factors: UNKNOWN, FOLLOWING TOO CLOSELY		

Accident Location Information System (ALIS)**Accident Verbal Description Report****8737 VDR LIE N Service Rd from bay Ave to Carroll Ave, Suffolk****Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

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County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE

AT INTERSECTION WITH EXPRESS DR N

4/13/2010

Tue Persons Killed:

Persons Injured:

Extent of Injuries:

Case: 2010-33838392

Accident Class:

Police Agency:

Num of Veh:

Type Of Accident:

Traffic Control:

Manner of Collision:

Road Surface Condition:

Road Char.:

Weather:

Loc. of Ped/Bicycle:

Action of Ped/Bicycle:

Light Condition:

Veh :

Registered Weight:

State of Registration:

Num of Occupants:

Driver's Age:

Sex:

Citation Issued:

Direction of Travel:

Public Property Damage:

School Bus Involved:

Pre-Accd Action:

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE

AT INTERSECTION WITH EXPRESS DR N

6/2/2010

Wed 07:55 AM

Persons Killed: 0

Persons Injured: 0

Extent of Injuries:

Case: 2010-33863351

Accident Class: PROPERTY DAMAGE

Police Agency:

Num of Veh: 2

Type Of Accident: COLLISION WITH MOTOR VEHICLE

Traffic Control: TRAFFIC SIGNAL

Manner of Collision: REAR END

Weather: CLEAR

Road Surface Condition: DRY

Road Char.: STRAIGHT AND LEVEL

Light Condition: DAYLIGHT

Loc. of Ped/Bicycle: NOT APPLICABLE

Action of Ped/Bicycle: NOT APPLICABLE

Veh :2

OTHER

Registered Weight:

State of Registration:

Num of Occupants: 0

Driver's Age:

Sex:

Citation Issued:

Direction of Travel: SOUTH

Public Property Damage: N

School Bus Involved: N

Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: UNKNOWN, FOLLOWING TOO CLOSELY

Veh :1

CAR/VAN/PICKUP

Registered Weight: 4431

State of Registration: NY

Num of Occupants: 1

Driver's Age: 49

Sex: F

Citation Issued: N

Direction of Travel: SOUTH

Public Property Damage: N

School Bus Involved: N

Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: UNKNOWN, NOT APPLICABLE

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: HAWKINS AVE

AT INTERSECTION WITH LONG ISLAND EXPRESSWAY SERVICE RD

1-RE

PDO

3/31/2011 Thu Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2011-33886462**
Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: UNKNOWN
Manner of Collision: UNKNOWN Weather: RAIN
Road Surface Condition: WET Road Char.: STRAIGHT/ GRADE Light Condition: DUSK
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Accident Location Information System (ALIS)

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8737 VDR LIE N Service Rd from bay Ave to Carroll Ave, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: HAWKINS AVE

***** CONTINUED

Veh :2 OTHER Registered Weight: State of Registration:
 Num of Occupants: 0 Driver's Age: Sex: Citation Issued:
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: CHANGING LANES
 Apparent Factors: UNKNOWN, UNKNOWN

6-OT

PDO

Veh :1 CAR/VAN/PICKUP Registered Weight: 3208 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 17 Sex: F Citation Issued: N
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: MAKING RIGHT TURN
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: HAWKINS AVE

AT INTERSECTION WITH EXPRESS DR N

4/30/2011 Sat 00:40 AM Persons Killed: 1 Persons Injured: 0 Extent of Injuries: K **Case: 2011-33934290**
 Accident Class: FATAL Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: RIGHT ANGLE Weather: CLOUDY
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

6-RA

Veh :2 CAR/VAN/PICKUP Registered Weight: 6000 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 57 Sex: M Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, TRAFFIC CONTROL DEVICES DISREGARDED

FAT

Veh :1 CAR/VAN/PICKUP Registered Weight: 3501 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 40 Sex: M Citation Issued: N
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR N
AT INTERSECTION WITH HAWKINS AVE

9/14/2010 Tue 18:35 PM Persons Killed: 0 Persons Injured: 2 Extent of Injuries: CC **Case: 2010-33974437**
Accident Class: INJURY Police Agency: Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

6-RE
INJ

Veh :2 CAR/VAN/PICKUP Registered Weight: 4513 State of Registration: NY
Num of Occupants: 1 Driver's Age: 30 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
Pre-Accd Action: STARTING IN TRAFFIC
Apparent Factors: FOLLOWING TOO CLOSELY, UNKNOWN

Accident Location Information System (ALIS)**Accident Verbal Description Report****8737 VDR LIE N Service Rd from bay Ave to Carroll Ave, Suffolk****Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

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County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR N

***** CONTINUED

Veh :1 CAR/VAN/PICKUP Registered Weight: 5033 State of Registration: NY
 Num of Occupants: 3 Driver's Age: 24 Sex: F Citation Issued: Y
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: STOPPED IN TRAFFIC
 Apparent Factors: NOT APPLICABLE, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE

AT INTERSECTION WITH LONG ISLAND EXPRESSWAY SERVICE RD

9/14/2010 Tue 12:40 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2010-33975824**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: UNKNOWN Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT/ GRADE Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

1 - RA

INJ

Veh :2 OTHER Registered Weight: State of Registration:
 Num of Occupants: 0 Driver's Age: Sex: Citation Issued:
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: SLOWED OR STOPPING
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :1 CAR/VAN/PICKUP Registered Weight: 2930 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 32 Sex: F Citation Issued: N
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: STOPPED IN TRAFFIC
 Apparent Factors: UNKNOWN, NOT APPLICABLE

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE

AT INTERSECTION WITH EXPRESS DR N

10/1/2010 Fri 16:20 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2010-33993901**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: LEFT TURN (AGAINST OTHER CAR) Weather: RAIN
 Road Surface Condition: WET Road Char.: STRAIGHT/ GRADE Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

1 - LT

PDO

Veh :1	CAR/VAN/PICKUP	Registered Weight:	State of Registration: NY
	Num of Occupants: 1	Driver's Age: 57	Sex: F Citation Issued: N
	Direction of Travel: NORTH	Public Property Damage: N	School Bus Involved: N
	Pre-Accd Action: GOING STRAIGHT AHEAD		
	Apparent Factors: UNKNOWN, UNKNOWN		
Veh :2	CAR/VAN/PICKUP	Registered Weight: 3448	State of Registration: NY
	Num of Occupants: 1	Driver's Age: 22	Sex: M Citation Issued: N
	Direction of Travel: SOUTH	Public Property Damage: N	School Bus Involved: N
	Pre-Accd Action: MAKING LEFT TURN		
	Apparent Factors: FAILURE TO YIELD RIGHT OF WAY, UNKNOWN		

Accident Location Information System (ALIS)**Accident Verbal Description Report****8737 VDR LIE N Service Rd from bay Ave to Carroll Ave, Suffolk****Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

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County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR N
AT INTERSECTION WITH RICHARD AVE

6/16/2011 Thu 08:35 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2011-33981065**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: REAR END Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 4432 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 35 Sex: F Citation Issued: N
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: STARTING IN TRAFFIC
 Apparent Factors: FOLLOWING TOO CLOSELY, UNKNOWN

24-RE
PDO

Veh :1 CAR/VAN/PICKUP Registered Weight: 4159 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 17 Sex: F Citation Issued: N
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: STOPPED IN TRAFFIC
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR N
AT INTERSECTION WITH SAINT JOSEPH AVE

10/1/2010 Fri 20:25 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2010-33993865**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: STOP SIGN
 Manner of Collision: RIGHT TURN (AGAINST OTHER CAR) Weather: CLOUDY
 Road Surface Condition: WET Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 2639 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 42 Sex: M Citation Issued: N
 Direction of Travel: SOUTH-WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: MAKING RIGHT TURN
 Apparent Factors: FAILURE TO YIELD RIGHT OF WAY, UNKNOWN

24-RT
PDO

Veh :2 OTHER Registered Weight: State of Registration:

Num of Occupants: 0

Driver's Age:

Sex:

Citation Issued:

Direction of Travel: WEST

Public Property Damage: N

School Bus Involved: N

Pre-Accd Action: UNKNOWN

Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR N
16 Meters West of Richard Ave

7/31/2011

Sun 23:50 PM

Persons Killed: 0

Persons Injured: 1

Extent of Injuries: C

Case: 2011-34028307

Accident Class: PROPERTY DAMAGE AND INJURY

Police Agency:

Num of Veh: 2

Type Of Accident: COLLISION WITH MOTOR VEHICLE

Traffic Control: TRAFFIC SIGNAL

Manner of Collision: REAR END

Weather: CLEAR

Road Surface Condition: DRY

Road Char.: STRAIGHT AND LEVEL

Light Condition: DARK-ROAD LIGHTED

Loc. of Ped/Bicycle: NOT APPLICABLE

Action of Ped/Bicycle: NOT APPLICABLE

1-RE
INJ

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8737 VDR LIE N Service Rd from bay Ave to Carroll Ave, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

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***** CONTINUED

Veh :1 CAR/VAN/PICKUP Registered Weight: 3072 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 23 Sex: M Citation Issued: N
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: SLOWED OR STOPPING
 Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 5005 State of Registration: NY
 Num of Occupants: 2 Driver's Age: 25 Sex: M Citation Issued: N
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: FOLLOWING TOO CLOSELY, NOT APPLICABLE

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR N

AT INTERSECTION WITH RONKONKOMA AVE

9/15/2011 Thu 02:24 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2011-34063072**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: RIGHT ANGLE Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3872 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 30 Sex: F Citation Issued: N
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 2964 State of Registration: NY
 Num of Occupants: 3 Driver's Age: 23 Sex: M Citation Issued: N
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, NOT APPLICABLE

1-RA

PDO

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR N
AT INTERSECTION WITH RONKONKOMA AVE

9/29/2011 Thu Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C Case: 2011-34086506
Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: RIGHT ANGLE Weather: CLOUDY
Road Surface Condition: DRY Road Char.: STRAIGHT/ GRADE Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

1-RA

Veh :1 CAR/VAN/PICKUP Registered Weight: 4334 State of Registration: NY
Num of Occupants: 1 Driver's Age: 51 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: UNKNOWN, UNKNOWN

INJ

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8737 VDR LIE N Service Rd from bay Ave to Carroll Ave, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR N

***** CONTINUED

Veh :2 CAR/VAN/PICKUP Registered Weight: 4036 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 57 Sex: M Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, TRAFFIC CONTROL DEVICES DISREGARDED

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE

AT INTERSECTION WITH EXPRESS DR N

9/23/2011 Fri 15:45 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2011-34090231**
 Accident Class: INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: REAR END Weather: UNKNOWN
 Road Surface Condition: UNKNOWN Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

1-RE
INJ

Veh :1 CAR/VAN/PICKUP Registered Weight: 3540 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 43 Sex: M Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: STOPPED IN TRAFFIC
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :2 CAR/VAN/PICKUP Registered Weight: 2519 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 47 Sex: M Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR N

AT INTERSECTION WITH HAWKINS AVE

10/2/2011 Sun 16:07 PM Persons Killed: 0 Persons Injured: 2 Extent of Injuries: BC **Case: 2011-34097401**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: RIGHT ANGLE Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

6-RA
INJ

Veh :2	CAR/VAN/PICKUP	Registered Weight: 2950	State of Registration: NY
	Num of Occupants: 2	Driver's Age: 24	Sex: M Citation Issued: N
	Direction of Travel: NORTH	Public Property Damage: N	School Bus Involved: N
	Pre-Accd Action: GOING STRAIGHT AHEAD		
	Apparent Factors: UNKNOWN, TRAFFIC CONTROL DEVICES DISREGARDED		
Veh :1	CAR/VAN/PICKUP	Registered Weight: 3074	State of Registration: NY
	Num of Occupants: 1	Driver's Age: 58	Sex: M Citation Issued: N
	Direction of Travel: WEST	Public Property Damage: N	School Bus Involved: N
	Pre-Accd Action: GOING STRAIGHT AHEAD		
	Apparent Factors: UNKNOWN, UNKNOWN		

Accident Location Information System (ALIS)**Accident Verbal Description Report****8737 VDR LIE N Service Rd from bay Ave to Carroll Ave, Suffolk****Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

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County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: JOSEPH AVE
AT INTERSECTION WITH EXPRESS DR N

11/27/2010 Sat 12:45 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2010-34123953**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 3
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
 Manner of Collision: OTHER Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :3 TRUCK Registered Weight: 14500 State of Registration: NY
 Num of Occupants: 1 Driver's Age: Sex: Citation Issued:
 Direction of Travel: UNKNOWN Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: PARKED
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :1 CAR/VAN/PICKUP Registered Weight: 3701 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 51 Sex: M Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, DRIVER INATTENTION

Veh :2 CAR/VAN/PICKUP Registered Weight: 2962 State of Registration: NY
 Num of Occupants: 1 Driver's Age: Sex: Citation Issued:
 Direction of Travel: UNKNOWN Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: PARKED
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: LAKEWOOD AVE
AT INTERSECTION WITH LONG ISLAND EXPRESSWAY SERVICE RD

11/26/2010 Fri 11:00 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2010-34125402**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: RIGHT ANGLE Weather: CLOUDY
 Road Surface Condition: WET Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY

24-

OTHER

PDO

24-RA

PDO

	Num of Occupants: 1	Driver's Age: 30	Sex: F	Citation Issued: N
	Direction of Travel: WEST	Public Property Damage: N		School Bus Involved: N
	Pre-Accd Action: GOING STRAIGHT AHEAD			
	Apparent Factors: UNKNOWN, UNKNOWN			
Veh :2	CAR/VAN/PICKUP	Registered Weight: 3403		State of Registration: NY
	Num of Occupants: 2	Driver's Age: 44	Sex: M	Citation Issued: N
	Direction of Travel: NORTH	Public Property Damage: N		School Bus Involved: N
	Pre-Accd Action: GOING STRAIGHT AHEAD			
	Apparent Factors: FAILURE TO YIELD RIGHT OF WAY, UNSAFE SPEED			

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8737 VDR LIE N Service Rd from bay Ave to Carroll Ave, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR N
AT INTERSECTION WITH RONKONKOMA AVE

10/27/2011 Thu 06:21 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2011-34120414**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: REAR END Weather: RAIN
 Road Surface Condition: WET Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

1-RE

PDO

Veh :2 CAR/VAN/PICKUP Registered Weight: 3358 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 47 Sex: M Citation Issued: N
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: SLOWED OR STOPPING
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :1 CAR/VAN/PICKUP Registered Weight: 2623 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 17 Sex: M Citation Issued: N
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: SLOWED OR STOPPING
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR N
AT INTERSECTION WITH HAWKINS AVE

12/11/2010 Sat 01:20 AM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2010-34241264**
 Accident Class: INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: REAR END Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

6-RE

INJ

Veh :2 CAR/VAN/PICKUP Registered Weight: 3360 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 31 Sex: M Citation Issued: N
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :1 CAR/VAN/PICKUP Registered Weight: 3488 State of Registration: NY

Num of Occupants: 2	Driver's Age: 57	Sex: M	Citation Issued: N
Direction of Travel: WEST	Public Property Damage: N		School Bus Involved: N
Pre-Accd Action: STOPPED IN TRAFFIC			
Apparent Factors: UNKNOWN, UNKNOWN			

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR N
 AT INTERSECTION WITH HAWKINS AVE

5/18/2011	Wed 08:00 AM	Persons Killed: 0	Persons Injured: 1	Extent of Injuries: C	Case: 2011-34273953
	Accident Class: INJURY		Police Agency:		Num of Veh: 2
	Type Of Accident: COLLISION WITH MOTOR VEHICLE			Traffic Control: TRAFFIC SIGNAL	
	Manner of Collision: REAR END			Weather: RAIN	
	Road Surface Condition: WET	Road Char.: STRAIGHT AND LEVEL		Light Condition: DAYLIGHT	
	Loc. of Ped/Bicycle: NOT APPLICABLE		Action of Ped/Bicycle: NOT APPLICABLE		

6-RE
 INJ

Accident Location Information System (ALIS)

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***** CONTINUED

Veh :1 CAR/VAN/PICKUP Registered Weight: 2649 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 29 Sex: F Citation Issued: N
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: STOPPED IN TRAFFIC
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :2 CAR/VAN/PICKUP Registered Weight: 2998 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 21 Sex: M Citation Issued: N
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: FOLLOWING TOO CLOSELY, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR N

AT INTERSECTION WITH RONKONKOMA AVE

5/26/2011 Thu 01:00 AM Persons Killed: 0 Persons Injured: 2 Extent of Injuries: BC **Case: 2011-34287440**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: RIGHT ANGLE Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT/ GRADE Light Condition: DARK-ROAD LIGHTED
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3846 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 42 Sex: M Citation Issued: N
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :1 CAR/VAN/PICKUP Registered Weight: 4740 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 32 Sex: F Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

1-RA

INJ

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE
AT INTERSECTION WITH EXPRESS DR N

4/29/2011 Fri 18:35 PM Persons Killed: 0 Persons Injured: 2 Extent of Injuries: CC **Case: 2011-34299912**
Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT/ GRADE Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 2418 State of Registration: NY
Num of Occupants: 2 Driver's Age: 51 Sex: F Citation Issued: N
Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: UNKNOWN, FOLLOWING TOO CLOSELY

1-RE

INJ

Accident Location Information System (ALIS)**Accident Verbal Description Report****8737 VDR LIE N Service Rd from bay Ave to Carroll Ave, Suffolk****Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

Date: 01/03/13

02:55

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County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE

***** CONTINUED

Veh :1 CAR/VAN/PICKUP Registered Weight: 3274 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 46 Sex: F Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: STOPPED IN TRAFFIC
 Apparent Factors: UNKNOWN, NOT APPLICABLE

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR N
 AT INTERSECTION WITH HAWKINS AVE

6/15/2011 Wed 22:25 PM Persons Killed: 0 Persons Injured: 3 Extent of Injuries: CCC **Case: 2011-34325937**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 3
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: OTHER Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 2687 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 23 Sex: F Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

6-OTHER
INJ

Veh :3 CAR/VAN/PICKUP Registered Weight: 2986 State of Registration: NY
 Num of Occupants: 2 Driver's Age: 21 Sex: F Citation Issued: Y
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, TRAFFIC CONTROL DEVICES DISREGARDED

Veh :1 CAR/VAN/PICKUP Registered Weight: 3527 State of Registration: NY
 Num of Occupants: 2 Driver's Age: 30 Sex: F Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR N
AT INTERSECTION WITH HAWKINS AVE

6/7/2011	Tue 17:45 PM	Persons Killed: 0	Persons Injured: 0	Extent of Injuries:	Case: 2011-34308693
	Accident Class: PROPERTY DAMAGE			Police Agency:	Num of Veh: 2
	Type Of Accident: COLLISION WITH MOTOR VEHICLE			Traffic Control: TRAFFIC SIGNAL	
	Manner of Collision: UNKNOWN			Weather: CLEAR	
	Road Surface Condition: DRY	Road Char.: STRAIGHT AND LEVEL		Light Condition: DAYLIGHT	
	Loc. of Ped/Bicycle: NOT APPLICABLE	Action of Ped/Bicycle: NOT APPLICABLE			

6-OT

PDO

Veh :1	CAR/VAN/PICKUP	Registered Weight: 6900	State of Registration: NY
	Num of Occupants: 1	Driver's Age: 31	Sex: M Citation Issued: N
	Direction of Travel: WEST	Public Property Damage: N	School Bus Involved: N
	Pre-Accd Action: STOPPED IN TRAFFIC		
	Apparent Factors: UNKNOWN, UNKNOWN		

Accident Location Information System (ALIS)

Date: 01/03/13

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Accident Verbal Description Report

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8737 VDR LIE N Service Rd from bay Ave to Carroll Ave, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR N

***** CONTINUED

Veh :2 CAR/VAN/PICKUP Registered Weight: 9600 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 34 Sex: M Citation Issued: N
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: MAKING RIGHT TURN
 Apparent Factors: AGGRESSIVE DRIVING/ROAD RAGE, TURNING IMPROPER

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: HAWKINS AVE

AT INTERSECTION WITH EXPRESS DR N

8/21/2011 Sun 21:45 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2011-34358188**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: REAR END Weather: RAIN
 Road Surface Condition: WET Road Char.: STRAIGHT/ GRADE Light Condition: DARK-ROAD LIGHTED
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 OTHER Registered Weight: State of Registration:
 Num of Occupants: 0 Driver's Age: Sex: Citation Issued:
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :1 CAR/VAN/PICKUP Registered Weight: 3159 State of Registration: NY
 Num of Occupants: 2 Driver's Age: 68 Sex: F Citation Issued: N
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR N

AT INTERSECTION WITH CARROLL AVE

8/2/2011 Tue 11:00 AM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2011-34364874**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 1
 Type Of Accident: COLLISION WITH GUIDE RAIL Traffic Control: NONE
 Manner of Collision: OTHER Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

6-RE

PDO

Veh :1 CAR/VAN/PICKUP Registered Weight: 2657 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 29 Sex: M Citation Issued: N
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: CHANGING LANES
 Apparent Factors: REACTION TO OTHER UNINVOLVED VEHICL, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR N
 AT INTERSECTION WITH HAWKINS AVE

8/23/2011 Tue 21:35 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: A **Case: 2011-34378857**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: RIGHT ANGLE Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

6-RA
 INJ

Accident Location Information System (ALIS)

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Accident Verbal Description Report

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8737 VDR LIE N Service Rd from bay Ave to Carroll Ave, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR N

***** CONTINUED

Veh :2 CAR/VAN/PICKUP Registered Weight: 3373 State of Registration: NY
 Num of Occupants: 3 Driver's Age: 19 Sex: M Citation Issued: N
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: TRAFFIC CONTROL DEVICES DISREGARDED, DRIVER INEXPERIENCE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3025 State of Registration: NY
 Num of Occupants: 2 Driver's Age: 37 Sex: M Citation Issued: N
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: HAWKINS AVE
 AT INTERSECTION WITH LONG ISLAND EXPRESSWAY SERVICE RD

10/26/2011 Wed 13:20 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2011-34381692**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: RIGHT ANGLE Weather: CLOUDY
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3072 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 22 Sex: M Citation Issued: Y
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: TRAFFIC CONTROL DEVICES DISREGARDED, UNKNOWN

6-RA

INJ

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
 Num of Occupants: 1 Driver's Age: 76 Sex: M Citation Issued: N
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: OTHER (VEHICLE), UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE
AT INTERSECTION WITH EXPRESS DR N

10/27/2011 Thu 19:00 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2011-34387406**
Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: RIGHT ANGLE Weather: RAIN
Road Surface Condition: WET Road Char.: STRAIGHT/ GRADE Light Condition: DARK-ROAD LIGHTED
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

1-LT
INJ

Veh :2 CAR/VAN/PICKUP Registered Weight: 3101 State of Registration: NY
Num of Occupants: 2 Driver's Age: 26 Sex: F Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: TRAFFIC CONTROL DEVICES DISREGARDED, UNKNOWN

Accident Location Information System (ALIS)

Date: 01/03/13

02:55

Accident Verbal Description Report

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8737 VDR LIE N Service Rd from bay Ave to Carroll Ave, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE

***** CONTINUED

Veh :1 CAR/VAN/PICKUP Registered Weight: 4829 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 38 Sex: M Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: MAKING LEFT TURN
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR N

AT INTERSECTION WITH RONKONKOMA AVE

9/24/2011 Sat Persons Killed: Persons Injured: Extent of Injuries: **Case: 2011-34394448**
 Accident Class: Police Agency: Num of Veh:
 Type Of Accident: Traffic Control:
 Manner of Collision: Weather:
 Road Surface Condition: Road Char.: Light Condition:
 Loc. of Ped/Bicycle: Action of Ped/Bicycle:

Veh : Registered Weight: State of Registration:
 Num of Occupants: Driver's Age: Sex: Citation Issued:
 Direction of Travel: Public Property Damage: School Bus Involved:
 Pre-Accd Action:

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: HAWKINS AVE

AT INTERSECTION WITH EXPRESS DR N

11/19/2011 Sat 10:30 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2011-34397643**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: RIGHT ANGLE Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 4687 State of Registration: NY
 Num of Occupants: 2 Driver's Age: 37 Sex: F Citation Issued: N
 Direction of Travel: WEST Public Property Damage: Y School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: NOT APPLICABLE, TRAFFIC CONTROL DEVICES DISREGARDED

6-RA**PDO**

Veh :1 CAR/VAN/PICKUP Registered Weight: 3012 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 48 Sex: M Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE
 AT INTERSECTION WITH EXPRESS DR N

7/20/2010 Tue 07:15 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2010-NR3127468**
 Accident Class: NON-REPORTABLE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: REAR END Weather: CLEAR
 Road Surface Condition: DRY Road Char.: Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: INVALID CODE Action of Ped/Bicycle:

1-RE
 NR

Accident Location Information System (ALIS)**Accident Verbal Description Report****8737 VDR LIE N Service Rd from bay Ave to Carroll Ave, Suffolk****Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

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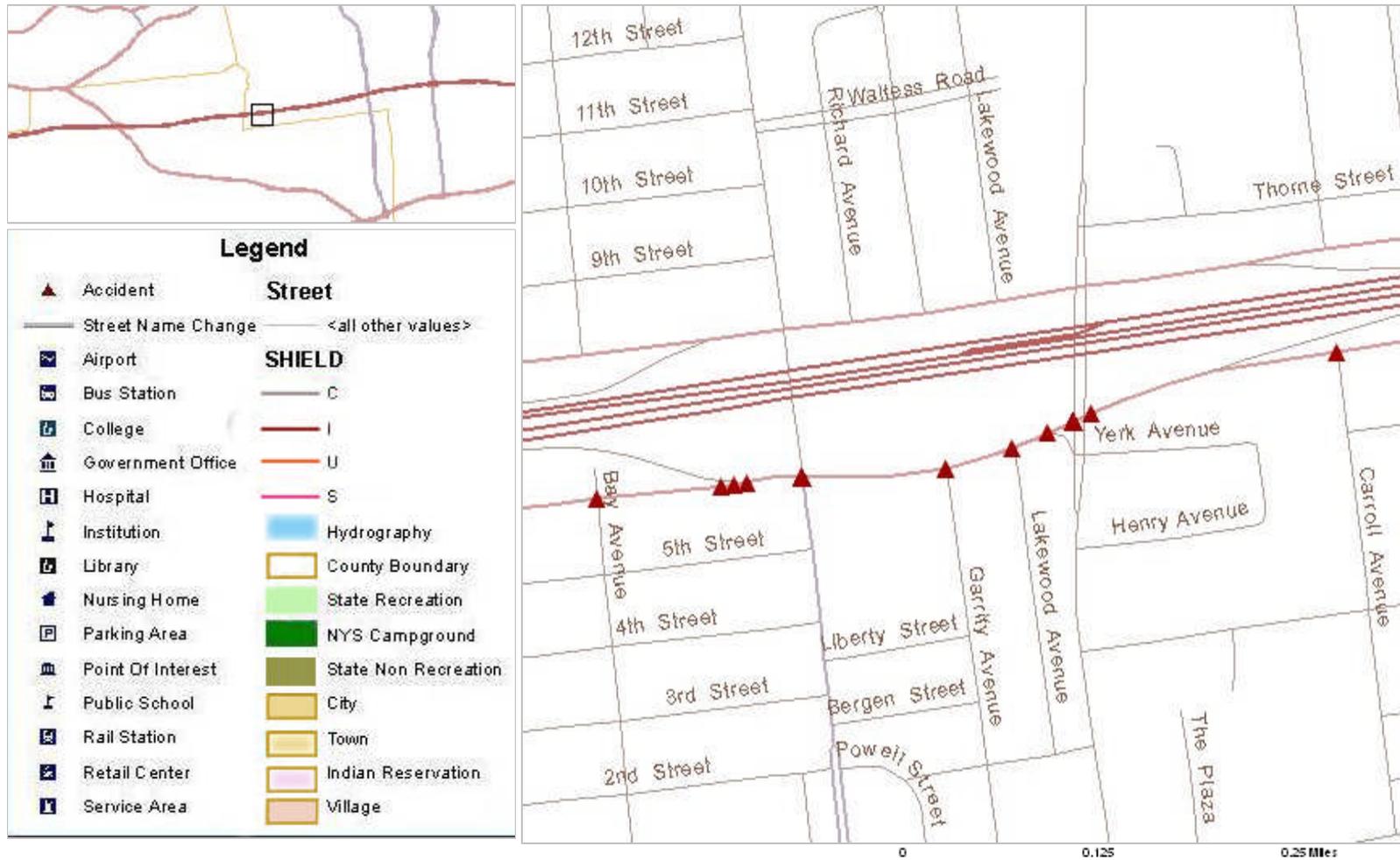
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County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE

***** CONTINUED

Veh :1	OTHER	Registered Weight:	State of Registration:
	Num of Occupants:	Driver's Age:	Sex:
	Direction of Travel: SOUTH	Public Property Damage: N	Citation Issued:
	Pre-Accd Action: MAKING RIGHT TURN		School Bus Involved: X
	Apparent Factors: UNKNOWN, UNKNOWN		
Veh :2	OTHER	Registered Weight:	State of Registration:
	Num of Occupants:	Driver's Age:	Sex:
	Direction of Travel: SOUTH	Public Property Damage: N	Citation Issued:
	Pre-Accd Action: MAKING RIGHT TURN		School Bus Involved: X
	Apparent Factors: UNKNOWN, FOLLOWING TOO CLOSELY		

8737 VDR LIE S Service Rd from bay Ave to Carroll Ave, Suffolk



Accident Location Information System (ALIS)

Date: 01/04/13

09:04

Accident Verbal Description Report

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8737 VDR LIE S Service Rd from bay Ave to Carroll Ave, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE

AT INTERSECTION WITH Express Dr S

3/25/2009 Wed 17:15 PM Persons Killed: 0 Persons Injured: 2 Extent of Injuries: CC **Case: 2009-33065650**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: REAR END Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

2-RE

Veh :1 CAR/VAN/PICKUP Registered Weight: 4322 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 35 Sex: F Citation Issued: N
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: STOPPED IN TRAFFIC
 Apparent Factors: UNKNOWN, UNKNOWN

INJ

Veh :2 CAR/VAN/PICKUP Registered Weight: 2623 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 20 Sex: M Citation Issued: N
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: HAWKINS AVE

AT INTERSECTION WITH Express Dr S

4/24/2009 Fri 17:30 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2009-33028809**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: UNKNOWN
 Manner of Collision: REAR END Weather: UNKNOWN
 Road Surface Condition: UNKNOWN Road Char.: UNKNOWN Light Condition: UNKNOWN
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

7-RE

Veh :1 CAR/VAN/PICKUP Registered Weight: 2837 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 46 Sex: M Citation Issued: N
 Direction of Travel: UNKNOWN Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: UNKNOWN
 Apparent Factors: UNKNOWN, UNKNOWN

PDO

Veh :2 CAR/VAN/PICKUP Registered Weight: 4057 State of Registration: NY

Num of Occupants: 1	Driver's Age: 41	Sex: F	Citation Issued: N
Direction of Travel: UNKNOWN	Public Property Damage: N		School Bus Involved: N
Pre-Accd Action: UNKNOWN			
Apparent Factors: UNKNOWN, UNKNOWN			

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: LAKEWOOD AVE
 AT INTERSECTION WITH Express Dr S

3/1/2009	Sun 08:05 AM	Persons Killed: 0	Persons Injured: 0	Extent of Injuries:	Case: 2009-33126154
	Accident Class: PROPERTY DAMAGE			Police Agency:	Num of Veh: 2
	Type Of Accident: COLLISION WITH MOTOR VEHICLE				Traffic Control: STOP SIGN
	Manner of Collision: RIGHT ANGLE				Weather: SNOW
	Road Surface Condition: SNOW/ICE		Road Char.: STRAIGHT AND LEVEL		Light Condition: DAYLIGHT
	Loc. of Ped/Bicycle: NOT APPLICABLE		Action of Ped/Bicycle: NOT APPLICABLE		

25-RA

PDO

Accident Location Information System (ALIS)

Date: 01/04/13

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Accident Verbal Description Report

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8737 VDR LIE S Service Rd from bay Ave to Carroll Ave, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: LAKEWOOD AVE

***** CONTINUED

Veh :2 CAR/VAN/PICKUP Registered Weight: 2493 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 21 Sex: M Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNSAFE SPEED, PAVEMENT SLIPPERY

Veh :1 CAR/VAN/PICKUP Registered Weight: 3272 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 19 Sex: F Citation Issued: N
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: SLOWED OR STOPPING
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: LONG ISLAND EXPRESSWAY SERVICE RD

7/29/2009

Wed 19:15 PM

Persons Killed: 0

Persons Injured: 2

Extent of Injuries: CC

Case: 2009-33138377

Accident Class: PROPERTY DAMAGE AND INJURY

Police Agency:

Num of Veh: 2

Type Of Accident: COLLISION WITH MOTOR VEHICLE

Traffic Control: TRAFFIC SIGNAL

Manner of Collision: RIGHT ANGLE

Weather: CLOUDY

Road Surface Condition: DRY

Road Char.: STRAIGHT AND LEVEL

Light Condition: DAYLIGHT

Loc. of Ped/Bicycle: NOT APPLICABLE

Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3992 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 41 Sex: F Citation Issued: Y
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: TRAFFIC CONTROL DEVICES DISREGARDED, UNKNOWN

Veh :1 BUS Registered Weight: State of Registration: NY
 Num of Occupants: 1 Driver's Age: 46 Sex: M Citation Issued: N
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR S

5/12/2009 Tue 17:30 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2009-33230091**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: UNKNOWN
 Manner of Collision: UNKNOWN Weather: RAIN
 Road Surface Condition: WET Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3360 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 35 Sex: F Citation Issued: N
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: STARTING IN TRAFFIC
 Apparent Factors: VIEW OBSTRUCTED/LIMITED, UNKNOWN

Accident Location Information System (ALIS)

Date: 01/04/13

09:04

Accident Verbal Description Report

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8737 VDR LIE S Service Rd from bay Ave to Carroll Ave, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR S

***** CONTINUED

Veh :1 CAR/VAN/PICKUP Registered Weight: 2943 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 55 Sex: M Citation Issued: N
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE

AT INTERSECTION WITH Express Dr S

5/21/2009 Thu 15:31 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2009-33269924**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: REAR END Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT/ GRADE Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

2-RE**INJ**

Veh :2 OTHER Registered Weight: State of Registration:
 Num of Occupants: 1 Driver's Age: 41 Sex: F Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: SLOWED OR STOPPING
 Apparent Factors: FOLLOWING TOO CLOSELY, UNSAFE SPEED

Veh :1 CAR/VAN/PICKUP Registered Weight: 3247 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 57 Sex: F Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: STOPPED IN TRAFFIC
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: LONG ISLAND EXPRESSWAY SERVICE RD

11/9/2009 Mon 07:40 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2009-33255188**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: OVERTAKING Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2	CAR/VAN/PICKUP	Registered Weight: 3306	State of Registration: NY
	Num of Occupants: 1	Driver's Age: 18	Sex: F Citation Issued: N
	Direction of Travel: WEST	Public Property Damage: N	School Bus Involved: N
	Pre-Accd Action: MERGING		
	Apparent Factors: NOT APPLICABLE, FAILURE TO YIELD RIGHT OF WAY		
Veh :1	CAR/VAN/PICKUP	Registered Weight: 3484	State of Registration: NY
	Num of Occupants: 1	Driver's Age: 51	Sex: M Citation Issued: N
	Direction of Travel: WEST	Public Property Damage: N	School Bus Involved: N
	Pre-Accd Action: GOING STRAIGHT AHEAD		
	Apparent Factors: NOT APPLICABLE, NOT APPLICABLE		

Accident Location Information System (ALIS)

Date: 01/04/13

09:04

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8737 VDR LIE S Service Rd from bay Ave to Carroll Ave, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR S
10 Meters West of Ramp

12/8/2009 Tue 08:00 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2009-33279442**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
 Manner of Collision: RIGHT TURN (WITH OTHER CAR) Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 2892 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 23 Sex: F Citation Issued: N
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: Y
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :2 BUS Registered Weight: State of Registration: NY
 Num of Occupants: 1 Driver's Age: 71 Sex: M Citation Issued: N
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: MAKING RIGHT TURN
 Apparent Factors: TURNING IMPROPER, FAILURE TO YIELD RIGHT OF WAY

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: HAWKINS AVE
AT INTERSECTION WITH EXPRESS DR S

12/17/2009 Thu 10:45 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2009-33309216**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: RIGHT ANGLE Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT/ GRADE Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 2895 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 42 Sex: F Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: STARTING IN TRAFFIC
 Apparent Factors: NOT APPLICABLE, UNKNOWN

Veh :2 CAR/VAN/PICKUP Registered Weight: 4829 State of Registration: NY

7-RA
PDO

Accident Location Information System (ALIS)**Accident Verbal Description Report****8737 VDR LIE S Service Rd from bay Ave to Carroll Ave, Suffolk****Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

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County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: LONG ISLAND EXPRESSWAY SERVICE RD

***** CONTINUED

Veh :2 OTHER Registered Weight: State of Registration: NY
 Num of Occupants: 0 Driver's Age: Sex: Citation Issued:
 Direction of Travel: UNKNOWN Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: UNKNOWN
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :1 CAR/VAN/PICKUP Registered Weight: 3627 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 53 Sex: F Citation Issued: N
 Direction of Travel: UNKNOWN Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: UNKNOWN
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: HAWKINS AVE

AT INTERSECTION WITH EXPRESS DR S

1/9/2010 Sat 11:06 AM Persons Killed: 0 Persons Injured: 4 Extent of Injuries: BCCC **Case: 2010-33339042**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: RIGHT ANGLE Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 5892 State of Registration: NY
 Num of Occupants: 4 Driver's Age: 41 Sex: M Citation Issued: N
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: NOT APPLICABLE, UNKNOWN

Veh :2 CAR/VAN/PICKUP Registered Weight: 2519 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 61 Sex: F Citation Issued: N
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: TRAFFIC CONTROL DEVICES DISREGARDED, UNKNOWN

7-RA
INJ

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: HAWKINS AVE
AT INTERSECTION WITH EXPRESS DR S

1/17/2010 Sun 16:00 PM Persons Killed: 0 Persons Injured: 3 Extent of Injuries: BBC **Case: 2010-33335144**
Accident Class: INJURY Police Agency: Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: UNKNOWN Weather: RAIN
Road Surface Condition: WET Road Char.: STRAIGHT/ GRADE Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

7-LT
INJ

Veh :2 CAR/VAN/PICKUP Registered Weight: 3670 State of Registration: NY
Num of Occupants: 2 Driver's Age: 29 Sex: M Citation Issued: N
Direction of Travel: SOUTH-EAST Public Property Damage: N School Bus Involved: N
Pre-Accd Action: MAKING LEFT TURN
Apparent Factors: NOT APPLICABLE, DRIVER INATTENTION

Accident Location Information System (ALIS)

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8737 VDR LIE S Service Rd from bay Ave to Carroll Ave, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: HAWKINS AVE

***** CONTINUED

Veh :1 CAR/VAN/PICKUP Registered Weight: 2544 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 20 Sex: F Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: LONG ISLAND EXPRESSWAY SERVICE RD

3/24/2010

Wed 16:50 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2010-33420341**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: UNKNOWN
 Manner of Collision: RIGHT ANGLE Weather: UNKNOWN
 Road Surface Condition: UNKNOWN Road Char.: UNKNOWN Light Condition: UNKNOWN
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 2499 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 47 Sex: F Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: UNKNOWN
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :1 CAR/VAN/PICKUP Registered Weight: 5496 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 69 Sex: F Citation Issued: N
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: UNKNOWN
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR S

AT INTERSECTION WITH HAWKINS AVE

8/30/2009

Sun 23:16 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2009-33450530**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: RIGHT ANGLE Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

7-RA**INJ**

Veh :2	CAR/VAN/PICKUP	Registered Weight: 2449	State of Registration: NY
	Num of Occupants: 3	Driver's Age: 21	Sex: M Citation Issued: Y
	Direction of Travel: EAST	Public Property Damage: N	School Bus Involved: N
	Pre-Accd Action: GOING STRAIGHT AHEAD		
	Apparent Factors: TRAFFIC CONTROL DEVICES DISREGARDED, UNKNOWN		
Veh :1	CAR/VAN/PICKUP	Registered Weight: 2683	State of Registration: NY
	Num of Occupants: 1	Driver's Age: 41	Sex: M Citation Issued: N
	Direction of Travel: NORTH	Public Property Damage: N	School Bus Involved: N
	Pre-Accd Action: GOING STRAIGHT AHEAD		
	Apparent Factors: UNKNOWN, UNKNOWN		

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8737 VDR LIE S Service Rd from bay Ave to Carroll Ave, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR S
AT INTERSECTION WITH HAWKINS AVE

5/9/2010 Sun 03:45 AM Persons Killed: 0 Persons Injured: 4 Extent of Injuries: CCCC **Case: 2010-33460562**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: RIGHT ANGLE Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

7-RA

Veh :2 CAR/VAN/PICKUP Registered Weight: 3076 State of Registration: NY
 Num of Occupants: 3 Driver's Age: 30 Sex: F Citation Issued: Y
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: TRAFFIC CONTROL DEVICES DISREGARDED, UNKNOWN

INJ

Veh :1 CAR/VAN/PICKUP Registered Weight: 3600 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 26 Sex: F Citation Issued: N
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: HAWKINS AVE
AT INTERSECTION WITH EXPRESS DR S

10/9/2009 Fri 19:35 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2009-33499419**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: LEFT TURN (AGAINST OTHER CAR) Weather: CLOUDY
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

7-LT

Veh :2 CAR/VAN/PICKUP Registered Weight: 5561 State of Registration: NY
 Num of Occupants: 2 Driver's Age: 19 Sex: M Citation Issued: N
 Direction of Travel: SOUTH-EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: MAKING LEFT TURN
 Apparent Factors: UNKNOWN, FAILURE TO YIELD RIGHT OF WAY

PDO

Veh :1 CAR/VAN/PICKUP Registered Weight: 2698 State of Registration: NY

Num of Occupants: 1	Driver's Age: 21	Sex: F	Citation Issued: N
Direction of Travel: NORTH	Public Property Damage: N		School Bus Involved: N
Pre-Accd Action: GOING STRAIGHT AHEAD			
Apparent Factors: NOT APPLICABLE, UNKNOWN			

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE
 AT INTERSECTION WITH LONG ISLAND EXPRESSWAY SERVICE RD

7/7/2010	Wed 17:35 PM	Persons Killed: 0	Persons Injured: 1	Extent of Injuries: C	Case: 2010-33536695
Accident Class: PROPERTY DAMAGE AND INJURY				Police Agency:	Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE				Traffic Control: TRAFFIC SIGNAL	
Manner of Collision: RIGHT ANGLE				Weather: CLEAR	
Road Surface Condition: DRY		Road Char.: STRAIGHT AND LEVEL		Light Condition: DAYLIGHT	
Loc. of Ped/Bicycle: NOT APPLICABLE		Action of Ped/Bicycle: NOT APPLICABLE			

2-RA
 INJ

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8737 VDR LIE S Service Rd from bay Ave to Carroll Ave, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE

***** CONTINUED

Veh :1 CAR/VAN/PICKUP Registered Weight: 3072 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 24 Sex: F Citation Issued: N
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3247 State of Registration: NY
 Num of Occupants: 2 Driver's Age: 36 Sex: M Citation Issued: N
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, TRAFFIC CONTROL DEVICES DISREGARDED

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR S
 AT INTERSECTION WITH HAWKINS AVE

5/17/2010 Mon 14:55 PM Persons Killed: 0 Persons Injured: 2 Extent of Injuries: CC **Case: 2010-33575993**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: REAR END Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 4465 State of Registration: NY
 Num of Occupants: 3 Driver's Age: 33 Sex: M Citation Issued: N
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: MAKING LEFT TURN
 Apparent Factors: UNKNOWN, FOLLOWING TOO CLOSELY

Veh :1 CAR/VAN/PICKUP Registered Weight: 2965 State of Registration: NY
 Num of Occupants: 2 Driver's Age: 71 Sex: M Citation Issued: N
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: MAKING LEFT TURN
 Apparent Factors: UNKNOWN, TURNING IMPROPER

7-RE
 INJ

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: HAWKINS AVE
AT INTERSECTION WITH STATE RTE 906A

7/24/2010	Sat 11:25 AM	Persons Killed: 0	Persons Injured: 2	Extent of Injuries: BC	Case: 2010-33601399
Accident Class: PROPERTY DAMAGE AND INJURY			Police Agency: Num of Veh: 2		
Type Of Accident: COLLISION WITH MOTOR VEHICLE			Traffic Control: TRAFFIC SIGNAL		
Manner of Collision: RIGHT ANGLE			Weather: CLEAR		
Road Surface Condition: DRY		Road Char.: STRAIGHT/ GRADE		Light Condition: DAYLIGHT	
Loc. of Ped/Bicycle: NOT APPLICABLE			Action of Ped/Bicycle: NOT APPLICABLE		

7-RA
INJ

Veh :1	CAR/VAN/PICKUP	Registered Weight: 3814	State of Registration: NY
	Num of Occupants: 1	Driver's Age: 31	Sex: F Citation Issued: N
	Direction of Travel: EAST	Public Property Damage: N	School Bus Involved: N
	Pre-Accd Action: GOING STRAIGHT AHEAD		
	Apparent Factors: NOT APPLICABLE, NOT APPLICABLE		

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8737 VDR LIE S Service Rd from bay Ave to Carroll Ave, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

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***** CONTINUED

Veh :2 CAR/VAN/PICKUP Registered Weight: 5365 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 18 Sex: F Citation Issued: Y
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: DRIVER INATTENTION, TRAFFIC CONTROL DEVICES DISREGARDED

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: HAWKINS AVE

AT INTERSECTION WITH EXPRESS DR S

2/6/2010 Sat 18:10 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2010-33678433**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: LEFT TURN (AGAINST OTHER CAR) Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD UNLIGHTED
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

7-LT

Veh :1 CAR/VAN/PICKUP Registered Weight: 3935 State of Registration: NY
 Num of Occupants: 3 Driver's Age: 52 Sex: M Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

PDO

Veh :2 OTHER Registered Weight: State of Registration:
 Num of Occupants: 0 Driver's Age: Sex: Citation Issued:
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: MAKING LEFT TURN
 Apparent Factors: FAILURE TO YIELD RIGHT OF WAY, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: HAWKINS AVE

AT INTERSECTION WITH EXPRESS DR S

5/22/2010 Sat 20:40 PM Persons Killed: 0 Persons Injured: 7 Extent of Injuries: CCCCC **Case: 2010-33835203**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: RIGHT ANGLE Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

7-RA

INJ

Veh :2	CAR/VAN/PICKUP	Registered Weight: 3955	State of Registration: NY
	Num of Occupants: 6	Driver's Age: 20	Sex: F Citation Issued: N
	Direction of Travel: SOUTH	Public Property Damage: N	School Bus Involved: N
	Pre-Accd Action: GOING STRAIGHT AHEAD		
	Apparent Factors: TRAFFIC CONTROL DEVICES DISREGARDED, DRIVER INATTENTION		
Veh :1	CAR/VAN/PICKUP	Registered Weight: 2340	State of Registration: NY
	Num of Occupants: 2	Driver's Age: 19	Sex: F Citation Issued: N
	Direction of Travel: EAST	Public Property Damage: N	School Bus Involved: N
	Pre-Accd Action: GOING STRAIGHT AHEAD		
	Apparent Factors: UNKNOWN, UNKNOWN		

Accident Location Information System (ALIS)**Accident Verbal Description Report****8737 VDR LIE S Service Rd from bay Ave to Carroll Ave, Suffolk****Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

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County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: LONG ISLAND EXPRESSWAY SERVICE RD
AT INTERSECTION WITH RONKONKOMA AVE

2/5/2011 Sat 07:15 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2011-33813539**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: RIGHT ANGLE Weather: CLOUDY
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

2-RA**PDO**

Veh :2 CAR/VAN/PICKUP Registered Weight: 2698 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 25 Sex: F Citation Issued: N
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: NOT APPLICABLE, DRIVER INATTENTION

Veh :1 CAR/VAN/PICKUP Registered Weight: 4252 State of Registration: NY
 Num of Occupants: 2 Driver's Age: 49 Sex: M Citation Issued: Y
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: HAWKINS AVE
AT INTERSECTION WITH EXPRESS DR S

6/21/2010 Mon 16:29 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2010-33869128**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: LEFT TURN (AGAINST OTHER CAR) Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

7-LT**PDO**

Veh :1 CAR/VAN/PICKUP Registered Weight: 3458 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 35 Sex: F Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :2 CAR/VAN/PICKUP Registered Weight: 5214 State of Registration: NY

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8737 VDR LIE S Service Rd from bay Ave to Carroll Ave, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE

***** CONTINUED

Veh :2 CAR/VAN/PICKUP Registered Weight: 3345 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 18 Sex: M Citation Issued: N
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :1 CAR/VAN/PICKUP Registered Weight: 3773 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 40 Sex: F Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR S

AT INTERSECTION WITH HAWKINS AVE

7/14/2010 Wed 07:30 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2010-33898514**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 1
 Type Of Accident: COLLISION WITH GUIDERAIL - END Traffic Control: NONE
 Manner of Collision: OTHER Weather: RAIN
 Road Surface Condition: WET Road Char.: STRAIGHT/ GRADE Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

7-F/O

PDO

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: FL
 Num of Occupants: 2 Driver's Age: 47 Sex: M Citation Issued: N
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: PAVEMENT SLIPPERY, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE

AT INTERSECTION WITH EXPRESS DR S

7/22/2010 Thu 21:20 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2010-33917865**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: REAR END Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

2-RE

INJ

Veh :2	OTHER	Registered Weight:	State of Registration:	
	Num of Occupants: 0	Driver's Age:	Sex:	Citation Issued:
	Direction of Travel: NORTH	Public Property Damage: N		School Bus Involved: N
	Pre-Accd Action: MAKING RIGHT TURN			
	Apparent Factors: DRIVER INATTENTION, UNKNOWN			
Veh :1	CAR/VAN/PICKUP	Registered Weight: 3284	State of Registration: NY	
	Num of Occupants: 1	Driver's Age: 52	Sex: F	Citation Issued: N
	Direction of Travel: NORTH	Public Property Damage: N		School Bus Involved: N
	Pre-Accd Action: STOPPED IN TRAFFIC			
	Apparent Factors: UNKNOWN, UNKNOWN			

Accident Location Information System (ALIS)**Accident Verbal Description Report****8737 VDR LIE S Service Rd from bay Ave to Carroll Ave, Suffolk****Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

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County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: LONG ISLAND EXPRESSWAY SERVICE RD
AT INTERSECTION WITH RONKONKOMA AVE

9/17/2010 Fri 15:46 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2010-33970292**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: OVERTAKING Weather: CLOUDY
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

2-OT

PDO

Veh :1 CAR/VAN/PICKUP Registered Weight: 3230 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 33 Sex: F Citation Issued: N
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :2 OTHER Registered Weight: State of Registration:
 Num of Occupants: 0 Driver's Age: Sex: Citation Issued:
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: CHANGING LANES
 Apparent Factors: DRIVER INATTENTION, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR S
AT INTERSECTION WITH BAY AVE

9/30/2010 Thu 11:20 AM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: B **Case: 2010-33985832**
 Accident Class: INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
 Manner of Collision: REAR END Weather: CLOUDY
 Road Surface Condition: WET Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3340 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 27 Sex: M Citation Issued: Y
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, PRESCRIPTION MEDICATION

Veh :2 CAR/VAN/PICKUP Registered Weight: 3253 State of Registration: NY

Num of Occupants: 1	Driver's Age:	Sex:	Citation Issued:
Direction of Travel: UNKNOWN	Public Property Damage: N		School Bus Involved: N
Pre-Accd Action: PARKED			
Apparent Factors: UNKNOWN, UNKNOWN			

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: HAWKINS AVE
 AT INTERSECTION WITH EXPRESS DR S

9/13/2010	Mon 17:03 PM	Persons Killed: 0	Persons Injured: 1	Extent of Injuries: C	Case: 2010-33974508
	Accident Class: PROPERTY DAMAGE AND INJURY			Police Agency:	Num of Veh: 2
	Type Of Accident: COLLISION WITH MOTOR VEHICLE			Traffic Control: TRAFFIC SIGNAL	
	Manner of Collision: RIGHT ANGLE			Weather: CLOUDY	
	Road Surface Condition: DRY	Road Char.: STRAIGHT AND LEVEL		Light Condition: DAYLIGHT	
	Loc. of Ped/Bicycle: NOT APPLICABLE		Action of Ped/Bicycle: NOT APPLICABLE		

7-RA

INJ

Accident Location Information System (ALIS)**Accident Verbal Description Report****8737 VDR LIE S Service Rd from bay Ave to Carroll Ave, Suffolk****Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

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County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: HAWKINS AVE

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Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
 Num of Occupants: 1 Driver's Age: 25 Sex: M Citation Issued: Y
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 2892 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 48 Sex: M Citation Issued: N
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: FAILURE TO YIELD RIGHT OF WAY, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR S

AT INTERSECTION WITH GARRITY AVE

8/5/2009 Wed 17:45 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2009-NR2862251**
 Accident Class: NON-REPORTABLE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
 Manner of Collision: REAR END Weather: CLEAR
 Road Surface Condition: DRY Road Char.: Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: INVALID CODE Action of Ped/Bicycle:

Veh :1 OTHER Registered Weight: State of Registration:
 Num of Occupants: Driver's Age: Sex: Citation Issued:
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: X
 Pre-Accd Action: STOPPED IN TRAFFIC
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :2 OTHER Registered Weight: State of Registration:
 Num of Occupants: Driver's Age: Sex: Citation Issued:
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: X
 Pre-Accd Action: SLOWED OR STOPPING
 Apparent Factors: FOLLOWING TOO CLOSELY, UNKNOWN

25-RE
NR

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR S
AT INTERSECTION WITH HAWKINS AVE

9/26/2010	Sun 21:20 PM	Persons Killed: 0	Persons Injured: 2	Extent of Injuries: AC	Case: 2010-33993790
Accident Class: PROPERTY DAMAGE AND INJURY			Police Agency: Num of Veh: 2		
Type Of Accident: COLLISION WITH MOTOR VEHICLE			Traffic Control: TRAFFIC SIGNAL		
Manner of Collision: RIGHT ANGLE			Weather: CLOUDY		
Road Surface Condition: DRY		Road Char.: STRAIGHT AND LEVEL		Light Condition: DARK-ROAD LIGHTED	
Loc. of Ped/Bicycle: NOT APPLICABLE			Action of Ped/Bicycle: NOT APPLICABLE		

7-RA
INJ

Veh :1	CAR/VAN/PICKUP	Registered Weight: 4700	State of Registration: NY
	Num of Occupants: 1	Driver's Age: 35	Sex: M Citation Issued: N
	Direction of Travel: EAST	Public Property Damage: Y	School Bus Involved: N
	Pre-Accd Action: GOING STRAIGHT AHEAD		
	Apparent Factors: UNKNOWN, NOT APPLICABLE		

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8737 VDR LIE S Service Rd from bay Ave to Carroll Ave, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

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***** CONTINUED

Veh :2 CAR/VAN/PICKUP Registered Weight: 2835 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 21 Sex: F Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: Y School Bus Involved: N
 Pre-Accd Action: MAKING RIGHT TURN ON RED
 Apparent Factors: UNKNOWN, FAILURE TO YIELD RIGHT OF WAY

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: HAWKINS AVE

AT INTERSECTION WITH EXPRESS DR S

9/22/2010 Wed 07:44 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2010-33990583**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: REAR END Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

7-RE
INJ

Veh :2 CAR/VAN/PICKUP Registered Weight: 3217 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 25 Sex: F Citation Issued: N
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: STARTING IN TRAFFIC
 Apparent Factors: FOLLOWING TOO CLOSELY, UNKNOWN

Veh :1 OTHER Registered Weight: State of Registration: NY
 Num of Occupants: 1 Driver's Age: 35 Sex: M Citation Issued: N
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: STOPPED IN TRAFFIC
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR S

6 Meters East of Ramp

10/22/2010 Fri 20:30 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2010-34039227**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 1
 Type Of Accident: COLLISION WITH GUIDE RAIL Traffic Control: NONE
 Manner of Collision: OTHER Weather: CLOUDY
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 2870 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 26 Sex: M Citation Issued: N
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: FELL ASLEEP, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: HAWKINS AVE
 AT INTERSECTION WITH EXPRESS DR S

6/28/2011 Tue 18:30 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2011-34049347**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: UNKNOWN
 Manner of Collision: LEFT TURN (WITH OTHER CAR) Weather: UNKNOWN
 Road Surface Condition: UNKNOWN Road Char.: UNKNOWN Light Condition: UNKNOWN
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

7-LT
 PDO

Accident Location Information System (ALIS)**Accident Verbal Description Report****8737 VDR LIE S Service Rd from bay Ave to Carroll Ave, Suffolk****Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

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Veh :1 CAR/VAN/PICKUP Registered Weight: 4060 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 49 Sex: M Citation Issued: N
 Direction of Travel: UNKNOWN Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: UNKNOWN
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :2 CAR/VAN/PICKUP Registered Weight: 2834 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 26 Sex: M Citation Issued: N
 Direction of Travel: UNKNOWN Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: UNKNOWN
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR S

23 Meters West of Ramp

8/14/2011 Sun 16:38 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2011-34051020**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
 Manner of Collision: RIGHT ANGLE Weather: RAIN
 Road Surface Condition: WET Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 7767 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 27 Sex: F Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: BACKING
 Apparent Factors: BACKING UNSAFELY, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 2898 State of Registration: NY
 Num of Occupants: 2 Driver's Age: 28 Sex: M Citation Issued: N
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE
AT INTERSECTION WITH EXPRESS DR S

10/28/2010 Thu 16:15 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2010-34056716**
Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

2-RE

PDO

Veh :1 CAR/VAN/PICKUP Registered Weight: 5444 State of Registration: NY
Num of Occupants: 1 Driver's Age: 36 Sex: M Citation Issued: N
Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
Pre-Accd Action: MAKING RIGHT TURN
Apparent Factors: UNKNOWN, UNKNOWN

Accident Location Information System (ALIS)**Accident Verbal Description Report****8737 VDR LIE S Service Rd from bay Ave to Carroll Ave, Suffolk****Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

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Veh :2 CAR/VAN/PICKUP Registered Weight: 3137 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 37 Sex: M Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: MAKING RIGHT TURN
 Apparent Factors: FOLLOWING TOO CLOSELY, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR S
 AT INTERSECTION WITH RONKONKOMA AVE

10/24/2011 Mon 17:30 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2011-34095792**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: RIGHT TURN (AGAINST OTHER CAR) Weather: CLOUDY
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3174 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 72 Sex: F Citation Issued: N
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: MAKING RIGHT TURN
 Apparent Factors: PASSING OR LANE USAGE IMPROPERLY, TURNING IMPROPER

Veh :1 CAR/VAN/PICKUP Registered Weight: 2904 State of Registration: NY
 Num of Occupants: 2 Driver's Age: 45 Sex: F Citation Issued: N
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR S
 AT INTERSECTION WITH RONKONKOMA AVE

10/20/2011 Thu 04:30 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2011-34096407**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: RIGHT ANGLE Weather: CLOUDY
 Road Surface Condition: WET Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

2-OT

PDO

2-RA

PDO

Veh :1	CAR/VAN/PICKUP	Registered Weight: 3805	State of Registration: NY
	Num of Occupants: 1	Driver's Age: 50	Sex: M Citation Issued: N
	Direction of Travel: SOUTH	Public Property Damage: N	School Bus Involved: N
	Pre-Accd Action: GOING STRAIGHT AHEAD		
	Apparent Factors: UNKNOWN, TRAFFIC CONTROL DEVICES DISREGARDED		
Veh :2	CAR/VAN/PICKUP	Registered Weight: 3853	State of Registration: NY
	Num of Occupants: 1	Driver's Age: 56	Sex: M Citation Issued: N
	Direction of Travel: EAST	Public Property Damage: N	School Bus Involved: N
	Pre-Accd Action: GOING STRAIGHT AHEAD		
	Apparent Factors: TRAFFIC CONTROL DEVICES DISREGARDED, UNKNOWN		

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AT INTERSECTION WITH HAWKINS AVE

12/2/2011 Fri 11:30 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2011-34123338**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: RIGHT ANGLE Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT/ GRADE Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

7-RA

PDO

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
 Num of Occupants: 1 Driver's Age: 69 Sex: M Citation Issued: N
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: NOT ENTERED
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :2 CAR/VAN/PICKUP Registered Weight: 5237 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 51 Sex: M Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, DRIVER INATTENTION

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR S
5 Meters East of Ramp

12/7/2010 Tue 08:30 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2010-34131083**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
 Manner of Collision: OVERTAKING Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 12300 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 55 Sex: M Citation Issued: N
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: CHANGING LANES
 Apparent Factors: UNSAFE LANE CHANGE, UNKNOWN

Veh :1 CAR/VAN/PICKUP Registered Weight: 3300 State of Registration: NY

Num of Occupants: 1	Driver's Age: 25	Sex: M	Citation Issued: N
Direction of Travel: EAST	Public Property Damage: N		School Bus Involved: N
Pre-Accd Action: GOING STRAIGHT AHEAD			
Apparent Factors: NOT APPLICABLE, UNKNOWN			

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR S
 AT INTERSECTION WITH HAWKINS AVE

11/17/2010	Wed 11:59 AM	Persons Killed: 0	Persons Injured: 0	Extent of Injuries:	Case: 2010-34079289
Accident Class: PROPERTY DAMAGE				Police Agency:	Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE				Traffic Control: TRAFFIC SIGNAL	
Manner of Collision: RIGHT ANGLE				Weather: CLEAR	
Road Surface Condition: DRY		Road Char.: STRAIGHT AND LEVEL		Light Condition: DAYLIGHT	
Loc. of Ped/Bicycle: NOT APPLICABLE		Action of Ped/Bicycle: NOT APPLICABLE			

7-RA

PDO

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Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
 Num of Occupants: 1 Driver's Age: 24 Sex: M Citation Issued: N
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :2 CAR/VAN/PICKUP Registered Weight: 3524 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 58 Sex: M Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: TRAFFIC CONTROL DEVICES DISREGARDED, DRIVER INATTENTION

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE

AT INTERSECTION WITH EXPRESS DR S

1/19/2011 Wed 18:50 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2011-34166027**
 Accident Class: INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: UNKNOWN Weather: CLOUDY
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 2842 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 33 Sex: M Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :2 CAR/VAN/PICKUP Registered Weight: 4260 State of Registration: NY
 Num of Occupants: 2 Driver's Age: 30 Sex: F Citation Issued: Y
 Direction of Travel: SOUTH-EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: MAKING LEFT TURN
 Apparent Factors: FAILURE TO YIELD RIGHT OF WAY, UNKNOWN

2-LT
INJ

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: [Route] 29
AT INTERSECTION WITH LONG ISLAND EXPRESSWAY SERVICE RD

1/15/2011 Sat 16:00 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2011-34177287**
Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: REAR END Weather: CLOUDY
Road Surface Condition: SLUSH Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

2-RE
PDO

Veh :2 CAR/VAN/PICKUP Registered Weight: 2884 State of Registration: NY
Num of Occupants: 1 Driver's Age: 23 Sex: F Citation Issued: N
Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: PAVEMENT SLIPPERY, FOLLOWING TOO CLOSELY

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Veh :1 CAR/VAN/PICKUP Registered Weight: 2800 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 24 Sex: M Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: HAWKINS AVE

AT INTERSECTION WITH EXPRESS DR S

10/22/2011 Sat 18:23 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2011-34221340**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: LEFT TURN (AGAINST OTHER CAR) Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

7-LT

Veh :1 MOTORCYCLE Registered Weight: 396 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 28 Sex: M Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, NOT APPLICABLE

INJ

Veh :2 CAR/VAN/PICKUP Registered Weight: 5325 State of Registration: NY
 Num of Occupants: 2 Driver's Age: 30 Sex: M Citation Issued: N
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: MAKING LEFT TURN
 Apparent Factors: UNKNOWN, FAILURE TO YIELD RIGHT OF WAY

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR S

1 Meters East of Carroll Ave

3/16/2011 Wed 11:04 AM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2011-34256639**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 1
 Type Of Accident: COLLISION WITH TREE Traffic Control: NONE
 Manner of Collision: OTHER Weather: RAIN
 Road Surface Condition: WET Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3389 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 31 Sex: F Citation Issued: N
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: PAVEMENT SLIPPERY, UNSAFE SPEED

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR S
 AT INTERSECTION WITH RONKONKOMA AVE

3/21/2011 Mon 14:25 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2011-34258038**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
 Manner of Collision: REAR END Weather: RAIN
 Road Surface Condition: WET Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

2-RE
 PDO

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Veh :1 CAR/VAN/PICKUP Registered Weight: 9001 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 36 Sex: M Citation Issued: N
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: REACTION TO OTHER UNINVOLVED VEHICL, UNKNOWN

Veh :2 CAR/VAN/PICKUP Registered Weight: 3043 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 73 Sex: M Citation Issued: N
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: REACTION TO OTHER UNINVOLVED VEHICL, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE

AT INTERSECTION WITH EXPRESS DR S

3/31/2011 Thu 07:49 AM Persons Killed: 0 Persons Injured: 2 Extent of Injuries: CC **Case: 2011-34269260**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: RIGHT ANGLE Weather: CLOUDY
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
 Num of Occupants: 1 Driver's Age: 46 Sex: M Citation Issued: N
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :2 CAR/VAN/PICKUP Registered Weight: 3179 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 33 Sex: F Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: TRAFFIC CONTROL DEVICES DISREGARDED, UNKNOWN

2-RA
INJ

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE
AT INTERSECTION WITH EXPRESS DR S

11/20/2009 Fri 12:00 PM Persons Killed: 0 Persons Injured: 0
Accident Class: NON-REPORTABLE
Type Of Accident: COLLISION WITH MOTOR VEHICLE
Manner of Collision: REAR END
Road Surface Condition: DRY
Loc. of Ped/Bicycle: INVALID CODE

Extent of Injuries: **Case: 2009-NR2918693**
Police Agency: Num of Veh: 2
Traffic Control: TRAFFIC SIGNAL
Weather: CLEAR
Light Condition: DAYLIGHT
Action of Ped/Bicycle:

2-RE
NR

Veh :1 OTHER Registered Weight:
Num of Occupants:
Direction of Travel: NORTH
Pre-Accd Action: STOPPED IN TRAFFIC
Apparent Factors: UNKNOWN, UNKNOWN

Driver's Age:
Public Property Damage: N

State of Registration:
Sex: Citation Issued:
School Bus Involved: X

Accident Location Information System (ALIS)**Accident Verbal Description Report****8737 VDR LIE S Service Rd from bay Ave to Carroll Ave, Suffolk****Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

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County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE

***** CONTINUED

Veh :2 OTHER Registered Weight: State of Registration:
 Num of Occupants: Driver's Age: Sex: Citation Issued:
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: X
 Pre-Accd Action: STOPPED IN TRAFFIC
 Apparent Factors: UNKNOWN, FOLLOWING TOO CLOSELY

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE

AT INTERSECTION WITH EXPRESS DR S

2/5/2010 Fri 11:40 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2010-NR3010234**
 Accident Class: NON-REPORTABLE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: REAR END Weather: CLOUDY
 Road Surface Condition: DRY Road Char.: Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: INVALID CODE Action of Ped/Bicycle:

2-RE

NR

Veh :1 OTHER Registered Weight: State of Registration:
 Num of Occupants: Driver's Age: Sex: Citation Issued:
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: X
 Pre-Accd Action: STOPPED IN TRAFFIC
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :2 OTHER Registered Weight: State of Registration:
 Num of Occupants: Driver's Age: Sex: Citation Issued:
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: X
 Pre-Accd Action: STARTING IN TRAFFIC
 Apparent Factors: FOLLOWING TOO CLOSELY, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR S

AT INTERSECTION WITH RONKONKOMA AVE

8/16/2011 Tue 17:12 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2011-34330998**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 3
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: OTHER Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

2-RE

PDO

Veh :1	CAR/VAN/PICKUP	Registered Weight: 2700	State of Registration: NY
	Num of Occupants: 1	Driver's Age: 24	Sex: F Citation Issued: N
	Direction of Travel: EAST	Public Property Damage: N	School Bus Involved: N
	Pre-Accd Action: STOPPED IN TRAFFIC		
	Apparent Factors: UNKNOWN, UNKNOWN		
Veh :2	CAR/VAN/PICKUP	Registered Weight: 3825	State of Registration: NY
	Num of Occupants: 1	Driver's Age: 36	Sex: M Citation Issued: N
	Direction of Travel: EAST	Public Property Damage: N	School Bus Involved: N
	Pre-Accd Action: SLOWED OR STOPPING		
	Apparent Factors: UNKNOWN, FOLLOWING TOO CLOSELY		

Accident Location Information System (ALIS)

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8737 VDR LIE S Service Rd from bay Ave to Carroll Ave, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR S

***** CONTINUED

Veh :3 CAR/VAN/PICKUP Registered Weight: 3489 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 26 Sex: F Citation Issued: N
 Direction of Travel: UNKNOWN Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: UNKNOWN
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: HAWKINS AVE

AT INTERSECTION WITH EXPRESS DR S

8/19/2011 Fri 14:10 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2011-34368606**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: RIGHT ANGLE Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

7-RA

PDO

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
 Num of Occupants: 1 Driver's Age: 21 Sex: F Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :2 OTHER Registered Weight: 2900 State of Registration: NY
 Num of Occupants: 2 Driver's Age: 46 Sex: M Citation Issued: N
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: MAKING LEFT TURN
 Apparent Factors: TURNING IMPROPER, FAILURE TO YIELD RIGHT OF WAY

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR S

AT INTERSECTION WITH HAWKINS AVE

10/14/2011 Fri 21:30 PM Persons Killed: 0 Persons Injured: 2 Extent of Injuries: CC **Case: 2011-34383018**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 3
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: OTHER Weather: CLOUDY
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

7-RA

INJ

Veh :1	CAR/VAN/PICKUP	Registered Weight: 2609	State of Registration: NY
	Num of Occupants: 2	Driver's Age: 22	Sex: M Citation Issued: N
	Direction of Travel: EAST	Public Property Damage: N	School Bus Involved: N
	Pre-Accd Action: GOING STRAIGHT AHEAD		
	Apparent Factors: UNKNOWN, UNKNOWN		
Veh :2	CAR/VAN/PICKUP	Registered Weight: 2740	State of Registration: NY
	Num of Occupants: 2	Driver's Age: 20	Sex: F Citation Issued: N
	Direction of Travel: SOUTH	Public Property Damage: N	School Bus Involved: N
	Pre-Accd Action: GOING STRAIGHT AHEAD		
	Apparent Factors: TRAFFIC CONTROL DEVICES DISREGARDED, UNKNOWN		

Accident Location Information System (ALIS)**Accident Verbal Description Report****8737 VDR LIE S Service Rd from bay Ave to Carroll Ave, Suffolk****Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

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***** CONTINUED

Veh :3 CAR/VAN/PICKUP Registered Weight: 4795 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 30 Sex: M Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: STOPPED IN TRAFFIC
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR S

AT INTERSECTION WITH RONKONKOMA AVE

10/26/2011 Wed 16:40 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2011-34381680**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: RIGHT ANGLE Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

2-RA

INJ

Veh :1 CAR/VAN/PICKUP Registered Weight: 6600 State of Registration: NY
 Num of Occupants: 2 Driver's Age: 52 Sex: F Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :2 CAR/VAN/PICKUP Registered Weight: 3458 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 43 Sex: F Citation Issued: N
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: MAKING LEFT TURN
 Apparent Factors: FAILURE TO YIELD RIGHT OF WAY, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE

AT INTERSECTION WITH EXPRESS DR S

11/3/2011 Thu 19:10 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2011-34383596**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: REAR END Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

2-RE

PDO

Veh :2	CAR/VAN/PICKUP	Registered Weight: 3049	State of Registration: NY
	Num of Occupants: 1	Driver's Age: 63	Sex: F Citation Issued: N
	Direction of Travel: NORTH	Public Property Damage: N	School Bus Involved: N
	Pre-Accd Action: GOING STRAIGHT AHEAD		
	Apparent Factors: NOT APPLICABLE, NOT APPLICABLE		
Veh :1	CAR/VAN/PICKUP	Registered Weight: 3149	State of Registration: NY
	Num of Occupants: 2	Driver's Age: 23	Sex: M Citation Issued: N
	Direction of Travel: NORTH	Public Property Damage: N	School Bus Involved: N
	Pre-Accd Action: STOPPED IN TRAFFIC		
	Apparent Factors: DRIVER INATTENTION, NOT APPLICABLE		

Accident Location Information System (ALIS)**Accident Verbal Description Report****8737 VDR LIE S Service Rd from bay Ave to Carroll Ave, Suffolk****Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

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County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR S
AT INTERSECTION WITH RONKONKOMA AVE

11/12/2011 Sat 16:55 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2011-34388736**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 1
 Type Of Accident: COLLISION WITH BICYCLIST Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: OTHER Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT/ GRADE Light Condition: DUSK
 Loc. of Ped/Bicycle: PED/BICYCLIST AT INTERSECTION Action of Ped/Bicycle: CROSSING

2-BIKE**PDO**

Veh :2 BICYCLE Registered Weight: State of Registration:
 Num of Occupants: 1 Driver's Age: 13 Sex: M Citation Issued: N
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3443 State of Registration: NY
 Num of Occupants: 3 Driver's Age: 20 Sex: F Citation Issued: N
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: FAILURE TO YIELD RIGHT OF WAY, NOT APPLICABLE

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR S
AT INTERSECTION WITH HAWKINS AVE

11/24/2011 Thu 02:10 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2011-34397227**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 1
 Type Of Accident: COLL. W/LIGHT SUPPORT/UTILITY POLE Traffic Control: NONE
 Manner of Collision: OTHER Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

2-F/O**PDO**

Veh :1 OTHER Registered Weight: State of Registration: NY
 Num of Occupants: 1 Driver's Age: 48 Sex: F Citation Issued: Y
 Direction of Travel: EAST Public Property Damage: Y School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, DRIVER INATTENTION

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR S

AT INTERSECTION WITH HAWKINS AVE

12/19/2011

Mon 15:00 PM

Persons Killed: 0

Persons Injured: 1

Extent of Injuries: C

Case: 2011-34403271

7-RE

Accident Class: PROPERTY DAMAGE AND INJURY

Police Agency:

Num of Veh: 2

Type Of Accident: COLLISION WITH MOTOR VEHICLE

Traffic Control: TRAFFIC SIGNAL

Manner of Collision: REAR END

Weather: CLEAR

Road Surface Condition: DRY

Road Char.: STRAIGHT AND LEVEL

Light Condition: DAYLIGHT

Loc. of Ped/Bicycle: NOT APPLICABLE

Action of Ped/Bicycle: NOT APPLICABLE

INJ

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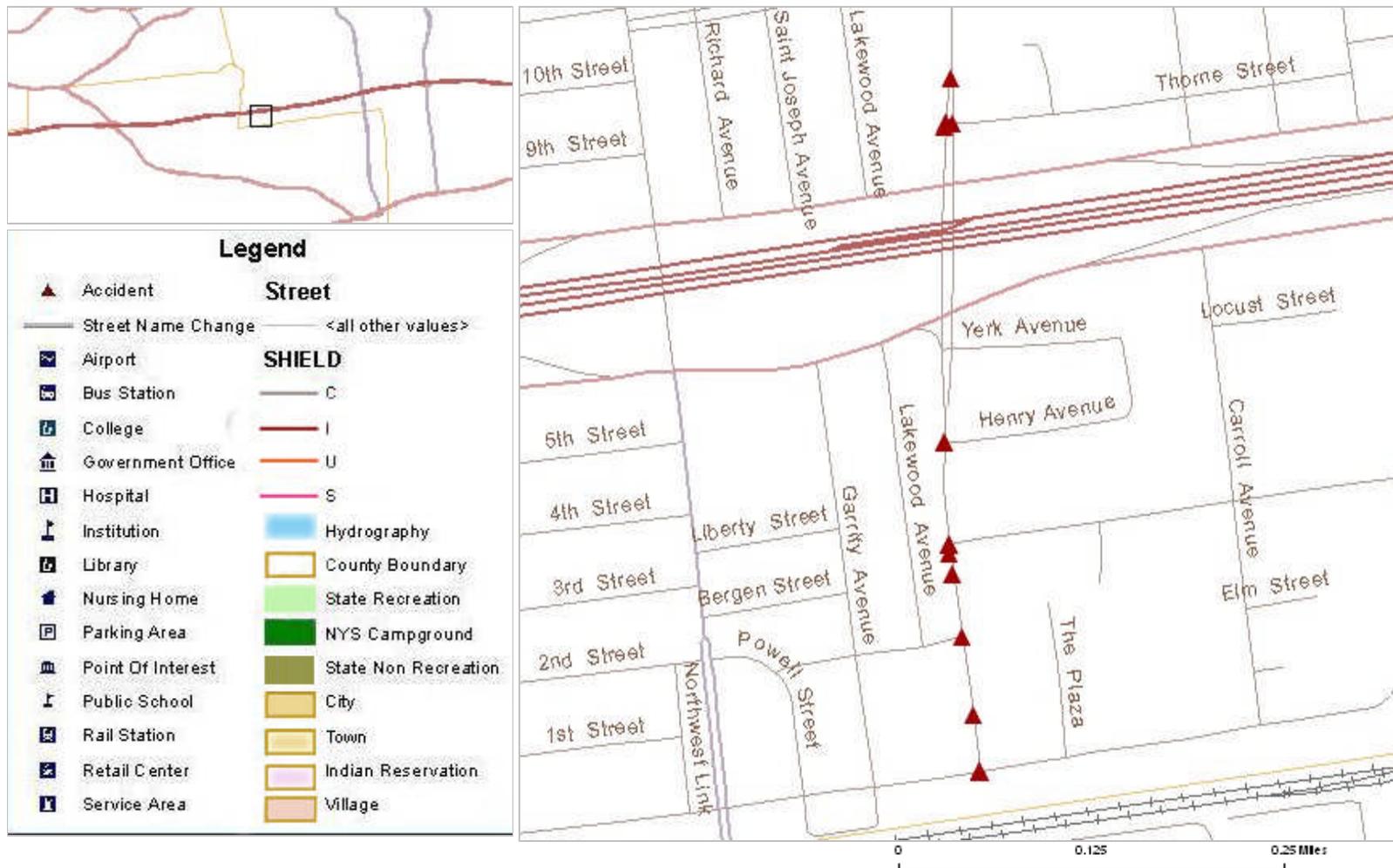
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County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR S

***** CONTINUED

Veh :2	CAR/VAN/PICKUP	Registered Weight: 5106	State of Registration: NY
	Num of Occupants: 1	Driver's Age: 38	Sex: M Citation Issued: N
	Direction of Travel: EAST	Public Property Damage: N	School Bus Involved: N
	Pre-Accd Action: GOING STRAIGHT AHEAD		
	Apparent Factors: REACTION TO OTHER UNINVOLVED VEHICL, UNKNOWN		
Veh :1	CAR/VAN/PICKUP	Registered Weight: 3408	State of Registration: NY
	Num of Occupants: 1	Driver's Age: 60	Sex: F Citation Issued: N
	Direction of Travel: EAST	Public Property Damage: N	School Bus Involved: N
	Pre-Accd Action: GOING STRAIGHT AHEAD		
	Apparent Factors: UNKNOWN, UNKNOWN		

8737 VDR Hawkins Ave from Throne St to Railroad Ave, Suffolk



Accident Location Information System (ALIS)

Date: 01/08/13

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Accident Verbal Description Report

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8737 VDR Hawkins Ave from Throne St to Railroad Ave, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: HAWKINS AVE

142 Meters South of Union St

4/8/2009

Wed 07:50 AM

Persons Killed: 0

Persons Injured: 1

Extent of Injuries: C

Case: 2009-33018894

Accident Class: INJURY

Police Agency:

Num of Veh: 2

Type Of Accident: COLLISION WITH MOTOR VEHICLE

Traffic Control: STOP SIGN

Manner of Collision: REAR END

Weather: CLEAR

Road Surface Condition: DRY

Road Char.: STRAIGHT AND LEVEL

Light Condition: DAYLIGHT

Loc. of Ped/Bicycle: NOT APPLICABLE

Action of Ped/Bicycle: NOT APPLICABLE

9-RE

Veh :1

CAR/VAN/PICKUP

Registered Weight: 3072

State of Registration: NY

Num of Occupants: 1

Driver's Age: 35

Sex: F

Citation Issued: N

Direction of Travel: SOUTH

Public Property Damage: N

School Bus Involved: N

Pre-Accd Action: SLOWED OR STOPPING

Apparent Factors: UNKNOWN, UNKNOWN

INJ

Veh :2

CAR/VAN/PICKUP

Registered Weight: 3636

State of Registration: NY

Num of Occupants: 1

Driver's Age: 65

Sex: M

Citation Issued: N

Direction of Travel: SOUTH

Public Property Damage: N

School Bus Involved: N

Pre-Accd Action: SLOWED OR STOPPING

Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: HENRY AVE

AT INTERSECTION WITH HAWKINS AVE

3/7/2009

Sat 09:00 AM

Persons Killed: 0

Persons Injured: 0

Extent of Injuries:

Case: 2009-33154814

Accident Class: PROPERTY DAMAGE

Police Agency:

Num of Veh: 2

Type Of Accident: COLLISION WITH MOTOR VEHICLE

Traffic Control: NONE

Manner of Collision: UNKNOWN

Weather: CLEAR

Road Surface Condition: WET

Road Char.: STRAIGHT AND LEVEL

Light Condition: DAYLIGHT

Loc. of Ped/Bicycle: NOT APPLICABLE

Action of Ped/Bicycle: NOT APPLICABLE

Veh :2

OTHER

Registered Weight:

State of Registration:

Num of Occupants: 0

Driver's Age:

Sex:

Citation Issued:

Direction of Travel: NORTH

Public Property Damage: N

School Bus Involved: N

Pre-Accd Action: MAKING RIGHT TURN

Apparent Factors: DRIVER INATTENTION, UNKNOWN

17-PARKED**PDO**

Veh :1

CAR/VAN/PICKUP

Registered Weight: 3752

State of Registration: NY

Num of Occupants: 1

Driver's Age:

Sex:

Citation Issued:

Direction of Travel: UNKNOWN

Public Property Damage: N

School Bus Involved: N

Pre-Accd Action: PARKED

Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RAILROAD AVE

122 Meters East of Parking Lot

6/5/2009

Fri 10:20 AM

Persons Killed: 0

Persons Injured: 0

Extent of Injuries:

Case: 2009-33166429

Accident Class: PROPERTY DAMAGE

Police Agency:

Num of Veh: 2

Type Of Accident: COLLISION WITH MOTOR VEHICLE

Traffic Control: UNKNOWN

Manner of Collision: UNKNOWN

Weather: UNKNOWN

Road Surface Condition: UNKNOWN

Road Char.: UNKNOWN

Light Condition: UNKNOWN

Loc. of Ped/Bicycle: NOT APPLICABLE

Action of Ped/Bicycle: NOT APPLICABLE

20-OTHER

PDO

Accident Location Information System (ALIS)

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Accident Verbal Description Report

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8737 VDR Hawkins Ave from Throne St to Railroad Ave, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RAILROAD AVE

***** CONTINUED

Veh :1 CAR/VAN/PICKUP Registered Weight: 3039 State of Registration: NY
 Num of Occupants: 2 Driver's Age: 38 Sex: M Citation Issued: N
 Direction of Travel: UNKNOWN Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: UNKNOWN
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :2 CAR/VAN/PICKUP Registered Weight: 2801 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 18 Sex: M Citation Issued: N
 Direction of Travel: UNKNOWN Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: UNKNOWN
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: HAWKINS AVE

AT INTERSECTION WITH HENRY AVE

1/9/2010 Sat 11:30 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2010-33326664**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: STOP SIGN
 Manner of Collision: UNKNOWN Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 2743 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 58 Sex: F Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

17-LT

PDO

Veh :1 CAR/VAN/PICKUP Registered Weight: 2493 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 62 Sex: F Citation Issued: N
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: MAKING LEFT TURN
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: HAWKINS AVE
 AT INTERSECTION WITH HENRY AVE

3/5/2010 Fri 19:30 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2010-33385611**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 3
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
 Manner of Collision: OTHER Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3302 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 19 Sex: M Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

17-RE

PDO

Accident Location Information System (ALIS)

Date: 01/08/13

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Accident Verbal Description Report

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8737 VDR Hawkins Ave from Throne St to Railroad Ave, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: HAWKINS AVE

***** CONTINUED

Veh :2 CAR/VAN/PICKUP Registered Weight: 3209 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 22 Sex: F Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :3 OTHER Registered Weight: State of Registration: NJ
 Num of Occupants: 1 Driver's Age: 40 Sex: M Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: UNION AVE

AT INTERSECTION WITH HAWKINS AVE

9/14/2009 Mon 12:55 PM Persons Killed: 0 Persons Injured: 2 Extent of Injuries: BC **Case: 2009-33477190**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: REAR END Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3406 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 50 Sex: F Citation Issued: N
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: DRIVER INATTENTION, UNKNOWN

**8-RE
INJ**

Veh :1 CAR/VAN/PICKUP Registered Weight: 8600 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 42 Sex: M Citation Issued: N
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: OTHER
 Apparent Factors: NOT APPLICABLE, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: HAWKINS AVE
 AT INTERSECTION WITH RAILROAD AVE

7/28/2010 Wed 18:05 PM Persons Killed: 0 Persons Injured: 2 Extent of Injuries: CC **Case: 2010-33538059**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: STOP SIGN
 Manner of Collision: REAR END Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

9-RE

Veh :1 CAR/VAN/PICKUP Registered Weight: 4448 State of Registration: NY
 Num of Occupants: 3 Driver's Age: 42 Sex: F Citation Issued: N
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: STOPPED IN TRAFFIC
 Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

INJ

Accident Location Information System (ALIS)

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8737 VDR Hawkins Ave from Throne St to Railroad Ave, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: HAWKINS AVE

***** CONTINUED

Veh :2 CAR/VAN/PICKUP Registered Weight: 3619 State of Registration: NY
 Num of Occupants: 3 Driver's Age: 31 Sex: M Citation Issued: N
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: SLOWED OR STOPPING
 Apparent Factors: FOLLOWING TOO CLOSELY, NOT APPLICABLE

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: HAWKINS AVE

AT INTERSECTION WITH THORNE ST

7/26/2010 Mon 17:00 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2010-33551305**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
 Manner of Collision: UNKNOWN Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 4629 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 43 Sex: F Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: MAKING U TURN
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :1 CAR/VAN/PICKUP Registered Weight: 3817 State of Registration: NY
 Num of Occupants: 2 Driver's Age: 43 Sex: F Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: HAWKINS AVE

AT INTERSECTION WITH THORNE ST

9/7/2010 Tue 17:30 PM Persons Killed: 0 Persons Injured: 2 Extent of Injuries: CC **Case: 2010-33610212**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: UNKNOWN
 Manner of Collision: UNKNOWN Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1	CAR/VAN/PICKUP	Registered Weight: 3278	State of Registration: NY
	Num of Occupants: 2	Driver's Age: 18	Sex: M Citation Issued: N
	Direction of Travel: SOUTH	Public Property Damage: N	School Bus Involved: N
	Pre-Accd Action: GOING STRAIGHT AHEAD		
	Apparent Factors: NOT APPLICABLE, NOT APPLICABLE		
Veh :2	CAR/VAN/PICKUP	Registered Weight: 4675	State of Registration: NY
	Num of Occupants: 1	Driver's Age: 46	Sex: F Citation Issued: N
	Direction of Travel: EAST	Public Property Damage: N	School Bus Involved: N
	Pre-Accd Action: GOING STRAIGHT AHEAD		
	Apparent Factors: FAILURE TO YIELD RIGHT OF WAY, NOT APPLICABLE		

Accident Location Information System (ALIS)**Accident Verbal Description Report****8737 VDR Hawkins Ave from Throne St to Railroad Ave, Suffolk****Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

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County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: HAWKINS AVE
AT INTERSECTION WITH UNION ST

2/25/2010 Thu 21:40 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2010-33713602**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
 Manner of Collision: SIDESWIPE Weather: RAIN
 Road Surface Condition: WET Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 4250 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 39 Sex: M Citation Issued: Y
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: ALCOHOL INVOLVEMENT, PASSING OR LANE USAGE IMPROPERLY

18-SIDE
SWIPE
PDO

Veh :1 CAR/VAN/PICKUP Registered Weight: 3168 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 30 Sex: M Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RAILROAD AVE
122 Meters East of Parking Lot

3/20/2010 Sat 16:40 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2010-33761982**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: OTHER
 Manner of Collision: RIGHT ANGLE Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 5868 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 46 Sex: F Citation Issued: N
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: TRAFFIC CONTROL DEVICES DISREGARDED, UNKNOWN

20-RA
PDO

Veh :1 CAR/VAN/PICKUP Registered Weight: 3985 State of Registration: NY

Num of Occupants: 3	Driver's Age: 60	Sex: M	Citation Issued: N
Direction of Travel: EAST	Public Property Damage: N		School Bus Involved: N
Pre-Accd Action: GOING STRAIGHT AHEAD			
Apparent Factors: UNKNOWN, UNKNOWN			

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RAILROAD AVE
 122 Meters East of Parking Lot

2/6/2009	Fri 19:28 PM	Persons Killed: 0	Persons Injured: 0	Extent of Injuries:	Case: 2009-NR2684838
	Accident Class: NON-REPORTABLE			Police Agency:	Num of Veh: 2
	Type Of Accident: COLLISION WITH MOTOR VEHICLE				Traffic Control: STOP SIGN
	Manner of Collision: RIGHT ANGLE				Weather: CLOUDY
	Road Surface Condition: DRY	Road Char.:		Light Condition: DARK-ROAD LIGHTED	
	Loc. of Ped/Bicycle: INVALID CODE			Action of Ped/Bicycle:	

20-RA
NR

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8737 VDR Hawkins Ave from Throne St to Railroad Ave, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RAILROAD AVE

***** CONTINUED

Veh :1 OTHER Registered Weight: State of Registration:
 Num of Occupants: Driver's Age: Sex: Citation Issued:
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: X
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :2 OTHER Registered Weight: State of Registration:
 Num of Occupants: Driver's Age: Sex: Citation Issued:
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: X
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: FAILURE TO YIELD RIGHT OF WAY, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: UNION AVE

AT INTERSECTION WITH HAWKINS AVE

3/12/2009 Thu 00:00 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2009-NR2820500**
 Accident Class: NON-REPORTABLE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
 Manner of Collision: OVERTAKING Weather: CLEAR
 Road Surface Condition: DRY Road Char.: Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: INVALID CODE Action of Ped/Bicycle:

Veh :1 OTHER Registered Weight: State of Registration:
 Num of Occupants: Driver's Age: Sex: Citation Issued:
 Direction of Travel: UNKNOWN Public Property Damage: N School Bus Involved: X
 Pre-Accd Action: PARKED
 Apparent Factors: UNKNOWN, UNKNOWN

8-Backing**NR**

Veh :2 OTHER Registered Weight: State of Registration:
 Num of Occupants: Driver's Age: Sex: Citation Issued:
 Direction of Travel: UNKNOWN Public Property Damage: N School Bus Involved: X
 Pre-Accd Action: BACKING
 Apparent Factors: UNKNOWN, DRIVER INATTENTION

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: HAWKINS AVE
5/7/2010 Fri 14:40 PM Persons Killed: 0 Persons Injured: 2 Extent of Injuries: CC **Case: 2010-33821965**
Accident Class: INJURY Police Agency: Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 4405 State of Registration: NY
Num of Occupants: 1 Driver's Age: 47 Sex: F Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
Pre-Accd Action: STOPPED IN TRAFFIC
Apparent Factors: NOT APPLICABLE, UNKNOWN

Accident Location Information System (ALIS)

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8737 VDR Hawkins Ave from Throne St to Railroad Ave, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

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***** CONTINUED

Veh :2 CAR/VAN/PICKUP Registered Weight: 3279 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 53 Sex: M Citation Issued: N
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: SLOWED OR STOPPING
 Apparent Factors: UNKNOWN, FOLLOWING TOO CLOSELY

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: HAWKINS AVE

AT INTERSECTION WITH RAILROAD AVE

1/19/2011 Wed 18:50 PM Persons Killed: 0 Persons Injured: 2 Extent of Injuries: CC **Case: 2011-33815654**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: OTHER
 Manner of Collision: RIGHT ANGLE Weather: CLOUDY
 Road Surface Condition: WET Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 4592 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 45 Sex: F Citation Issued: N
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNSAFE SPEED, TRAFFIC CONTROL DEVICES DISREGARDED

9-RA

INJ

Veh :1 CAR/VAN/PICKUP Registered Weight: 2943 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 56 Sex: F Citation Issued: N
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: HAWKINS AVE

AT INTERSECTION WITH UNION AVE

3/18/2011 Fri 20:30 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2011-33864625**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: REAR END Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

8-RE

INJ

Veh :2	CAR/VAN/PICKUP	Registered Weight: 4211	State of Registration: NY
	Num of Occupants: 1	Driver's Age: 46	Sex: M Citation Issued: N
	Direction of Travel: NORTH	Public Property Damage: N	School Bus Involved: N
	Pre-Accd Action: GOING STRAIGHT AHEAD		
	Apparent Factors: DRIVER INATTENTION, UNKNOWN		
Veh :1	CAR/VAN/PICKUP	Registered Weight: 4122	State of Registration: NY
	Num of Occupants: 3	Driver's Age: 47	Sex: F Citation Issued: N
	Direction of Travel: NORTH	Public Property Damage: N	School Bus Involved: N
	Pre-Accd Action: GOING STRAIGHT AHEAD		
	Apparent Factors: NOT APPLICABLE, UNKNOWN		

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8737 VDR Hawkins Ave from Throne St to Railroad Ave, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: UNION AVE
AT INTERSECTION WITH HAWKINS AVE

6/3/2010 Thu 22:00 PM Persons Killed: 0 Persons Injured: 3 Extent of Injuries: CCC **Case: 2010-33863372**
 Accident Class: INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: UNKNOWN Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

8-RE

INJ

Veh :2 CAR/VAN/PICKUP Registered Weight: 3252 State of Registration: NY
 Num of Occupants: 1 Driver's Age: Sex: Citation Issued:
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: STARTING IN TRAFFIC
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :1 CAR/VAN/PICKUP Registered Weight: 2218 State of Registration: NY
 Num of Occupants: 3 Driver's Age: 20 Sex: M Citation Issued: N
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: STOPPED IN TRAFFIC
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: HAWKINS AVE
AT INTERSECTION WITH RAILROAD AVE

8/24/2010 Tue 17:41 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2010-33948396**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
 Manner of Collision: LEFT TURN (AGAINST OTHER CAR) Weather: CLOUDY
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 2844 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 24 Sex: M Citation Issued: N
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: MAKING LEFT TURN
 Apparent Factors: UNKNOWN, FAILURE TO YIELD RIGHT OF WAY

9-LT

PDO

Veh :1 CAR/VAN/PICKUP Registered Weight: 2454 State of Registration: NY

Num of Occupants: 1	Driver's Age: 24	Sex: F	Citation Issued: N
Direction of Travel: NORTH	Public Property Damage: N		School Bus Involved: N
Pre-Accd Action: GOING STRAIGHT AHEAD			
Apparent Factors: UNKNOWN, UNKNOWN			

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: HAWKINS AVE
 AT INTERSECTION WITH UNION AVE

8/24/2010	Tue 22:35 PM	Persons Killed: 0	Persons Injured: 2	Extent of Injuries: CC	Case: 2010-33948540
Accident Class: PROPERTY DAMAGE AND INJURY			Police Agency:	Num of Veh: 1	
Type Of Accident: COLL. W/LIGHT SUPPORT/UTILITY POLE			Traffic Control: TRAFFIC SIGNAL		
Manner of Collision: OTHER			Weather: RAIN		
Road Surface Condition: WET		Road Char.: STRAIGHT AND LEVEL	Light Condition: DARK-ROAD LIGHTED		
Loc. of Ped/Bicycle: NOT APPLICABLE			Action of Ped/Bicycle: NOT APPLICABLE		

8-F/O
 INJ

Accident Location Information System (ALIS)

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***** CONTINUED

Veh :1 CAR/VAN/PICKUP Registered Weight: 3535 State of Registration: NY
 Num of Occupants: 3 Driver's Age: 22 Sex: F Citation Issued: N
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: DRIVER INATTENTION, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: HAWKINS AVE

3 Meters South of Throne St

9/3/2010 Fri 11:15 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2010-33974812**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: REAR END Weather: RAIN
 Road Surface Condition: WET Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 2952 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 24 Sex: M Citation Issued: N
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: SLOWED OR STOPPING
 Apparent Factors: FOLLOWING TOO CLOSELY, PAVEMENT SLIPPERY

Veh :1 CAR/VAN/PICKUP Registered Weight: 3447 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 58 Sex: F Citation Issued: N
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: STOPPED IN TRAFFIC
 Apparent Factors: NOT APPLICABLE, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: HAWKINS AVE

30 Meters South of UNION AVE

11/19/2010 Fri 16:40 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2010-34079826**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
 Manner of Collision: REAR END Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

6-RE

PDO

8-RE

PDO

Veh :2	CAR/VAN/PICKUP	Registered Weight: 3378	State of Registration: NY
	Num of Occupants: 1	Driver's Age: 36	Sex: F Citation Issued: N
	Direction of Travel: NORTH	Public Property Damage: N	School Bus Involved: N
	Pre-Accd Action: SLOWED OR STOPPING		
	Apparent Factors: FOLLOWING TOO CLOSELY, UNKNOWN		
Veh :1	CAR/VAN/PICKUP	Registered Weight: 3552	State of Registration: NY
	Num of Occupants: 1	Driver's Age: 45	Sex: F Citation Issued: N
	Direction of Travel: NORTH	Public Property Damage: N	School Bus Involved: N
	Pre-Accd Action: STOPPED IN TRAFFIC		
	Apparent Factors: UNKNOWN, UNKNOWN		

Accident Location Information System (ALIS)

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8737 VDR Hawkins Ave from Throne St to Railroad Ave, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RAILROAD AVE
AT INTERSECTION WITH HAWKINS AVE

12/21/2010 Tue 12:33 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2010-34160770**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: STOP SIGN
 Manner of Collision: LEFT TURN (AGAINST OTHER CAR) Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

9-LT

PDO

Veh :1 CAR/VAN/PICKUP Registered Weight: 2679 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 32 Sex: F Citation Issued: N
 Direction of Travel: NORTH-EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: MAKING LEFT TURN
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :2 CAR/VAN/PICKUP Registered Weight: 3326 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 21 Sex: M Citation Issued: N
 Direction of Travel: SOUTH-EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: MAKING LEFT TURN
 Apparent Factors: UNKNOWN, OTHER (HUMAN)

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: HAWKINS AVE
AT INTERSECTION WITH UNION AVE

1/13/2011 Thu 22:50 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2011-34175117**
 Accident Class: INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: REAR END Weather: CLEAR
 Road Surface Condition: SNOW/ICE Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

8-RE

Veh :2 CAR/VAN/PICKUP Registered Weight: 4556 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 53 Sex: M Citation Issued: Y
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: DRIVER INATTENTION, UNKNOWN

INJ

Veh :1 CAR/VAN/PICKUP Registered Weight: 3217 State of Registration: NY

Num of Occupants: 3	Driver's Age: 22	Sex: M	Citation Issued: N
Direction of Travel: NORTH	Public Property Damage: N		School Bus Involved: N
Pre-Accd Action: STOPPED IN TRAFFIC			
Apparent Factors: NOT APPLICABLE, UNKNOWN			

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RAILROAD AVE
 AT INTERSECTION WITH HAWKINS AVE

1/15/2011	Sat 19:30 PM	Persons Killed: 0	Persons Injured: 1	Extent of Injuries: C	Case: 2011-34171953
Accident Class: INJURY		Police Agency:		Num of Veh: 2	
Type Of Accident: COLLISION WITH MOTOR VEHICLE			Traffic Control: STOP SIGN		
Manner of Collision: RIGHT ANGLE			Weather: CLEAR		
Road Surface Condition: DRY		Road Char.: STRAIGHT AND LEVEL		Light Condition: DARK-ROAD LIGHTED	
Loc. of Ped/Bicycle: NOT APPLICABLE			Action of Ped/Bicycle: NOT APPLICABLE		

9-RA
 INJ

Accident Location Information System (ALIS)

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***** CONTINUED

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
 Num of Occupants: 2 Driver's Age: 53 Sex: M Citation Issued: N
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: FAILURE TO YIELD RIGHT OF WAY, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3148 State of Registration: NY
 Num of Occupants: 4 Driver's Age: 19 Sex: M Citation Issued: N
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: THORNE ST

AT INTERSECTION WITH HAWKINS AVE

2/20/2011 Sun 13:40 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2011-34212858**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 1
 Type Of Accident: COLLISION WITH FENCE Traffic Control: STOP SIGN
 Manner of Collision: OTHER Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3276 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 50 Sex: M Citation Issued: N
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: ACCELERATOR DEFECTIVE, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: HAWKINS AVE

30 Meters South of UNION AVE

3/18/2011 Fri Persons Killed: Persons Injured: Extent of Injuries: **Case: 2011-34256141**
 Accident Class: Police Agency: Num of Veh:
 Type Of Accident: Traffic Control:
 Manner of Collision: Weather:
 Road Surface Condition: Road Char.: Light Condition:
 Loc. of Ped/Bicycle: Action of Ped/Bicycle:

Veh :	Registered Weight:	State of Registration:
	Num of Occupants:	Sex:
	Direction of Travel:	Citation Issued:
	Pre-Accd Action:	School Bus Involved:
	Driver's Age:	
	Public Property Damage:	

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RAILROAD AVE
 AT INTERSECTION WITH HAWKINS AVE

8/14/2009 Fri 21:28 PM Persons Killed: 0 Persons Injured: 0
 Accident Class: NON-REPORTABLE
 Type Of Accident: COLLISION WITH MOTOR VEHICLE
 Manner of Collision: OTHER
 Road Surface Condition: DRY Road Char.:
 Loc. of Ped/Bicycle: INVALID CODE

Extent of Injuries: **Case: 2009-NR2905991**
 Police Agency: Num of Veh: 1
 Traffic Control: UNKNOWN
 Weather: CLEAR
 Light Condition: DARK-ROAD LIGHTED
 Action of Ped/Bicycle:

9-??

NR

Accident Location Information System (ALIS)

Date: 01/08/13

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Accident Verbal Description Report

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8737 VDR Hawkins Ave from Throne St to Railroad Ave, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RAILROAD AVE

***** CONTINUED

Veh :1 OTHER Registered Weight: State of Registration:
 Num of Occupants: Driver's Age: Sex: Citation Issued:
 Direction of Travel: NORTH-WEST Public Property Damage: N School Bus Involved: X
 Pre-Accd Action: MAKING LEFT TURN
 Apparent Factors: DRIVER INATTENTION, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RAILROAD AVE
 AT INTERSECTION WITH HAWKINS AVE

12/18/2009 Fri 23:40 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2009-NR2971565**
 Accident Class: NON-REPORTABLE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: STOP SIGN
 Manner of Collision: RIGHT ANGLE Weather: CLEAR
 Road Surface Condition: DRY Road Char.: Light Condition: DARK-ROAD LIGHTED
 Loc. of Ped/Bicycle: INVALID CODE Action of Ped/Bicycle:

9-RA

Veh :1 OTHER Registered Weight: State of Registration:
 Num of Occupants: Driver's Age: Sex: Citation Issued:
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: X
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

NR

Veh :2 OTHER Registered Weight: State of Registration:
 Num of Occupants: Driver's Age: Sex: Citation Issued:
 Direction of Travel: SOUTH-EAST Public Property Damage: N School Bus Involved: X
 Pre-Accd Action: MAKING LEFT TURN
 Apparent Factors: FAILURE TO YIELD RIGHT OF WAY, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: HAWKINS AVE
 61 Meters North of RAILROAD AVE

12/9/2009 Wed 18:02 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2009-NR2981683**
 Accident Class: NON-REPORTABLE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
 Manner of Collision: OVERTAKING Weather: CLOUDY
 Road Surface Condition: WET Road Char.: Light Condition: DARK-ROAD LIGHTED
 Loc. of Ped/Bicycle: INVALID CODE Action of Ped/Bicycle:

18-OT

NR

Veh :1 OTHER Registered Weight:
Num of Occupants: Driver's Age:
Direction of Travel: SOUTH Public Property Damage: N
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: PAVEMENT SLIPPERY, UNKNOWN

State of Registration:
Sex: Citation Issued:
School Bus Involved: X

Veh :2 OTHER Registered Weight:
Num of Occupants: Driver's Age:
Direction of Travel: SOUTH Public Property Damage: N
Pre-Accd Action: STARTING FROM PARKING
Apparent Factors: FAILURE TO KEEP RIGHT, UNKNOWN

State of Registration:
Sex: Citation Issued:
School Bus Involved: X

Accident Location Information System (ALIS)**Accident Verbal Description Report****8737 VDR Hawkins Ave from Throne St to Railroad Ave, Suffolk****Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

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County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: HAWKINS AVE
AT INTERSECTION WITH THORNE ST

6/30/2011 Thu 10:10 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2011-34309063**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
 Manner of Collision: UNKNOWN Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
 Num of Occupants: 1 Driver's Age: 46 Sex: M Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: MAKING RIGHT TURN
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
 Num of Occupants: 1 Driver's Age: 32 Sex: M Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: MAKING RIGHT TURN
 Apparent Factors: TURNING IMPROPER, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RAILROAD AVE
AT INTERSECTION WITH HAWKINS AVE

5/30/2011 Mon 08:00 AM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2011-34298262**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: STOP SIGN
 Manner of Collision: RIGHT ANGLE Weather: RAIN
 Road Surface Condition: WET Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
 Num of Occupants: 1 Driver's Age: 62 Sex: M Citation Issued: N
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: FAILURE TO YIELD RIGHT OF WAY, UNKNOWN

Veh :1 CAR/VAN/PICKUP Registered Weight: 2434 State of Registration: NY

9-RA
INJ

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8737 VDR Hawkins Ave from Throne St to Railroad Ave, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: HAWKINS AVE

***** CONTINUED

Veh :2 CAR/VAN/PICKUP Registered Weight: 4500 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 36 Sex: M Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: MAKING LEFT TURN
 Apparent Factors: DRIVER INATTENTION, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3230 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 45 Sex: F Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RAILROAD AVE

AT INTERSECTION WITH HAWKINS AVE

9/25/2011 Sun 17:00 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2011-34394434**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: STOP SIGN
 Manner of Collision: LEFT TURN (AGAINST OTHER CAR) Weather: CLOUDY
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
 Num of Occupants: 1 Driver's Age: 70 Sex: M Citation Issued: N
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

9-LT**INJ**

Veh :2 CAR/VAN/PICKUP Registered Weight: 2950 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 21 Sex: F Citation Issued: Y
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: MAKING LEFT TURN
 Apparent Factors: TRAFFIC CONTROL DEVICES DISREGARDED, FAILURE TO YIELD RIGHT OF WAY

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: HAWKINS AVE
AT INTERSECTION WITH THORNE ST

12/4/2011 Sun 06:30 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2011-34395501**
Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAWN
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 OTHER Registered Weight: State of Registration:
Num of Occupants: 0 Driver's Age: Sex: Citation Issued:
Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: UNKNOWN, UNKNOWN

Accident Location Information System (ALIS)

Accident Verbal Description Report

8737 VDR Hawkins Ave from Throne St to Railroad Ave, Suffolk

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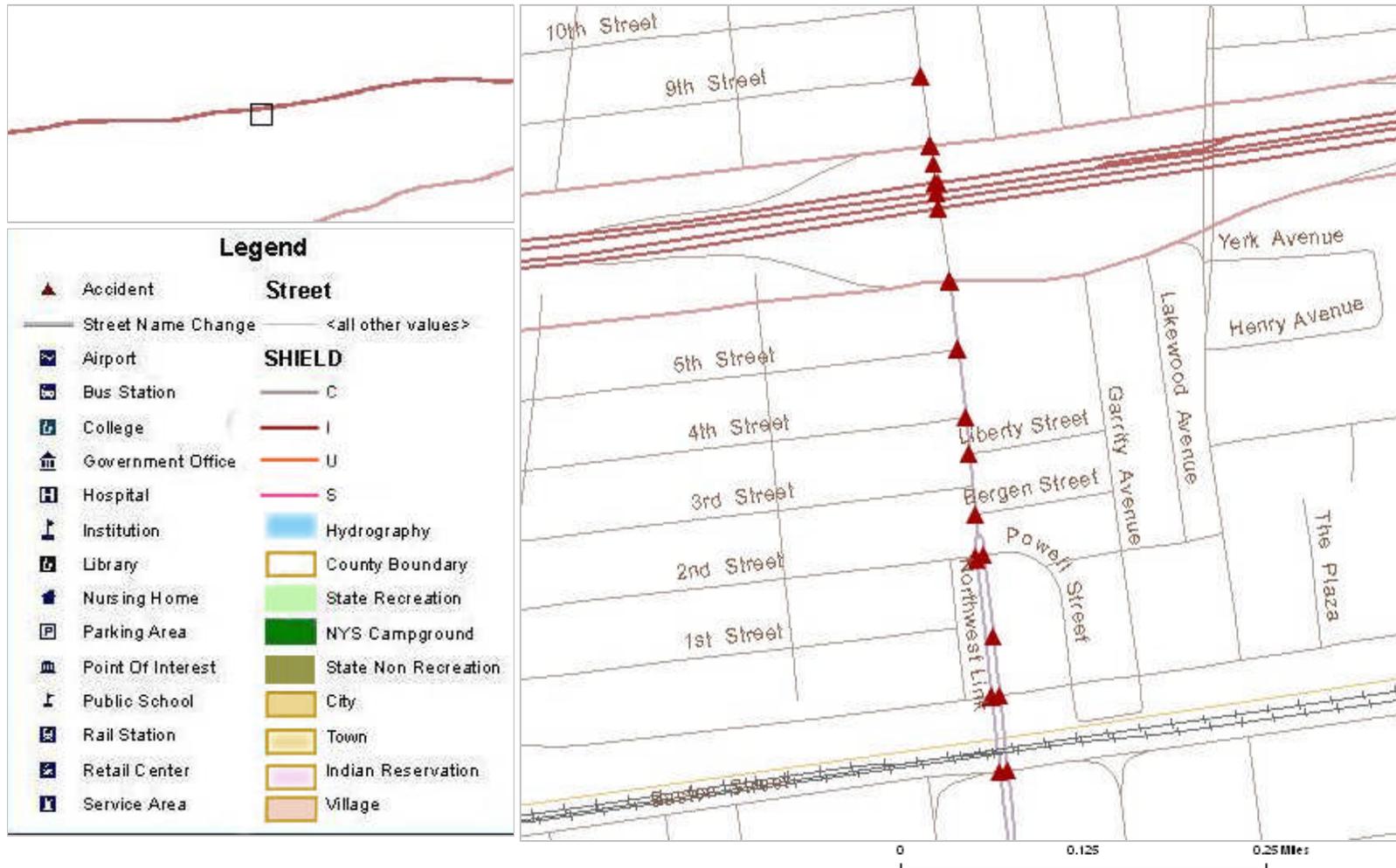
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County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: HAWKINS AVE

***** CONTINUED

Veh :1	CAR/VAN/PICKUP	Registered Weight: 2549	State of Registration: NY
	Num of Occupants: 2	Driver's Age: 52	Sex: M Citation Issued: N
	Direction of Travel: NORTH	Public Property Damage: N	School Bus Involved: N
	Pre-Accd Action: MAKING RIGHT TURN		
	Apparent Factors: UNKNOWN, UNKNOWN		

8737 VDR Ronkonkoma Ave from 9th St to Easton St, Suffolk



Accident Location Information System (ALIS)**Accident Verbal Description Report****8737 VDR Ronkonkoma Ave from 9th St to Easton St, Suffolk****Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

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County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE
AT INTERSECTION WITH 9TH ST

2/12/2009 Thu 17:00 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2009-32961004**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
 Manner of Collision: REAR END Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 4083 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 21 Sex: F Citation Issued: N
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :2 CAR/VAN/PICKUP Registered Weight: 4473 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 49 Sex: F Citation Issued: N
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: 495 07031178 Street: I 495

2/24/2009 Tue 17:45 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2009-32968744**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
 Manner of Collision: REAR END Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DUSK
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

2-RE**PDO**

Veh :2 OTHER Registered Weight: State of Registration:
 Num of Occupants: 0 Driver's Age: Sex: Citation Issued:
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: SLOWED OR STOPPING
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :1 CAR/VAN/PICKUP Registered Weight: 3109 State of Registration: NY

Num of Occupants: 1	Driver's Age: 19	Sex: M	Citation Issued: N
Direction of Travel: EAST	Public Property Damage: N		School Bus Involved: N
Pre-Accd Action: GOING STRAIGHT AHEAD			
Apparent Factors: UNKNOWN, UNKNOWN			

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE
 AT INTERSECTION WITH LIBERTY ST

3/6/2009	Fri 18:40 PM	Persons Killed: 0	Persons Injured: 1	Extent of Injuries: C	Case: 2009-32973997
Accident Class: PROPERTY DAMAGE AND INJURY			Police Agency:	Num of Veh: 2	
Type Of Accident: COLLISION WITH MOTOR VEHICLE			Traffic Control: NONE		
Manner of Collision: RIGHT ANGLE			Weather: CLOUDY		
Road Surface Condition: WET		Road Char.: STRAIGHT AND LEVEL	Light Condition: DARK-ROAD LIGHTED		
Loc. of Ped/Bicycle: NOT APPLICABLE		Action of Ped/Bicycle: NOT APPLICABLE			

14-ra
inj

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8737 VDR Ronkonkoma Ave from 9th St to Easton St, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE

***** CONTINUED

Veh :2 CAR/VAN/PICKUP Registered Weight: 4176 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 49 Sex: F Citation Issued: N
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: MAKING LEFT TURN
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :1 CAR/VAN/PICKUP Registered Weight: 2855 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 50 Sex: M Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE

AT INTERSECTION WITH 9TH ST

3/21/2009 Sat 12:10 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2009-32980667**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: UNKNOWN
 Manner of Collision: OVERTAKING Weather: UNKNOWN
 Road Surface Condition: UNKNOWN Road Char.: UNKNOWN Light Condition: UNKNOWN
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 2982 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 78 Sex: M Citation Issued: N
 Direction of Travel: UNKNOWN Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: STARTING FROM PARKING
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :1 CAR/VAN/PICKUP Registered Weight: 2415 State of Registration: NY
 Num of Occupants: 2 Driver's Age: 26 Sex: F Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: 495 07031178 Street: LONG ISLAND EXPY
4/6/2009 Mon 17:52 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2009-32993564**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: UNKNOWN
 Manner of Collision: REAR END Weather: CLOUDY
 Road Surface Condition: WET Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3244 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 49 Sex: F Citation Issued: N
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: SLOWED OR STOPPING
 Apparent Factors: FOLLOWING TOO CLOSELY, PAVEMENT SLIPPERY

2-RE
 INJ

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8737 VDR Ronkonkoma Ave from 9th St to Easton St, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

County: Suffolk Muni: Brookhaven(T) Ref. Marker: 495 07031178 Street: LONG ISLAND EXPY

***** CONTINUED

Veh :1 CAR/VAN/PICKUP Registered Weight: 4345 State of Registration: NY
 Num of Occupants: 4 Driver's Age: 35 Sex: M Citation Issued: N
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: STOPPED IN TRAFFIC
 Apparent Factors: NOT APPLICABLE, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE

AT INTERSECTION WITH Express Dr S

3/25/2009 Wed 17:15 PM Persons Killed: 0 Persons Injured: 2 Extent of Injuries: CC **Case: 2009-33065650**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: REAR END Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 4322 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 35 Sex: F Citation Issued: N
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: STOPPED IN TRAFFIC
 Apparent Factors: UNKNOWN, UNKNOWN

SAME AS
OTHER

Veh :2 CAR/VAN/PICKUP Registered Weight: 2623 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 20 Sex: M Citation Issued: N
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR N

4/6/2009

Mon 06:58 AM Persons Killed: 0 Persons Injured: 4 Extent of Injuries: CCCC **Case: 2009-33019734**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 3
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: OTHER Weather: CLOUDY
 Road Surface Condition: DRY Road Char.: STRAIGHT AT HILLCREST Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

1-OTHER
INJ

Veh :1	CAR/VAN/PICKUP	Registered Weight: 2857	State of Registration: NY
	Num of Occupants: 1	Driver's Age: 29	Sex: M Citation Issued: N
	Direction of Travel: UNKNOWN	Public Property Damage: N	School Bus Involved: N
	Pre-Accd Action: UNKNOWN		
	Apparent Factors: UNKNOWN, UNKNOWN		
Veh :2	CAR/VAN/PICKUP	Registered Weight: 4016	State of Registration: NY
	Num of Occupants: 1	Driver's Age: 38	Sex: M Citation Issued: N
	Direction of Travel: UNKNOWN	Public Property Damage: N	School Bus Involved: N
	Pre-Accd Action: UNKNOWN		
	Apparent Factors: UNKNOWN, UNKNOWN		

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8737 VDR Ronkonkoma Ave from 9th St to Easton St, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR N

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Veh :3 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
 Num of Occupants: 2 Driver's Age: 45 Sex: M Citation Issued: N
 Direction of Travel: UNKNOWN Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: UNKNOWN
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE

AT INTERSECTION WITH Express Dr N

4/25/2009 Sat 12:55 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2009-33036026**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: UNKNOWN Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: UNKNOWN
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3401 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 26 Sex: F Citation Issued: N
 Direction of Travel: UNKNOWN Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

**SAME AS
OTHER**

Veh :1 CAR/VAN/PICKUP Registered Weight: 4017 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 68 Sex: M Citation Issued: N
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE

5/16/2009

Sat 07:30 AM Persons Killed: 0 Persons Injured: 2 Extent of Injuries: CC **Case: 2009-33061400**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 3
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: OTHER Weather: FOG/SMOG/SMOKE
 Road Surface Condition: DRY Road Char.: STRAIGHT/ GRADE Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :3	CAR/VAN/PICKUP	Registered Weight: 9059	State of Registration: NY
	Num of Occupants: 1	Driver's Age: 58	Sex: M Citation Issued: N
	Direction of Travel: UNKNOWN	Public Property Damage: N	School Bus Involved: N
	Pre-Accd Action: UNKNOWN		
	Apparent Factors: UNKNOWN, UNKNOWN		
Veh :2	CAR/VAN/PICKUP	Registered Weight: 2390	State of Registration: NY
	Num of Occupants: 1	Driver's Age: 50	Sex: F Citation Issued: N
	Direction of Travel: NORTH	Public Property Damage: N	School Bus Involved: N
	Pre-Accd Action: GOING STRAIGHT AHEAD		
	Apparent Factors: UNKNOWN, UNKNOWN		

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8737 VDR Ronkonkoma Ave from 9th St to Easton St, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE

***** CONTINUED

Veh :1 CAR/VAN/PICKUP Registered Weight: 4129 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 18 Sex: M Citation Issued: N
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE

AT INTERSECTION WITH 9TH ST

8/4/2009 Tue Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2009-33138402**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
 Manner of Collision: UNKNOWN Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 2690 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 38 Sex: M Citation Issued: N
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :1 CAR/VAN/PICKUP Registered Weight: 3455 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 38 Sex: F Citation Issued: N
 Direction of Travel: SOUTH-WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: MAKING LEFT TURN
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR N

AT INTERSECTION WITH RONKONKOMA AVE

9/14/2009 Mon 19:50 PM Persons Killed: 0 Persons Injured: 2 Extent of Injuries: AC **Case: 2009-33205248**
 Accident Class: INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: RIGHT ANGLE Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

SAME AS

OTHER

Veh :1	CAR/VAN/PICKUP	Registered Weight: 2375	State of Registration: NY
	Num of Occupants: 1	Driver's Age: 18	Sex: F Citation Issued: N
	Direction of Travel: WEST	Public Property Damage: N	School Bus Involved: N
	Pre-Accd Action: GOING STRAIGHT AHEAD		
	Apparent Factors: UNKNOWN, UNKNOWN		
Veh :2	CAR/VAN/PICKUP	Registered Weight: 2864	State of Registration: NY
	Num of Occupants: 1	Driver's Age: 22	Sex: M Citation Issued: N
	Direction of Travel: SOUTH	Public Property Damage: N	School Bus Involved: N
	Pre-Accd Action: GOING STRAIGHT AHEAD		
	Apparent Factors: TRAFFIC CONTROL DEVICES DISREGARDED, UNKNOWN		

Accident Location Information System (ALIS)

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Accident Verbal Description Report

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8737 VDR Ronkonkoma Ave from 9th St to Easton St, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE

AT INTERSECTION WITH Express Dr S

5/21/2009 Thu 15:31 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2009-33269924**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: REAR END Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT/ GRADE Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

SAME

Veh :2 OTHER Registered Weight: State of Registration:
 Num of Occupants: 1 Driver's Age: 41 Sex: F Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: SLOWED OR STOPPING
 Apparent Factors: FOLLOWING TOO CLOSELY, UNSAFE SPEED

Veh :1 CAR/VAN/PICKUP Registered Weight: 3247 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 57 Sex: F Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: STOPPED IN TRAFFIC
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE

11/8/2009 Sun Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2009-33232854**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: UNKNOWN
 Manner of Collision: UNKNOWN Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD UNLIGHTED
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 2635 State of Registration: NY
 Num of Occupants: 1 Driver's Age: Sex: Citation Issued:
 Direction of Travel: UNKNOWN Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: PARKED
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :2 OTHER Registered Weight: State of Registration:

Num of Occupants: 0

Driver's Age:

Sex:

Citation Issued:

Direction of Travel: UNKNOWN

Public Property Damage: N

School Bus Involved: N

Pre-Accd Action: UNKNOWN

Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE

AT INTERSECTION WITH Express Dr N

6/28/2009

Sun 01:45 AM

Persons Killed: 0

Persons Injured: 0

Extent of Injuries:

Case: 2009-33353719

Accident Class: PROPERTY DAMAGE

Police Agency:

Num of Veh: 2

Type Of Accident: COLLISION WITH MOTOR VEHICLE

Traffic Control: TRAFFIC SIGNAL

Manner of Collision: LEFT TURN (AGAINST OTHER CAR)

Weather: CLEAR

Road Surface Condition: DRY

Road Char.: STRAIGHT AND LEVEL

Light Condition: DARK-ROAD LIGHTED

Loc. of Ped/Bicycle: NOT APPLICABLE

Action of Ped/Bicycle: NOT APPLICABLE

SAME

Accident Location Information System (ALIS)**Accident Verbal Description Report****8737 VDR Ronkonkoma Ave from 9th St to Easton St, Suffolk****Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

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County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE

***** CONTINUED

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: PA
 Num of Occupants: 1 Driver's Age: Sex: Citation Issued:
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: MAKING LEFT TURN
 Apparent Factors: TURNING IMPROPER, FAILURE TO YIELD RIGHT OF WAY

Veh :1 CAR/VAN/PICKUP Registered Weight: 5117 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 26 Sex: F Citation Issued: N
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: NOT APPLICABLE, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE

7/13/2009

Mon 16:45 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2009-33376283**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: REAR END Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AT HILLCREST Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3648 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 29 Sex: M Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: DRIVER INATTENTION, FOLLOWING TOO CLOSELY

Veh :1 CAR/VAN/PICKUP Registered Weight: 8800 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 47 Sex: M Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: STOPPED IN TRAFFIC
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: LONG ISLAND EXPRESSWAY SERVICE RD

AT INTERSECTION WITH RONKONKOMA AVE

12/30/2009 Wed 18:15 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2009-33283067**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: UNKNOWN
 Manner of Collision: OVERTAKING Weather: UNKNOWN
 Road Surface Condition: UNKNOWN Road Char.: UNKNOWN Light Condition: UNKNOWN
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 OTHER Registered Weight: State of Registration: NY **SAME**
 Num of Occupants: 0 Driver's Age: Sex: Citation Issued:
 Direction of Travel: UNKNOWN Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: UNKNOWN
 Apparent Factors: UNKNOWN, UNKNOWN

Accident Location Information System (ALIS)

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8737 VDR Ronkonkoma Ave from 9th St to Easton St, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: LONG ISLAND EXPRESSWAY SERVICE RD

***** CONTINUED

Veh :1 CAR/VAN/PICKUP Registered Weight: 3627 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 53 Sex: F Citation Issued: N
 Direction of Travel: UNKNOWN Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: UNKNOWN
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE

AT INTERSECTION WITH EXPRESS DR N

1/21/2010 Thu 16:07 PM Persons Killed: 0 Persons Injured: 3 Extent of Injuries: CCC **Case: 2010-33338945**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: RIGHT ANGLE Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

SAME

Veh :1 CAR/VAN/PICKUP Registered Weight: 3444 State of Registration: NY
 Num of Occupants: 2 Driver's Age: 26 Sex: F Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3116 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 24 Sex: M Citation Issued: N
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: NOT APPLICABLE, TRAFFIC CONTROL DEVICES DISREGARDED

County: Suffolk Muni: Brookhaven(T) Ref. Marker: 495 07031178 Street: LONG ISLAND EXPY

3/4/2010

Thu 09:45 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2010-33381178**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
 Manner of Collision: REAR END Weather: CLOUDY
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

1-RE**PDO**

Veh :2	CAR/VAN/PICKUP	Registered Weight:	State of Registration: NY
	Num of Occupants: 1	Driver's Age: 31	Sex: M Citation Issued: N
	Direction of Travel: WEST	Public Property Damage: N	School Bus Involved: N
	Pre-Accd Action: SLOWED OR STOPPING		
	Apparent Factors: FOLLOWING TOO CLOSELY, UNKNOWN		
Veh :1	CAR/VAN/PICKUP	Registered Weight: 3279	State of Registration: NY
	Num of Occupants: 1	Driver's Age: 50	Sex: F Citation Issued: N
	Direction of Travel: WEST	Public Property Damage: N	School Bus Involved: N
	Pre-Accd Action: STOPPED IN TRAFFIC		
	Apparent Factors: NOT APPLICABLE, UNKNOWN		

Accident Location Information System (ALIS)

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8737 VDR Ronkonkoma Ave from 9th St to Easton St, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE
AT INTERSECTION WITH 5TH ST

9/10/2009 Thu 07:39 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2009-33441955**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
 Manner of Collision: RIGHT TURN (AGAINST OTHER CAR) Weather: CLOUDY
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 32900 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 28 Sex: M Citation Issued: N
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: MAKING RIGHT TURN
 Apparent Factors: TURNING IMPROPER, PASSING OR LANE USAGE IMPROPERLY

14-ot
pdo

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: GL
 Num of Occupants: 2 Driver's Age: 46 Sex: M Citation Issued: N
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: 495 07031178 Street: I 495

5/4/2010 Tue 11:15 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2010-33430367**
 Accident Class: NON-REPORTABLE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
 Manner of Collision: REAR END Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
 Num of Occupants: 1 Driver's Age: 79 Sex: F Citation Issued: N
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

1-RE
NR

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY

Accident Location Information System (ALIS)

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8737 VDR Ronkonkoma Ave from 9th St to Easton St, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE

***** CONTINUED

Veh :1 CAR/VAN/PICKUP Registered Weight: 3752 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 44 Sex: F Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: STOPPED IN TRAFFIC
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :2 CAR/VAN/PICKUP Registered Weight: 2863 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 27 Sex: M Citation Issued: Y
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: FOLLOWING TOO CLOSELY, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE

AT INTERSECTION WITH EXPRESS DR N

4/13/2010 Tue 22:07 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2010-33453641**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: RIGHT ANGLE Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3960 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 39 Sex: M Citation Issued: N **SAME**
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :2 CAR/VAN/PICKUP Registered Weight: 3322 State of Registration: NY
 Num of Occupants: 2 Driver's Age: 27 Sex: M Citation Issued: Y
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE
AT INTERSECTION WITH EXPRESS DR N

5/20/2010 Thu 17:00 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2010-33472322**
Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: UNKNOWN
Manner of Collision: UNKNOWN Weather: UNKNOWN
Road Surface Condition: UNKNOWN Road Char.: UNKNOWN Light Condition: UNKNOWN
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

SAME

Veh :2 OTHER Registered Weight: State of Registration:
Num of Occupants: 0 Driver's Age: Sex: Citation Issued:
Direction of Travel: UNKNOWN Public Property Damage: N School Bus Involved: N
Pre-Accd Action: UNKNOWN
Apparent Factors: UNKNOWN, UNKNOWN

Accident Location Information System (ALIS)

Date: 01/08/13

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8737 VDR Ronkonkoma Ave from 9th St to Easton St, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE

***** CONTINUED

Veh :1 CAR/VAN/PICKUP Registered Weight: 3806 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 46 Sex: M Citation Issued: N
 Direction of Travel: UNKNOWN Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: UNKNOWN
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE

AT INTERSECTION WITH POWELL ST

11/6/2009 Fri 15:00 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: B **Case: 2009-33521088**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
 Manner of Collision: RIGHT ANGLE Weather: CLOUDY
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

3-RA

INJ

Veh :1 CAR/VAN/PICKUP Registered Weight: 2457 State of Registration: NY
 Num of Occupants: 2 Driver's Age: 19 Sex: M Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :2 CAR/VAN/PICKUP Registered Weight: 4358 State of Registration: NY
 Num of Occupants: 4 Driver's Age: 17 Sex: M Citation Issued: N
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: FAILURE TO YIELD RIGHT OF WAY, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE

AT INTERSECTION WITH LONG ISLAND EXPRESSWAY SERVICE RD

7/7/2010 Wed 17:35 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2010-33536695**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: RIGHT ANGLE Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3072 State of Registration: NY
Num of Occupants: 1 Driver's Age: 24 Sex: F Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: UNKNOWN, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3247 State of Registration: NY
Num of Occupants: 2 Driver's Age: 36 Sex: M Citation Issued: N
Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: UNKNOWN, TRAFFIC CONTROL DEVICES DISREGARDED

SAME

Accident Location Information System (ALIS)

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8737 VDR Ronkonkoma Ave from 9th St to Easton St, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE
8/21/2010 Sat 12:04 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2010-33615061**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: UNKNOWN
 Manner of Collision: OVERTAKING Weather: CLEAR
 Road Surface Condition: DRY Road Char.: CURVE AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3349 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 60 Sex: F Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :2 CAR/VAN/PICKUP Registered Weight: 4026 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 18 Sex: M Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR N
 AT INTERSECTION WITH RONKONKOMA AVE
3/13/2010 Sat 20:36 PM Persons Killed: 0 Persons Injured: 2 Extent of Injuries: CC **Case: 2010-33646175**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: RIGHT ANGLE Weather: CLOUDY
 Road Surface Condition: WET Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 4948 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 38 Sex: M Citation Issued: N
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: TRAF CNTRL DEV IMPROPER/NON-WRKing, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3005 State of Registration: NY

SAME

Accident Location Information System (ALIS)

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8737 VDR Ronkonkoma Ave from 9th St to Easton St, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

County: Suffolk Muni: Brookhaven(T) Ref. Marker: 495 07031178 Street: LONG ISLAND EXPY

***** CONTINUED

Veh :1 CAR/VAN/PICKUP Registered Weight: 6500 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 39 Sex: M Citation Issued: N
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: TIRE FAILURE/INADEQUATE, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE

AT INTERSECTION WITH 9TH ST

10/29/2010 Fri 17:01 PM Persons Killed: 0 Persons Injured: 3 Extent of Injuries: BBB **Case: 2010-33669030**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
 Manner of Collision: RIGHT ANGLE Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT/ GRADE Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 2549 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 27 Sex: M Citation Issued: N
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: MAKING LEFT TURN
 Apparent Factors: UNKNOWN, FAILURE TO YIELD RIGHT OF WAY

Veh :1 CAR/VAN/PICKUP Registered Weight: 3076 State of Registration: NY
 Num of Occupants: 2 Driver's Age: 63 Sex: F Citation Issued: N
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: NOT APPLICABLE, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR N

AT INTERSECTION WITH RONKONKOMA AVE

3/12/2010 Fri 20:48 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2010-33758588**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
 Manner of Collision: RIGHT TURN (WITH OTHER CAR) Weather: RAIN
 Road Surface Condition: WET Road Char.: STRAIGHT/ GRADE Light Condition: DARK-ROAD LIGHTED
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

SAME

Veh :2	OTHER	Registered Weight:	State of Registration: NJ	
	Num of Occupants: 2	Driver's Age: 23	Sex: F	Citation Issued: N
	Direction of Travel: SOUTH-WEST	Public Property Damage: N	School Bus Involved: N	
	Pre-Accd Action: MAKING RIGHT TURN			
	Apparent Factors: TURNING IMPROPER, FAILURE TO YIELD RIGHT OF WAY			
Veh :1	CAR/VAN/PICKUP	Registered Weight: 4076	State of Registration: NY	
	Num of Occupants: 2	Driver's Age: 41	Sex: M	Citation Issued: Y
	Direction of Travel: WEST	Public Property Damage: N	School Bus Involved: N	
	Pre-Accd Action: GOING STRAIGHT AHEAD			
	Apparent Factors: UNKNOWN, UNKNOWN			

Accident Location Information System (ALIS)

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8737 VDR Ronkonkoma Ave from 9th St to Easton St, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR N
AT INTERSECTION WITH RONKONKOMA AVE

3/13/2010 Sat 20:00 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2010-33758615**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: RIGHT ANGLE Weather: RAIN
 Road Surface Condition: WET Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3505 State of Registration: NY **SAME**
 Num of Occupants: 2 Driver's Age: 53 Sex: F Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, TRAF CNTRL DEV IMPROPER/NON-WRKing

Veh :1 CAR/VAN/PICKUP Registered Weight: 4053 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 57 Sex: M Citation Issued: N
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, TRAF CNTRL DEV IMPROPER/NON-WRKing

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE

11/29/2010 Mon 17:25 PM Persons Killed: 0 Persons Injured: 2 Extent of Injuries: CC **Case: 2010-33702006**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 4
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
 Manner of Collision: OTHER Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT/ GRADE Light Condition: DARK-ROAD UNLIGHTED
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :4 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
 Num of Occupants: 1 Driver's Age: 48 Sex: M Citation Issued: Y
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: ILLNESS, FOLLOWING TOO CLOSELY

Veh :3 CAR/VAN/PICKUP Registered Weight: State of Registration: NY

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County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE

***** CONTINUED

Veh :2 CAR/VAN/PICKUP Registered Weight: 4540 State of Registration: NY
 Num of Occupants: 2 Driver's Age: 63 Sex: M Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: SLOWED OR STOPPING
 Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: STATE RTE 906B

AT INTERSECTION WITH RONKONKOMA AVE

12/22/2010 Wed 10:20 AM Persons Killed: 0 Persons Injured: 4 Extent of Injuries: CCCC **Case: 2010-33764160**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: REAR END Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3846 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 28 Sex: M Citation Issued: N **SAME**
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: SLOWED OR STOPPING
 Apparent Factors: FOLLOWING TOO CLOSELY, DRIVER INATTENTION

Veh :1 CAR/VAN/PICKUP Registered Weight: 2623 State of Registration: NY
 Num of Occupants: 5 Driver's Age: 69 Sex: F Citation Issued: N
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: STOPPED IN TRAFFIC
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: 495 07031178 Street: I 495

2/27/2011 Sun 02:30 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2011-33787033**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 1
 Type Of Accident: COLLISION WITH GUIDE RAIL Traffic Control: NONE **1-F/O**
 Manner of Collision: OTHER Weather: CLOUDY
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE **PDO**

Veh :1 CAR/VAN/PICKUP Registered Weight: 3222 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 38 Sex: M Citation Issued: N
 Direction of Travel: WEST Public Property Damage: Y School Bus Involved: N
 Pre-Accd Action: UNKNOWN
 Apparent Factors: UNSAFE SPEED, NOT APPLICABLE

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE
 AT INTERSECTION WITH EXPRESS DR N

4/20/2010 Tue 09:15 AM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2010-33815610**
 Accident Class: INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: REAR END Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

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County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE

***** CONTINUED

Veh :1 CAR/VAN/PICKUP Registered Weight: 3411 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 47 Sex: F Citation Issued: N
 Direction of Travel: SOUTH-WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: MAKING RIGHT TURN
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :2 CAR/VAN/PICKUP Registered Weight: 3536 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 47 Sex: M Citation Issued: N
 Direction of Travel: SOUTH-WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: MAKING RIGHT TURN
 Apparent Factors: UNKNOWN, FOLLOWING TOO CLOSELY

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE

AT INTERSECTION WITH EXPRESS DR N

4/13/2010 Tue Persons Killed: Persons Injured: Extent of Injuries: **Case: 2010-33838392**
 Accident Class: Police Agency: Num of Veh: **SAME**
 Type Of Accident: Traffic Control:
 Manner of Collision: Weather:
 Road Surface Condition: Road Char.: Light Condition:
 Loc. of Ped/Bicycle: Action of Ped/Bicycle:

Veh : Registered Weight: State of Registration:
 Num of Occupants: Driver's Age: Sex: Citation Issued:
 Direction of Travel: Public Property Damage: School Bus Involved:
 Pre-Accd Action:

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: NW LINK

AT INTERSECTION WITH RONKONKOMA AVE

5/24/2010 Mon 19:08 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: A **Case: 2010-33839885**
 Accident Class: INJURY Police Agency: Num of Veh: 1
 Type Of Accident: COLLISION WITH CURBING Traffic Control: NONE **3-F/O**
 Manner of Collision: OTHER Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT **INJ**
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1	MOTORCYCLE	Registered Weight:	State of Registration: NY
	Num of Occupants: 1	Driver's Age: 19	Sex: M Citation Issued: Y
	Direction of Travel: NORTH	Public Property Damage: N	School Bus Involved: N
	Pre-Accd Action: GOING STRAIGHT AHEAD		
	Apparent Factors: UNKNOWN, DRIVER INEXPERIENCE		
County: Suffolk	Muni: Brookhaven(T)	Ref. Marker: Street: RONKONKOMA AVE	
2/14/2011	Mon 13:00 PM	Persons Killed: 0	Persons Injured: 0
	Accident Class: PROPERTY DAMAGE	Extent of Injuries:	Case: 2011-33836893
	Type Of Accident: COLLISION WITH MOTOR VEHICLE	Police Agency:	Num of Veh: 2
	Manner of Collision: REAR END	Traffic Control: TRAFFIC SIGNAL	
	Road Surface Condition: DRY	Weather: CLEAR	
	Loc. of Ped/Bicycle: NOT APPLICABLE	Road Char.: STRAIGHT AND LEVEL	Light Condition: UNKNOWN
		Action of Ped/Bicycle: NOT APPLICABLE	

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***** CONTINUED

Veh :1 CAR/VAN/PICKUP Registered Weight: 3800 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 53 Sex: M Citation Issued: N
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: STOPPED IN TRAFFIC
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
 Num of Occupants: 1 Driver's Age: 37 Sex: F Citation Issued: N
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: UNKNOWN
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: LONG ISLAND EXPRESSWAY SERVICE RD
 AT INTERSECTION WITH RONKONKOMA AVE

2/5/2011 Sat 07:15 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2011-33813539**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: RIGHT ANGLE Weather: CLOUDY
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 2698 State of Registration: NY **SAME**
 Num of Occupants: 1 Driver's Age: 25 Sex: F Citation Issued: N
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: NOT APPLICABLE, DRIVER INATTENTION

Veh :1 CAR/VAN/PICKUP Registered Weight: 4252 State of Registration: NY
 Num of Occupants: 2 Driver's Age: 49 Sex: M Citation Issued: Y
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE
 AT INTERSECTION WITH EXPRESS DR N

6/2/2010 Wed 07:55 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2010-33863351**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: REAR END Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

SAME

Veh :2 OTHER Registered Weight: State of Registration:
 Num of Occupants: 0 Driver's Age: Sex: Citation Issued:
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, FOLLOWING TOO CLOSELY

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***** CONTINUED

Veh :1 CAR/VAN/PICKUP Registered Weight: 4431 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 49 Sex: F Citation Issued: N
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, NOT APPLICABLE

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE

AT INTERSECTION WITH 5TH ST

6/3/2010 Thu 13:05 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2010-33863506**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
 Manner of Collision: OVERTAKING Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT/ GRADE Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3182 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 29 Sex: F Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

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Veh :2 TRUCK Registered Weight: State of Registration: NJ
 Num of Occupants: 1 Driver's Age: 26 Sex: M Citation Issued: N
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: MAKING LEFT TURN
 Apparent Factors: UNKNOWN, FAILURE TO YIELD RIGHT OF WAY

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE

6/8/2010

Tue 18:26 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2010-33865060**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
 Manner of Collision: OVERTAKING Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2	OTHER	Registered Weight:	State of Registration:	
	Num of Occupants: 0	Driver's Age:	Sex:	Citation Issued:
	Direction of Travel: NORTH	Public Property Damage: N		School Bus Involved: N
	Pre-Accd Action: GOING STRAIGHT AHEAD			
	Apparent Factors: DRIVER INATTENTION, UNKNOWN			
Veh :1	CAR/VAN/PICKUP	Registered Weight: 2249	State of Registration: NY	
	Num of Occupants: 1	Driver's Age: 47	Sex: F	Citation Issued: N
	Direction of Travel: NORTH	Public Property Damage: N		School Bus Involved: N
	Pre-Accd Action: GOING STRAIGHT AHEAD			
	Apparent Factors: UNKNOWN, UNKNOWN			

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33 Meters East of NW Link

6/17/2010 Thu 08:15 AM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: B **Case: 2010-33868828**
 Accident Class: INJURY Police Agency: Num of Veh: 1
 Type Of Accident: COLLISION WITH PEDESTRIAN Traffic Control: NONE
 Manner of Collision: OTHER Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: PED/BICYCLIST NOT AT INTERSECTION Action of Ped/Bicycle: WORKING IN ROADWAY

Veh :1 OTHER Registered Weight: State of Registration:
 Num of Occupants: 0 Driver's Age: Sex: Citation Issued:
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: OTHER
 Apparent Factors: NOT APPLICABLE, UNKNOWN

SAME

Veh :2 PEDESTRIAN Registered Weight: State of Registration:
 Num of Occupants: 1 Driver's Age: 65 Sex: M Citation Issued: N
 Direction of Travel: NOT APPLICABLE Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: NOT APPLICABLE
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE
AT INTERSECTION WITH EXPRESS DR S

4/10/2011 Sun 10:45 AM Persons Killed: 0 Persons Injured: 2 Extent of Injuries: CC **Case: 2011-33876212**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: LEFT TURN (WITH OTHER CAR) Weather: CLOUDY
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3345 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 18 Sex: M Citation Issued: N
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

SAME

Veh :1 CAR/VAN/PICKUP Registered Weight: 3773 State of Registration: NY

Num of Occupants: 1	Driver's Age: 40	Sex: F	Citation Issued: N
Direction of Travel: NORTH	Public Property Damage: N		School Bus Involved: N
Pre-Accd Action: GOING STRAIGHT AHEAD			
Apparent Factors: UNKNOWN, UNKNOWN			

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE
 AT INTERSECTION WITH EXPRESS DR S

7/22/2010	Thu 21:20 PM	Persons Killed: 0	Persons Injured: 0	Extent of Injuries:	Case: 2010-33917865
	Accident Class: PROPERTY DAMAGE			Police Agency:	Num of Veh: 2
	Type Of Accident: COLLISION WITH MOTOR VEHICLE				Traffic Control: TRAFFIC SIGNAL
	Manner of Collision: REAR END				Weather: CLEAR
	Road Surface Condition: DRY	Road Char.: STRAIGHT AND LEVEL			Light Condition: DARK-ROAD LIGHTED
	Loc. of Ped/Bicycle: NOT APPLICABLE				Action of Ped/Bicycle: NOT APPLICABLE

SAME

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Veh :2 OTHER Registered Weight: State of Registration:
 Num of Occupants: 0 Driver's Age: Sex: Citation Issued:
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: MAKING RIGHT TURN
 Apparent Factors: DRIVER INATTENTION, UNKNOWN

Veh :1 CAR/VAN/PICKUP Registered Weight: 3284 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 52 Sex: F Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: STOPPED IN TRAFFIC
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Islip(T) Ref. Marker: Street: SMITHTOWN AVE
7/30/2010 Fri 17:13 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2010-33915480**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
 Manner of Collision: OVERTAKING Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3384 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 25 Sex: M Citation Issued: Y
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 4666 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 53 Sex: F Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: CHANGING LANES
 Apparent Factors: NOT APPLICABLE, DRIVER INATTENTION

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE

AT INTERSECTION WITH BERGEN ST

6/30/2010 Wed 17:35 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2010-33926544**
 Accident Class: INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NO PASSING ZONE
 Manner of Collision: REAR END Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AT HILLCREST Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 4175 State of Registration: NY
 Num of Occupants: 1 Driver's Age: Sex: Citation Issued:
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: FOLLOWING TOO CLOSELY, UNKNOWN

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Veh :1 CAR/VAN/PICKUP Registered Weight: 3786 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 57 Sex: M Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: STOPPED IN TRAFFIC
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: [Route] 495
6/3/2011 Fri 12:47 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2011-33955388**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
 Manner of Collision: REAR END Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

1-RE

Veh :2 OTHER Registered Weight: State of Registration:
 Num of Occupants: 0 Driver's Age: Sex: Citation Issued:
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: UNKNOWN
 Apparent Factors: UNKNOWN, UNKNOWN

PDO

Veh :1 CAR/VAN/PICKUP Registered Weight: 2996 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 85 Sex: F Citation Issued: N
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE
9/17/2010 Fri 18:39 PM Persons Killed: 0 Persons Injured: 2 Extent of Injuries: CC **Case: 2010-33959214**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 3
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: STOP SIGN
 Manner of Collision: OTHER Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 4178 State of Registration: NY

	Num of Occupants: 1	Driver's Age: 45	Sex: M	Citation Issued: N
	Direction of Travel: SOUTH	Public Property Damage: N		School Bus Involved: N
	Pre-Accd Action: STOPPED IN TRAFFIC			
	Apparent Factors: UNKNOWN, UNKNOWN			
Veh :3	CAR/VAN/PICKUP	Registered Weight: 3032		State of Registration: NY
	Num of Occupants: 1	Driver's Age: 25	Sex: M	Citation Issued: N
	Direction of Travel: WEST	Public Property Damage: N		School Bus Involved: N
	Pre-Accd Action: GOING STRAIGHT AHEAD			
	Apparent Factors: DRIVER INATTENTION, UNSAFE SPEED			

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Veh :2 CAR/VAN/PICKUP Registered Weight: 3292 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 48 Sex: F Citation Issued: N
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: STOPPED IN TRAFFIC
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: LONG ISLAND EXPRESSWAY SERVICE RD
 AT INTERSECTION WITH RONKONKOMA AVE

9/17/2010 Fri 15:46 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2010-33970292**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: OVERTAKING Weather: CLOUDY
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3230 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 33 Sex: F Citation Issued: N **SAME**
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :2 OTHER Registered Weight: State of Registration:
 Num of Occupants: 0 Driver's Age: Sex: Citation Issued:
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: CHANGING LANES
 Apparent Factors: DRIVER INATTENTION, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE
 AT INTERSECTION WITH LONG ISLAND EXPRESSWAY SERVICE RD

9/14/2010 Tue 12:40 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2010-33975824**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: UNKNOWN Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT/ GRADE Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE **SAME**

Veh :2	OTHER	Registered Weight:	State of Registration:
	Num of Occupants: 0	Driver's Age:	Sex: Citation Issued:
	Direction of Travel: SOUTH	Public Property Damage: N	School Bus Involved: N
	Pre-Accd Action: SLOWED OR STOPPING		
	Apparent Factors: UNKNOWN, UNKNOWN		
Veh :1	CAR/VAN/PICKUP	Registered Weight: 2930	State of Registration: NY
	Num of Occupants: 1	Driver's Age: 32	Sex: F Citation Issued: N
	Direction of Travel: SOUTH	Public Property Damage: N	School Bus Involved: N
	Pre-Accd Action: STOPPED IN TRAFFIC		
	Apparent Factors: UNKNOWN, NOT APPLICABLE		

Accident Location Information System (ALIS)

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8737 VDR Ronkonkoma Ave from 9th St to Easton St, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE
AT INTERSECTION WITH EXPRESS DR N

10/1/2010 Fri 16:20 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2010-33993901**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL **SAME**
 Manner of Collision: LEFT TURN (AGAINST OTHER CAR) Weather: RAIN
 Road Surface Condition: WET Road Char.: STRAIGHT/ GRADE Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
 Num of Occupants: 1 Driver's Age: 57 Sex: F Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :2 CAR/VAN/PICKUP Registered Weight: 3448 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 22 Sex: M Citation Issued: N
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: MAKING LEFT TURN
 Apparent Factors: FAILURE TO YIELD RIGHT OF WAY, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE
AT INTERSECTION WITH EXPRESS DR S

10/28/2010 Thu 16:15 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2010-34056716**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: REAR END Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 5444 State of Registration: NY **SAME**
 Num of Occupants: 1 Driver's Age: 36 Sex: M Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: MAKING RIGHT TURN
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :2 CAR/VAN/PICKUP Registered Weight: 3137 State of Registration: NY

Num of Occupants: 1	Driver's Age: 37	Sex: M	Citation Issued: N
Direction of Travel: NORTH	Public Property Damage: N		School Bus Involved: N
Pre-Accd Action: MAKING RIGHT TURN			
Apparent Factors: FOLLOWING TOO CLOSELY, UNKNOWN			

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR N
 AT INTERSECTION WITH RONKONKOMA AVE

9/15/2011	Thu 02:24 AM	Persons Killed: 0	Persons Injured: 0	Extent of Injuries:	Case: 2011-34063072
Accident Class: PROPERTY DAMAGE				Police Agency:	Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE				Traffic Control: TRAFFIC SIGNAL	
Manner of Collision: RIGHT ANGLE				Weather: CLEAR	
Road Surface Condition: DRY		Road Char.: STRAIGHT AND LEVEL		Light Condition: DARK-ROAD LIGHTED	
Loc. of Ped/Bicycle: NOT APPLICABLE			Action of Ped/Bicycle: NOT APPLICABLE		

SAME

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8737 VDR Ronkonkoma Ave from 9th St to Easton St, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR N

***** CONTINUED

Veh :1 CAR/VAN/PICKUP Registered Weight: 3872 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 30 Sex: F Citation Issued: N
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 2964 State of Registration: NY
 Num of Occupants: 3 Driver's Age: 23 Sex: M Citation Issued: N
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, NOT APPLICABLE

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE

AT INTERSECTION WITH 9TH ST

11/3/2010 Wed 13:25 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2010-34068586**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 3
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
 Manner of Collision: OTHER Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :3 TRUCK Registered Weight: 19500 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 34 Sex: M Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNSAFE SPEED, FOLLOWING TOO CLOSELY

Veh :2 CAR/VAN/PICKUP Registered Weight: 3807 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 30 Sex: F Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: STOPPED IN TRAFFIC
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :1 CAR/VAN/PICKUP Registered Weight: 4063 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 28 Sex: F Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: MAKING LEFT TURN
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE
 AT INTERSECTION WITH 5TH ST

10/13/2011 Thu Persons Killed: 0 Persons Injured: 1 Extent of Injuries: A **Case: 2011-34091660**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
 Manner of Collision: REAR END Weather: RAIN
 Road Surface Condition: WET Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

14-OT
 INJ

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County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE

***** CONTINUED

Veh :1 CAR/VAN/PICKUP Registered Weight: 3285 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 43 Sex: M Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :2 CAR/VAN/PICKUP Registered Weight: 2895 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 31 Sex: M Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: CHANGING LANES
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR N
 AT INTERSECTION WITH RONKONKOMA AVE

9/29/2011 Thu Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2011-34086506**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: RIGHT ANGLE Weather: CLOUDY
 Road Surface Condition: DRY Road Char.: STRAIGHT/ GRADE Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 4334 State of Registration: NY **SAME**
 Num of Occupants: 1 Driver's Age: 51 Sex: F Citation Issued: N
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :2 CAR/VAN/PICKUP Registered Weight: 4036 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 57 Sex: M Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, TRAFFIC CONTROL DEVICES DISREGARDED

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE
 AT INTERSECTION WITH EXPRESS DR N

9/23/2011 Fri 15:45 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2011-34090231**
 Accident Class: INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: REAR END Weather: UNKNOWN
 Road Surface Condition: UNKNOWN Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3540 State of Registration: NY **SAME**
 Num of Occupants: 1 Driver's Age: 43 Sex: M Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: STOPPED IN TRAFFIC
 Apparent Factors: UNKNOWN, UNKNOWN

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County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE

***** CONTINUED

Veh :2 CAR/VAN/PICKUP Registered Weight: 2519 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 47 Sex: M Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR S
 AT INTERSECTION WITH RONKONKOMA AVE

10/24/2011 Mon 17:30 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2011-34095792**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: RIGHT TURN (AGAINST OTHER CAR) Weather: CLOUDY
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3174 State of Registration: NY **SAME**
 Num of Occupants: 1 Driver's Age: 72 Sex: F Citation Issued: N
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: MAKING RIGHT TURN
 Apparent Factors: PASSING OR LANE USAGE IMPROPERLY, TURNING IMPROPER

Veh :1 CAR/VAN/PICKUP Registered Weight: 2904 State of Registration: NY
 Num of Occupants: 2 Driver's Age: 45 Sex: F Citation Issued: N
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR S
 AT INTERSECTION WITH RONKONKOMA AVE

10/20/2011 Thu 04:30 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2011-34096407**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: RIGHT ANGLE Weather: CLOUDY **SAME**
 Road Surface Condition: WET Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1	CAR/VAN/PICKUP	Registered Weight: 3805	State of Registration: NY
	Num of Occupants: 1	Driver's Age: 50	Sex: M Citation Issued: N
	Direction of Travel: SOUTH	Public Property Damage: N	School Bus Involved: N
	Pre-Accd Action: GOING STRAIGHT AHEAD		
	Apparent Factors: UNKNOWN, TRAFFIC CONTROL DEVICES DISREGARDED		
Veh :2	CAR/VAN/PICKUP	Registered Weight: 3853	State of Registration: NY
	Num of Occupants: 1	Driver's Age: 56	Sex: M Citation Issued: N
	Direction of Travel: EAST	Public Property Damage: N	School Bus Involved: N
	Pre-Accd Action: GOING STRAIGHT AHEAD		
	Apparent Factors: TRAFFIC CONTROL DEVICES DISREGARDED, UNKNOWN		

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8737 VDR Ronkonkoma Ave from 9th St to Easton St, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE
5 Meters South of NW Link

12/11/2010 Sat 07:45 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2010-34129507**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 1
 Type Of Accident: COLLISION WITH CURBING Traffic Control: NONE
 Manner of Collision: OTHER Weather: CLEAR
 Road Surface Condition: SNOW/ICE Road Char.: STRAIGHT AT HILLCREST Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

3-F/O

PDO

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NJ
 Num of Occupants: 1 Driver's Age: 30 Sex: M Citation Issued: N
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: PAVEMENT SLIPPERY, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE

11/29/2010 Mon Persons Killed: Persons Injured: Extent of Injuries: **Case: 2010-34135873**
 Accident Class: Police Agency: Num of Veh:
 Type Of Accident: Traffic Control:
 Manner of Collision: Weather:
 Road Surface Condition: Road Char.: Light Condition:
 Loc. of Ped/Bicycle: Action of Ped/Bicycle:

Veh : Registered Weight: State of Registration:
 Num of Occupants: Driver's Age: Sex: Citation Issued:
 Direction of Travel: Public Property Damage: School Bus Involved:
 Pre-Accd Action:

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR N
AT INTERSECTION WITH RONKONKOMA AVE

10/27/2011 Thu 06:21 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2011-34120414**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: REAR END Weather: RAIN
 Road Surface Condition: WET Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

SAME

Veh :2 CAR/VAN/PICKUP Registered Weight: 3358 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 47 Sex: M Citation Issued: N

Direction of Travel: WEST
Pre-Accd Action: SLOWED OR STOPPING
Apparent Factors: UNKNOWN, UNKNOWN

Public Property Damage: N

School Bus Involved: N

Veh :1

CAR/VAN/PICKUP
Num of Occupants: 1
Direction of Travel: WEST
Pre-Accd Action: SLOWED OR STOPPING
Apparent Factors: UNKNOWN, UNKNOWN

Registered Weight: 2623
Driver's Age: 17
Public Property Damage: N

State of Registration: NY
Sex: M
Citation Issued: N
School Bus Involved: N

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8737 VDR Ronkonkoma Ave from 9th St to Easton St, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE

AT INTERSECTION WITH EXPRESS DR S

1/19/2011 Wed 18:50 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2011-34166027**
 Accident Class: INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: UNKNOWN Weather: CLOUDY
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED **SAME**
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 2842 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 33 Sex: M Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :2 CAR/VAN/PICKUP Registered Weight: 4260 State of Registration: NY
 Num of Occupants: 2 Driver's Age: 30 Sex: F Citation Issued: Y
 Direction of Travel: SOUTH-EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: MAKING LEFT TURN
 Apparent Factors: FAILURE TO YIELD RIGHT OF WAY, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE

AT INTERSECTION WITH 4TH ST

1/10/2011 Mon 12:10 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2011-34175153**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: UNKNOWN
 Manner of Collision: OVERTAKING Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY **14-OT**
 Num of Occupants: 1 Driver's Age: 44 Sex: M Citation Issued: N
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N **PDO**
 Pre-Accd Action: CHANGING LANES
 Apparent Factors: UNSAFE LANE CHANGE, UNKNOWN

Veh :1 CAR/VAN/PICKUP Registered Weight: 2549 State of Registration: NY

Num of Occupants: 1

Driver's Age: 24

Sex: M

Citation Issued: N

Direction of Travel: SOUTH

Public Property Damage: N

School Bus Involved: N

Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: [Route] 29
AT INTERSECTION WITH LONG ISLAND EXPRESSWAY SERVICE RD

1/15/2011

Sat 16:00 PM

Persons Killed: 0

Persons Injured: 0

Extent of Injuries:

Case: 2011-34177287

Accident Class: PROPERTY DAMAGE

Police Agency:

Num of Veh: 2

Type Of Accident: COLLISION WITH MOTOR VEHICLE

Traffic Control: TRAFFIC SIGNAL

Manner of Collision: REAR END

Weather: CLOUDY

Road Surface Condition: SLUSH

Road Char.: STRAIGHT AND LEVEL

Light Condition: DAYLIGHT

Loc. of Ped/Bicycle: NOT APPLICABLE

Action of Ped/Bicycle: NOT APPLICABLE

SAME

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County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: [Route] 29

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Veh :2 CAR/VAN/PICKUP Registered Weight: 2884 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 23 Sex: F Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: PAVEMENT SLIPPERY, FOLLOWING TOO CLOSELY

Veh :1 CAR/VAN/PICKUP Registered Weight: 2800 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 24 Sex: M Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE

2/2/2011 Wed 00:50 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2011-34213176**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
 Manner of Collision: UNKNOWN Weather: SLEET/HAIL/FREEZING RAIN
 Road Surface Condition: SNOW/ICE Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3350 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 27 Sex: M Citation Issued: N
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: STARTING IN TRAFFIC
 Apparent Factors: PAVEMENT SLIPPERY, VIEW OBSTRUCTED/LIMITED

Veh :1 CAR/VAN/PICKUP Registered Weight: 4379 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 46 Sex: M Citation Issued: N
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, NOT APPLICABLE

County: Suffolk Muni: Islip(T) Ref. Marker: Street: EASTON ST

2/24/2011 Thu 06:35 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2011-34230362**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: YIELD SIGN
 Manner of Collision: REAR END Weather: CLEAR
 Road Surface Condition: DRY Road Char.: CURVE AND GRADE Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
 Num of Occupants: 1 Driver's Age: 26 Sex: F Citation Issued: N
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: DRIVER INATTENTION, UNKNOWN

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County: Suffolk Muni: Islip(T) Ref. Marker: Street: EASTON ST

***** CONTINUED

Veh :1 CAR/VAN/PICKUP Registered Weight: 2999 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 27 Sex: M Citation Issued: N
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: STOPPED IN TRAFFIC
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR S
 AT INTERSECTION WITH RONKONKOMA AVE

3/21/2011 Mon 14:25 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2011-34258038**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
 Manner of Collision: REAR END Weather: RAIN
 Road Surface Condition: WET Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 9001 State of Registration: NY **SAME**
 Num of Occupants: 1 Driver's Age: 36 Sex: M Citation Issued: N
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: REACTION TO OTHER UNINVOLVED VEHICL, UNKNOWN

Veh :2 CAR/VAN/PICKUP Registered Weight: 3043 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 73 Sex: M Citation Issued: N
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: REACTION TO OTHER UNINVOLVED VEHICL, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE
 AT INTERSECTION WITH LIBERTY ST

1/25/2012 Wed Persons Killed: 0 Persons Injured: 1 Extent of Injuries: A **Case: 2012-34253188**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: UNKNOWN
 Manner of Collision: REAR END Weather: UNKNOWN
 Road Surface Condition: UNKNOWN Road Char.: UNKNOWN Light Condition: UNKNOWN
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

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Veh :2	OTHER	Registered Weight:		State of Registration:	
	Num of Occupants: 0		Driver's Age:	Sex:	Citation Issued:
	Direction of Travel: UNKNOWN		Public Property Damage: N		School Bus Involved: N
	Pre-Accd Action: GOING STRAIGHT AHEAD				
	Apparent Factors: UNKNOWN, UNKNOWN				
Veh :1	OTHER	Registered Weight:		State of Registration:	
	Num of Occupants: 1		Driver's Age: 52	Sex: M	Citation Issued: N
	Direction of Travel: UNKNOWN		Public Property Damage: N		School Bus Involved: N
	Pre-Accd Action: STOPPED IN TRAFFIC				
	Apparent Factors: UNKNOWN, UNKNOWN				

Accident Location Information System (ALIS)

Date: 01/08/13

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8737 VDR Ronkonkoma Ave from 9th St to Easton St, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE

AT INTERSECTION WITH EXPRESS DR S

3/31/2011 Thu 07:49 AM Persons Killed: 0 Persons Injured: 2 Extent of Injuries: CC **Case: 2011-34269260**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: RIGHT ANGLE Weather: CLOUDY
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
 Num of Occupants: 1 Driver's Age: 46 Sex: M Citation Issued: N **SAME**
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :2 CAR/VAN/PICKUP Registered Weight: 3179 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 33 Sex: F Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: TRAFFIC CONTROL DEVICES DISREGARDED, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR N

AT INTERSECTION WITH RONKONKOMA AVE

5/26/2011 Thu 01:00 AM Persons Killed: 0 Persons Injured: 2 Extent of Injuries: BC **Case: 2011-34287440**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: RIGHT ANGLE Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT/ GRADE Light Condition: DARK-ROAD LIGHTED
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3846 State of Registration: NY **SAME**
 Num of Occupants: 1 Driver's Age: 42 Sex: M Citation Issued: N
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :1 CAR/VAN/PICKUP Registered Weight: 4740 State of Registration: NY

Num of Occupants: 1	Driver's Age: 32	Sex: F	Citation Issued: N
Direction of Travel: NORTH	Public Property Damage: N		School Bus Involved: N
Pre-Accd Action: GOING STRAIGHT AHEAD			
Apparent Factors: UNKNOWN, UNKNOWN			

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE
 AT INTERSECTION WITH 5TH ST

12/9/2009	Wed 18:52 PM	Persons Killed: 0	Persons Injured: 0	Extent of Injuries:	Case: 2009-NR2981677
	Accident Class: NON-REPORTABLE			Police Agency:	Num of Veh: 2
	Type Of Accident: COLLISION WITH MOTOR VEHICLE				Traffic Control: NONE
	Manner of Collision: REAR END				Weather: RAIN
	Road Surface Condition: WET	Road Char.:		Light Condition: DARK-ROAD LIGHTED	
	Loc. of Ped/Bicycle: INVALID CODE			Action of Ped/Bicycle:	

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8737 VDR Ronkonkoma Ave from 9th St to Easton St, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE

***** CONTINUED

Veh :1 OTHER Registered Weight: State of Registration:
 Num of Occupants: Driver's Age: Sex: Citation Issued:
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: X
 Pre-Accd Action: SLOWED OR STOPPING
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :2 OTHER Registered Weight: State of Registration:
 Num of Occupants: Driver's Age: Sex: Citation Issued:
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: X
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: FOLLOWING TOO CLOSELY, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE

AT INTERSECTION WITH EXPRESS DR S

11/20/2009 Fri 12:00 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2009-NR2918693**
 Accident Class: NON-REPORTABLE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: REAR END Weather: CLEAR
 Road Surface Condition: DRY Road Char.: Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: INVALID CODE Action of Ped/Bicycle: **SAME**

Veh :1 OTHER Registered Weight: State of Registration:
 Num of Occupants: Driver's Age: Sex: Citation Issued:
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: X
 Pre-Accd Action: STOPPED IN TRAFFIC
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :2 OTHER Registered Weight: State of Registration:
 Num of Occupants: Driver's Age: Sex: Citation Issued:
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: X
 Pre-Accd Action: STOPPED IN TRAFFIC
 Apparent Factors: UNKNOWN, FOLLOWING TOO CLOSELY

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE
AT INTERSECTION WITH EXPRESS DR S

2/5/2010 Fri 11:40 AM Persons Killed: 0 Persons Injured: 0
Accident Class: NON-REPORTABLE
Type Of Accident: COLLISION WITH MOTOR VEHICLE
Manner of Collision: REAR END
Road Surface Condition: DRY
Loc. of Ped/Bicycle: INVALID CODE

Extent of Injuries: **Case: 2010-NR3010234**
Police Agency: Num of Veh: 2
Traffic Control: TRAFFIC SIGNAL
Weather: CLOUDY
Light Condition: DAYLIGHT
Action of Ped/Bicycle:

SAME

Veh :1 OTHER Registered Weight:
Num of Occupants:
Direction of Travel: NORTH
Pre-Accd Action: STOPPED IN TRAFFIC
Apparent Factors: UNKNOWN, UNKNOWN

Driver's Age:
Public Property Damage: N

State of Registration:
Sex: Citation Issued:
School Bus Involved: X

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8737 VDR Ronkonkoma Ave from 9th St to Easton St, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE

***** CONTINUED

Veh :2 OTHER Registered Weight: State of Registration:
 Num of Occupants: Driver's Age: Sex: Citation Issued:
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: X
 Pre-Accd Action: STARTING IN TRAFFIC
 Apparent Factors: FOLLOWING TOO CLOSELY, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE

AT INTERSECTION WITH EXPRESS DR N

4/29/2011 Fri 18:35 PM Persons Killed: 0 Persons Injured: 2 Extent of Injuries: CC **Case: 2011-34299912**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: REAR END Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT/ GRADE Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 2418 State of Registration: NY **SAME**
 Num of Occupants: 2 Driver's Age: 51 Sex: F Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, FOLLOWING TOO CLOSELY

Veh :1 CAR/VAN/PICKUP Registered Weight: 3274 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 46 Sex: F Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: STOPPED IN TRAFFIC
 Apparent Factors: UNKNOWN, NOT APPLICABLE

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR S

AT INTERSECTION WITH RONKONKOMA AVE

8/16/2011 Tue 17:12 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2011-34330998**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 3 **SAME**
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: OTHER Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1	CAR/VAN/PICKUP	Registered Weight: 2700	State of Registration: NY
	Num of Occupants: 1	Driver's Age: 24	Sex: F Citation Issued: N
	Direction of Travel: EAST	Public Property Damage: N	School Bus Involved: N
	Pre-Accd Action: STOPPED IN TRAFFIC		
	Apparent Factors: UNKNOWN, UNKNOWN		
Veh :2	CAR/VAN/PICKUP	Registered Weight: 3825	State of Registration: NY
	Num of Occupants: 1	Driver's Age: 36	Sex: M Citation Issued: N
	Direction of Travel: EAST	Public Property Damage: N	School Bus Involved: N
	Pre-Accd Action: SLOWED OR STOPPING		
	Apparent Factors: UNKNOWN, FOLLOWING TOO CLOSELY		

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8737 VDR Ronkonkoma Ave from 9th St to Easton St, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR S

***** CONTINUED

Veh :3 CAR/VAN/PICKUP Registered Weight: 3489 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 26 Sex: F Citation Issued: N
 Direction of Travel: UNKNOWN Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: UNKNOWN
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE

AT INTERSECTION WITH EXPRESS DR N

10/27/2011 Thu 19:00 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2011-34387406**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: RIGHT ANGLE Weather: RAIN
 Road Surface Condition: WET Road Char.: STRAIGHT/ GRADE Light Condition: DARK-ROAD LIGHTED
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3101 State of Registration: NY **SAME**
 Num of Occupants: 2 Driver's Age: 26 Sex: F Citation Issued: N
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: TRAFFIC CONTROL DEVICES DISREGARDED, UNKNOWN

Veh :1 CAR/VAN/PICKUP Registered Weight: 4829 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 38 Sex: M Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: MAKING LEFT TURN
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR N

AT INTERSECTION WITH RONKONKOMA AVE

9/24/2011 Sat Persons Killed: Persons Injured: Extent of Injuries: **Case: 2011-34394448**
 Accident Class: Police Agency: Num of Veh:
 Type Of Accident: Traffic Control:
 Manner of Collision: Weather:
 Road Surface Condition: Road Char.: Light Condition: **SAME**
 Loc. of Ped/Bicycle: Action of Ped/Bicycle:

Veh :	Registered Weight:	State of Registration:
	Num of Occupants:	Driver's Age:
	Direction of Travel:	Public Property Damage:
	Pre-Accd Action:	
		Sex:
		Citation Issued:
		School Bus Involved:

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE
 AT INTERSECTION WITH 4TH ST

10/4/2011	Tue 15:37 PM	Persons Killed: 0	Persons Injured: 1	Extent of Injuries: C	Case: 2011-34398269
	Accident Class: PROPERTY DAMAGE AND INJURY			Police Agency:	Num of Veh: 2
	Type Of Accident: COLLISION WITH MOTOR VEHICLE			Weather: RAIN	Traffic Control: NONE
	Manner of Collision: UNKNOWN			Light Condition: DAYLIGHT	
	Road Surface Condition: WET	Road Char.: STRAIGHT AND LEVEL		Action of Ped/Bicycle: NOT APPLICABLE	
	Loc. of Ped/Bicycle: NOT APPLICABLE				

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8737 VDR Ronkonkoma Ave from 9th St to Easton St, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE

***** CONTINUED

Veh :2 CAR/VAN/PICKUP Registered Weight: 3819 State of Registration: NY
 Num of Occupants: 2 Driver's Age: 20 Sex: M Citation Issued: N
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: MAKING U TURN
 Apparent Factors: DRIVER INEXPERIENCE, UNKNOWN

Veh :1 CAR/VAN/PICKUP Registered Weight: 3280 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 35 Sex: M Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR S
 AT INTERSECTION WITH RONKONKOMA AVE

10/26/2011 Wed 16:40 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2011-34381680**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: RIGHT ANGLE Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 6600 State of Registration: NY
 Num of Occupants: 2 Driver's Age: 52 Sex: F Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

SAME

Veh :2 CAR/VAN/PICKUP Registered Weight: 3458 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 43 Sex: F Citation Issued: N
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: MAKING LEFT TURN
 Apparent Factors: FAILURE TO YIELD RIGHT OF WAY, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE
 AT INTERSECTION WITH BERGEN ST

9/7/2011 Wed 18:12 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2011-34408077**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: STOP SIGN
 Manner of Collision: RIGHT ANGLE Weather: RAIN
 Road Surface Condition: WET Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 OTHER Registered Weight: State of Registration: MD
 Num of Occupants: 3 Driver's Age: 58 Sex: M Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

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8737 VDR Ronkonkoma Ave from 9th St to Easton St, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE

***** CONTINUED

Veh :2 CAR/VAN/PICKUP Registered Weight: 3675 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 19 Sex: F Citation Issued: N
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, TRAFFIC CONTROL DEVICES DISREGARDED

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE

AT INTERSECTION WITH EXPRESS DR S

11/3/2011 Thu 19:10 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2011-34383596**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: REAR END Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED **SAME**
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3049 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 63 Sex: F Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3149 State of Registration: NY
 Num of Occupants: 2 Driver's Age: 23 Sex: M Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: STOPPED IN TRAFFIC
 Apparent Factors: DRIVER INATTENTION, NOT APPLICABLE

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: EXPRESS DR S

AT INTERSECTION WITH RONKONKOMA AVE

11/12/2011 Sat 16:55 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2011-34388736**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 1
 Type Of Accident: COLLISION WITH BICYCLIST Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: OTHER Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT/ GRADE Light Condition: DUSK **SAME**
 Loc. of Ped/Bicycle: PED/BICYCLIST AT INTERSECTION Action of Ped/Bicycle: CROSSING

Veh :2	BICYCLE	Registered Weight:	State of Registration:
	Num of Occupants: 1	Driver's Age: 13	Sex: M Citation Issued: N
	Direction of Travel: SOUTH	Public Property Damage: N	School Bus Involved: N
	Pre-Accd Action: GOING STRAIGHT AHEAD		
	Apparent Factors: NOT APPLICABLE, NOT APPLICABLE		
Veh :1	CAR/VAN/PICKUP	Registered Weight: 3443	State of Registration: NY
	Num of Occupants: 3	Driver's Age: 20	Sex: F Citation Issued: N
	Direction of Travel: EAST	Public Property Damage: N	School Bus Involved: N
	Pre-Accd Action: GOING STRAIGHT AHEAD		
	Apparent Factors: FAILURE TO YIELD RIGHT OF WAY, NOT APPLICABLE		

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8737 VDR Ronkonkoma Ave from 9th St to Easton St, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE
AT INTERSECTION WITH EXPRESS DR N

7/20/2010 Tue 07:15 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2010-NR3127468**
 Accident Class: NON-REPORTABLE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: REAR END Weather: CLEAR
 Road Surface Condition: DRY Road Char.: Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: INVALID CODE Action of Ped/Bicycle: **SAME**

Veh :1 OTHER Registered Weight: State of Registration:
 Num of Occupants: Driver's Age: Sex: Citation Issued:
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: X
 Pre-Accd Action: MAKING RIGHT TURN
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :2 OTHER Registered Weight: State of Registration:
 Num of Occupants: Driver's Age: Sex: Citation Issued:
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: X
 Pre-Accd Action: MAKING RIGHT TURN
 Apparent Factors: UNKNOWN, FOLLOWING TOO CLOSELY

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RAILROAD AVE

1/17/2012 Tue 20:40 PM Persons Killed: 0 Persons Injured: 2 Extent of Injuries: AB **Case: 2012-34457219**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: STOP SIGN
 Manner of Collision: LEFT TURN (AGAINST OTHER CAR) Weather: RAIN
 Road Surface Condition: WET Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD UNLIGHTED
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 2187 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 49 Sex: M Citation Issued: N
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: NOT ENTERED, NOT ENTERED

Veh :2 CAR/VAN/PICKUP Registered Weight: 2926 State of Registration: NY

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County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE

***** CONTINUED

Veh :1 CAR/VAN/PICKUP Registered Weight: 4802 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 49 Sex: M Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: STOPPED IN TRAFFIC
 Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3279 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 31 Sex: F Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: SLOWED OR STOPPING
 Apparent Factors: PAVEMENT SLIPPERY, FOLLOWING TOO CLOSELY

Veh :3 CAR/VAN/PICKUP Registered Weight: 4652 State of Registration: NY
 Num of Occupants: 2 Driver's Age: 36 Sex: F Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: STOPPED IN TRAFFIC
 Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

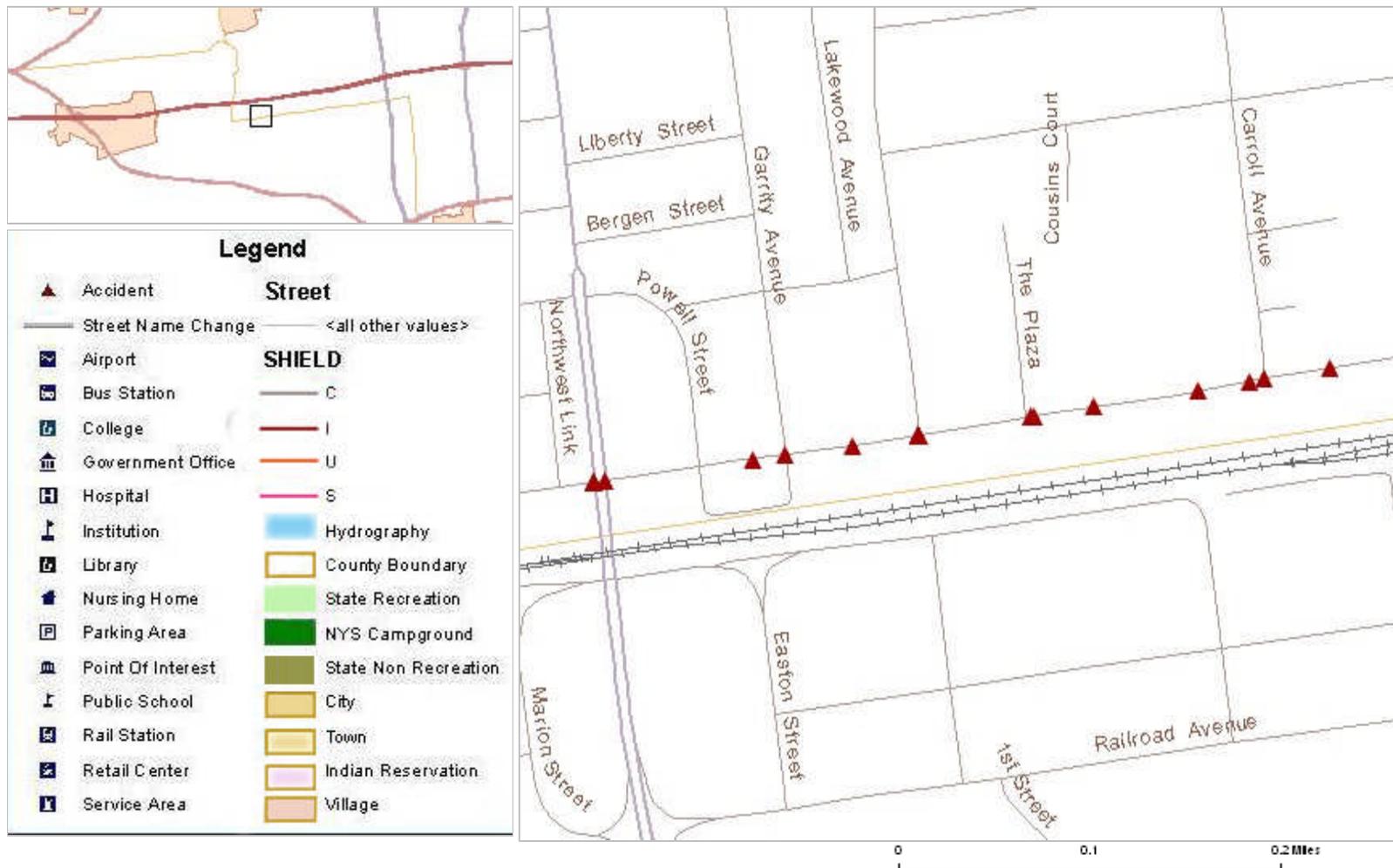
County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE

AT INTERSECTION WITH 9TH ST

1/12/2012 Thu 08:30 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2012-34487688**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 3
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: UNKNOWN
 Manner of Collision: OTHER Weather: RAIN
 Road Surface Condition: WET Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh : Registered Weight: State of Registration:
 Num of Occupants: Driver's Age: Sex: Citation Issued:
 Direction of Travel: Public Property Damage: School Bus Involved:
 Pre-Accd Action:

8737 VDR Railroad Ave from Ronkonkoma Ave to Mill Rd, Suffolk



Accident Location Information System (ALIS)

Date: 01/07/13

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8737 VDR Railroad Ave from Ronkonkoma Ave to Mill Rd, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: HAWKINS AVE

142 Meters South of Union St

4/8/2009

Wed 07:50 AM

Persons Killed: 0

Persons Injured: 1

Extent of Injuries: C

Case: 2009-33018894

Accident Class: INJURY

Police Agency:

Num of Veh: 2

Type Of Accident: COLLISION WITH MOTOR VEHICLE

Traffic Control: STOP SIGN

Manner of Collision: REAR END

Weather: CLEAR

Road Surface Condition: DRY

Road Char.: STRAIGHT AND LEVEL

Light Condition: DAYLIGHT

Loc. of Ped/Bicycle: NOT APPLICABLE

Action of Ped/Bicycle: NOT APPLICABLE

Veh :1

CAR/VAN/PICKUP

Registered Weight: 3072

State of Registration: NY

Num of Occupants: 1

Driver's Age: 35

Sex: F

Citation Issued: N

Direction of Travel: SOUTH

Public Property Damage: N

School Bus Involved: N

Pre-Accd Action: SLOWED OR STOPPING

Apparent Factors: UNKNOWN, UNKNOWN

Veh :2

CAR/VAN/PICKUP

Registered Weight: 3636

State of Registration: NY

Num of Occupants: 1

Driver's Age: 65

Sex: M

Citation Issued: N

Direction of Travel: SOUTH

Public Property Damage: N

School Bus Involved: N

Pre-Accd Action: SLOWED OR STOPPING

Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RAILROAD AVE

122 Meters East of Parking Lot

6/5/2009

Fri 10:20 AM

Persons Killed: 0

Persons Injured: 0

Extent of Injuries:

Case: 2009-33166429

Accident Class: PROPERTY DAMAGE

Police Agency:

Num of Veh: 2

Type Of Accident: COLLISION WITH MOTOR VEHICLE

Traffic Control: UNKNOWN

Manner of Collision: UNKNOWN

Weather: UNKNOWN

Road Surface Condition: UNKNOWN

Road Char.: UNKNOWN

Light Condition: UNKNOWN

Loc. of Ped/Bicycle: NOT APPLICABLE

Action of Ped/Bicycle: NOT APPLICABLE

Veh :1

CAR/VAN/PICKUP

Registered Weight: 3039

State of Registration: NY

Num of Occupants: 2

Driver's Age: 38

Sex: M

Citation Issued: N

Direction of Travel: UNKNOWN

Public Property Damage: N

School Bus Involved: N

Pre-Accd Action: UNKNOWN

Apparent Factors: UNKNOWN, UNKNOWN

Veh :2

CAR/VAN/PICKUP

Registered Weight: 2801

State of Registration: NY

same as
other

SAME

Num of Occupants: 1	Driver's Age: 18	Sex: M	Citation Issued: N
Direction of Travel: UNKNOWN	Public Property Damage: N		School Bus Involved: N
Pre-Accd Action: UNKNOWN			
Apparent Factors: UNKNOWN, UNKNOWN			

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RAILROAD AVE
 61 Meters East of Carroll Ave

5/20/2009	Wed	Persons Killed: 0	Persons Injured: 0	Extent of Injuries:	Case: 2009-33278807
		Accident Class: PROPERTY DAMAGE		Police Agency:	Num of Veh: 2
		Type Of Accident: COLLISION WITH MOTOR VEHICLE			Traffic Control: NONE
		Manner of Collision: UNKNOWN		Weather: CLEAR	
		Road Surface Condition: DRY	Road Char.: STRAIGHT AND LEVEL		Light Condition: DAYLIGHT
		Loc. of Ped/Bicycle: NOT APPLICABLE		Action of Ped/Bicycle: NOT APPLICABLE	

22-
 OTHER
 PDO

Accident Location Information System (ALIS)

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8737 VDR Railroad Ave from Ronkonkoma Ave to Mill Rd, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RAILROAD AVE

***** CONTINUED

Veh :2 OTHER Registered Weight: State of Registration:
 Num of Occupants: 0 Driver's Age: Sex: Citation Issued:
 Direction of Travel: UNKNOWN Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: UNKNOWN
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :1 CAR/VAN/PICKUP Registered Weight: 2968 State of Registration: NY
 Num of Occupants: 1 Driver's Age: Sex: Citation Issued:
 Direction of Travel: UNKNOWN Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: PARKED
 Apparent Factors: UNKNOWN, NOT APPLICABLE

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RAILROAD AVE

7 Meters East of The Plz

10/18/2009 Sun 13:35 PM Persons Killed: 0 Persons Injured: 3 Extent of Injuries: CCC **Case: 2009-33223377**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
 Manner of Collision: RIGHT ANGLE Weather: RAIN
 Road Surface Condition: WET Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3926 State of Registration: NY
 Num of Occupants: 2 Driver's Age: 44 Sex: F Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: NOT APPLICABLE, UNKNOWN

20-RA
INJ

Veh :2 CAR/VAN/PICKUP Registered Weight: 2593 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 63 Sex: F Citation Issued: N
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: TRAFFIC CONTROL DEVICES DISREGARDED, FAILURE TO YIELD RIGHT OF WAY

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RAILROAD AVE
 10 Meters East of The Plz

7/8/2009 Wed 09:05 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2009-33372786**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
 Manner of Collision: UNKNOWN Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 4246 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 43 Sex: F Citation Issued: N
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: STARTING FROM PARKING
 Apparent Factors: FAILURE TO YIELD RIGHT OF WAY, UNKNOWN

20-OT

PDO

Accident Location Information System (ALIS)

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8737 VDR Railroad Ave from Ronkonkoma Ave to Mill Rd, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RAILROAD AVE

***** CONTINUED

Veh :1 CAR/VAN/PICKUP Registered Weight: 3804 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 49 Sex: M Citation Issued: N
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, NOT APPLICABLE

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RAILROAD AVE

AT INTERSECTION WITH CARROLL AVE

4/12/2010 Mon Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2010-33428507**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: STOP SIGN
 Manner of Collision: UNKNOWN Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3826 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 61 Sex: F Citation Issued: N
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: MAKING LEFT TURN
 Apparent Factors: UNKNOWN, UNKNOWN

11-LT

PDO

Veh :1 CAR/VAN/PICKUP Registered Weight: 4083 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 46 Sex: M Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: HAWKINS AVE

AT INTERSECTION WITH RAILROAD AVE

7/28/2010 Wed 18:05 PM Persons Killed: 0 Persons Injured: 2 Extent of Injuries: CC **Case: 2010-33538059**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: STOP SIGN
 Manner of Collision: REAR END Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

same as

other

Veh :1	CAR/VAN/PICKUP	Registered Weight: 4448	State of Registration: NY
	Num of Occupants: 3	Driver's Age: 42	Sex: F Citation Issued: N
	Direction of Travel: SOUTH	Public Property Damage: N	School Bus Involved: N
	Pre-Accd Action: STOPPED IN TRAFFIC		
	Apparent Factors: NOT APPLICABLE, NOT APPLICABLE		
Veh :2	CAR/VAN/PICKUP	Registered Weight: 3619	State of Registration: NY
	Num of Occupants: 3	Driver's Age: 31	Sex: M Citation Issued: N
	Direction of Travel: SOUTH	Public Property Damage: N	School Bus Involved: N
	Pre-Accd Action: SLOWED OR STOPPING		
	Apparent Factors: FOLLOWING TOO CLOSELY, NOT APPLICABLE		

Accident Location Information System (ALIS)

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8737 VDR Railroad Ave from Ronkonkoma Ave to Mill Rd, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE
8/21/2010 Sat 12:04 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2010-33615061**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: UNKNOWN
 Manner of Collision: OVERTAKING Weather: CLEAR
 Road Surface Condition: DRY Road Char.: CURVE AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3349 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 60 Sex: F Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :2 CAR/VAN/PICKUP Registered Weight: 4026 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 18 Sex: M Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RAILROAD AVE
 13 Meters West of Carroll Ave
1/24/2010 Sun 06:55 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2010-33637385**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
 Manner of Collision: UNKNOWN Weather: CLOUDY
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 OTHER Registered Weight: State of Registration:
 Num of Occupants: 0 Driver's Age: Sex: Citation Issued:
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :1 CAR/VAN/PICKUP Registered Weight: 3436 State of Registration: NY

11-parked

PDO

Num of Occupants: 1

Driver's Age:

Sex:

Citation Issued:

Direction of Travel: UNKNOWN

Public Property Damage: N

School Bus Involved: N

Pre-Accd Action: PARKED

Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RAILROAD AVE

64 Meters East of The Plz

10/17/2010

Sun 17:30 PM

Persons Killed: 0

Persons Injured: 0

Extent of Injuries:

Case: 2010-33645975

Accident Class: PROPERTY DAMAGE

Police Agency:

Num of Veh: 2

Type Of Accident: COLLISION WITH MOTOR VEHICLE

Traffic Control: NO PASSING ZONE

Manner of Collision: UNKNOWN

Weather: CLEAR

Road Surface Condition: DRY

Road Char.: STRAIGHT AND LEVEL

Light Condition: DAYLIGHT

Loc. of Ped/Bicycle: NOT APPLICABLE

Action of Ped/Bicycle: NOT APPLICABLE

20-OT

PDO

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8737 VDR Railroad Ave from Ronkonkoma Ave to Mill Rd, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RAILROAD AVE

***** CONTINUED

Veh :2 CAR/VAN/PICKUP Registered Weight: 3755 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 87 Sex: M Citation Issued: N
 Direction of Travel: SOUTH-EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: STARTING FROM PARKING
 Apparent Factors: FAILURE TO YIELD RIGHT OF WAY, GLARE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3455 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 57 Sex: F Citation Issued: N
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: NOT APPLICABLE, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RAILROAD AVE

122 Meters East of Parking Lot

3/20/2010 Sat 16:40 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2010-33761982**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: OTHER
 Manner of Collision: RIGHT ANGLE Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 5868 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 46 Sex: F Citation Issued: N **SAME**
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: TRAFFIC CONTROL DEVICES DISREGARDED, UNKNOWN

Veh :1 CAR/VAN/PICKUP Registered Weight: 3985 State of Registration: NY
 Num of Occupants: 3 Driver's Age: 60 Sex: M Citation Issued: N
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE
11/29/2010 Mon 17:25 PM Persons Killed: 0 Persons Injured: 2 Extent of Injuries: CC **Case: 2010-33702006**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 4
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
 Manner of Collision: OTHER Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT/ GRADE Light Condition: DARK-ROAD UNLIGHTED
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :4 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
 Num of Occupants: 1 Driver's Age: 48 Sex: M Citation Issued: Y
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: ILLNESS, FOLLOWING TOO CLOSELY

Accident Location Information System (ALIS)

Date: 01/07/13

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8737 VDR Railroad Ave from Ronkonkoma Ave to Mill Rd, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE

***** CONTINUED

Veh :3 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
 Num of Occupants: 2 Driver's Age: 49 Sex: M Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3118 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 52 Sex: F Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: SLOWED OR STOPPING
 Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 4540 State of Registration: NY
 Num of Occupants: 2 Driver's Age: 63 Sex: M Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: SLOWED OR STOPPING
 Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RAILROAD AVE

122 Meters East of Parking Lot

2/6/2009 Fri 19:28 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2009-NR2684838**
 Accident Class: NON-REPORTABLE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: STOP SIGN
 Manner of Collision: RIGHT ANGLE Weather: CLOUDY
 Road Surface Condition: DRY Road Char.: Light Condition: DARK-ROAD LIGHTED
 Loc. of Ped/Bicycle: INVALID CODE Action of Ped/Bicycle:

SAME

Veh :1 OTHER Registered Weight: State of Registration:
 Num of Occupants: Driver's Age: Sex: Citation Issued:
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: X
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :2 OTHER Registered Weight: State of Registration:
 Num of Occupants: Driver's Age: Sex: Citation Issued:
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: X
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: FAILURE TO YIELD RIGHT OF WAY, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: HAWKINS AVE
 AT INTERSECTION WITH RAILROAD AVE

1/19/2011 Wed 18:50 PM Persons Killed: 0 Persons Injured: 2 Extent of Injuries: CC **Case: 2011-33815654**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: OTHER
 Manner of Collision: RIGHT ANGLE Weather: CLOUDY
 Road Surface Condition: WET Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

same
as
other

Accident Location Information System (ALIS)

Date: 01/07/13

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8737 VDR Railroad Ave from Ronkonkoma Ave to Mill Rd, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: HAWKINS AVE

***** CONTINUED

Veh :2 CAR/VAN/PICKUP Registered Weight: 4592 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 45 Sex: F Citation Issued: N
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNSAFE SPEED, TRAFFIC CONTROL DEVICES DISREGARDED

Veh :1 CAR/VAN/PICKUP Registered Weight: 2943 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 56 Sex: F Citation Issued: N
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RAILROAD AVE

7 Meters East of The Plz

5/19/2010 Wed 14:45 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2010-33830109**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: STOP SIGN
 Manner of Collision: REAR END Weather: CLOUDY
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3340 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 62 Sex: F Citation Issued: N
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: SLOWED OR STOPPING
 Apparent Factors: DRIVER INATTENTION, FOLLOWING TOO CLOSELY

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inj

Veh :1 CAR/VAN/PICKUP Registered Weight: 3319 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 62 Sex: M Citation Issued: N
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: STOPPED IN TRAFFIC
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: LAKELAND ST
33 Meters East of NW Link

6/17/2010 Thu 08:15 AM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: B **Case: 2010-33868828**
Accident Class: INJURY Police Agency: Num of Veh: 1
Type Of Accident: COLLISION WITH PEDESTRIAN Traffic Control: NONE
Manner of Collision: OTHER Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: PED/BICYCLIST NOT AT INTERSECTION Action of Ped/Bicycle: WORKING IN ROADWAY

Veh :1 OTHER Registered Weight: State of Registration: **SAME**
Num of Occupants: 0 Driver's Age: Sex: Citation Issued:
Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
Pre-Accd Action: OTHER
Apparent Factors: NOT APPLICABLE, UNKNOWN

Accident Location Information System (ALIS)

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8737 VDR Railroad Ave from Ronkonkoma Ave to Mill Rd, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: LAKELAND ST

***** CONTINUED

Veh :2 PEDESTRIAN Registered Weight: State of Registration:
 Num of Occupants: 1 Driver's Age: 65 Sex: M Citation Issued: N
 Direction of Travel: NOT APPLICABLE Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: NOT APPLICABLE
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RAILROAD AVE

61 Meters West of HAWKINS AVE

8/31/2010 Tue Persons Killed: Persons Injured: Extent of Injuries: **Case: 2010-33955219**
 Accident Class: Police Agency: Num of Veh:
 Type Of Accident: Traffic Control:
 Manner of Collision: Road Char.: Weather:
 Road Surface Condition: Action of Ped/Bicycle: Light Condition:
 Loc. of Ped/Bicycle:

Veh : Registered Weight: State of Registration:
 Num of Occupants: Driver's Age: Sex: Citation Issued:
 Direction of Travel: Public Property Damage: School Bus Involved:
 Pre-Accd Action:

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: HAWKINS AVE

AT INTERSECTION WITH RAILROAD AVE

8/24/2010 Tue 17:41 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2010-33948396**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
 Manner of Collision: LEFT TURN (AGAINST OTHER CAR) Weather: CLOUDY
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

same as
other

Veh :2 CAR/VAN/PICKUP Registered Weight: 2844 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 24 Sex: M Citation Issued: N
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: MAKING LEFT TURN
 Apparent Factors: UNKNOWN, FAILURE TO YIELD RIGHT OF WAY

Veh :1	CAR/VAN/PICKUP	Registered Weight: 2454	State of Registration: NY
	Num of Occupants: 1	Driver's Age: 24	Sex: F Citation Issued: N
	Direction of Travel: NORTH	Public Property Damage: N	School Bus Involved: N
	Pre-Accd Action: GOING STRAIGHT AHEAD		
	Apparent Factors: UNKNOWN, UNKNOWN		
County: Suffolk	Muni: Brookhaven(T)	Ref. Marker: Street: RONKONKOMA AVE	
9/17/2010	Fri 18:39 PM	Persons Killed: 0	Persons Injured: 2
	Accident Class: PROPERTY DAMAGE AND INJURY	Extent of Injuries: CC	Case: 2010-33959214
	Type Of Accident: COLLISION WITH MOTOR VEHICLE	Police Agency:	Num of Veh: 3
	Manner of Collision: OTHER	Traffic Control: STOP SIGN	
	Road Surface Condition: DRY	Weather: CLEAR	
	Road Char.: STRAIGHT AND LEVEL	Light Condition: DARK-ROAD LIGHTED	
	Loc. of Ped/Bicycle: NOT APPLICABLE	Action of Ped/Bicycle: NOT APPLICABLE	

Accident Location Information System (ALIS)

Date: 01/07/13

11:55

Accident Verbal Description Report

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8737 VDR Railroad Ave from Ronkonkoma Ave to Mill Rd, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE

***** CONTINUED

Veh :1 CAR/VAN/PICKUP Registered Weight: 4178 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 45 Sex: M Citation Issued: N
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: STOPPED IN TRAFFIC
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :3 CAR/VAN/PICKUP Registered Weight: 3032 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 25 Sex: M Citation Issued: N
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: DRIVER INATTENTION, UNSAFE SPEED

Veh :2 CAR/VAN/PICKUP Registered Weight: 3292 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 48 Sex: F Citation Issued: N
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: STOPPED IN TRAFFIC
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE

11/29/2010

Mon Persons Killed:

Persons Injured:

Extent of Injuries:

Case: 2010-34135873

Accident Class:

Police Agency:

Num of Veh:

Type Of Accident:

Traffic Control:

Manner of Collision:

Weather:

Road Surface Condition:

Road Char.:

Light Condition:

Loc. of Ped/Bicycle:

Action of Ped/Bicycle:

Veh : Registered Weight: State of Registration:
 Num of Occupants: Driver's Age: Sex: Citation Issued:
 Direction of Travel: Public Property Damage: School Bus Involved:
 Pre-Accd Action:

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RAILROAD AVE
 AT INTERSECTION WITH HAWKINS AVE

12/21/2010 Tue 12:33 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2010-34160770**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: STOP SIGN
 Manner of Collision: LEFT TURN (AGAINST OTHER CAR) Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 2679 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 32 Sex: F Citation Issued: N
 Direction of Travel: NORTH-EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: MAKING LEFT TURN
 Apparent Factors: UNKNOWN, UNKNOWN

same as
other

Accident Location Information System (ALIS)

Date: 01/07/13

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Accident Verbal Description Report

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8737 VDR Railroad Ave from Ronkonkoma Ave to Mill Rd, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RAILROAD AVE

***** CONTINUED

Veh :2 CAR/VAN/PICKUP Registered Weight: 3326 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 21 Sex: M Citation Issued: N
 Direction of Travel: SOUTH-EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: MAKING LEFT TURN
 Apparent Factors: UNKNOWN, OTHER (HUMAN)

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RAILROAD AVE

AT INTERSECTION WITH HAWKINS AVE

1/15/2011 Sat 19:30 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2011-34171953**
 Accident Class: INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: STOP SIGN
 Manner of Collision: RIGHT ANGLE Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
 Num of Occupants: 2 Driver's Age: 53 Sex: M Citation Issued: N
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: FAILURE TO YIELD RIGHT OF WAY, NOT APPLICABLE

same as
other

Veh :1 CAR/VAN/PICKUP Registered Weight: 3148 State of Registration: NY
 Num of Occupants: 4 Driver's Age: 19 Sex: M Citation Issued: N
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE

2/2/2011

Wed 00:50 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2011-34213176**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
 Manner of Collision: UNKNOWN Weather: SLEET/HAIL/FREEZING RAIN
 Road Surface Condition: SNOW/ICE Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2	CAR/VAN/PICKUP	Registered Weight: 3350	State of Registration: NY
	Num of Occupants: 1	Driver's Age: 27	Sex: M Citation Issued: N
	Direction of Travel: SOUTH	Public Property Damage: N	School Bus Involved: N
	Pre-Accd Action: STARTING IN TRAFFIC		
	Apparent Factors: PAVEMENT SLIPPERY, VIEW OBSTRUCTED/LIMITED		
Veh :1	CAR/VAN/PICKUP	Registered Weight: 4379	State of Registration: NY
	Num of Occupants: 1	Driver's Age: 46	Sex: M Citation Issued: N
	Direction of Travel: WEST	Public Property Damage: N	School Bus Involved: N
	Pre-Accd Action: GOING STRAIGHT AHEAD		
	Apparent Factors: UNKNOWN, NOT APPLICABLE		

Accident Location Information System (ALIS)

Accident Verbal Description Report

8737 VDR Railroad Ave from Ronkonkoma Ave to Mill Rd, Suffolk

Data in this report covers the period Jan 31, 2009 - Jan 31, 2012

Complete Accident data from NYS DMV is only available thru 1/31/2012

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County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RAILROAD AVE

61 Meters West of CARROLL AVE

4/28/2011

Thu 20:20 PM

Persons Killed: 0

Persons Injured: 0

Extent of Injuries:

Case: 2011-34275093

Accident Class: PROPERTY DAMAGE

Police Agency:

Num of Veh: 2

Type Of Accident: COLLISION WITH MOTOR VEHICLE

Traffic Control: NONE

Manner of Collision: REAR END

Weather: CLOUDY

Road Surface Condition: WET

Road Char.: STRAIGHT AND LEVEL

Light Condition: DARK-ROAD LIGHTED

Loc. of Ped/Bicycle: NOT APPLICABLE

Action of Ped/Bicycle: NOT APPLICABLE

20-RE

Veh :1

CAR/VAN/PICKUP

Registered Weight: 3217

State of Registration: NY

Num of Occupants: 1

Driver's Age: 25

Sex: F

Citation Issued: N

Direction of Travel: SOUTH

Public Property Damage: N

School Bus Involved: N

Pre-Accd Action: MAKING LEFT TURN

Apparent Factors: UNKNOWN, NOT APPLICABLE

PDO

Veh :2

CAR/VAN/PICKUP

Registered Weight: 2978

State of Registration: NY

Num of Occupants: 1

Driver's Age: 22

Sex: F

Citation Issued: N

Direction of Travel: SOUTH

Public Property Damage: N

School Bus Involved: N

Pre-Accd Action: MAKING LEFT TURN

Apparent Factors: DRIVER INATTENTION, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RAILROAD AVE

AT INTERSECTION WITH HAWKINS AVE

8/14/2009

Fri 21:28 PM

Persons Killed: 0

Persons Injured: 0

Extent of Injuries:

Case: 2009-NR2905991

Accident Class: NON-REPORTABLE

Police Agency:

Num of Veh: 1

Type Of Accident: COLLISION WITH MOTOR VEHICLE

Traffic Control: UNKNOWN

Manner of Collision: OTHER

Weather: CLEAR

Road Surface Condition: DRY

Road Char.:

Light Condition: DARK-ROAD LIGHTED

Loc. of Ped/Bicycle: INVALID CODE

Action of Ped/Bicycle:

same as

Veh :1

OTHER

Registered Weight:

State of Registration:

Num of Occupants:

Driver's Age:

Sex:

Citation Issued:

other

Direction of Travel: NORTH-WEST

Public Property Damage: N

School Bus Involved: X

Pre-Accd Action: MAKING LEFT TURN

Apparent Factors: DRIVER INATTENTION, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RAILROAD AVE

AT INTERSECTION WITH HAWKINS AVE

12/18/2009 Fri 23:40 PM Persons Killed: 0 Persons Injured: 0
Accident Class: NON-REPORTABLE
Type Of Accident: COLLISION WITH MOTOR VEHICLE
Manner of Collision: RIGHT ANGLE
Road Surface Condition: DRY Road Char.:
Loc. of Ped/Bicycle: INVALID CODE

Extent of Injuries: **Case: 2009-NR2971565**
Police Agency: Num of Veh: 2
Traffic Control: STOP SIGN
Weather: CLEAR
Light Condition: DARK-ROAD LIGHTED
Action of Ped/Bicycle:

same as
other

Accident Location Information System (ALIS)

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Accident Verbal Description Report

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8737 VDR Railroad Ave from Ronkonkoma Ave to Mill Rd, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RAILROAD AVE

***** CONTINUED

Veh :1 OTHER Registered Weight: State of Registration:
 Num of Occupants: Driver's Age: Sex: Citation Issued:
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: X
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :2 OTHER Registered Weight: State of Registration:
 Num of Occupants: Driver's Age: Sex: Citation Issued:
 Direction of Travel: SOUTH-EAST Public Property Damage: N School Bus Involved: X
 Pre-Accd Action: MAKING LEFT TURN
 Apparent Factors: FAILURE TO YIELD RIGHT OF WAY, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RAILROAD AVE

AT INTERSECTION WITH HAWKINS AVE

5/30/2011 Mon 08:00 AM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2011-34298262**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: STOP SIGN
 Manner of Collision: RIGHT ANGLE Weather: RAIN
 Road Surface Condition: WET Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
 Num of Occupants: 1 Driver's Age: 62 Sex: M Citation Issued: N
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: FAILURE TO YIELD RIGHT OF WAY, UNKNOWN

same as
other

Veh :1 CAR/VAN/PICKUP Registered Weight: 2434 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 23 Sex: F Citation Issued: N
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, NOT APPLICABLE

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RAILROAD AVE
 AT INTERSECTION WITH GARRITY AVE

10/11/2011 Tue 17:20 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2011-34377313**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
 Manner of Collision: REAR END Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
 Num of Occupants: 1 Driver's Age: 57 Sex: M Citation Issued: N
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

16-RE

PDO

Accident Location Information System (ALIS)

Date: 01/07/13

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Accident Verbal Description Report

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8737 VDR Railroad Ave from Ronkonkoma Ave to Mill Rd, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RAILROAD AVE

***** CONTINUED

Veh :2 CAR/VAN/PICKUP Registered Weight: 2847 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 23 Sex: M Citation Issued: N
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: DRIVER INATTENTION, NOT APPLICABLE

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RAILROAD AVE

AT INTERSECTION WITH HAWKINS AVE

9/25/2011 Sun 17:00 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2011-34394434**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: STOP SIGN
 Manner of Collision: LEFT TURN (AGAINST OTHER CAR) Weather: CLOUDY
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY **same as**
 Num of Occupants: 1 Driver's Age: 70 Sex: M Citation Issued: N **other**
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 2950 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 21 Sex: F Citation Issued: Y
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: MAKING LEFT TURN
 Apparent Factors: TRAFFIC CONTROL DEVICES DISREGARDED, FAILURE TO YIELD RIGHT OF WAY

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RAILROAD AVE

30 Meters West of Parking Lot

6/24/2010 Thu 19:35 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2010-NR3114272**
 Accident Class: NON-REPORTABLE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
 Manner of Collision: OVERTAKING Weather: CLEAR
 Road Surface Condition: DRY Road Char.: Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: INVALID CODE Action of Ped/Bicycle:

Veh :1	OTHER	Registered Weight:		State of Registration:	
	Num of Occupants:		Driver's Age:	Sex:	Citation Issued:
	Direction of Travel: WEST		Public Property Damage: N		School Bus Involved: X
	Pre-Accd Action: SLOWED OR STOPPING				
	Apparent Factors: UNKNOWN, UNKNOWN				
Veh :2	OTHER	Registered Weight:		State of Registration:	
	Num of Occupants:		Driver's Age:	Sex:	Citation Issued:
	Direction of Travel: WEST		Public Property Damage: N		School Bus Involved: X
	Pre-Accd Action: GOING STRAIGHT AHEAD				
	Apparent Factors: UNKNOWN, UNKNOWN				

Accident Location Information System (ALIS)

Date: 01/07/13

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Accident Verbal Description Report

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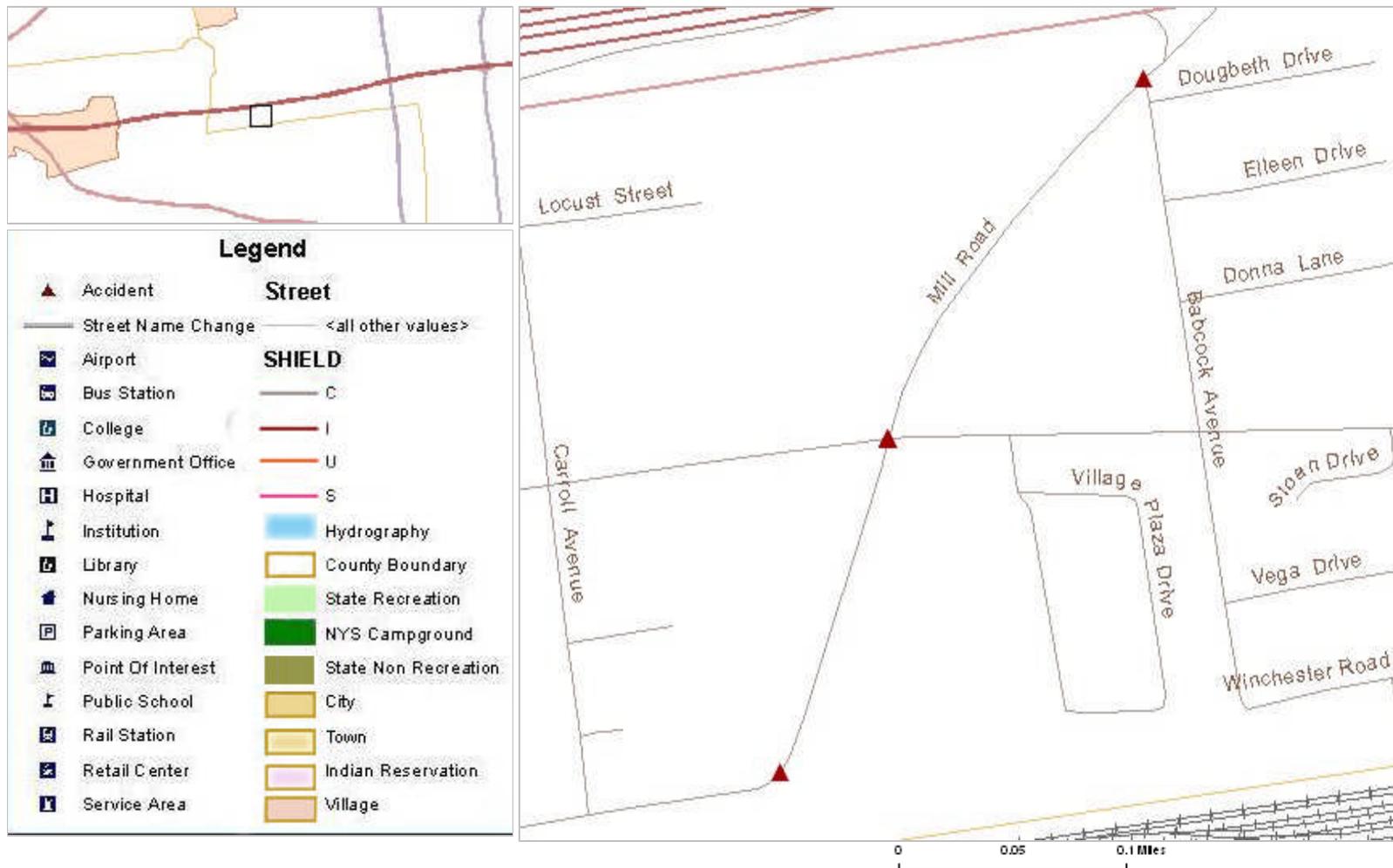
8737 VDR Railroad Ave from Ronkonkoma Ave to Mill Rd, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RAILROAD AVE
1/17/2012 Tue 20:40 PM Persons Killed: 0 Persons Injured: 2 Extent of Injuries: AB **Case: 2012-34457219**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: STOP SIGN
 Manner of Collision: LEFT TURN (AGAINST OTHER CAR) Weather: RAIN
 Road Surface Condition: WET Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD UNLIGHTED
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 2187 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 49 Sex: M Citation Issued: N
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: NOT ENTERED, NOT ENTERED

Veh :2 CAR/VAN/PICKUP Registered Weight: 2926 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 38 Sex: M Citation Issued: N
 Direction of Travel: SOUTH-EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: MAKING LEFT TURN
 Apparent Factors: NOT ENTERED, FAILURE TO YIELD RIGHT OF WAY

8737 VDR Mill Rd from Railroad Ave to Express Drive S, Suffolk



Accident Location Information System (ALIS)

Date: 01/08/13

09:21

Accident Verbal Description Report

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8737 VDR Mill Rd from Railroad Ave to Express Drive S, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: UNION AVE
AT INTERSECTION WITH MILL RD

2/24/2009 Tue 21:10 PM Persons Killed: 0 Persons Injured: 2 Extent of Injuries: CC **Case: 2009-33126183**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: LEFT TURN (AGAINST OTHER CAR) Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

12-RA

Veh :2 CAR/VAN/PICKUP Registered Weight: 3320 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 20 Sex: F Citation Issued: N
 Direction of Travel: SOUTH-WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: MAKING LEFT TURN
 Apparent Factors: UNKNOWN, FAILURE TO YIELD RIGHT OF WAY

INJ

Veh :1 CAR/VAN/PICKUP Registered Weight: 4369 State of Registration: NY
 Num of Occupants: 2 Driver's Age: 45 Sex: F Citation Issued: N
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: MILL RD
AT INTERSECTION WITH BABCOCK AVE

3/18/2010 Thu 15:40 PM Persons Killed: 0 Persons Injured: 2 Extent of Injuries: CC **Case: 2010-33758906**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: STOP SIGN
 Manner of Collision: RIGHT ANGLE Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3204 State of Registration: NY
 Num of Occupants: 2 Driver's Age: 20 Sex: M Citation Issued: Y
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: MAKING LEFT TURN
 Apparent Factors: UNKNOWN, FAILURE TO YIELD RIGHT OF WAY

Veh :1 CAR/VAN/PICKUP Registered Weight: 5000 State of Registration: NY

Num of Occupants: 1	Driver's Age: 45	Sex: M	Citation Issued: N
Direction of Travel: EAST	Public Property Damage: N		School Bus Involved: N
Pre-Accd Action: GOING STRAIGHT AHEAD			
Apparent Factors: UNKNOWN, UNKNOWN			

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: UNION AVE
 AT INTERSECTION WITH MILL RD

4/27/2009	Mon 12:10 PM	Persons Killed: 0	Persons Injured: 0	Extent of Injuries:	Case: 2009-NR2796281
	Accident Class: NON-REPORTABLE			Police Agency:	Num of Veh: 2
	Type Of Accident: COLLISION WITH MOTOR VEHICLE				Traffic Control: TRAFFIC SIGNAL
	Manner of Collision: RIGHT ANGLE				Weather: CLEAR
	Road Surface Condition: DRY		Road Char.:		Light Condition: DAYLIGHT
	Loc. of Ped/Bicycle: INVALID CODE				Action of Ped/Bicycle:

12-RA
 NR

Accident Location Information System (ALIS)

Date: 01/08/13

09:21

Accident Verbal Description Report

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8737 VDR Mill Rd from Railroad Ave to Express Drive S, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: UNION AVE

***** CONTINUED

Veh :1 OTHER Registered Weight: State of Registration:
 Num of Occupants: Driver's Age: Sex: Citation Issued:
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: X
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :2 OTHER Registered Weight: State of Registration:
 Num of Occupants: Driver's Age: Sex: Citation Issued:
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: X
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: FAILURE TO YIELD RIGHT OF WAY, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: UNION AVE

AT INTERSECTION WITH MILL RD

9/30/2010 Thu 19:00 PM Persons Killed: 0 Persons Injured: 2 Extent of Injuries: CC **Case: 2010-33996035**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: LEFT TURN (AGAINST OTHER CAR) Weather: CLOUDY
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 4430 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 26 Sex: F Citation Issued: N
 Direction of Travel: SOUTH-WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: MAKING LEFT TURN
 Apparent Factors: UNKNOWN, FAILURE TO YIELD RIGHT OF WAY

Veh :1 CAR/VAN/PICKUP Registered Weight: 5025 State of Registration: NY
 Num of Occupants: 2 Driver's Age: 46 Sex: M Citation Issued: N
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

12-RA
INJ

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: UNION AVE
AT INTERSECTION WITH MILL RD

4/19/2010	Mon 06:46 AM	Persons Killed: 0	Persons Injured: 0	Extent of Injuries:	Case: 2010-NR3046533
	Accident Class: NON-REPORTABLE			Police Agency:	Num of Veh: 2
	Type Of Accident: COLLISION WITH MOTOR VEHICLE			Traffic Control: TRAFFIC SIGNAL	
	Manner of Collision: RIGHT ANGLE			Weather: CLEAR	
	Road Surface Condition: DRY		Road Char.:	Light Condition: DAYLIGHT	
	Loc. of Ped/Bicycle: INVALID CODE			Action of Ped/Bicycle:	

12-RA
NR

Veh :1	OTHER	Registered Weight:	State of Registration:
	Num of Occupants:	Driver's Age:	Sex: Citation Issued:
	Direction of Travel: NORTH	Public Property Damage: N	School Bus Involved: X
	Pre-Accd Action: GOING STRAIGHT AHEAD		
	Apparent Factors: UNKNOWN, UNKNOWN		

Accident Location Information System (ALIS)

Date: 01/08/13

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Accident Verbal Description Report

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8737 VDR Mill Rd from Railroad Ave to Express Drive S, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: UNION AVE

***** CONTINUED

Veh :2 OTHER Registered Weight: State of Registration:
 Num of Occupants: Driver's Age: Sex: Citation Issued:
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: X
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, TRAFFIC CONTROL DEVICES DISREGARDED

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RAILROAD AVE

AT INTERSECTION WITH MILL RD

7/13/2011 Wed 06:11 AM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2011-34357889**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 1
 Type Of Accident: COLLISION WITH TREE Traffic Control: NONE
 Manner of Collision: OTHER Weather: CLEAR
 Road Surface Condition: DRY Road Char.: CURVE AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

13-F/O

INJ

Veh :1 CAR/VAN/PICKUP Registered Weight: 3635 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 33 Sex: F Citation Issued: N
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: MAKING LEFT TURN
 Apparent Factors: NOT APPLICABLE, UNSAFE SPEED

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: UNION AVE

AT INTERSECTION WITH MILL RD

7/20/2011 Wed 12:30 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2011-34411573**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: UNKNOWN Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

12-BACKING

Veh :1 CAR/VAN/PICKUP Registered Weight: 2868 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 48 Sex: M Citation Issued: N **PDO**
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: STOPPED IN TRAFFIC
 Apparent Factors: NOT APPLICABLE, UNKNOWN

Veh :2 TRUCK Registered Weight: 10000 State of Registration: NY
 Num of Occupants: 2 Driver's Age: 24 Sex: M Citation Issued: Y
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: BACKING
 Apparent Factors: BACKING UNSAFELY, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: UNION AVE
 AT INTERSECTION WITH MILL RD

12/21/2011 Wed 16:55 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2011-34404344**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: SIDESWIPE Weather: RAIN
 Road Surface Condition: WET Road Char.: STRAIGHT AND LEVEL Light Condition: UNKNOWN
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

12-LT

PDO

Accident Location Information System (ALIS)

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8737 VDR Mill Rd from Railroad Ave to Express Drive S, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: UNION AVE

***** CONTINUED

Veh :2 CAR/VAN/PICKUP Registered Weight: 3063 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 45 Sex: F Citation Issued: Y
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :1 CAR/VAN/PICKUP Registered Weight: 2952 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 25 Sex: F Citation Issued: Y
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: MAKING LEFT TURN
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: UNION AVE

AT INTERSECTION WITH MILL RD

4/30/2010 Fri 16:58 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2010-NR3060490**
 Accident Class: NON-REPORTABLE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: OTHER Weather: CLEAR
 Road Surface Condition: DRY Road Char.: Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: INVALID CODE Action of Ped/Bicycle:

12-RE

NR

Veh :1 OTHER Registered Weight: State of Registration:
 Num of Occupants: Driver's Age: Sex: Citation Issued:
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: X
 Pre-Accd Action: MAKING RIGHT TURN
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :2 OTHER Registered Weight: State of Registration:
 Num of Occupants: Driver's Age: Sex: Citation Issued:
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: X
 Pre-Accd Action: MAKING RIGHT TURN
 Apparent Factors: TURNING IMPROPER, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: MILL RD
AT INTERSECTION WITH UNION AVE

1/9/2012	Mon 18:25 PM	Persons Killed: 0	Persons Injured: 0	Extent of Injuries:	Case: 2012-34465897
	Accident Class: PROPERTY DAMAGE			Police Agency:	Num of Veh: 2
	Type Of Accident: COLLISION WITH MOTOR VEHICLE			Traffic Control: TRAFFIC SIGNAL	
	Manner of Collision: OVERTAKING			Weather: CLEAR	
	Road Surface Condition: DRY	Road Char.: STRAIGHT AND LEVEL		Light Condition: DARK-ROAD LIGHTED	
	Loc. of Ped/Bicycle: NOT APPLICABLE			Action of Ped/Bicycle: NOT APPLICABLE	

12-OT
PDO

Veh :1	CAR/VAN/PICKUP	Registered Weight: 2797	State of Registration: NY
	Num of Occupants: 1	Driver's Age: 44	Sex: M Citation Issued: N
	Direction of Travel: NORTH-EAST	Public Property Damage: N	School Bus Involved: N
	Pre-Accd Action: MAKING RIGHT TURN ON RED		
	Apparent Factors: NOT ENTERED, NOT ENTERED		

Accident Location Information System (ALIS)

Accident Verbal Description Report

8737 VDR Mill Rd from Railroad Ave to Express Drive S, Suffolk

Data in this report covers the period Jan 31, 2009 - Jan 31, 2012

Complete Accident data from NYS DMV is only available thru 1/31/2012

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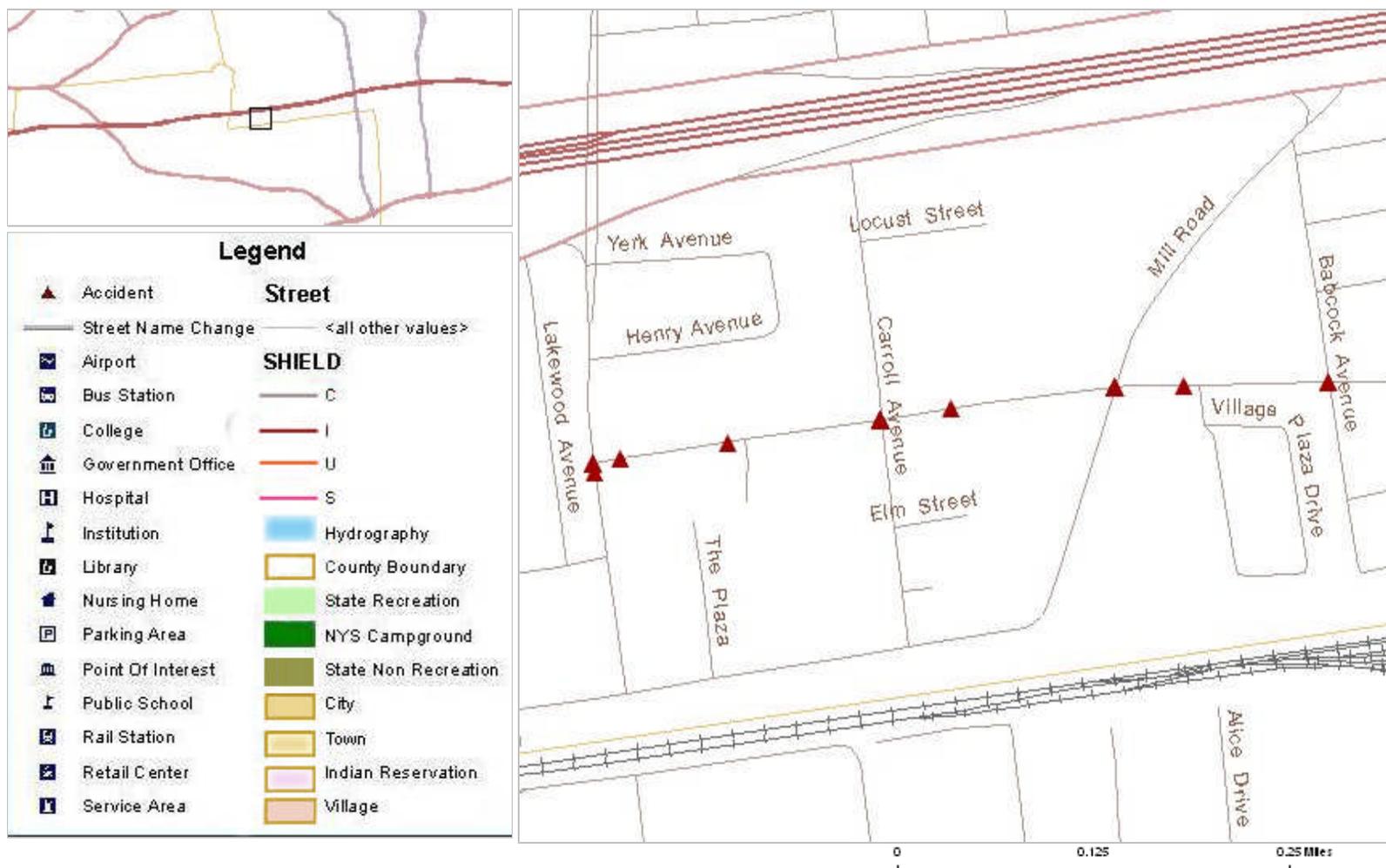
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County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: MILL RD

***** CONTINUED

Veh :2	TRUCK	Registered Weight: 15000	State of Registration: NY
Num of Occupants: 1	Direction of Travel: NORTH-EAST	Driver's Age: 40	Sex: M Citation Issued: N
Pre-Accd Action: MAKING RIGHT TURN ON RED	Apparent Factors: PASSING OR LANE USAGE IMPROPERLY, FAILURE TO YIELD RIGHT OF WAY	Public Property Damage: N	School Bus Involved: N

8737 VDR Union Ave from Hawkins Ave to Babcock Ave, Suffolk



Accident Location Information System (ALIS)

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Accident Verbal Description Report

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8737 VDR Union Ave from Hawkins Ave to Babcock Ave, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: UNION AVE
AT INTERSECTION WITH CARROLL AVE

5/21/2009 Thu 10:22 AM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2009-33060633**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: STOP SIGN
 Manner of Collision: RIGHT TURN (AGAINST OTHER CAR) Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3474 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 52 Sex: F Citation Issued: N
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

10-RA

INJ

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
 Num of Occupants: 1 Driver's Age: 18 Sex: M Citation Issued: N
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: UNION AVE
AT INTERSECTION WITH MILL RD

2/24/2009 Tue 21:10 PM Persons Killed: 0 Persons Injured: 2 Extent of Injuries: CC **Case: 2009-33126183**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: LEFT TURN (AGAINST OTHER CAR) Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3320 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 20 Sex: F Citation Issued: N
 Direction of Travel: SOUTH-WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: MAKING LEFT TURN
 Apparent Factors: UNKNOWN, FAILURE TO YIELD RIGHT OF WAY

SAME

Veh :1 CAR/VAN/PICKUP Registered Weight: 4369 State of Registration: NY

Num of Occupants: 2	Driver's Age: 45	Sex: F	Citation Issued: N
Direction of Travel: EAST	Public Property Damage: N		School Bus Involved: N
Pre-Accd Action: GOING STRAIGHT AHEAD			
Apparent Factors: UNKNOWN, UNKNOWN			

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: CARROLL AVE
 AT INTERSECTION WITH UNION AVE

7/29/2009 Wed Persons Killed: 0 Persons Injured: 0
 Accident Class: PROPERTY DAMAGE
 Type Of Accident: COLLISION WITH MOTOR VEHICLE
 Manner of Collision: RIGHT ANGLE
 Road Surface Condition: UNKNOWN
 Loc. of Ped/Bicycle: NOT APPLICABLE

Extent of Injuries:
 Police Agency:
 Traffic Control: UNKNOWN
 Weather: UNKNOWN
 Road Char.: UNKNOWN
 Action of Ped/Bicycle: NOT APPLICABLE

Case: 2009-33163549
 Num of Veh: 2

10-RA
 PDO

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8737 VDR Union Ave from Hawkins Ave to Babcock Ave, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: CARROLL AVE

***** CONTINUED

Veh :2 OTHER Registered Weight: State of Registration:
 Num of Occupants: 1 Driver's Age: Sex: M Citation Issued: N
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :1 CAR/VAN/PICKUP Registered Weight: 3457 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 62 Sex: M Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: UNION AVE

AT INTERSECTION WITH CARROLL AVE

8/5/2009 Wed 15:22 PM Persons Killed: 0 Persons Injured: 2 Extent of Injuries: CC **Case: 2009-33152472**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 3
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: OTHER Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 5055 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 31 Sex: M Citation Issued: N
 Direction of Travel: UNKNOWN Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: UNKNOWN
 Apparent Factors: UNKNOWN, UNKNOWN

**10-OTHER
INJ**

Veh :2 CAR/VAN/PICKUP Registered Weight: 2743 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 53 Sex: M Citation Issued: N
 Direction of Travel: UNKNOWN Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: UNKNOWN
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :3 CAR/VAN/PICKUP Registered Weight: 2623 State of Registration: NY
 Num of Occupants: 1 Driver's Age: Sex: Citation Issued:
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: FAILURE TO YIELD RIGHT OF WAY, TRAFFIC CONTROL DEVICES DISREGARDED

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: UNION AVE
 AT INTERSECTION WITH BABCOCK AVE

11/28/2009 Sat 10:40 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2009-33272895**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: STOP SIGN
 Manner of Collision: RIGHT ANGLE Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT/ GRADE Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Accident Location Information System (ALIS)

Date: 01/07/13

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8737 VDR Union Ave from Hawkins Ave to Babcock Ave, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: UNION AVE

***** CONTINUED

Veh :2 CAR/VAN/PICKUP Registered Weight: 5078 State of Registration: NY
 Num of Occupants: 2 Driver's Age: 37 Sex: F Citation Issued: N
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: FAILURE TO YIELD RIGHT OF WAY, DRIVER INATTENTION

Veh :1 CAR/VAN/PICKUP Registered Weight: 5414 State of Registration: NY
 Num of Occupants: 2 Driver's Age: 29 Sex: M Citation Issued: Y
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: NOT APPLICABLE, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: UNION AVE

AT INTERSECTION WITH CARROLL AVE

12/7/2009 Mon 09:10 AM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2009-33289026**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: STOP SIGN
 Manner of Collision: RIGHT ANGLE Weather: CLOUDY
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 2649 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 35 Sex: M Citation Issued: N
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

**10-RA
INJ**

Veh :2 CAR/VAN/PICKUP Registered Weight: 5286 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 43 Sex: M Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: DRIVER INATTENTION, TRAFFIC CONTROL DEVICES DISREGARDED

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: CARROLL AVE
AT INTERSECTION WITH UNION AVE

1/25/2010 Mon 11:03 AM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2010-33350873**
Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: STOP SIGN
Manner of Collision: RIGHT ANGLE Weather: RAIN
Road Surface Condition: WET Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

10-RA
INJ

Veh :2 CAR/VAN/PICKUP Registered Weight: 4031 State of Registration: NY
Num of Occupants: 2 Driver's Age: 58 Sex: M Citation Issued: N
Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: FAILURE TO YIELD RIGHT OF WAY, NOT APPLICABLE

Accident Location Information System (ALIS)

Date: 01/07/13

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8737 VDR Union Ave from Hawkins Ave to Babcock Ave, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: CARROLL AVE

***** CONTINUED

Veh :1 CAR/VAN/PICKUP Registered Weight: 5494 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 35 Sex: M Citation Issued: N
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: UNION AVE

AT INTERSECTION WITH BABCOCK AVE

4/14/2010 Wed 06:05 AM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2010-33428799**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
 Manner of Collision: RIGHT ANGLE Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAWN
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 4511 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 34 Sex: M Citation Issued: N
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :2 OTHER Registered Weight: State of Registration: NY
 Num of Occupants: 1 Driver's Age: 42 Sex: F Citation Issued: N
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, FAILURE TO YIELD RIGHT OF WAY

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: UNION AVE

30 Meters East of HAWKINS AVE

9/18/2009 Fri 10:00 AM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2009-33462175**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
 Manner of Collision: UNKNOWN Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

8-OT

INJ

Veh :1	CAR/VAN/PICKUP	Registered Weight: 4572	State of Registration: NY
	Num of Occupants: 1	Driver's Age: 56	Sex: M Citation Issued: N
	Direction of Travel: EAST	Public Property Damage: N	School Bus Involved: N
	Pre-Accd Action: GOING STRAIGHT AHEAD		
	Apparent Factors: UNKNOWN, UNKNOWN		
Veh :2	CAR/VAN/PICKUP	Registered Weight: 2398	State of Registration: NY
	Num of Occupants: 2	Driver's Age: 56	Sex: F Citation Issued: N
	Direction of Travel: NORTH	Public Property Damage: N	School Bus Involved: N
	Pre-Accd Action: MAKING U TURN		
	Apparent Factors: FAILURE TO YIELD RIGHT OF WAY, UNKNOWN		

Accident Location Information System (ALIS)

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8737 VDR Union Ave from Hawkins Ave to Babcock Ave, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: UNION AVE
AT INTERSECTION WITH HAWKINS AVE

9/14/2009 Mon 12:55 PM Persons Killed: 0 Persons Injured: 2 Extent of Injuries: BC **Case: 2009-33477190**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: REAR END Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3406 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 50 Sex: F Citation Issued: N **SAME**
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: DRIVER INATTENTION, UNKNOWN

Veh :1 CAR/VAN/PICKUP Registered Weight: 8600 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 42 Sex: M Citation Issued: N
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: OTHER
 Apparent Factors: NOT APPLICABLE, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: UNION AVE
AT INTERSECTION WITH CARROLL AVE

10/16/2010 Sat 00:47 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2010-33648869**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: STOP SIGN
 Manner of Collision: RIGHT ANGLE Weather: CLOUDY
 Road Surface Condition: WET Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE **10-RA**

Veh :2 CAR/VAN/PICKUP Registered Weight: 3049 State of Registration: NY **PDO**
 Num of Occupants: 3 Driver's Age: 57 Sex: M Citation Issued: Y
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, FAILURE TO YIELD RIGHT OF WAY

Veh :1 CAR/VAN/PICKUP Registered Weight: 2900 State of Registration: NY

Num of Occupants: 2	Driver's Age: 18	Sex: M	Citation Issued: Y
Direction of Travel: WEST	Public Property Damage: N		School Bus Involved: N
Pre-Accd Action: GOING STRAIGHT AHEAD			
Apparent Factors: UNKNOWN, NOT APPLICABLE			

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: UNION AVE
 AT INTERSECTION WITH HAWKINS AVE

3/12/2009	Thu 00:00 AM	Persons Killed: 0	Persons Injured: 0	Extent of Injuries:	Case: 2009-NR2820500
	Accident Class: NON-REPORTABLE			Police Agency:	Num of Veh: 2
	Type Of Accident: COLLISION WITH MOTOR VEHICLE				Traffic Control: NONE
	Manner of Collision: OVERTAKING				Weather: CLEAR
	Road Surface Condition: DRY		Road Char.:		Light Condition: DAYLIGHT
	Loc. of Ped/Bicycle: INVALID CODE				Action of Ped/Bicycle:

SAME

Accident Location Information System (ALIS)

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8737 VDR Union Ave from Hawkins Ave to Babcock Ave, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: UNION AVE

***** CONTINUED

Veh :1 OTHER Registered Weight: State of Registration:
 Num of Occupants: Driver's Age: Sex: Citation Issued:
 Direction of Travel: UNKNOWN Public Property Damage: N School Bus Involved: X
 Pre-Accd Action: PARKED
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :2 OTHER Registered Weight: State of Registration:
 Num of Occupants: Driver's Age: Sex: Citation Issued:
 Direction of Travel: UNKNOWN Public Property Damage: N School Bus Involved: X
 Pre-Accd Action: BACKING
 Apparent Factors: UNKNOWN, DRIVER INATTENTION

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: UNION AVE

AT INTERSECTION WITH MILL RD

4/27/2009 Mon 12:10 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2009-NR2796281**
 Accident Class: NON-REPORTABLE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: RIGHT ANGLE Weather: CLEAR
 Road Surface Condition: DRY Road Char.: Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: INVALID CODE Action of Ped/Bicycle:

SAME

Veh :1 OTHER Registered Weight: State of Registration:
 Num of Occupants: Driver's Age: Sex: Citation Issued:
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: X
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :2 OTHER Registered Weight: State of Registration:
 Num of Occupants: Driver's Age: Sex: Citation Issued:
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: X
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: FAILURE TO YIELD RIGHT OF WAY, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: UNION AVE
80 Meters East of Carroll Ave

5/13/2010 Thu 17:25 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2010-33831383**
Accident Class: INJURY Police Agency: Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 2949 State of Registration: NY
Num of Occupants: 2 Driver's Age: 43 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: FOLLOWING TOO CLOSELY, DRIVER INATTENTION

21-RE

INJ

Accident Location Information System (ALIS)

Date: 01/07/13

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Accident Verbal Description Report

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8737 VDR Union Ave from Hawkins Ave to Babcock Ave, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: UNION AVE

***** CONTINUED

Veh :1 CAR/VAN/PICKUP Registered Weight: 3072 State of Registration: NY
 Num of Occupants: 2 Driver's Age: 43 Sex: F Citation Issued: N
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: STOPPED IN TRAFFIC
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: UNION AVE
 AT INTERSECTION WITH CARROLL AVE

1/21/2011 Fri 06:15 AM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2011-33857098**
 Accident Class: INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: STOP SIGN
 Manner of Collision: RIGHT ANGLE Weather: UNKNOWN
 Road Surface Condition: UNKNOWN Road Char.: UNKNOWN Light Condition: UNKNOWN
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

10-RA

Veh :1 CAR/VAN/PICKUP Registered Weight: 3130 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 36 Sex: M Citation Issued: N
 Direction of Travel: UNKNOWN Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: UNKNOWN
 Apparent Factors: UNKNOWN, UNKNOWN

INJ

Veh :2 CAR/VAN/PICKUP Registered Weight: 4287 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 44 Sex: M Citation Issued: N
 Direction of Travel: UNKNOWN Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: UNKNOWN
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: HAWKINS AVE
 AT INTERSECTION WITH UNION AVE

3/18/2011 Fri 20:30 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2011-33864625**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: REAR END Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

SAME

Veh :2	CAR/VAN/PICKUP	Registered Weight: 4211	State of Registration: NY
	Num of Occupants: 1	Driver's Age: 46	Sex: M Citation Issued: N
	Direction of Travel: NORTH	Public Property Damage: N	School Bus Involved: N
	Pre-Accd Action: GOING STRAIGHT AHEAD		
	Apparent Factors: DRIVER INATTENTION, UNKNOWN		
Veh :1	CAR/VAN/PICKUP	Registered Weight: 4122	State of Registration: NY
	Num of Occupants: 3	Driver's Age: 47	Sex: F Citation Issued: N
	Direction of Travel: NORTH	Public Property Damage: N	School Bus Involved: N
	Pre-Accd Action: GOING STRAIGHT AHEAD		
	Apparent Factors: NOT APPLICABLE, UNKNOWN		

Accident Location Information System (ALIS)

Date: 01/07/13

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8737 VDR Union Ave from Hawkins Ave to Babcock Ave, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: UNION AVE
AT INTERSECTION WITH HAWKINS AVE

6/3/2010 Thu 22:00 PM Persons Killed: 0 Persons Injured: 3 Extent of Injuries: CCC **Case: 2010-33863372**
 Accident Class: INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: UNKNOWN Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED **SAME**
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3252 State of Registration: NY
 Num of Occupants: 1 Driver's Age: Sex: Citation Issued:
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: STARTING IN TRAFFIC
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :1 CAR/VAN/PICKUP Registered Weight: 2218 State of Registration: NY
 Num of Occupants: 3 Driver's Age: 20 Sex: M Citation Issued: N
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: STOPPED IN TRAFFIC
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: UNION AVE
18 Meters West of Cousins Ct

7/4/2010 Sun 04:55 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2010-33889754**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 1
 Type Of Accident: COLLISION WITH FIRE HYDRANT Traffic Control: NONE
 Manner of Collision: OTHER Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAWN
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3208 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 40 Sex: M Citation Issued: N
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: AVOIDING OBJECT IN ROADWAY
 Apparent Factors: REACTION TO OTHER UNINVOLVED VEHICL, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: UNION AVE

AT INTERSECTION WITH CARROLL AVE

7/6/2010

Tue 14:00 PM

Persons Killed: 0

Persons Injured: 0

Extent of Injuries:

Case: 2010-33889920

Accident Class: PROPERTY DAMAGE

Police Agency:

Num of Veh: 2

Type Of Accident: COLLISION WITH MOTOR VEHICLE

Traffic Control: STOP SIGN

Manner of Collision: RIGHT ANGLE

Weather: CLEAR

Road Surface Condition: DRY

Road Char.: STRAIGHT AND LEVEL

Light Condition: DAYLIGHT

Loc. of Ped/Bicycle: NOT APPLICABLE

Action of Ped/Bicycle: NOT APPLICABLE

10-RA

PDO

Accident Location Information System (ALIS)

Date: 01/07/13

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8737 VDR Union Ave from Hawkins Ave to Babcock Ave, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: UNION AVE

***** CONTINUED

Veh :1 CAR/VAN/PICKUP Registered Weight: 2772 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 18 Sex: M Citation Issued: N
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :2 CAR/VAN/PICKUP Registered Weight: 4065 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 25 Sex: M Citation Issued: Y
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: FAILURE TO YIELD RIGHT OF WAY, DRIVER INATTENTION

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: UNION AVE

AT INTERSECTION WITH CARROLL AVE

7/13/2010 Tue 13:10 PM Persons Killed: 0 Persons Injured: 3 Extent of Injuries: CCC **Case: 2010-33903272**
 Accident Class: INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: STOP SIGN
 Manner of Collision: RIGHT ANGLE Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 4716 State of Registration: NY **10-RA**
 Num of Occupants: 3 Driver's Age: 33 Sex: F Citation Issued: N
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N **INJ**
 Pre-Accd Action: MAKING RIGHT TURN
 Apparent Factors: DRIVER INATTENTION, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 8600 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 54 Sex: M Citation Issued: N
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: UNION AVE
AT INTERSECTION WITH CARROLL AVE

5/6/2011 Fri 05:35 AM Persons Killed: 0 Persons Injured: 2 Extent of Injuries: CC **Case: 2011-33930340**
Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: STOP SIGN
Manner of Collision: UNKNOWN Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAWN
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 2970 State of Registration: NY
Num of Occupants: 1 Driver's Age: 40 Sex: F Citation Issued: N
Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: FAILURE TO YIELD RIGHT OF WAY, UNKNOWN

10-RA
INJ

Accident Location Information System (ALIS)

Date: 01/07/13

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8737 VDR Union Ave from Hawkins Ave to Babcock Ave, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: UNION AVE

***** CONTINUED

Veh :1 CAR/VAN/PICKUP Registered Weight: 2952 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 45 Sex: M Citation Issued: N
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: HAWKINS AVE

AT INTERSECTION WITH UNION AVE

8/24/2010 Tue 22:35 PM Persons Killed: 0 Persons Injured: 2 Extent of Injuries: CC **Case: 2010-33948540**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 1
 Type Of Accident: COLL. W/LIGHT SUPPORT/UTILITY POLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: OTHER Weather: RAIN
 Road Surface Condition: WET Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3535 State of Registration: NY **SAME**
 Num of Occupants: 3 Driver's Age: 22 Sex: F Citation Issued: N
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: DRIVER INATTENTION, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: UNION AVE

AT INTERSECTION WITH CARROLL AVE

6/30/2011 Thu 07:18 AM Persons Killed: 0 Persons Injured: 2 Extent of Injuries: BC **Case: 2011-33963579**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: STOP SIGN
 Manner of Collision: RIGHT ANGLE Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 2394 State of Registration: NY **10-RA**
 Num of Occupants: 1 Driver's Age: 47 Sex: F Citation Issued: N **INJ**
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :2 CAR/VAN/PICKUP Registered Weight: 2493 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 59 Sex: M Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, DRIVER INATTENTION

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: UNION AVE
 AT INTERSECTION WITH CARROLL AVE

6/18/2011 Sat 22:30 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2011-33961107**
 Accident Class: INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: STOP SIGN
 Manner of Collision: RIGHT ANGLE Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD UNLIGHTED
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

10-RA
 INJ

Accident Location Information System (ALIS)

Date: 01/07/13

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8737 VDR Union Ave from Hawkins Ave to Babcock Ave, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: UNION AVE

***** CONTINUED

Veh :1 CAR/VAN/PICKUP Registered Weight: 3919 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 27 Sex: M Citation Issued: N
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 4001 State of Registration: NY
 Num of Occupants: 2 Driver's Age: 56 Sex: M Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: FAILURE TO YIELD RIGHT OF WAY, NOT APPLICABLE

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: UNION AVE

AT INTERSECTION WITH MILL RD

9/30/2010 Thu 19:00 PM Persons Killed: 0 Persons Injured: 2 Extent of Injuries: CC **Case: 2010-33996035**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: LEFT TURN (AGAINST OTHER CAR) Weather: CLOUDY
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

SAME

Veh :2 CAR/VAN/PICKUP Registered Weight: 4430 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 26 Sex: F Citation Issued: N
 Direction of Travel: SOUTH-WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: MAKING LEFT TURN
 Apparent Factors: UNKNOWN, FAILURE TO YIELD RIGHT OF WAY

Veh :1 CAR/VAN/PICKUP Registered Weight: 5025 State of Registration: NY
 Num of Occupants: 2 Driver's Age: 46 Sex: M Citation Issued: N
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: UNION AVE
AT INTERSECTION WITH CARROLL AVE

11/5/2010 Fri 06:30 AM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2010-34081027**
Accident Class: INJURY Police Agency: Num of Veh: 1
Type Of Accident: COLLISION WITH PEDESTRIAN Traffic Control: TRAFFIC SIGNAL
Manner of Collision: OTHER Weather: RAIN
Road Surface Condition: WET Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
Loc. of Ped/Bicycle: PED/BICYCLIST AT INTERSECTION Action of Ped/Bicycle: UNKNOWN

10-PED
INJ

Veh :1 OTHER Registered Weight: State of Registration:
Num of Occupants: 0 Driver's Age: Sex: Citation Issued:
Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
Pre-Accd Action: MAKING LEFT TURN
Apparent Factors: UNKNOWN, UNKNOWN

Accident Location Information System (ALIS)

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8737 VDR Union Ave from Hawkins Ave to Babcock Ave, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: UNION AVE

***** CONTINUED

Veh :2 PEDESTRIAN Registered Weight: State of Registration:
 Num of Occupants: 1 Driver's Age: 21 Sex: M Citation Issued: N
 Direction of Travel: NOT APPLICABLE Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: NOT APPLICABLE
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: HAWKINS AVE

AT INTERSECTION WITH UNION AVE

1/13/2011 Thu 22:50 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2011-34175117**
 Accident Class: INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: REAR END Weather: CLEAR
 Road Surface Condition: SNOW/ICE Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 4556 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 53 Sex: M Citation Issued: Y **SAME**
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: DRIVER INATTENTION, UNKNOWN

Veh :1 CAR/VAN/PICKUP Registered Weight: 3217 State of Registration: NY
 Num of Occupants: 3 Driver's Age: 22 Sex: M Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: STOPPED IN TRAFFIC
 Apparent Factors: NOT APPLICABLE, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: UNION AVE

AT INTERSECTION WITH CARROLL AVE

11/6/2011 Sun 09:40 AM Persons Killed: 0 Persons Injured: 2 Extent of Injuries: CC **Case: 2011-34172191**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: STOP SIGN
 Manner of Collision: UNKNOWN Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

10-RA**INJ**

Veh :2	CAR/VAN/PICKUP	Registered Weight: 2834	State of Registration: NY
	Num of Occupants: 1	Driver's Age: 32	Sex: F Citation Issued: N
	Direction of Travel: NORTH	Public Property Damage: N	School Bus Involved: N
	Pre-Accd Action: GOING STRAIGHT AHEAD		
	Apparent Factors: FAILURE TO YIELD RIGHT OF WAY, UNKNOWN		
Veh :1	CAR/VAN/PICKUP	Registered Weight: 2770	State of Registration: NY
	Num of Occupants: 2	Driver's Age: 41	Sex: F Citation Issued: N
	Direction of Travel: WEST	Public Property Damage: N	School Bus Involved: N
	Pre-Accd Action: GOING STRAIGHT AHEAD		
	Apparent Factors: NOT APPLICABLE, UNKNOWN		

Accident Location Information System (ALIS)

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8737 VDR Union Ave from Hawkins Ave to Babcock Ave, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: UNION AVE
AT INTERSECTION WITH BABCOCK AVE

11/25/2009 Wed 23:56 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2009-NR2920609**
 Accident Class: NON-REPORTABLE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: STOP SIGN
 Manner of Collision: OTHER Weather: RAIN
 Road Surface Condition: WET Road Char.: Light Condition: DARK-ROAD LIGHTED
 Loc. of Ped/Bicycle: INVALID CODE Action of Ped/Bicycle:

Veh :1 OTHER Registered Weight: State of Registration:
 Num of Occupants: Driver's Age: Sex: Citation Issued:
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: X
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :2 OTHER Registered Weight: State of Registration:
 Num of Occupants: Driver's Age: Sex: Citation Issued:
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: X
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, DRIVER INATTENTION

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: UNION AVE
AT INTERSECTION WITH MILL RD

4/19/2010 Mon 06:46 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2010-NR3046533**
 Accident Class: NON-REPORTABLE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: RIGHT ANGLE Weather: CLEAR
 Road Surface Condition: DRY Road Char.: Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: INVALID CODE Action of Ped/Bicycle: **SAME**

Veh :1 OTHER Registered Weight: State of Registration:
 Num of Occupants: Driver's Age: Sex: Citation Issued:
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: X
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :2 OTHER Registered Weight: State of Registration:

Num of Occupants:	Driver's Age:	Sex:	Citation Issued:
Direction of Travel: EAST	Public Property Damage: N		School Bus Involved: X
Pre-Accd Action: GOING STRAIGHT AHEAD			
Apparent Factors: UNKNOWN, TRAFFIC CONTROL DEVICES DISREGARDED			

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: UNION AVE
 AT INTERSECTION WITH CARROLL AVE

5/6/2011	Fri	Persons Killed:	Persons Injured:	Extent of Injuries:	Case: 2011-34302633
		Accident Class:	Police Agency:	Traffic Control:	Num of Veh:
		Type Of Accident:			Weather:
		Manner of Collision:		Road Char.:	Light Condition:
		Road Surface Condition:		Action of Ped/Bicycle:	
		Loc. of Ped/Bicycle:			

Accident Location Information System (ALIS)

Date: 01/07/13

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8737 VDR Union Ave from Hawkins Ave to Babcock Ave, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: UNION AVE

***** CONTINUED

Veh : Registered Weight: State of Registration:
 Num of Occupants: Driver's Age: Sex: Citation Issued:
 Direction of Travel: Public Property Damage: School Bus Involved:
 Pre-Accd Action:

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: UNION AVE

AT INTERSECTION WITH CARROLL AVE

6/30/2011 Thu Persons Killed: Persons Injured: Extent of Injuries: **Case: 2011-34337810**
 Accident Class: Police Agency: Num of Veh:
 Type Of Accident: Traffic Control:
 Manner of Collision: Weather:
 Road Surface Condition: Road Char.: Light Condition:
 Loc. of Ped/Bicycle: Action of Ped/Bicycle:

Veh : Registered Weight: State of Registration:
 Num of Occupants: Driver's Age: Sex: Citation Issued:
 Direction of Travel: Public Property Damage: School Bus Involved:
 Pre-Accd Action:

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: UNION AVE

AT INTERSECTION WITH CARROLL AVE

9/2/2011 Fri 14:46 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2011-34410083**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: STOP SIGN
 Manner of Collision: RIGHT ANGLE Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3335 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 63 Sex: F Citation Issued: N
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 4081 State of Registration: NY

10-RA

PDO

Accident Location Information System (ALIS)

Accident Verbal Description Report

8737 VDR Union Ave from Hawkins Ave to Babcock Ave, Suffolk

Data in this report covers the period Jan 31, 2009 - Jan 31, 2012

Complete Accident data from NYS DMV is only available thru 1/31/2012

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County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: UNION AVE

***** CONTINUED

Veh :2 CAR/VAN/PICKUP Registered Weight: 4380 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 32 Sex: M Citation Issued: N
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: NOT APPLICABLE, DRIVER INATTENTION

Veh :1 CAR/VAN/PICKUP Registered Weight: 4156 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 35 Sex: F Citation Issued: N
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: SLOWED OR STOPPING
 Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: UNION AVE

AT INTERSECTION WITH MILL RD

7/20/2011 Wed 12:30 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2011-34411573**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: UNKNOWN Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 2868 State of Registration: NY **SAME**
 Num of Occupants: 1 Driver's Age: 48 Sex: M Citation Issued: N
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: STOPPED IN TRAFFIC
 Apparent Factors: NOT APPLICABLE, UNKNOWN

Veh :2 TRUCK Registered Weight: 10000 State of Registration: NY
 Num of Occupants: 2 Driver's Age: 24 Sex: M Citation Issued: Y
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: BACKING
 Apparent Factors: BACKING UNSAFELY, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: UNION AVE
AT INTERSECTION WITH MILL RD

12/21/2011 Wed 16:55 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2011-34404344**
Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: SIDESWIPE Weather: RAIN
Road Surface Condition: WET Road Char.: STRAIGHT AND LEVEL Light Condition: UNKNOWN
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3063 State of Registration: NY
Num of Occupants: 1 Driver's Age: 45 Sex: F Citation Issued: Y
Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: UNKNOWN, UNKNOWN

SAME

Accident Location Information System (ALIS)

Date: 01/07/13

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Accident Verbal Description Report

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8737 VDR Union Ave from Hawkins Ave to Babcock Ave, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: UNION AVE

***** CONTINUED

Veh :1 CAR/VAN/PICKUP Registered Weight: 2952 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 25 Sex: F Citation Issued: Y
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: MAKING LEFT TURN
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: UNION AVE

AT INTERSECTION WITH MILL RD

4/30/2010 Fri 16:58 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2010-NR3060490**
 Accident Class: NON-REPORTABLE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: OTHER Weather: CLEAR
 Road Surface Condition: DRY Road Char.: Light Condition: DAYLIGHT **SAME**
 Loc. of Ped/Bicycle: INVALID CODE Action of Ped/Bicycle:

Veh :1 OTHER Registered Weight: State of Registration:
 Num of Occupants: Driver's Age: Sex: Citation Issued:
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: X
 Pre-Accd Action: MAKING RIGHT TURN
 Apparent Factors: UNKNOWN, UNKNOWN

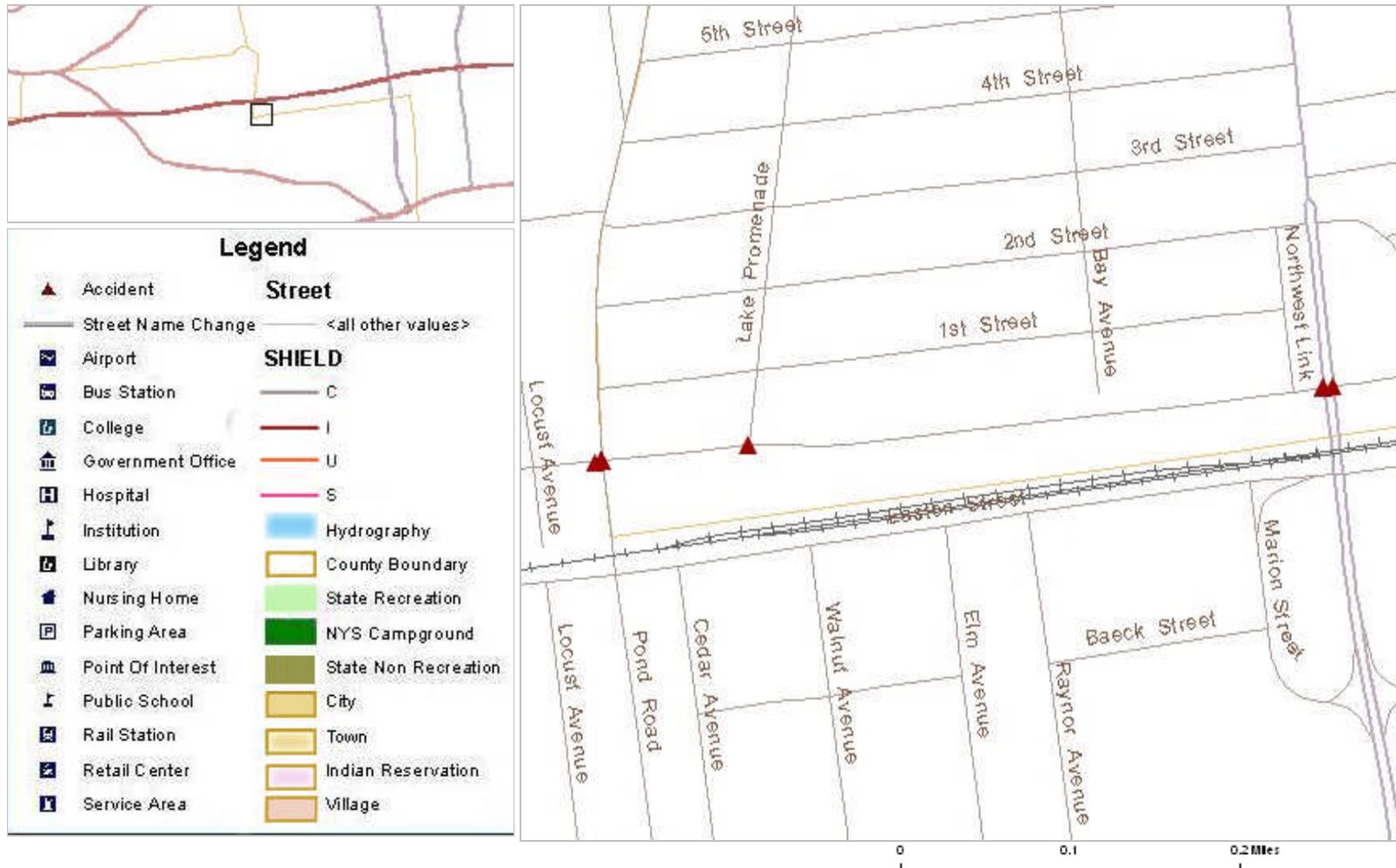
Veh :2 OTHER Registered Weight: State of Registration:
 Num of Occupants: Driver's Age: Sex: Citation Issued:
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: X
 Pre-Accd Action: MAKING RIGHT TURN
 Apparent Factors: TURNING IMPROPER, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: MILL RD

AT INTERSECTION WITH UNION AVE

1/9/2012 Mon 18:25 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2012-34465897**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2 **SAME**
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: OVERTAKING Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

8737 VDR Johnson Ave from Ronkonkoma Ave to Pond Rd, Suffolk



Accident Location Information System (ALIS)

Date: 01/07/13

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Accident Verbal Description Report

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8737 VDR Johnson Ave from Ronkonkoma Ave to Pond Rd, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: JOHNSON AVE
AT INTERSECTION WITH POND RD

2/4/2009 Wed 10:05 AM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2009-32986677**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: LEFT TURN (WITH OTHER CAR) Weather: CLEAR
 Road Surface Condition: SNOW/ICE Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 OTHER Registered Weight: State of Registration:
 Num of Occupants: 0 Driver's Age: Sex: Citation Issued:
 Direction of Travel: UNKNOWN Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: UNKNOWN
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :1 CAR/VAN/PICKUP Registered Weight: 2338 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 74 Sex: F Citation Issued: N
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: UNKNOWN
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: POND RD
AT INTERSECTION WITH JOHNSON AVE

5/8/2010 Sat 16:00 PM Persons Killed: 0 Persons Injured: 2 Extent of Injuries: CC **Case: 2010-33453536**
 Accident Class: INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: RIGHT ANGLE Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3944 State of Registration: NY
 Num of Occupants: 2 Driver's Age: 66 Sex: M Citation Issued: N
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :2 CAR/VAN/PICKUP Registered Weight: 2962 State of Registration: NY

Accident Location Information System (ALIS)

Date: 01/07/13

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Accident Verbal Description Report

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8737 VDR Johnson Ave from Ronkonkoma Ave to Pond Rd, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: JOHNSON AVE

***** CONTINUED

Veh :2 CAR/VAN/PICKUP Registered Weight: 3630 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 42 Sex: F Citation Issued: N
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: DRIVER INATTENTION, UNKNOWN

Veh :1 CAR/VAN/PICKUP Registered Weight: 3257 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 39 Sex: F Citation Issued: N
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: JOHNSON AVE

AT INTERSECTION WITH POND RD

8/13/2010 Fri 16:01 PM Persons Killed: 0 Persons Injured: 3 Extent of Injuries: CCC **Case: 2010-33585674**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: RIGHT ANGLE Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 OTHER Registered Weight: State of Registration: NY
 Num of Occupants: 2 Driver's Age: Sex: M Citation Issued: N
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :2 CAR/VAN/PICKUP Registered Weight: 3752 State of Registration: NY
 Num of Occupants: 2 Driver's Age: 22 Sex: F Citation Issued: N
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: TRAFFIC CONTROL DEVICES DISREGARDED, DRIVER INATTENTION

County: Suffolk	Muni: Brookhaven(T)	Ref. Marker:	Street: RONKONKOMA AVE			
8/21/2010	Sat 12:04 PM	Persons Killed: 0	Persons Injured: 0	Extent of Injuries:	Case: 2010-33615061	
	Accident Class: PROPERTY DAMAGE			Police Agency:	Num of Veh: 2	
	Type Of Accident: COLLISION WITH MOTOR VEHICLE				Traffic Control: UNKNOWN	
	Manner of Collision: OVERTAKING				Weather: CLEAR	
	Road Surface Condition: DRY		Road Char.: CURVE AND LEVEL		Light Condition: DAYLIGHT	
	Loc. of Ped/Bicycle: NOT APPLICABLE			Action of Ped/Bicycle: NOT APPLICABLE		
Veh :1	CAR/VAN/PICKUP		Registered Weight: 3349		State of Registration: NY	
	Num of Occupants: 1		Driver's Age: 60	Sex: F	Citation Issued: N	
	Direction of Travel: NORTH		Public Property Damage: N		School Bus Involved: N	
	Pre-Accd Action: GOING STRAIGHT AHEAD					
	Apparent Factors: UNKNOWN, UNKNOWN					

Accident Location Information System (ALIS)

Date: 01/07/13

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Accident Verbal Description Report

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8737 VDR Johnson Ave from Ronkonkoma Ave to Pond Rd, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE

***** CONTINUED

Veh :2 CAR/VAN/PICKUP Registered Weight: 4026 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 18 Sex: M Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE

11/29/2010

Mon 17:25 PM

Persons Killed: 0

Persons Injured: 2

Extent of Injuries: CC

Case: 2010-33702006

Accident Class: PROPERTY DAMAGE AND INJURY

Police Agency:

Num of Veh: 4

Type Of Accident: COLLISION WITH MOTOR VEHICLE

Traffic Control: NONE

Manner of Collision: OTHER

Weather: CLEAR

Road Surface Condition: DRY

Road Char.: STRAIGHT/ GRADE

Light Condition: DARK-ROAD UNLIGHTED

Loc. of Ped/Bicycle: NOT APPLICABLE

Action of Ped/Bicycle: NOT APPLICABLE

Veh :4 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
 Num of Occupants: 1 Driver's Age: 48 Sex: M Citation Issued: Y
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: ILLNESS, FOLLOWING TOO CLOSELY

Veh :3 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
 Num of Occupants: 2 Driver's Age: 49 Sex: M Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3118 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 52 Sex: F Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: SLOWED OR STOPPING
 Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 4540 State of Registration: NY

Accident Location Information System (ALIS)

Date: 01/07/13

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Accident Verbal Description Report

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8737 VDR Johnson Ave from Ronkonkoma Ave to Pond Rd, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

County: Suffolk Muni: Islip(T) Ref. Marker: Street: JOHNSON AVE

***** CONTINUED

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
 Num of Occupants: 1 Driver's Age: 46 Sex: M Citation Issued: N
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: STOPPED IN TRAFFIC
 Apparent Factors: NOT APPLICABLE, UNKNOWN

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
 Num of Occupants: 1 Driver's Age: 37 Sex: M Citation Issued: N
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, DRIVER INATTENTION

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: JOHNSON AVE

AT INTERSECTION WITH LAKE PROMENADE

6/21/2010 Mon 11:03 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2010-33868756**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
 Manner of Collision: RIGHT ANGLE Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3527 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 23 Sex: F Citation Issued: N
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :2 CAR/VAN/PICKUP Registered Weight: 3757 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 17 Sex: F Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: MAKING LEFT TURN
 Apparent Factors: UNKNOWN, FAILURE TO YIELD RIGHT OF WAY

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: LAKELAND ST
33 Meters East of NW Link

6/17/2010 Thu 08:15 AM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: B **Case: 2010-33868828**
Accident Class: INJURY Police Agency: Num of Veh: 1
Type Of Accident: COLLISION WITH PEDESTRIAN Traffic Control: NONE
Manner of Collision: OTHER Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: PED/BICYCLIST NOT AT INTERSECTION Action of Ped/Bicycle: WORKING IN ROADWAY

15-PED
INJ

Veh :1 OTHER Registered Weight: State of Registration:
Num of Occupants: 0 Driver's Age: Sex: Citation Issued:
Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
Pre-Accd Action: OTHER
Apparent Factors: NOT APPLICABLE, UNKNOWN

Accident Location Information System (ALIS)

Date: 01/07/13

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Accident Verbal Description Report

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8737 VDR Johnson Ave from Ronkonkoma Ave to Pond Rd, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: LAKELAND ST

***** CONTINUED

Veh :2 PEDESTRIAN Registered Weight: State of Registration:
 Num of Occupants: 1 Driver's Age: 65 Sex: M Citation Issued: N
 Direction of Travel: NOT APPLICABLE Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: NOT APPLICABLE
 Apparent Factors: UNKNOWN, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: JOHNSON AVE
 AT INTERSECTION WITH LAKE PROMENADE

7/15/2010 Thu 18:05 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2010-33901696**
 Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: STOP SIGN
 Manner of Collision: LEFT TURN (WITH OTHER CAR) Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 4834 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 35 Sex: M Citation Issued: Y
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNSAFE SPEED

Veh :2 CAR/VAN/PICKUP Registered Weight: 4867 State of Registration: NY
 Num of Occupants: 2 Driver's Age: 18 Sex: F Citation Issued: N
 Direction of Travel: SOUTH-EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: MAKING LEFT TURN
 Apparent Factors: FAILURE TO YIELD RIGHT OF WAY, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: JOHNSON AVE
 AT INTERSECTION WITH POND RD

8/6/2010 Fri 14:00 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2010-33921882**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: RIGHT ANGLE Weather: CLOUDY
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2	CAR/VAN/PICKUP	Registered Weight: 3619	State of Registration: NY
	Num of Occupants: 2	Driver's Age: 52	Sex: F Citation Issued: N
	Direction of Travel: NORTH	Public Property Damage: N	School Bus Involved: N
	Pre-Accd Action: GOING STRAIGHT AHEAD		
	Apparent Factors: TRAFFIC CONTROL DEVICES DISREGARDED, UNKNOWN		
Veh :1	CAR/VAN/PICKUP	Registered Weight: 2272	State of Registration: NY
	Num of Occupants: 1	Driver's Age: 28	Sex: F Citation Issued: N
	Direction of Travel: WEST	Public Property Damage: N	School Bus Involved: N
	Pre-Accd Action: GOING STRAIGHT AHEAD		
	Apparent Factors: UNKNOWN, UNKNOWN		

Accident Location Information System (ALIS)

Date: 01/07/13

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8737 VDR Johnson Ave from Ronkonkoma Ave to Pond Rd, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: POND RD
AT INTERSECTION WITH JOHNSON AVE

6/1/2011 Wed 13:52 PM Persons Killed: 0 Persons Injured: 2 Extent of Injuries: CC **Case: 2011-33941492**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: RIGHT ANGLE Weather: CLOUDY
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3880 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 28 Sex: F Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :2 CAR/VAN/PICKUP Registered Weight: 3499 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 41 Sex: M Citation Issued: N
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: DRIVER INATTENTION, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE

9/17/2010 Fri 18:39 PM Persons Killed: 0 Persons Injured: 2 Extent of Injuries: CC **Case: 2010-33959214**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 3
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: STOP SIGN
 Manner of Collision: OTHER Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 4178 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 45 Sex: M Citation Issued: N
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: STOPPED IN TRAFFIC
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :3 CAR/VAN/PICKUP Registered Weight: 3032 State of Registration: NY

Accident Location Information System (ALIS)

Date: 01/07/13

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Accident Verbal Description Report

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8737 VDR Johnson Ave from Ronkonkoma Ave to Pond Rd, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: JOHNSON AVE
AT INTERSECTION WITH POND RD

8/15/2011 Mon 16:25 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2011-34051028**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: RIGHT ANGLE Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 2864 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 46 Sex: M Citation Issued: N
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 2418 State of Registration: NY
 Num of Occupants: 4 Driver's Age: 43 Sex: M Citation Issued: N
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, NOT APPLICABLE

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: JOHNSON AVE
AT INTERSECTION WITH POND RD

8/31/2011 Wed 20:15 PM Persons Killed: 0 Persons Injured: 2 Extent of Injuries: CC **Case: 2011-34069425**
 Accident Class: INJURY Police Agency: Num of Veh: 3
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: OTHER Weather: CLOUDY
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :3 CAR/VAN/PICKUP Registered Weight: 2020 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 62 Sex: F Citation Issued: N
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY

	Num of Occupants: 1	Driver's Age: 42	Sex: F	Citation Issued: N
	Direction of Travel: SOUTH	Public Property Damage: N		School Bus Involved: N
	Pre-Accd Action: GOING STRAIGHT AHEAD			
	Apparent Factors: TRAFFIC CONTROL DEVICES DISREGARDED, UNKNOWN			
Veh :1	CAR/VAN/PICKUP	Registered Weight: 3700		State of Registration: NY
	Num of Occupants: 2	Driver's Age: 40	Sex: F	Citation Issued: N
	Direction of Travel: EAST	Public Property Damage: N		School Bus Involved: N
	Pre-Accd Action: GOING STRAIGHT AHEAD			
	Apparent Factors: UNKNOWN, UNKNOWN			

Accident Location Information System (ALIS)

Date: 01/07/13

02:14

Accident Verbal Description Report

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8737 VDR Johnson Ave from Ronkonkoma Ave to Pond Rd, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

County: Suffolk 11/29/2010	Muni: Brookhaven(T) Mon	Ref. Marker: Persons Killed:	Street: RONKONKOMA AVE Persons Injured:	Extent of Injuries:	Case: 2010-34135873
	Accident Class:		Police Agency:	Num of Veh:	
	Type Of Accident:			Traffic Control:	Weather:
	Manner of Collision:			Road Char.:	Light Condition:
	Road Surface Condition:			Action of Ped/Bicycle:	
	Loc. of Ped/Bicycle:				
Veh :	Registered Weight:			State of Registration:	
	Num of Occupants:		Driver's Age:	Sex:	Citation Issued:
	Direction of Travel:		Public Property Damage:		School Bus Involved:
	Pre-Accd Action:				
County: Suffolk 12/20/2010	Muni: Brookhaven(T) Mon 12:40 PM	Ref. Marker: Persons Killed: 0	Street: JOHNSON AVE Persons Injured: 0	Extent of Injuries:	Case: 2010-34146269
AT INTERSECTION WITH POND RD	Accident Class: PROPERTY DAMAGE			Police Agency:	Num of Veh: 2
	Type Of Accident: COLLISION WITH MOTOR VEHICLE			Traffic Control: TRAFFIC SIGNAL	Weather: CLEAR
	Manner of Collision: LEFT TURN (WITH OTHER CAR)				Light Condition: DAYLIGHT
	Road Surface Condition: DRY		Road Char.: STRAIGHT AND LEVEL		
	Loc. of Ped/Bicycle: NOT APPLICABLE		Action of Ped/Bicycle: NOT APPLICABLE		
Veh :2	CAR/VAN/PICKUP		Registered Weight: 3418		State of Registration: NY
	Num of Occupants: 1		Driver's Age: 40	Sex: M	Citation Issued: Y
	Direction of Travel: NORTH		Public Property Damage: N		School Bus Involved: N
	Pre-Accd Action: MAKING LEFT TURN				
	Apparent Factors: FAILURE TO YIELD RIGHT OF WAY, UNKNOWN				
Veh :1	CAR/VAN/PICKUP		Registered Weight: 4370		State of Registration: NY
	Num of Occupants: 1		Driver's Age: 67	Sex: F	Citation Issued: N
	Direction of Travel: SOUTH		Public Property Damage: N		School Bus Involved: N
	Pre-Accd Action: GOING STRAIGHT AHEAD				
	Apparent Factors: UNKNOWN, UNKNOWN				
County: Suffolk 2/2/2011	Muni: Brookhaven(T) Wed 00:50 AM	Ref. Marker: Persons Killed: 0	Street: RONKONKOMA AVE Persons Injured: 0	Extent of Injuries:	Case: 2011-34213176
	Accident Class: PROPERTY DAMAGE			Police Agency:	Num of Veh: 2

Type Of Accident: COLLISION WITH MOTOR VEHICLE
Manner of Collision: UNKNOWN
Road Surface Condition: SNOW/ICE
Loc. of Ped/Bicycle: NOT APPLICABLE

Weather: SLEET/HAIL/FREEZING RAIN
Road Char.: STRAIGHT AND LEVEL
Action of Ped/Bicycle: NOT APPLICABLE

Traffic Control: NONE
Light Condition: DARK-ROAD LIGHTED

Veh :2 CAR/VAN/PICKUP Registered Weight: 3350 State of Registration: NY
Num of Occupants: 1 Driver's Age: 27 Sex: M Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: N
Pre-Accd Action: STARTING IN TRAFFIC
Apparent Factors: PAVEMENT SLIPPERY, VIEW OBSTRUCTED/LIMITED

Accident Location Information System (ALIS)

Date: 01/07/13

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Accident Verbal Description Report

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8737 VDR Johnson Ave from Ronkonkoma Ave to Pond Rd, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RONKONKOMA AVE

***** CONTINUED

Veh :1 CAR/VAN/PICKUP Registered Weight: 4379 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 46 Sex: M Citation Issued: N
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, NOT APPLICABLE

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: JOHNSON AVE

AT INTERSECTION WITH POND RD

9/9/2011 Fri 15:59 PM Persons Killed: 0 Persons Injured: 2 Extent of Injuries: CC **Case: 2011-34280565**
 Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: Num of Veh: 3
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: OTHER Weather: CLEAR
 Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3759 State of Registration: NY
 Num of Occupants: 2 Driver's Age: 16 Sex: F Citation Issued: N
 Direction of Travel: EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: NOT APPLICABLE, UNKNOWN

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
 Num of Occupants: 1 Driver's Age: 77 Sex: M Citation Issued: N
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: MAKING RIGHT TURN
 Apparent Factors: NOT APPLICABLE, UNKNOWN

Veh :3 CAR/VAN/PICKUP Registered Weight: 4045 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 25 Sex: F Citation Issued: N
 Direction of Travel: NORTH Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: TRAFFIC CONTROL DEVICES DISREGARDED, UNSAFE LANE CHANGE

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: JOHNSON AVE
 AT INTERSECTION WITH POND RD

5/9/2010 Sun 13:35 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2010-NR2994403**
 Accident Class: NON-REPORTABLE Police Agency: Num of Veh: 2
 Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
 Manner of Collision: RIGHT ANGLE Weather: CLEAR
 Road Surface Condition: DRY Road Char.: Light Condition: DAYLIGHT
 Loc. of Ped/Bicycle: INVALID CODE Action of Ped/Bicycle:

Veh :1 OTHER Registered Weight: State of Registration:
 Num of Occupants: Driver's Age: Sex: Citation Issued:
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: X
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: UNKNOWN, UNKNOWN

Accident Location Information System (ALIS)

Date: 01/07/13

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Accident Verbal Description Report

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8737 VDR Johnson Ave from Ronkonkoma Ave to Pond Rd, Suffolk**Data in this report covers the period Jan 31, 2009 - Jan 31, 2012****Complete Accident data from NYS DMV is only available thru 1/31/2012**

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: JOHNSON AVE

***** CONTINUED

Veh :2 OTHER Registered Weight: State of Registration:
 Num of Occupants: Driver's Age: Sex: Citation Issued:
 Direction of Travel: SOUTH Public Property Damage: N School Bus Involved: X
 Pre-Accd Action: SLOWED OR STOPPING
 Apparent Factors: DRIVER INATTENTION, UNKNOWN

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: RAILROAD AVE

1/17/2012

Tue 20:40 PM

Persons Killed: 0

Persons Injured: 2

Extent of Injuries: AB

Case: 2012-34457219

Accident Class: PROPERTY DAMAGE AND INJURY

Police Agency:

Num of Veh: 2

Type Of Accident: COLLISION WITH MOTOR VEHICLE

Traffic Control: STOP SIGN

Weather: RAIN

Manner of Collision: LEFT TURN (AGAINST OTHER CAR)

Road Surface Condition: WET

Road Char.: STRAIGHT AND LEVEL

Light Condition: DARK-ROAD UNLIGHTED

Loc. of Ped/Bicycle: NOT APPLICABLE

Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 2187 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 49 Sex: M Citation Issued: N
 Direction of Travel: WEST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: GOING STRAIGHT AHEAD
 Apparent Factors: NOT ENTERED, NOT ENTERED

Veh :2 CAR/VAN/PICKUP Registered Weight: 2926 State of Registration: NY
 Num of Occupants: 1 Driver's Age: 38 Sex: M Citation Issued: N
 Direction of Travel: SOUTH-EAST Public Property Damage: N School Bus Involved: N
 Pre-Accd Action: MAKING LEFT TURN
 Apparent Factors: NOT ENTERED, FAILURE TO YIELD RIGHT OF WAY

County: Suffolk Muni: Brookhaven(T) Ref. Marker: Street: JOHNSON AVE

AT INTERSECTION WITH POND RD

1/9/2012

Mon 15:41 PM

Persons Killed: 0

Persons Injured: 1

Extent of Injuries: C

Case: 2012-34465906

Accident Class: INJURY

Police Agency:

Num of Veh: 2

Type Of Accident: COLLISION WITH MOTOR VEHICLE

Traffic Control: TRAFFIC SIGNAL

Manner of Collision: REAR END

Weather: CLEAR

Road Surface Condition: DRY

Road Char.: STRAIGHT AND LEVEL

Light Condition: DAYLIGHT

Loc. of Ped/Bicycle: NOT APPLICABLE

Action of Ped/Bicycle: NOT APPLICABLE

Veh :1	CAR/VAN/PICKUP	Registered Weight: 3456	State of Registration: NY
	Num of Occupants: 1	Driver's Age: 48	Sex: F Citation Issued: N
	Direction of Travel: WEST	Public Property Damage: N	School Bus Involved: N
	Pre-Accd Action: MAKING LEFT TURN		
	Apparent Factors: NOT APPLICABLE, NOT APPLICABLE		
Veh :2	CAR/VAN/PICKUP	Registered Weight: 5339	State of Registration: NY
	Num of Occupants: 1	Driver's Age: 38	Sex: M Citation Issued: N
	Direction of Travel: WEST	Public Property Damage: N	School Bus Involved: N
	Pre-Accd Action: GOING STRAIGHT AHEAD		
	Apparent Factors: FOLLOWING TOO CLOSELY, NOT APPLICABLE		

Appendix - Air Quality

Air Quality

1. Background Concentrations
2. CAL3QHC Input Files (CO, PM10, PM2.5)
3. CAL3QHC Output Files (CO, PM10, PM2.5)
4. Microscale Results Summary

1. Background Concentrations

Summary of Background Concentrations

Carbon Monoxide (CO) Background Concentrations			
Queens College (NYS Region 2)			
Time Period	Background Concentration*		NAAQS Standard
	(ppm)	(Micrograms/meter3)	ug/m3 (ppm)
1-Hour	3.4	3,960	40,000 (35)
8-Hour	1.7	1,980	10,000 (9)
Calculated Persistence Factor	0.50		

Particulate Matter (PM2.5) Background Concentrations			
New York State Ambient Air Quality Report, 2011			
Babylon (NYSDEC Region1)			
Time Period	Background Concentration*		NAAQS Standard
	(ppm)	(Micrograms/meter3)	ug/m3 (ppm)
24-Hour	-	23	35.0
Annual	-	8.5	15.0

* Average value of 2009,2010,2011

Particulate Matter (PM10) Background Concentrations			
New York State Ambient Air Quality Report, 2011			
Divison Street (NYSDEC Region 2)			
Time Period	Background Concentration*		NAAQS Standard
	(ppm)	(Micrograms/meter3)	ug/m3 (ppm)
24-Hour	-	45.3	150.0

* Average value of 2009,2010,2011

Adjustment from 1-hour (DEP Standards, not project-specific)			
<u>Annual</u>	<u>24-Hour</u>	<u>8-Hour</u>	<u>3-Hour</u>
0.08	0.40	0.70	0.90

2. CAL3QHC Input Files

- a) CO
- b) PM10
- c) PM2.5

2.a CAL3QHC Input Files Carbon Monoxide (CO)

										EX. i np	
'Ronkonkama'	60	175	0	0	55	0.3048	1	0			
'LIE N/Hawk NE1'		3443.88		6057.47	6						
'LIE N/Hawk NE2'		3441.99		5982.5	6						
'LIE N/Hawk NE3'		3440.11		5907.52	6						
'LIE N/Hawk NE4'		3514.28		5918.64	6						
'LIE N/Hawk NE5'		3588.45		5929.76	6						
'LIE N/Hawk SE1'		3590.32		5855.21	6						
'LIE N/Hawk SE2'		3516.15		5844.09	6						
'LIE N/Hawk SE3'		3441.98		5832.97	6						
'LIE N/Hawk SE4'		3441.98		5757.97	6						
'LIE N/Hawk SE5'		3441.98		5682.97	6						
'LIE N/Hawk SW1'		3343.98		5669.13	6						
'LIE N/Hawk SW2'		3343.98		5744.35	6						
'LIE N/Hawk SW3'		3343.98		5819.13	6						
'LIE N/Hawk SW4'		3269.65		5809.15	6						
'LIE N/Hawk SWS'		3195.31		5799.16	6						
'LIE N/Hawk NW1'		3199.08		5874.34	6						
'LIE N/Hawk NW2'		3273.42		5884.32	6						
'LIE N/Hawk NW3'		3347.75		5894.3	6						
'LIE N/Hawk NW4'		3349.63		5969.27	6						
'LIE N/Hawk NW5'		3351.51		6044.25	6						
'LIE S/Hawk NE1'		3442.18		5637.26	6						
'LIE S/Hawk NE2'		3440.02		5562.29	6						
'LIE S/Hawk NE3'		3437.87		5487.32	6						
'LIE S/Hawk NE4'		3506.8		5516.88	6						
'LIE S/Hawk NE5'		3575.73		5546.45	6						
'LIE S/Hawk SE1'		3567.47		5462.39	6						
'LIE S/Hawk SE2'		3498.54		5432.82	6						
'LIE S/Hawk SE3'		3429.61		5403.26	6						
'LIE S/Hawk SE4'		3428.03		5328.27	6						
'LIE S/Hawk SE5'		3426.44		5253.29	6						
'LIE S/Hawk SW1'		3339.7		5219.15	6						
'LIE S/Hawk SW2'		3341.28		5294.13	6						
'LIE S/Hawk SW3'		3342.87		5369.12	6						
'LIE S/Hawk SW4'		3272.67		5342.72	6						
'LIE S/Hawk SW5'		3202.47		5316.32	6						
'Hawk/Uni on NE1'		3417.13		4859.77	6						
'Hawk/Uni on NE2'		3425.41		4785.26	6						
'Hawk/Uni on NE3'		3433.7		4710.69	6						
'Hawk/Uni on NE4'		3509.09		4721.17	6						
'Hawk/Uni on NE5'		3582.27		4731.34	6						
'Hawk/Uni on SE1'		3584.7		4656.96	6						
'Hawk/Uni on SE2'		3510.41		4646.64	6						
'Hawk/Uni on SE3'		3436.13		4636.32	6						
'Hawk/Uni on SE4'		3444.81		4561.82	6						
'Hawk/Uni on SE5'		3453		4487.27	6						
'Hawk/Uni on W1'		3388.84		4506.46	6						
'Hawk/Uni on W2'		3380.16		4580.96	6						
'Hawk/Uni on W3'		3371.48		4655.45	6						
'Hawk/Uni on W4'		3357.2		4729.08	6						
'Hawk/Uni on W5'		3348.9		4803.74	6						
'LIE S/Hawk NW1'		3198.26		5393.8	6						
'LIE S/Hawk NW2'		3268.46		5420.19	6						
'LIE S/Hawk NW3'		3338.66		5446.59	6						
'LIE S/Hawk NW4'		3340.81		5521.56	6						
'LIE S/Hawk NW5'		3342.97		5596.53	6						
'EXISTING'	24	1	0								
'LIE N/Hawki ns SB TTR'		'AG'	3375.06	5903.84	3376.91	6041.11	1	20	2		
100	62	3	571	33.66	1600	1	3				
'LIE N/Hawk WB LTTR'		'AG'	3446.05	5872.52	3600.92	5899.23	1	30	3		
100	50	3	678	33.66	1600	1	3				
'LIE N/Hawki ns NB L'		'AG'	3393.34	5814.62	3391.43	5717.39	1	10	1		
100	88	3	190	33.66	1600	1	3				
'LIE N/Hawki ns NB TT'		'AG'	3416.23	5814.3	3415.91	5716.76	1	20	2		
100	62	3	626	33.66	1600	1	3				
'LIE S/Hawki ns SB L'		'AG'	3391.12	5495.92	3392.39	5586.16	1	10	1		
100	78	3	335	33.66	1600	1	3				
'LIE S/Hawki ns SB TT'		'AG'	3370.77	5481.62	3372.68	5585.84	1	20	2		
100	75	3	308	33.66	1600	1	3				
'LIE S/Hawki ns NB TTR'		'AG'	3405.1	5396.8	3402.87	5297.98	1	20	2		
100	75	3	663	33.66	1600	1	3				
'LIE S/Hawk EB LTTR'		'AG'	3339.28	5401.89	3231.18	5361.53	1	30	3		
100	50	3	2183	33.66	1600	1	3				
'Hawk/Uni on SB L'		'AG'	3390.64	4707.99	3384.87	4782.2	1	10	1		
81	62	3	363	33.66	1600	1	3				
'Hawk/Uni on SB T'		'AG'	3377.83	4706.07	3370.15	4780.92	1	10	1		
81	22	3	148	33.66	1600	1	3				
'Hawk/Uni on WB L'		'AG'	3438.01	4679.84	3503.31	4686.23	1	10	1		
81	59	3	74	33.66	1600	1	3				

										EX. i np	
'Hawk/Uni on WB R'		'AG'	3437.33	4691.34	3501.15	4700.39	1	10	1		
81	40	3	417	33.66	1600	1	3				
'Hawk/Uni on NB TR'		'AG'	3412.48	4623.26	3422.65	4535.17	1	10	1		
81	41	3	224	33.66	1600	1	3				
'LIE N/Hawki ns N'		'AG'	3392.98	5863.04	3401.91	6218.76	1450	3.05	1	72	
'LIE N/Hawki ns E'		'AG'	3392.98	5863.04	3735.38	5914.37	931	4.72	1	54	
'LIE N/Hawki ns W'		'AG'	3392.98	5863.04	3392.98	5611.45	1459	3.05	1	78	
'LIE S/Hawki ns N'		'AG'	3392.98	5863.04	3036.72	5815.2	796	4.72	1	54	
'LIE S/Hawki ns E'		'AG'	3387.07	5425.27	3394.1	5670	1458	3.05	1	78	
'LIE S/Hawki ns S'		'AG'	3387.07	5425.27	3651.88	5538.85	2191	4.72	1	54	
'LIE S/Hawki ns W'		'AG'	3387.07	5425.27	3381.18	5147.08	1146	3.05	1	66	
'Uni on/Hawki ns N'		'AG'	3387.07	5425.27	3108.17	5320.39	2183	4.72	1	54	
'Uni on/Hawki ns E'		'AG'	3401.13	4668.81	3378.87	4869.05	641	3.05	1	54	
'Uni on/Hawki ns S'		'AG'	3401.13	4668.81	3620.24	4699.26	941	3.05	1	54	
'Uni on/Hawki ns W'		'AG'	3401.13	4668.81	3421.05	4497.85	533	3.05	1	42	

2.b CAL3QHC Input Files Particulate Matter 10 (PM₁₀)

EX_PM10.inp									
'Ronkonkama'	60	175	0	0	55	0.3048	1	0	
'LIE N/Hawk NE1'	3443.88	6057.47	6						
'LIE N/Hawk NE2'	3441.99	5982.5	6						
'LIE N/Hawk NE3'	3440.11	5907.52	6						
'LIE N/Hawk NE4'	3514.28	5918.64	6						
'LIE N/Hawk NE5'	3588.45	5929.76	6						
'LIE N/Hawk SE1'	3590.32	5855.21	6						
'LIE N/Hawk SE2'	3516.15	5844.09	6						
'LIE N/Hawk SE3'	3441.98	5832.97	6						
'LIE N/Hawk SE4'	3441.98	5757.97	6						
'LIE N/Hawk SE5'	3441.98	5682.97	6						
'LIE N/Hawk SW1'	3343.98	5669.13	6						
'LIE N/Hawk SW2'	3343.98	5744.35	6						
'LIE N/Hawk SW3'	3343.98	5819.13	6						
'LIE N/Hawk SW4'	3269.65	5809.15	6						
'LIE N/Hawk SWS'	3195.31	5799.16	6						
'LIE N/Hawk NW1'	3199.08	5874.34	6						
'LIE N/Hawk NW2'	3273.42	5884.32	6						
'LIE N/Hawk NW3'	3347.75	5894.3	6						
'LIE N/Hawk NW4'	3349.63	5969.27	6						
'LIE N/Hawk NW5'	3351.51	6044.25	6						
'LIE S/Hawk NE1'	3442.18	5637.26	6						
'LIE S/Hawk NE2'	3440.02	5562.29	6						
'LIE S/Hawk NE3'	3437.87	5487.32	6						
'LIE S/Hawk NE4'	3506.8	5516.88	6						
'LIE S/Hawk NE5'	3575.73	5546.45	6						
'LIE S/Hawk SE1'	3567.47	5462.39	6						
'LIE S/Hawk SE2'	3498.54	5432.82	6						
'LIE S/Hawk SE3'	3429.61	5403.26	6						
'LIE S/Hawk SE4'	3428.03	5328.27	6						
'LIE S/Hawk SE5'	3426.44	5253.29	6						
'LIE S/Hawk SW1'	3339.7	5219.15	6						
'LIE S/Hawk SW2'	3341.28	5294.13	6						
'LIE S/Hawk SW3'	3342.87	5369.12	6						
'LIE S/Hawk SW4'	3272.67	5342.72	6						
'LIE S/Hawk SW5'	3202.47	5316.32	6						
'Hawk/Uni on NE1'	3417.13	4859.77	6						
'Hawk/Uni on NE2'	3425.41	4785.26	6						
'Hawk/Uni on NE3'	3433.7	4710.69	6						
'Hawk/Uni on NE4'	3509.09	4721.17	6						
'Hawk/Uni on NE5'	3582.27	4731.34	6						
'Hawk/Uni on SE1'	3584.7	4656.96	6						
'Hawk/Uni on SE2'	3510.41	4646.64	6						
'Hawk/Uni on SE3'	3436.13	4636.32	6						
'Hawk/Uni on SE4'	3444.81	4561.82	6						
'Hawk/Uni on SE5'	3453	4487.27	6						
'Hawk/Uni on W1'	3388.84	4506.46	6						
'Hawk/Uni on W2'	3380.16	4580.96	6						
'Hawk/Uni on W3'	3371.48	4655.45	6						
'Hawk/Uni on W4'	3357.2	4729.08	6						
'Hawk/Uni on W5'	3348.9	4803.74	6						
'LIE S/Hawk NW1'	3198.26	5393.8	6						
'LIE S/Hawk NW2'	3268.46	5420.19	6						
'LIE S/Hawk NW3'	3338.66	5446.59	6						
'LIE S/Hawk NW4'	3340.81	5521.56	6						
'LIE S/Hawk NW5'	3342.97	5596.53	6						
'EXISTING'	24	1	0						
'LIE N/Hawki ns SB TTR'	'AG'	3375.06	5903.84	3376.91	6041.11	1	20	2	
100	62	3	571	0.029	1600	1	3		
'LIE N/Hawk WB LTTR'	'AG'	3446.05	5872.52	3600.92	5899.23	1	30	3	
100	50	3	678	0.029	1600	1	3		
'LIE N/Hawki ns NB L'	'AG'	3393.34	5814.62	3391.43	5717.39	1	10	1	
100	88	3	190	0.029	1600	1	3		
'LIE N/Hawki ns NB TT'	'AG'	3416.23	5814.3	3415.91	5716.76	1	20	2	
100	62	3	626	0.029	1600	1	3		
'LIE S/Hawki ns SB L'	'AG'	3391.12	5495.92	3392.39	5586.16	1	10	1	
100	78	3	335	0.029	1600	1	3		
'LIE S/Hawki ns SB TT'	'AG'	3370.77	5481.62	3372.68	5585.84	1	20	2	
100	75	3	308	0.029	1600	1	3		
'LIE S/Hawki ns NB TTR'	'AG'	3405.1	5396.8	3402.87	5297.98	1	20	2	
100	75	3	663	0.029	1600	1	3		
'LIE S/Hawk EB LTTR'	'AG'	3339.28	5401.89	3231.18	5361.53	1	30	3	
100	50	3	2183	0.029	1600	1	3		
'Hawk/Uni on SB L'	'AG'	3390.64	4707.99	3384.87	4782.2	1	10	1	
81	62	3	363	0.029	1600	1	3		
'Hawk/Uni on SB T'	'AG'	3377.83	4706.07	3370.15	4780.92	1	10	1	
81	22	3	148	0.029	1600	1	3		
'Hawk/Uni on WB L'	'AG'	3438.01	4679.84	3503.31	4686.23	1	10	1	
81	59	3	74	0.029	1600	1	3		

EX_PM10.inp									
'Hawk/Uni on WB R'	'AG'	3437.33	4691.34	3501.15	4700.39	1	10	1	
81	40	3	417	0.029	1600	1	3		
'Hawk/Uni on NB TR'	'AG'	3412.48	4623.26	3422.65	4535.17	1	10	1	
81	41	3	224	0.029	1600	1	3		
'LIE N/Hawki ns N'	'AG'	3392.98	5863.04	3401.91	6218.76	1450	0.028	1	72
'LIE N/Hawki ns E'	'AG'	3392.98	5863.04	3735.38	5914.37	931	0.028	1	54
'LIE N/Hawki ns S'	'AG'	3392.98	5863.04	3392.98	5611.45	1459	0.028	1	78
'LIE N/Hawki ns W'	'AG'	3392.98	5863.04	3036.72	5815.2	796	0.028	1	54
'LIE S/Hawki ns N'	'AG'	3387.07	5425.27	3394.1	5670	1458	0.028	1	78
'LIE S/Hawki ns E'	'AG'	3387.07	5425.27	3651.88	5538.85	2191	0.028	1	54
'LIE S/Hawki ns S'	'AG'	3387.07	5425.27	3381.18	5147.08	1146	0.028	1	66
'LIE S/Hawki ns W'	'AG'	3387.07	5425.27	3108.17	5320.39	2183	0.028	1	54
'Uni on/Hawki ns N'	'AG'	3401.13	4668.81	3378.87	4869.05	641	0.028	1	54
'Uni on/Hawki ns E'	'AG'	3401.13	4668.81	3620.24	4699.26	941	0.028	1	54
'Uni on/Hawki ns S'	'AG'	3401.13	4668.81	3421.05	4497.85	533	0.028	1	42
1	0	4	1000	0	5	0			

2.c CAL3QHC Input Files Particulate Matter 2.5 (PM_{2.5})

EX_PM25.inp										
*Ronkonkama'	60	175	0	0	55	0.3048	1	0		
*LIE N/Hawk NE1'		3443.88		6057.47						
*LIE N/Hawk NE2'		3441.99		5982.5						
*LIE N/Hawk NE3'		3440.11		5907.52						
*LIE N/Hawk NE4'		3514.28		5918.64						
*LIE N/Hawk NE5'		3588.45		5929.76						
*LIE N/Hawk SE1'		3590.32		5855.21						
*LIE N/Hawk SE2'		3516.15		5844.09						
*LIE N/Hawk SE3'		3441.98		5832.97						
*LIE N/Hawk SE4'		3441.98		5757.97						
*LIE N/Hawk SE5'		3441.98		5682.97						
*LIE N/Hawk SW1'		3343.98		5669.13						
*LIE N/Hawk SW2'		3343.98		5744.35						
*LIE N/Hawk SW3'		3343.98		5819.13						
*LIE N/Hawk SW4'		3269.65		5809.15						
*LIE N/Hawk SWS'		3195.31		5799.16						
*LIE N/Hawk NW1'		3199.08		5874.34						
*LIE N/Hawk NW2'		3273.42		5884.32						
*LIE N/Hawk NW3'		3347.75		5894.3						
*LIE N/Hawk NW4'		3349.63		5969.27						
*LIE N/Hawk NW5'		3351.51		6044.25						
*LIE S/Hawk NE1'		3442.18		5637.26						
*LIE S/Hawk NE2'		3440.02		5562.29						
*LIE S/Hawk NE3'		3437.87		5487.32						
*LIE S/Hawk NE4'		3506.8		5516.88						
*LIE S/Hawk NE5'		3575.73		5546.45						
*LIE S/Hawk SE1'		3567.47		5462.39						
*LIE S/Hawk SE2'		3498.54		5432.82						
*LIE S/Hawk SE3'		3429.61		5403.26						
*LIE S/Hawk SE4'		3428.03		5328.27						
*LIE S/Hawk SE5'		3426.44		5253.29						
*LIE S/Hawk SW1'		3339.7		5219.15						
*LIE S/Hawk SW2'		3341.28		5294.13						
*LIE S/Hawk SW3'		3342.87		5369.12						
*LIE S/Hawk SW4'		3272.67		5342.72						
*LIE S/Hawk SWS'		3202.47		5316.32						
*Hawk/Uni on NE1'		3417.13		4859.77						
*Hawk/Uni on NE2'		3425.41		4785.26						
*Hawk/Uni on NE3'		3433.7		4710.69						
*Hawk/Uni on NE4'		3509.09		4721.17						
*Hawk/Uni on NE5'		3582.27		4731.34						
*Hawk/Uni on SE1'		3584.7		4656.96						
*Hawk/Uni on SE2'		3510.41		4646.64						
*Hawk/Uni on SE3'		3436.13		4636.32						
*Hawk/Uni on SE4'		3444.81		4561.82						
*Hawk/Uni on SE5'		3453		4487.27						
*Hawk/Uni on W1'		3388.84		4506.46						
*Hawk/Uni on W2'		3380.16		4580.96						
*Hawk/Uni on W3'		3371.48		4655.45						
*Hawk/Uni on W4'		3357.2		4729.08						
*Hawk/Uni on W5'		3348.9		4803.74						
*LIE S/Hawk NW1'		3198.26		5393.8						
*LIE S/Hawk NW2'		3268.46		5420.19						
*LIE S/Hawk NW3'		3338.66		5446.59						
*LIE S/Hawk NW4'		3340.81		5521.56						
*LIE S/Hawk NW5'		3342.97		5596.53						
*EXISTING	24	1	0							
*LIE N/Hawki ns SB TTR'			'AG'	3375.06	5903.84	3376.91	6041.11	1	20	2
100	62	3	571	0.026	1600	1	3			
*LIE N/Hawk WB LTTR'			'AG'	3446.05	5872.52	3600.92	5899.23	1	30	3
100	50	3	678	0.026	1600	1	3			
*LIE N/Hawki ns NB L'			'AG'	3393.34	5814.62	3391.43	5717.39	1	10	1
100	88	3	190	0.026	1600	1	3			
*LIE N/Hawki ns NB TT'			'AG'	3416.23	5814.3	3415.91	5716.76	1	20	2
100	62	3	626	0.026	1600	1	3			
*LIE S/Hawki ns SB L'			'AG'	3391.12	5495.92	3392.39	5586.16	1	10	1
100	78	3	335	0.026	1600	1	3			
*LIE S/Hawki ns SB TT'			'AG'	3370.77	5481.62	3372.68	5585.84	1	20	2
100	75	3	308	0.026	1600	1	3			
*LIE S/Hawki ns NB TTR'			'AG'	3405.1	5396.8	3402.87	5297.98	1	20	2
100	75	3	663	0.026	1600	1	3			
*LIE S/Hawk EB LTTR'			'AG'	3339.28	5401.89	3231.18	5361.53	1	30	3
100	50	3	2183	0.026	1600	1	3			
*Hawk/Uni on SB L'			'AG'	3390.64	4707.99	3384.87	4782.2	1	10	1
81	62	3	363	0.026	1600	1	3			
*Hawk/Uni on SB T'			'AG'	3377.83	4706.07	3370.15	4780.92	1	10	1
81	22	3	148	0.026	1600	1	3			
*Hawk/Uni on WB L'			'AG'	3438.01	4679.84	3503.31	4686.23	1	10	1
81	59	3	74	0.026	1600	1	3			

EX_PM25.inp											
*Hawk/Uni on WB R'			'AG'	3437.33	4691.34	3501.15	4700.39	1	10	1	
81	40	3	417	0.026	1600	1	3				
*Hawk/Uni on NB TR'			'AG'	3412.48	4623.26	3422.65	4535.17	1	10	1	
81	41	3	224	0.026	1600	1	3				
*LIE N/Hawki ns N'			'AG'	3392.98	5863.04	3401.91	6218.76	1450	0.012	1	72
1											
*LIE N/Hawki ns E'			'AG'	3392.98	5863.04	3735.38	5914.37	931	0.012	1	54
1											
*LIE N/Hawki ns S'			'AG'	3392.98	5863.04	3392.98	5611.45	1459	0.012	1	78
1											
*LIE N/Hawki ns W'			'AG'	3392.98	5863.04	3036.72	5815.2	796	0.012	1	54
1											
*LIE S/Hawki ns N'			'AG'	3387.07	5425.27	3394.1	5670	1458	0.012	1	78
1											
*LIE S/Hawki ns E'			'AG'	3387.07	5425.27	3651.88	5538.85	2191	0.012	1	54
1											
*LIE S/Hawki ns S'			'AG'	3387.07	5425.27	3381.18	5147.08	1146	0.012	1	66
1											
*LIE S/Hawki ns W'			'AG'	3387.07	5425.27	3108.17	5320.39	2183	0.012	1	54
1											
*Uni on/Hawki ns N'			'AG'	3401.13	4668.81	3378.87	4869.05	641	0.012	1	54
1											
*Uni on/Hawki ns E'			'AG'	3401.13	4668.81	3620.24	4699.26	941	0.012	1	54
1											
*Uni on/Hawki ns S'			'AG'	3401.13	4668.81	3421.05	4497.85	533	0.012	1	42
1	0	4	1000	0	'Y'	5	0				

3. CAL3QHC Output Files

- a) CO
- b) PM10
- c) PM2.5

3.a CAL3QHC Output Files Carbon Monoxide (CO)

EX.out
 CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0 Dated 95221 PAGE 1
 JOB: Ronkonkama RUN: EXISTING
 DATE : 6/ 5/13
 TIME : 9:17:17

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 175. CM
 U = 1.0 M/S CLAS = 4 (D) ATIM = 60. MINUTES MIXH = 1000. M AMB = 0.0 PPM

LINK VARIABLES

V/C QUEUE (VEH)	LINK DESCRIPTION	X1	Y1	X2	Y2	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)
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0.54	1.	LI E N/Hawk ns SB TTR*	3375.1	5903.8	3376.4	6000.5	97.	1.	AG	112.	100.0	1.0	20.0	
4.9	2.	LI E N/Hawk WB LTTR *	3446.1	5872.5	3506.9	5883.0	62.	80.	AG	135.	100.0	1.0	30.0	
0.31	3.1	LI E N/Hawk ns NB L *	3393.3	5814.6	3374.7	4867.9	947.	181.	AG	79.	100.0	1.0	10.0	
1.70	48.1	4.	LI E N/Hawk ns NB TT *	3416.2	5814.3	3415.9	5708.2	106.	180.	AG	112.	100.0	1.0	20.0
0.59	4.	5.	LI E S/Hawk ns SB L *	3391.1	5495.9	3403.3	6357.9	862.	1.	AG	70.	100.0	1.0	10.0
1.23	43.8	6.	LI E S/Hawk ns SB TT *	3370.8	5481.6	3371.9	5544.8	63.	1.	AG	135.	100.0	1.0	20.0
0.48	3.2	7.	LI E S/Hawk ns NB TTR*	3405.1	5396.8	3397.6	5062.7	334.	181.	AG	135.	100.0	1.0	20.0
1.03	17.0	8.	LI E S/Hawk EB LTTR *	3339.3	5401.9	2964.8	5262.1	400.	250.	AG	135.	100.0	1.0	30.0
1.01	20.3	9.	Hawk/Uni on SB L *	3390.6	4708.0	3306.4	5790.8	1086.	356.	AG	69.	100.0	1.0	10.0
1.32	55.2	10.	Hawk/Uni on SB T *	3377.8	4706.1	3376.0	4723.8	18.	354.	AG	25.	100.0	1.0	10.0
0.14	0.9	11.	Hawk/Uni on WB L *	3438.0	4679.8	3461.8	4682.2	24.	84.	AG	66.	100.0	1.0	10.0
0.22	1.2	12.	Hawk/Uni on WB R *	3437.3	4691.3	3527.6	4704.1	91.	82.	AG	45.	100.0	1.0	10.0
0.59	4.6	13.	Hawk/Uni on NB TR *	3412.5	4623.3	3418.2	4573.4	50.	173.	AG	46.	100.0	1.0	10.0
0.32	2.6	14.	LI E N/Hawk ns N *	3393.0	5863.0	3401.9	6218.8	356.	1.	AG	1450.	3.0	1.0	72.0
		15.	LI E N/Hawk ns E *	3393.0	5863.0	3735.4	5914.4	346.	81.	AG	931.	4.7	1.0	54.0
		16.	LI E N/Hawk ns S *	3393.0	5863.0	3393.0	5611.5	252.	180.	AG	1459.	3.0	1.0	78.0
		17.	LI E N/Hawk ns W *	3393.0	5863.0	3036.7	5815.2	359.	262.	AG	796.	4.7	1.0	54.0
		18.	LI E S/Hawk ns N *	3387.1	5425.3	3394.1	5670.0	245.	2.	AG	1458.	3.0	1.0	78.0
		19.	LI E S/Hawk ns E *	3387.1	5425.3	3651.9	5538.9	288.	67.	AG	2191.	4.7	1.0	54.0
		20.	LI E S/Hawk ns S *	3387.1	5425.3	3381.2	5147.1	278.	181.	AG	1146.	3.0	1.0	66.0
		21.	LI E S/Hawk ns W *	3387.1	5425.3	3108.2	5320.4	298.	249.	AG	2183.	4.7	1.0	54.0
		22.	Uni on/Hawk ns N *	3401.1	4668.8	3378.9	4869.0	201.	354.	AG	641.	3.0	1.0	54.0
		23.	Uni on/Hawk ns E *	3401.1	4668.8	3620.2	4699.3	221.	82.	AG	941.	3.0	1.0	54.0
		24.	Uni on/Hawk ns S *	3401.1	4668.8	3421.1	4497.9	172.	173.	AG	533.	3.0	1.0	42.0

JOB: Ronkonkama RUN: EXISTING
 DATE : 6/ 5/13
 TIME : 9:17:17

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
1. LI E N/Hawk ns SB TTR*	100	62	3.0	571	1600	33.66	1	3
2. LI E N/Hawk WB LTTR *	100	50	3.0	678	1600	33.66	1	3
3. LI E N/Hawk ns NB L *	100	88	3.0	190	1600	33.66	1	3
4. LI E N/Hawk ns NB TT *	100	62	3.0	626	1600	33.66	1	3
5. LI E S/Hawk ns SB L *	100	78	3.0	335	1600	33.66	1	3
6. LI E S/Hawk ns SB TT *	100	75	3.0	308	1600	33.66	1	3
7. LI E S/Hawk ns NB TTR*	100	75	3.0	663	1600	33.66	1	3
8. LI E S/Hawk EB LTTR *	100	50	3.0	2183	1600	33.66	1	3
9. Hawk/Uni on SB L *	81	62	3.0	363	1600	33.66	1	3
10. Hawk/Uni on SB T *	81	22	3.0	148	1600	33.66	1	3
11. Hawk/Uni on WB L *	81	59	3.0	74	1600	33.66	1	3
12. Hawk/Uni on WB R *	81	40	3.0	417	1600	33.66	1	3
13. Hawk/Uni on NB TR *	81	41	3.0	224	1600	33.66	1	3

RECEPTOR LOCATIONS

RECEPTOR	X	Y	Z
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LINK DESCRIPTION	X1	Y1	X2	Y2	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	
1. LI E N/Hawk NE1 *	3443.9	6057.5										
2. LI E N/Hawk NE2 *	3442.0	5982.5										
3. LI E N/Hawk NE3 *	3440.1	5907.5										
4. LI E N/Hawk NE4 *	3514.3	5918.6										
5. LI E N/Hawk NE5 *	3568.4	5929.8										
6. LI E N/Hawk SE1 *	3590.3	5855.2										
7. LI E N/Hawk SE2 *	3516.2	5844.1										
8. LI E N/Hawk SE3 *	3442.0	5833.0										
9. LI E N/Hawk SE4 *	3442.0	5758.0										
10. LI E N/Hawk SE5 *	3442.0	5683.0										
11. LI E N/Hawk SW1 *	3344.0	5669.1										
12. LI E N/Hawk SW2 *	3344.0	5744.4										
13. LI E N/Hawk SW3 *	3344.0	5819.1										
14. LI E N/Hawk SW4 *	3269.6	5809.1										
15. LI E N/Hawk SW5 *	3195.3	5799.2										
16. LI E N/Hawk NW1 *	3199.1	5874.3										
17. LI E N/Hawk NW2 *	3273.4	5884.3										
18. LI E N/Hawk NW3 *	3347.8	5894.3										
19. LI E N/Hawk NW4 *	3349.6	5969.3										
20. LI E N/Hawk NW5 *	3351.5	6044.3										
21. LI E S/Hawk NE1 *	3442.2	5637.3										
22. LI E S/Hawk NE2 *	3440.0	5562.3										
23. LI E S/Hawk NE3 *	3437.9	5487.3										
24. LI E S/Hawk NE4 *	3506.8	5516.9										
25. LI E S/Hawk NE5 *	3575.7	5546.5										
26. LI E S/Hawk SE1 *	3567.5	5462.4										
27. LI E S/Hawk SE2 *	3498.7	5432.8										
28. LI E S/Hawk SE3 *	3429.6	5403.3										
29. LI E S/Hawk SE4 *	3428.0	5328.3										
30. LI E S/Hawk SE5 *	3426.4	5253.3										
31. LI E S/Hawk SW1 *	3339.7	5219.3										
32. LI E S/Hawk SW2 *	3341.3	5294.1										

JOB: Ronkonkama RUN: EXISTING
 DATE : 6/ 5/13
 TIME : 9:17:17

RECEPTOR LOCATIONS

RECEPTOR	X	Y	Z
33. LI E S/Hawk SW3 *	3342.9	5369.1	6.0
34. LI E S/Hawk SW4 *	3272.7	5342.7	6.0
35. LI E S/Hawk SW5 *	3202.5	5316.3	6.0
36. Hawk/Uni on NE1 *	3417.1	4859.8	6.0
37. Hawk/Uni on NE2 *	3425.4	4785.3	6.0
38. Hawk/Uni on NE3 *	3433.7	4710.7	6.0
39. Hawk/Uni on NE4 *	3509.1	4721.2	6.0
40. Hawk/Uni on NE5 *	3582.3	4731.3	6.0
41. Hawk/Uni on SE1 *	3584.7	4657.0	6.0
42. Hawk/Uni on SE2 *	3510.4	4646.6	6.0
43. Hawk/Uni on SE3 *	3436.1	4636.3	6.0
44. Hawk/Uni on SE4 *	3444.8	4561.8	6.0
45. Hawk/Uni on SE5 *	3453.0	4487.3	6.0
46. Hawk/Uni on W1 *	3388.8	4506.5	6.0
47. Hawk/Uni on W2 *	3380.2	4581.0	6.0
48. Hawk/Uni on W3 *	3371.5	4655.5	6.0
49. Hawk/Uni on W4 *	3357.2	4729.1	6.0
50. Hawk/Uni on W5 *	3348.9	4803.7	6.0
51. LI E S/Hawk NW1 *	3198.3	5393.8	6.0
52. LI E S/Hawk NW2 *	3268.5	5420.2	6.0
53. LI E S/Hawk NW3 *	3338.7	5446.6	6.0
54. LI E S/Hawk NW4 *	3340.8	5521.6	6.0
55. LI E S/Hawk NW5 *	3343.0	5596.5	6.0

JOB: Ronkonkama RUN: EXISTING

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0. -360.

WIND * CONCENTRATION

ANGLE * (PPM)
 (DEG) * REC1 REC2 REC3 REC4 REC5 REC6 REC7 REC8 REC9 REC10 REC11 REC12 REC13 REC14 REC15 REC16 REC17 REC18
 REC19 REC20

0.	0.2	0.2	0.2	0.0	0.0	0.1	0.2	0.4	0.4	0.3	0.2	0.2	0.4	0.1	0.1	0.0	0.0	0.3	
0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.1	0.1	0.3	0.3	0.2	0.3	0.4	0.4	0.1	0.1	0.0	0.0	0.3
0.2	0.2																		

REC39 REC40 EX.out

ANGLE (DEGR)	REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28	REC29	REC30	REC31	REC32	REC33	REC34	REC35	REC36	REC37	REC38	
0.0	0.0	0.3	0.3	0.4	0.0	0.0	0.3	0.3	0.6	0.5	0.6	0.7	1.0	1.3	0.6	0.6	0.3	0.3	0.3
5.0	0.0	0.2	0.1	0.1	0.0	0.0	0.3	0.3	0.6	0.3	0.3	0.7	1.1	1.2	0.7	0.6	0.2	0.2	0.2
10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.3	0.1	0.2	0.8	1.1	1.1	0.9	0.7	0.2	0.0	0.0
15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.3	0.2	0.1	0.8	1.1	1.0	1.0	0.7	0.0	0.0	0.0
20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.3	0.2	0.1	0.8	1.2	1.1	1.0	0.7	0.0	0.0	0.0
25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.3	0.2	0.1	0.9	1.0	1.0	1.1	0.8	0.0	0.0	0.0
30.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.3	0.2	0.1	0.8	0.8	0.8	1.1	0.8	0.0	0.0	0.0
35.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.4	0.4	0.1	0.1	0.8	0.8	0.7	0.9	1.0	0.0	0.0	0.0
40.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.4	0.4	0.1	0.1	0.7	0.8	0.8	1.0	1.0	0.0	0.0	0.0
45.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.4	0.1	0.0	0.7	0.8	0.6	0.9	1.0	0.0	0.0	0.0
50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.4	0.1	0.0	0.6	0.8	0.7	0.8	1.1	0.0	0.0	0.0
55.0	0.0	0.0	0.1	0.0	0.0	0.2	0.3	0.3	0.1	0.0	0.6	0.8	0.7	0.8	0.7	0.0	0.0	0.0	0.0
60.0	0.0	0.0	0.1	0.1	0.0	0.2	0.2	0.3	0.0	0.0	0.6	0.8	0.6	0.7	0.7	0.0	0.0	0.0	0.0
65.0	0.0	0.0	0.2	0.1	0.0	0.1	0.2	0.2	0.0	0.0	0.6	0.7	0.6	0.7	0.5	0.0	0.0	0.0	0.0
70.0	0.0	0.0	0.2	0.2	0.1	0.1	0.1	0.2	0.0	0.0	0.6	0.6	0.5	0.6	0.5	0.0	0.0	0.0	0.0
75.0	0.0	0.0	0.3	0.2	0.1	0.0	0.1	0.1	0.0	0.0	0.6	0.6	0.4	0.5	0.4	0.0	0.0	0.0	0.0
80.0	0.0	0.0	0.3	0.3	0.1	0.0	0.0	0.1	0.0	0.0	0.6	0.6	0.5	0.4	0.2	0.0	0.0	0.0	0.0
85.0	0.0	0.0	0.4	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.4	0.4	0.1	0.0	0.0	0.0	0.1
90.0	0.0	0.1	0.4	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.4	0.4	0.1	0.0	0.0	0.0	0.2
95.0	0.0	0.1	0.4	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.4	0.4	0.1	0.0	0.0	0.0	0.2
100.0	0.0	0.1	0.4	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.4	0.4	0.1	0.0	0.0	0.0	0.2
105.0	0.0	0.1	0.3	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.6	0.7	0.4	0.4	0.1	0.0	0.0	0.0	0.2
110.0	0.0	0.1	0.3	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.6	0.7	0.4	0.4	0.1	0.0	0.0	0.0	0.2
115.0	0.0	0.1	0.3	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.6	0.7	0.4	0.4	0.1	0.0	0.0	0.0	0.2
120.0	0.0	0.1	0.3	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.6	0.7	0.4	0.4	0.2	0.0	0.0	0.0	0.2
125.0	0.0	0.1	0.3	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.6	0.7	0.4	0.3	0.2	0.0	0.0	0.0	0.2
130.0	0.0	0.1	0.3	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.6	0.7	0.5	0.3	0.3	0.0	0.0	0.0	0.2
135.0	0.0	0.1	0.3	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.6	0.7	0.5	0.3	0.3	0.0	0.0	0.0	0.3
140.0	0.0	0.1	0.3	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.7	0.8	0.5	0.3	0.3	0.0	0.0	0.0	0.3
145.0	0.0	0.1	0.3	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.7	0.8	0.5	0.3	0.2	0.0	0.0	0.0	0.3
150.0	0.0	0.1	0.3	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.7	0.9	0.6	0.3	0.1	0.0	0.0	0.0	0.3
155.0	0.0	0.1	0.3	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.7	0.9	0.7	0.3	0.1	0.0	0.0	0.0	0.3
160.0	0.0	0.1	0.3	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.6	1.0	0.8	0.3	0.0	0.0	0.0	0.0	0.3
165.0	0.0	0.1	0.3	0.3	0.3	0.0	0.0	0.1	0.0	0.0	0.6	1.0	0.9	0.2	0.0	0.0	0.0	0.0	0.3
170.0	0.0	0.1	0.2	0.4	0.3	0.0	0.0	0.1	0.1	0.1	0.5	0.9	0.9	0.1	0.0	0.0	0.0	0.0	0.2
175.0	0.0	0.2	0.2	0.4	0.3	0.0	0.0	0.2	0.2	0.1	0.4	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.1
180.0	0.0	0.4	0.3	0.6	0.3	0.0	0.0	0.5	0.3	0.3	0.3	0.6	0.9	0.0	0.0	0.0	0.0	0.0	0.1
185.0	0.0	0.5	0.5	0.8	0.4	0.3	0.0	0.1	0.6	0.6	0.5	0.1	0.5	0.7	0.0	0.0	0.2	0.0	0.1
190.0	0.0	0.5	0.5	0.8	0.4	0.3	0.0	0.1	0.7	0.7	0.6	0.1	0.3	0.6	0.0	0.0	0.2	0.0	0.1
195.0	0.0	0.6	0.6	0.8	0.5	0.3	0.0	0.2	0.8	0.7	0.7	0.1	0.2	0.5	0.0	0.0	0.2	0.1	0.1
200.0	0.0	0.7	0.6	0.9	0.5	0.4	0.1	0.3	0.8	0.7	0.0	0.2	0.5	0.0	0.0	0.2	0.2	0.1	0.1
205.0	0.0	0.7	0.7	0.9	0.6	0.4	0.1	0.4	0.8	0.7	0.0	0.1	0.4	0.0	0.0	0.2	0.2	0.1	0.1
210.0	0.0	0.7	0.6	0.9	0.5	0.5	0.2	0.4	0.7	0.7	0.0	0.1	0.4	0.0	0.0	0.2	0.2	0.1	0.1
215.0	0.0	0.7	0.7	1.0	0.5	0.6	0.2	0.5	0.7	0.7	0.0	0.1	0.4	0.0	0.0	0.2	0.2	0.1	0.1
220.0	0.0	0.7	0.7	0.8	0.6	0.6	0.2	0.4	0.7	0.7	0.0	0.1	0.3	0.0	0.0	0.2	0.2	0.0	0.0
225.0	0.0	0.6	0.7	0.8	0.7	0.6	0.2	0.4	0.7	0.7	0.0	0.0	0.3	0.0	0.0	0.2	0.2	0.0	0.0
230.0	0.0	0.6	0.7	0.9	0.6	0.8	0.2	0.4	0.6	0.7	0.0	0.0	0.3	0.0	0.0	0.2	0.2	0.0	0.0
235.0	0.0	0.6	0.7	0.8	0.5	0.5	0.3	0.3	0.8	0.7	0.0	0.0	0.4	0.1	0.0	0.2	0.2	0.0	0.0
240.0	0.0	0.5	0.7	0.8	0.5	0.5	0.4	0.5	0.8	0.7	0.0	0.0	0.5	0.2	0.1	0.2	0.2	0.0	0.0
245.0	0.0	0.5	0.6	0.8	0.6	0.4	0.4	0.5	0.9	0.7	0.0	0.0	0.5	0.3	0.2	0.2	0.2	0.0	0.0
250.0	0.0	0.5	0.5	0.7	0.5	0.3	0.4	0.7	0.9	0.6	0.0	0.0	0.7	0.4	0.3	0.1	0.2	0.1	0.1
255.0	0.0	0.5	0.5	0.6	0.3	0.5	0.8	1.1	0.7	0.6	0.0	0.1	0.8	0.5	0.4	0.1	0.2	0.1	0.1
260.0	0.0	0.5	0.5	0.6	0.3	0.1	0.5	0.7	1.0	0.8	0.6	0.0	0.1	0.9	0.7	0.5	0.1	0.2	0.1
265.0	0.0	0.5	0.5	0.4	0.3	0.0	0.5	0.7	1.1	0.8	0.6	0.0	0.1	1.0	0.7	0.6	0.1	0.2	0.1
270.0	0.0	0.5	0.4	0.4	0.3	0.0	0.5	0.6	1.0	0.9	0.7	0.0	0.2	1.1	0.7	0.6	0.1	0.2	0.2
275.0	0.0	0.5	0.4	0.4	0.3	0.0	0.4	0.6	0.9	0.9	0.7	0.1	0.3	1.1	0.7	0.7	0.1	0.2	0.2
280.0	0.0	0.5	0.4	0.5	0.4	0.0	0.3	0.6	0.8	0.9	0.8	0.1	0.3	1.0	0.7	0.7	0.2	0.2	0.2
285.0	0.0	0.5	0.4	0.6	0.3	0.0	0.3	0.5	0.7	1.0	0.8	0.1	0.3	1.0	0.7	0.7	0.2	0.2	0.2
290.0	0.0	0.5	0.4	0.6	0.3	0.0	0.3	0.6	0.6	1.0	0.8	0.1	0.3	1.0	0.7	0.7	0.2	0.2	0.2
295.0	0.0	0.5	0.4	0.6	0.3	0.0	0.3	0.6	0.8	1.0	0.8	0.2	0.3	1.0	0.7	0.7	0.2	0.2	0.2
300.0	0.0	0.4	0.4	0.5	0.3	0.0	0.3	0.6	0.6	1.0	0.9	0.2	0.3	1.0	0.7	0.7	0.2	0.2	0.2
305.0	0.0	0.4	0.4	0.5	0.3	0.0	0.3	0.6	0.6	0.9	0.9	0.2	0.3	1.0	0.7	0.7	0.2	0.2	0.2
310.0	0.0	0.4	0.4	0.5	0.3	0.0	0.3	0.6	0.6	0.9	0.9	0.2	0.3	1.0	0.7	0.7	0.2	0.2	0.2
315.0	0.0	0.3	0.5	0.5	0.3	0.0	0.3	0.6	0.7	0.9	0.9	0.2	0.4	0.9	0.6	0.6	0.2	0.2	0.2
320.0	0.0	0.3	0.5	0.5	0.3	0.0	0.3	0.6	0.7	0.8	0.9	0.2	0.4	1.0	0.6	0.6	0.2	0.2	0.2
325.0	0.0	0.4	0.4	0.4	0.3	0.0	0.4	0.6	0.7	0.8	0.9	0.2	0.4	1.0	0.6	0.6	0.2	0.3	0.2
330.0	0.0	0.4	0.4	0.4	0.3	0.1	0.4	0.6	0.7	0.7	0.9	0.2	0.5	1.1	0.6	0.6	0.3	0.2	0.2
335.0	0.0	0.4	0.4	0.3	0.3	0.0	0.4	0.5	0.8	0.9	0.8	0.2	0.5	1.1	0.6	0.6	0.3	0.2	0.2
340.0	0.0	0.4	0.4	0.4	0.1	0.0	0.3	0.5	0.8	1.0	0.8	0.3	0.5	1.2	0.6	0.6	0.4	0.2	0.3
345.0	0.0	0.4	0.5	0.4	0.1	0.0	0.3	0.4	0.7	0.9	0.8	0.3	0.6	1.1	0.6	0.6	0.4	0.3	0.2
350.0	0.0	0.4	0.5	0.4	0.1	0.0	0.3	0.4	0.6	0.7	0.9	0.4	0.7	1.1	0.6	0.6	0.4	0.3	0.3
355.0	0.0	0.3	0.5	0.4	0.0	0.0	0.3	0.4	0.6	0.5	0.8	0.5	0.9	1.2	0.6	0.6	0.3	0.3	0.3
360.0	0.0	0.3	0.3	0.4	0.0	0.0	0.3	0.3	0.6	0.5	0.6	0.7	1.0	1.3	0.6	0.6	0		

EX.out

WIND ANGLE (DEGR)	CONCENTRATION (PPM)														
	REC41	REC42	REC43	REC44	REC45	REC46	REC47	REC48	REC49	REC50	REC51	REC52	REC53	REC54	REC55
0.	* 0.1	0.1	0.4	0.2	0.1	0.2	0.2	0.5	0.4	0.3	0.0	0.0	0.8	0.3	0.3
5.	* 0.1	0.1	0.1	0.0	0.0	0.1	0.2	0.5	0.4	0.5	0.0	0.1	0.7	0.5	0.3
10.	* 0.1	0.1	0.2	0.0	0.0	0.1	0.1	0.4	0.5	0.5	0.0	0.2	0.7	0.5	0.3
15.	* 0.1	0.1	0.2	0.0	0.0	0.1	0.1	0.2	0.5	0.5	0.0	0.2	0.8	0.4	0.5
20.	* 0.1	0.1	0.2	0.0	0.0	0.1	0.0	0.2	0.4	0.4	0.0	0.3	0.6	0.4	0.5
25.	* 0.1	0.1	0.2	0.0	0.0	0.1	0.0	0.2	0.3	0.2	0.0	0.3	0.6	0.4	0.5
30.	* 0.1	0.1	0.2	0.0	0.0	0.1	0.1	0.2	0.2	0.2	0.2	0.4	0.5	0.4	0.5
35.	* 0.1	0.1	0.2	0.0	0.0	0.1	0.1	0.1	0.2	0.1	0.1	0.5	0.5	0.4	0.5
40.	* 0.1	0.1	0.2	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.1	0.5	0.5	0.4	0.4
45.	* 0.0	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.2	0.2	0.2	0.5	0.4	0.4	0.4
50.	* 0.0	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.2	0.4	0.3	0.4	0.4
55.	* 0.0	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.1	0.4	0.4	0.5	0.4
60.	* 0.0	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.2	0.5	0.4	0.5	0.4
65.	* 0.0	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.2	0.5	0.4	0.5	0.4
70.	* 0.0	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.4	0.6	0.4	0.6	0.4
75.	* 0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.4	0.7	0.5	0.6	0.3
80.	* 0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.5	0.6	0.6	0.7	0.3
85.	* 0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.6	0.7	0.6	0.7	0.3
90.	* 0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.6	0.7	0.6	0.7	0.3
95.	* 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.8	0.7	0.6	0.7	0.3
100.	* 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.8	0.8	0.5	0.7	0.4
105.	* 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.2	0.7	0.8	0.5	0.8	0.4
110.	* 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.2	0.7	0.8	0.6	0.8	0.4
115.	* 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.2	0.8	0.8	0.5	0.7	0.4
120.	* 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.2	0.8	0.9	0.6	0.6	0.4
125.	* 0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.3	0.2	0.1	0.3	0.9	0.8	0.4
130.	* 0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.8	0.9	0.6	0.6	0.4
135.	* 0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.2	0.9	1.0	0.6	0.5	0.5
140.	* 0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.2	0.9	1.0	0.7	0.5	0.5
145.	* 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.9	1.0	0.9	0.8	0.5
150.	* 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.2	0.8	0.9	0.8	0.6	0.5
155.	* 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.2	0.7	0.9	0.8	0.6	0.7
160.	* 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.9	0.9	0.9	0.5	0.6
165.	* 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.9	1.1	0.7	0.9
170.	* 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.7	1.2	0.8	0.6
175.	* 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.7	1.2	0.8	0.7
180.	* 0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	1.3	0.7	0.8	0.8
185.	* 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	1.1	0.7	0.7
190.	* 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	1.0	0.5	0.4
195.	* 0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	1.0	0.5	0.4
200.	* 0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	1.0	0.6	0.4
205.	* 0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	1.0	0.7	0.4

JOB: Ronkonkama

RUN: EXISTING

PAGE 9

WIND ANGLE RANGE: 0. -360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM)														
	REC41	REC42	REC43	REC44	REC45	REC46	REC47	REC48	REC49	REC50	REC51	REC52	REC53	REC54	REC55
210.	* 0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	1.0	0.6	0.4
220.	* 0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.8	1.1	0.5	0.4
225.	* 0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.8	1.1	0.5	0.3
230.	* 0.1	0.1	0.1	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.6	0.7	1.1	0.4	0.3
235.	* 0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.6	1.1	0.4	0.2
240.	* 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.6	0.9	0.3	0.1
245.	* 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.4	0.8	0.3	0.1
250.	* 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.4	0.6	0.2	0.1
255.	* 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.4	0.2	0.1
260.	* 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.5	0.2	0.1
265.	* 0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.2	0.1
270.	* 0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.2	0.1
275.	* 0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.1
280.	* 0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.1
285.	* 0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.2	0.1
290.	* 0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.2	0.1
295.	* 0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.2	0.1
300.	* 0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.2	0.2
305.	* 0.1	0.1	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.2	0.2
310.	* 0.1	0.2	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.2	0.2
315.	* 0.1	0.2	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.2	0.2
320.	* 0.1	0.3	0.1	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.2	0.2
325.	* 0.2	0.3	0.2	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.2	0.2
330.	* 0.2	0.3	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.3	0.2
335.	* 0.3	0.4	0.3	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.3	0.2
340.	* 0.2	0.4	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.2	0.2
345.	* 0.1	0.5	0.4	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.5	0.3	0.2
350.	* 0.1	0.5	0.3	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.0	0.0	0.5	0.2	0.1
355.	* 0.1	0.1	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.0	0.0	0.5	0.2	0.1
360.	* 0.1	0.1	0.4	0.2	0.1	0.2	0.2	0.5	0.4	0.3	0.0	0.0	0.8	0.3	0.3

MAX DEGR.	* 335	345	0	0	355	0	0	0	5	5	5	9	10	135	135	180	160	165
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EX.out
THE HIGHEST CONCENTRATION OF 1.30 PPM OCCURRED AT RECEPTOR REC33.

Page 8

NB.out
 CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0 Dated 95221 PAGE 1
 JOB: Ronkonkama RUN: NOBUI LD
 DATE : 6/ 5/13
 TIME : 9: 18: 34

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 175. CM
 U = 1.0 M/S CLAS = 4 (D) ATIM = 60. MINUTES MIXH = 1000. M AMB = 0.0 PPM

LINK VARIABLES

V/C QUEUE (VEH)	LINK DESCRIPTION	X1	Y1	X2	Y2	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)
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0.57	1.	LI E N/Hawki ns SB TTR*	3375.1	5903.8	3376.4	6005.2	101.	1.	AG	92.	100.0	1.0	20.0	
5.1	2.	LI E N/Hawk WB LTTR *	3446.1	5872.5	3509.6	5883.5	65.	80.	AG	111.	100.0	1.0	30.0	
0.33	3.	LI E N/Hawki ns NB L *	3393.3	5814.6	3372.8	4770.8	1044.	181.	AG	65.	100.0	1.0	10.0	
1.78	53.0	4.	LI E N/Hawki ns NB TT *	3416.2	5814.3	3415.9	5703.4	111.	180.	AG	92.	100.0	1.0	20.0
0.62	4.	LI E S/Hawki ns SB L *	3391.1	5495.9	3405.6	6526.9	1031.	1.	AG	58.	100.0	1.0	10.0	
1.29	52.4	6.	LI E S/Hawki ns SB TT *	3370.8	5481.6	3372.0	5547.6	66.	1.	AG	111.	100.0	1.0	20.0
0.50	3.4	7.	LI E S/Hawki ns NB TTR*	3405.1	5396.8	3393.8	4894.3	503.	181.	AG	111.	100.0	1.0	20.0
1.08	25.5	8.	LI E S/Hawk EB LTTR *	3339.3	5401.9	2636.8	5139.6	750.	250.	AG	111.	100.0	1.0	30.0
1.06	38.1	9.	Hawk/Uni on SB L *	3390.6	4708.0	3292.6	5968.4	1264.	356.	AG	57.	100.0	1.0	10.0
1.38	64.2	10.	Hawk/Uni on SB T *	3377.8	4706.1	3375.9	4724.6	19.	354.	AG	20.	100.0	1.0	10.0
0.15	0.9	11.	Hawk/Uni on WB L *	3438.0	4679.8	3463.1	4682.3	25.	84.	AG	54.	100.0	1.0	10.0
0.23	1.3	12.	Hawk/Uni on WB R *	3437.3	4691.3	3531.7	4704.7	95.	82.	AG	37.	100.0	1.0	10.0
0.61	4.8	13.	Hawk/Uni on NB TR *	3412.5	4623.3	3420.9	4550.7	73.	173.	AG	37.	100.0	1.0	10.0
0.47	3.7	14.	LI E N/Hawki ns N *	3393.0	5863.0	3401.9	6218.8	356.	1.	AG	1516.	2.5	1.0	72.0
		15.	LI E N/Hawki ns E *	3393.0	5863.0	3735.4	5914.4	346.	81.	AG	975.	4.0	1.0	54.0
		16.	LI E N/Hawki ns S *	3393.0	5863.0	3393.0	5611.5	252.	180.	AG	1527.	2.5	1.0	78.0
		17.	LI E N/Hawki ns W *	3393.0	5863.0	3036.7	5815.2	359.	262.	AG	834.	4.0	1.0	54.0
		18.	LI E S/Hawki ns N *	3387.1	5425.3	3394.1	5670.0	245.	2.	AG	1527.	2.5	1.0	78.0
		19.	LI E S/Hawki ns E *	3387.1	5425.3	3651.9	5538.9	288.	67.	AG	2293.	4.0	1.0	54.0
		20.	LI E S/Hawki ns S *	3387.1	5425.3	3381.2	5147.1	278.	181.	AG	1200.	2.5	1.0	66.0
		21.	LI E S/Hawki ns W *	3387.1	5425.3	3108.2	5320.4	298.	249.	AG	2284.	4.0	1.0	54.0
		22.	Uni on/Hawki ns N *	3401.1	4668.8	3378.9	4869.0	201.	354.	AG	1206.	2.5	1.0	54.0
		23.	Uni on/Hawki ns E *	3401.1	4668.8	3620.2	4699.3	221.	82.	AG	985.	2.5	1.0	54.0
		24.	Uni on/Hawki ns S *	3401.1	4668.8	3421.1	4497.9	172.	173.	AG	559.	2.5	1.0	42.0

JOB: Ronkonkama RUN: NOBUI LD
 DATE : 6/ 5/13
 TIME : 9: 18: 34

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
1. LI E N/Hawki ns SB TTR*	100	62	3.0	598	1600	27.59	1	3
2. LI E N/Hawk WB LTTR *	100	50	3.0	710	1600	27.59	1	3
3. LI E N/Hawki ns NB L *	100	88	3.0	199	1600	27.59	1	3
4. LI E N/Hawki ns NB TT *	100	62	3.0	655	1600	27.59	1	3
5. LI E S/Hawki ns SB L *	100	78	3.0	351	1600	27.59	1	3
6. LI E S/Hawki ns SB TT *	100	75	3.0	323	1600	27.59	1	3
7. LI E S/Hawki ns NB TTR*	100	75	3.0	694	1600	27.59	1	3
8. LI E S/Hawk EB LTTR *	100	50	3.0	2284	1600	27.59	1	3
9. Hawk/Uni on SB L *	81	62	3.0	380	1600	27.59	1	3
10. Hawk/Uni on SB T *	81	22	3.0	155	1600	27.59	1	3
11. Hawk/Uni on WB L *	81	59	3.0	78	1600	27.59	1	3
12. Hawk/Uni on WB R *	81	40	3.0	436	1600	27.59	1	3
13. Hawk/Uni on NB TR *	81	41	3.0	326	1600	27.59	1	3

RECEPTOR LOCATIONS

RECEPTOR	X	Y	Z
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RECEPTOR	X	Y	Z
1. LI E N/Hawk NE1	3443.9	6057.5	6.0
2. LI E N/Hawk NE2	3442.0	5982.5	6.0
3. LI E N/Hawk NE3	3440.1	5907.5	6.0
4. LI E N/Hawk NE4	3514.3	5918.6	6.0
5. LI E N/Hawk NE5	3568.4	5929.8	6.0
6. LI E N/Hawk SE1	3590.3	5855.2	6.0
7. LI E N/Hawk SE2	3516.2	5844.1	6.0
8. LI E N/Hawk SE3	3442.0	5833.0	6.0
9. LI E N/Hawk SE4	3442.0	5758.0	6.0
10. LI E N/Hawk SE5	3442.0	5683.0	6.0
11. LI E N/Hawk SW1	3344.0	5669.1	6.0
12. LI E N/Hawk SW2	3344.0	5744.4	6.0
13. LI E N/Hawk SW3	3344.0	5819.1	6.0
14. LI E N/Hawk SW4	3269.6	5809.1	6.0
15. LI E N/Hawk SW5	3195.3	5799.2	6.0
16. LI E N/Hawk NW1	3199.1	5874.3	6.0
17. LI E N/Hawk NW2	3273.4	5884.3	6.0
18. LI E N/Hawk NW3	3347.8	5894.3	6.0
19. LI E N/Hawk NW4	3349.6	5969.3	6.0
20. LI E N/Hawk NW5	3351.5	6044.3	6.0
21. LI E S/Hawk NE1	3442.2	5637.3	6.0
22. LI E S/Hawk NE2	3440.0	5562.3	6.0
23. LI E S/Hawk NE3	3437.9	5487.3	6.0
24. LI E S/Hawk NE4	3506.8	5516.9	6.0
25. LI E S/Hawk NE5	3575.7	5546.5	6.0
26. LI E S/Hawk SE1	3567.5	5462.4	6.0
27. LI E S/Hawk SE2	3498.7	5432.8	6.0
28. LI E S/Hawk SE3	3429.6	5403.3	6.0
29. LI E S/Hawk SE4	3428.0	5328.3	6.0
30. LI E S/Hawk SE5	3426.4	5253.3	6.0
31. LI E S/Hawk SW1	3339.7	5219.3	6.0
32. LI E S/Hawk SW2	3341.3	5294.1	6.0

JOB: Ronkonkama RUN: NOBUI LD
 DATE : 6/ 5/13
 TIME : 9: 18: 34

RECEPTOR LOCATIONS

RECEPTOR	X	Y	Z
33. LI E S/Hawk SW3	3342.9	5369.1	6.0
34. LI E S/Hawk SW4	3272.7	5342.7	6.0
35. LI E S/Hawk SW5	3202.5	5316.3	6.0
36. Hawk/Uni on NE1	3417.1	4859.8	6.0
37. Hawk/Uni on NE2	3425.4	4785.3	6.0
38. Hawk/Uni on NE3	3433.7	4710.7	6.0
39. Hawk/Uni on NE4	3509.1	4721.2	6.0
40. Hawk/Uni on NE5	3582.3	4731.3	6.0
41. Hawk/Uni on SE1	3584.7	4657.0	6.0
42. Hawk/Uni on SE2	3510.4	4646.6	6.0
43. Hawk/Uni on SE3	3436.1	4636.3	6.0
44. Hawk/Uni on SE4	3444.8	4561.8	6.0
45. Hawk/Uni on SE5	3453.0	4487.3	6.0
46. Hawk/Uni on W1	3388.8	4506.5	6.0
47. Hawk/Uni on W2	3380.2	4581.0	6.0
48. Hawk/Uni on W3	3371.5	4655.5	6.0
49. Hawk/Uni on W4	3357.2	4729.1	6.0
50. Hawk/Uni on W5	3348.9	4803.7	6.0
51. LI E S/Hawk NW1	3198.3	5393.8	6.0
52. LI E S/Hawk NW2	3268.5	5420.2	6.0
53. LI E S/Hawk NW3	3338.7	5446.6	6.0
54. LI E S/Hawk NW4	3340.8	5521.6	6.0
55. LI E S/Hawk NW5	3343.0	5596.5	6.0

JOB: Ronkonkama RUN: NOBUI LD
 MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0. -360.

WIND * CONCENTRATION

ANGLE * (PPM)
 (DEG) * REC1 REC2 REC3 REC4 REC5 REC6 REC7 REC8 REC9 REC10 REC11 REC12 REC13 REC14 REC15 REC16 REC17 REC18
 REC19 REC20

0.	0.2	0.2	0.2	0.0	0.0	0.1	0.2	0.4	0.4	0.2	0.3	0.1	0.4	0.1	0.1	0.0	0.0	0.3
0.2	0.0	0.0	0.1	0.0	0.0	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.4	0.2	0.1	0.0	0.1	0.3
0.2	0.2																	

REC39 REC40 NB.out

ANGLE (DEGR)	REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28	REC29	REC30	REC31	REC32	REC33	REC34	REC35	REC36	REC37	REC38	
0.0	0.0	0.3	0.3	0.2	0.0	0.0	0.2	0.2	0.5	0.5	0.5	0.4	0.9	1.1	0.6	0.5	0.5	0.4	0.3
5.0	0.0	0.1	0.1	0.1	0.0	0.0	0.2	0.3	0.5	0.2	0.3	0.7	0.8	1.1	0.6	0.5	0.3	0.2	0.1
10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.3	0.1	0.2	0.7	1.0	1.0	0.8	0.6	0.1	0.1	0.1
15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.3	0.1	0.1	0.7	1.0	0.8	0.8	0.6	0.1	0.0	0.0
20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.3	0.1	0.1	0.6	0.8	0.8	0.9	0.6	0.0	0.0	0.0
25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.3	0.1	0.1	0.6	0.9	0.6	0.9	0.6	0.0	0.0	0.0
30.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.3	0.1	0.1	0.7	0.7	0.6	0.9	0.6	0.0	0.0	0.0
35.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.3	0.1	0.1	0.7	0.7	0.7	0.9	0.6	0.0	0.0	0.0
40.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.3	0.1	0.1	0.7	0.7	0.7	0.9	0.6	0.0	0.0	0.0
45.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.3	0.1	0.0	0.7	0.6	0.6	0.8	0.6	0.0	0.0	0.0
50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.3	0.1	0.0	0.6	0.7	0.5	0.8	0.7	0.0	0.0	0.0
55.0	0.0	0.0	0.1	0.0	0.0	0.2	0.3	0.3	0.0	0.0	0.6	0.7	0.5	0.7	0.7	0.0	0.0	0.0	0.0
60.0	0.0	0.0	0.1	0.1	0.0	0.1	0.2	0.3	0.0	0.0	0.6	0.7	0.6	0.6	0.6	0.0	0.0	0.0	0.0
65.0	0.0	0.0	0.1	0.1	0.0	0.1	0.2	0.2	0.0	0.0	0.6	0.6	0.6	0.6	0.5	0.0	0.0	0.0	0.0
70.0	0.0	0.0	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.6	0.6	0.4	0.5	0.3	0.0	0.0	0.0	0.0
75.0	0.0	0.0	0.2	0.2	0.1	0.0	0.1	0.1	0.0	0.0	0.6	0.6	0.4	0.5	0.4	0.0	0.0	0.0	0.0
80.0	0.0	0.0	0.3	0.2	0.1	0.0	0.0	0.1	0.0	0.0	0.6	0.6	0.4	0.3	0.2	0.0	0.0	0.0	0.0
85.0	0.0	0.0	0.3	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.3	0.3	0.1	0.0	0.0	0.0	0.0
90.0	0.0	0.1	0.3	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.4	0.3	0.1	0.0	0.0	0.2	0.2
95.0	0.0	0.1	0.3	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.4	0.3	0.1	0.0	0.0	0.2	0.2
100.0	0.0	0.1	0.3	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.4	0.3	0.1	0.0	0.0	0.2	0.2
105.0	0.0	0.1	0.3	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.4	0.3	0.1	0.0	0.0	0.2	0.2
110.0	0.0	0.1	0.3	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.4	0.3	0.1	0.0	0.0	0.2	0.2
115.0	0.0	0.1	0.3	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.4	0.3	0.1	0.0	0.0	0.2	0.2
120.0	0.0	0.1	0.3	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.4	0.3	0.1	0.0	0.0	0.2	0.2
125.0	0.0	0.1	0.3	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.4	0.3	0.1	0.0	0.0	0.2	0.2
130.0	0.0	0.1	0.2	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.6	0.7	0.4	0.3	0.1	0.0	0.0	0.2	0.2
135.0	0.0	0.1	0.2	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.6	0.7	0.5	0.3	0.1	0.0	0.0	0.3	0.3
140.0	0.0	0.1	0.2	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.6	0.7	0.5	0.3	0.1	0.0	0.0	0.3	0.3
145.0	0.1	0.1	0.2	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.6	0.7	0.5	0.3	0.1	0.0	0.0	0.3	0.3
150.0	0.1	0.1	0.2	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.6	0.8	0.5	0.3	0.1	0.0	0.0	0.3	0.3
155.0	0.1	0.1	0.3	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.7	0.8	0.6	0.3	0.1	0.0	0.0	0.3	0.3
160.0	0.1	0.1	0.3	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.7	0.9	0.7	0.3	0.0	0.0	0.0	0.3	0.3
165.0	0.1	0.1	0.2	0.2	0.2	0.0	0.0	0.1	0.1	0.0	0.6	0.9	0.8	0.3	0.0	0.0	0.0	0.2	0.2
170.0	0.1	0.2	0.3	0.2	0.2	0.0	0.0	0.1	0.1	0.1	0.4	0.9	0.8	0.1	0.0	0.0	0.0	0.1	0.1
175.0	0.2	0.2	0.3	0.2	0.2	0.0	0.0	0.2	0.2	0.2	0.4	0.8	0.8	0.0	0.0	0.1	0.0	0.1	0.1
180.0	0.2	0.3	0.5	0.2	0.2	0.0	0.0	0.4	0.3	0.3	0.4	0.6	0.8	0.0	0.0	0.1	0.0	0.1	0.1
185.0	0.4	0.3	0.5	0.4	0.3	0.0	0.1	0.5	0.6	0.5	0.1	0.5	0.7	0.0	0.0	0.1	0.1	0.1	0.1
190.0	0.5	0.5	0.8	0.4	0.3	0.0	0.1	0.7	0.7	0.5	0.1	0.3	0.5	0.0	0.0	0.2	0.1	0.1	0.1
195.0	0.4	0.5	0.8	0.5	0.4	0.1	0.2	0.7	0.7	0.0	0.2	0.4	0.0	0.0	0.0	0.2	0.1	0.1	0.1
200.0	0.7	0.6	0.8	0.5	0.4	0.1	0.2	0.7	0.7	0.0	0.1	0.4	0.0	0.0	0.0	0.2	0.1	0.1	0.1
205.0	0.7	0.6	0.8	0.5	0.4	0.1	0.3	0.7	0.7	0.0	0.1	0.4	0.0	0.0	0.0	0.3	0.2	0.1	0.1
210.0	0.7	0.5	0.8	0.5	0.4	0.1	0.3	0.7	0.7	0.0	0.1	0.3	0.7	0.7	0.0	0.1	0.3	0.0	0.0
215.0	0.7	0.6	0.7	0.5	0.4	0.1	0.2	0.6	0.6	0.6	0.0	0.1	0.3	0.0	0.0	0.3	0.2	0.1	0.1
220.0	0.6	0.7	0.7	0.6	0.4	0.1	0.2	0.6	0.6	0.6	0.0	0.0	0.3	0.0	0.0	0.3	0.2	0.1	0.1
225.0	0.5	0.6	0.8	0.7	0.4	0.1	0.2	0.6	0.6	0.6	0.0	0.0	0.2	0.0	0.0	0.3	0.2	0.1	0.1
230.0	0.4	0.6	0.8	0.6	0.5	0.1	0.2	0.6	0.6	0.6	0.0	0.0	0.2	0.0	0.0	0.3	0.2	0.1	0.1
235.0	0.4	0.6	0.7	0.5	0.5	0.1	0.3	0.7	0.6	0.6	0.0	0.0	0.3	0.1	0.1	0.3	0.2	0.1	0.1
240.0	0.4	0.6	0.7	0.5	0.4	0.4	0.4	0.4	0.7	0.6	0.6	0.0	0.0	0.4	0.2	0.1	0.3	0.2	0.1
245.0	0.4	0.5	0.7	0.4	0.4	0.4	0.4	0.5	0.8	0.6	0.6	0.0	0.0	0.5	0.3	0.2	0.3	0.2	0.1
250.0	0.4	0.5	0.5	0.5	0.3	0.4	0.6	0.9	0.7	0.6	0.0	0.1	0.7	0.4	0.4	0.3	0.2	0.1	0.1
255.0	0.4	0.4	0.4	0.4	0.3	0.4	0.7	0.9	0.7	0.6	0.0	0.1	0.7	0.5	0.4	0.3	0.2	0.1	0.1
260.0	0.4	0.4	0.5	0.3	0.0	0.5	0.7	1.0	0.7	0.7	0.1	0.1	0.9	0.6	0.5	0.3	0.3	0.1	0.1
265.0	0.4	0.3	0.3	0.2	0.0	0.5	0.6	1.0	0.9	0.7	0.1	0.2	0.9	0.7	0.6	0.3	0.3	0.1	0.1
270.0	0.4	0.3	0.3	0.2	0.0	0.4	0.5	1.0	0.9	0.7	0.1	0.3	0.9	0.7	0.6	0.3	0.3	0.1	0.1
275.0	0.4	0.3	0.3	0.2	0.0	0.3	0.6	0.8	0.9	0.7	0.1	0.3	0.9	0.7	0.6	0.3	0.3	0.2	0.2
280.0	0.4	0.3	0.3	0.2	0.0	0.3	0.5	0.7	0.9	0.8	0.1	0.3	0.9	0.7	0.6	0.2	0.3	0.2	0.2
285.0	0.4	0.3	0.3	0.1	0.0	0.3	0.5	0.7	0.9	0.8	0.1	0.3	0.8	0.6	0.6	0.2	0.3	0.2	0.2
290.0	0.4	0.3	0.4	0.1	0.0	0.3	0.5	0.6	0.8	0.8	0.1	0.3	0.8	0.6	0.6	0.2	0.3	0.2	0.2
295.0	0.4	0.3	0.4	0.2	0.0	0.3	0.6	0.4	0.8	0.8	0.2	0.3	0.8	0.6	0.6	0.2	0.3	0.2	0.2
300.0	0.4	0.3	0.4	0.2	0.0	0.3	0.6	0.6	0.8	0.8	0.2	0.2	0.8	0.6	0.6	0.2	0.3	0.2	0.2
305.0	0.4	0.3	0.4	0.2	0.0	0.3	0.6	0.6	0.8	0.8	0.2	0.2	0.8	0.6	0.6	0.2	0.3	0.2	0.2
310.0	0.3	0.3	0.5	0.2	0.0	0.2	0.5	0.6	0.8	0.8	0.2	0.2	0.9	0.6	0.5	0.3	0.3	0.2	0.2
315.0	0.3	0.4	0.5	0.2	0.0	0.2	0.4	0.6	0.8	0.8	0.2	0.2	0.8	0.5	0.5	0.3	0.3	0.2	0.2
320.0	0.3	0.5	0.5	0.2	0.0	0.2	0.5	0.6	0.7	0.8	0.2	0.3	0.8	0.5	0.5	0.3	0.3	0.3	0.3
325.0	0.4	0.5	0.4	0.2	0.0	0.2	0.5	0.6	0.7	0.8	0.2	0.3	0.8	0.5	0.5	0.4	0.3	0.3	0.3
330.0	0.4	0.4	0.4	0.1	0.0	0.2	0.4	0.6	0.7	0.7	0.2	0.3	0.9	0.5	0.5	0.4	0.4	0.3	0.3
335.0	0.4	0.4	0.4	0.1	0.0	0.3	0.5	0.8	0.8	0.7	0.2	0.4	0.8	0.5	0.5	0.5	0.4	0.3	0.3
340.0	0.4	0.4	0.3	0.1	0.0	0.3	0.4	0.7	0.8	0.7	0.3	0.5	1.0	0.6	0.6	0.5	0.4	0.4	0.4
345.0	0.4	0.5	0.4	0.1	0.0	0.2	0.3	0.6	0.8	0.7	0.3	0.5	0.9	0.5	0.5	0.5	0.4	0.4	0.4
350.0	0.3	0.5	0.4	0.1	0.0	0.2	0.3	0.5	0.5	0.7	0.4	0.6	0.9	0.5	0.5	0.6	0.4	0.4	0.4
355.0	0.3	0.3	0.4	0.0	0.0	0.2	0.2	0.5	0.5	0.6	0.4	0.7	0.8	0.5	0.5	0.5	0.4	0.3	0.3
360.0	0.3	0.3	0.2	0.0	0.0	0.2	0.2	0.5	0.5	0.5	0.4	0.9	1.1	0.6	0.5	0.5	0		

NB. out

WIND ANGLE (DEGR)	CONCENTRATION (PPM)	REC41	REC42	REC43	REC44	REC45	REC46	REC47	REC48	REC49	REC50	REC51	REC52	REC53	REC54	REC55
0.	*	0.1	0.1	0.4	0.3	0.1	0.3	0.4	0.4	0.5	0.3	0.0	0.0	0.5	0.2	0.3
5.	*	0.1	0.1	0.2	0.1	0.0	0.3	0.4	0.4	0.5	0.5	0.0	0.1	0.7	0.5	0.3
10.	*	0.1	0.1	0.1	0.0	0.0	0.0	0.4	0.4	0.5	0.5	0.0	0.1	0.6	0.5	0.3
15.	*	0.1	0.1	0.1	0.0	0.0	0.0	0.4	0.5	0.6	0.0	0.2	0.5	0.4	0.4	
20.	*	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.2	0.4	0.6	0.0	0.2	0.6	0.4	0.5
25.	*	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.2	0.4	0.5	0.0	0.3	0.6	0.4	0.5
30.	*	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.3	0.5	0.0	0.3	0.5	0.3	0.5
35.	*	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.2	0.5	0.0	0.3	0.5	0.4	0.5
40.	*	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.2	0.4	0.0	0.4	0.4	0.4	0.4
45.	*	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.2	0.3	0.0	0.4	0.3	0.4	0.4
50.	*	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.2	0.3	0.0	0.2	0.3	0.4	0.4
55.	*	0.0	0.1	0.1	0.0	0.0	0.0	0.1	0.2	0.2	0.3	0.0	0.4	0.4	0.5	0.4
60.	*	0.0	0.1	0.1	0.0	0.0	0.0	0.1	0.2	0.2	0.3	0.2	0.4	0.3	0.5	0.4
65.	*	0.0	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.2	0.3	0.2	0.5	0.3	0.5	0.4
70.	*	0.0	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.2	0.3	0.3	0.4	0.4	0.5	0.4
75.	*	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.2	0.3	0.4	0.4	0.4	0.5	0.3
80.	*	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.3	0.5	0.6	0.6	0.6	0.3
85.	*	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.3	0.6	0.5	0.6	0.6	0.3
90.	*	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.3	0.6	0.6	0.5	0.6	0.3
95.	*	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.3	0.6	0.7	0.5	0.6	0.3
100.	*	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.2	0.3	0.6	0.7	0.5	0.6	0.4
105.	*	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.2	0.3	0.7	0.8	0.5	0.6	0.4
110.	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.7	0.7	0.4	0.5	0.4
115.	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.7	0.8	0.4	0.5	0.4
120.	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.6	0.8	0.5	0.5	0.4
125.	*	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.3	0.0	0.1	0.3	0.6	0.8	0.4
130.	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.6	0.8	0.6	0.5	0.4
135.	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.5	0.7	0.5	0.5	0.5
140.	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.5	0.7	0.5	0.5	0.5
145.	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.5	0.7	0.7	0.7	0.5
150.	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.5	0.7	0.7	0.6	0.5
155.	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.5	0.7	0.7	0.6	0.5
160.	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.5	0.9	0.6	0.6	0.5
165.	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4	0.7	0.9	0.7	0.5
170.	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.6	1.0	0.6	0.6
175.	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.4	1.0	0.5	0.6
180.	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.4	0.9	0.4	0.7
185.	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.4	0.9	0.6	0.6
190.	*	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.5	0.9	0.4	0.4
195.	*	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.5	0.9	0.4	0.4
200.	*	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.6	0.9	0.6	0.4	0.4
205.	*	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.8	0.4	0.4

JOB: Ronkonkama

RUN: NOBUI LD

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WIND ANGLE RANGE: 0. -360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM)	REC41	REC42	REC43	REC44	REC45	REC46	REC47	REC48	REC49	REC50	REC51	REC52	REC53	REC54	REC55
210.	*	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.9	0.4	0.3
215.	*	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.9	0.5	0.3
220.	*	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.9	0.5	0.3
225.	*	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.8	0.5	0.2
230.	*	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.5	0.6	0.8	0.5	0.2
235.	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.6	0.8	0.4	0.2
240.	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.5	0.8	0.3	0.2
245.	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.5	0.7	0.3	0.1
250.	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.6	0.3	0.1
255.	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.4	0.2	0.1
260.	*	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.4	0.2	0.1
265.	*	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.1
270.	*	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.1
275.	*	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.1
280.	*	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.1
285.	*	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.1
290.	*	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.1
295.	*	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.1
300.	*	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.1
305.	*	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.1
310.	*	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.2	0.1
315.	*	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.2	0.1
320.	*	0.1	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1
325.	*	0.2	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.2	0.2
330.	*	0.2	0.3	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.2	0.2
335.	*	0.2	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.2	0.2
340.	*	0.2	0.4	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.2	0.2
345.	*	0.2	0.4	0.5	0.3	0.1	0.0	0.0	0.2	0.1	0.0	0.0	0.0	0.4	0.2	0.2
350.	*	0.1	0.3	0.5	0.3	0.3	0.1	0.2	0.4	0.3	0.2	0.0	0.0	0.4	0.2	0.1
355.	*	0.1	0.2	0.5	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.0	0.0	0.4	0.2	0.1
360.	*	0.1	0.1	0.4	0.3	1	0.3	0.4	0.4	0.5	0.3	0.0	0.0	0.5	0.2	0.3

MAX DEGR.	0.2	0.4	0.5	0.3	0.3	0.3	0.4	0.4	0.5	0.6	0.7	0.8	1.0	0.7	0.7	0.7
	325	335	345	0	350	0	0	0	15	105	105	170	165	180		

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THE HIGHEST CONCENTRATION OF 1.10 PPM OCCURRED AT RECEPTOR REC33.

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JOB: Ronkonkama RUN: BUILD
DATE : 6/ 5/13
TIME : 9:18:18

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 175. CM
U = 1.0 M/S CLAS = 4 (D) ATIM = 60. MINUTES MIXH = 1000. M AMB = 0.0 PPM

LINK VARIABLES

V/C QUEUE (VEH)	LINK DESCRIPTION	X1	Y1	X2	Y2	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)
-----------------	------------------	----	----	----	----	-------------	-----------	------	-----	-----------	--------	--------

0.64	1.	LI E N/Hawk/ ns SB TTR*	3375.1	5903.8	3376.6	6018.4	*	115.	1.	AG	92.	100.0	1.0	20.0	
5.8	2.	LI E N/Hawk WB LTTR *	3446.1	5872.5	3544.1	5889.4	*	100.	80.	AG	111.	100.0	1.0	30.0	
0.51	5.1	LI E N/Hawk/ ns NB L *	3393.3	5814.6	3346.6	3433.7	*	2381.	181.	AG	65.	100.0	1.0	10.0	
2.88	121.0	4.	LI E N/Hawk/ ns NB TT *	3416.2	5814.3	3415.8	5689.2	*	125.	180.	AG	92.	100.0	1.0	20.0
0.70	4.	5.	LI E S/Hawk/ ns SB L *	3391.1	5495.9	3411.4	6938.9	*	1443.	1.	AG	58.	100.0	1.0	10.0
1.43	73.3	6.	LI E S/Hawk/ ns SB TT *	3370.8	5481.6	3372.7	5586.0	*	104.	1.	AG	111.	100.0	1.0	20.0
0.75	5.3	7.	LI E S/Hawk/ ns NB TTR*	3405.1	5396.8	3359.1	3358.0	*	2039.	181.	AG	111.	100.0	1.0	20.0
1.54	103.6	8.	LI E S/Hawk EB LTTR *	3339.3	5401.9	2231.6	4988.3	*	1182.	250.	AG	111.	100.0	1.0	30.0
1.12	60.1	9.	Hawk/Uni on SB L *	3390.6	4708.0	3229.3	6783.0	*	2081.	356.	AG	57.	100.0	1.0	10.0
1.66	105.7	10.	Hawk/Uni on SB T *	3377.8	4706.1	3373.5	4748.0	*	42.	354.	AG	20.	100.0	1.0	10.0
0.33	1.1	11.	Hawk/Uni on WB L *	3438.0	4679.8	3463.1	4682.3	*	25.	84.	AG	54.	100.0	1.0	10.0
0.23	1.3	12.	Hawk/Uni on WB R *	3437.3	4691.3	3549.9	4707.3	*	114.	82.	AG	37.	100.0	1.0	10.0
0.73	5.8	13.	Hawk/Uni on NB TR *	3412.5	4623.3	3426.5	4501.5	*	123.	173.	AG	37.	100.0	1.0	10.0
0.77	6.2	14.	LI E N/Hawk/ ns N *	3393.0	5863.0	3401.9	6218.8	*	356.	1.	AG	1516.	2.5	1.0	72.0
		15.	LI E N/Hawk/ ns E *	3393.0	5863.0	3735.4	5914.4	*	346.	81.	AG	975.	4.0	1.0	54.0
		16.	LI E N/Hawk/ ns S *	3393.0	5863.0	3393.0	5611.5	*	252.	180.	AG	1527.	2.5	1.0	78.0
		17.	LI E N/Hawk/ ns W *	3393.0	5863.0	3036.7	5815.2	*	359.	262.	AG	834.	4.0	1.0	54.0
		18.	LI E S/Hawk/ ns N *	3387.1	5425.3	3394.1	5670.0	*	245.	2.	AG	1527.	2.5	1.0	78.0
		19.	LI E S/Hawk/ ns E *	3387.1	5425.3	3651.9	5538.9	*	288.	67.	AG	2293.	4.0	1.0	54.0
		20.	LI E S/Hawk/ ns S *	3387.1	5425.3	3381.2	5147.1	*	278.	181.	AG	1200.	2.5	1.0	66.0
		21.	LI E S/Hawk/ ns W *	3387.1	5425.3	3108.2	5320.4	*	298.	249.	AG	2284.	4.0	1.0	54.0
		22.	Uni on/Hawk/ ns N *	3401.1	4668.8	3378.9	4869.0	*	201.	354.	AG	1206.	2.5	1.0	54.0
		23.	Uni on/Hawk/ ns E *	3401.1	4668.8	3620.2	4699.3	*	221.	82.	AG	985.	2.5	1.0	54.0
		24.	Uni on/Hawk/ ns S *	3401.1	4668.8	3421.1	4497.9	*	172.	173.	AG	559.	2.5	1.0	42.0

JOB: Ronkonkama RUN: BUILD
DATE : 6/ 5/13
TIME : 9:18:18

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
1. LI E N/Hawk/ ns SB TTR*	100	62	3.0	676	1600	27.59	1	3
2. LI E N/Hawk WB LTTR *	100	50	3.0	1092	1600	27.59	1	3
3. LI E N/Hawk/ ns NB L *	100	88	3.0	323	1600	27.59	1	3
4. LI E N/Hawk/ ns NB TT *	100	62	3.0	739	1600	27.59	1	3
5. LI E S/Hawk/ ns SB L *	100	78	3.0	390	1600	27.59	1	3
6. LI E S/Hawk/ ns SB TT *	100	75	3.0	479	1600	27.59	1	3
7. LI E S/Hawk/ ns NB TTR*	100	75	3.0	986	1600	27.59	1	3
8. LI E S/Hawk EB LTTR *	100	50	3.0	2411	1600	27.59	1	3
9. Hawk/Uni on SB L *	81	62	3.0	458	1600	27.59	1	3
10. Hawk/Uni on SB T *	81	22	3.0	350	1600	27.59	1	3
11. Hawk/Uni on WB L *	81	59	3.0	78	1600	27.59	1	3
12. Hawk/Uni on WB R *	81	40	3.0	520	1600	27.59	1	3
13. Hawk/Uni on NB TR *	81	41	3.0	534	1600	27.59	1	3

RECEPTOR LOCATIONS

RECEPTOR	X	Y	Z
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RECEPTOR	X	Y	Z
1. LI E N/Hawk NE1	3443.9	6057.5	6.0
2. LI E N/Hawk NE2	3442.0	5982.5	6.0
3. LI E N/Hawk NE3	3440.1	5907.5	6.0
4. LI E N/Hawk NE4	3514.3	5918.6	6.0
5. LI E N/Hawk NE5	3568.4	5929.8	6.0
6. LI E N/Hawk SE1	3590.3	5855.2	6.0
7. LI E N/Hawk SE2	3516.2	5844.1	6.0
8. LI E N/Hawk SE3	3442.0	5833.0	6.0
9. LI E N/Hawk SE4	3442.0	5758.0	6.0
10. LI E N/Hawk SE5	3442.0	5683.0	6.0
11. LI E N/Hawk SW1	3344.0	5669.1	6.0
12. LI E N/Hawk SW2	3344.0	5744.4	6.0
13. LI E N/Hawk SW3	3344.0	5819.1	6.0
14. LI E N/Hawk SW4	3269.6	5809.1	6.0
15. LI E N/Hawk SW5	3195.3	5799.2	6.0
16. LI E N/Hawk NW1	3199.1	5874.3	6.0
17. LI E N/Hawk NW2	3273.4	5884.3	6.0
18. LI E N/Hawk NW3	3347.8	5894.3	6.0
19. LI E N/Hawk NW4	3349.6	5969.3	6.0
20. LI E N/Hawk NW5	3351.5	6044.3	6.0
21. LI E S/Hawk NE1	3442.2	5637.3	6.0
22. LI E S/Hawk NE2	3440.0	5562.3	6.0
23. LI E S/Hawk NE3	3437.9	5487.3	6.0
24. LI E S/Hawk NE4	3506.8	5516.9	6.0
25. LI E S/Hawk NE5	3575.7	5546.5	6.0
26. LI E S/Hawk SE1	3567.5	5462.4	6.0
27. LI E S/Hawk SE2	3498.7	5432.8	6.0
28. LI E S/Hawk SE3	3429.6	5403.3	6.0
29. LI E S/Hawk SE4	3428.0	5328.3	6.0
30. LI E S/Hawk SE5	3426.4	5253.3	6.0
31. LI E S/Hawk SW1	3339.7	5219.1	6.0
32. LI E S/Hawk SW2	3341.3	5294.1	6.0

JOB: Ronkonkama RUN: BUILD
DATE : 6/ 5/13
TIME : 9:18:18

RECEPTOR LOCATIONS

RECEPTOR	X	Y	Z
33. LI E S/Hawk SW3	3342.9	5369.1	6.0
34. LI E S/Hawk SW4	3272.7	5342.7	6.0
35. LI E S/Hawk SW5	3202.5	5316.3	6.0
36. Hawk/Uni on NE1	3417.1	4859.8	6.0
37. Hawk/Uni on NE2	3425.4	4785.3	6.0
38. Hawk/Uni on NE3	3433.7	4710.7	6.0
39. Hawk/Uni on NE4	3509.1	4721.2	6.0
40. Hawk/Uni on NE5	3582.3	4731.3	6.0
41. Hawk/Uni on SE1	3584.7	4657.0	6.0
42. Hawk/Uni on SE2	3510.4	4646.6	6.0
43. Hawk/Uni on SE3	3436.1	4636.3	6.0
44. Hawk/Uni on SE4	3444.8	4561.8	6.0
45. Hawk/Uni on SE5	3453.0	4487.3	6.0
46. Hawk/Uni on W1	3388.8	4506.5	6.0
47. Hawk/Uni on W2	3380.2	4581.0	6.0
48. Hawk/Uni on W3	3371.5	4655.5	6.0
49. Hawk/Uni on W4	3357.2	4729.1	6.0
50. Hawk/Uni on W5	3348.9	4803.7	6.0
51. LI E S/Hawk NW1	3198.3	5393.8	6.0
52. LI E S/Hawk NW2	3268.5	5420.2	6.0
53. LI E S/Hawk NW3	3338.7	5446.6	6.0
54. LI E S/Hawk NW4	3340.8	5521.6	6.0
55. LI E S/Hawk NW5	3343.0	5596.5	6.0

JOB: Ronkonkama RUN: BUILD

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0. -360.

WIND * CONCENTRATION

ANGLE * (PPM)
(DEG) * REC1 REC2 REC3 REC4 REC5 REC6 REC7 REC8 REC9 REC10 REC11 REC12 REC13 REC14 REC15 REC16 REC17 REC18
REC19 REC20

0.	*	0.2	0.2	0.2	0.0	0.0	0.1	0.3	0.4	0.4	0.2	0.3	0.2	0.5	0.2	0.1	0.0	0.1	0.3
0.2	0.1																		
5.	0.1	0.1	0.1	0.2	0.0	0.0	0.1	0.3	0.3	0.3	0.3	0.3	0.4	0.2	0.1	0.1	0.2	0.3	0.3
0.2	0.2																		

REC39 REC40

BD.out

ANGLE (DEGR)	REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28	REC29	REC30	REC31	REC32	REC33	REC34	REC35	REC36	REC37	REC38	
0.0	0.0	0.3	0.3	0.2	0.0	0.0	0.2	0.2	0.5	0.5	0.5	0.6	0.9	1.2	0.6	0.5	0.5	0.4	0.4
5.0	0.0	0.2	0.2	0.1	0.0	0.0	0.2	0.3	0.5	0.2	0.3	0.7	0.9	1.1	0.6	0.5	0.3	0.3	0.1
10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.3	0.1	0.2	0.8	1.1	1.0	0.8	0.7	0.1	0.1	0.1
15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.3	0.1	0.1	0.7	1.0	0.8	0.8	0.7	0.1	0.1	0.0
20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.3	0.1	0.1	0.6	0.8	0.8	1.0	0.7	0.0	0.0	0.0
25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.3	0.1	0.1	0.6	0.9	0.7	1.0	0.7	0.0	0.0	0.0
30.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.3	0.1	0.1	0.7	0.7	0.6	1.0	0.6	0.0	0.0	0.0
35.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.3	0.1	0.1	0.7	0.7	0.7	1.0	0.6	0.0	0.0	0.0
40.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.3	0.1	0.1	0.7	0.7	0.7	0.9	0.6	0.0	0.0	0.0
45.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.3	0.1	0.0	0.7	0.6	0.6	0.8	0.6	0.0	0.0	0.0
50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.3	0.1	0.0	0.6	0.7	0.5	0.8	0.7	0.0	0.0	0.0
55.0	0.0	0.0	0.1	0.0	0.0	0.2	0.3	0.3	0.0	0.0	0.6	0.7	0.5	0.7	0.7	0.0	0.0	0.0	0.0
60.0	0.0	0.0	0.1	0.1	0.0	0.1	0.2	0.3	0.0	0.0	0.6	0.7	0.6	0.6	0.6	0.0	0.0	0.0	0.0
65.0	0.0	0.0	0.1	0.1	0.0	0.1	0.2	0.2	0.0	0.0	0.6	0.6	0.6	0.6	0.5	0.0	0.0	0.0	0.0
70.0	0.0	0.0	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.6	0.6	0.4	0.5	0.3	0.0	0.0	0.0	0.0
75.0	0.0	0.0	0.2	0.2	0.1	0.0	0.1	0.1	0.0	0.0	0.6	0.6	0.4	0.5	0.4	0.0	0.0	0.0	0.0
80.0	0.0	0.0	0.3	0.2	0.1	0.0	0.0	0.1	0.0	0.0	0.6	0.6	0.4	0.3	0.2	0.0	0.0	0.0	0.0
85.0	0.0	0.0	0.3	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.3	0.3	0.1	0.0	0.0	0.0	0.0
90.0	0.0	0.1	0.3	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.4	0.3	0.1	0.0	0.0	0.0	0.2
95.0	0.0	0.1	0.3	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.4	0.3	0.1	0.0	0.0	0.0	0.2
100.0	0.0	0.1	0.3	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.4	0.3	0.1	0.0	0.0	0.0	0.2
105.0	0.0	0.1	0.3	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.4	0.3	0.1	0.0	0.0	0.0	0.2
110.0	0.0	0.1	0.3	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.4	0.3	0.1	0.0	0.0	0.0	0.2
115.0	0.0	0.1	0.3	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.4	0.3	0.1	0.0	0.0	0.0	0.2
120.0	0.0	0.1	0.3	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.4	0.3	0.1	0.0	0.0	0.0	0.2
125.0	0.0	0.1	0.3	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.4	0.3	0.1	0.0	0.0	0.0	0.2
130.0	0.0	0.1	0.3	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.4	0.3	0.1	0.0	0.0	0.0	0.2
135.0	0.0	0.1	0.3	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.4	0.3	0.1	0.0	0.0	0.0	0.2
140.0	0.0	0.1	0.3	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.4	0.3	0.1	0.0	0.0	0.0	0.2
145.0	0.0	0.1	0.3	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.4	0.3	0.1	0.0	0.0	0.0	0.2
150.0	0.0	0.1	0.3	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.4	0.3	0.1	0.0	0.0	0.0	0.2
155.0	0.0	0.1	0.3	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.4	0.3	0.1	0.0	0.0	0.0	0.2
160.0	0.0	0.1	0.3	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.4	0.3	0.1	0.0	0.0	0.0	0.2
165.0	0.0	0.1	0.3	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.4	0.3	0.1	0.0	0.0	0.0	0.2
170.0	0.0	0.1	0.3	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.4	0.3	0.1	0.0	0.0	0.0	0.2
175.0	0.0	0.1	0.3	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.4	0.3	0.1	0.0	0.0	0.0	0.2
180.0	0.0	0.1	0.3	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.4	0.3	0.1	0.0	0.0	0.0	0.2
185.0	0.0	0.1	0.3	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.4	0.3	0.1	0.0	0.0	0.0	0.2
190.0	0.0	0.1	0.3	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.4	0.3	0.1	0.0	0.0	0.0	0.2
195.0	0.0	0.1	0.3	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.4	0.3	0.1	0.0	0.0	0.0	0.2
200.0	0.0	0.1	0.3	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.4	0.3	0.1	0.0	0.0	0.0	0.2
205.0	0.0	0.1	0.3	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.4	0.3	0.1	0.0	0.0	0.0	0.2
210.0	0.0	0.1	0.3	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.4	0.3	0.1	0.0	0.0	0.0	0.2

JOB: Ronkonkama

RUN: BUI LD

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WIND ANGLE RANGE: 0.-360.

BD.out

WIND * CONCENTRATION
ANGLE * (PPM)
(DEGR) * REC21 REC22 REC23 REC24 REC25 REC26 REC27 REC28 REC29 REC30 REC31 REC32 REC33 REC34 REC35 REC36 REC37 REC38
REC39 REC40

ANGLE (DEGR)	REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28	REC29	REC30	REC31	REC32	REC33	REC34	REC35	REC36	REC37	REC38
210.0	0.7	0.5	0.8	0.5	0.4	0.2	0.3	0.7	0.7	0.7	0.0	0.1	0.3	0.0	0.0	0.7	0.6	0.5
215.0	0.7	0.6	0.7	0.5	0.4	0.1	0.3	0.6	0.7	0.7	0.0	0.1	0.3	0.0	0.0	0.7	0.6	0.4
220.0	0.6	0.7	0.7	0.6	0.4	0.1	0.2	0.6	0.6	0.6	0.0	0.0	0.3	0.0	0.0	0.6	0.6	0.4
225.0	0.6	0.6	0.8	0.7	0.4	0.1	0.2	0.6	0.6	0.6	0.0	0.0	0.2	0.0	0.0	0.6	0.6	0.4
230.0	0.5	0.7	0.8	0.6	0.5	0.1	0.2	0.6	0.6	0.6	0.0	0.0	0.2	0.0	0.0	0.6	0.6	0.4
235.0	0.5	0.7	0.7	0.5	0.5	0.2	0.3	0.7	0.6	0.6	0.0	0.0	0.3	0.1	0.1	0.6	0.5	0.4
240.0	0.5	0.6	0.7	0.6	0.4	0.4	0.4	0.7	0.6	0.6	0.0	0.0	0.4	0.2	0.1	0.6	0.5	0.4
245.0	0.5	0.5	0.7	0.5	0.4	0.4	0.6	0.8	0.7	0.6	0.0	0.1	0.5	0.3	0.2	0.6	0.5	0.4
250.0	0.4	0.6	0.5	0.5	0.3	0.5	0.6	1.0	0.7	0.6	0.0	0.1	0.7	0.4	0.4	0.6	0.5	0.4
255.0	0.4	0.4	0.4	0.4	0.3	0.5	0.7	0.9	0.7	0.7	0.1	0.1	0.8	0.6	0.5	0.6	0.5	0.4
260.0	0.4	0.4	0.5	0.3	0.2	0.5	0.7	1.0	0.8	0.7	0.1	0.2	0.9	0.6	0.5	0.6	0.5	0.4
265.0	0.4	0.4	0.3	0.2	0.1	0.5	0.6	1.1	0.9	0.7	0.1	0.2	0.9	0.7	0.6	0.6	0.5	0.4
270.0	0.4	0.4	0.3	0.2	0.1	0.5	0.5	1.0	0.9	0.7	0.1	0.3	0.9	0.7	0.6	0.6	0.5	0.4
275.0	0.4	0.4	0.3	0.2	0.0	0.3	0.6	0.8	0.9	0.7	0.1	0.3	0.9	0.7	0.6	0.6	0.5	0.5
280.0	0.4	0.4	0.3	0.2	0.0	0.3	0.5	0.7	0.9	0.8	0.1	0.3	0.9	0.7	0.6	0.5	0.5	0.5
285.0	0.4	0.4	0.3	0.2	0.0	0.4	0.5	0.7	0.9	0.8	0.1	0.3	0.8	0.6	0.6	0.5	0.5	0.5
290.0	0.4	0.4	0.4	0.2	0.0	0.4	0.5	0.6	0.8	0.8	0.1	0.3	0.8	0.6	0.6	0.5	0.5	0.5
295.0	0.4	0.4	0.5	0.3	0.0	0.4	0.6	0.4	0.8	0.8	0.2	0.3	0.8	0.6	0.6	0.5	0.5	0.5
300.0	0.4	0.3	0.5	0.2	0.0	0.3	0.6	0.6	0.8	0.8	0.2	0.2	0.8	0.6	0.6	0.5	0.5	0.5
305.0	0.4	0.3	0.6	0.2	0.0	0.3	0.6	0.6	0.8	0.8	0.2	0.2	0.8	0.6	0.6	0.5	0.5	0.5
310.0	0.3	0.4	0.5	0.2	0.0	0.2	0.5	0.6	0.8	0.8	0.2	0.2	0.9	0.6	0.5	0.5	0.5	0.5
315.0	0.3	0.4	0.5	0.2	0.0	0.2	0.5	0.7	0.8	0.8	0.2	0.2	0.8	0.5	0.5	0.5	0.6	0.5
320.0	0.5	0.5	0.5	0.2	0.0	0.2	0.6	0.6	0.7	0.8	0.2	0.3	0.8	0.5	0.5	0.5	0.6	0.5
325.0	0.5	0.5	0.5	0.2	0.0	0.2	0.5	0.6	0.7	0.8	0.2	0.3	0.8	0.5	0.5	0.5	0.6	0.5
330.0	0.5	0.5	0.5	0.1	0.0	0.2	0.4	0.6	0.7	0.7	0.2	0.3	0.9	0.5	0.5	0.6	0.6	0.6
335.0	0.5	0.5	0.5	0.1	0.0	0.3	0.5	0.8	0.8	0.7	0.2	0.4	0.8	0.5	0.5	0.6	0.6	0.6
340.0	0.6	0.6	0.4	0.1	0.0	0.3	0.4	0.7	0.9	0.7	0.3	0.5	1.0	0.6	0.6	0.6	0.6	0.6
345.0	0.5	0.6	0.5	0.1	0.0	0.2	0.3	0.7	0.9	0.7	0.3	0.6	0.9	0.5	0.5	0.6	0.5	0.6
350.0	0.4	0.5	0.4	0.1	0.0	0.2	0.3	0.7	0.7	0.8	0.4	0.6	0.9	0.5	0.5	0.6	0.5	

BD.out

WIND ANGLE (DEGR)	* CONCENTRATION (PPM)														
	REC41	REC42	REC43	REC44	REC45	REC46	REC47	REC48	REC49	REC50	REC51	REC52	REC53	REC54	REC55
0.	* 0.1	0.1	0.5	0.3	0.3	1.3	1.4	1.4	0.6	0.3	0.0	0.1	0.7	0.3	0.3
5.	* 0.1	0.1	0.2	0.1	0.1	1.1	1.3	1.4	0.7	0.5	0.0	0.1	0.7	0.5	0.3
10.	* 0.1	0.1	0.2	0.1	0.0	0.9	1.3	1.3	0.8	0.5	0.1	0.2	0.7	0.6	0.3
15.	* 0.1	0.1	0.1	0.0	0.0	0.8	1.0	1.2	0.8	0.7	0.1	0.2	0.6	0.5	0.4
20.	* 0.1	0.1	0.1	0.0	0.0	0.6	0.9	1.1	0.8	0.7	0.1	0.2	0.6	0.6	0.5
25.	* 0.1	0.1	0.1	0.0	0.0	0.5	0.7	1.0	0.7	0.7	0.1	0.3	0.6	0.6	0.5
30.	* 0.1	0.1	0.1	0.0	0.0	0.4	0.7	0.9	0.7	0.7	0.0	0.4	0.5	0.5	0.5
35.	* 0.0	0.1	0.1	0.0	0.0	0.3	0.6	0.7	0.7	0.6	0.0	0.4	0.5	0.5	0.5
40.	* 0.0	0.1	0.1	0.0	0.0	0.3	0.5	0.7	0.7	0.6	0.0	0.4	0.5	0.5	0.5
45.	* 0.0	0.1	0.1	0.0	0.0	0.3	0.5	0.7	0.7	0.5	0.0	0.4	0.3	0.5	0.4
50.	* 0.0	0.1	0.1	0.0	0.0	0.3	0.4	0.6	0.7	0.5	0.1	0.4	0.3	0.6	0.4
55.	* 0.0	0.1	0.1	0.0	0.0	0.2	0.5	0.7	0.6	0.5	0.1	0.4	0.4	0.5	0.4
60.	* 0.0	0.1	0.1	0.0	0.0	0.2	0.5	0.7	0.6	0.5	0.2	0.5	0.3	0.5	0.4
65.	* 0.0	0.1	0.1	0.0	0.0	0.2	0.5	0.5	0.6	0.5	0.2	0.5	0.3	0.5	0.4
70.	* 0.0	0.1	0.1	0.0	0.0	0.2	0.5	0.5	0.6	0.5	0.3	0.4	0.4	0.5	0.4
75.	* 0.0	0.0	0.1	0.0	0.0	0.2	0.5	0.5	0.6	0.5	0.4	0.4	0.4	0.5	0.3
80.	* 0.0	0.0	0.0	0.0	0.0	0.1	0.5	0.5	0.6	0.5	0.5	0.6	0.6	0.6	0.3
85.	* 0.0	0.0	0.0	0.0	0.0	0.1	0.5	0.5	0.6	0.5	0.6	0.5	0.6	0.6	0.3
90.	* 0.0	0.0	0.0	0.0	0.0	0.1	0.5	0.5	0.6	0.5	0.6	0.6	0.5	0.6	0.3
95.	* 0.0	0.0	0.0	0.0	0.0	0.1	0.5	0.5	0.6	0.5	0.6	0.7	0.5	0.6	0.4
100.	* 0.0	0.0	0.0	0.0	0.0	0.1	0.5	0.4	0.6	0.5	0.6	0.7	0.5	0.6	0.5
105.	* 0.0	0.0	0.0	0.0	0.0	0.1	0.5	0.4	0.6	0.5	0.6	0.7	0.5	0.6	0.5
110.	* 0.0	0.0	0.0	0.0	0.0	0.1	0.5	0.4	0.6	0.5	0.7	0.7	0.4	0.5	0.5
115.	* 0.0	0.0	0.0	0.0	0.0	0.1	0.5	0.4	0.6	0.5	0.7	0.8	0.4	0.5	0.6
120.	* 0.0	0.0	0.0	0.0	0.0	0.1	0.5	0.4	0.6	0.5	0.6	0.8	0.5	0.5	0.6
125.	* 0.0	0.0	0.0	0.0	0.0	0.1	0.5	0.4	0.6	0.5	0.5	0.8	0.6	0.8	0.6
130.	* 0.0	0.0	0.0	0.0	0.0	0.1	0.5	0.5	0.6	0.5	0.6	0.8	0.6	0.5	0.6
135.	* 0.0	0.0	0.0	0.0	0.0	0.2	0.5	0.6	0.6	0.5	0.5	0.7	0.5	0.5	0.6
140.	* 0.0	0.0	0.0	0.0	0.0	0.2	0.6	0.7	0.6	0.5	0.5	0.7	0.5	0.5	0.7
145.	* 0.0	0.0	0.0	0.0	0.0	0.2	0.6	0.7	0.6	0.6	0.5	0.7	0.6	0.7	0.7
150.	* 0.0	0.0	0.0	0.0	0.0	0.3	0.6	0.8	0.6	0.7	0.5	0.7	0.7	0.6	0.7
155.	* 0.0	0.0	0.0	0.0	0.0	0.4	0.7	0.9	0.5	0.7	0.6	0.7	0.7	0.6	0.7
160.	* 0.0	0.0	0.0	0.0	0.0	0.4	0.7	0.9	0.5	0.7	0.6	0.8	0.7	0.6	0.7
165.	* 0.0	0.0	0.0	0.0	0.0	0.6	0.9	1.1	0.7	0.6	0.6	0.7	0.9	0.7	0.6
170.	* 0.0	0.0	0.1	0.0	0.0	0.9	1.0	1.1	0.7	0.5	0.5	0.7	1.0	0.7	0.8
175.	* 0.0	0.0	0.1	0.1	0.1	1.0	1.1	1.1	0.6	0.5	0.5	0.6	1.1	0.6	0.7
180.	* 0.0	0.2	0.4	0.4	0.3	0.8	1.2	1.1	0.5	0.5	1.2	1.2	0.5	0.5	0.7
185.	* 0.0	0.1	0.4	0.3	0.3	1.2	1.2	1.1	0.4	0.3	0.4	0.5	0.9	0.6	0.6
190.	* 0.1	0.1	0.5	0.3	0.3	1.2	1.0	0.9	0.2	0.2	0.5	0.5	1.0	0.5	0.5
195.	* 0.1	0.2	0.5	0.3	0.3	1.1	0.9	0.8	0.2	0.1	0.5	0.5	0.9	0.4	0.4
200.	* 0.1	0.2	0.5	0.4	0.3	1.0	0.9	0.8	0.1	0.7	0.6	0.0	0.6	0.6	0.4
205.	* 0.1	0.2	0.5	0.4	0.3	0.9	0.6	0.4	0.0	0.0	0.6	0.6	0.8	0.4	0.4

JOB: Ronkonkama

RUN: BUI LD

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WIND ANGLE RANGE: 0. -360.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM)														
	REC41	REC42	REC43	REC44	REC45	REC46	REC47	REC48	REC49	REC50	REC51	REC52	REC53	REC54	REC55
210.	* 0.1	0.2	0.4	0.4	0.3	0.8	0.5	0.4	0.0	0.0	0.6	0.6	0.9	0.4	0.3
215.	* 0.1	0.2	0.4	0.4	0.3	0.7	0.5	0.3	0.0	0.0	0.6	0.6	0.9	0.5	0.3
220.	* 0.1	0.2	0.4	0.4	0.3	0.7	0.3	0.3	0.0	0.0	0.6	0.6	0.9	0.5	0.3
225.	* 0.1	0.2	0.4	0.4	0.3	0.6	0.3	0.2	0.0	0.0	0.6	0.6	0.8	0.5	0.2
230.	* 0.1	0.2	0.4	0.4	0.3	0.6	0.3	0.2	0.0	0.0	0.5	0.6	0.8	0.5	0.2
235.	* 0.1	0.1	0.3	0.4	0.3	0.5	0.3	0.2	0.0	0.0	0.5	0.6	0.8	0.5	0.2
240.	* 0.1	0.1	0.3	0.4	0.3	0.4	0.3	0.2	0.0	0.0	0.5	0.5	0.8	0.3	0.2
245.	* 0.1	0.1	0.3	0.4	0.3	0.4	0.2	0.2	0.0	0.7	0.4	0.5	0.7	0.3	0.2
250.	* 0.1	0.1	0.3	0.4	0.3	0.4	0.2	0.2	0.0	0.0	0.3	0.3	0.6	0.3	0.1
255.	* 0.1	0.1	0.3	0.4	0.2	0.4	0.2	0.2	0.0	0.0	0.3	0.3	0.5	0.2	0.1
260.	* 0.1	0.1	0.3	0.4	0.2	0.4	0.2	0.2	0.0	0.0	0.1	0.2	0.4	0.2	0.1
265.	* 0.1	0.1	0.3	0.4	0.2	0.4	0.2	0.2	0.0	0.0	0.0	0.0	0.2	0.1	0.1
270.	* 0.2	0.1	0.3	0.4	0.3	0.4	0.2	0.2	0.0	0.0	0.0	0.0	0.2	0.2	0.1
275.	* 0.2	0.2	0.3	0.4	0.3	0.4	0.2	0.2	0.0	0.0	0.0	0.0	0.2	0.2	0.1
280.	* 0.2	0.2	0.3	0.4	0.2	0.4	0.2	0.2	0.0	0.0	0.0	0.0	0.2	0.2	0.1
285.	* 0.2	0.2	0.3	0.4	0.2	0.4	0.2	0.2	0.0	0.0	0.0	0.0	0.2	0.2	0.1
290.	* 0.2	0.2	0.3	0.4	0.2	0.4	0.2	0.2	0.0	0.0	0.0	0.0	0.2	0.2	0.1
295.	* 0.2	0.2	0.3	0.4	0.3	0.4	0.2	0.2	0.0	0.0	0.0	0.0	0.2	0.2	0.1
300.	* 0.2	0.2	0.3	0.4	0.3	0.4	0.3	0.2	0.0	0.0	0.0	0.0	0.2	0.2	0.1
305.	* 0.2	0.2	0.3	0.4	0.4	0.5	0.3	0.2	0.0	0.0	0.0	0.0	0.2	0.2	0.1
310.	* 0.2	0.2	0.3	0.4	0.4	0.5	0.3	0.2	0.0	0.0	0.0	0.0	0.3	0.2	0.1
315.	* 0.2	0.3	0.4	0.4	0.4	0.6	0.3	0.2	0.0	0.0	0.0	0.0	0.3	0.2	0.1
320.	* 0.2	0.4	0.4	0.4	0.4	0.6	0.3	0.2	0.0	0.0	0.0	0.0	0.3	0.2	0.1
325.	* 0.2	0.4	0.5	0.4	0.4	0.7	0.3	0.3	0.0	0.0	0.0	0.0	0.3	0.2	0.2
330.	* 0.2	0.4	0.6	0.4	0.4	0.8	0.5	0.3	0.0	0.0	0.0	0.0	0.4	0.2	0.2
335.	* 0.2	0.4	0.6	0.3	0.4	0.9	0.5	0.4	0.0	0.0	0.0	0.0	0.4	0.2	0.2
340.	* 0.2	0.4	0.7	0.4	0.4	0.9	0.6	0.5	0.0	0.0	0.0	0.0	0.4	0.2	0.2
345.	* 0.2	0.4	0.7	0.4	0.5	1.0	0.9	0.7	0.2	0.0	0.0	0.0	0.4	0.2	0.2
350.	* 0.1	0.4	0.6	0.4	0.4	1.2	1.0	1.0	0.3	0.3	0.0	0.0	0.4	0.2	0.2
355.	* 0.1	0.2	0.6	0.4	0.4	1.3	1.2	1.1	0.4	0.3	0.0	0.1	0.4	0.2	0.1
360.	* 0.1	0.1	0.5	0.3	0.3	1.3	1.4	1.4	0.6	0.3	0.0	0.1	0.7	0.3	0.3

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BD.out
THE HIGHEST CONCENTRATION OF 1.40 PPM OCCURRED AT RECEPTOR REC47.

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3.b CAL3QHC Output Files Particulate Matter 10 (PM₁₀)

JOB: Ronkonkama RUN: EXISTING

DATE : 6/ 5/13
TIME : 9:17:28

The MODE flag has been set to P for calculating PM averages.

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S ZO = 175. CM
U = 1.0 M/S CLAS = 4 (D) ATIM = 60. MINUTES MIXH = 1000. M AMB = 0.0 ug/m**3

LINK VARIABLES

V/C QUEUE (VEH)	LINK DESCRIPTION	X1	Y1	X2	Y2	LENGTH (FT)	BRG (DEG)	BRG TYPE	VPH	EF (G/MI)	H (FT)	W (FT)
-----------------	------------------	----	----	----	----	-------------	-----------	----------	-----	-----------	--------	--------

0.54	1.	LI E N/Hawk ns SB TTR*	3375.1	5903.8	3376.4	6000.5	97.	1. AG	0.	100.0	1.0	20.0
4.9	2.	LI E N/Hawk WB LTTR *	3446.1	5872.5	3506.9	5883.0	62.	80. AG	0.	100.0	1.0	30.0
0.31	3.1	LI E N/Hawk ns NB L *	3393.3	5814.6	3374.7	4867.9	947.	181. AG	0.	100.0	1.0	10.0
1.70	48.1	4. LI E N/Hawk ns NB TT *	3416.2	5814.3	3415.9	5708.2	106.	180. AG	0.	100.0	1.0	20.0
0.59	4.	5. LI E S/Hawk ns SB L *	3391.1	5495.9	3403.3	6357.9	862.	1. AG	0.	100.0	1.0	10.0
1.23	43.8	6. LI E S/Hawk ns SB TT *	3370.8	5481.6	3371.9	5544.8	63.	1. AG	0.	100.0	1.0	20.0
0.48	3.2	7. LI E S/Hawk ns NB TTR*	3405.1	5396.8	3397.6	5062.7	334.	181. AG	0.	100.0	1.0	20.0
1.03	17.0	8. LI E S/Hawk EB LTTR *	3339.3	5401.9	2964.8	5262.1	400.	250. AG	0.	100.0	1.0	30.0
1.01	20.3	9. Hawk/Uni on SB L *	3390.6	4708.0	3306.4	5790.8	1086.	356. AG	0.	100.0	1.0	10.0
1.32	55.2	10. Hawk/Uni on SB T *	3377.8	4706.1	3376.0	4723.8	18.	354. AG	0.	100.0	1.0	10.0
0.14	0.9	11. Hawk/Uni on WB L *	3438.0	4679.8	3461.8	4682.2	24.	84. AG	0.	100.0	1.0	10.0
0.22	1.2	12. Hawk/Uni on WB R *	3437.3	4691.3	3527.6	4704.1	91.	82. AG	0.	100.0	1.0	10.0
0.59	4.6	13. Hawk/Uni on NB TR *	3412.5	4623.3	3418.2	4573.4	50.	173. AG	0.	100.0	1.0	10.0
0.32	2.6	14. LI E N/Hawk ns N *	3393.0	5863.0	3401.9	6218.8	356.	1. AG	1450.	0.0	1.0	72.0
		15. LI E N/Hawk ns E *	3393.0	5863.0	3735.4	5914.4	346.	81. AG	931.	0.0	1.0	54.0
		16. LI E N/Hawk ns S *	3393.0	5863.0	3393.0	5611.5	252.	180. AG	1459.	0.0	1.0	78.0
		17. LI E N/Hawk ns W *	3393.0	5863.0	3036.7	5815.2	359.	262. AG	796.	0.0	1.0	54.0
		18. LI E S/Hawk ns N *	3387.1	5425.3	3394.1	5670.0	245.	2. AG	1458.	0.0	1.0	78.0
		19. LI E S/Hawk ns E *	3387.1	5425.3	3651.9	5538.9	288.	67. AG	2191.	0.0	1.0	54.0
		20. LI E S/Hawk ns S *	3387.1	5425.3	3381.2	5147.1	278.	181. AG	1146.	0.0	1.0	66.0
		21. LI E S/Hawk ns W *	3387.1	5425.3	3108.2	5320.4	298.	249. AG	2183.	0.0	1.0	54.0
		22. Uni on/Hawk ns N *	3401.1	4668.8	3378.9	4869.0	201.	354. AG	641.	0.0	1.0	54.0
		23. Uni on/Hawk ns E *	3401.1	4668.8	3620.2	4699.3	221.	82. AG	941.	0.0	1.0	54.0
		24. Uni on/Hawk ns S *	3401.1	4668.8	3421.1	4497.9	172.	173. AG	533.	0.0	1.0	42.0

JOB: Ronkonkama RUN: EXISTING

DATE : 6/ 5/13
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1.	LI E N/Hawk ns SB TTR*	100	62	3.0	571	1600	0.03	1	3
2.	LI E N/Hawk WB LTTR *	100	50	3.0	678	1600	0.03	1	3
3.	LI E N/Hawk ns NB L *	100	88	3.0	190	1600	0.03	1	3
4.	LI E N/Hawk ns NB TT *	100	62	3.0	626	1600	0.03	1	3
5.	LI E S/Hawk ns SB L *	100	78	3.0	335	1600	0.03	1	3
6.	LI E S/Hawk ns SB TT *	100	75	3.0	308	1600	0.03	1	3
7.	LI E S/Hawk ns NB TTR*	100	75	3.0	663	1600	0.03	1	3
8.	LI E S/Hawk EB LTTR *	100	50	3.0	2183	1600	0.03	1	3
9.	Hawk/Uni on SB L *	81	62	3.0	363	1600	0.03	1	3
10.	Hawk/Uni on SB T *	81	22	3.0	148	1600	0.03	1	3
11.	Hawk/Uni on WB L *	81	59	3.0	74	1600	0.03	1	3
12.	Hawk/Uni on WB R *	81	40	3.0	417	1600	0.03	1	3
13.	Hawk/Uni on NB TR *	81	41	3.0	224	1600	0.03	1	3

RECEPTOR LOCATIONS

RECEPTOR	X	Y	Z
1. LI E N/Hawk NE1	3443.9	6057.5	6.0
2. LI E N/Hawk NE2	3442.0	5982.5	6.0
3. LI E N/Hawk NE3	3440.1	5907.5	6.0
4. LI E N/Hawk NE4	3514.3	5918.6	6.0
5. LI E N/Hawk NE5	3588.4	5929.8	6.0
6. LI E N/Hawk SE1	3590.3	5855.2	6.0

EX_PM10.out

7.	LI E N/Hawk SE2	3516.2	5844.2	6.0
8.	LI E N/Hawk SE3	3442.0	5833.0	6.0
9.	LI E N/Hawk SE4	3442.0	5758.0	6.0
10.	LI E N/Hawk SE5	3442.0	5683.0	6.0
11.	LI E N/Hawk SW1	3344.0	5669.1	6.0
12.	LI E N/Hawk SW2	3344.0	5744.4	6.0
13.	LI E N/Hawk SW3	3344.0	5819.1	6.0
14.	LI E N/Hawk SW4	3269.6	5809.1	6.0
15.	LI E N/Hawk SW5	3195.3	5799.2	6.0
16.	LI E N/Hawk NW1	3199.1	5874.3	6.0
17.	LI E N/Hawk NW2	3273.4	5884.3	6.0
18.	LI E N/Hawk NW3	3347.8	5894.3	6.0
19.	LI E N/Hawk NW4	3349.6	5969.3	6.0
20.	LI E N/Hawk NW5	3351.5	6044.3	6.0
21.	LI E S/Hawk NE1	3442.2	5637.3	6.0
22.	LI E S/Hawk NE2	3440.0	5562.3	6.0
23.	LI E S/Hawk NE3	3437.9	5487.3	6.0
24.	LI E S/Hawk NE4	3506.8	5516.9	6.0
25.	LI E S/Hawk NE5	3575.7	5546.5	6.0
26.	LI E S/Hawk SE1	3567.5	5462.4	6.0
27.	LI E S/Hawk SE2	3498.5	5432.8	6.0
28.	LI E S/Hawk SE3	3429.6	5403.3	6.0
29.	LI E S/Hawk SE4	3428.0	5328.3	6.0
30.	LI E S/Hawk SE5	3426.4	5253.3	6.0
31.	LI E S/Hawk SW1	3339.7	5219.1	6.0
32.	LI E S/Hawk SW2	3341.3	5294.1	6.0
33.	LI E S/Hawk SW3	3342.9	5361.1	6.0
34.	LI E S/Hawk SW4	3272.7	5342.7	6.0
35.	LI E S/Hawk SW5	3202.5	5316.3	6.0
36.	Hawk/Uni on NE1	3417.1	4859.8	6.0
37.	Hawk/Uni on NE2	3425.4	4785.3	6.0
38.	Hawk/Uni on NE3	3433.7	4710.7	6.0

JOB: Ronkonkama RUN: EXISTING

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RECEPTOR LOCATIONS

RECEPTOR	X	Y	Z
39. Hawk/Uni on NE4	3509.1	4721.2	6.0
40. Hawk/Uni on NE5	3582.3	4731.3	6.0
41. Hawk/Uni on SE1	3584.7	4657.0	6.0
42. Hawk/Uni on SE2	3510.4	4646.6	6.0
43. Hawk/Uni on SE3	3436.1	4636.3	6.0
44. Hawk/Uni on SE4	3444.8	4561.8	6.0
45. Hawk/Uni on SE5	3453.0	4487.3	6.0
46. Hawk/Uni on W1	3388.8	4506.5	6.0
47. Hawk/Uni on W2	3380.2	4581.0	6.0
48. Hawk/Uni on W3	3371.5	4655.5	6.0
49. Hawk/Uni on W4	3357.2	4729.1	6.0
50. Hawk/Uni on W5	3348.9	4803.7	6.0
51. LI E S/Hawk NW1	3198.3	5393.8	6.0
52. LI E S/Hawk NW2	3268.5	5420.2	6.0
53. LI E S/Hawk NW3	3338.7	5446.6	6.0
54. LI E S/Hawk NW4	3340.8	5521.6	6.0
55. LI E S/Hawk NW5	3343.0	5596.5	6.0

JOB: Ronkonkama RUN: EXISTING

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MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0. -360.

WIND * CONCENTRATION

ANGLE * (DEGR) * REC1 REC2 REC3 REC4 REC5 REC6 REC7 REC8 REC9 REC10 REC11 REC12 REC13 REC14 REC15 REC16 REC17 REC18 REC19 REC20

0.	1.	1.	1.	0.	0.	1.	1.	2.	2.	2.	1.	1.	2.	1.	1.	0.	0.	1.	
1.	5.	0.	1.	1.	0.	0.	1.	1.	2.	1.	1.	2.	2.	2.	1.	1.	0.	0.	1.
10.	1.	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.	1.	2.	2.	2.	1.	1.	0.	2.
15.	0.	0.	0.	0.	0.	0.	1.	1.	1.	1.	0.	2.	2.	2.	1.	1.	0.	0.	2.
20.	1.	0.	0.	0.	0.	0.	1.	1.	1.	1.	1.	0.	2.	2.	3.	1.	1.	0.	2.
2.	1.																		

															EX_PM10.out														
25.	*	0.	0.	0.	0.	0.	1.	1.	1.	1.	0.	2.	2.	3.	2.	1.	0.	1.	2.										
30.	*	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.	2.	2.	2.	2.	1.	0.	1.	2.										
35.	*	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.	2.	2.	2.	2.	1.	0.	1.	2.										
40.	*	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.	2.	2.	2.	2.	1.	0.	1.	2.										
45.	*	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.	2.	2.	2.	2.	1.	0.	1.	2.										
50.	*	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.	2.	2.	3.	2.	2.	0.	1.	2.										
55.	*	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.	2.	2.	3.	2.	2.	0.	1.	2.										
60.	*	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.	2.	2.	2.	2.	2.	1.	1.	2.										
65.	*	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.	2.	2.	2.	2.	2.	1.	1.	2.										
70.	*	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.	2.	2.	2.	2.	2.	1.	1.	2.										
75.	*	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.	2.	2.	2.	2.	2.	1.	1.	2.										
80.	*	0.	0.	0.	0.	0.	1.	1.	1.	0.	0.	2.	2.	2.	2.	1.	1.	2.	2.										
85.	*	0.	0.	1.	1.	0.	0.	0.	0.	0.	0.	2.	2.	2.	1.	1.	1.	2.	2.										
90.	*	0.	0.	1.	1.	1.	0.	0.	0.	0.	0.	2.	2.	2.	1.	1.	2.	2.	2.										
95.	*	0.	0.	1.	1.	1.	0.	0.	0.	0.	0.	2.	2.	2.	1.	1.	2.	2.	3.										
100.	*	0.	0.	1.	1.	1.	0.	0.	0.	0.	0.	2.	2.	2.	1.	1.	2.	2.	3.										
105.	*	0.	0.	1.	1.	1.	0.	0.	0.	0.	0.	2.	1.	1.	1.	0.	2.	2.	3.										
110.	*	0.	0.	1.	1.	1.	0.	0.	0.	0.	0.	3.	2.	1.	1.	1.	2.	2.	2.										
115.	*	0.	0.	1.	1.	1.	0.	0.	0.	0.	0.	3.	2.	2.	1.	1.	2.	2.	3.										
120.	*	0.	0.	1.	1.	1.	0.	0.	0.	0.	0.	3.	2.	2.	1.	1.	2.	2.	2.										
125.	*	0.	0.	1.	1.	1.	0.	0.	0.	0.	0.	3.	2.	2.	1.	1.	2.	2.	2.										
130.	*	0.	0.	1.	1.	1.	0.	0.	0.	0.	0.	3.	2.	2.	1.	1.	2.	2.	2.										
135.	*	0.	0.	1.	1.	1.	0.	0.	0.	0.	0.	3.	2.	2.	2.	1.	2.	2.	3.										
140.	*	0.	0.	1.	1.	1.	0.	0.	0.	0.	0.	3.	2.	2.	2.	1.	2.	2.	3.										
145.	*	0.	1.	1.	1.	1.	0.	0.	0.	0.	1.	3.	2.	2.	2.	1.	2.	2.	3.										
150.	*	0.	1.	1.	1.	1.	0.	0.	0.	0.	1.	3.	3.	2.	2.	1.	2.	2.	3.										
155.	*	0.	1.	1.	1.	1.	0.	0.	0.	1.	1.	3.	3.	3.	2.	1.	2.	2.	3.										
160.	*	1.	1.	1.	1.	1.	0.	0.	0.	1.	1.	3.	3.	3.	2.	1.	2.	2.	3.										
165.	*	1.	1.	2.	1.	1.	0.	0.	1.	1.	1.	3.	3.	3.	2.	1.	2.	2.	3.										
170.	*	1.	1.	2.	1.	1.	0.	0.	1.	1.	1.	3.	3.	3.	1.	1.	1.	2.	3.										
175.	*	2.	2.	2.	1.	1.	0.	0.	2.	1.	2.	3.	3.	2.	1.	0.	1.	2.	3.										
180.	*	2.	2.	3.	2.	1.	0.	1.	2.	2.	2.	2.	2.	2.	1.	0.	1.	1.	3.										
185.	*	2.	3.	3.	2.	1.	0.	1.	3.	2.	3.	2.	2.	1.	1.	0.	1.	1.	2.										
190.	*	3.	3.	4.	2.	1.	1.	1.	3.	3.	3.	1.	1.	1.	0.	0.	1.	1.	2.										
195.	*	3.	3.	3.	2.	1.	1.	1.	3.	3.	3.	1.	1.	1.	0.	0.	1.	1.	2.										
200.	*	2.	3.	4.	2.	2.	1.	1.	3.	3.	3.	1.	1.	1.	0.	0.	1.	1.	1.										
205.	*	2.	2.	4.	3.	2.	1.	1.	3.	3.	3.	1.	1.	0.	0.	0.	1.	1.	1.										
1.	0.																												

JOB: Ronkonkama RUN: EXISTING PAGE 5

WIND * CONCENTRATION
 ANGLE * (ug/m**3)
 (DEGR) * REC1 REC2 REC3 REC4 REC5 REC6 REC7 REC8 REC9 REC10 REC11 REC12 REC13 REC14 REC15 REC16 REC17 REC18
 REC19 REC20
 REC21 REC22 REC23 REC24 REC25 REC26 REC27 REC28 REC29 REC30 REC31 REC32 REC33 REC34 REC35 REC36 REC37 REC38 REC39 REC40
 REC41 REC42 REC43 REC44 REC45 REC46 REC47 REC48 REC49 REC50 REC51 REC52 REC53 REC54 REC55

210. * 2. 2. 3. 2. 1. 2. 3. 3. 3. 1. 0. 0. 0. 0. 1. 1. 1.

Page 3

| | | | | | | | | | | | | | | | EX_PM10.out | | | | | | | | | | | | | | |
|------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-------------|----|----|----|----|--|--|--|--|--|--|--|--|--|--|
| 0. | 0. | 2. | 2. | 3. | 3. | 2. | 1. | 2. | 2. | 3. | 3. | 0. | 0. | 0. | 0. | 0. | 1. | 1. | 1. | | | | | | | | | | |
| 215. | * | 2. | 2. | 3. | 2. | 2. | 1. | 1. | 2. | 2. | 3. | 0. | 0. | 0. | 0. | 0. | 1. | 1. | 1. | | | | | | | | | | |
| 220. | * | 2. | 2. | 3. | 2. | 2. | 1. | 1. | 2. | 2. | 3. | 0. | 0. | 0. | 0. | 0. | 1. | 1. | 1. | | | | | | | | | | |
| 225. | * | 2. | 2. | 2. | 2. | 2. | 1. | 1. | 2. | 2. | 3. | 0. | 0. | 0. | 0. | 0. | 1. | 1. | 1. | | | | | | | | | | |
| 230. | * | 2. | 2. | 2. | 2. | 2. | 1. | 1. | 2. | 2. | 3. | 0. | 0. | 0. | 0. | 0. | 1. | 1. | 1. | | | | | | | | | | |
| 235. | * | 2. | 2. | 2. | 2. | 2. | 1. | 1. | 2. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 1. | 1. | 1. | | | | | | | | | | |
| 240. | * | 2. | 2. | 2. | 2. | 2. | 1. | 1. | 2. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 1. | 1. | 1. | | | | | | | | | | |
| 245. | * | 1. | 2. | 2. | 2. | 2. | 1. | 1. | 2. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 1. | 1. | 1. | | | | | | | | | | |
| 250. | * | 1. | 2. | 2. | 2. | 2. | 1. | 1. | 2. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 1. | 1. | 1. | | | | | | | | | | |
| 255. | * | 1. | 1. | 2. | 2. | 2. | 1. | 1. | 2. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 1. | 1. | 1. | | | | | | | | | | |
| 260. | * | 1. | 2. | 2. | 2. | 1. | 1. | 1. | 2. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 1. | 1. | 1. | | | | | | | | | | |
| 265. | * | 1. | 1. | 2. | 1. | 1. | 2. | 2. | 2. | 2. | 0. | 0. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | | | | | | | | | | |
| 270. | * | 1. | 1. | 2. | 1. | 1. | 2. | 2. | 2. | 2. | 0. | 0. | 1. | 1. | 1. | 0. | 0. | 0. | 0. | | | | | | | | | | |
| 275. | * | 1. | 1. | 2. | 1. | 1. | 2. | 2. | 2. | 2. | 0. | 0. | 1. | 1. | 1. | 0. | 0. | 0. | 0. | | | | | | | | | | |
| 280. | * | 1. | 1. | 2. | 1. | 1. | 2. | 2. | 2. | 2. | 0. | 0. | 1. | 1. | 1. | 0. | 0. | 0. | 0. | | | | | | | | | | |
| 285. | * | 1. | 1. | 1. | 1. | 0. | 2. | 2. | 2. | 2. | 1. | 0. | 0. | 1. | 1. | 1. | 0. | 0. | 0. | | | | | | | | | | |
| 290. | * | 1. | 1. | 1. | 1. | 0. | 2. | 2. | 2. | 2. | 2. | 0. | 0. | 1. | 1. | 1. | 0. | 0. | 0. | | | | | | | | | | |
| 295. | * | 1. | 1. | 2. | 1. | 0. | 2. | 2. | 2. | 2. | 2. | 0. | 0. | 1. | 1. | 1. | 0. | 0. | 0. | | | | | | | | | | |
| 300. | * | 1. | 1. | 2. | 1. | 0. | 2. | 2. | 2. | 2. | 2. | 0. | 0. | 1. | 1. | 1. | 0. | 0. | 0. | | | | | | | | | | |
| 305. | * | 1. | 1. | 2. | 1. | 0. | 1. | 2. | 2. | 2. | 2. | 0. | 0. | 1. | 1. | 1. | 0. | 0. | 0. | | | | | | | | | | |
| 310. | * | 1. | 1. | 2. | 1. | 0. | 1. | 2. | 2. | 2. | 2. | 0. | 0. | 1. | 1. | 1. | 0. | 0. | 0. | | | | | | | | | | |
| 315. | * | 2. | 2. | 2. | 1. | 0. | 1. | 2. | 2. | 2. | 2. | 0. | 0. | 1. | 1. | 1. | 0. | 0. | 0. | | | | | | | | | | |
| 320. | * | 2. | 2. | 2. | 1. | 0. | 1. | 2. | 2. | 2. | 2. | 0. | 0. | 1. | 1. | 1. | 0. | 0. | 0. | | | | | | | | | | |
| 325. | * | 2. | 2. | 2. | 1. | 0. | 1. | 2. | 2. | 2. | 2. | 0. | 0. | 1. | 1. | 1. | 0. | 0. | 0. | | | | | | | | | | |
| 330. | * | 2. | 2. | 2. | 1. | 0. | 1. | 2. | 2. | 2. | 2. | 0. | 0. | 1. | 1. | 1. | 0. | 0. | 0. | | | | | | | | | | |
| 335. | * | 2. | 2. | 2. | 1. | 0. | 1. | 2. | 3. | 2. | 2. | 0. | 0. | 1. | 1. | 1. | 0. | 0. | 0. | | | | | | | | | | |
| 340. | * | 1. | 2. | 2. | 0. | 0. | 1. | 2. | 2. | 2. | 0. | 1. | 1. | 1. | 1. | 0. | 0. | 0. | 0. | | | | | | | | | | |
| 345. | * | 1. | 2. | 2. | 0. | 0. | 1. | 1. | 3. | 2. | 2. | 1. | 1. | 1. | 1. | 1. | 0. | 0. | 0. | | | | | | | | | | |
| 350. | * | 1. | 1. | 2. | 0. | 0. | 1. | 1. | 2. | 2. | 2. | 1. | 1. | 1. | 1. | 0. | 0. | 0. | 0. | | | | | | | | | | |
| 355. | * | 1. | 1. | 1. | 0. | 0. | 1. | 1. | 2. | 2. | 2. | 1. | 1. | 1. | 1. | 1. | 0. | 0. | 0. | | | | | | | | | | |
| 360. | * | 1. | 1. | 1. | 0. | 0. | 1. | 1. | 2. | 2. | 2. | 1. | 1. | 2. | 1. | 1. | 0. | 0. | 1. | | | | | | | | | | |
| 1. | 0. | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

 MAX * 3. 3. 4. 3. 2. 2. 2. 3. 3. 3. 3. 3. 3. 2. 2. 2. 2. 3.
 DEGR * 195 190 200 205 205 275 280 200 205 200 165 160 170 70 60 145 155 165
 160 165

JOB: Ronkonkama RUN: EXISTING PAGE 6

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND * CONCENTRATION
 ANGLE * (ug/m**3)
 (DEGR) * REC21 REC22 REC23 REC24 REC25 REC26 REC27 REC28 REC29 REC30 REC31 REC32 REC33 REC34 REC35 REC36 REC37 REC38
 REC39 REC40

0. * 2. 2. 2. 0. 0. 2. 2. 4. 3. 3. 3. 3. 4. 2. 2. 1. 1. 1.

1. 0.

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| EX_PM10.out | | | | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 | * | 1 | 1 | 2 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 10 | * | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 2 | 2 | 2 | 2 | 2 |
| 15 | * | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 |
| 20 | * | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 25 | * | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 30 | * | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 35 | * | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 40 | * | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 45 | * | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 50 | * | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 55 | * | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 60 | * | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 65 | * | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 70 | * | 0 | 1 | 1 | 0 | 0 | 1 | 2 | 1 | 1 | 2 | 3 | 3 |
| 75 | * | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 2 | 1 | 1 | 3 | 3 |
| 80 | * | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 2 | 1 | 1 | 3 | 4 |
| 85 | * | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 1 | 1 | 3 | 4 |
| 90 | * | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 3 | 4 |
| 95 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 4 | 4 |
| 100 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 3 | 4 |
| 105 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 3 | 4 |
| 110 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 3 | 3 |
| 115 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 3 | 3 |
| 120 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 3 | 3 |
| 125 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 3 | 3 |
| 130 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 3 | 3 |
| 135 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 3 | 3 |
| 140 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 3 | 3 |
| 145 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 3 | 3 |
| 150 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 3 | 3 |
| 155 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 3 | 3 |
| 160 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 3 |
| 165 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 3 |
| 170 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 4 |
| 175 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 3 | 3 |
| 180 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 3 | 2 |
| 185 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 3 |
| 190 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 3 |
| 195 | * | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 |
| 200 | * | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 3 |
| 205 | * | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 3 |

JOB: Ronkonkama

RUN: EXISTING

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WIND ANGLE RANGE: 0.-360.

| WIND ANGLE (DEGR) | CONCENTRATION (ug/m**3) | | | | | | | | | | | | | | | |
|-------------------|-------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----|
| | REC41 | REC42 | REC43 | REC44 | REC45 | REC46 | REC47 | REC48 | REC49 | REC50 | REC51 | REC52 | REC53 | REC54 | REC55 | |
| 210 | * | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 3 | 3 | 2 | 1 | |
| 215 | * | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 3 | 3 | 1 | 1 | |
| 220 | * | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 3 | 3 | 1 | 1 | |
| 225 | * | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 3 | 3 | 1 | 1 | |
| 230 | * | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 3 | 3 | 1 | 0 | |
| 235 | * | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 3 | 1 | 0 | |
| 240 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 3 | 1 | 0 | |
| 245 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 0 | 0 | |
| 250 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 0 | 0 | |
| 255 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | |
| 260 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | |
| 265 | * | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | |
| 270 | * | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 275 | * | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 280 | * | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 285 | * | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 290 | * | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 295 | * | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 300 | * | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 305 | * | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 310 | * | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 315 | * | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 320 | * | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 325 | * | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 330 | * | 1 | 1 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | |
| 335 | * | 1 | 2 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | |
| 340 | * | 1 | 2 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | |
| 345 | * | 1 | 2 | 2 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | |
| 350 | * | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | |
| 355 | * | 1 | 2 | 2 | 2 | 1 | 2 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | |
| 360 | * | 1 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 1 | 0 | 0 | 2 | 2 | 2 | |
| MAX | * | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 4 | 3 | 3 | |
| DEGR. | * | 340 | 350 | 355 | 355 | 355 | 5 | 5 | 5 | 5 | 10 | 95 | 85 | 95 | 160 | 20 |

THE HIGHEST CONCENTRATION OF 5. ug/m**3 OCCURRED AT RECEPTOR REC33.

JOB: Ronkonkama RUN: NOBUI LD

DATE : 6/ 5/13
 TIME : 9:17:53

The MODE flag has been set to P for calculating PM averages.

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S ZO = 175. CM
 U = 1.0 M/S CLAS = 4 (D) ATIM = 60. MINUTES MIXH = 1000. M AMB = 0.0 ug/m**3

LINK VARIABLES

| V/C QUEUE (VEH) | LINK DESCRIPTION | X1 | Y1 | X2 | Y2 | LENGTH (FT) | BRG (DEG) | BRG TYPE | VPH | EF (G/MI) | H (FT) | W (FT) |
|-----------------|------------------|----|----|----|----|-------------|-----------|----------|-----|-----------|--------|--------|
|-----------------|------------------|----|----|----|----|-------------|-----------|----------|-----|-----------|--------|--------|

| | | | | | | | | | | | | | | | |
|------|------|------------------------|------------------------|--------|--------|--------|--------|-------|-------|------|----|-------|-------|------|------|
| 0.57 | 1. | LI E N/Hawk ns SB TTR* | 3375.1 | 5903.8 | 3376.4 | 6005.2 | * | 101. | 1. | AG | 0. | 100.0 | 1.0 | 20.0 | |
| 5.1 | 2. | LI E N/Hawk WB LTTR * | 3446.1 | 5872.5 | 3509.6 | 5883.5 | * | 65. | 80. | AG | 0. | 100.0 | 1.0 | 30.0 | |
| 0.33 | 3. | LI E N/Hawk ns NB L * | 3393.3 | 5814.6 | 3372.8 | 4770.8 | * | 1044. | 181. | AG | 0. | 100.0 | 1.0 | 10.0 | |
| 1.78 | 53.0 | 4. | LI E N/Hawk ns NB TT * | 3416.2 | 5814.3 | 3415.9 | 5703.4 | * | 111. | 180. | AG | 0. | 100.0 | 1.0 | 20.0 |
| 0.62 | 4. | LI E S/Hawk ns SB L * | 3391.1 | 5495.9 | 3405.6 | 6526.9 | * | 1031. | 1. | AG | 0. | 100.0 | 1.0 | 10.0 | |
| 1.29 | 52.4 | 6. | LI E S/Hawk ns SB TT * | 3370.8 | 5481.6 | 3372.0 | 5547.6 | * | 66. | 1. | AG | 0. | 100.0 | 1.0 | 20.0 |
| 0.50 | 3.4 | 7. | LI E S/Hawk ns NB TTR* | 3405.1 | 5396.8 | 3393.8 | 4894.3 | * | 503. | 181. | AG | 0. | 100.0 | 1.0 | 20.0 |
| 1.08 | 25.5 | 8. | LI E S/Hawk EB LTTR * | 3339.3 | 5401.9 | 2636.8 | 5139.6 | * | 750. | 250. | AG | 0. | 100.0 | 1.0 | 30.0 |
| 1.06 | 38.1 | 9. | Hawk/Uni on SB L * | 3390.6 | 4708.0 | 3292.6 | 5968.4 | * | 1264. | 356. | AG | 0. | 100.0 | 1.0 | 10.0 |
| 1.38 | 64.2 | 10. | Hawk/Uni on SB T * | 3377.8 | 4706.1 | 3375.9 | 4724.6 | * | 19. | 354. | AG | 0. | 100.0 | 1.0 | 10.0 |
| 0.15 | 0.9 | 11. | Hawk/Uni on WB L * | 3438.0 | 4679.8 | 3463.1 | 4682.3 | * | 25. | 84. | AG | 0. | 100.0 | 1.0 | 10.0 |
| 0.23 | 1.3 | 12. | Hawk/Uni on WB R * | 3437.3 | 4691.3 | 3531.7 | 4704.7 | * | 95. | 82. | AG | 0. | 100.0 | 1.0 | 10.0 |
| 0.61 | 4.8 | 13. | Hawk/Uni on NB TR * | 3412.5 | 4623.3 | 3420.9 | 4550.7 | * | 73. | 173. | AG | 0. | 100.0 | 1.0 | 10.0 |
| 0.47 | 3.7 | 14. | LI E N/Hawk ns N * | 3393.0 | 5863.0 | 3401.9 | 6218.8 | * | 356. | 1. | AG | 1516. | 0.0 | 1.0 | 72.0 |
| | | 15. | LI E N/Hawk ns E * | 3393.0 | 5863.0 | 3735.4 | 5914.4 | * | 346. | 81. | AG | 975. | 0.0 | 1.0 | 54.0 |
| | | 16. | LI E N/Hawk ns S * | 3393.0 | 5863.0 | 3393.0 | 5611.5 | * | 252. | 180. | AG | 1527. | 0.0 | 1.0 | 78.0 |
| | | 17. | LI E N/Hawk ns W * | 3393.0 | 5863.0 | 3036.7 | 5815.2 | * | 359. | 262. | AG | 834. | 0.0 | 1.0 | 54.0 |
| | | 18. | LI E S/Hawk ns N * | 3387.1 | 5425.3 | 3394.1 | 5670.0 | * | 245. | 2. | AG | 1527. | 0.0 | 1.0 | 78.0 |
| | | 19. | LI E S/Hawk ns E * | 3387.1 | 5425.3 | 3651.9 | 5538.9 | * | 288. | 67. | AG | 2293. | 0.0 | 1.0 | 54.0 |
| | | 20. | LI E S/Hawk ns S * | 3387.1 | 5425.3 | 3381.2 | 5147.1 | * | 278. | 181. | AG | 1200. | 0.0 | 1.0 | 66.0 |
| | | 21. | LI E S/Hawk ns W * | 3387.1 | 5425.3 | 3108.2 | 5320.4 | * | 298. | 249. | AG | 2284. | 0.0 | 1.0 | 54.0 |
| | | 22. | Uni on/Hawk ns N * | 3401.1 | 4668.8 | 3378.9 | 4869.0 | * | 201. | 354. | AG | 1206. | 0.0 | 1.0 | 54.0 |
| | | 23. | Uni on/Hawk ns E * | 3401.1 | 4668.8 | 3620.2 | 4699.3 | * | 221. | 82. | AG | 985. | 0.0 | 1.0 | 54.0 |
| | | 24. | Uni on/Hawk ns S * | 3401.1 | 4668.8 | 3421.1 | 4497.9 | * | 172. | 173. | AG | 559. | 0.0 | 1.0 | 42.0 |

JOB: Ronkonkama RUN: NOBUI LD

DATE : 6/ 5/13
 TIME : 9:17:53

| | | | | | | | | | |
|-----|------------------------|-----|----|-----|------|------|------|---|---|
| 1. | LI E N/Hawk ns SB TTR* | 100 | 62 | 3.0 | 598 | 1600 | 0.03 | 1 | 3 |
| 2. | LI E N/Hawk WB LTTR * | 100 | 50 | 3.0 | 710 | 1600 | 0.03 | 1 | 3 |
| 3. | LI E N/Hawk ns NB L * | 100 | 88 | 3.0 | 199 | 1600 | 0.03 | 1 | 3 |
| 4. | LI E N/Hawk ns NB TT * | 100 | 62 | 3.0 | 655 | 1600 | 0.03 | 1 | 3 |
| 5. | LI E S/Hawk ns SB L * | 100 | 78 | 3.0 | 351 | 1600 | 0.03 | 1 | 3 |
| 6. | LI E S/Hawk ns SB TT * | 100 | 75 | 3.0 | 323 | 1600 | 0.03 | 1 | 3 |
| 7. | LI E S/Hawk ns NB TTR* | 100 | 75 | 3.0 | 694 | 1600 | 0.03 | 1 | 3 |
| 8. | LI E S/Hawk EB LTTR * | 100 | 50 | 3.0 | 2284 | 1600 | 0.03 | 1 | 3 |
| 9. | Hawk/Uni on SB L * | 81 | 62 | 3.0 | 380 | 1600 | 0.03 | 1 | 3 |
| 10. | Hawk/Uni on SB T * | 81 | 22 | 3.0 | 155 | 1600 | 0.03 | 1 | 3 |
| 11. | Hawk/Uni on WB R * | 81 | 59 | 3.0 | 78 | 1600 | 0.03 | 1 | 3 |
| 12. | Hawk/Uni on WB R * | 81 | 40 | 3.0 | 436 | 1600 | 0.03 | 1 | 3 |
| 13. | Hawk/Uni on NB TR * | 81 | 41 | 3.0 | 326 | 1600 | 0.03 | 1 | 3 |

RECEPTOR LOCATIONS

| RECEPTOR | X | Y | Z | |
|----------|-----------------|--------|--------|-----|
| 1. | LI E N/Hawk NE1 | 3443.9 | 6057.5 | 6.0 |
| 2. | LI E N/Hawk NE2 | 3442.0 | 5982.5 | 6.0 |
| 3. | LI E N/Hawk NE3 | 3440.1 | 5907.5 | 6.0 |
| 4. | LI E N/Hawk NE4 | 3514.3 | 5918.6 | 6.0 |
| 5. | LI E N/Hawk NE5 | 3588.4 | 5929.8 | 6.0 |
| 6. | LI E N/Hawk SE1 | 3590.3 | 5855.2 | 6.0 |

NB_PM10.out

| | | | | |
|-----|-----------------|--------|--------|-----|
| 7. | LI E N/Hawk SE2 | 3516.2 | 5844.2 | 6.0 |
| 8. | LI E N/Hawk SE3 | 3442.0 | 5833.0 | 6.0 |
| 9. | LI E N/Hawk SE4 | 3442.0 | 5758.0 | 6.0 |
| 10. | LI E N/Hawk SE5 | 3442.0 | 5683.0 | 6.0 |
| 11. | LI E N/Hawk SW1 | 3344.0 | 5669.1 | 6.0 |
| 12. | LI E N/Hawk SW2 | 3344.0 | 5744.4 | 6.0 |
| 13. | LI E N/Hawk SW3 | 3344.0 | 5819.1 | 6.0 |
| 14. | LI E N/Hawk SW4 | 3269.6 | 5809.1 | 6.0 |
| 15. | LI E N/Hawk SW5 | 3195.3 | 5799.2 | 6.0 |
| 16. | LI E N/Hawk NW1 | 3199.1 | 5874.3 | 6.0 |
| 17. | LI E N/Hawk NW2 | 3273.4 | 5884.3 | 6.0 |
| 18. | LI E N/Hawk NW3 | 3347.8 | 5894.3 | 6.0 |
| 19. | LI E N/Hawk NW4 | 3349.6 | 5969.3 | 6.0 |
| 20. | LI E N/Hawk NW5 | 3351.5 | 6044.3 | 6.0 |
| 21. | LI E S/Hawk NE1 | 3442.2 | 5637.3 | 6.0 |
| 22. | LI E S/Hawk NE2 | 3440.0 | 5562.3 | 6.0 |
| 23. | LI E S/Hawk NE3 | 3437.9 | 5487.3 | 6.0 |
| 24. | LI E S/Hawk NE4 | 3506.8 | 5516.9 | 6.0 |
| 25. | LI E S/Hawk NE5 | 3575.7 | 5546.5 | 6.0 |
| 26. | LI E S/Hawk SE1 | 3567.5 | 5462.4 | 6.0 |
| 27. | LI E S/Hawk SE2 | 3498.5 | 5432.8 | 6.0 |
| 28. | LI E S/Hawk SE3 | 3429.6 | 5403.3 | 6.0 |
| 29. | LI E S/Hawk SE4 | 3428.0 | 5328.3 | 6.0 |
| 30. | LI E S/Hawk SE5 | 3426.4 | 5253.3 | 6.0 |
| 31. | LI E S/Hawk SW1 | 3339.7 | 5219.1 | 6.0 |
| 32. | LI E S/Hawk SW2 | 3341.3 | 5294.1 | 6.0 |
| 33. | LI E S/Hawk SW3 | 3342.9 | 5364.1 | 6.0 |
| 34. | LI E S/Hawk SW4 | 3272.7 | 5342.7 | 6.0 |
| 35. | LI E S/Hawk SW5 | 3202.5 | 5316.3 | 6.0 |
| 36. | Hawk/Uni on NE1 | 3417.1 | 4859.8 | 6.0 |
| 37. | Hawk/Uni on NE2 | 3425.4 | 4785.3 | 6.0 |
| 38. | Hawk/Uni on NE3 | 3433.7 | 4710.7 | 6.0 |

JOB: Ronkonkama RUN: NOBUI LD

DATE : 6/ 5/13
 TIME : 9:17:53

RECEPTOR LOCATIONS

| RECEPTOR | X | Y | Z | |
|----------|-----------------|--------|--------|-----|
| 39. | Hawk/Uni on NE4 | 3509.1 | 4721.2 | 6.0 |
| 40. | Hawk/Uni on NE5 | 3582.3 | 4731.3 | 6.0 |
| 41. | Hawk/Uni on SE1 | 3584.7 | 4657.0 | 6.0 |
| 42. | Hawk/Uni on SE2 | 3510.4 | 4646.6 | 6.0 |
| 43. | Hawk/Uni on SE3 | 3436.1 | 4636.3 | 6.0 |
| 44. | Hawk/Uni on SE4 | 3444.8 | 4561.8 | 6.0 |
| 45. | Hawk/Uni on SE5 | 3453.0 | 4487.3 | 6.0 |
| 46. | Hawk/Uni on W1 | 3388.8 | 4506.5 | 6.0 |
| 47. | Hawk/Uni on W2 | 3380.2 | 4581.0 | 6.0 |
| 48. | Hawk/Uni on W3 | 3371.5 | 4655.5 | 6.0 |
| 49. | Hawk/Uni on W4 | 3357.2 | 4729.1 | 6.0 |
| 50. | Hawk/Uni on W5 | 3348.9 | 4803.7 | 6.0 |
| 51. | LI E S/Hawk NW1 | 3198.3 | 5393.8 | 6.0 |
| 52. | LI E S/Hawk NW2 | 3268.5 | 5420.2 | 6.0 |
| 53. | LI E S/Hawk NW3 | 3338.7 | 5446.6 | 6.0 |
| 54. | LI E S/Hawk NW4 | 3340.8 | 5521.6 | 6.0 |
| 55. | LI E S/Hawk NW5 | 3343.0 | 5596.5 | 6.0 |

JOB: Ronkonkama RUN: NOBUI LD

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0 - 360.

WIND * CONCENTRATION

ANGLE * (UG/M**3)
 (DEGR) * REC1 REC2 REC3 REC4 REC5 REC6 REC7 REC8 REC9 REC10 REC11 REC12 REC13 REC14 REC15 REC16 REC17 REC18
 REC19 REC20

| | | | | | | | | | | | | | | | | | | | | |
|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0. | * | 1. | 1. | 1. | 0. | 0. | 1. | 1. | 2. | 2. | 2. | 1. | 1. | 2. | 1. | 1. | 0. | 0. | 1. | |
| 1. | 5. | * | 0. | 0. | 1. | 0. | 0. | 1. | 1. | 2. | 1. | 1. | 2. | 2. | 2. | 1. | 1. | 0. | 0. | 1. |
| 10. | 1. | * | 0. | 0. | 0. | 0. | 0. | 1. | 1. | 1. | 1. | 1. | 1. | 2. | 2. | 2. | 1. | 1. | 0. | 2. |
| 15. | * | 0. | 0. | 0. | 0. | 0. | 0. | 1. | 1. | 1. | 1. | 0. | 2. | 2. | 2. | 1. | 1. | 0. | 0. | 2. |
| 20. | 1. | * | 0. | 0. | 0. | 0. | 0. | 1. | 1. | 1. | 1. | 0. | 2. | 2. | 2. | 1. | 1. | 0. | 1. | 2. |
| 2. | 1. | * | | | | | | | | | | | | | | | | | | |

| | | NB_PM10.out | | | | | | | | | | | | | | | | | |
|----|--------|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| | | 3. | 2. | 2. | 3. | 4. | 4. | 3. | 2. | 1. | 1. | 1. | 1. | 1. | 1. | 1. | | | |
| 0. | 5.0* | 1. | 1. | 1. | 0. | 0. | 2. | 2. | 3. | 2. | 2. | 3. | 3. | 4. | 3. | 2. | 1. | 0. | 0. |
| 0. | 10.0* | 1. | 1. | 1. | 0. | 0. | 2. | 2. | 3. | 2. | 2. | 3. | 3. | 4. | 3. | 2. | 1. | 0. | 0. |
| 0. | 15.0* | 0. | 1. | 1. | 0. | 0. | 2. | 2. | 3. | 2. | 1. | 3. | 4. | 4. | 3. | 0. | 0. | 0. | 0. |
| 0. | 20.0* | 0. | 0. | 0. | 0. | 0. | 2. | 2. | 2. | 1. | 1. | 3. | 3. | 4. | 4. | 3. | 0. | 0. | 0. |
| 0. | 25.0* | 0. | 0. | 0. | 0. | 0. | 2. | 2. | 2. | 1. | 1. | 3. | 3. | 4. | 4. | 3. | 0. | 0. | 0. |
| 0. | 30.0* | 0. | 0. | 0. | 0. | 0. | 2. | 2. | 2. | 1. | 1. | 2. | 3. | 4. | 4. | 3. | 0. | 0. | 0. |
| 0. | 35.0* | 0. | 0. | 0. | 0. | 0. | 2. | 2. | 2. | 1. | 0. | 2. | 3. | 4. | 4. | 4. | 0. | 0. | 0. |
| 0. | 40.0* | 0. | 0. | 0. | 0. | 0. | 2. | 2. | 2. | 1. | 0. | 2. | 3. | 4. | 4. | 4. | 0. | 0. | 0. |
| 0. | 45.0* | 0. | 0. | 0. | 0. | 0. | 2. | 2. | 2. | 1. | 0. | 2. | 2. | 4. | 4. | 4. | 0. | 0. | 0. |
| 0. | 50.0* | 0. | 0. | 0. | 0. | 0. | 2. | 2. | 2. | 0. | 0. | 2. | 2. | 4. | 4. | 4. | 0. | 0. | 0. |
| 0. | 55.0* | 0. | 0. | 0. | 0. | 0. | 1. | 2. | 2. | 0. | 0. | 2. | 2. | 4. | 4. | 3. | 0. | 0. | 0. |
| 0. | 60.0* | 0. | 0. | 1. | 0. | 0. | 1. | 2. | 2. | 0. | 0. | 2. | 2. | 3. | 3. | 3. | 0. | 0. | 0. |
| 0. | 65.0* | 0. | 0. | 1. | 1. | 0. | 1. | 1. | 1. | 0. | 0. | 1. | 2. | 3. | 3. | 3. | 0. | 0. | 0. |
| 0. | 70.0* | 0. | 0. | 1. | 1. | 0. | 0. | 1. | 1. | 0. | 0. | 1. | 2. | 2. | 2. | 2. | 0. | 0. | 0. |
| 0. | 75.0* | 0. | 0. | 2. | 1. | 1. | 0. | 0. | 1. | 0. | 0. | 1. | 1. | 2. | 2. | 2. | 0. | 0. | 0. |
| 0. | 80.0* | 0. | 0. | 2. | 2. | 1. | 0. | 0. | 0. | 0. | 0. | 1. | 1. | 2. | 1. | 1. | 0. | 0. | 0. |
| 0. | 85.0* | 0. | 0. | 2. | 2. | 1. | 0. | 0. | 0. | 0. | 0. | 1. | 1. | 2. | 1. | 1. | 0. | 0. | 0. |
| 0. | 90.0* | 0. | 0. | 2. | 2. | 1. | 0. | 0. | 0. | 0. | 0. | 1. | 1. | 1. | 1. | 1. | 0. | 0. | 1. |
| 0. | 95.0* | 0. | 1. | 2. | 2. | 1. | 0. | 0. | 0. | 0. | 0. | 1. | 1. | 1. | 1. | 1. | 0. | 0. | 1. |
| 1. | 100.0* | 0. | 1. | 2. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 1. | 1. | 1. | 1. | 1. | 0. | 0. | 1. |
| 1. | 105.0* | 0. | 1. | 2. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 1. | 1. | 1. | 1. | 0. | 0. | 0. | 1. |
| 1. | 110.0* | 0. | 1. | 2. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 1. | 1. | 1. | 1. | 0. | 0. | 0. | 1. |
| 1. | 115.0* | 0. | 1. | 2. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 1. | 1. | 1. | 1. | 0. | 0. | 0. | 1. |
| 1. | 120.0* | 0. | 1. | 2. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 1. | 2. | 1. | 1. | 0. | 0. | 0. | 1. |
| 1. | 125.0* | 0. | 1. | 2. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 1. | 2. | 1. | 1. | 0. | 0. | 0. | 1. |
| 1. | 130.0* | 1. | 1. | 2. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 1. | 2. | 1. | 1. | 0. | 0. | 0. | 1. |
| 1. | 135.0* | 1. | 1. | 2. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 1. | 2. | 1. | 1. | 0. | 0. | 0. | 1. |
| 1. | 140.0* | 1. | 1. | 2. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 1. | 2. | 2. | 1. | 0. | 0. | 0. | 1. |
| 1. | 145.0* | 1. | 1. | 2. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 1. | 2. | 2. | 1. | 0. | 0. | 0. | 1. |
| 1. | 150.0* | 1. | 1. | 2. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 1. | 2. | 2. | 1. | 0. | 0. | 0. | 1. |
| 1. | 155.0* | 1. | 1. | 2. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 1. | 2. | 2. | 1. | 0. | 0. | 0. | 1. |
| 1. | 160.0* | 1. | 1. | 2. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 1. | 2. | 2. | 1. | 0. | 0. | 0. | 1. |
| 1. | 165.0* | 1. | 1. | 2. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 1. | 2. | 2. | 1. | 0. | 1. | 1. | 1. |
| 1. | 170.0* | 1. | 1. | 2. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 1. | 2. | 2. | 0. | 0. | 1. | 1. | 1. |
| 1. | 175.0* | 1. | 1. | 2. | 2. | 2. | 0. | 0. | 1. | 1. | 1. | 1. | 2. | 2. | 0. | 0. | 1. | 1. | 1. |
| 1. | 180.0* | 2. | 2. | 3. | 2. | 2. | 0. | 0. | 1. | 1. | 1. | 1. | 1. | 2. | 0. | 0. | 1. | 1. | 1. |
| 1. | 185.0* | 2. | 2. | 3. | 2. | 2. | 0. | 0. | 2. | 1. | 1. | 0. | 1. | 1. | 0. | 0. | 1. | 1. | 1. |
| 1. | 190.0* | 2. | 3. | 4. | 2. | 2. | 0. | 0. | 2. | 2. | 1. | 0. | 1. | 1. | 0. | 0. | 1. | 1. | 1. |
| 1. | 195.0* | 3. | 3. | 4. | 3. | 2. | 0. | 0. | 2. | 2. | 1. | 0. | 0. | 1. | 0. | 0. | 2. | 1. | 1. |
| 1. | 200.0* | 3. | 3. | 4. | 2. | 2. | 0. | 1. | 2. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 1. | 1. | 2. |
| 1. | 205.0* | 3. | 3. | 4. | 3. | 2. | 0. | 1. | 2. | 2. | 1. | 0. | 0. | 0. | 0. | 0. | 1. | 1. | 1. |

JOB: Ronkonkama RUN: NOBUILD PAGE 7

WIND ANGLE RANGE: 0.-360.

WIND * CONCENTRATION
 ANGLE * (DEGR) * (ug/m**3)
 REC21 REC22 REC23 REC24 REC25 REC26 REC27 REC28 REC29 REC30 REC31 REC32 REC33 REC34 REC35 REC36 REC37 REC38
 REC39 REC40

| | | NB_PM10.out | | | | | | | | | | | | | | | | | |
|----|--------|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| | | 3. | 3. | 4. | 3. | 3. | 0. | 1. | 2. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 1. | 1. | 1. |
| 1. | 210.0* | 3. | 3. | 4. | 3. | 3. | 0. | 1. | 2. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 1. | 1. | 1. |
| 1. | 215.0* | 3. | 3. | 4. | 3. | 3. | 0. | 1. | 2. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 1. | 1. | 1. |
| 1. | 220.0* | 3. | 3. | 4. | 3. | 3. | 1. | 1. | 2. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 1. | 1. | 1. |
| 1. | 225.0* | 2. | 3. | 4. | 3. | 3. | 1. | 1. | 2. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 1. | 1. | 1. |
| 1. | 230.0* | 2. | 3. | 4. | 3. | 3. | 1. | 1. | 2. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 1. | 1. | 1. |
| 1. | 235.0* | 2. | 2. | 4. | 3. | 3. | 1. | 1. | 2. | 2. | 2. | 0. | 0. | 1. | 0. | 0. | 1. | 1. | 1. |
| 1. | 240.0* | 2. | 2. | 4. | 3. | 3. | 2. | 2. | 2. | 1. | 1. | 0. | 0. | 1. | 0. | 0. | 1. | 1. | 1. |
| 1. | 245.0* | 2. | 2. | 3. | 3. | 2. | 2. | 2. | 2. | 1. | 1. | 0. | 0. | 1. | 1. | 0. | 1. | 1. | 1. |
| 1. | 250.0* | 2. | 2. | 3. | 2. | 2. | 2. | 3. | 3. | 2. | 1. | 0. | 0. | 2. | 1. | 1. | 1. | 1. | 1. |
| 1. | 255.0* | 2. | 1. | 2. | 2. | 2. | 3. | 3. | 4. | 2. | 1. | 0. | 0. | 2. | 2. | 1. | 1. | 1. | 1. |
| 1. | 260.0* | 2. | 1. | 2. | 1. | 1. | 3. | 3. | 4. | 2. | 2. | 0. | 0. | 3. | 2. | 1. | 1. | 1. | 1. |
| 1. | 265.0* | 2. | 1. | 2. | 1. | 1. | 3. | 4. | 4. | 2. | 2. | 0. | 0. | 3. | 2. | 2. | 1. | 1. | 1. |
| 1. | 270.0* | 2. | 1. | 2. | 1. | 1. | 3. | 4. | 4. | 2. | 2. | 0. | 1. | 3. | 2. | 2. | 1. | 1. | 1. |
| 1. | 275.0* | 2. | 1. | 1. | 1. | 1. | 3. | 3. | 4. | 2. | 2. | 0. | 1. | 3. | 3. | 2. | 1. | 1. | 1. |
| 0. | 280.0* | 2. | 1. | 1. | 1. | 1. | 3. | 3. | 4. | 2. | 2. | 0. | 1. | 3. | 3. | 2. | 1. | 1. | 1. |
| 0. | 285.0* | 2. | 1. | 2. | 1. | 1. | 3. | 3. | 4. | 3. | 2. | 0. | 1. | 3. | 2. | 2. | 1. | 1. | 1. |
| 0. | 290.0* | 2. | 1. | 2. | 1. | 1. | 3. | 3. | 3. | 2. | 2. | 0. | 1. | 3. | 2. | 2. | 1. | 1. | 1. |
| 0. | 295.0* | 2. | 2. | 2. | 1. | 1. | 3. | 3. | 3. | 2. | 2. | 0. | 1. | 3. | 2. | 2. | 0. | 1. | 1. |
| 0. | 300.0* | 2. | 2. | 2. | 1. | 1. | 3. | 3. | 3. | 2. | 2. | 1. | 1. | 3. | 2. | 2. | 0. | 1. | 1. |
| 0. | 305.0* | 2. | 2. | 2. | 1. | 1. | 3. | 3. | 3. | 2. | 2. | 1. | 1. | 2. | 2. | 2. | 0. | 1. | 1. |
| 0. | 310.0* | 2. | 2. | 2. | 1. | 1. | 2. | 3. | 3. | 3. | 2. | 1. | 1. | 2. | 2. | 2. | 1. | 1. | 1. |
| 0. | 315.0* | 2. | 2. | 2. | 1. | 1. | 2. | 3. | 4. | 3. | 2. | 1. | 1. | 2. | 2. | 2. | 1. | 1. | 1. |
| 0. | 320.0* | 2. | 2. | 2. | 1. | 1. | 2. | 3. | 3. | 3. | 2. | 1. | 1. | 2. | 2. | 2. | 0. | 1. | 1. |
| 0. | 325.0* | 2. | 2. | 2. | 1. | 1. | 2. | 3. | 4. | 3. | 3. | 1. | 1. | 2. | 2. | 2. | 1. | 1. | 1. |
| 1. | 330.0* | 2. | 3. | 2. | 1. | 1. | 2. | 3. | 4. | 3. | 3. | 1. | 1. | 2. | 2. | 2. | 1. | 1. | 1. |
| 1. | 335.0* | 2. | 2. | 2. | 1. | 1. | 3. | 3. | 4. | 3. | 3. | 1. | 1. | 3. | 2. | 2. | 1. | 1. | 2. |
| 1. | 340.0* | 2. | 2. | 2. | 1. | 0. | 2. | 3. | 4. | 3. | 3. | 1. | 2. | 3. | 2. | 2. | 1. | 1. | 2. |
| 1. | 345.0* | 2. | 3. | 2. | 1. | 0. | 2. | 3. | 4. | 3. | 3. | 1. | 2. | 3. | 2. | 2. | 1. | 1. | 2. |
| 1. | 350.0* | 2. | 2. | 2. | 1. | 0. | 2. | 3. | 4. | 3. | 3. | 2. | 2. | 3. | 2. | 2. | 1. | 2. | 2. |
| 1. | 355.0* | 2. | 2. | 2. | 0. | 0. | 2. | 2. | 4. | 3. | 3. | 2. | 2. | 3. | 2. | 2. | 1. | 1. | 1. |
| 1. | 360.0* | 1. | 2. | 2. | 0. | 0. | 2. | 2. | 4. | 3. | 2. | 2. | 3. | 4. | 2. | 2. | 1. | 1. | 1. |

MAX 3. 3. 4. 3. 3. 3. 4. 4. 3. 3. 3. 4. 4. 4. 4. 4. 2. 2. 2.

DEGR 200 210 215 230 230 260 265 345 345 345 10 5 10 45 45 195 350 340

JOB: Ronkonkama RUN: NOBUILD PAGE 8

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND * CONCENTRATION
 ANGLE * (DEGR) * (ug/m**3)
 REC41 REC42 REC43 REC44 REC45 REC46 REC47 REC48 REC49 REC50 REC51 REC52 REC53 REC54 REC55

| NB_PM10.out | | | | | | | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 | * | 1 | 1 | 2 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 0 | 1 | 2 | 2 | 2 |
| 10 | * | 1 | 1 | 1 | 1 | 0 | 1 | 2 | 2 | 2 | 2 | 0 | 1 | 2 | 2 | 2 |
| 15 | * | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 2 | 2 | 2 | 0 | 1 | 2 | 2 | 2 |
| 20 | * | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 3 |
| 25 | * | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 2 | 2 | 3 |
| 30 | * | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 3 |
| 35 | * | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 |
| 40 | * | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 |
| 45 | * | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 |
| 50 | * | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 |
| 55 | * | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 |
| 60 | * | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 |
| 65 | * | 0 | 1 | 1 | 0 | 0 | 1 | 2 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 |
| 70 | * | 0 | 1 | 1 | 0 | 0 | 1 | 2 | 1 | 1 | 2 | 3 | 3 | 2 | 2 | 2 |
| 75 | * | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 2 | 1 | 1 | 3 | 3 | 2 | 2 | 2 |
| 80 | * | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 1 | 1 | 3 | 3 | 2 | 2 | 2 |
| 85 | * | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 1 | 1 | 3 | 4 | 2 | 2 | 2 |
| 90 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 3 | 4 | 4 | 2 | 2 |
| 95 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 3 | 4 | 4 | 2 | 2 |
| 100 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 1 | 3 | 3 | 3 | 2 | 2 |
| 105 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 1 | 3 | 3 | 3 | 2 | 2 |
| 110 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 1 | 3 | 3 | 3 | 2 | 2 |
| 115 | * | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 1 | 3 | 3 | 3 | 2 | 2 |
| 120 | * | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 2 | 3 | 3 | 3 | 2 | 2 |
| 125 | * | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 2 | 3 | 3 | 3 | 2 | 2 |
| 130 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 3 | 3 | 3 | 2 | 2 |
| 135 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 3 | 3 | 3 | 2 | 2 |
| 140 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 2 | 2 |
| 145 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 2 | 2 |
| 150 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 2 | 2 |
| 155 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 2 | 2 |
| 160 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 3 | 3 | 2 | 2 |
| 165 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 3 | 4 | 3 | 3 |
| 170 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 4 | 3 | 2 | 2 |
| 175 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 3 | 3 | 2 | 2 |
| 180 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 3 | 2 | 2 | 2 |
| 185 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 3 | 2 | 2 | 2 |
| 190 | * | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 3 | 2 | 2 | 1 |
| 195 | * | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 3 | 2 | 2 | 1 |
| 200 | * | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 3 | 1 | 1 | 1 |
| 205 | * | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 3 | 1 | 1 | 1 |

JOB: Ronkonkama

RUN: NOBUILD

PAGE 9

WIND ANGLE RANGE: 0.-360.

| WIND ANGLE (DEGR) | CONCENTRATION (ug/m**3) | | | | | | | | | | | | | | | |
|-------------------|-------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----|
| | REC41 | REC42 | REC43 | REC44 | REC45 | REC46 | REC47 | REC48 | REC49 | REC50 | REC51 | REC52 | REC53 | REC54 | REC55 | |
| 210 | * | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 3 | 1 | 1 | |
| 215 | * | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 3 | 1 | 1 | |
| 220 | * | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 3 | 1 | 1 | |
| 225 | * | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 3 | 3 | 1 | 0 | |
| 230 | * | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 3 | 3 | 1 | 0 | |
| 235 | * | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 3 | 1 | 0 | |
| 240 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 1 | 0 | |
| 245 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 0 | 0 | |
| 250 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 0 | 0 | |
| 255 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | |
| 260 | * | 1 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 265 | * | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 270 | * | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 275 | * | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 280 | * | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 285 | * | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 290 | * | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 295 | * | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 300 | * | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 305 | * | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 310 | * | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 315 | * | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 320 | * | 1 | 1 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 325 | * | 1 | 2 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 330 | * | 1 | 1 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | |
| 335 | * | 1 | 1 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | |
| 340 | * | 1 | 1 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | |
| 345 | * | 1 | 2 | 2 | 2 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | |
| 350 | * | 1 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | |
| 355 | * | 1 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 1 | 0 | 0 | 1 | 1 | 1 | |
| 360 | * | 1 | 1 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 2 | |
| MAX | * | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 4 | 4 | 3 | 3 | |
| DEGR. | * | 345 | 350 | 350 | 355 | 355 | 0 | 5 | 5 | 10 | 10 | 95 | 90 | 165 | 145 | 25 |

THE HIGHEST CONCENTRATION OF 4. ug/m**3 OCCURRED AT RECEPTOR REC33.

JOB: Ronkonkama RUN: BUI LD
DATE : 6/ 5/13
TIME : 9:18: 2

The MODE flag has been set to P for calculating PM averages.

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S ZO = 175. CM
U = 1.0 M/S CLAS = 4 (D) ATIM = 60. MINUTES MIXH = 1000. M AMB = 0.0 ug/m**3

LINK VARIABLES

| V/C QUEUE (VEH) | LINK DESCRIPTION | X1 | Y1 | X2 | Y2 | LENGTH (FT) | BRG (DEG) | BRG TYPE | VPH | EF (G/MI) | H (FT) | W (FT) |
|-----------------|------------------|----|----|----|----|-------------|-----------|----------|-----|-----------|--------|--------|
|-----------------|------------------|----|----|----|----|-------------|-----------|----------|-----|-----------|--------|--------|

| | | | | | | | | | | | | |
|------|---------------------------------|--------|--------|--------|--------|-------|------|----|-------|-------|-----|------|
| 0.64 | 1. LI E N/Hawk ns SB TTR* | 3375.1 | 5903.8 | 3376.6 | 6018.4 | 115. | 1. | AG | 0. | 100.0 | 1.0 | 20.0 |
| 5.8 | 2. LI E N/Hawk WB LTTR * | 3446.1 | 5872.5 | 3544.1 | 5889.4 | 100. | 80. | AG | 0. | 100.0 | 1.0 | 30.0 |
| 0.51 | 5.1 LI E N/Hawk ns NB L * | 3393.3 | 5814.6 | 3346.6 | 3433.7 | 2381. | 181. | AG | 0. | 100.0 | 1.0 | 10.0 |
| 2.88 | 121.0 4. LI E N/Hawk ns NB TT * | 3416.2 | 5814.3 | 3415.8 | 5689.2 | 125. | 180. | AG | 0. | 100.0 | 1.0 | 20.0 |
| 0.70 | 4. LI E S/Hawk ns SB L * | 3391.1 | 5495.9 | 3411.4 | 6938.9 | 1443. | 1. | AG | 0. | 100.0 | 1.0 | 10.0 |
| 1.43 | 73.3 6. LI E S/Hawk ns SB TT * | 3370.8 | 5481.6 | 3372.7 | 5586.0 | 104. | 1. | AG | 0. | 100.0 | 1.0 | 20.0 |
| 0.75 | 5.3 7. LI E S/Hawk ns NB TTR* | 3405.1 | 5396.8 | 3359.1 | 3358.0 | 2039. | 181. | AG | 0. | 100.0 | 1.0 | 20.0 |
| 1.54 | 103.6 8. LI E S/Hawk EB LTTR * | 3339.3 | 5401.9 | 2231.6 | 4988.3 | 1182. | 250. | AG | 0. | 100.0 | 1.0 | 30.0 |
| 1.12 | 60.1 9. Hawk/Uni on SB L * | 3390.6 | 4708.0 | 3229.3 | 6783.0 | 2081. | 356. | AG | 0. | 100.0 | 1.0 | 10.0 |
| 1.66 | 105.7 10. Hawk/Uni on SB T * | 3377.8 | 4706.1 | 3373.5 | 4748.0 | 42. | 354. | AG | 0. | 100.0 | 1.0 | 10.0 |
| 0.33 | 2.1 11. Hawk/Uni on WB L * | 3438.0 | 4679.8 | 3463.1 | 4682.3 | 25. | 84. | AG | 0. | 100.0 | 1.0 | 10.0 |
| 0.23 | 1.3 12. Hawk/Uni on WB R * | 3437.3 | 4691.3 | 3549.9 | 4707.3 | 114. | 82. | AG | 0. | 100.0 | 1.0 | 10.0 |
| 0.73 | 5.8 13. Hawk/Uni on NB TR * | 3412.5 | 4623.3 | 3426.5 | 4501.5 | 123. | 173. | AG | 0. | 100.0 | 1.0 | 10.0 |
| 0.77 | 6.2 14. LI E N/Hawk ns N * | 3393.0 | 5863.0 | 3401.9 | 6218.8 | 356. | 1. | AG | 1516. | 0.0 | 1.0 | 72.0 |
| | 15. LI E N/Hawk ns E * | 3393.0 | 5863.0 | 3735.4 | 5914.4 | 346. | 81. | AG | 975. | 0.0 | 1.0 | 54.0 |
| | 16. LI E N/Hawk ns S * | 3393.0 | 5863.0 | 3393.0 | 5611.5 | 252. | 180. | AG | 1527. | 0.0 | 1.0 | 78.0 |
| | 17. LI E N/Hawk ns W * | 3393.0 | 5863.0 | 3036.7 | 5815.2 | 359. | 262. | AG | 834. | 0.0 | 1.0 | 54.0 |
| | 18. LI E S/Hawk ns N * | 3387.1 | 5425.3 | 3394.1 | 5670.0 | 245. | 2. | AG | 1527. | 0.0 | 1.0 | 78.0 |
| | 19. LI E S/Hawk ns E * | 3387.1 | 5425.3 | 3651.9 | 5538.9 | 288. | 67. | AG | 2293. | 0.0 | 1.0 | 54.0 |
| | 20. LI E S/Hawk ns S * | 3387.1 | 5425.3 | 3381.2 | 5147.1 | 278. | 181. | AG | 1200. | 0.0 | 1.0 | 66.0 |
| | 21. LI E S/Hawk ns W * | 3387.1 | 5425.3 | 3108.2 | 5320.4 | 298. | 249. | AG | 2284. | 0.0 | 1.0 | 54.0 |
| | 22. Uni on/Hawk ns N * | 3401.1 | 4668.8 | 3378.9 | 4869.0 | 201. | 354. | AG | 1206. | 0.0 | 1.0 | 54.0 |
| | 23. Uni on/Hawk ns E * | 3401.1 | 4668.8 | 3620.2 | 4699.3 | 221. | 82. | AG | 985. | 0.0 | 1.0 | 54.0 |
| | 24. Uni on/Hawk ns S * | 3401.1 | 4668.8 | 3421.1 | 4497.9 | 172. | 173. | AG | 559. | 0.0 | 1.0 | 42.0 |

JOB: Ronkonkama RUN: BUI LD
DATE : 6/ 5/13
TIME : 9:18: 2

| | | | | | | | | | |
|-----|------------------------|-----|----|-----|------|------|------|---|---|
| 1. | LI E N/Hawk ns SB TTR* | 100 | 62 | 3.0 | 676 | 1600 | 0.03 | 1 | 3 |
| 2. | LI E N/Hawk WB LTTR * | 100 | 50 | 3.0 | 1092 | 1600 | 0.03 | 1 | 3 |
| 3. | LI E N/Hawk ns NB L * | 100 | 88 | 3.0 | 323 | 1600 | 0.03 | 1 | 3 |
| 4. | LI E N/Hawk ns NB TT * | 100 | 62 | 3.0 | 739 | 1600 | 0.03 | 1 | 3 |
| 5. | LI E S/Hawk ns SB L * | 100 | 78 | 3.0 | 390 | 1600 | 0.03 | 1 | 3 |
| 6. | LI E S/Hawk ns SB TT * | 100 | 75 | 3.0 | 479 | 1600 | 0.03 | 1 | 3 |
| 7. | LI E S/Hawk ns NB TTR* | 100 | 75 | 3.0 | 986 | 1600 | 0.03 | 1 | 3 |
| 8. | LI E S/Hawk EB LTTR * | 100 | 50 | 3.0 | 2411 | 1600 | 0.03 | 1 | 3 |
| 9. | Hawk/Uni on SB L * | 81 | 62 | 3.0 | 458 | 1600 | 0.03 | 1 | 3 |
| 10. | Hawk/Uni on SB T * | 81 | 22 | 3.0 | 350 | 1600 | 0.03 | 1 | 3 |
| 11. | Hawk/Uni on WB R * | 81 | 59 | 3.0 | 78 | 1600 | 0.03 | 1 | 3 |
| 12. | Hawk/Uni on WB R * | 81 | 40 | 3.0 | 520 | 1600 | 0.03 | 1 | 3 |
| 13. | Hawk/Uni on NB TR * | 81 | 41 | 3.0 | 534 | 1600 | 0.03 | 1 | 3 |

RECEPTOR LOCATIONS

| RECEPTOR | X | Y | Z |
|--------------------|--------|--------|-----|
| 1. LI E N/Hawk NE1 | 3443.9 | 6057.5 | 6.0 |
| 2. LI E N/Hawk NE2 | 3442.0 | 5982.5 | 6.0 |
| 3. LI E N/Hawk NE3 | 3440.1 | 5907.5 | 6.0 |
| 4. LI E N/Hawk NE4 | 3514.3 | 5918.6 | 6.0 |
| 5. LI E N/Hawk NE5 | 3588.4 | 5929.8 | 6.0 |
| 6. LI E N/Hawk SE1 | 3590.3 | 5855.2 | 6.0 |

| RECEPTOR | X | Y | Z |
|---------------------|--------|--------|-----|
| 7. LI E N/Hawk SE2 | 3516.2 | 5844.2 | 6.0 |
| 8. LI E N/Hawk SE3 | 3442.0 | 5833.0 | 6.0 |
| 9. LI E N/Hawk SE4 | 3442.0 | 5758.0 | 6.0 |
| 10. LI E N/Hawk SE5 | 3442.0 | 5683.0 | 6.0 |
| 11. LI E N/Hawk SW1 | 3344.0 | 5669.1 | 6.0 |
| 12. LI E N/Hawk SW2 | 3344.0 | 5744.4 | 6.0 |
| 13. LI E N/Hawk SW3 | 3344.0 | 5819.1 | 6.0 |
| 14. LI E N/Hawk SW4 | 3269.6 | 5809.1 | 6.0 |
| 15. LI E N/Hawk SW5 | 3195.3 | 5799.2 | 6.0 |
| 16. LI E N/Hawk NW1 | 3199.1 | 5874.3 | 6.0 |
| 17. LI E N/Hawk NW2 | 3273.4 | 5884.3 | 6.0 |
| 18. LI E N/Hawk NW3 | 3347.8 | 5894.3 | 6.0 |
| 19. LI E N/Hawk NW4 | 3349.6 | 5969.3 | 6.0 |
| 20. LI E N/Hawk NW5 | 3351.5 | 6044.3 | 6.0 |
| 21. LI E S/Hawk NE1 | 3442.2 | 5637.3 | 6.0 |
| 22. LI E S/Hawk NE2 | 3440.0 | 5562.3 | 6.0 |
| 23. LI E S/Hawk NE3 | 3437.9 | 5487.3 | 6.0 |
| 24. LI E S/Hawk NE4 | 3506.8 | 5516.9 | 6.0 |
| 25. LI E S/Hawk NE5 | 3575.7 | 5546.5 | 6.0 |
| 26. LI E S/Hawk SE1 | 3567.5 | 5462.4 | 6.0 |
| 27. LI E S/Hawk SE2 | 3498.5 | 5432.8 | 6.0 |
| 28. LI E S/Hawk SE3 | 3429.6 | 5403.3 | 6.0 |
| 29. LI E S/Hawk SE4 | 3428.0 | 5328.3 | 6.0 |
| 30. LI E S/Hawk SE5 | 3426.4 | 5253.3 | 6.0 |
| 31. LI E S/Hawk SW1 | 3339.7 | 5219.1 | 6.0 |
| 32. LI E S/Hawk SW2 | 3341.3 | 5294.1 | 6.0 |
| 33. LI E S/Hawk SW3 | 3342.9 | 5361.9 | 6.0 |
| 34. LI E S/Hawk SW4 | 3272.7 | 5342.7 | 6.0 |
| 35. LI E S/Hawk SW5 | 3202.5 | 5316.3 | 6.0 |
| 36. Hawk/Uni on NE1 | 3417.1 | 4859.8 | 6.0 |
| 37. Hawk/Uni on NE2 | 3425.4 | 4785.3 | 6.0 |
| 38. Hawk/Uni on NE3 | 3433.7 | 4710.7 | 6.0 |

JOB: Ronkonkama RUN: BUI LD
DATE : 6/ 5/13
TIME : 9:18: 2

RECEPTOR LOCATIONS

| RECEPTOR | X | Y | Z |
|---------------------|--------|--------|-----|
| 39. Hawk/Uni on NE4 | 3509.1 | 4721.2 | 6.0 |
| 40. Hawk/Uni on NE5 | 3582.3 | 4731.3 | 6.0 |
| 41. Hawk/Uni on SE1 | 3584.7 | 4657.0 | 6.0 |
| 42. Hawk/Uni on SE2 | 3510.4 | 4646.6 | 6.0 |
| 43. Hawk/Uni on SE3 | 3436.1 | 4636.3 | 6.0 |
| 44. Hawk/Uni on SE4 | 3444.8 | 4561.8 | 6.0 |
| 45. Hawk/Uni on SE5 | 3453.0 | 4487.3 | 6.0 |
| 46. Hawk/Uni on W1 | 3388.8 | 4506.5 | 6.0 |
| 47. Hawk/Uni on W2 | 3380.2 | 4581.0 | 6.0 |
| 48. Hawk/Uni on W3 | 3371.5 | 4655.5 | 6.0 |
| 49. Hawk/Uni on W4 | 3357.2 | 4729.1 | 6.0 |
| 50. Hawk/Uni on W5 | 3348.9 | 4803.7 | 6.0 |
| 51. LI E S/Hawk NW1 | 3198.3 | 5393.8 | 6.0 |
| 52. LI E S/Hawk NW2 | 3268.5 | 5420.2 | 6.0 |
| 53. LI E S/Hawk NW3 | 3338.7 | 5446.6 | 6.0 |
| 54. LI E S/Hawk NW4 | 3340.8 | 5521.6 | 6.0 |
| 55. LI E S/Hawk NW5 | 3343.0 | 5596.5 | 6.0 |

JOB: Ronkonkama RUN: BUI LD

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0 - 360.

WIND * CONCENTRATION

(DEGR) * REC1 REC2 REC3 REC4 REC5 REC6 REC7 REC8 REC9 REC10 REC11 REC12 REC13 REC14 REC15 REC16 REC17 REC18 REC19 REC20

| | | | | | | | | | | | | | | | | | | | | |
|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0. | * | 1. | 1. | 1. | 0. | 0. | 1. | 1. | 2. | 2. | 2. | 1. | 2. | 2. | 1. | 1. | 0. | 0. | 1. | |
| 1. | 5. | * | 0. | 1. | 1. | 0. | 0. | 1. | 1. | 2. | 1. | 1. | 2. | 2. | 2. | 1. | 1. | 0. | 0. | 1. |
| 10. | 1. | * | 0. | 0. | 0. | 0. | 0. | 1. | 1. | 1. | 1. | 1. | 2. | 2. | 2. | 1. | 1. | 0. | 0. | 2. |
| 15. | * | 0. | 0. | 0. | 0. | 0. | 0. | 1. | 1. | 1. | 1. | 1. | 2. | 2. | 2. | 1. | 1. | 0. | 1. | 2. |
| 20. | 1. | * | 0. | 0. | 0. | 0. | 0. | 1. | 1. | 1. | 1. | 1. | 2. | 2. | 2. | 1. | 1. | 0. | 1. | 2. |
| 2. | 1. | * | | | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | BD_PM10.out | | | | | | | | | | | | | |
|------|----|----|----|----|----|----|----|----|----|----|----|----|----|-------------|----|----|----|----|----|--|--|--|--|--|--|--|--|
| 25. | * | 0. | 0. | 0. | 0. | 0. | 1. | 1. | 1. | 0. | 0. | 2. | 2. | 2. | 2. | 1. | 0. | 1. | 2. | | | | | | | | |
| 30. | 1. | 0. | 0. | 0. | 0. | 0. | 1. | 1. | 1. | 0. | 0. | 2. | 2. | 2. | 2. | 1. | 0. | 1. | 2. | | | | | | | | |
| 35. | 1. | 0. | 0. | 0. | 0. | 0. | 1. | 1. | 1. | 0. | 0. | 2. | 2. | 2. | 2. | 1. | 0. | 1. | 2. | | | | | | | | |
| 40. | 1. | 0. | 0. | 0. | 0. | 0. | 1. | 1. | 1. | 0. | 0. | 2. | 2. | 2. | 2. | 1. | 0. | 1. | 2. | | | | | | | | |
| 45. | 1. | 0. | 0. | 0. | 0. | 0. | 1. | 1. | 1. | 0. | 0. | 2. | 2. | 2. | 2. | 1. | 0. | 1. | 2. | | | | | | | | |
| 50. | 1. | 0. | 0. | 0. | 0. | 0. | 1. | 1. | 1. | 0. | 0. | 2. | 2. | 2. | 2. | 1. | 0. | 1. | 2. | | | | | | | | |
| 55. | 1. | 0. | 0. | 0. | 0. | 0. | 1. | 1. | 1. | 0. | 0. | 2. | 2. | 2. | 2. | 2. | 1. | 1. | 2. | | | | | | | | |
| 60. | 1. | 0. | 0. | 0. | 0. | 0. | 1. | 1. | 1. | 0. | 0. | 2. | 2. | 2. | 2. | 2. | 1. | 1. | 2. | | | | | | | | |
| 65. | 1. | 0. | 0. | 0. | 0. | 0. | 1. | 1. | 1. | 0. | 0. | 2. | 2. | 2. | 2. | 2. | 1. | 1. | 2. | | | | | | | | |
| 70. | 1. | 0. | 0. | 0. | 0. | 0. | 1. | 1. | 1. | 0. | 0. | 2. | 2. | 2. | 2. | 2. | 1. | 1. | 2. | | | | | | | | |
| 75. | 1. | 0. | 0. | 0. | 0. | 0. | 1. | 1. | 1. | 0. | 0. | 2. | 1. | 2. | 2. | 2. | 1. | 1. | 2. | | | | | | | | |
| 80. | 1. | 0. | 0. | 1. | 0. | 0. | 0. | 1. | 0. | 0. | 0. | 2. | 2. | 2. | 2. | 1. | 1. | 2. | 2. | | | | | | | | |
| 85. | 1. | 0. | 0. | 1. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 2. | 1. | 2. | 1. | 1. | 1. | 2. | 2. | | | | | | | | |
| 90. | 1. | 0. | 0. | 1. | 1. | 1. | 0. | 0. | 0. | 0. | 0. | 2. | 1. | 2. | 1. | 1. | 2. | 2. | 2. | | | | | | | | |
| 95. | 1. | 0. | 0. | 1. | 1. | 1. | 0. | 0. | 0. | 0. | 0. | 2. | 1. | 2. | 1. | 1. | 2. | 2. | 2. | | | | | | | | |
| 100. | 1. | 0. | 0. | 1. | 1. | 1. | 0. | 0. | 0. | 0. | 0. | 2. | 1. | 2. | 1. | 1. | 2. | 2. | 2. | | | | | | | | |
| 105. | 1. | 0. | 0. | 1. | 1. | 1. | 0. | 0. | 0. | 0. | 0. | 2. | 1. | 1. | 1. | 0. | 2. | 2. | 2. | | | | | | | | |
| 110. | 1. | 0. | 0. | 1. | 1. | 1. | 0. | 0. | 0. | 0. | 0. | 2. | 1. | 1. | 1. | 1. | 1. | 2. | 2. | | | | | | | | |
| 115. | 1. | 0. | 0. | 1. | 1. | 1. | 0. | 0. | 0. | 0. | 0. | 2. | 2. | 1. | 1. | 1. | 2. | 2. | 2. | | | | | | | | |
| 120. | 1. | 0. | 0. | 1. | 1. | 1. | 0. | 0. | 0. | 0. | 0. | 3. | 2. | 2. | 1. | 1. | 1. | 2. | 2. | | | | | | | | |
| 125. | 2. | 0. | 0. | 1. | 1. | 1. | 0. | 0. | 0. | 0. | 0. | 3. | 2. | 2. | 1. | 1. | 2. | 2. | 2. | | | | | | | | |
| 130. | 2. | 0. | 0. | 1. | 1. | 1. | 0. | 0. | 0. | 0. | 0. | 3. | 2. | 2. | 1. | 1. | 2. | 2. | 2. | | | | | | | | |
| 135. | 2. | 0. | 0. | 1. | 1. | 1. | 0. | 0. | 0. | 0. | 0. | 3. | 2. | 2. | 2. | 1. | 2. | 2. | 2. | | | | | | | | |
| 140. | 2. | 0. | 0. | 1. | 1. | 1. | 0. | 0. | 0. | 0. | 0. | 3. | 2. | 2. | 1. | 1. | 2. | 2. | 3. | | | | | | | | |
| 145. | 2. | 0. | 1. | 1. | 1. | 1. | 0. | 0. | 0. | 0. | 0. | 3. | 2. | 2. | 1. | 1. | 2. | 2. | 3. | | | | | | | | |
| 150. | 2. | 0. | 1. | 1. | 1. | 1. | 0. | 0. | 0. | 0. | 1. | 3. | 2. | 2. | 2. | 1. | 2. | 2. | 3. | | | | | | | | |
| 155. | 2. | 1. | 1. | 1. | 1. | 1. | 0. | 0. | 0. | 0. | 1. | 3. | 2. | 2. | 1. | 1. | 2. | 2. | 3. | | | | | | | | |
| 160. | 2. | 1. | 1. | 1. | 1. | 1. | 0. | 0. | 0. | 1. | 1. | 3. | 3. | 2. | 1. | 1. | 2. | 2. | 3. | | | | | | | | |
| 165. | 2. | 1. | 1. | 2. | 1. | 1. | 0. | 0. | 1. | 1. | 1. | 3. | 3. | 2. | 1. | 1. | 1. | 2. | 3. | | | | | | | | |
| 170. | 3. | 1. | 1. | 2. | 1. | 1. | 0. | 0. | 1. | 1. | 1. | 3. | 3. | 3. | 1. | 1. | 2. | 2. | 3. | | | | | | | | |
| 175. | 3. | 2. | 2. | 2. | 2. | 1. | 0. | 0. | 2. | 2. | 2. | 3. | 2. | 2. | 1. | 1. | 1. | 2. | 3. | | | | | | | | |
| 180. | 3. | 2. | 2. | 3. | 2. | 1. | 0. | 1. | 2. | 2. | 2. | 3. | 2. | 2. | 1. | 0. | 1. | 1. | 2. | | | | | | | | |
| 185. | 2. | 2. | 2. | 3. | 2. | 1. | 1. | 1. | 2. | 2. | 2. | 2. | 2. | 2. | 1. | 0. | 1. | 1. | 2. | | | | | | | | |
| 190. | 2. | 3. | 3. | 3. | 2. | 2. | 1. | 1. | 3. | 3. | 3. | 1. | 2. | 1. | 0. | 0. | 1. | 1. | 2. | | | | | | | | |
| 195. | 1. | 3. | 3. | 3. | 2. | 2. | 1. | 1. | 3. | 3. | 3. | 1. | 1. | 1. | 0. | 0. | 1. | 1. | 1. | | | | | | | | |
| 200. | 1. | 2. | 3. | 3. | 2. | 2. | 1. | 1. | 3. | 3. | 3. | 1. | 1. | 1. | 0. | 0. | 1. | 1. | 1. | | | | | | | | |
| 205. | 1. | 2. | 3. | 3. | 3. | 2. | 1. | 1. | 3. | 3. | 3. | 1. | 1. | 0. | 0. | 0. | 1. | 1. | 1. | | | | | | | | |
| 210. | 1. | 2. | 2. | 3. | 2. | 2. | 1. | 2. | 2. | 3. | 3. | 1. | 0. | 0. | 0. | 0. | 1. | 1. | 1. | | | | | | | | |

JOB: Ronkonkama RUN: BUI LD PAGE 5

WIND * CONCENTRATION
 ANGLE * (ug/m**3)
 (DEGR) * REC1 REC2 REC3 REC4 REC5 REC6 REC7 REC8 REC9 REC10 REC11 REC12 REC13 REC14 REC15 REC16 REC17 REC18
 REC19 REC20
 REC21 REC22 REC23 REC24 REC25 REC26 REC27 REC28 REC29 REC30 REC31 REC32 REC33 REC34 REC35 REC36 REC37 REC38 REC39 REC40
 REC41 REC42 REC43 REC44 REC45 REC46 REC47 REC48 REC49 REC50 REC51 REC52 REC53 REC54 REC55

| | | | | | | | | | | | | | | BD_PM10.out | | | | | | | | | | | | | |
|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------------|----|-----|-----|-----|----|--|--|--|--|--|--|--|--|
| 1. | 0. | 2. | 2. | 3. | 3. | 2. | 1. | 2. | 2. | 3. | 3. | 0. | 0. | 0. | 0. | 0. | 1. | 1. | 1. | | | | | | | | |
| 215. | 0. | 2. | 2. | 2. | 2. | 2. | 1. | 1. | 2. | 2. | 3. | 0. | 0. | 0. | 0. | 0. | 1. | 1. | 1. | | | | | | | | |
| 220. | 0. | 2. | 2. | 2. | 2. | 2. | 1. | 1. | 2. | 2. | 3. | 0. | 0. | 0. | 0. | 0. | 1. | 1. | 1. | | | | | | | | |
| 225. | 0. | 2. | 2. | 2. | 2. | 2. | 1. | 1. | 2. | 2. | 3. | 0. | 0. | 0. | 0. | 0. | 1. | 1. | 1. | | | | | | | | |
| 230. | 0. | 2. | 2. | 2. | 2. | 2. | 1. | 1. | 2. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 1. | 1. | 1. | | | | | | | | |
| 235. | 0. | 2. | 2. | 2. | 2. | 2. | 1. | 1. | 2. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 1. | 1. | 1. | | | | | | | | |
| 240. | 0. | 2. | 2. | 2. | 2. | 2. | 1. | 1. | 2. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 1. | 1. | 1. | | | | | | | | |
| 245. | 0. | 1. | 2. | 2. | 2. | 2. | 1. | 1. | 2. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 1. | 1. | 1. | | | | | | | | |
| 250. | 0. | 1. | 2. | 2. | 2. | 2. | 1. | 1. | 2. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 1. | 1. | 1. | | | | | | | | |
| 255. | 0. | 1. | 1. | 2. | 2. | 2. | 1. | 1. | 2. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 0. | 1. | 1. | | | | | | | | |
| 260. | 0. | 1. | 1. | 2. | 1. | 1. | 1. | 1. | 2. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 1. | | | | | | | | |
| 265. | 0. | 1. | 1. | 2. | 1. | 1. | 1. | 1. | 2. | 2. | 2. | 0. | 0. | 1. | 0. | 0. | 0. | 0. | 0. | | | | | | | | |
| 270. | 0. | 1. | 1. | 2. | 1. | 1. | 2. | 2. | 2. | 2. | 2. | 0. | 0. | 1. | 1. | 0. | 0. | 0. | 0. | | | | | | | | |
| 275. | 0. | 1. | 1. | 2. | 1. | 1. | 2. | 2. | 2. | 2. | 2. | 0. | 0. | 1. | 1. | 0. | 0. | 0. | 0. | | | | | | | | |
| 280. | 0. | 1. | 1. | 1. | 1. | 1. | 2. | 2. | 2. | 2. | 2. | 0. | 0. | 1. | 1. | 1. | 0. | 0. | 0. | | | | | | | | |
| 285. | 0. | 1. | 1. | 1. | 1. | 0. | 2. | 2. | 2. | 2. | 1. | 0. | 0. | 1. | 1. | 1. | 0. | 0. | 0. | | | | | | | | |
| 290. | 0. | 1. | 1. | 1. | 1. | 0. | 2. | 2. | 2. | 2. | 2. | 0. | 0. | 1. | 1. | 1. | 0. | 0. | 0. | | | | | | | | |
| 295. | 0. | 1. | 1. | 1. | 1. | 0. | 2. | 2. | 2. | 2. | 2. | 0. | 0. | 1. | 1. | 1. | 0. | 0. | 0. | | | | | | | | |
| 300. | 0. | 1. | 1. | 1. | 1. | 0. | 2. | 2. | 2. | 2. | 2. | 0. | 0. | 1. | 1. | 1. | 0. | 0. | 0. | | | | | | | | |
| 305. | 0. | 1. | 1. | 1. | 1. | 0. | 2. | 2. | 2. | 2. | 2. | 0. | 0. | 1. | 1. | 1. | 0. | 0. | 0. | | | | | | | | |
| 310. | 0. | 1. | 1. | 1. | 1. | 0. | 2. | 2. | 2. | 2. | 2. | 0. | 0. | 1. | 1. | 1. | 0. | 0. | 0. | | | | | | | | |
| 315. | 0. | 1. | 1. | 2. | 1. | 0. | 1. | 2. | 2. | 2. | 2. | 0. | 0. | 1. | 1. | 1. | 0. | 0. | 0. | | | | | | | | |
| 320. | 0. | 1. | 2. | 1. | 0. | 1. | 2. | 2. | 2. | 2. | 2. | 0. | 0. | 1. | 1. | 1. | 0. | 0. | 0. | | | | | | | | |
| 325. | 0. | 2. | 2. | 2. | 1. | 0. | 1. | 2. | 2. | 2. | 2. | 0. | 0. | 1. | 1. | 1. | 0. | 0. | 0. | | | | | | | | |
| 330. | 0. | 1. | 2. | 2. | 1. | 0. | 1. | 2. | 2. | 2. | 2. | 0. | 0. | 1. | 1. | 1. | 0. | 0. | 0. | | | | | | | | |
| 335. | 0. | 1. | 2. | 2. | 1. | 0. | 1. | 2. | 2. | 3. | 2. | 0. | 0. | 1. | 1. | 1. | 0. | 0. | 0. | | | | | | | | |
| 340. | 0. | 1. | 2. | 2. | 0. | 0. | 1. | 2. | 2. | 2. | 2. | 0. | 1. | 1. | 1. | 1. | 0. | 0. | 0. | | | | | | | | |
| 345. | 0. | 1. | 2. | 2. | 0. | 0. | 1. | 2. | 2. | 2. | 2. | 1. | 1. | 1. | 1. | 1. | 0. | 0. | 0. | | | | | | | | |
| 350. | 0. | 1. | 1. | 2. | 0. | 0. | 1. | 2. | 2. | 2. | 2. | 1. | 1. | 1. | 1. | 1. | 0. | 0. | 0. | | | | | | | | |
| 355. | 0. | 1. | 1. | 1. | 0. | 0. | 1. | 1. | 2. | 2. | 2. | 1. | 1. | 1. | 1. | 1. | 0. | 0. | 1. | | | | | | | | |
| 360. | 0. | 1. | 1. | 1. | 0. | 0. | 1. | 1. | 2. | 2. | 2. | 1. | 2. | 2. | 1. | 1. | 0. | 0. | 1. | | | | | | | | |
| 1. | 1. | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MAX | 3. | 3. | 3. | 3. | 3. | 2. | 2. | 2. | 3. | 3. | 3. | 3. | 3. | 3. | 2. | 2. | 2. | 2. | 3. | | | | | | | | |
| DEGR | 195 | 190 | 195 | 215 | 210 | 275 | 295 | 195 | 200 | 210 | 160 | 170 | 170 | 45 | 60 | 145 | 150 | 170 | | | | | | | | | |

JOB: Ronkonkama RUN: BUI LD PAGE 6

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND * CONCENTRATION
 ANGLE * (ug/m**3)
 (DEGR) * REC21 REC22 REC23 REC24 REC25 REC26 REC27 REC28 REC29 REC30 REC31 REC32 REC33 REC34 REC35 REC36 REC37 REC38
 REC39 REC40

| | | | | | | | | | | | | | | | | | | | |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0. | 1. | 2. | 2. | 0. | 0. | 2. | 2. | 4. | 3. | 2. | 2. | 3. | 4. | 2. | 2. | 1. | 1. | 1. | 1. |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|

| | | BD_PM10.out | | | | | | | | | | | | | | | | | |
|------|----|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| | | 3. | 2. | 2. | 3. | 4. | 4. | 3. | 2. | 1. | 1. | 1. | 1. | 1. | 1. | | | | |
| 0.5 | * | 1. | 1. | 1. | 0. | 0. | 2. | 2. | 3. | 2. | 2. | 3. | 4. | 4. | 3. | 2. | 1. | 1. | 1. |
| 10. | 0. | 1. | 1. | 1. | 0. | 0. | 2. | 2. | 3. | 2. | 2. | 3. | 4. | 4. | 3. | 2. | 1. | 0. | 0. |
| 15. | 0. | 1. | 1. | 1. | 0. | 0. | 2. | 2. | 3. | 2. | 1. | 3. | 4. | 4. | 3. | 3. | 0. | 0. | 0. |
| 20. | 0. | 0. | 0. | 0. | 0. | 0. | 2. | 2. | 2. | 1. | 1. | 3. | 3. | 4. | 4. | 3. | 0. | 0. | 0. |
| 25. | 0. | 0. | 0. | 0. | 0. | 0. | 2. | 2. | 2. | 1. | 1. | 3. | 3. | 4. | 4. | 3. | 0. | 0. | 0. |
| 30. | 0. | 0. | 0. | 0. | 0. | 0. | 2. | 2. | 2. | 1. | 1. | 2. | 3. | 4. | 4. | 3. | 0. | 0. | 0. |
| 35. | 0. | 0. | 0. | 0. | 0. | 0. | 2. | 2. | 2. | 1. | 0. | 2. | 3. | 4. | 4. | 4. | 0. | 0. | 0. |
| 40. | 0. | 0. | 0. | 0. | 0. | 0. | 2. | 2. | 2. | 1. | 0. | 2. | 3. | 4. | 4. | 4. | 0. | 0. | 0. |
| 45. | 0. | 0. | 0. | 0. | 0. | 0. | 2. | 2. | 2. | 1. | 0. | 2. | 2. | 4. | 4. | 4. | 0. | 0. | 0. |
| 50. | 0. | 0. | 0. | 0. | 0. | 0. | 2. | 2. | 2. | 0. | 0. | 2. | 2. | 4. | 4. | 4. | 0. | 0. | 0. |
| 55. | 0. | 0. | 0. | 0. | 0. | 1. | 2. | 2. | 0. | 0. | 0. | 2. | 2. | 4. | 4. | 3. | 0. | 0. | 0. |
| 60. | 0. | 0. | 0. | 1. | 0. | 0. | 1. | 2. | 2. | 0. | 0. | 2. | 2. | 3. | 3. | 3. | 0. | 0. | 0. |
| 65. | 0. | 0. | 0. | 1. | 1. | 0. | 1. | 1. | 1. | 0. | 0. | 1. | 2. | 3. | 3. | 3. | 0. | 0. | 0. |
| 70. | 0. | 0. | 0. | 1. | 1. | 0. | 0. | 1. | 1. | 0. | 0. | 1. | 2. | 2. | 2. | 2. | 0. | 0. | 0. |
| 75. | 0. | 0. | 0. | 2. | 1. | 1. | 0. | 0. | 1. | 0. | 0. | 1. | 1. | 2. | 2. | 2. | 0. | 0. | 0. |
| 80. | 0. | 0. | 0. | 2. | 2. | 1. | 0. | 0. | 0. | 0. | 0. | 1. | 1. | 2. | 1. | 1. | 0. | 0. | 0. |
| 85. | 0. | 0. | 0. | 2. | 2. | 1. | 0. | 0. | 0. | 0. | 0. | 1. | 1. | 2. | 1. | 1. | 0. | 0. | 1. |
| 90. | 0. | 0. | 0. | 2. | 2. | 1. | 0. | 0. | 0. | 0. | 0. | 1. | 1. | 1. | 1. | 1. | 0. | 0. | 1. |
| 95. | 0. | 1. | 2. | 2. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 1. | 1. | 1. | 1. | 1. | 0. | 0. | 1. |
| 100. | 0. | 1. | 2. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 0. | 1. | 1. | 1. | 1. | 1. | 0. | 0. | 1. |
| 105. | 0. | 0. | 1. | 2. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 1. | 1. | 1. | 1. | 0. | 0. | 0. | 1. |
| 110. | 0. | 0. | 1. | 2. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 1. | 1. | 1. | 1. | 0. | 0. | 0. | 1. |
| 115. | 0. | 0. | 1. | 2. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 1. | 1. | 1. | 1. | 0. | 0. | 0. | 1. |
| 120. | 0. | 0. | 1. | 2. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 1. | 2. | 1. | 1. | 0. | 0. | 0. | 1. |
| 125. | 0. | 0. | 1. | 2. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 1. | 2. | 1. | 1. | 0. | 0. | 0. | 1. |
| 130. | 0. | 1. | 1. | 2. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 1. | 2. | 1. | 1. | 0. | 0. | 0. | 1. |
| 135. | 0. | 1. | 1. | 2. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 1. | 2. | 1. | 1. | 0. | 0. | 0. | 1. |
| 140. | 0. | 1. | 1. | 2. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 1. | 2. | 2. | 1. | 0. | 0. | 0. | 1. |
| 145. | 1. | 1. | 1. | 2. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 1. | 2. | 2. | 1. | 0. | 0. | 0. | 1. |
| 150. | 1. | 1. | 1. | 2. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 1. | 2. | 2. | 1. | 0. | 0. | 0. | 1. |
| 155. | 1. | 1. | 1. | 2. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 1. | 2. | 2. | 1. | 0. | 0. | 0. | 1. |
| 160. | 1. | 1. | 1. | 2. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 2. | 2. | 2. | 1. | 0. | 0. | 0. | 1. |
| 165. | 1. | 1. | 1. | 2. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 2. | 2. | 2. | 1. | 0. | 1. | 1. | 1. |
| 170. | 1. | 1. | 1. | 2. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 1. | 2. | 2. | 0. | 0. | 1. | 1. | 1. |
| 175. | 1. | 1. | 1. | 2. | 3. | 2. | 2. | 0. | 0. | 1. | 1. | 1. | 1. | 2. | 2. | 0. | 0. | 1. | 1. |
| 180. | 1. | 2. | 2. | 3. | 2. | 2. | 0. | 0. | 1. | 1. | 1. | 1. | 1. | 2. | 0. | 0. | 2. | 2. | 2. |
| 185. | 1. | 2. | 2. | 3. | 2. | 2. | 0. | 1. | 2. | 1. | 1. | 0. | 1. | 1. | 0. | 0. | 2. | 2. | 2. |
| 190. | 1. | 2. | 3. | 4. | 2. | 2. | 0. | 0. | 2. | 2. | 1. | 0. | 1. | 1. | 0. | 0. | 2. | 2. | 2. |
| 195. | 1. | 3. | 3. | 4. | 3. | 2. | 0. | 1. | 2. | 2. | 2. | 0. | 0. | 1. | 0. | 0. | 2. | 2. | 2. |
| 200. | 1. | 3. | 3. | 4. | 3. | 2. | 0. | 1. | 2. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 2. | 2. | 2. |
| 205. | 1. | 3. | 3. | 4. | 3. | 2. | 0. | 1. | 2. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 2. | 2. | 2. |

JOB: Ronkonkama RUN: BUI LD PAGE 7

WIND ANGLE RANGE: 0.-360.

WIND * CONCENTRATION
 ANGLE * (DEGR) * (ug/m**3)
 REC21 REC22 REC23 REC24 REC25 REC26 REC27 REC28 REC29 REC30 REC31 REC32 REC33 REC34 REC35 REC36 REC37 REC38
 REC39 REC40

| | | BD_PM10.out | | | | | | | | | | | | | | | | | |
|------|----|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| | | 3. | 3. | 4. | 3. | 3. | 0. | 1. | 2. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 2. | 2. | 2. |
| 210. | * | 3. | 3. | 4. | 3. | 3. | 0. | 1. | 2. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 2. | 2. | 2. |
| 215. | * | 3. | 3. | 4. | 3. | 3. | 0. | 1. | 2. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 2. | 2. | 2. |
| 220. | * | 3. | 3. | 4. | 3. | 3. | 1. | 1. | 2. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 2. | 2. | 2. |
| 225. | * | 3. | 3. | 4. | 3. | 3. | 1. | 1. | 2. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 2. | 2. | 2. |
| 230. | * | 2. | 2. | 3. | 4. | 3. | 1. | 1. | 2. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 2. | 2. | 2. |
| 235. | * | 2. | 2. | 4. | 3. | 3. | 1. | 1. | 2. | 2. | 2. | 0. | 0. | 1. | 0. | 0. | 2. | 1. | 2. |
| 240. | * | 2. | 2. | 4. | 3. | 3. | 2. | 2. | 2. | 2. | 1. | 1. | 0. | 0. | 1. | 1. | 0. | 1. | 1. |
| 245. | * | 2. | 2. | 3. | 3. | 2. | 2. | 2. | 2. | 2. | 2. | 1. | 0. | 0. | 1. | 1. | 0. | 1. | 1. |
| 250. | * | 2. | 2. | 3. | 2. | 2. | 2. | 3. | 3. | 2. | 1. | 0. | 0. | 2. | 1. | 1. | 1. | 1. | 1. |
| 255. | * | 2. | 2. | 2. | 2. | 2. | 3. | 3. | 4. | 2. | 2. | 0. | 0. | 2. | 2. | 1. | 1. | 1. | 1. |
| 260. | * | 2. | 2. | 2. | 1. | 1. | 3. | 3. | 4. | 2. | 2. | 0. | 0. | 3. | 2. | 1. | 1. | 1. | 1. |
| 265. | * | 2. | 2. | 2. | 1. | 1. | 3. | 4. | 4. | 2. | 2. | 0. | 0. | 3. | 2. | 2. | 1. | 2. | 1. |
| 270. | * | 2. | 2. | 2. | 1. | 1. | 3. | 4. | 4. | 2. | 2. | 0. | 0. | 1. | 3. | 2. | 2. | 1. | 1. |
| 275. | * | 2. | 1. | 1. | 1. | 1. | 3. | 3. | 4. | 2. | 2. | 0. | 1. | 3. | 3. | 2. | 1. | 1. | 1. |
| 280. | * | 2. | 1. | 1. | 1. | 1. | 3. | 3. | 4. | 2. | 2. | 0. | 1. | 3. | 3. | 2. | 1. | 1. | 1. |
| 285. | * | 2. | 1. | 2. | 1. | 1. | 3. | 3. | 4. | 3. | 2. | 0. | 1. | 3. | 2. | 2. | 1. | 1. | 1. |
| 290. | * | 2. | 2. | 2. | 1. | 1. | 3. | 3. | 3. | 2. | 2. | 0. | 1. | 3. | 2. | 2. | 1. | 1. | 1. |
| 295. | * | 2. | 2. | 2. | 1. | 1. | 3. | 3. | 3. | 2. | 2. | 0. | 1. | 3. | 2. | 2. | 1. | 2. | 1. |
| 300. | * | 2. | 2. | 2. | 1. | 1. | 3. | 3. | 3. | 2. | 2. | 1. | 1. | 3. | 2. | 2. | 1. | 2. | 1. |
| 305. | * | 2. | 2. | 2. | 1. | 1. | 3. | 3. | 3. | 2. | 2. | 1. | 1. | 2. | 2. | 2. | 1. | 2. | 1. |
| 310. | * | 2. | 2. | 2. | 1. | 1. | 2. | 3. | 3. | 3. | 2. | 1. | 1. | 2. | 2. | 2. | 1. | 2. | 2. |
| 315. | * | 2. | 2. | 2. | 1. | 1. | 2. | 3. | 4. | 3. | 2. | 1. | 1. | 2. | 2. | 2. | 1. | 2. | 2. |
| 320. | * | 2. | 2. | 2. | 1. | 1. | 2. | 3. | 3. | 3. | 2. | 1. | 1. | 2. | 2. | 2. | 1. | 2. | 2. |
| 325. | * | 2. | 2. | 2. | 1. | 1. | 2. | 3. | 4. | 3. | 3. | 1. | 1. | 2. | 2. | 2. | 1. | 2. | 2. |
| 330. | * | 2. | 3. | 2. | 1. | 1. | 2. | 3. | 4. | 3. | 3. | 1. | 1. | 2. | 2. | 2. | 1. | 1. | 2. |
| 335. | * | 2. | 2. | 2. | 1. | 1. | 3. | 3. | 4. | 3. | 3. | 1. | 1. | 3. | 2. | 2. | 1. | 1. | 2. |
| 340. | * | 2. | 3. | 2. | 1. | 1. | 2. | 3. | 4. | 3. | 3. | 1. | 2. | 3. | 2. | 2. | 1. | 2. | 2. |
| 345. | * | 3. | 3. | 2. | 1. | 0. | 2. | 3. | 4. | 4. | 3. | 1. | 2. | 3. | 2. | 2. | 1. | 2. | 2. |
| 350. | * | 2. | 2. | 2. | 1. | 0. | 2. | 3. | 4. | 3. | 3. | 2. | 2. | 3. | 2. | 2. | 1. | 2. | 2. |
| 355. | * | 2. | 2. | 2. | 1. | 0. | 2. | 2. | 4. | 3. | 3. | 2. | 2. | 4. | 2. | 2. | 1. | 2. | 2. |
| 360. | 0. | 1. | 2. | 2. | 0. | 0. | 2. | 2. | 4. | 3. | 2. | 2. | 3. | 4. | 2. | 2. | 1. | 1. | 1. |

MAX 225 240

JOB: Ronkonkama RUN: BUI LD PAGE 8

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND * CONCENTRATION
 ANGLE * (DEGR) * (ug/m**3)
 REC41 REC42 REC43 REC44 REC45 REC46 REC47 REC48 REC49 REC50 REC51 REC52 REC53 REC54 REC55

| BD_PM10.out | | | | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 | * | 1 | 1 | 2 | 1 | 1 | 3 | 3 | 3 | 2 | 2 | 2 | 2 |
| 10 | * | 1 | 1 | 1 | 1 | 0 | 2 | 3 | 3 | 2 | 2 | 0 | 1 |
| 15 | * | 1 | 1 | 1 | 1 | 0 | 2 | 2 | 3 | 2 | 2 | 1 | 1 |
| 20 | * | 1 | 1 | 1 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 1 | 1 |
| 25 | * | 1 | 1 | 1 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 1 | 1 |
| 30 | * | 1 | 1 | 1 | 0 | 0 | 1 | 2 | 2 | 2 | 2 | 1 | 1 |
| 35 | * | 1 | 1 | 1 | 0 | 0 | 1 | 2 | 2 | 2 | 2 | 1 | 1 |
| 40 | * | 0 | 1 | 1 | 0 | 0 | 1 | 2 | 2 | 2 | 2 | 1 | 1 |
| 45 | * | 0 | 1 | 1 | 0 | 0 | 1 | 2 | 2 | 2 | 2 | 1 | 1 |
| 50 | * | 0 | 1 | 1 | 0 | 0 | 1 | 2 | 2 | 2 | 2 | 1 | 1 |
| 55 | * | 0 | 1 | 1 | 0 | 0 | 1 | 2 | 2 | 2 | 2 | 1 | 1 |
| 60 | * | 0 | 1 | 1 | 0 | 0 | 1 | 2 | 2 | 2 | 2 | 1 | 1 |
| 65 | * | 0 | 1 | 1 | 0 | 0 | 1 | 2 | 2 | 2 | 2 | 1 | 1 |
| 70 | * | 0 | 1 | 1 | 0 | 0 | 1 | 2 | 2 | 2 | 2 | 1 | 1 |
| 75 | * | 0 | 0 | 1 | 0 | 0 | 1 | 2 | 2 | 2 | 2 | 1 | 1 |
| 80 | * | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 2 | 2 | 1 | 1 |
| 85 | * | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 2 | 1 | 1 |
| 90 | * | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 2 | 1 | 1 |
| 95 | * | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 2 | 1 | 1 |
| 100 | * | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 2 | 1 | 1 |
| 105 | * | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 2 | 1 | 1 |
| 110 | * | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 2 | 1 | 1 |
| 115 | * | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 2 | 1 | 1 |
| 120 | * | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 2 | 1 | 1 |
| 125 | * | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 2 | 1 | 1 |
| 130 | * | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 2 | 1 | 1 |
| 135 | * | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 2 | 1 | 1 |
| 140 | * | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 2 | 1 | 1 |
| 145 | * | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 2 | 1 | 1 |
| 150 | * | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 2 | 1 | 1 |
| 155 | * | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 2 | 1 | 1 |
| 160 | * | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 2 | 1 | 1 |
| 165 | * | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 2 | 1 | 1 |
| 170 | * | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 2 | 1 | 1 |
| 175 | * | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 2 | 1 | 1 |
| 180 | * | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 2 | 3 | 2 |
| 185 | * | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 2 | 3 | 2 |
| 190 | * | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 2 | 3 | 2 |
| 195 | * | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 2 | 3 | 2 |
| 200 | * | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 2 | 3 | 2 |
| 205 | * | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 2 | 3 | 2 |

JOB: Ronkonkama

RUN: BUI LD

PAGE 9

WIND ANGLE RANGE: 0.-360.

| WIND ANGLE (DEGR) | CONCENTRATION (ug/m**3) | | | | | | | | | | | | | | | |
|-------------------|-------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----|
| | REC41 | REC42 | REC43 | REC44 | REC45 | REC46 | REC47 | REC48 | REC49 | REC50 | REC51 | REC52 | REC53 | REC54 | REC55 | |
| 210 | * | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 2 | 3 | 1 | 1 |
| 215 | * | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 2 | 3 | 1 | 1 |
| 220 | * | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 2 | 3 | 1 | 1 |
| 225 | * | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 2 | 3 | 1 | 0 |
| 230 | * | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 2 | 3 | 1 | 0 |
| 235 | * | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 2 | 3 | 1 | 0 |
| 240 | * | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 2 | 3 | 1 | 0 |
| 245 | * | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 2 | 3 | 1 | 0 |
| 250 | * | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 0 | 0 |
| 255 | * | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 |
| 260 | * | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| 265 | * | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 270 | * | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 275 | * | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 280 | * | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 285 | * | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 290 | * | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 295 | * | 1 | 2 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300 | * | 1 | 2 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 305 | * | 1 | 2 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 310 | * | 1 | 2 | 2 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 315 | * | 1 | 2 | 2 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 320 | * | 1 | 2 | 2 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 325 | * | 1 | 2 | 2 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 330 | * | 1 | 1 | 2 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 335 | * | 1 | 1 | 2 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 340 | * | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 |
| 345 | * | 1 | 2 | 3 | 2 | 2 | 2 | 2 | 2 | 1 | 0 | 0 | 1 | 1 | 1 | 1 |
| 350 | * | 1 | 2 | 3 | 2 | 2 | 2 | 2 | 2 | 1 | 0 | 0 | 1 | 1 | 1 | 1 |
| 355 | * | 1 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 2 | 1 | 0 | 0 | 1 | 1 | 1 |
| 360 | * | 1 | 1 | 2 | 2 | 2 | 3 | 3 | 3 | 2 | 2 | 0 | 0 | 2 | 2 | 2 |
| MAX | * | 1 | 2 | 3 | 2 | 2 | 3 | 3 | 3 | 2 | 3 | 4 | 4 | 3 | 3 | 3 |
| DEGR. | * | 345 | 350 | 350 | 355 | 355 | 0 | 5 | 5 | 10 | 145 | 95 | 90 | 165 | 145 | 170 |

THE HIGHEST CONCENTRATION OF 4. ug/m**3 OCCURRED AT RECEPTOR REC33.

3.c CAL3QHC Output Files Particulate Matter 2.5 (PM_{2.5})

JOB: Ronkonkama RUN: EXISTING
 DATE : 6/ 5/13
 TIME : 9:17:37

The MODE flag has been set to P for calculating PM averages.

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S ZO = 175. CM
 U = 1.0 M/S CLAS = 4 (D) ATIM = 60. MINUTES MIXH = 1000. M AMB = 0.0 ug/m**3

LINK VARIABLES

| V/C QUEUE (VEH) | LINK DESCRIPTION | X1 | Y1 | X2 | Y2 | LENGTH (FT) | BRG (DEG) | BRG TYPE | VPH | EF (G/MI) | H (FT) | W (FT) |
|-----------------|------------------|----|----|----|----|-------------|-----------|----------|-----|-----------|--------|--------|
|-----------------|------------------|----|----|----|----|-------------|-----------|----------|-----|-----------|--------|--------|

| | | | | | | | | | | | | | |
|------|------|------------------------|--------|--------|--------|--------|-------|------|----|---------|-----|------|------|
| 0.54 | 1. | LI E N/Hawk ns SB TTR* | 3375.1 | 5903.8 | 3376.4 | 6000.5 | 97. | 1. | AG | 0.100.0 | 1.0 | 20.0 | |
| 4.9 | 2. | LI E N/Hawk WB LTTR * | 3446.1 | 5872.5 | 3506.9 | 5883.0 | 62. | 80. | AG | 0.100.0 | 1.0 | 30.0 | |
| 0.31 | 3.1 | LI E N/Hawk ns NB L * | 3393.3 | 5814.6 | 3374.7 | 4867.9 | 947. | 181. | AG | 0.100.0 | 1.0 | 10.0 | |
| 1.70 | 48.1 | LI E N/Hawk ns NB TT * | 3416.2 | 5814.3 | 3415.9 | 5708.2 | 106. | 180. | AG | 0.100.0 | 1.0 | 20.0 | |
| 0.59 | 4. | LI E S/Hawk ns SB L * | 3391.1 | 5495.9 | 3403.3 | 6357.9 | 862. | 1. | AG | 0.100.0 | 1.0 | 10.0 | |
| 1.23 | 43.8 | LI E S/Hawk ns SB TT * | 3370.8 | 5481.6 | 3371.9 | 5544.8 | 63. | 1. | AG | 0.100.0 | 1.0 | 20.0 | |
| 0.48 | 3.2 | LI E S/Hawk ns NB TTR* | 3405.1 | 5396.8 | 3397.6 | 5062.7 | 334. | 181. | AG | 0.100.0 | 1.0 | 20.0 | |
| 1.03 | 17.0 | LI E S/Hawk EB LTTR * | 3339.3 | 5401.9 | 2964.8 | 5262.1 | 400. | 250. | AG | 0.100.0 | 1.0 | 30.0 | |
| 1.01 | 20.3 | LI E S/Hawk on SB L * | 3390.6 | 4708.0 | 3306.4 | 5790.8 | 1086. | 356. | AG | 0.100.0 | 1.0 | 10.0 | |
| 1.32 | 55.2 | Hawk/Uni on SB T * | 3377.8 | 4706.1 | 3376.0 | 4723.8 | 18. | 354. | AG | 0.100.0 | 1.0 | 10.0 | |
| 0.14 | 0.9 | Hawk/Uni on WB L * | 3438.0 | 4679.8 | 3461.8 | 4682.2 | 24. | 84. | AG | 0.100.0 | 1.0 | 10.0 | |
| 0.22 | 1.2 | Hawk/Uni on WB R * | 3437.3 | 4691.3 | 3527.6 | 4704.1 | 91. | 82. | AG | 0.100.0 | 1.0 | 10.0 | |
| 0.59 | 4.6 | Hawk/Uni on NB TR * | 3412.5 | 4623.3 | 3418.2 | 4573.4 | 50. | 173. | AG | 0.100.0 | 1.0 | 10.0 | |
| 0.32 | 2.6 | LI E N/Hawk ns N * | 3393.0 | 5863.0 | 3401.9 | 6218.8 | 356. | 1. | AG | 1450.0 | 0.0 | 1.0 | 72.0 |
| | | LI E N/Hawk ns E * | 3393.0 | 5863.0 | 3735.4 | 5914.4 | 346. | 81. | AG | 931.0 | 0.0 | 1.0 | 54.0 |
| | | LI E N/Hawk ns S * | 3393.0 | 5863.0 | 3393.0 | 5611.5 | 252. | 180. | AG | 1459.0 | 0.0 | 1.0 | 78.0 |
| | | LI E N/Hawk ns W * | 3393.0 | 5863.0 | 3036.7 | 5815.2 | 359. | 262. | AG | 796.0 | 0.0 | 1.0 | 54.0 |
| | | LI E S/Hawk ns N * | 3387.1 | 5425.3 | 3394.1 | 5670.0 | 245. | 2. | AG | 1458.0 | 0.0 | 1.0 | 78.0 |
| | | LI E S/Hawk ns E * | 3387.1 | 5425.3 | 3651.9 | 5538.9 | 288. | 67. | AG | 2191.0 | 0.0 | 1.0 | 54.0 |
| | | LI E S/Hawk ns S * | 3387.1 | 5425.3 | 3381.2 | 5147.1 | 278. | 181. | AG | 1146.0 | 0.0 | 1.0 | 66.0 |
| | | LI E S/Hawk ns W * | 3387.1 | 5425.3 | 3108.2 | 5320.4 | 298. | 249. | AG | 2183.0 | 0.0 | 1.0 | 54.0 |
| | | Uni on/Hawk ns N * | 3401.1 | 4668.8 | 3378.9 | 4869.0 | 201. | 354. | AG | 641.0 | 0.0 | 1.0 | 54.0 |
| | | Uni on/Hawk ns E * | 3401.1 | 4668.8 | 3620.2 | 4699.3 | 221. | 82. | AG | 941.0 | 0.0 | 1.0 | 54.0 |
| | | Uni on/Hawk ns S * | 3401.1 | 4668.8 | 3421.1 | 4497.9 | 172. | 173. | AG | 533.0 | 0.0 | 1.0 | 42.0 |

JOB: Ronkonkama RUN: EXISTING
 DATE : 6/ 5/13
 TIME : 9:17:37

| 1. | LI E N/Hawk ns SB TTR* | 100 | 62 | 3.0 | 571 | 1600 | 0.03 | 1 | 3 | | | |
|-----|------------------------|-----|----|-----|------|------|------|---|---|--|--|--|
| 2. | LI E N/Hawk WB LTTR * | 100 | 50 | 3.0 | 678 | 1600 | 0.03 | 1 | 3 | | | |
| 3. | LI E N/Hawk ns NB L * | 100 | 88 | 3.0 | 190 | 1600 | 0.03 | 1 | 3 | | | |
| 4. | LI E N/Hawk ns NB TT * | 100 | 62 | 3.0 | 626 | 1600 | 0.03 | 1 | 3 | | | |
| 5. | LI E S/Hawk ns SB L * | 100 | 78 | 3.0 | 335 | 1600 | 0.03 | 1 | 3 | | | |
| 6. | LI E S/Hawk ns SB TT * | 100 | 75 | 3.0 | 308 | 1600 | 0.03 | 1 | 3 | | | |
| 7. | LI E S/Hawk ns NB TTR* | 100 | 75 | 3.0 | 663 | 1600 | 0.03 | 1 | 3 | | | |
| 8. | LI E S/Hawk EB LTTR * | 100 | 50 | 3.0 | 2183 | 1600 | 0.03 | 1 | 3 | | | |
| 9. | Hawk/Uni on SB L * | 81 | 62 | 3.0 | 363 | 1600 | 0.03 | 1 | 3 | | | |
| 10. | Hawk/Uni on SB T * | 81 | 22 | 3.0 | 148 | 1600 | 0.03 | 1 | 3 | | | |
| 11. | Hawk/Uni on WB L * | 81 | 59 | 3.0 | 74 | 1600 | 0.03 | 1 | 3 | | | |
| 12. | Hawk/Uni on WB R * | 81 | 40 | 3.0 | 417 | 1600 | 0.03 | 1 | 3 | | | |
| 13. | Hawk/Uni on NB TR * | 81 | 41 | 3.0 | 224 | 1600 | 0.03 | 1 | 3 | | | |

RECEPTOR LOCATIONS

| RECEPTOR | X | Y | Z | |
|----------|-----------------|--------|--------|-----|
| 1. | LI E N/Hawk NE1 | 3443.9 | 6057.5 | 6.0 |
| 2. | LI E N/Hawk NE2 | 3442.0 | 5982.5 | 6.0 |
| 3. | LI E N/Hawk NE3 | 3440.1 | 5907.5 | 6.0 |
| 4. | LI E N/Hawk NE4 | 3514.3 | 5918.6 | 6.0 |
| 5. | LI E N/Hawk NE5 | 3588.4 | 5929.8 | 6.0 |
| 6. | LI E N/Hawk SE1 | 3590.3 | 5855.2 | 6.0 |

EX_PM25.out

| | | | | |
|-----|-----------------|--------|--------|-----|
| 7. | LI E N/Hawk SE2 | 3516.2 | 5844.2 | 6.0 |
| 8. | LI E N/Hawk SE3 | 3442.0 | 5833.0 | 6.0 |
| 9. | LI E N/Hawk SE4 | 3442.0 | 5758.0 | 6.0 |
| 10. | LI E N/Hawk SE5 | 3442.0 | 5683.0 | 6.0 |
| 11. | LI E N/Hawk SW1 | 3344.0 | 5669.1 | 6.0 |
| 12. | LI E N/Hawk SW2 | 3344.0 | 5744.4 | 6.0 |
| 13. | LI E N/Hawk SW3 | 3344.0 | 5819.1 | 6.0 |
| 14. | LI E N/Hawk SW4 | 3269.6 | 5809.1 | 6.0 |
| 15. | LI E N/Hawk SW5 | 3195.3 | 5799.2 | 6.0 |
| 16. | LI E N/Hawk NW1 | 3199.1 | 5874.3 | 6.0 |
| 17. | LI E N/Hawk NW2 | 3273.4 | 5884.3 | 6.0 |
| 18. | LI E N/Hawk NW3 | 3347.8 | 5894.3 | 6.0 |
| 19. | LI E N/Hawk NW4 | 3349.6 | 5969.3 | 6.0 |
| 20. | LI E N/Hawk NW5 | 3351.5 | 6044.3 | 6.0 |
| 21. | LI E S/Hawk NE1 | 3442.2 | 5637.3 | 6.0 |
| 22. | LI E S/Hawk NE2 | 3440.0 | 5562.3 | 6.0 |
| 23. | LI E S/Hawk NE3 | 3437.9 | 5487.3 | 6.0 |
| 24. | LI E S/Hawk NE4 | 3506.8 | 5516.9 | 6.0 |
| 25. | LI E S/Hawk NE5 | 3575.7 | 5546.5 | 6.0 |
| 26. | LI E S/Hawk SE1 | 3567.5 | 5462.4 | 6.0 |
| 27. | LI E S/Hawk SE2 | 3498.5 | 5432.8 | 6.0 |
| 28. | LI E S/Hawk SE3 | 3429.6 | 5403.3 | 6.0 |
| 29. | LI E S/Hawk SE4 | 3428.0 | 5328.3 | 6.0 |
| 30. | LI E S/Hawk SE5 | 3426.4 | 5253.3 | 6.0 |
| 31. | LI E S/Hawk SW1 | 3339.7 | 5219.1 | 6.0 |
| 32. | LI E S/Hawk SW2 | 3341.3 | 5294.1 | 6.0 |
| 33. | LI E S/Hawk SW3 | 3342.9 | 5361.1 | 6.0 |
| 34. | LI E S/Hawk SW4 | 3272.7 | 5342.7 | 6.0 |
| 35. | LI E S/Hawk SW5 | 3202.5 | 5316.3 | 6.0 |
| 36. | Hawk/Uni on NE1 | 3417.1 | 4859.8 | 6.0 |
| 37. | Hawk/Uni on NE2 | 3425.4 | 4785.3 | 6.0 |
| 38. | Hawk/Uni on NE3 | 3433.7 | 4710.7 | 6.0 |

JOB: Ronkonkama RUN: EXISTING
 DATE : 6/ 5/13
 TIME : 9:17:37

RECEPTOR LOCATIONS

| RECEPTOR | X | Y | Z | |
|----------|-----------------|--------|--------|-----|
| 39. | Hawk/Uni on NE4 | 3509.1 | 4721.2 | 6.0 |
| 40. | Hawk/Uni on NE5 | 3582.3 | 4731.3 | 6.0 |
| 41. | Hawk/Uni on SE1 | 3584.7 | 4657.0 | 6.0 |
| 42. | Hawk/Uni on SE2 | 3510.4 | 4646.6 | 6.0 |
| 43. | Hawk/Uni on SE3 | 3436.1 | 4636.3 | 6.0 |
| 44. | Hawk/Uni on SE4 | 3444.8 | 4561.8 | 6.0 |
| 45. | Hawk/Uni on SE5 | 3453.0 | 4487.3 | 6.0 |
| 46. | Hawk/Uni on W1 | 3388.8 | 4506.5 | 6.0 |
| 47. | Hawk/Uni on W2 | 3380.2 | 4581.0 | 6.0 |
| 48. | Hawk/Uni on W3 | 3371.5 | 4655.5 | 6.0 |
| 49. | Hawk/Uni on W4 | 3357.2 | 4729.1 | 6.0 |
| 50. | Hawk/Uni on W5 | 3348.9 | 4803.7 | 6.0 |
| 51. | LI E S/Hawk NW1 | 3198.3 | 5393.8 | 6.0 |
| 52. | LI E S/Hawk NW2 | 3268.5 | 5420.2 | 6.0 |
| 53. | LI E S/Hawk NW3 | 3338.7 | 5446.6 | 6.0 |
| 54. | LI E S/Hawk NW4 | 3340.8 | 5521.6 | 6.0 |
| 55. | LI E S/Hawk NW5 | 3343.0 | 5596.5 | 6.0 |

JOB: Ronkonkama RUN: EXISTING

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0. -360.

WIND * CONCENTRATION

ANGLE * (deg) * REC1 REC2 REC3 REC4 REC5 REC6 REC7 REC8 REC9 REC10 REC11 REC12 REC13 REC14 REC15 REC16 REC17 REC18 REC19 REC20

| | | | | | | | | | | | | | | | | | | | | |
|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 1. | 1. | 1. | 1. | 1. | 1. | 0. | 0. | 0. | 0. | 0. |
| 5. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 1. | 1. | 1. | 1. | 1. | 1. | 0. | 0. | 0. | 0. | 1. |
| 10. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 1. | 0. | 0. | 1. | 1. | 1. | 0. | 0. | 0. | 0. | 1. |
| 15. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 1. | 0. | 0. | 1. | 1. | 1. | 0. | 0. | 0. | 0. | 1. |
| 20. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 1. | 0. | 0. | 1. | 1. | 1. | 0. | 0. | 0. | 0. | 1. |
| 1. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 1. | 0. | 0. | 1. | 1. | 1. | 0. | 0. | 0. | 0. | 1. |

| EX_PM25_out | | | | | | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 | * | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 |
| 10 | * | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 |
| 15 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 |
| 20 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 |
| 25 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 1 |
| 30 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 |
| 35 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 |
| 40 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 |
| 45 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 |
| 50 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 |
| 55 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 1 |
| 60 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 |
| 65 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 |
| 70 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 |
| 75 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 |
| 80 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 2 | 2 | 1 |
| 85 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 2 | 2 | 1 |
| 90 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 2 | 2 | 1 |
| 95 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 1 |
| 100 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 1 |
| 105 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 1 |
| 110 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 2 | 2 | 1 |
| 115 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 2 | 2 | 1 |
| 120 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 1 |
| 125 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 1 |
| 130 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 1 |
| 135 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 1 |
| 140 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 1 |
| 145 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 1 |
| 150 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 1 |
| 155 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 1 |
| 160 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 1 |
| 165 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 1 |
| 170 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 1 |
| 175 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 1 |
| 180 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 1 |
| 185 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 1 |
| 190 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 1 |
| 195 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 1 |
| 200 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 1 |
| 205 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 1 |

JOB: Ronkonkama

RUN: EXISTING

PAGE 9

WIND ANGLE RANGE: 0 - 360.

| WIND ANGLE (DEGR) | CONCENTRATION (ug/m**3) | | | | | | | | | | | | | | |
|-------------------|-------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | REC41 | REC42 | REC43 | REC44 | REC45 | REC46 | REC47 | REC48 | REC49 | REC50 | REC51 | REC52 | REC53 | REC54 | REC55 |
| 210 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 1 | 1 |
| 215 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 1 | 0 |
| 220 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 1 | 0 |
| 225 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 1 | 0 |
| 230 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 1 | 0 |
| 235 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 0 | 0 |
| 240 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 |
| 245 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 |
| 250 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| 255 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| 260 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| 265 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 270 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 275 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 280 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 285 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 290 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 295 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 305 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 310 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 315 | * | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 320 | * | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 325 | * | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 330 | * | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 335 | * | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 340 | * | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 345 | * | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| 350 | * | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| 355 | * | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 |
| 360 | * | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 |
| MAX | * | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 1 |
| DEGR | * | 0 | 345 | 350 | 355 | 345 | 5 | 0 | 5 | 5 | 85 | 95 | 165 | 160 | 15 |

THE HIGHEST CONCENTRATION OF 2. ug/m**3 OCCURRED AT RECEPTOR REC33.

JOB: Ronkonkama RUN: NOBUI LD

DATE : 6/ 5/13
 TIME : 9:17:47

The MODE flag has been set to P for calculating PM averages.

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S ZO = 175. CM
 U = 1.0 M/S CLAS = 4 (D) ATIM = 60. MINUTES MIXH = 1000. M AMB = 0.0 ug/m**3

LINK VARIABLES

| V/C QUEUE (VEH) | LINK DESCRIPTION | X1 | Y1 | X2 | Y2 | LENGTH (FT) | BRG (DEG) | BRG TYPE | VPH | EF (G/MI) | H (FT) | W (FT) |
|-----------------|------------------|----|----|----|----|-------------|-----------|----------|-----|-----------|--------|--------|
|-----------------|------------------|----|----|----|----|-------------|-----------|----------|-----|-----------|--------|--------|

| | | | | | | | | | | | | | | | |
|------|------|------------------------|------------------------|--------|--------|--------|--------|-------|-------|------|----|-------|-------|------|------|
| 0.57 | 1. | LI E N/Hawk ns SB TTR* | 3375.1 | 5903.8 | 3376.4 | 6005.2 | * | 101. | 1. | AG | 0. | 100.0 | 1.0 | 20.0 | |
| 5.1 | 2. | LI E N/Hawk WB LTTR * | 3446.1 | 5872.5 | 3509.6 | 5883.5 | * | 65. | 80. | AG | 0. | 100.0 | 1.0 | 30.0 | |
| 0.33 | 3. | LI E N/Hawk ns NB L * | 3393.3 | 5814.6 | 3372.8 | 4770.8 | * | 1044. | 181. | AG | 0. | 100.0 | 1.0 | 10.0 | |
| 1.78 | 53.0 | 4. | LI E N/Hawk ns NB TT * | 3416.2 | 5814.3 | 3415.9 | 5703.4 | * | 111. | 180. | AG | 0. | 100.0 | 1.0 | 20.0 |
| 0.62 | 4. | LI E S/Hawk ns SB L * | 3391.1 | 5495.9 | 3405.6 | 6526.9 | * | 1031. | 1. | AG | 0. | 100.0 | 1.0 | 10.0 | |
| 1.29 | 52.4 | 6. | LI E S/Hawk ns SB TT * | 3370.8 | 5481.6 | 3372.0 | 5547.6 | * | 66. | 1. | AG | 0. | 100.0 | 1.0 | 20.0 |
| 0.50 | 3.4 | 7. | LI E S/Hawk ns NB TTR* | 3405.1 | 5396.8 | 3393.8 | 4894.3 | * | 503. | 181. | AG | 0. | 100.0 | 1.0 | 20.0 |
| 1.08 | 25.5 | 8. | LI E S/Hawk EB LTTR * | 3339.3 | 5401.9 | 2636.8 | 5139.6 | * | 750. | 250. | AG | 0. | 100.0 | 1.0 | 30.0 |
| 1.06 | 38.1 | 9. | Hawk/Uni on SB L * | 3390.6 | 4708.0 | 3292.6 | 5968.4 | * | 1264. | 356. | AG | 0. | 100.0 | 1.0 | 10.0 |
| 1.38 | 64.2 | 10. | Hawk/Uni on SB T * | 3377.8 | 4706.1 | 3375.9 | 4724.6 | * | 19. | 354. | AG | 0. | 100.0 | 1.0 | 10.0 |
| 0.15 | 0.9 | 11. | Hawk/Uni on WB L * | 3438.0 | 4679.8 | 3463.1 | 4682.3 | * | 25. | 84. | AG | 0. | 100.0 | 1.0 | 10.0 |
| 0.23 | 1.3 | 12. | Hawk/Uni on WB R * | 3437.3 | 4691.3 | 3531.7 | 4704.7 | * | 95. | 82. | AG | 0. | 100.0 | 1.0 | 10.0 |
| 0.61 | 4.8 | 13. | Hawk/Uni on NB TR * | 3412.5 | 4623.3 | 3420.9 | 4550.7 | * | 73. | 173. | AG | 0. | 100.0 | 1.0 | 10.0 |
| 0.47 | 3.7 | 14. | LI E N/Hawk ns N * | 3393.0 | 5863.0 | 3401.9 | 6218.8 | * | 356. | 1. | AG | 1516. | 0.0 | 1.0 | 72.0 |
| | | 15. | LI E N/Hawk ns E * | 3393.0 | 5863.0 | 3735.4 | 5914.4 | * | 346. | 81. | AG | 975. | 0.0 | 1.0 | 54.0 |
| | | 16. | LI E N/Hawk ns S * | 3393.0 | 5863.0 | 3393.0 | 5611.5 | * | 252. | 180. | AG | 1527. | 0.0 | 1.0 | 78.0 |
| | | 17. | LI E N/Hawk ns W * | 3393.0 | 5863.0 | 3036.7 | 5815.2 | * | 359. | 262. | AG | 834. | 0.0 | 1.0 | 54.0 |
| | | 18. | LI E S/Hawk ns N * | 3387.1 | 5425.3 | 3394.1 | 5670.0 | * | 245. | 2. | AG | 1527. | 0.0 | 1.0 | 78.0 |
| | | 19. | LI E S/Hawk ns E * | 3387.1 | 5425.3 | 3651.9 | 5538.9 | * | 288. | 67. | AG | 2293. | 0.0 | 1.0 | 54.0 |
| | | 20. | LI E S/Hawk ns S * | 3387.1 | 5425.3 | 3381.2 | 5147.1 | * | 278. | 181. | AG | 1200. | 0.0 | 1.0 | 66.0 |
| | | 21. | LI E S/Hawk ns W * | 3387.1 | 5425.3 | 3108.2 | 5320.4 | * | 298. | 249. | AG | 2284. | 0.0 | 1.0 | 54.0 |
| | | 22. | Uni on/Hawk ns N * | 3401.1 | 4668.8 | 3378.9 | 4869.0 | * | 201. | 354. | AG | 1206. | 0.0 | 1.0 | 54.0 |
| | | 23. | Uni on/Hawk ns E * | 3401.1 | 4668.8 | 3620.2 | 4699.3 | * | 221. | 82. | AG | 985. | 0.0 | 1.0 | 54.0 |
| | | 24. | Uni on/Hawk ns S * | 3401.1 | 4668.8 | 3421.1 | 4497.9 | * | 172. | 173. | AG | 559. | 0.0 | 1.0 | 42.0 |

JOB: Ronkonkama RUN: NOBUI LD

DATE : 6/ 5/13
 TIME : 9:17:47

| | | | | | | | | | |
|-----|------------------------|-----|----|-----|------|------|------|---|---|
| 1. | LI E N/Hawk ns SB TTR* | 100 | 62 | 3.0 | 598 | 1600 | 0.03 | 1 | 3 |
| 2. | LI E N/Hawk WB LTTR * | 100 | 50 | 3.0 | 710 | 1600 | 0.03 | 1 | 3 |
| 3. | LI E N/Hawk ns NB L * | 100 | 88 | 3.0 | 199 | 1600 | 0.03 | 1 | 3 |
| 4. | LI E N/Hawk ns NB TT * | 100 | 62 | 3.0 | 655 | 1600 | 0.03 | 1 | 3 |
| 5. | LI E S/Hawk ns SB L * | 100 | 78 | 3.0 | 351 | 1600 | 0.03 | 1 | 3 |
| 6. | LI E S/Hawk ns SB TT * | 100 | 75 | 3.0 | 323 | 1600 | 0.03 | 1 | 3 |
| 7. | LI E S/Hawk ns NB TTR* | 100 | 75 | 3.0 | 694 | 1600 | 0.03 | 1 | 3 |
| 8. | LI E S/Hawk EB LTTR * | 100 | 50 | 3.0 | 2284 | 1600 | 0.03 | 1 | 3 |
| 9. | Hawk/Uni on SB L * | 81 | 62 | 3.0 | 380 | 1600 | 0.03 | 1 | 3 |
| 10. | Hawk/Uni on SB T * | 81 | 22 | 3.0 | 155 | 1600 | 0.03 | 1 | 3 |
| 11. | Hawk/Uni on WB R * | 81 | 59 | 3.0 | 78 | 1600 | 0.03 | 1 | 3 |
| 12. | Hawk/Uni on WB R * | 81 | 40 | 3.0 | 436 | 1600 | 0.03 | 1 | 3 |
| 13. | Hawk/Uni on NB TR * | 81 | 41 | 3.0 | 326 | 1600 | 0.03 | 1 | 3 |

RECEPTOR LOCATIONS

| RECEPTOR | X | Y | Z | |
|----------|-----------------|--------|--------|-----|
| 1. | LI E N/Hawk NE1 | 3443.9 | 6057.5 | 6.0 |
| 2. | LI E N/Hawk NE2 | 3442.0 | 5982.5 | 6.0 |
| 3. | LI E N/Hawk NE3 | 3440.1 | 5907.5 | 6.0 |
| 4. | LI E N/Hawk NE4 | 3514.3 | 5918.6 | 6.0 |
| 5. | LI E N/Hawk NE5 | 3588.4 | 5929.8 | 6.0 |
| 6. | LI E N/Hawk SE1 | 3590.3 | 5855.2 | 6.0 |

NB_PM25.out

| | | | | |
|-----|-----------------|--------|--------|-----|
| 7. | LI E N/Hawk SE2 | 3516.2 | 5844.2 | 6.0 |
| 8. | LI E N/Hawk SE3 | 3442.0 | 5833.0 | 6.0 |
| 9. | LI E N/Hawk SE4 | 3442.0 | 5758.0 | 6.0 |
| 10. | LI E N/Hawk SE5 | 3442.0 | 5683.0 | 6.0 |
| 11. | LI E N/Hawk SW1 | 3344.0 | 5669.1 | 6.0 |
| 12. | LI E N/Hawk SW2 | 3344.0 | 5744.4 | 6.0 |
| 13. | LI E N/Hawk SW3 | 3344.0 | 5819.1 | 6.0 |
| 14. | LI E N/Hawk SW4 | 3269.6 | 5809.1 | 6.0 |
| 15. | LI E N/Hawk SW5 | 3195.3 | 5799.2 | 6.0 |
| 16. | LI E N/Hawk NW1 | 3199.1 | 5874.3 | 6.0 |
| 17. | LI E N/Hawk NW2 | 3273.4 | 5884.3 | 6.0 |
| 18. | LI E N/Hawk NW3 | 3347.8 | 5894.3 | 6.0 |
| 19. | LI E N/Hawk NW4 | 3349.6 | 5969.3 | 6.0 |
| 20. | LI E N/Hawk NW5 | 3351.5 | 6044.3 | 6.0 |
| 21. | LI E S/Hawk NE1 | 3442.2 | 5637.3 | 6.0 |
| 22. | LI E S/Hawk NE2 | 3440.0 | 5562.3 | 6.0 |
| 23. | LI E S/Hawk NE3 | 3437.9 | 5487.3 | 6.0 |
| 24. | LI E S/Hawk NE4 | 3506.8 | 5516.9 | 6.0 |
| 25. | LI E S/Hawk NE5 | 3575.7 | 5546.5 | 6.0 |
| 26. | LI E S/Hawk SE1 | 3567.5 | 5462.4 | 6.0 |
| 27. | LI E S/Hawk SE2 | 3498.5 | 5432.8 | 6.0 |
| 28. | LI E S/Hawk SE3 | 3429.6 | 5403.3 | 6.0 |
| 29. | LI E S/Hawk SE4 | 3428.0 | 5328.3 | 6.0 |
| 30. | LI E S/Hawk SE5 | 3426.4 | 5253.3 | 6.0 |
| 31. | LI E S/Hawk SW1 | 3339.7 | 5219.1 | 6.0 |
| 32. | LI E S/Hawk SW2 | 3341.3 | 5294.1 | 6.0 |
| 33. | LI E S/Hawk SW3 | 3342.9 | 5364.1 | 6.0 |
| 34. | LI E S/Hawk SW4 | 3272.7 | 5342.7 | 6.0 |
| 35. | LI E S/Hawk SW5 | 3202.5 | 5316.3 | 6.0 |
| 36. | Hawk/Uni on NE1 | 3417.1 | 4859.8 | 6.0 |
| 37. | Hawk/Uni on NE2 | 3425.4 | 4785.3 | 6.0 |
| 38. | Hawk/Uni on NE3 | 3433.7 | 4710.7 | 6.0 |

JOB: Ronkonkama

RUN: NOBUI LD

DATE : 6/ 5/13
 TIME : 9:17:47

RECEPTOR LOCATIONS

| RECEPTOR | X | Y | Z | |
|----------|-----------------|--------|--------|-----|
| 39. | Hawk/Uni on NE4 | 3509.1 | 4721.2 | 6.0 |
| 40. | Hawk/Uni on NE5 | 3582.3 | 4731.3 | 6.0 |
| 41. | Hawk/Uni on SE1 | 3584.7 | 4657.0 | 6.0 |
| 42. | Hawk/Uni on SE2 | 3510.4 | 4646.6 | 6.0 |
| 43. | Hawk/Uni on SE3 | 3436.1 | 4636.3 | 6.0 |
| 44. | Hawk/Uni on SE4 | 3444.8 | 4561.8 | 6.0 |
| 45. | Hawk/Uni on SE5 | 3453.0 | 4487.3 | 6.0 |
| 46. | Hawk/Uni on W1 | 3388.8 | 4506.5 | 6.0 |
| 47. | Hawk/Uni on W2 | 3380.2 | 4581.0 | 6.0 |
| 48. | Hawk/Uni on W3 | 3371.5 | 4655.5 | 6.0 |
| 49. | Hawk/Uni on W4 | 3357.2 | 4729.1 | 6.0 |
| 50. | Hawk/Uni on W5 | 3348.9 | 4803.7 | 6.0 |
| 51. | LI E S/Hawk NW1 | 3198.3 | 5393.8 | 6.0 |
| 52. | LI E S/Hawk NW2 | 3268.5 | 5420.2 | 6.0 |
| 53. | LI E S/Hawk NW3 | 3338.7 | 5446.6 | 6.0 |
| 54. | LI E S/Hawk NW4 | 3340.8 | 5521.6 | 6.0 |
| 55. | LI E S/Hawk NW5 | 3343.0 | 5596.5 | 6.0 |

JOB: Ronkonkama

RUN: NOBUI LD

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0. -360.

WIND * CONCENTRATION

ANGLE * (ug/m**3)
 (DEGR) * REC1 REC2 REC3 REC4 REC5 REC6 REC7 REC8 REC9 REC10 REC11 REC12 REC13 REC14 REC15 REC16 REC17 REC18
 REC19 REC20

| | | | | | | | | | | | | | | | | | | | | |
|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 1. | 1. | 1. | 1. | 1. | 1. | 0. | 0. | 0. | 0. | 0. |
| 5. | * | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 1. | 1. | 0. | 1. | 1. | 1. | 0. | 0. | 0. | 0. | 1. |
| 10. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 1. | 0. | 0. | 1. | 1. | 1. | 0. | 0. | 0. | 0. | 1. |
| 15. | * | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 1. | 0. | 0. | 1. | 1. | 1. | 0. | 0. | 0. | 0. | 1. |
| 20. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 1. | 1. | 1. | 1. | 0. | 0. | 0. | 1. |
| 1. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 1. | 1. | 1. | 1. | 0. | 0. | 0. | 1. |

| NB_PM25.out | | | | | | | | | | | | | | | | | | |
|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 5.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 2.0 | 2.0 | 2.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 |
| 10.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 2.0 | 2.0 | 2.0 | 2.0 | 1.0 | 0.0 | 0.0 | 0.0 |
| 15.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 2.0 | 2.0 | 2.0 | 1.0 | 0.0 | 0.0 | 0.0 |
| 20.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 2.0 | 2.0 | 2.0 | 1.0 | 0.0 | 0.0 | 0.0 |
| 25.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 2.0 | 2.0 | 2.0 | 1.0 | 0.0 | 0.0 | 0.0 |
| 30.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 1.0 | 2.0 | 2.0 | 1.0 | 0.0 | 0.0 | 0.0 |
| 35.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 1.0 | 2.0 | 2.0 | 1.0 | 0.0 | 0.0 | 0.0 |
| 40.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 1.0 | 2.0 | 2.0 | 2.0 | 0.0 | 0.0 | 0.0 |
| 45.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 1.0 | 2.0 | 2.0 | 2.0 | 0.0 | 0.0 | 0.0 |
| 50.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 1.0 | 2.0 | 2.0 | 2.0 | 0.0 | 0.0 | 0.0 |
| 55.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 1.0 | 2.0 | 2.0 | 2.0 | 0.0 | 0.0 | 0.0 |
| 60.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 1.0 | 2.0 | 2.0 | 1.0 | 0.0 | 0.0 | 0.0 |
| 65.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 |
| 70.0 | 0.0 | 0.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 |
| 75.0 | 0.0 | 0.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 |
| 80.0 | 0.0 | 0.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85.0 | 0.0 | 0.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 90.0 | 0.0 | 0.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 95.0 | 0.0 | 0.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 100.0 | 0.0 | 0.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 105.0 | 0.0 | 0.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 110.0 | 0.0 | 0.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 115.0 | 0.0 | 0.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 120.0 | 0.0 | 0.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 125.0 | 0.0 | 0.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 130.0 | 0.0 | 0.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 135.0 | 0.0 | 0.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 140.0 | 0.0 | 0.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 145.0 | 0.0 | 0.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 150.0 | 0.0 | 0.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 155.0 | 0.0 | 0.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 160.0 | 0.0 | 0.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 165.0 | 0.0 | 0.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 170.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 175.0 | 1.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 180.0 | 1.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 185.0 | 1.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 190.0 | 1.0 | 1.0 | 2.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 |
| 195.0 | 1.0 | 1.0 | 2.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 |
| 200.0 | 2.0 | 1.0 | 2.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 0.0 | 1.0 |
| 205.0 | 2.0 | 1.0 | 2.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 0.0 | 1.0 |

JOB: Ronkonkama RUN: NOBUILD PAGE 7

WIND ANGLE RANGE: 0.-360.

WIND * CONCENTRATION
 ANGLE * (ug/m**3)
 (DEGR) * REC21 REC22 REC23 REC24 REC25 REC26 REC27 REC28 REC29 REC30 REC31 REC32 REC33 REC34 REC35 REC36 REC37 REC38
 REC39 REC40

| NB_PM25.out | | | | | | | | | | | | | | | | | | |
|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 210.0 | 1.0 | 1.0 | 2.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 0.0 | 0.0 |
| 215.0 | 1.0 | 1.0 | 2.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 0.0 | 0.0 |
| 220.0 | 1.0 | 1.0 | 2.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 0.0 | 1.0 |
| 225.0 | 1.0 | 1.0 | 2.0 | 2.0 | 1.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 0.0 | 1.0 |
| 230.0 | 1.0 | 1.0 | 2.0 | 2.0 | 1.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 0.0 | 1.0 |
| 235.0 | 1.0 | 1.0 | 2.0 | 2.0 | 1.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 0.0 | 0.0 |
| 240.0 | 1.0 | 1.0 | 2.0 | 2.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 0.0 | 0.0 |
| 245.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 0.0 | 0.0 |
| 250.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 0.0 | 0.0 |
| 255.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 2.0 | 2.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 0.0 | 0.0 |
| 260.0 | 1.0 | 1.0 | 1.0 | 1.0 | 0.0 | 1.0 | 2.0 | 2.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 0.0 | 0.0 |
| 265.0 | 1.0 | 1.0 | 1.0 | 1.0 | 0.0 | 1.0 | 2.0 | 2.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.0 | 1.0 | 0.0 |
| 270.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 2.0 | 2.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.0 | 1.0 | 0.0 |
| 275.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 2.0 | 2.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.0 | 1.0 | 0.0 |
| 280.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 1.0 | 2.0 | 2.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.0 | 1.0 | 0.0 |
| 285.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 1.0 | 2.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.0 | 1.0 | 0.0 |
| 290.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 1.0 | 2.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 0.0 |
| 295.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 0.0 |
| 300.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 1.0 | 2.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 0.0 |
| 305.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 1.0 | 2.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 0.0 |
| 310.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 0.0 |
| 315.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 0.0 |
| 320.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 1.0 | 2.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 0.0 |
| 325.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 1.0 | 2.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 0.0 |
| 330.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 1.0 | 2.0 | 2.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 0.0 |
| 335.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 1.0 | 2.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 0.0 |
| 340.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 1.0 | 2.0 | 2.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 0.0 |
| 345.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 1.0 | 2.0 | 2.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 0.0 |
| 350.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 1.0 | 2.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 0.0 |
| 355.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 1.0 | 2.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 0.0 |
| 360.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 1.0 | 2.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 0.0 |

MAX 2. 1. 2. 2. 1. 1. 2. 2. 2. 1. 2. 2. 2. 2. 2. 2. 1. 1. 1.
 DEGR 200 215 230 225 230 260 275 265 345 345 5 10 10 20 40 355 345 340
 220 230

JOB: Ronkonkama RUN: NOBUILD PAGE 8
 MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND * CONCENTRATION
 ANGLE * (ug/m**3)
 (DEGR) * REC41 REC42 REC43 REC44 REC45 REC46 REC47 REC48 REC49 REC50 REC51 REC52 REC53 REC54 REC55
 0. 0. 0. 1. 0. 0. 0. 1. 1. 1. 0. 0. 1. 1. 1. 1. 1. 1. 1.

| NB_PM25_out | | | | | | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 | * | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 |
| 10 | * | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 |
| 15 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 |
| 20 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| 25 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| 30 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 |
| 35 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 |
| 40 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 |
| 45 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 |
| 50 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 |
| 55 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 |
| 60 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 |
| 65 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 |
| 70 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 |
| 75 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 |
| 80 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 |
| 85 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 2 | 1 |
| 90 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 1 | 1 |
| 95 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 2 | 1 |
| 100 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 2 | 2 | 1 |
| 105 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 1 | 1 |
| 110 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 1 | 1 |
| 115 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 1 | 1 |
| 120 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 1 | 1 |
| 125 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 1 | 1 |
| 130 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| 135 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| 140 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 |
| 145 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 |
| 150 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 1 |
| 155 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 1 |
| 160 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 1 |
| 165 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 1 | 1 |
| 170 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 1 | 1 |
| 175 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 1 | 1 |
| 180 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 1 | 1 |
| 185 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 1 | 1 |
| 190 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 |
| 195 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 |
| 200 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 |
| 205 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 |

JOB: Ronkonkama

RUN: NOBUILD

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WIND ANGLE RANGE: 0 - 360.

| WIND ANGLE (DEGR) | CONCENTRATION (ug/m**3) | | | | | | | | | | | | | | | |
|-------------------|-------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----|
| | REC41 | REC42 | REC43 | REC44 | REC45 | REC46 | REC47 | REC48 | REC49 | REC50 | REC51 | REC52 | REC53 | REC54 | REC55 | |
| 210 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 1 | 0 | |
| 215 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 1 | 0 | |
| 220 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 1 | 0 | |
| 225 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 1 | 0 | |
| 230 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 1 | 0 | |
| 235 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | |
| 240 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | |
| 245 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | |
| 250 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | |
| 255 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | |
| 260 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 265 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 270 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 275 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 280 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 285 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 290 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 295 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 300 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 305 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 310 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 315 | * | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 320 | * | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 325 | * | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 330 | * | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 335 | * | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 340 | * | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 345 | * | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | |
| 350 | * | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | |
| 355 | * | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | |
| 360 | * | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | |
| MAX | * | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 1 | |
| DEGR. | * | 280 | 335 | 345 | 345 | 345 | 5 | 5 | 5 | 10 | 5 | 100 | 100 | 165 | 165 | 170 |

THE HIGHEST CONCENTRATION OF 2. ug/m**3 OCCURRED AT RECEPTOR REC33.

JOB: Ronkonkama RUN: BUILD
DATE : 6/ 5/13
TIME : 9:18:10

The MODE flag has been set to P for calculating PM averages.

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S ZO = 175. CM
U = 1.0 M/S CLAS = 4 (D) ATIM = 60. MINUTES MIXH = 1000. M AMB = 0.0 ug/m**3

LINK VARIABLES

| V/C QUEUE (VEH) | LINK DESCRIPTION | X1 | Y1 | X2 | Y2 | LENGTH (FT) | BRG (DEG) | BRG TYPE | VPH | EF (G/MI) | H (FT) | W (FT) |
|-----------------|------------------|----|----|----|----|-------------|-----------|----------|-----|-----------|--------|--------|
|-----------------|------------------|----|----|----|----|-------------|-----------|----------|-----|-----------|--------|--------|

| | | | | | | | | | | | | | | | |
|------|-------|------------------------|------------------------|--------|--------|--------|--------|-------|-------|------|----|-------|-------|------|------|
| 0.64 | 1. | LI E N/Hawk ns SB TTR* | 3375.1 | 5903.8 | 3376.6 | 6018.4 | * | 115. | 1. | AG | 0. | 100.0 | 1.0 | 20.0 | |
| 5.8 | 2. | LI E N/Hawk WB LTTR * | 3446.1 | 5872.5 | 3544.1 | 5889.4 | * | 100. | 80. | AG | 0. | 100.0 | 1.0 | 30.0 | |
| 0.51 | 5.1 | LI E N/Hawk ns NB L * | 3393.3 | 5814.6 | 3346.6 | 3433.7 | * | 2381. | 181. | AG | 0. | 100.0 | 1.0 | 10.0 | |
| 2.88 | 121.0 | 4. | LI E N/Hawk ns NB TT * | 3416.2 | 5814.3 | 3415.8 | 5689.2 | * | 125. | 180. | AG | 0. | 100.0 | 1.0 | 20.0 |
| 0.70 | 4. | LI E S/Hawk ns SB L * | 3391.1 | 5495.9 | 3411.4 | 6938.9 | * | 1443. | 1. | AG | 0. | 100.0 | 1.0 | 10.0 | |
| 1.43 | 73.3 | 6. | LI E S/Hawk ns SB TT * | 3370.8 | 5481.6 | 3372.7 | 5586.0 | * | 104. | 1. | AG | 0. | 100.0 | 1.0 | 20.0 |
| 0.75 | 5.3 | 7. | LI E S/Hawk ns NB TTR* | 3405.1 | 5396.8 | 3359.1 | 3358.0 | * | 2039. | 181. | AG | 0. | 100.0 | 1.0 | 20.0 |
| 1.54 | 103.6 | 8. | LI E S/Hawk EB LTTR * | 3339.3 | 5401.9 | 2231.6 | 4988.3 | * | 1182. | 250. | AG | 0. | 100.0 | 1.0 | 30.0 |
| 1.12 | 60.1 | 9. | Hawk/Uni on SB L * | 3390.6 | 4708.0 | 3229.3 | 6783.0 | * | 2081. | 356. | AG | 0. | 100.0 | 1.0 | 10.0 |
| 1.66 | 105.7 | 10. | Hawk/Uni on SB T * | 3377.8 | 4706.1 | 3373.5 | 4748.0 | * | 42. | 354. | AG | 0. | 100.0 | 1.0 | 10.0 |
| 0.33 | 2.1 | 11. | Hawk/Uni on WB L * | 3438.0 | 4679.8 | 3463.1 | 4682.3 | * | 25. | 84. | AG | 0. | 100.0 | 1.0 | 10.0 |
| 0.23 | 1.3 | 12. | Hawk/Uni on WB R * | 3437.3 | 4691.3 | 3549.9 | 4707.3 | * | 114. | 82. | AG | 0. | 100.0 | 1.0 | 10.0 |
| 0.73 | 5.8 | 13. | Hawk/Uni on NB TR * | 3412.5 | 4623.3 | 3426.5 | 4501.5 | * | 123. | 173. | AG | 0. | 100.0 | 1.0 | 10.0 |
| 0.77 | 6.2 | 14. | LI E N/Hawk ns N * | 3393.0 | 5863.0 | 3401.9 | 6218.8 | * | 356. | 1. | AG | 1516. | 0.0 | 1.0 | 72.0 |
| | | 15. | LI E N/Hawk ns E * | 3393.0 | 5863.0 | 3735.4 | 5914.4 | * | 346. | 81. | AG | 975. | 0.0 | 1.0 | 54.0 |
| | | 16. | LI E N/Hawk ns S * | 3393.0 | 5863.0 | 3393.0 | 5611.5 | * | 252. | 180. | AG | 1527. | 0.0 | 1.0 | 78.0 |
| | | 17. | LI E N/Hawk ns W * | 3393.0 | 5863.0 | 3036.7 | 5815.2 | * | 359. | 262. | AG | 834. | 0.0 | 1.0 | 54.0 |
| | | 18. | LI E S/Hawk ns N * | 3387.1 | 5425.3 | 3394.1 | 5670.0 | * | 245. | 2. | AG | 1527. | 0.0 | 1.0 | 78.0 |
| | | 19. | LI E S/Hawk ns E * | 3387.1 | 5425.3 | 3651.9 | 5538.9 | * | 288. | 67. | AG | 2293. | 0.0 | 1.0 | 54.0 |
| | | 20. | LI E S/Hawk ns S * | 3387.1 | 5425.3 | 3381.2 | 5147.1 | * | 278. | 181. | AG | 1200. | 0.0 | 1.0 | 66.0 |
| | | 21. | LI E S/Hawk ns W * | 3387.1 | 5425.3 | 3108.2 | 5320.4 | * | 298. | 249. | AG | 2284. | 0.0 | 1.0 | 54.0 |
| | | 22. | Uni on/Hawk ns N * | 3401.1 | 4668.8 | 3378.9 | 4869.0 | * | 201. | 354. | AG | 1206. | 0.0 | 1.0 | 54.0 |
| | | 23. | Uni on/Hawk ns E * | 3401.1 | 4668.8 | 3620.2 | 4699.3 | * | 221. | 82. | AG | 985. | 0.0 | 1.0 | 54.0 |
| | | 24. | Uni on/Hawk ns S * | 3401.1 | 4668.8 | 3421.1 | 4497.9 | * | 172. | 173. | AG | 559. | 0.0 | 1.0 | 42.0 |

JOB: Ronkonkama RUN: BUILD
DATE : 6/ 5/13
TIME : 9:18:10

| | | | | | | | | | |
|-----|------------------------|-----|----|-----|------|------|------|---|---|
| 1. | LI E N/Hawk ns SB TTR* | 100 | 62 | 3.0 | 676 | 1600 | 0.03 | 1 | 3 |
| 2. | LI E N/Hawk WB LTTR * | 100 | 50 | 3.0 | 1092 | 1600 | 0.03 | 1 | 3 |
| 3. | LI E N/Hawk ns NB L * | 100 | 88 | 3.0 | 323 | 1600 | 0.03 | 1 | 3 |
| 4. | LI E N/Hawk ns NB TT * | 100 | 62 | 3.0 | 739 | 1600 | 0.03 | 1 | 3 |
| 5. | LI E S/Hawk ns SB L * | 100 | 78 | 3.0 | 390 | 1600 | 0.03 | 1 | 3 |
| 6. | LI E S/Hawk ns SB TT * | 100 | 75 | 3.0 | 479 | 1600 | 0.03 | 1 | 3 |
| 7. | LI E S/Hawk ns NB TTR* | 100 | 75 | 3.0 | 986 | 1600 | 0.03 | 1 | 3 |
| 8. | LI E S/Hawk EB LTTR * | 100 | 50 | 3.0 | 2411 | 1600 | 0.03 | 1 | 3 |
| 9. | Hawk/Uni on SB L * | 81 | 62 | 3.0 | 458 | 1600 | 0.03 | 1 | 3 |
| 10. | Hawk/Uni on SB T * | 81 | 22 | 3.0 | 350 | 1600 | 0.03 | 1 | 3 |
| 11. | Hawk/Uni on WB R * | 81 | 59 | 3.0 | 78 | 1600 | 0.03 | 1 | 3 |
| 12. | Hawk/Uni on WB R * | 81 | 40 | 3.0 | 520 | 1600 | 0.03 | 1 | 3 |
| 13. | Hawk/Uni on NB TR * | 81 | 41 | 3.0 | 534 | 1600 | 0.03 | 1 | 3 |

RECEPTOR LOCATIONS

| RECEPTOR | X | Y | Z | |
|----------|-----------------|--------|--------|-----|
| 1. | LI E N/Hawk NE1 | 3443.9 | 6057.5 | 6.0 |
| 2. | LI E N/Hawk NE2 | 3442.0 | 5982.5 | 6.0 |
| 3. | LI E N/Hawk NE3 | 3440.1 | 5907.5 | 6.0 |
| 4. | LI E N/Hawk NE4 | 3514.3 | 5918.6 | 6.0 |
| 5. | LI E N/Hawk NE5 | 3588.4 | 5929.8 | 6.0 |
| 6. | LI E N/Hawk SE1 | 3590.3 | 5855.2 | 6.0 |

| RECEPTOR | X | Y | Z | |
|----------|-----------------|--------|--------|-----|
| 7. | LI E N/Hawk SE2 | 3516.2 | 5844.2 | 6.0 |
| 8. | LI E N/Hawk SE3 | 3442.0 | 5833.0 | 6.0 |
| 9. | LI E N/Hawk SE4 | 3442.0 | 5758.0 | 6.0 |
| 10. | LI E N/Hawk SE5 | 3442.0 | 5683.0 | 6.0 |
| 11. | LI E N/Hawk SW1 | 3344.0 | 5669.1 | 6.0 |
| 12. | LI E N/Hawk SW2 | 3344.0 | 5744.4 | 6.0 |
| 13. | LI E N/Hawk SW3 | 3344.0 | 5819.1 | 6.0 |
| 14. | LI E N/Hawk SW4 | 3269.6 | 5809.1 | 6.0 |
| 15. | LI E N/Hawk SW5 | 3195.3 | 5799.2 | 6.0 |
| 16. | LI E N/Hawk NW1 | 3199.1 | 5874.3 | 6.0 |
| 17. | LI E N/Hawk NW2 | 3273.4 | 5884.3 | 6.0 |
| 18. | LI E N/Hawk NW3 | 3347.8 | 5894.3 | 6.0 |
| 19. | LI E N/Hawk NW4 | 3349.6 | 5969.3 | 6.0 |
| 20. | LI E N/Hawk NW5 | 3351.5 | 6044.3 | 6.0 |
| 21. | LI E S/Hawk NE1 | 3442.2 | 5637.3 | 6.0 |
| 22. | LI E S/Hawk NE2 | 3440.0 | 5562.3 | 6.0 |
| 23. | LI E S/Hawk NE3 | 3437.9 | 5487.3 | 6.0 |
| 24. | LI E S/Hawk NE4 | 3506.8 | 5516.9 | 6.0 |
| 25. | LI E S/Hawk NE5 | 3575.7 | 5546.5 | 6.0 |
| 26. | LI E S/Hawk SE1 | 3567.5 | 5462.4 | 6.0 |
| 27. | LI E S/Hawk SE2 | 3498.5 | 5432.8 | 6.0 |
| 28. | LI E S/Hawk SE3 | 3429.6 | 5403.3 | 6.0 |
| 29. | LI E S/Hawk SE4 | 3428.0 | 5328.3 | 6.0 |
| 30. | LI E S/Hawk SE5 | 3426.4 | 5253.3 | 6.0 |
| 31. | LI E S/Hawk SW1 | 3339.7 | 5219.1 | 6.0 |
| 32. | LI E S/Hawk SW2 | 3341.3 | 5294.1 | 6.0 |
| 33. | LI E S/Hawk SW3 | 3342.9 | 5361.1 | 6.0 |
| 34. | LI E S/Hawk SW4 | 3272.7 | 5342.7 | 6.0 |
| 35. | LI E S/Hawk SW5 | 3202.5 | 5316.3 | 6.0 |
| 36. | Hawk/Uni on NE1 | 3417.1 | 4859.8 | 6.0 |
| 37. | Hawk/Uni on NE2 | 3425.4 | 4785.3 | 6.0 |
| 38. | Hawk/Uni on NE3 | 3433.7 | 4710.7 | 6.0 |

JOB: Ronkonkama RUN: BUILD
DATE : 6/ 5/13
TIME : 9:18:10

RECEPTOR LOCATIONS

| RECEPTOR | X | Y | Z | |
|----------|-----------------|--------|--------|-----|
| 39. | Hawk/Uni on NE4 | 3509.1 | 4721.2 | 6.0 |
| 40. | Hawk/Uni on NE5 | 3582.3 | 4731.3 | 6.0 |
| 41. | Hawk/Uni on SE1 | 3584.7 | 4657.0 | 6.0 |
| 42. | Hawk/Uni on SE2 | 3510.4 | 4646.6 | 6.0 |
| 43. | Hawk/Uni on SE3 | 3436.1 | 4636.3 | 6.0 |
| 44. | Hawk/Uni on SE4 | 3444.8 | 4561.8 | 6.0 |
| 45. | Hawk/Uni on SE5 | 3453.0 | 4487.3 | 6.0 |
| 46. | Hawk/Uni on W1 | 3388.8 | 4506.5 | 6.0 |
| 47. | Hawk/Uni on W2 | 3380.2 | 4581.0 | 6.0 |
| 48. | Hawk/Uni on W3 | 3371.5 | 4655.5 | 6.0 |
| 49. | Hawk/Uni on W4 | 3357.2 | 4729.1 | 6.0 |
| 50. | Hawk/Uni on W5 | 3348.9 | 4803.7 | 6.0 |
| 51. | LI E S/Hawk NW1 | 3198.3 | 5393.8 | 6.0 |
| 52. | LI E S/Hawk NW2 | 3268.5 | 5420.2 | 6.0 |
| 53. | LI E S/Hawk NW3 | 3338.7 | 5446.6 | 6.0 |
| 54. | LI E S/Hawk NW4 | 3340.8 | 5521.6 | 6.0 |
| 55. | LI E S/Hawk NW5 | 3343.0 | 5596.5 | 6.0 |

JOB: Ronkonkama RUN: BUILD

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0 - 360.

WIND * CONCENTRATION

ANGLE * (DEGR) * REC1 REC2 REC3 REC4 REC5 REC6 REC7 REC8 REC9 REC10 REC11 REC12 REC13 REC14 REC15 REC16 REC17 REC18 REC19 REC20

| | | | | | | | | | | | | | | | | | | | | |
|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 5. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 10. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 15. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 20. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 1. | 1. | 1. | 1. | 1. | 1. | 1. | 1. | 1. | 1. | 1. | 1. | 1. | 1. | 1. | 1. | 1. | 1. | 1. | 1. | 1. |

| BD_PM25.out | | | | | | | | | | | | | | | | | |
|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 5.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 1.0 | 2.0 | 2.0 | 2.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 |
| 10.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 1.0 | 2.0 | 2.0 | 2.0 | 2.0 | 1.0 | 0.0 | 0.0 | 0.0 |
| 15.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 1.0 | 2.0 | 2.0 | 2.0 | 1.0 | 0.0 | 0.0 | 0.0 |
| 20.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 1.0 | 2.0 | 2.0 | 2.0 | 2.0 | 0.0 | 0.0 | 0.0 |
| 25.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 1.0 | 2.0 | 2.0 | 2.0 | 1.0 | 0.0 | 0.0 | 0.0 |
| 30.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 2.0 | 2.0 | 2.0 | 0.0 | 0.0 | 0.0 |
| 35.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 2.0 | 2.0 | 1.0 | 0.0 | 0.0 | 0.0 |
| 40.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 2.0 | 2.0 | 2.0 | 0.0 | 0.0 | 0.0 |
| 45.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 2.0 | 2.0 | 2.0 | 0.0 | 0.0 | 0.0 |
| 50.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 2.0 | 2.0 | 2.0 | 0.0 | 0.0 | 0.0 |
| 55.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 2.0 | 2.0 | 2.0 | 0.0 | 0.0 | 0.0 |
| 60.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 2.0 | 2.0 | 1.0 | 0.0 | 0.0 | 0.0 |
| 65.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 |
| 70.0 | 0.0 | 0.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 |
| 75.0 | 0.0 | 0.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 |
| 80.0 | 0.0 | 0.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85.0 | 0.0 | 0.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 |
| 90.0 | 0.0 | 0.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 95.0 | 0.0 | 0.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 100.0 | 0.0 | 0.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 105.0 | 0.0 | 0.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 110.0 | 0.0 | 0.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 115.0 | 0.0 | 0.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 120.0 | 0.0 | 0.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 125.0 | 0.0 | 0.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 130.0 | 0.0 | 0.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 135.0 | 0.0 | 0.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 140.0 | 0.0 | 0.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 145.0 | 0.0 | 0.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 150.0 | 0.0 | 0.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 155.0 | 0.0 | 0.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 160.0 | 0.0 | 0.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 165.0 | 0.0 | 0.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 170.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 |
| 175.0 | 1.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 1.0 | 0.0 |
| 180.0 | 1.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 |
| 185.0 | 1.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 |
| 190.0 | 1.0 | 1.0 | 2.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 |
| 195.0 | 1.0 | 1.0 | 2.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| 200.0 | 2.0 | 1.0 | 2.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| 205.0 | 2.0 | 1.0 | 2.0 | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 1.0 |

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WIND ANGLE RANGE: 0.-360.

WIND * CONCENTRATION
 ANGLE * (ug/m**3)
 (DEGR) * REC21 REC22 REC23 REC24 REC25 REC26 REC27 REC28 REC29 REC30 REC31 REC32 REC33 REC34 REC35 REC36 REC37 REC38
 REC39 REC40

| BD_PM25.out | | | | | | | | | | | | | | | | | |
|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 210.0 | 1.0 | 1.0 | 2.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 |
| 215.0 | 1.0 | 1.0 | 2.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 |
| 220.0 | 1.0 | 1.0 | 2.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 |
| 225.0 | 1.0 | 1.0 | 2.0 | 2.0 | 1.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 |
| 230.0 | 1.0 | 1.0 | 2.0 | 2.0 | 1.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 |
| 235.0 | 1.0 | 1.0 | 2.0 | 2.0 | 1.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 |
| 240.0 | 1.0 | 1.0 | 2.0 | 2.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 |
| 245.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 |
| 250.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 |
| 255.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 2.0 | 2.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 |
| 260.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 2.0 | 2.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 |
| 265.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 2.0 | 2.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.0 | 1.0 | 1.0 |
| 270.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 2.0 | 2.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.0 | 1.0 | 1.0 |
| 275.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 2.0 | 2.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.0 | 1.0 | 1.0 |
| 280.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 1.0 | 2.0 | 2.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.0 | 1.0 | 1.0 |
| 285.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 1.0 | 2.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.0 | 1.0 | 1.0 |
| 290.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 1.0 | 2.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 |
| 295.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 |
| 300.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 1.0 | 2.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 |
| 305.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 1.0 | 2.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 |
| 310.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 |
| 315.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 1.0 | 2.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 |
| 320.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 1.0 | 2.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 |
| 325.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 1.0 | 2.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 |
| 330.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 1.0 | 2.0 | 2.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 |
| 335.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 1.0 | 2.0 | 2.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 |
| 340.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 1.0 | 2.0 | 2.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 |
| 345.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 1.0 | 2.0 | 2.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 |
| 350.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 1.0 | 2.0 | 2.0 | 1.0 | 1.0 | 1.0 | 2.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| 355.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 1.0 | 2.0 | 1.0 | 2.0 | 1.0 | 1.0 | 2.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| 360.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 1.0 | 1.0 | 2.0 | 1.0 | 1.0 | 1.0 | 2.0 | 2.0 | 1.0 | 1.0 | 1.0 | 1.0 |

| | | | | | | | | | | | | | | | | | | |
|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| MAX | 2.0 | 1.0 | 2.0 | 2.0 | 1.0 | 1.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 1.0 | 1.0 | 1.0 |
| DEGR | 200 | 195 | 230 | 225 | 230 | 260 | 275 | 265 | 345 | 355 | 10 | 10 | 10 | 20 | 40 | 195 | 195 | 190 |

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MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

| WIND * CONCENTRATION | ANGLE * (ug/m**3) | REC41 | REC42 | REC43 | REC44 | REC45 | REC46 | REC47 | REC48 | REC49 | REC50 | REC51 | REC52 | REC53 | REC54 | REC55 |
|----------------------|-------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| (DEGR) * | | 0.0 | 0.0 | 1.0 | 0.0 | 1.0 | 2.0 | 2.0 | 2.0 | 1.0 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 | 1.0 |

| BD_PM25_out | | | | | | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 | * | 0 | 0 | 1 | 0 | 0 | 2 | 2 | 2 | 1 | 0 | 0 | 1 | 1 | 1 |
| 10 | * | 0 | 0 | 1 | 0 | 0 | 1 | 2 | 2 | 1 | 0 | 0 | 1 | 1 | 1 |
| 15 | * | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 1 | 0 | 0 | 1 | 1 | 1 |
| 20 | * | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 1 | 0 | 0 | 1 | 1 | 1 |
| 25 | * | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 |
| 30 | * | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 |
| 35 | * | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 |
| 40 | * | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 |
| 45 | * | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 |
| 50 | * | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 |
| 55 | * | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 |
| 60 | * | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 |
| 65 | * | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 |
| 70 | * | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 |
| 75 | * | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 |
| 80 | * | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 |
| 85 | * | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 2 | 1 |
| 90 | * | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 |
| 95 | * | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 2 | 1 |
| 100 | * | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 2 | 1 |
| 105 | * | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 |
| 110 | * | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 2 | 1 |
| 115 | * | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 |
| 120 | * | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 2 | 1 |
| 125 | * | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 |
| 130 | * | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 |
| 135 | * | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 |
| 140 | * | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 |
| 145 | * | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 |
| 150 | * | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 2 | 1 |
| 155 | * | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 |
| 160 | * | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 2 | 1 |
| 165 | * | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 |
| 170 | * | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 2 | 1 |
| 175 | * | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 |
| 180 | * | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 2 | 1 |
| 185 | * | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 2 | 1 |
| 190 | * | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 2 | 1 |
| 195 | * | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 |
| 200 | * | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 |
| 205 | * | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 |

JOB: Ronkonkama

RUN: BUI LD

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WIND ANGLE RANGE: 0 - 360.

| WIND ANGLE (DEGR) | CONCENTRATION (ug/m**3) | REC41 | REC42 | REC43 | REC44 | REC45 | REC46 | REC47 | REC48 | REC49 | REC50 | REC51 | REC52 | REC53 | REC54 | REC55 |
|-------------------|-------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 210 | * | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 1 | 0 |
| 215 | * | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 1 | 0 |
| 220 | * | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 1 | 0 |
| 225 | * | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 1 | 0 |
| 230 | * | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 1 | 0 |
| 235 | * | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 1 | 0 |
| 240 | * | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 |
| 245 | * | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 |
| 250 | * | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 |
| 255 | * | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| 260 | * | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| 265 | * | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 270 | * | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 275 | * | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 280 | * | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 285 | * | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 290 | * | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 295 | * | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300 | * | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 305 | * | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 310 | * | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 315 | * | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 320 | * | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 325 | * | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 330 | * | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 335 | * | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 340 | * | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 345 | * | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350 | * | 0 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 0 | 0 | 1 | 0 | 0 | 0 |
| 355 | * | 0 | 0 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 0 | 0 | 1 | 0 | 0 | 0 |
| 360 | * | 0 | 0 | 1 | 0 | 1 | 2 | 2 | 2 | 1 | 1 | 0 | 0 | 1 | 1 | 1 |
| MAX | * | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 1 | 2 | 2 |
| DEGR. | * | 280 | 320 | 335 | 340 | 345 | 5 | 5 | 5 | 10 | 155 | 100 | 100 | 165 | 165 | 170 |

THE HIGHEST CONCENTRATION OF 2. ug/m**3 OCCURRED AT RECEPTOR REC33.

4. Microscale Results Summary

28743.04 Ronkonkoma HUB GEIS

| | 1-Hour | Background Concentration | Persistence Factor |
|-------------------------------|---------|--------------------------|--------------------|
| Carbon Monoxide (CO) | 1-Hour | 3.4 | |
| | 8-Hour | 1.7 | 0.7 |
| Particulate Matter 10 (PM10) | 24-Hour | 45.3 | 0.4 |
| Particulate Matter 25 (PM2.5) | 24-Hour | 23.1 | 0.4 |
| | Annual | 8.5 | 0.08 |

| Intersection | Receptors | CO | | | | | | | | | | | | PM10 | | | | | | | | | | | | PM2.5 | | | | | | | | | | | | Annual Total | | |
|--|-----------|------------|----------|-------|------------|--------------|----------|-------|------------|--------------|----------|-------|------------|------------|----------|-------|------------|---------------|----------|-------|------------|------------|----------|-------|------------|---------------|----------|-------|------------|----------|----------|-------|------------|--|--|--|--|--------------|--|--|
| | | 1-Hour Row | | | | 1-Hour Total | | | | 8-Hour Total | | | | 1-Hour Row | | | | 24-Hour Total | | | | 1-Hour Row | | | | 24-Hour Total | | | | Existing | No Build | Build | Mitigation | | | | | | | |
| | | Existing | No Build | Build | Mitigation | Existing | No Build | Build | Mitigation | Existing | No Build | Build | Mitigation | Existing | No Build | Build | Mitigation | Existing | No Build | Build | Mitigation | Existing | No Build | Build | Mitigation | Existing | No Build | Build | Mitigation | | | | | | | | | | | |
| LIE North Service Road at Hawkins Avenue | NE 1 | 0.5 | 0.3 | 0.4 | 0.5 | 3.9 | 3.7 | 3.8 | 3.9 | 2.1 | 1.9 | 2.0 | 2.1 | 3 | 3 | 3 | 3 | 46.5 | 46.5 | 46.5 | 46.5 | 1 | 1 | 1 | 1 | 23.5 | 23.5 | 23.5 | 23.5 | 8.6 | 8.6 | 8.6 | 8.6 | | | | | | | |
| | NE 2 | 0.6 | 0.5 | 0.6 | 0.4 | 4 | 3.9 | 4 | 3.8 | 2.1 | 2.1 | 2.1 | 2.0 | 3 | 3 | 3 | 3 | 46.5 | 46.5 | 46.5 | 46.5 | 1 | 1 | 1 | 1 | 23.5 | 23.5 | 23.5 | 23.5 | 8.6 | 8.6 | 8.6 | 8.6 | | | | | | | |
| | NE 3 | 0.7 | 0.6 | 0.7 | 0.5 | 4.1 | 4 | 4.1 | 3.9 | 2.2 | 2.1 | 2.2 | 2.1 | 4 | 3 | 3 | 3 | 46.9 | 46.5 | 46.5 | 46.5 | 2 | 2 | 2 | 2 | 23.9 | 23.9 | 23.9 | 23.5 | 8.7 | 8.7 | 8.7 | 8.6 | | | | | | | |
| | NE 4 | 0.8 | 0.8 | 0.9 | 0.7 | 4.2 | 4.2 | 4.3 | 4.1 | 2.3 | 2.3 | 2.3 | 2.2 | 3 | 3 | 3 | 3 | 46.5 | 46.5 | 46.5 | 46.1 | 1 | 1 | 1 | 1 | 23.5 | 23.5 | 23.5 | 23.5 | 8.6 | 8.6 | 8.6 | 8.6 | | | | | | | |
| | NE 5 | 0.3 | 0.2 | 0.4 | 0.6 | 3.7 | 3.6 | 3.8 | 4 | 1.9 | 1.8 | 2.0 | 2.1 | 2 | 2 | 2 | 2 | 46.1 | 46.1 | 46.1 | 46.1 | 1 | 1 | 1 | 1 | 23.5 | 23.5 | 23.5 | 23.5 | 8.6 | 8.6 | 8.6 | 8.6 | | | | | | | |
| | SE 1 | 0.3 | 0.2 | 0.3 | 0.6 | 3.7 | 3.6 | 3.7 | 4 | 1.9 | 1.8 | 1.9 | 2.1 | 2 | 2 | 2 | 2 | 46.1 | 46.1 | 46.1 | 46.1 | 1 | 1 | 1 | 1 | 23.5 | 23.5 | 23.5 | 23.5 | 8.6 | 8.6 | 8.6 | 8.6 | | | | | | | |
| | SE 2 | 0.5 | 0.5 | 0.5 | 0.6 | 4.1 | 3.9 | 3.9 | 4 | 2.2 | 2.1 | 2.1 | 2.1 | 2 | 2 | 2 | 2 | 46.1 | 46.1 | 46.1 | 46.1 | 1 | 1 | 1 | 1 | 23.5 | 23.5 | 23.5 | 23.5 | 8.6 | 8.6 | 8.6 | 8.6 | | | | | | | |
| | SE 3 | 0.9 | 0.7 | 0.7 | 0.5 | 4.3 | 4.1 | 4.1 | 3.9 | 2.3 | 2.2 | 2.2 | 2.1 | 3 | 3 | 3 | 3 | 46.5 | 46.5 | 46.5 | 46.5 | 2 | 2 | 2 | 2 | 23.9 | 23.9 | 23.9 | 23.5 | 8.7 | 8.7 | 8.7 | 8.6 | | | | | | | |
| | SE 4 | 0.9 | 0.9 | 0.9 | 0.5 | 4.3 | 4.3 | 4.3 | 3.9 | 2.3 | 2.3 | 2.3 | 2.1 | 3 | 3 | 3 | 3 | 46.5 | 46.5 | 46.5 | 46.5 | 2 | 2 | 2 | 2 | 23.9 | 23.9 | 23.9 | 23.5 | 8.7 | 8.7 | 8.7 | 8.6 | | | | | | | |
| | SE 5 | 0.8 | 0.7 | 0.8 | 0.5 | 4.2 | 4.1 | 4.2 | 3.9 | 2.3 | 2.2 | 2.3 | 2.1 | 3 | 3 | 3 | 3 | 46.5 | 46.5 | 46.5 | 46.5 | 2 | 2 | 2 | 2 | 23.9 | 23.9 | 23.9 | 23.5 | 8.7 | 8.7 | 8.7 | 8.6 | | | | | | | |
| | SW 1 | 0.8 | 0.5 | 0.6 | 0.4 | 4.2 | 3.9 | 4 | 3.8 | 2.3 | 2.1 | 2.1 | 2.0 | 3 | 3 | 3 | 3 | 46.5 | 46.5 | 46.5 | 46.5 | 2 | 2 | 2 | 2 | 23.9 | 23.9 | 23.9 | 23.5 | 8.7 | 8.7 | 8.7 | 8.6 | | | | | | | |
| | SW 2 | 0.7 | 0.6 | 0.7 | 0.6 | 4.1 | 4 | 4.1 | 4 | 2.2 | 2.1 | 2.2 | 2.1 | 3 | 3 | 3 | 3 | 46.5 | 46.5 | 46.5 | 46.5 | 2 | 1 | 1 | 1 | 23.9 | 23.5 | 23.5 | 23.5 | 8.7 | 8.6 | 8.6 | 8.6 | | | | | | | |
| | SW 3 | 0.6 | 0.5 | 0.5 | 0.5 | 4 | 3.9 | 3.9 | 3.9 | 2.1 | 2.1 | 2.1 | 2.1 | 3 | 3 | 3 | 3 | 46.5 | 46.5 | 46.5 | 46.5 | 1 | 1 | 1 | 1 | 23.5 | 23.5 | 23.5 | 23.5 | 8.6 | 8.6 | 8.6 | 8.6 | | | | | | | |
| | SW 4 | 0.5 | 0.5 | 0.5 | 0.3 | 3.9 | 3.9 | 3.9 | 3.7 | 2.1 | 2.1 | 2.1 | 1.9 | 2 | 2 | 2 | 2 | 46.1 | 46.1 | 46.1 | 46.1 | 1 | 1 | 1 | 1 | 23.5 | 23.5 | 23.5 | 23.5 | 8.6 | 8.6 | 8.6 | 8.6 | | | | | | | |
| | SW 5 | 0.3 | 0.2 | 0.3 | 0.2 | 3.7 | 3.6 | 3.7 | 3.6 | 1.9 | 1.8 | 1.9 | 1.8 | 2 | 2 | 2 | 2 | 46.1 | 46.1 | 46.1 | 46.1 | 1 | 1 | 1 | 1 | 23.5 | 23.5 | 23.5 | 23.5 | 8.6 | 8.6 | 8.6 | 8.6 | | | | | | | |
| | NW 1 | 0.3 | 0.2 | 0.4 | 0.2 | 3.7 | 3.6 | 3.8 | 3.6 | 1.9 | 1.8 | 2.0 | 1.8 | 2 | 2 | 2 | 2 | 46.1 | 46.1 | 46.1 | 46.1 | 1 | 1 | 1 | 1 | 23.5 | 23.5 | 23.5 | 23.5 | 8.6 | 8.6 | 8.6 | 8.6 | | | | | | | |
| | NW 2 | 0.5 | 0.4 | 0.5 | 0.3 | 3.9 | 3.8 | 3.9 | 3.7 | 2.1 | 2.0 | 2.1 | 1.9 | 2 | 2 | 2 | 2 | 46.1 | 46.1 | 46.1 | 46.1 | 1 | 1 | 1 | 1 | 23.5 | 23.5 | 23.5 | 23.5 | 8.6 | 8.6 | 8.6 | 8.6 | | | | | | | |
| | NW 3 | 0.6 | 0.5 | 0.6 | 0.6 | 4 | 3.9 | 4 | 4 | 2.1 | 2.1 | 2.1 | 2.1 | 3 | 3 | 3 | 3 | 46.5 | 46.5 | 46.5 | 46.5 | 2 | 2 | 2 | 2 | 23.9 | 23.9 | 23.9 | 23.5 | 8.7 | 8.7 | 8.7 | 8.6 | | | | | | | |
| | NW 4 | 0.7 | 0.6 | 0.7 | 0.7 | 4.1 | 4 | 4.1 | 4.1 | 2.2 | 2.1 | 2.2 | 2.2 | 3 | 3 | 3 | 3 | 46.5 | 46.5 | 46.5 | 46.5 | 2 | 2 | 2 | 2 | 23.9 | 23.9 | 23.9 | 23.5 | 8.7 | 8.7 | 8.7 | 8.6 | | | | | | | |
| | NW 5 | 0.6 | 0.5 | 0.7 | 0.6 | 4 | 3.9 | 4.1 | 4 | 2.1 | 2.1 | 2.2 | 2.1 | 3 | 3 | 3 | 3 | 46.5 | 46.5 | 46.5 | 46.5 | 2 | 1 | 1 | 1 | 23.9 | 23.5 | 23.5 | 23.5 | 8.7 | 8.6 | 8.6 | 8.6 | | | | | | | |
| LIE South Service Road at Hawkins Avenue | NE 1 | 0.7 | 0.7 | 0.7 | 0.4 | 4.1 | 4.1 | 4.1 | 3.8 | 2.2 | 2.2 | 2.2 | 2.0 | 3 | 3 | 3 | 3 | 46.5 | 46.5 | 46.5 | 46.5 | 2 | 2 | 2 | 2 | 23.9 | 23.9 | 23.9 | 23.5 | 8.7 | 8.7 | 8.7 | 8.6 | | | | | | | |
| | NE 2 | 0.7 | 0.7 | 0.7 | 0.6 | 4.1 | 4.1 | 4.1 | 4 | 2.2 | 2.2 | 2.2 | 2.1 | 3 | 3 | 3 | 3 | 46.5 | 46.5 | 46.5 | 46.5 | 2 | 1 | 1 | 1 | 23.9 | 23.5 | 23.5 | 23.5 | 8.7 | 8.6 | 8.6 | 8.6 | | | | | | | |
| | NE 3 | 1 | 0.8 | 0.9 | 0.7 | 4.4 | 4.2 | 4.3 | 4.1 | 2.4 | 2.3 | 2.3 | 2.2 | 4 | 4 | 4 | 4 | 46.9 | 46.9 | 46.9 | 46.9 | 2 | 2 | 2 | 2 | 23.9 | 23.9 | 23.9 | 23.9 | 8.7 | 8.7 | 8.7 | 8.7 | | | | | | | |
| | NE 4 | 0.7 | 0.7 | 0.7 | 0.5 | 4.1 | 4.1 | 4.1 | 3.9 | 2.2 | 2.2 | 2.2 | 2.1 | 4 | 3 | 3 | 3 | 46.9 | 46.5 | 46.5 | 46.5 | 2 | 2 | 2 | 2 | 23.9 | 23.9 | 23.9 | 23.9 | 8.7 | 8.7 | 8.7 | 8.7 | | | | | | | |
| | NE 5 | 0.8 | 0.5 | 0.5 | 0.5 | 4.2 | 3.9 | 3.9 | 3.9 | 2.3 | 2.1 | 2.1 | 2.1 | 4 | 3 | 3 | 3 | 46.9 | 46.5 | 46.5 | 46.5 | 2 | 1 | 1 | 1 | 23.9 | 23.5 | 23.5 | 23.5 | 8.7 | 8.6 | 8.6 | 8.6 | | | | | | | |
| | SE 1 | 0.5 | 0.5 | 0.5 | 0.5 | 3.9 | 3.9 | 3.9 | 3.9 | 2.1 | 2.1 | 2.1 | 2.1 | 4 | 3 | 3 | 3 | 46.9 | 46.5 | 46.5 | 46.5 | 2 | 1 | 1 | 2 | 23.9 | 23.5 | 23.5 | 23.9 | 8.7 | 8.6 | 8.6 | 8.7 | | | | | | | |
| | SE 2 | 0.8 | 0.7 | 0.7 | 0.6 | 4.2 | 4.1 | 4.1 | 4 | 2.3 | 2.2 | 2.2 | 2.1 | 4 | 4 | 4 | 4 | 46.9 | 46.9 | 46.9 | 46.9 | 2 | 2 | 2 | 2 | 23.9 | 23.9 | 23.9 | 23.9 | 8.7 | 8.7 | 8.7 | 8.7 | | | | | | | |
| | SE 3 | 1.1 | 1 | 1.1 | 0.9 | 4.5 | 4.4 | 4.5 | 4.3 | 2.5 | 2.4 | 2.5 | 2.3 | 4 | 4 | 4 | 4 | 46.9 | 46.9 | 46.9 | 46.9 | 2 | 2 | 2 | 2 | 23.9 | 23.9 | 23.9 | 23.9 | 8.7 | 8.7 | 8.7 | 8.7 | | | | | | | |
| | SE 4 | 1 | 0.9 | 0.9 | 0.7 | 4.4 | 4.3 | 4.3 | 4.1 | 2.4 | 2.3 | 2.3 | 2.2 | 3 | 3 | 3 | 3 | 46.5 | 46.5 | 46.5 | 46.5 | 2 | 2 | 2 | 2 | 23.9 | 23.9 | 23.9 | 23.5 | 8.7 | 8.7 | 8.7 | 8.6 | | | | | | | |
| | SE 5 | 0.9 | 0.8 | 0.8 | 0.6 | 4.3 | 4.2 | 4.2 | 4 | 2.3 | 2.3 | 2.3 | 2.1 | 3 | 3 | 3 | 3 | 46.5 | 46.5 | 46.5 | 46.5 | 2 | 1 | 2 | 1 | 23.9 | 23.5 | 23.9 | 23.5 | 8.7 | 8.6 | 8.7 | 8.6 | | | | | | | |
| | SW 1 | 0.9 | 0.7 | 0.8 | 0.5 | 4.3 | 4.1 | 4.2 | 3.9 | 2.3 | 2.2 | 2.3 | 2.1 | 4 | 3 | 3 | 3 | 46.9 | 46.5 | 46.5 | 46.5 | 2 | 2 | 2 | 2 | 23.9 | 23.9 | 23.9 | 23.5 | 8.7 | 8.7 | 8.7 | 8.6 | | | | | | | |
| | SW 2 | 1.2 | 1 | 1.1 | 0.4 | 4.6 | 4.4 | 4.5 | 3.8 | 2.5 | 2.4 | 2.5 | 2.0 | 5 | 4 | 4 | 3 | 47.3 | 46.9 | 46.9 | 46.5 | 2 | 2 | 2 | 2 | 23.9 | 23.9 | 23.9 | 23.5 | 8.7 | 8.7 | 8.7 | 8.6 | | | | | | | |
| | SW 3 | 1.3 | 1.1 | 1.2 | 0.8 | 4.7 | 4.5 | 4.6 | 4.2 | 2.6 | 2.5 | 2.5 | 2.3 | 4 | 4 | 4 | 4 | 46.9 | 46.9 | 46.9 | 46.9 | 2 | 2 | 2 | 2 | 23.9 | 23.9 | 23.9 | 23.9 | 8.7 | 8.7 | 8.7 | 8.7 | | | | | | | |
| | SW 4 | 1.1 | 0.9 | 1 | 0.8 | 4.5 | 4.3 | 4.4 | 4.2 | 2.5 | 2.3 | 2.4 | 2.3 | 4 | 4 | 4 | 4 | 46.9 | 46.9 | 46.9 | 46.9 | 2 | 2 | 2 | 2 | 23.9 | 23.9 | 23.9 | 23.9 | 8.7 | 8.7 | 8.7 | 8.7 | | | | | | | |
| | SW 5 | 1.1 | 0.7 | 0.7 | 0.7 | 4.5 | 4.1 | 4.1 | 4.1 | 2.5 | 2.2 | 2.2 | 2.2 | 1 | 4 | 4 | 4 | 45.7 | 46.9 | 46.9 | 46.9 | 2 | 2 | 2 | 2 | 23.9 | 23.9 | 23.9 | 23.9 | 8.7 | 8.7 | 8.7 | 8.7 | | | | | | | |
| | NW 1 | 0.4 | 0.6 | 0.7 | 0.6 | 3.8 | 4 | 4.1 | 4 | 2.0 | 2.1 | 2.2 | 2.1 | 1 | 2 | 2 | 2 | 45.7 | 46.1 | 46.1 | 46.1 | 1 | 1 | 1 | 1 | 23.5 | 23.5 | 23.5 | 23.5 | 8.6 | 8.6 | 8.6 | 8.6 | | | | | | | |
| | NW 2 | 0.3 | 0.4 | 0.6 | 0.5 | 3.7 | 3.8 | 4 | 3.9 | 1.9 | 2.0 | 2.1 | 2.1 | 2 | 2 | 2 | 2 | 46.1 | 46.1 | 46.1 | 46.1 | 1 | 1 | 1 | 1 | 23.5 | 23.5 | 23.5 | 23.5 | 8.6 | 8.6 | 8.6 | 8.6 | | | | | | | |
| | NW 3 | 0.3 | 0.4 | 0.6 | 0.5 | 3.7 | 3.8 | 4 | 3.9 | 1.9 | 2.0 | 2.1 | 2.1 | 1 | 2 | 2 | 2 | 45.7 | 46.1 | 46.1 | 46.1 | 1 | 1 | 1 | 1 | 23.5 | 23.5 | 23.5 | 23.5 | 8.6 | 8.6 | 8.6 | 8.6 | | | | | | | |
| | NW 4 | 0.3 | 0.4 | 0.4 | 0.3 | 3.7 | 3.7 | 3.8 | 3.7 | 1.9 | 1.9 | 2.0 | 1.9 | 1 | 1 | 2 | 1 | 45.7 | 45.7 | 46.1 | 45.7 | 1 | 1 | 1 | 1 | 23.5 | 23.5 | 23.5 | 23.5 | 8.6 | 8.6 | 8.6 | 8.6 | | | | | | | |
| | NW 5 | 0.2 | 0.1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

*Proposed Ronkonkoma Hub
Transit-Oriented Development
(TOD)*

Ronkonkoma, Town of Brookhaven
Suffolk County, New York

Prepared for **Town of Brookhaven Town Board**
Farmingville, New York

Prepared by  *Engineering, Surveying and Landscape Architecture, P.C.*
Hauppauge, New York

November 2013

**DRAFT SUPPLEMENTAL GENERIC ENVIRONMENTAL IMPACT STATEMENT
TOWN BOARD OF THE TOWN OF BROOKHAVEN
PROPOSED RONKONKOMA HUB TRANSIT-ORIENTED DEVELOPMENT (TOD)
HAMLET OF RONKONKOMA, TOWN OF BROOKHAVEN, SUFFOLK COUNTY**

PROJECT LOCATION: 53.73± acres
Union Avenue and Union Street to the north; Village Plaza Drive to the east; County Road 29 (Ronkonkoma Avenue), Garrity Avenue and Hawkins Avenue to the west; and the railroad tracks of the Long Island Railroad to the south, in the hamlet of Ronkonkoma, Town of Brookhaven, Suffolk County

APPLICANT: Town Board of the Town of Brookhaven
One Independence Hill
Farmingville, New York 11738

Contact: Tullio Bertoli, AIA, AICP, LEED
Commissioner
Department of Planning, Environment and Land
Management
Town of Brookhaven

LEAD AGENCY: Town Board of the Town of Brookhaven
One Independence Hill
Farmingville, New York 11738

Contact: Tullio Bertoli, AIA, AICP, LEED
Commissioner
Department of Planning, Environment and Land
Management
Town of Brookhaven

PREPARER & CONTACT: This Draft Supplemental Generic Environmental Impact Statement was prepared by:

VHB Engineering, Surveying and Landscape Architecture, P.C.
2150 Joshua's Path, Suite 300
Hauppauge, New York 11788

Contact: Kim A. Gennaro, AICP
Associate
(631) 234-3444

DATE OF PREPARATION: November 2013

**AVAILABILITY OF
DOCUMENT:**

This document is a Draft Supplemental Generic Environmental Impact Statement (DSGEIS) prepared by the above-referenced applicant. Copies are available for public review at the Town of Brookhaven Town Hall, Office of the Town Clerk, One Independence Hill, Farmingville, New York 11738; as well as the Sachem Public Library located at 150 Holbrook Road, Holbrook, New York 11741 and the Connetquot Public Library located at 760 Ocean Avenue, Bohemia, New York 11716. A copy of the DSGEIS is also available for viewing on the official website of the Town of Brookhaven at www.brookhaven.org.

DATE OF ACCEPTANCE: November 12, 2013

**DEADLINE FOR
COMMENTS:** February 10, 2014

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1.0

Executive Summary

1.1 Introduction and Project History

This Executive Summary is designed solely to provide an overview of the proposed action, a brief summary of the potential adverse impacts identified and mitigation measures proposed as well as alternatives considered. Review of the Executive Summary is not a substitute for the full evaluation of the proposed action performed in Sections 2.0 through 8.0 of the DEIS.

This document is a Draft Supplemental Generic Environmental Impact Statement (DSGEIS) for the Ronkonkoma Hub Transit-Oriented Development (TOD) prepared in accordance with the State Environmental Quality Review Act (SEQRA) and its implementing regulations at 6 NYCRR Part 617 for the action contemplated herein, and is based upon the Positive Declaration that was adopted by the Town Board of the Town of Brookhaven (hereinafter "Town Board") on October 1, 2013. The proposed action consists of the following:

- Adoption of the Urban Renewal Plan
- Adoption of the Land Use and Implementation Plan
- Adoption of a TOD District
- Change of zone of parcels within the Ronkonkoma Hub area to the TOD District
- Approval of a Conceptual Master Plan ("Maximum Density Concept Plan")

The Ronkonkoma Hub area, which constitutes the subject property, consists of 53.73±-acres, generally bounded by Union Avenue and Union Street to the north; Village Plaza Drive to the east; County Road 29 (Ronkonkoma Avenue), Garrity Avenue and Hawkins Avenue to the west; and the railroad tracks of the Metropolitan Transit Authority (MTA) Long Island Railroad (LIRR) to the south, in the hamlet of Ronkonkoma, Town of Brookhaven, Suffolk County.

Commencing in 2007, the Town Board has been working with the community to revitalize the Ronkonkoma Hub area. Since that time, the Town of Brookhaven completed a two-phased planning study to revitalize the Ronkonkoma Hub area, known as the *Ronkonkoma Hub Planning Study*. The Town also prepared a draft *Ronkonkoma Hub Transit-Oriented Development Draft Land Use and Implementation Plan* and a Draft Generic Environmental Impact Statement (hereinafter the “2010 DGEIS”), which evaluated a theoretical maximum development scenario. Examination of the Theoretical Full Build Plan, as well as two alternatives, enabled the Town Board to conduct a comprehensive environmental review of the overall proposed action and take a “hard look” pursuant to SEQRA and its implementing regulations at 6 NYCRR Part 617.

The Town of Brookhaven Town Board, serving as lead agency, accepted the 2010 DGEIS on September 21, 2010, and a public hearing was held on October 19, 2010. The support for the redevelopment of the Ronkonkoma Hub area was evident from the aforesaid public hearing and the various community meetings. Subsequent to the public hearing on the 2010 DGEIS, the Town of Brookhaven, in an effort to ensure that the planning efforts would result in the actual redevelopment of the blighted Hub area, decided to seek private developer input. The Town issued a Request for Expressions of Interest (RFEI) and ultimately a Request for Qualifications (RFQ) for a Master Developer. Upon review of preliminary plans received as part of the RFEI and RFQ processes, the Town of Brookhaven prepared *The Ronkonkoma Hub Study Area Blight Study (Blight Study)*, which ultimately resulted in the preparation of an *Urban Renewal Plan* for the Ronkonkoma Hub area. The densities recommended in the *Urban Renewal Plan* are different than those originally evaluated in the 2010 DGEIS, as such an updated Environmental Assessment Form was prepared by the Town Board, and, as previously noted, a Positive Declaration indicating the need to prepare a supplemental draft environmental impact statement was adopted on October 1, 2013. Thus, to ensure complete and comprehensive environmental review in accordance with SEQRA and its implementing regulations at 6 NYCRR Part 617, the Town of Brookhaven is preparing this DSGEIS to identify and evaluate potential significant adverse environmental impacts that may differ from those evaluated in the 2010 DGEIS, in accordance with 6 NYCRR §617.9(a)(7) *Supplemental EISs*.

As the maximum potential development being considered for the Ronkonkoma Hub area, as defined in the *Urban Renewal Plan*, is greater than that evaluated in the 2010 DGEIS, this DSGEIS is being prepared to address potential changes in impacts that would result from the modified proposed action.

1.2 Description of the Proposed Action

Proposed Action and Planning Concept

As indicated above, in order to redevelop the Ronkonkoma Hub area in accordance with the concept set forth in the draft *Urban Renewal Plan* and the *Land Use and Implementation Plan*, and the mix and density of development proposed by the Master Developer, the following actions would be required:

- Adoption of the Urban Renewal Plan
- Adoption of the Land Use and Implementation Plan
- Adoption of a TOD District
- Change of zone of parcels within the Ronkonkoma Hub area to the TOD District
- Approval of a Conceptual Master Plan (“Maximum Density Concept Plan”)

Urban Renewal Plan

In September 2012, the Town of Brookhaven prepared *Blight Study* for the Ronkonkoma Hub. The *Blight Study* found sufficient evidence to determine the Ronkonkoma Hub area to be a substandard or insanitary in accordance with both Article 15 of the New York State General Municipal Law and Article XLI of Chapter 85 of the Town of Brookhaven Town Code. Based upon this, the Town authorized the preparation of an urban renewal plan. The intent of the *Urban Renewal Plan* is to address blighted conditions identified within the Project Area. It was prepared in order to facilitate the redevelopment of the Ronkonkoma Hub area featuring a mix of higher density residential development, commercial, hospitality, institutional, office, and retail uses, conference, entertainment and exhibition venues, and public designated outdoor spaces.

The *Urban Renewal Plan* makes several recommendations with regard to land uses, zoning and other land use controls, building conditions and public improvements, most notably:

- Redevelopment with several multi-family residential buildings, mixed-use buildings potentially containing office, residential and retail uses, mixed-use buildings potentially containing commercial, exhibition, hospitality, institutional, and residential uses, retail and office buildings, as well as special use/entertainment venues.
- Implementation of a TOD Zoning District in order facilitate the redevelopment.

- All structures to be acquired and demolished with the exception of the existing MTA parking garage and potentially the train station.
- Improvements and upgrades to infrastructure, including roads, sidewalks, curbs, public hardscape and landscape, gas lines, water mains, electric distribution, stormwater runoff collection systems, street and walkway lighting, public parking areas, and an sewage treatment plant (STP).

Based on the findings and recommendations of the *Urban Renewal Plan*, a Conceptual Land Use Plan was developed for the proposed redevelopment of the Ronkonkoma Hub area. In total, the Conceptual Land Use Plan provides the maximum permitted development densities for each of the anticipated use types: a maximum of 1,450 dwelling units, approximately 195,000 square feet of retail space, approximately 360,000 square feet of office/medical space, and approximately 60,000 square feet of flex space (for hospitality, conference, exhibition, and/or residential uses).

Land Use and Implementation Plan

The *Land Use and Implementation Plan* was prepared as a result of the extensive planning process undertaken by the Town of Brookhaven for the redevelopment and revitalization of the 53.73±-acre area situated around the Ronkonkoma train station. It provides an overview of the Ronkonkoma Hub area, the background and history of the Town's planning process, the proposed form-based code (FBC), and a redevelopment concept (Conceptual Land Use Plan) that illustrates the overall type and level of development that could take place with the application of the proposed FBC.

The *Land Use and Implementation Plan*, among other things, examines the proposed TOD District, discusses SEQRA compliance and the environmental and public review process, and discusses the implementation strategy for realizing the Town's vision for the redevelopment of the Ronkonkoma Hub area.

TOD District and Change of Zone

The TOD District has been designed as an FBC. It establishes objectives, policies, and standards to promote orderly development and redevelopment within the TOD District area for purposes of encouraging high-density mixed-use development, including housing, retail, entertainment, institutional and office uses. The overall intent of the TOD District is to encourage the efficient use of land, be a catalyst for revitalization, and foster a sense of place through development of a new transit-oriented, mixed use, pedestrian-friendly community.

Development within the Ronkonkoma Hub area would be governed by a "Regulating Plan." This plan designates the subdistricts that comprise the TOD District and the various roadways within and adjacent to the subdistrict. There are four subdistricts proposed, as follows:

- Neighborhood Subdistrict (A) -- The Neighborhood Subdistrict is a predominantly residential area with medium-to-high density building types. It allows for a limited amount of ground floor commercial use and live/work units. It provides a transition between single-family homes and more compact mixed-use areas.
- Downtown Living Subdistrict (B) -- The Downtown Living Subdistrict is predominantly a mixed-use residential area with medium-to-high density building types. It allows for up to 50 percent commercial use.
- Marketplace Subdistrict (C) -- The Marketplace Subdistrict allows for predominantly retail-focused mixed-use, maintaining a high level of flexibility to attract diverse local and national retailers.
- Main Street Subdistrict (D) -- The Main Street Subdistrict is intended as predominantly a pedestrian-oriented, mixed-use town center. Regional shopping, entertainment, and outdoor dining uses are encouraged.

Each of the subdistricts is further broken down by maximum height in stories and maximum height in feet, as depicted on the Regulating Plan. The Regulating Plan also provides additional development parameters (e.g., street types, principal and secondary frontages, and blocks). Together with the Regulating Plan, development would be subject to compliance with the standards and regulations of the TOD District for streets and roadways (including streetscape standards), outdoor space, signage, lighting and parking.

The TOD District, once adopted by the Town Board, is proposed to be applied to the 54 individual tax parcels located within the 53.73±-acre Ronkonkoma Hub area.

Maximum Density Concept Plan

A Conceptual Master Plan (“Maximum Density Concept Plan”) has been prepared to conform to the parameters of the Regulating Plan (described above). The Conceptual Master Plan presented herein is not a specific development proposal, as it is not feasible to define the specific development of the entire 53.73± acres of the Ronkonkoma Hub area. Development is expected to take place over several years, and the specific uses and level of development will be dictated by market demand. However, review of the Maximum Density Concept Plan, which examines maximum potential development proposed within the Ronkonkoma Hub area, enables the Town Board to take a “hard look” at the relevant environmental impacts through the performance of a comprehensive environmental review pursuant to SEQRA and its implementing regulations at 6 NYCRR Part 617.

The Maximum Density Concept Plan includes the following program: 1,450 residential units; 195,000 SF of retail; 360,000 SF of office/medical; and 60,000 SF of flex space (including hospitality, conference and exhibition space, and/or residential

units). Total parking provided is 3,638 parking spaces, not including those spaces within the existing parking garage (1,043) and existing parking lot (341).

The Maximum Density Concept Plan complies with the Regulating Plan (contained in the TOD District), which depicts the locations of the subdistricts set forth in the TOD District, and describes the character to be achieved within each of the subdistricts. The predominantly residential subdistricts are located within the northern and eastern extents of the Ronkonkoma Hub area, which relates to the existing surrounding residential development, while the predominantly retail subdistrict is situated at the western extent of the Ronkonkoma Hub area, along Hawkins and Railroad Avenues. The Regulating Plan also depicts mixed-use subdistricts (the Marketplace and the Main Street Subdistricts), that allow greater building heights, generally situated closer to the railroad tracks and around the train station. The Maximum Density Concept Plan conforms to the Regulating Plan in terms of distribution of uses, heights and density of development.

Purpose, Needs and Benefits

The purpose, needs and benefits of the proposed action have remained the same since the time of the 2010 DGEIS. Since the Town embarked on this planning initiative in 2007, the overall goal was, and remains, to revitalize the Ronkonkoma Hub area. The various actions that comprise the proposed action, which are contemplated herein, are consistent with the stated goals of the Ronkonkoma Hub Planning Study as they encourage the efficient use of land, provide for revitalization, and foster a sense of place through development of a new transit-oriented, mixed-use, self-sufficient community. The proposed action would also enhance the tax base through redevelopment of existing vacant/unoccupied parcels and new development by increasing the area's marketability. The TOD District aims to encourage uses that complement the surrounding existing uses as well as better utilize existing public transit infrastructure at the Ronkonkoma Station. The Maximum Density Concept Plan draws upon the conclusions of the *Urban Renewal Plan* as a basis for the design plan, conforms to the proposed TOD District, and achieves the overall goals for the Ronkonkoma Hub area that have been set forth by the Town.

Required Permits and Approvals

The following table identifies permits and approvals required for implementation of the proposed action. The approvals noted with an asterisk (*) in the table below would be required for actual development that would occur in accordance with the TOD District. These approvals are not needed for adoption of the *Urban Renewal Plan*, the *Land Use and Implementation Plan*, the TOD District or associated changes of zone of specific properties, which are all Town Board actions.

List of Required Permits/Approvals

| Agency | Type of Permit/Approval Required |
|---|---|
| Town Board | Adoption of <i>Urban Renewal Plan</i>
Adoption of <i>Land Use and Implementation Plan</i>
Adoption of New TOD Zoning District
Change of Zone in the Ronkonkoma Hub area to the New TOD Zoning District
Approval of a Conceptual Master Plan |
| Town Planning Board ^{*1} | Recommendation on <i>Urban Renewal Plan</i> , Site Plan and Potential Subdivision |
| Suffolk County Department of Health Services* | Water Connection and Sanitary Disposal |
| Local Agencies* | Town of Brookhaven Highway Department – Roadway Improvements |
| Building Department* | Building Permits |
| Suffolk County Executive and/or Legislature* | Establishment of Sewer District and Construction of STP
Agreement(s) to Accommodate Relocation of LIRR Parking |
| Suffolk County Department of Public Works* | Highway Work Permit |
| Suffolk County Planning Commission* | Referrals |
| NYS Department of Transportation (NYSDOT)* | Highway Work Permit |
| Metropolitan Transportation Authority (MTA)* | Approval for license and/or sale of property |



¹The site plan and potential subdivision approvals are required for actual development. The recommendation on the *Urban Renewal Plan* is required prior to formal action by the Town Board on the *Urban Renewal Plan*.

1.3 Potential Impacts

Soils and Topography

Redevelopment of properties within the Ronkonkoma Hub area would result in the disturbance of soils within the Ronkonkoma Hub area for foundation excavation, utility installation, grading, paving, and landscaping. The disturbance of soils for construction and regrading activities increases the potential for erosion and sedimentation.

Based on the soil characteristics and the planning and engineering limitations defined in the *Soil Survey*, it is not expected that development of properties in accordance with the Maximum Density Concept Plan would have significant adverse soil impacts. However, site-specific applications for redevelopment within the Ronkonkoma Hub area would be required to conduct on-site borings to determine specific soil conditions, and to ensure that appropriate measures are implemented to mitigate issues that may arise.

All development within the Ronkonkoma Hub area would be required to employ proper erosion and sedimentation controls in accordance with Chapter 86 of the Town Code. In addition, dust control measures would also be employed, as necessary, during dry or windy periods. With suitable and proper erosion and sedimentation controls, in accordance with Chapter 86 of the Town Code, it is not expected that site redevelopment would result in significant adverse impacts associated with ground disturbance, regrading and/or construction activities.

Since the topography is relatively flat, the topographic conditions would not be expected to limit the potential redevelopment, as proposed in the Maximum Density Concept Plan.

Based upon development in accordance with the Maximum Density Concept Plan, preliminary earthwork quantities have been prepared with respect to overall grading, installation of underground parking garages and installation of stormwater management structures. The preliminary earthwork calculations result in approximately 65,108 cubic yards of cut, although numerous factors (e.g., final building design, project phasing) could influence or mitigate the actual earthwork volumes. There would be sufficient opportunity during the design of the various phases of the project to refine grading plans so as to bring the earthwork more into balance as development proceeds. Therefore, the estimate of earthwork quantities provided as part of the preliminary engineering analysis and the number of associated truck trips should be considered as the "worst-case" scenario, with the expectation that final design would achieve a more balanced site. As such, no significant adverse impacts to topographic features would be expected.

Water Resources

Groundwater

In order to ensure the protection of groundwater, future site-specific development applications in accordance with the TOD District would be required to comply with the relevant recommendations of the "Wastewater Management Alternatives" and the "Highest Priority Areawide Alternatives" of the *208 Study*. In order to comply with these recommendations, all site-specific applications would be subject to compliance with the Town's stormwater ordinance (Chapter 86 of the Town Code). Stormwater would be contained and recharged on the site through the use of leaching pools, which are proper drainage methods. In addition, the development would be connected to a municipal STP, which would remove nitrogen before recharge to groundwater. Development within the Ronkonkoma Hub would be required to incorporate indigenous species, to the maximum extent practicable, to encourage a low-maintenance landscape. Also, water conservation methods would be used to the maximum extent practicable to decrease overall water usage. In implementing these measures, the proposed action would comply with the recommendations of the *208 Study* and would minimize impacts to groundwater resources to the maximum extent practicable.

Sanitary Density and Sewage Disposal

The Ronkonkoma Hub area is located in Suffolk County Department of Health Services (SCDHS)-designated Groundwater Management Zone I. In this zone, the maximum allowable sewage flow is 600 gallons per acre per day without formal sewage treatment with nitrogen removal. Sewage generated by the Theoretical Full Build Plan analyzed in the 2010 DGEIS (approximately 169,000 gallons per day [gpd]) was greater than the 32,328 gpd of allowable flow for this area and, therefore, formal sewage treatment including nitrogen removal was required. The Theoretical Full Build Plan included the construction of an STP with a capacity of 275,000 gpd, within the boundaries of the Ronkonkoma Hub area.

Since the 2010 DGEIS was accepted and the public hearing held, the development potential of the Ronkonkoma Hub area has changed. The projected sanitary flow for the development program depicted on the Maximum Density Concept Plan is 399,060 gpd. As this flow exceeds the allowable population density equivalent, connection to an STP is required.

Suffolk County is currently proposing to establish a sewer district and construct a STP on a 7.74-acre property, south of the LIRR tracks, opposite the southeastern portion of the Ronkonkoma Hub area. As part of the development of the new STP, the County is proposing to form a new sewer district, which would include the Ronkonkoma Hub area. The new treatment plant will be sized with an initial capacity of 500,000 gpd with the ability to expand to 750,000 gpd on the site. The treatment facility will feature sequence batch reactor (SBR) technology for nitrogen reduction. The capacity was established based upon the approximately 400,000 gpd

anticipated for future development within the Ronkonkoma Hub area, plus an additional 100,000 gpd for future connections in the Town of Islip, including, for example, potential future connections to MacArthur Airport. In addition, provisions for an additional 250,000 gpd (for a total capacity of 750,000 gpd) are being considered to accommodate potential future growth within the sewer district.

As future development within the Ronkonkoma Hub area would be connected to a new STP and effluent generated would meet parameters set forth in the STP's State Pollutant Discharge Elimination System (SPDES) permit, there would be no significant adverse impact to groundwater resources resulting from sewage disposal from the redevelopment of the Ronkonkoma Hub area.

Water Usage

Utilizing the SCDHS design sewage flow rates as the basis for estimating potable water requirements, the domestic water use for development in accordance with the Maximum Density Concept Plan would be approximately 400,000 gpd. With an additional 10 percent of water estimated for irrigation and domestic uses not entering the STP, the total projected potable water demand for development in accordance with the Maximum Density Concept Plan is approximately 440,000 gpd.

Consultations were undertaken with the SCWA, which indicated that "based on current conditions, SCWA can provide the volume of water required for domestic water service and fire protection." Furthermore, the SCWA indicated that the required distribution system "improvements can be installed under our standard SCWA contracts."

Based on the foregoing analyses, there would be sufficient water supply to serve the anticipated future development under the Maximum Density Concept Plan with respect to both domestic and fire protection needs. With respect to fire flow, in the event that the SCWA's system pressure is not adequate to serve the higher floors of the buildings, a booster pump system would be installed by the Master Developer.

Stormwater Runoff

Stormwater runoff generated within each of the individual private development blocks would be required to be collected and recharged on-site, in accordance with current Town site plan requirements and Chapter 86 of the Town Code. Therefore, the storm drainage addressed herein is limited to the runoff generated from and collected in the proposed public rights-of way.

In accordance with Town standards for subdivision roadway improvements, a leaching basin system is proposed for each of the individual tributary areas within the public rights-of-way. Each leaching basin system consists of a series of eight-foot-diameter precast concrete drywells, supplemented with precast concrete catch basins where necessary for efficient collection of surface runoff, and 12-inch reinforced concrete interconnecting pipe. Each individual system is designed to store the runoff from a five-inch rainfall.

As the stormwater systems would be designed to collect and recharge runoff in accordance with Town requirements, no significant adverse impact with respect to stormwater runoff is anticipated.

Surface Water, Wetlands and Floodplains

Since the Ronkonkoma Hub area does not contain surface waters or wetlands, and is not located within a flood zone, implementation of the proposed action would not impact same.

Ecology

Much of the existing vegetation on properties within the Ronkonkoma Hub area is comprised of non-native ornamental trees, shrubs and herbaceous plants populating the various lawn/landscaped areas associated with the developed portions of the site. The ecological communities that would be most affected (i.e., Mowed Lawn, Mowed Lawn with Trees and Flower Herb Garden) are all common in the general surrounding area of the site. Further, all three communities would continue to exist on properties within the Ronkonkoma Hub area following redevelopment in accordance with the Maximum Density Concept Plan, as these communities are associated with developed properties.

Development in accordance with the Maximum Density Concept Plan would likely result in the clearing of virtually all of the Successional Southern Hardwoods and the Successional Shrubland located on Parcel A of the Ronkonkoma Hub area.

Both communities exist as a result of past clearing or other anthropogenic disturbance, and support a variety of invasive/non-native vegetation. As a result, the overall ecological value of these communities, both the overall flora of the site and as native wildlife habitat, has been degraded. As such, no significant adverse impacts are anticipated.

A small area of Pitch Pine-Oak Forest located on the eastern portion of the Ronkonkoma Hub area would also be cleared upon implementation of the Maximum Density Concept Plan. However, various invasive/non-native species are prevalent in the perimeter areas of this community. Accordingly, this does not represent a large, undisturbed block of interior woodland habitat. Further, this community is relatively common in the area to the south and southwest of the site.

Based upon the foregoing, the proposed action would not result in significant adverse impacts to local or regional vegetation.

Due to the developed nature of the Ronkonkoma Hub area and general surrounding area, the wildlife species observed or expected on the site are those that are well-adapted to developed and/or disturbed habitats and human presence. Thus, following construction, it is anticipated that suitable habitat would remain for individuals of most displaced wildlife species. It is further anticipated that individuals of most or all of these species would return to the Ronkonkoma Hub area post-development.

Based on the foregoing, development within the Ronkonkoma Hub area in accordance with the Maximum Density Concept Plan would not result in significant adverse impacts to the density and diversity of local or regional wildlife populations. Moreover, no significant adverse impacts to rare species or habitats are anticipated.

Land Use and Zoning

In order to redevelop the Ronkonkoma Hub area in accordance with the vision set forth in the previous studies conducted for this area, including the *Ronkonkoma Hub Planning Study* and the *Blight Study*, as well as the draft *Urban Renewal Plan* and the mix and density of development proposed by the Master Developer, the following actions are required: adoption of the *Urban Renewal Plan*, adoption of the *Land Use and Implementation Plan*, adoption of a TOD District, rezoning of the parcels within the Ronkonkoma Hub area into the TOD District and approval of the Maximum Density Concept Plan.

In 2007, the Town of Brookhaven embarked upon a two-phased planning study, known as the Ronkonkoma Hub Transit-Oriented Planning Study (hereinafter the "Ronkonkoma Hub Planning Study"), aimed at revitalizing a multi-block area around the Ronkonkoma Hub. The goal of the Ronkonkoma Hub Planning Study was to develop a vision that would include compact, mixed-use redevelopment of underutilized land that supports and expands on the high ridership and recent improvements made to the Ronkonkoma train station. The desired outcome of the Ronkonkoma Hub Planning Study was a long-term development strategy that would establish clear and predictable guidance for the revitalization of the blighted, vacant and/or underutilized parcels.

In September 2012, the Town of Brookhaven prepared *The Ronkonkoma Hub Study Area Blight Study* (hereinafter the "*Blight Study*") for the Ronkonkoma Hub (see Appendix B).² The *Blight Study* found sufficient evidence to determine the Ronkonkoma Hub area to be a substandard or insanitary in accordance with both

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²The *Blight Study* is incorporated as Attachment A of the *Urban Renewal Plan*.

Article 15 of the New York State General Municipal Law and Article XLI of Chapter 85 of the Town of Brookhaven Town Code. Substandard and insanitary conditions observed within the Ronkonkoma Hub area included: vacant and partially-vacant properties (representing 6.5 percent of Study Area) and vacant and partially-vacant buildings (representing 5.5 percent of gross floor area of Study Area), significant underutilization of development potential (the 232,978± square feet of development in the Study Area represents less than 39± percent of the total development potential permitted by zoning), deteriorated buildings, inadequate curb and sidewalk areas, lack of appropriate drainage and sewerage infrastructure, incompatible land uses, and an overall unattractive visual environment.

Subsequently, the Town Board, after review of the aforesaid *Blight Study*, by Town Board Resolution 2012-804, dated September 20, 2012, designated the Ronkonkoma Hub area as appropriate for urban renewal pursuant to Article 15 of the New York State General Municipal Law, and authorized the preparation of an urban renewal plan.

The draft *Urban Renewal Plan* has been developed as a method to revitalize the Ronkonkoma Hub area with higher density residential development, commercial, hospitality, institutional, office, and retail uses, conference, entertainment and exhibition venues, and –public designated outdoor spaces to complement and benefit from the presence of the Ronkonkoma LIRR Station and its associated commuter passenger volumes. The draft *Urban Renewal Plan* also proposes an upgrade of public facilities and infrastructure, including roads, sidewalks, curbs, public hardscape and landscape, and various utility infrastructure (e.g., natural gas lines, water mains, and electric distribution), stormwater runoff collection systems, street and walkway lighting, and parking areas. The draft *Urban Renewal Plan* recommends the development of higher density residential development (i.e., a maximum of 1,450 residential dwelling units) within multi-family buildings fronting major thoroughfares in the Ronkonkoma Hub area, approximately 195,000 square feet of retail space, approximately 360,000 square feet of office/medical space, and approximately 60,000 square feet of “flex space,” to be utilized for conference, exhibition, hospitality, and residential uses. There are also public designated outdoor space components throughout the Ronkonkoma Hub area. Parking facilities would also be provided to accommodate parking demand generated by the recommended uses, while maintaining the existing MTA-owned parking garage, located in the central portion of the Ronkonkoma Hub area.

The recommended land use development program in the *Urban Renewal Plan* includes the following components:

- Several multi-family residential buildings, with maximum heights of three-to-four stories, primarily fronting along Union Avenue and Mill Road.

- Predominantly retail use with residential permitted along the west side of Hawkins Avenue, with a maximum height of three stories.
- Several mixed-use buildings potentially containing office or residential over retail, dining and entertainment uses. These buildings would have maximum heights of five stories along Railroad Avenue and four stories along Mill Road.
- Mixed-use buildings containing commercial, exhibition, hospitality, institutional, and residential uses. These buildings would be situated in the eastern portion of the Project Area, along Railroad Avenue and Mill Road, and would have a maximum height of five stories.
- Mixed-use buildings containing residential, office and institutional uses, with a maximum height of five stories, located adjacent to the existing parking deck.
- Maximum of four-to-five story buildings containing retail, office, dining and entertainment uses, situated along the south side of Railroad Avenue.
- A special use/entertainment venue is recommended in the southern-central portion of the Project Area along the south side of Railroad Avenue, and would be up to four stories in height.
- Improvements to existing streets, the construction of new public and private streets, and the installation/upgrade of traffic signals or construction of a roundabout, and/or other traffic controls, as deemed appropriate in order to improve traffic circulation.

The *Land Use and Implementation Plan* has been updated to reflect the development densities recommended in the *Urban Renewal Plan*. The Maximum Density Concept Plan reflects the density and type of development discussed in the *Land Use and Implementation Plan*, which have been codified in the proposed TOD District.

The existing zoning within the Ronkonkoma Hub area is a mix of several business and industrial zoning districts, which does not facilitate a cohesive development scenario for the area. The prevailing zoning does not take advantage of the area's unique location adjacent to a highly-used LIRR station. The TOD District has been designed to establish the tools necessary for implementing the Vision for the area.

The TOD District has been designed as a Form-Based Code (FBC). FBC zoning focuses on regulating the public realm, including street types, blocks, and civic spaces and provides for flexibility in use, site and architectural design. Form-based code zoning also includes an extensive use of graphics to illustrate, for example, the anticipated relationship of the building to the street or site.

The TOD District establishes objectives, policies, and standards to promote orderly development and redevelopment within the Ronkonkoma Hub area for purposes of encouraging high-density mixed-use development, housing, retail, office, entertainment and institutional uses. The overall intent of the TOD District is to encourage the efficient use of land, be a catalyst for revitalization, and foster a sense of place through development of a new transit-oriented, mixed use, pedestrian-friendly community.

The TOD District, should it be adopted by the Town Board, is proposed to be applied to the 54 tax parcels within the 53.73± acres that comprise the Ronkonkoma Hub area and would replace the underlying business and industrial zoning that currently exists within this area.

Development within the Ronkonkoma Hub area would be controlled by a "Regulating Plan," which is included in the TOD District. This plan designates the subdistricts that comprise the TOD District and the various roadways within and adjacent to the subdistrict. With respect to approvals, the Planning Board would determine whether proposed development within the Ronkonkoma Hub area complies with the Regulating Plan and with the descriptions, building configurations and alignments, and other development parameters applicable to each of the subdistricts, as defined in the TOD District.

The subdistricts shown on the Regulating Plan convey the specific character that the Town wishes to achieve within the Ronkonkoma Hub area. A description of the four subdistricts, Neighborhood Subdistrict (A), Downtown Living Subdistrict (B), Marketplace Subdistrict (C) and Main Street Subdistrict (D), are set forth in Section 1.2, above.

Also, as noted above, each of the subdistricts is further broken down by maximum height in stories and maximum height in feet, as depicted on the Regulating Plan, and must meet additional requirements.

Site plan applications for development or redevelopment in the Ronkonkoma Hub area would be subject to the regulations set forth in the TOD District, including the Regulating Plan. As with other site plan applications submitted to the Town for development in other zoning districts, the Planning Board has the ability to approve, conditionally approve or deny such applications.

The density of the specific uses as well as the uses set forth as part of the Maximum Density Concept Plan conform to the densities and uses described in the *Urban Renewal Plan* and the *Land Use and Implementation Plan*. The distribution and location of the specific uses, as well as the maximum square footage of the proposed uses, as shown on the Maximum Density Concept Plan, comply with the Regulating Plan. Furthermore, the proposed parking, as depicted on the Maximum Density Concept Plan, exceeds the parking requirements set forth in the TOD District.

The Maximum Density Concept Plan also conforms to the original goals set forth in the *Ronkonkoma Hub Planning Study*, which have been incorporated into the TOD District. Development in accordance with the Maximum Density Concept Plan would revitalize the blighted, vacant and/or underutilized parcels within the Ronkonkoma Hub area and promote economic development opportunities in the area. The Maximum Density Concept Plan is a mixed-use, compact community that takes advantage of the proximity to the Ronkonkoma train station, forming a viable and sustainable transit-oriented development.

The proposed action is consistent with the Town of Brookhaven's *1996 Comprehensive Plan* with respect to land use and transportation recommendations. It also complies with the *Draft Brookhaven 2030 Plan*, which recommends redirecting growth to areas served by infrastructure, revitalize downtowns, and establish pedestrian-oriented centers that have a sense of place and expanding the range of transportation options.

The proposed action also comports with the *Long Island 2035 Comprehensive Regional Sustainability Plan*, which includes the strategy to "create vibrant, transit-supported communities," which allow for compact development around railroad stations, making it easier to live and work in transit corridors and to encourage public transit usage, while minimizing vehicle miles traveled in single-occupancy vehicles.

Finally, the proposed action conforms to the Town's *Blight to Light Study* (which recommended a number of tools to redevelop and revitalize the Ronkonkoma Hub area, including the development of new zoning) and the *Blight Study* that was specifically conducted for the Ronkonkoma Hub area.

Traffic and Parking

A Traffic Impact Study was prepared to evaluate the existing traffic conditions and the future conditions, both with and without the proposed action (i.e., the "Build" and "No-Build" conditions, respectively). The No-Build condition represents the future traffic conditions that can be expected to occur, were the proposed TOD not constructed. The No-Build condition serves to provide a comparison to the Build condition, which represents expected future traffic conditions resulting from both project and non-project-generated traffic. Background traffic volumes in the study area were projected to the year 2020, reflecting the year when the proposed action is expected to be completed and operational. An evaluation of the existing parking supply, the demand for parking, and appropriate parking ratios to meet those demands was also included.

Based upon the potential land uses depicted in the Maximum Density Concept Plan, using the Institute of Transportation Engineers (ITE) rates, the development is likely to generate 1,516 trips (entering 823 trips & exiting 693 trips) during a.m. peak hour and 2,413 trips (entering 1,171 trips and exiting 1,242 trips) during p.m. peak hour. However, this estimate does not account for the TOD nature of the proposal.

One of the primary goals of any TOD is to reduce dependence on automobiles by situating such TOD proximate to mass transit. The proximity of the development to mass transit works to reduce vehicle trips, as a significant percentage of people residing there would use the train and bus services for their commute to and from work. Similarly, a significant percentage of people employed in the retail and office portion of the development would arrive and leave by transit. The residents and other commuters using the LIRR may choose to shop at the retail stores and patronize restaurants located within the development, thereby reducing the vehicle trips. It is also possible that a percentage of people would both live and work within the development, further reducing vehicle trips. Available studies on TODs show a reduction in vehicle trips by almost 50 percent. In order to take a conservative approach, this study assumes only a 25 percent reduction in trip generation. Using this factor, the potential development, as depicted in the Maximum Density Concept Plan, is projected to generate 1,135 trips during the weekday a.m. peak hour and 1,810 trips during the weekday p.m. peak hour.

In addition to consideration of the TOD nature of the project, pass-by trips were also incorporated into the analysis. The net trip generation after TOD and pass-by credits is reduced to 1,135 trips during the weekday a.m. peak hour (since no pass-by credit is taken in the a.m. peak hour) and 1,612 trips during the weekday p.m. peak hour.

Level of Service (LOS) analyses were conducted for the 2013 Existing, 2020 No-Build and 2020 Build conditions for each of the key intersections. During the a.m. peak hour in the Build Condition, the LIE North Service Road intersections with Hawkins Avenue and Ronkonkoma Avenue operate at a LOS E and D, respectively with one or two individual movements operating with a high delay and a LOS F. All other signalized intersections operate at levels consistent with No-Build conditions. In addition, during the weekday a.m. peak hour in the Build Condition, the unsignalized intersection of Hawkins Avenue and Railroad Avenue operates at a LOS F and the eastbound approach at Ronkonkoma Avenue and Powell Street/2nd Street operates at LOS F.

During the p.m. weekday peak hour in the Build Condition, the LIE South Service Road intersections with Hawkins Avenue and Ronkonkoma Avenue operate at a LOS F. The LIE North Service Road at Hawkins Avenue moves from a LOS C to LOS D, Hawkins Avenue at Union Avenue moves from a LOS A to LOS C and Union Avenue at Mill Road moves from a LOS B to LOS E. The other signalized intersections operate at levels consistent with No-Build conditions. Further, during the weekday p.m. peak hour in the Build Condition, the unsignalized intersection of Hawkins Avenue and Railroad Avenue operates at a LOS F and the westbound approach at Ronkonkoma Avenue and Powell Street/2nd Street operates at LOS F.

The TOD District parking ratios established for the Ronkonkoma Hub are 1.2 parking spaces per residential unit, 2.65 parking spaces per 1,000 square feet of retail, 2.86 parking spaces per 1,000 square feet of office and 0.33 parking spaces per restaurant

seat. Based upon these ratios, the Maximum Density Concept Plan would require 3,459 parking spaces. Since the plan indicates the construction of 3,638 parking spaces, this would exceed the TOD District parking requirements.

A spot parking count was performed during the mid-morning on Thursday April 11, 2013, at the LIRR parking lots on Railroad Avenue and it was found that the lots, except for lot #1, were almost fully utilized. The Master Developer has proposed to the MTA that it would construct additional parking on the south side of the station to replace parking that is displaced on the north side. Based on the geometry of the parking lot areas available, at least 130 stalls can be provided per acre. This equates to the potential to build over 900 parking stalls in the two identified areas, more than enough to replace parking displaced on the north side as a result of construction of the TOD.

With respect to construction-related traffic impacts, and based on the scale of the development, it has been determined that a construction traffic management and logistics plan would need to be developed for each site plan application. This plan would require the following: days/hours of proposed construction activity; designated routes of heavy vehicles to and from the site; parking areas for workers and heavy vehicles so as not to add to the burden on commuter lots; and construction staging areas.

Based upon the analysis performed, the development of the Ronkonkoma Hub TOD, as proposed, in conjunction with the identified roadway mitigation in this study, would not result in a significant adverse impact on traffic conditions in the study area. While the development would result in an increase in traffic levels in the vicinity of the site, this increase can be handled by the roadway system with the implementation of the identified mitigation listed in Section 1.4.

Air Quality

A microscale analysis was performed for the proposed development. The results of the microscale analysis demonstrate that all the carbon monoxide (CO) concentrations for the 2020 No Build, Build and Build with Improvements Scenarios would be below the one hour and eight-hour CO National Ambient Air Quality Standards (NAAQS). Specifically, the results of the microscale analysis indicate that, under future No-Build Conditions, the predicted CO concentrations at the receptor locations are below predicted concentrations for the 2013 Existing Condition. These reductions in CO concentrations can be attributed primarily to more efficient vehicles with enhanced emissions control technologies as mandated by the Federal Motor Vehicle Exhaust Emissions Control Program for new vehicles entering the fleet. The one-hour and eight-hour concentrations are all below the CO NAAQS of 35 and 9 ppm, respectively.

The results of the microscale analysis also demonstrate that all the 24-hour particulate matter with an aerodynamic diameter less than 10 microns (PM₁₀)

concentrations for both the 2020 No-Build, Build and Build with Improvements Scenarios are below the 24-hour NAAQS for PM₁₀. Specifically, the results of the microscale analysis indicate that, under future No-Build Conditions, the predicted PM₁₀ concentrations at the receptor locations are below predicted concentrations for the 2013 Existing Condition. Similar to the CO concentrations, these reductions in PM₁₀ concentrations can be attributed primarily to more efficient vehicles with enhanced emissions control technologies as mandated by the Federal Motor Vehicle Exhaust Emissions Control Program for new vehicles entering the fleet. All of the 24-hour PM₁₀ concentrations are well below the NAAQS for PM₁₀ of 150 µg/m³.

Upon redevelopment, the Ronkonkoma Hub area is expected to include stationary sources, such as heating boilers, hot water heaters, and emergency generators. Because project is conceptual in nature, design, the size and number of the stationary sources have not yet been finalized. As these stationary sources move ahead in the design process, the proposed development would obtain operating permits for appropriate equipment under the State of NYSDEC Division of Air Resources regulations (6 NYCRR Part 201), as may be required. The NYSDEC Division of Air Resources regulatory process would ensure that these emission sources meet the NAAQS.

Construction and demolition activities associated with redevelopment in accordance with the Maximum Density Concept Plan would result in a slight, short-term increase in air pollution emissions. However, air quality in the Ronkonkoma Hub area would not be expected to be substantially affected by redevelopment because of implementation of mitigation measures (described in Section 1.4) and the temporary nature of construction activities.

Noise

The noise impact analysis considered the mobile (vehicular traffic and railroad) and stationary source (mechanical equipment) sound levels to determine the potential change in the existing sound levels for sensitive locations on and in the vicinity of the Ronkonkoma Hub area.

Although traffic volumes on the roadways within the Ronkonkoma Hub area are projected to increase under the Build condition, it is not expected that the proposed action would increase noise levels by more than six dBA above existing noise levels. In fact, it is expected that based on the potential increase in traffic volumes, the Build Condition sound levels would likely remain unchanged, as compared to the Existing Conditions. As such, it is not expected that the proposed action would result in significant adverse noise impacts.

Based on consultations with the LIRR, no residential development would be permitted south of Railroad Avenue between Hawkins Avenue and Mill Road. This would help ensure that future residents of the proposed development are not adversely impacted by LIRR operational noise.

The proposed action would result in changes in sound levels due to rooftop mechanical equipment and during the nighttime period, which is expected to be the dominant stationary noise source. Properties developed or redeveloped would be required to install rooftop equipment that does not exceed Town noise code standards, and same would be evaluated during site plan review.

Construction period activities may temporarily increase nearby sound levels due to demolition and regrading activities, and the use of machinery during the construction of the project. Construction would be subject to the Town's noise ordinance. Sound levels would be evaluated at each phase of construction to determine if additional construction noise mitigation measures are necessary.

Socioeconomics

Construction under the Maximum Density Concept Plan would have a short-term economic effect during the construction period. The regional economic benefits include direct expenditure on construction goods and services and indirect and induced economic activity within the region. The total expected construction cost is \$474 million. The construction period is projected to be approximately six years, according to the Master Developer, which would generate 1,953± full-time equivalent (FTE) construction jobs per year, or 11,700± FTE construction jobs over the anticipated build-out.

Development in accordance with the proposed TOD District, as depicted on the Maximum Density Concept Plan, would require employees in numerous fields, and would provide employment opportunities to people in the surrounding area of the project site. It is expected that proposed development would generate approximately 2,740 permanent jobs, based upon information provided by the Master Developer. Projected payrolls associated with these permanent jobs are anticipated to be over \$96 million. Secondary earnings would be approximately \$151 million and additional secondary jobs generated would be approximately 2,100.

Based upon 2012 tax rates, the total projected property taxes based upon future development in accordance with the Maximum Density Concept Plan is \$16,179,702±, which is an increase of \$15,711,714± over the existing condition. With no changes in assessments, these rates are likely to increase over time. The Sachem Central School District and library would be expected to receive over \$11.1 million in annual property taxes.

In addition, \$5,045,625± in sales tax revenue is from the anticipated retail component and \$410,395± in sales tax revenue is anticipated from the hotel component.

Community Facilities and Services

Fire Protection and Ambulance Service

The Ronkonkoma Hub area is located within the jurisdiction of the Ronkonkoma Fire Department. In order to ensure that there would be no significant adverse impacts to the Ronkonkoma Fire Department, all development plans would be required to comply with New York State building and fire codes, and also be reviewed by the Brookhaven Fire Marshal. The Master Developer has met with the Fire Department and Fire Marshal and has indicated its intention to continue to work with the Fire Department throughout the development process. The meeting summary provided by the Master Developer to the Town did not identify any specific adverse impacts by the Fire Department, Fire Marshal and Building Department personnel.

Future redevelopment of the Ronkonkoma Hub in accordance with the Maximum Density Concept Plan would not be expected to result in significant adverse impacts to fire protection and ambulance services, provided by the Ronkonkoma Fire Department, as the additional \$740,000± per year in additional property taxes generated by the Maximum Density Concept Plan, at full build-out, would help off-set costs associated with providing fire protection and ambulance services to the future development.

Police Protection

The Fourth Precinct of the Suffolk County Police Department currently services the Ronkonkoma Hub area, in addition to the MTA Police who service the Ronkonkoma LIRR Station. While there would be a substantial increase in density it is not expected that the proposed action would require additional police personnel to serve the Ronkonkoma Hub area. It is not expected that redevelopment of the Ronkonkoma Hub area would result in a demand that causes significant adverse impacts to police services. Furthermore, as indicated above, the anticipated annual property taxes received by the Police Department of over \$2.1 million above the existing condition would help to off-set the cost of providing any additional police protection services that may be required to serve the future development within the Ronkonkoma Hub area.

Educational Facilities

The Ronkonkoma Hub area is served by the Sachem CSD. According to the summary provided by the Master Developer, at the meeting with the school district, both the Superintendent and Associate Superintendent acknowledged the decline in the student enrollment, and noted that young people are leaving Long Island. According the summary memorandum provided by the Master Developer, the Superintendent and Associate Superintendent indicated that the proposed project would be beneficial in keeping young people on Long Island, and expressed no concern over the increase in the number of potential students. Based upon the currently configured unit type and bedroom mix, the 1,450 residential dwelling units

included in the Maximum Density Concept Plan could potentially generate 214 school-aged children who would attend public school.

Based on data in the NYSED Property Tax Report Card for the 2013-14 school year, the per pupil expenditure in the Sachem CSD is projected to be \$20,717±. While the total cost to the Sachem CSD for the 214 additional children would be \$4,433,438, the Maximum Density Concept Plan at full development could generate \$11,178,342 annually to the school district. Therefore, there would be a net annual benefit to the Sachem CSD of approximately \$6,744,904. Thus, based upon the enrollment and property tax information, implementation of the proposed action would not result in significant adverse impacts to the Sachem CSD. In fact, the District would be expected to receive a significant annual revenue benefit.

Solid Waste

Development in accordance with the Maximum Density Concept Plan would generate approximately 377± tons of solid waste per month. The collection and disposal of solid waste generated by both the commercial properties, including the retail, office, and flex space uses and the private, multi-family residential developments shown on the Maximum Density Concept Plan, would be performed by licensed, private carters, which is typical practice for Long Island Towns. Thus, the ultimate disposal locations are at the discretion of the carter, pursuant to its disposal agreements, and thus, would not be expected to result in significant adverse impacts to the Town's waste management facilities, practices or plans.

Aesthetics

The *Urban Renewal Plan* proposes to improve the built environment with new and viable uses and to upgrade public facilities and infrastructure, including, but not limited to, roads, sidewalks, curbs, public hardscape and landscape, street and walkway lighting, and parking areas, all of which contribute to the aesthetic character of the Ronkonkoma Hub area. Drawing upon the recommendations of the *Ronkonkoma Hub Transit-Oriented Planning Study* and the *Urban Renewal Plan*, the TOD District would set forth the general location and amount of development proposed within the area, which would permit higher density residential, commercial, office and retail development in mixed-use buildings while also allowing for flexibility in the design and placement of these uses, including the construction of buildings from three-to-five-stories in height, along Railroad Avenue, Mill Road and Union Avenue. Also, in accordance with the goals of the *Ronkonkoma Hub Transit-Oriented Planning Study*, development in accordance with the *Urban Renewal Plan* would change the visual character of the Hub. New outdoor spaces and streetscape improvements would be provided that would contribute to an attractive and inviting pedestrian environment.

Aspects of the TOD District that address the aesthetics within the Ronkonkoma Hub area include building configuration and height, building alignment, designated

outdoor space, signs, and supplementary public lighting. The proposed structures would respect the scale and massing of existing development outside of the Ronkonkoma Hub area by transitioning down in height in the Neighborhood Subdistrict at the northern boundary of the TOD District. High quality streetscape design and landscaping, including a landscaped median within certain streets is an important feature for this type of urban-style neighborhood where the public street space becomes, in effect, the place for the social interactions that builds a sense of community.

In order to evaluate the potential visual impacts of the future development within the Ronkonkoma Hub on the surrounding area, a number of visual analyses were performed by the Master Developer and its consultant. These included a shadow analysis, a before and after analysis from viewpoints within the project area and a line-of-sight analysis (and renderings from areas where the development would be seen) from various vantage points outside the project area.

The shadow analyses demonstrate that, for the most part, off-site shadows cast by the potential future development (as depicted in the Maximum Density Concept Plan) affect a small number of properties outside the Ronkonkoma Hub area. Furthermore, the time of year when the shadows are the longest (and would affect the most properties) is on and around the Winter Solstice. This is the time of year when outdoor activity is at its lowest. Thus, although there would be some shadow impacts outside the Ronkonkoma Hub area, they would not be prolonged. Accordingly, no significant, sustained shadow impacts are anticipated.

Based on the renderings, which depict potential development as contemplated in the Maximum Density Concept Plan, and the before/after analyses, the adoption of the *Urban Renewal Plan*, creation of the TOD District and the redevelopment of properties in accordance with the TOD District would result in beneficial impacts to the visual character of the area, as blighted and aesthetically unattractive properties would be replaced with new visually pleasing and cohesive development.

Finally, the line-of-sight analyses demonstrate that views from the surrounding neighborhoods to the north and east to the potential future development within the Ronkonkoma Hub area would be obscured in many instances by existing development and/or mature trees. One area where there would be a clear view from outside the Ronkonkoma Hub area is from the Ronkonkoma Avenue overpass (a public roadway) located to the southwest of the Hub, which is situated at a higher elevation than the proposed development. The rendering from that location shows a more cohesive and improved visual quality from this vantage point, and blighted conditions would be eliminated by the proposed redevelopment.

Cultural Resources

Redevelopment of properties within the Ronkonkoma Hub area in accordance with the Maximum Density Concept Plan would not result in any adverse impacts to

cultural resources, but would continue the historical tradition of the Ronkonkoma LIRR as a major transportation hub since its construction in 1883.

1.4 Proposed Mitigation

This section discusses the proposed mitigation measures associated with the potential impacts identified in Section 3.0 of this DSGEIS. Unless otherwise noted, mitigation measures would be undertaken and funded by the Applicant.

Soils and Topography

In order to ensure that there would be no significant adverse impacts to soils or topography upon implementation of the proposed action, the following mitigation measures will be employed:

- During the course of ultimate construction, there is a potential for soil erosion as is the case with any construction project that includes disturbance of the existing ground surface. As such, erosion and sedimentation control measures would be undertaken prior to and during construction, in accordance with Chapter 86 of the Town Code.
- Parcels to be developed or redeveloped would implement dust control measures during dry or windy periods. The appropriate methods of dust control would be determined by the surfaces affected (i.e., roadways or disturbed areas) and would include, as necessary, the application of water, the use of stone in construction roads, and vegetative cover.
- As more detailed topographic and architectural plans are developed throughout the build-out period, there would be sufficient opportunity during the design of the various phases of the project to refine grading plans so as to bring the earthwork more into balance as development proceeds.
- Phasing of the project over a number of years would minimize the impact of excavation, as it would spread out the number of truck trips associated with soil removal.

Water Resources

In order to ensure that impacts to groundwater and surface water resources are minimized, and to minimize the impacts associated with stormwater runoff, the following mitigation measures are proposed:

- Sanitary waste from newly-developed/redeveloped parcels within the Ronkonkoma Hub area will be accommodated by the proposed off-site STP

being developed by Suffolk County, and, therefore, would conform to the prevailing regulations of the Suffolk County Sanitary Code. Moreover, the NYSDEC will establish discharge limits in accordance with the permit ultimately issued for the STP. These measures will help mitigate potential impacts to groundwater from the sewage effluent generated by development within the Ronkonkoma Hub area.

- Parcels developed or redeveloped within the Ronkonkoma Hub area will implement water conservation measures, including low-flow fixtures, low-flow toilets, and/or drip irrigation.
- Parcels developed or redeveloped within the Ronkonkoma Hub area are required to comply with Chapter 86 of the Town Code, *Storm Water Management and Erosion Control*.
- Parcels developed or redeveloped within the Ronkonkoma Hub area will use native or low maintenance plantings, to the maximum extent practicable, to reduce irrigation needs and fertilizer demand. These measures will mitigate potential impacts to water quantity and quality.

Ecology

No significant adverse ecological impacts have been identified as a result of implementation of the proposed action. However, to minimize habitat impacts, development/redevelopment would incorporate native or low maintenance species into the landscaping plan, to the maximum extent practicable.

Land Use and Zoning

Based upon the analysis provided in this DSGEIS, while the land use and zoning within the Ronkonkoma Hub area would change, no significant adverse environmental impacts with respect to land use and zoning were identified. The proposed action has been designed to have a positive impact on land use within the Ronkonkoma Hub area through the creation and application of the TOD District, which will allow comprehensive, cohesive and flexible development within the Hub.

Traffic and Parking

Based on the Build condition results, traffic mitigation measures were developed to address project impacts. The mitigation plan developed for the TOD includes improvements to intersections as well as additional travel lanes on roadway segments. The measures discussed below have been developed to mitigate the potential traffic impacts of the development of the Ronkonkoma HUB TOD at full-build.

Improvements are proposed at the ten study intersections which range from roadway widening to add additional lanes to signal timing and phasing changes.

The required mitigation, by intersection, is included on the following table:

Traffic Mitigation Table

| Location | | Capacity Improvements | | Signal Improvements |
|----------|--|---|--|---|
| | | Existing Conditions | Proposed Mitigation | |
| 1 | LIE North Service Road & Hawkins Avenue | Westbound – One exclusive left-turn lane, one through lane and a shared through and right-turn lane | Restripe approach to: One shared left-turn and through lane, one through lane and a shared through and right-turn lane | Change PM-cycle length to 120 seconds.
Optimize AM / PM phase-splits |
| | | Northbound - One exclusive left-turn lane, two through lanes | Increase left-turn storage lane by removing a portion of the raised median | |
| 2 | LIE South Service Road & Hawkins Avenue | Eastbound – One exclusive left-turn lane, one through lane and a shared through and right-turn lane | Widen and add a 4 th approach lane. New configuration: One left-turn lane, two through lanes and a shared through and right-turn lane | Change PM-cycle length to 120 seconds.
Optimize AM / PM phase-splits |
| | | Northbound – One through lane and a shared through and right-turn lane | Restripe approach to add an exclusive right-turn lane. New configuration: Two through lanes and an exclusive right-turn lane | |
| | | Southbound - One left-turn lane, two through lanes | Increase left-turn storage lane by removing a portion of the raised median | |
| 3 | LIE North Service Road & Ronkonkoma Avenue | Westbound – One exclusive left-turn lane, one through lane and a shared through and right-turn lane | Restripe approach to: One shared left-turn and through lane, one through lane and a shared through and right-turn lane | Change PM-cycle length to 120 seconds.
Optimize AM / PM phase-splits |
| 4 | LIE South Service Road & Ronkonkoma Avenue | Eastbound – One exclusive left-turn lane, one through lane and a shared through and right-turn lane | Widen and add a 4 th approach lane. New configuration: One exclusive left-turn lane, two through lanes and a shared through and right-turn lane | Change PM-cycle length to 120 seconds.
Optimize AM / PM phase-splits |
| | | Northbound – One through lane and a shared through and right-turn lane | Widen and add a 3 rd approach lane. New configuration: Two through lanes and an exclusive right-turn lane | |

Traffic Mitigation Table (continued)

| Location | | Capacity Improvements | | Signal Improvements |
|----------|--|---|---|---|
| | | Existing Conditions | Proposed Mitigation | |
| 5 | Hawkins Avenue & Union Avenue | Westbound – One exclusive left-turn lane with storage & one right-turn lane | Widen and add 3 rd approach lane. New configuration: One exclusive left-turn lane and two right-turn lanes | Change PM-cycle length to 100 seconds.

Optimize AM / PM phase-splits

Prohibit right-turns on red westbound |
| | | Northbound – One shared through and right-turn lane | New configuration: One through and a shared through and right-turn lane | |
| 6 | Union Avenue & Mill Road | Northbound – One shared left-turn, through and right-turn lane | Widen and add 2 nd approach lane. New configuration: One shared left-turn and through lane and an exclusive right-turn lane with storage | Change AM / PM-cycle length to 80 seconds.

Optimize AM / PM phase-splits |
| 7 | Ronkonkoma Avenue & Powell Street / 2 nd Street | Northbound – One through and one shared through and right-turn lane | Restripe median as left turn lane. New configuration: One exclusive left-turn lane, one through and one shared through and right-turn lane. | Add new three phase traffic signal with leading southbound left turn phase. Side streets remain right turn out only.

Signal cycle length same as LIE Service Roads with suitable offset to ensure signal progression |
| | | Southbound – One through and one shared through and right-turn lane | Restripe median as left turn lane. New configuration: One exclusive left-turn lane, one through and one shared through and right-turn lane. | |

Traffic Mitigation Table (continued)

| Location | | Capacity Improvements | | Signal Improvements |
|----------|--|---|--|---|
| | | Existing Conditions | Proposed Mitigation | |
| 8 and 9 | Railroad Avenue & Powell Street / Parking Lot & Johnson Avenue at Northwest Link / Parking Lot | | No proposed capacity changes | Run both the intersections off one controller for improved coordination. At Powell Street add protected permitted southbound left-turn phase. |
| 10 | Hawkins Avenue & Railroad Avenue | Westbound – One exclusive left-turn lane, one through and one exclusive right-turn lane | Channelized westbound right turn lane. | Add new three phase traffic signal with leading eastbound left turn phase. |
| | | Southbound – One shared left-turn and through, one exclusive right-turn lane | Channelize southbound right turn lane. | |

A plan for the phasing of the mitigation measures/roadway improvements has been developed, and is discussed in the subsection entitled *Conditions and Criteria under Which Future Actions Will Be Undertaken or Approved Including Requirements For Subsequent SEQRA Compliance*, at the end of this *Executive Summary*.

Air Quality

In order to mitigate air quality impacts associated with construction, the following measures are proposed: use of emission controls on construction vehicles, dust control and regular sweeping of pavements.

With respect to long-term operations, the calculations of future air quality levels represent cumulative impacts from traffic growth over time. The results of the air quality study demonstrate that the implementation of the proposed action is not expected to result in violations of the NAAQS. Therefore, since no instances wherein NAAQS standards would be exceeded are anticipated and no adverse impacts from traffic or the various project components associated with the Maximum Density Concept Plan are expected, no specific mitigation is required.

Moreover, the overall TOD project goals, which would reduce vehicular demand and, therefore, reduce air quality impacts include:

- Redirected growth to the Ronkonkoma HUB area, which is already served by existing infrastructure
- Expanded transportation choices to reduce automobile dependence
- Reduced vehicle trips around the station
- Compact, mixed-use, transit-accessible, pedestrian-oriented redevelopment

Thus, the overall impact of the implementation of the TOD would assist in reducing the potential for air quality impacts usually associated with large-scale development.

Noise

In order to minimize noise impacts to the maximum extent practicable, the following mitigation measures have been proposed:

- To minimize the potential for residents within the proposed development to be affected by LIRR operational noise, no residential development will be permitted south of Railroad Avenue between Ronkonkoma Avenue and Mill Road.
- Parcels developed or redeveloped with residential land use components should implement mitigation strategies such that interior noise levels do not exceed 45 dBA. Mitigation measures that may be employed to achieve this goal include the following:

- Use of double-paned glass windows
 - Providing laminating on both layers of window glazings
 - Providing a wider airspace between window panels
 - Upgrading building exterior massing, where necessary and practicable
-
- Parcels developed or redeveloped would be required to install rooftop equipment that does not exceed Town noise code standards, and same would be evaluated during site plan review. Such equipment would be located in penthouse rooms and/or enclosures, or would utilize the building height and geometry to create building blockage for receptor locations, and/or install, as necessary to attenuate noise, screening around the externally-located rooftop mechanical equipment.
 - Loading and service activities on parcels to be developed or redeveloped will be internally situated or screened to minimize noise associated with loading activities from the surrounding residential areas.
 - Construction equipment would be required to have appropriate noise muffler systems. Excessive idling of construction equipment engines would be prohibited.

Socioeconomics

As there are no significant adverse demographic or economic impacts associated with the proposed action, no mitigation measures are required.

Community Facilities and Services

In order to ensure that potential impacts to community service providers are minimized, the following mitigation measures are proposed:

- The taxes generated by the proposed redevelopment of the properties within the Ronkonkoma Hub area would assist in off-setting the increases in the provision of community services, including fire protection, police protection and education.
- Parcels developed or redeveloped will comply with New York State building and fire codes.
- All development/redevelopment applications would be required to be reviewed by the Brookhaven Fire Marshal, and would comply with all Fire Marshal requirements.

- Parcels developed or redeveloped will provide proper egress and ingress for emergency service providers, including to below-grade and above-grade parking garages.

Aesthetics

- In order to ensure that there will be positive impacts to the visual character of the Ronkonkoma Hub area, and no significant adverse impacts will be created, the TOD District has incorporated design measures that must be complied with, to wit: any proposed building must meet the requirements of the building configuration, alignment and parking placement for the subdistrict in which it is located, as set forth in the TOD District.
- Requirement for street assembly, streetscape improvements, designated outdoor spaces, signs and public supplementary lighting controls are specified in the TOD District. All development/redevelopment must conform to the specific requirements for the subdistrict in which it is located.

Cultural Resources

There have been no significant historic or archaeological resources identified within or adjacent to the Ronkonkoma Hub area that would be adversely impacted by the proposed action. Thus, no mitigation measures are required.

1.5 Conditions and Criteria Under Which Future Actions will be Undertaken or Approved Including Requirements for Subsequent SEQRA Compliance

6 NYCRR §617.10(c) and (d) state, in pertinent part:

“(c) Generic EISs...should set forth specific conditions or criteria under which future actions will be undertaken or approved, including requirements for any subsequent SEQR compliance...”

(d) When a final generic EIS has been filed under this part:

(1) No further SEQR compliance is required if a subsequent proposed action will be carried out in conformance with the conditions and thresholds established for such actions in the generic EIS or its findings statement;

- (2) *An amended findings statement must be prepared if the subsequent proposed action was adequately addressed in the generic EIS but was not addressed or was not adequately addressed in the findings statement for the generic EIS;*
- (3) *A negative declaration must be prepared if a subsequent proposed action was not addressed or was not adequately addressed in the generic EIS and the subsequent action will not result in any significant environmental impacts;*
- (4) *A supplement to the final generic EIS must be prepared if the subsequent proposed action was not addressed or was not adequately addressed in the generic EIS and the subsequent action may have one or more significant adverse environmental impacts."*

Based on the analyses contained in this DSGEIS, the following represent the conditions and thresholds, which, if met, would allow full development of the Ronkonkoma Hub area within the Town of Brookhaven without the need for further SEQRA compliance or further approval from the Town Board:

- Total development of the Ronkonkoma Hub area shall not exceed the following development limits:³
 - 1,450 residential units
 - Approximately 195,000 SF - retail
 - Approximately 360,000 SF - office/medical
 - Approximately 60,000 SF - flex space (including hospitality, conference and exhibition space, and/or residential units)
- Sanitary discharge to the proposed STP associated with development/redevelopment of parcels within the Ronkonkoma Hub area shall not exceed 400,000 gpd. In the event that development/redevelopment is proposed that would cause this capacity to be exceeded, additional evaluation must be conducted and additional sewage capacity must be secured to support the additional development.
- No residential development shall be permitted south of Railroad Avenue between Hawkins Avenue and Mill Road in order to minimize the potential for residents within the proposed development to be affected by LIRR operational noise.

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³ With the exception of the limitation on residential units (which is a maximum), the amount of retail, office/medical and flex space can vary (as same will be dictated by actual market demand), as long as such development conforms with the requirements of the TOD District.

- The development or improvement of the internal and immediate perimeter roadway systems within and bordering the Ronkonkoma TOD area should be performed as the parcels adjacent to those roads are developed to ensure adequate and safe access to surrounding roadways. Functionally, the proposed improvements to the majority of these roads are to provide parking areas and other roadside amenities to serve the adjacent and surrounding parcels.
- The roundabout proposed at Railroad Avenue and Mill Road must be completed at such time as the adjacent development access which forms the south leg is developed (see Condition Figure B).⁴
- The northbound right turn lane proposed at the intersection of Mill Road at Union Avenue (described in the Traffic Mitigation Table for location 6 and depicted on Condition Figure A) must be constructed when either the adjacent Parcel I or Parcel K, as shown on the Maximum Density Concept Plan, is developed.
- With respect to off-site mitigation, the following discussion provides the required off-site mitigation phasing, and identifies trip generation thresholds at which certain mitigation must be in place. It is noted that these thresholds are based on the net trip generation, which represents the anticipated trips after adjustments for the TOD and pass-by credits⁵ have been applied.
 - *Mitigation Level One (Initial Construction)* –Prior to occupancy of the initially constructed building(s) within the TOD, Hawkins Avenue should be improved from Railroad Avenue to just south of the LIE. This includes the installation of a new traffic signal at Railroad Avenue. The mitigation detailed in the Traffic Mitigation Table for locations 5 and 10 and depicted on Condition Figure A, shall be completed during this initial phase and prior to building occupancy (except for the requirement for an additional northbound lane on Hawkins Avenue north of Union Avenue for which additional right-of-way is required, which is discussed as a separate mitigation phasing item).
 - *Mitigation Level Two* – Prior to occupancy of buildings in the TOD that increase net trip generation of the development during the weekday p.m. peak period above 400 vehicles per hour (combined entering and exiting), the mitigation detailed in the Traffic Mitigation Table for locations 7, 8 and 9 and depicted on Figure A shall be completed.

▼
⁴ The figures and table referenced in this Executive Summary can be found in Section 5.0 of this DSGEIS.

⁵ The TOD credit is a reduction in gross trip generation of 25 percent, applied to all uses in the TOD. The pass-by credit is a further reduction in trip generation for retail and restaurant uses within the TOD as prescribed in the Institute of Transportation Engineer's Trip Generation Manual, latest edition, but shall not exceed 20 percent for any specific use (see Section 3 of the Traffic Impact Study in Appendix H).

- *Mitigation Level Three* - Prior to occupancy of buildings in the TOD that increase net trip generation of the development during the weekday p.m. peak period above 500 vehicles per hour (combined entering and exiting), the mitigation detailed in the Traffic Mitigation Table for locations 2 and 4 and depicted on Figure B, along the entirety of the LIE South Service Road shall be completed.
- *Mitigation Level Four* – Prior to occupancy of buildings in the TOD that increase net trip generation of the development during the weekday p.m. peak period above 700 vehicles per hour (combined entering and exiting), the mitigation detailed in the Traffic Mitigation Table for locations 1 and 3 and depicted on Figure B, along the entirety of the LIE North Service Road shall be completed.
- *Mitigation Level Five* – Upon reaching a trip generation of 1,100 vehicles in the p.m. peak hour (combined entering and exiting trips), traffic mitigation along Hawkins Avenue, between Union Avenue and the LIE South Service Road that was begun under *Mitigation Level One (Initial Construction)* must be completed, as detailed in the Traffic Mitigation Table for location 5 and depicted on Figure A. This includes the construction of the second northbound lane on Hawkins Avenue from Union Avenue to the LIE South Service Road and the striping of the westbound Union Avenue approach to three lanes as depicted on Figure A. No building permits shall be issued for development that would result in a trip generation of greater than 1,100 vehicles in the p.m. peak hour (combined entering and exiting) until such traffic mitigation is implemented, unless same is deemed unnecessary by the Town Board based upon a change in traffic conditions.

In the event that any of the conditions are proposed to be exceeded by future development, additional SEQRA compliance would be necessary in accordance with 6 NYCRR §617.10(d)(2), (3) or (4), as would be appropriate, given the actual development plan proposed and the associated potential environmental impacts associated therewith.

Furthermore, with respect to future development approvals (i.e., after the Town Board adopts the TOD District, applies the zoning to the Ronkonkoma Hub area, and approves the Maximum Density Concept Plan, as described above), the applicants will be required to obtain site plan approval from the Planning Board for proposed development. In addition to the standard site plan application requirements, at the time a site plan is submitted to the Town, an applicant must:

- Prepare and submit a construction traffic management and logistics plan. This plan, at a minimum, should indicate the following:

- Days/hours of proposed construction activity
 - Designated routes of heavy vehicles to and from the site
 - Parking areas for workers and heavy vehicles
 - Construction staging areas
-
- If existing designated commuter parking will be temporarily or permanently displaced to accommodate the proposed development, prepare and submit a plan that demonstrates that parking will be replaced at a minimum ratio of one-to-one. Such replacement parking shall be in place prior to the displacement of existing designated commuter parking, and shall be acceptable to the MTA.
 - Provide a letter of sewer availability (or documentation from the appropriate regulatory agency as to the approved method of sanitary discharge) prior to final site plan approval.
 - Demonstrate (for multi-story buildings) that there is adequate water pressure for the higher elevations in the buildings, and, where necessary, install a booster pump system.
 - Implement water conservation measures, including low-flow fixtures, low-flow toilets, and/or drip irrigation.
 - Submit confirmation that the site plan has been submitted to the Ronkonkoma Fire Department for review.

2.0

Introduction and Description of the Proposed Action

2.1 Project History and Summary of the SEQRA Process

Commencing in 2007, the Town Board has been working with the community to revitalize the Ronkonkoma Hub area. The Ronkonkoma Hub area consists of 53.73±-acres, generally bounded by Union Avenue and Union Street to the north; Village Plaza Drive to the east; County Road 29 (Ronkonkoma Avenue), Garrity Avenue and Hawkins Avenue to the west; and the railroad tracks of the Long Island Railroad to the south, in the hamlet of Ronkonkoma (see Figure 1). Since that time, the Town of Brookhaven completed a two-phased planning study to revitalize the Ronkonkoma Hub area, known as the *Ronkonkoma Hub Planning Study*. The goal was, and continues to be, to develop a vision that supports the compact, mixed-use, transit-oriented redevelopment of this area. Phase 1 of the planning study, completed in 2008, focused on documenting existing conditions and identifying potential opportunity sites for transit-oriented development. Phase 2 of the study, completed in early 2009, built upon the work completed in Phase 1 and, among other things, reviewed case studies of existing successful transit-oriented development (TOD) projects and offered various recommendations relating to redevelopment opportunities, TOD zoning, transportation issues and concept plans.

In 2010, the Town prepared a draft *Ronkonkoma Hub Transit-Oriented Development Draft Land Use and Implementation Plan* (“*Draft Land Use and Implementation Plan*”) and a Draft Generic Environmental Impact Statement (hereinafter the “2010 DGEIS”), which evaluated a theoretical maximum development scenario pursuant to the aforesaid *Draft Land Use and Implementation Plan*. The proposed action examined in the 2010 DGEIS included the adoption the *Draft Land Use and Implementation Plan*, the adoption of the Ronkonkoma Hub Transit-Oriented Development District (“TOD District”) (a form-based code [FBC]), the rezoning of the Ronkonkoma Hub area (also referred to as the “TOD area”) to the TOD District, and the redevelopment of the area in accordance with the TOD District, based upon the Theoretical Full Build Plan.

The Theoretical Full Build Plan examined in the 2010 DGEIS included the redevelopment of opportunity sites with preferred land uses (i.e., multi-family residential, retail, restaurant, and office). The Theoretical Full Build Plan included the following program mix:

- 615 Residential Units
- 60,875 square feet – Retail
- 49,375 square feet – Office
- 30,000 square feet – Health Club
- 200 seats – Restaurant Use (Total)
- 2,701 new parking spaces
- Sewage Treatment Plant
- Plaza area for outdoor public use

The Theoretical Full Build Plan was not a specific development proposal, but represented a potential redevelopment option that could achieve the goals and objectives of the *Draft Land Use and Implementation Plan* and complied with the proposed TOD District. The DGEIS also examined two alternatives – the “No Action” alternative and the “Theoretical Maximum Build Out Plan.” That alternative assessed the inclusion of property to the south of the railroad tracks within the Town of Islip that is currently used for parking, and was evaluated for potential development with retail space, structured parking and the STP. Examination of the Theoretical Full Build Plan, as well as the two alternatives, enabled the Town Board to conduct a comprehensive environmental review of the overall proposed action and take a “hard look” pursuant to SEQRA and its implementing regulations at 6 NYCRR Part 617.

The Town of Brookhaven Town Board, serving as lead agency, accepted the 2010 DGEIS on September 21, 2010, and a public hearing was held on October 19, 2010.

The support for the redevelopment of the Ronkonkoma Hub area was evident from the aforesaid public hearing and the various community meetings that were held throughout the Phase 1 and Phase 2 planning processes. Subsequent to the public hearing on the 2010 DGEIS, the Town of Brookhaven, in an effort to ensure that the planning efforts would result in the actual redevelopment of the blighted Hub area, decided to seek private developer input as to the financial feasibility of the redevelopment concept. The Town issued a Request for Expressions of Interest (RFEI) and ultimately a Request for Qualifications (RFQ) for a Master Developer.

Upon review of preliminary plans received as part of the RFEI and RFQ processes, the Town of Brookhaven prepared *The Ronkonkoma Hub Study Area Blight Study* (“*Blight Study*”). The *Blight Study* found sufficient evidence to determine the Project Area to be a substandard or insanitary area in accordance with both Article 15 of the New York State General Municipal Law and Article XLI of Chapter 85 of the Town of Brookhaven Town Code. Subsequently, the Town of Brookhaven Town Board, after review of the aforesaid *Blight Study*, by Town Board Resolution 2012-804, dated

September 20, 2012, designated the Ronkonkoma Hub as appropriate for urban renewal pursuant to Article 15 of the New York State General Municipal Law, and authorized the preparation of an urban renewal plan.

In accordance with the requirements set forth in Article 15 of the General Municipal Law, a draft *Urban Renewal Plan for the Ronkonkoma Hub* has been prepared and is being reviewed by the Town. The *Urban Renewal Plan* recommends development at a different mix and density than that contemplated in the aforesaid *Land Use and Implementation Plan* and 2010 DGEIS. The uses and densities proposed in the *Urban Renewal Plan* include the following:

- Potential maximum of 1,450 multi-family residential dwelling units
- Approximately 195,000± square feet of retail space
- Approximately 360,000± square feet of office/commercial space
- Approximately 60,000± square feet of “flex” space, to be utilized for conference, exhibition, hospitality, and/or residential uses

Based upon the revised densities, an updated Environmental Assessment Form was prepared by the Town Board, and a Positive Declaration indicating the need to prepare a supplemental draft generic environmental impact statement was adopted on October 1, 2013 (see Appendix A). Thus, to ensure complete and comprehensive environmental review in accordance with SEQRA and its implementing regulations at 6 NYCRR Part 617, the Town of Brookhaven is preparing this Draft Supplemental Generic Environmental Impact Statement (DSGEIS) to identify and evaluate potential significant adverse environmental impacts.

Pursuant to 6 NYCRR §617.9(a):

“(7) Supplemental EISs.

(i) The lead agency may require a supplemental EIS, limited to the specific significant adverse environmental impacts not addressed or inadequately addressed in the EIS that arise from:

(a) changes proposed for the project; or

(b) newly discovered information; or

(c) a change in circumstances related to the project.

(ii) The decision to require preparation of a supplemental EIS, in the case of newly discovered information, must be based upon the following criteria:

(a) the importance and relevance of the information; and

(b) the present state of the information in the EIS.

(iii) If a supplement is required, it will be subject to the full procedures of this Part."

As the maximum potential development being considered for the Ronkonkoma Hub area is greater than that evaluated in the 2010 DGEIS, this DSGEIS is being prepared to address potential changes in impacts that would result from the modified proposed action.

In order to redevelop the Ronkonkoma Hub area as currently contemplated, the following would be required:

- Adoption of the Urban Renewal Plan
- Adoption of the Land Use and Implementation Plan
- Adoption of a TOD District zoning code ("TOD District")
- Change of zone of parcels within the Ronkonkoma Hub area to the TOD District
- Approval of a Conceptual Master Plan ("Maximum Density Concept Plan")

This DSGEIS examines the proposed action and its associated potential environmental impacts, and focuses on addressing those impacts that have previously been examined but that may occur as a result of implementation of the modified proposed action.

Accordingly, this DSGEIS has been organized by impact issue (see Section 3.0). For each impact issue, a brief summary of existing conditions is presented, followed by a discussion of potential impacts (and identifying those impacts that are different from those evaluated in the 2010 DGEIS), and a presentation of proposed mitigation measures.

2.2 Proposed Action and Planning Concept

2.2.1 Proposed Action

As indicated above, in order to redevelop the Ronkonkoma Hub area in accordance with the concept set forth in the draft *Urban Renewal Plan* and the *Land Use and Implementation Plan*, and the mix and density of development proposed by the Master Developer, the following actions would be required:

- Adoption of the Urban Renewal Plan
- Adoption of the Land Use and Implementation Plan
- Adoption of a TOD District
- Change of zone of parcels within the Ronkonkoma Hub area to the TOD District
- Approval of a Conceptual Master Plan (“Maximum Density Concept Plan”)

These actions are described in more detail below.

Urban Renewal Plan for the Ronkonkoma Hub

In September 2012, the Town of Brookhaven prepared *The Ronkonkoma Hub Study Area Blight Study* (hereinafter the “*Blight Study*”) for the Ronkonkoma Hub (see Appendix B).⁶ The *Blight Study* found sufficient evidence to determine the Ronkonkoma Hub area to be a substandard or insanitary in accordance with both Article 15 of the New York State General Municipal Law and Article XLI of Chapter 85 of the Town of Brookhaven Town Code. Substandard and insanitary conditions observed within the Ronkonkoma Hub area included: vacant and partially-vacant properties (representing 6.5 percent of Study Area) and vacant and partially-vacant buildings (representing 5.5 percent of gross floor area of Study Area), significant underutilization of development potential (the 232,978± square feet of development in the Study Area represents less than 39± percent of the total development potential permitted by zoning), deteriorated buildings, inadequate curb and sidewalk areas, lack of appropriate drainage and sewerage infrastructure, incompatible land uses, and an overall unattractive visual environment.

Subsequently, the Town Board, after review of the aforesaid *Blight Study*, by Town Board Resolution 2012-804, dated September 20, 2012, designated the Ronkonkoma Hub area as appropriate for urban renewal pursuant to Article 15 of the New York

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⁶ The *Blight Study* is incorporated as Attachment A of the *Urban Renewal Plan*.

State General Municipal Law, and authorized the preparation of an urban renewal plan.

In accordance with the requirements set forth in Article 15 of the General Municipal Law, an *Urban Renewal Plan for the Ronkonkoma Hub* (hereinafter the “*Urban Renewal Plan*”) was prepared in order to facilitate the redevelopment of the Ronkonkoma Hub area featuring a mix of higher density residential development, commercial, hospitality, institutional, office, and retail uses, conference, entertainment and exhibition venues, and open spaces (see Appendix B). This TOD area would be designed to both complement and benefit from the presence of the Ronkonkoma Long Island Railroad (LIRR) Station and its associated commuter passenger volumes.

The intent of this *Urban Renewal Plan* is to address blighted conditions identified within the Project Area, defined by Section 501 of the General Municipal Law as “substandard, insanitary, deteriorated or deteriorating conditions, factors, and characteristics” that constitute a “serious and growing menace, is injurious to the public safety, health, morals and welfare...and constitutes a negative influence on adjacent properties impairing their economic soundness and stability, thereby threatening the source of public revenues.” In order to promote sound growth and development, and to address the aforementioned blighted conditions, Urban Renewal Law allows for the “clearance, replanning, reconstruction, redevelopment, rehabilitation, restoration or conservation” of designated blighted areas.

The objectives of the *Urban Renewal Plan* are as follows:

- Eliminate blighting conditions, including: vacant and underutilized properties and buildings; deteriorated buildings; inadequate sidewalks, drainage, and sewerage infrastructure; incompatible land uses; and, aesthetic and visual detriments
- Promote compact, mixed-use development in proximity to the commuter rail station
- Encourage development that supports transit
- Encourage a diverse mix of higher density residential development, commercial, office and retail uses, entertainment and exhibition venues, and open spaces for workers, visitors, and residents
- Promote economic development opportunities
- Encourage a pedestrian-friendly environment and pedestrian-oriented commercial enterprises and consumer services that do not primarily rely on automobile traffic to bring consumers to the area
- Encourage flexibility in site and architectural design
- Maintain a consistently high level of design quality

A number of planning documents were reviewed in the *Urban Renewal Plan* with regard to the Ronkonkoma Hub to ensure that recommendations were consistent with the official goals and visions for the area. These planning documents include the *Brookhaven 1996 Comprehensive Land Use Plan*, *Draft Brookhaven 2030 Plan*,

Ronkonkoma Hub Transit-Oriented Development Planning Study, Long Island 2035 Visioning Initiative Final Report, Town of Brookhaven Draft Blight to Light Study, and the Blight Study.

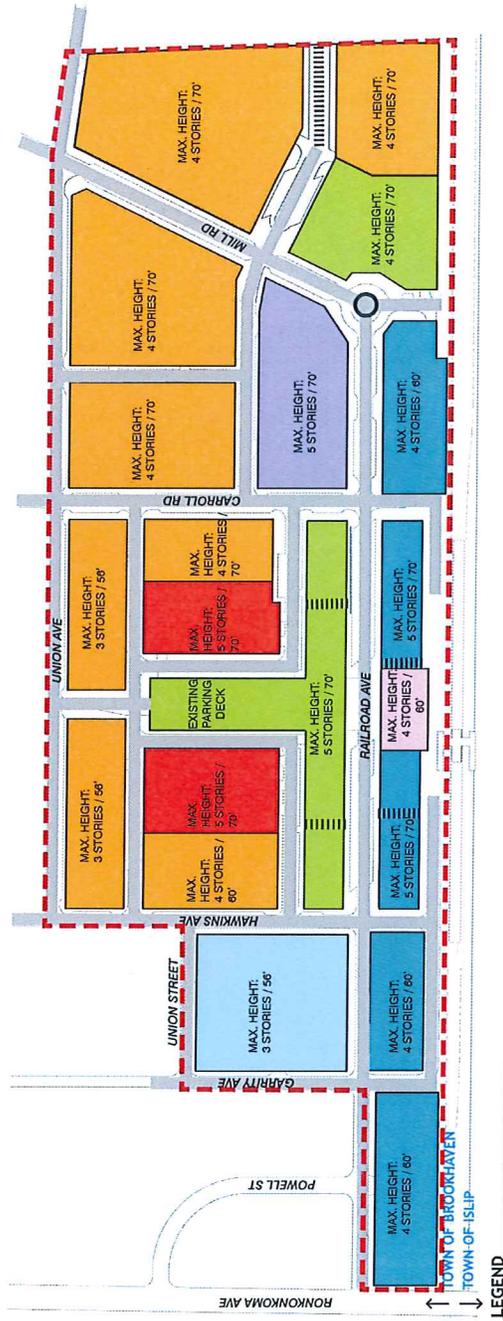
The *Urban Renewal Plan* makes several recommendations with regard to land uses, zoning and other land use controls, building conditions and public improvements, most notably:

- Redevelopment with several multi-family residential buildings, mixed-use buildings potentially containing office, residential and retail uses, mixed-use buildings potentially containing commercial, exhibition, hospitality, institutional, and residential uses, retail and office buildings, as well as special use/entertainment venues.
- Implementation of a TOD Zoning District in order to facilitate the redevelopment as described above.
- All structures to be acquired and demolished with the exception of the existing MTA parking garage and potentially the train station.
- Improvements and upgrades to infrastructure, including roads, sidewalks, curbs, public hardscape and landscape, gas lines, water mains, electric distribution, stormwater runoff collection systems, street and walkway lighting, public parking areas, and an STP.

Based on the findings and recommendations of the *Urban Renewal Plan*, a Conceptual Land Use Plan was developed for the proposed redevelopment of the Ronkonkoma Hub area (see Figure 2). The Conceptual Land Use Plan provides a framework for the redevelopment of the Ronkonkoma Hub area in a transit-oriented manner, including higher density residential development, commercial, hospitality and conference uses, office uses, retail uses, entertainment and exhibition venues and institutional uses.

These uses are generally distributed on the Conceptual Land Use Plan in accordance with the subdistricts that have been defined in the TOD District, including the Neighborhood, Downtown Living, Marketplace and Main Street subdistricts. The Conceptual Land Use Plan depicts the maximum height (in stories and feet) permitted in each.

In total, the Conceptual Land Use Plan provides the maximum permitted development densities for each of the anticipated use types: a maximum of 1,450 dwelling units, approximately 195,000 square feet of retail space, approximately 360,000 square feet of office/medical space, and approximately 60,000 square feet of flex space (for hospitality, conference, exhibition, and/or residential uses).



NILES BOLTON ASSOCIATES
 OCTOBER 7, 2013
 ORIGINAL SCALE: 1" = 200'



MAXIMUM DENSITIES

| Type | Density |
|---|------------|
| Residential | 1450 DU |
| Retail | 195,000 sf |
| Office / Medical | 360,000 sf |
| Flex space (hospitality, conference, exhibition, residential) | 60,000 sf |

BLOCK USE

| |
|---|
| Vertical mixed-use: Residential or office over retail, dining, and entertainment |
| Vertical mixed-use: Office over retail, dining, and entertainment |
| Mixed-use: Predominantly retail with residential permitted floor retail permitted |
| Residential, commercial, hospitality, or institutional, with first floor retail permitted |
| Horizontal mixed-use: Residential, office, institutional |
| Special use, entertainment |

LEGEND

| |
|-----------------------------|
| Development zone |
| Proposed pedestrian passage |
| Traffic circle |



Land Use and Implementation Plan

As part of this proposed action, the Town Board is considering the adoption of a *Land Use and Implementation Plan* for the proposed Ronkonkoma Hub area (see Appendix C). The *Land Use and Implementation Plan* was prepared as a result of the extensive planning process undertaken by the Town of Brookhaven for the redevelopment and revitalization of the 53.73±-acre area situated around the Ronkonkoma train station.

The *Land Use and Implementation Plan* provides an overview of the Ronkonkoma Hub area, the background and history of the Town's planning process, the proposed form-based code (FBC), and a redevelopment concept (Conceptual Land Use Plan) that illustrates the overall type and level of development that could take place with the application of the proposed FBC. The *Land Use and Implementation Plan*, among other things, examines the proposed TOD District, discusses SEQRA compliance and the environmental and public review process, and discusses the implementation strategy for realizing the Town's vision for the redevelopment of the Ronkonkoma Hub area.

As previously indicated, a *Draft Land Use and Implementation Plan* was analyzed as part of the 2010 DGEIS, which evaluated a theoretical maximum development scenario. Since support for the redevelopment of the Ronkonkoma Hub was evident from the DGEIS public hearing, the Town then sought private developer input, and ultimately issued a RFQ for a Master Developer.

Subsequently, a *Blight Study* and draft *Urban Renewal Plan* were prepared. The draft *Urban Renewal Plan* set forth uses and densities for the Ronkonkoma Hub area, as follows:

- A potential maximum of 1,450 multi-family residential dwelling units
- Approximately 195,000 square feet of retail space
- Approximately 360,000 square feet of office/medical space
- Approximately 60,000 square feet of "flex" space, to be utilized for conference, exhibition, hospitality, and/or residential uses

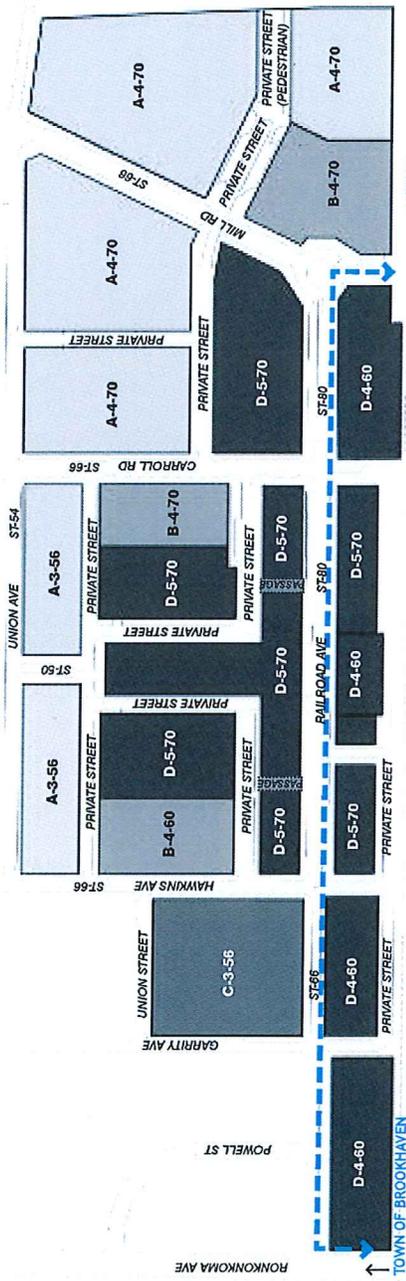
Ronkonkoma Hub Transit-Oriented Development District (TOD District)

The TOD District has been designed as an FBC. As indicated in the 2010 DGEIS, FBC zoning is different from conventional zoning in that it emphasizes building form and appearance rather than specifying bulk regulations. FBC zoning focuses on regulating the public realm, including street types, blocks, and civic spaces and provides for flexibility in use, site and architectural design. Form-based code zoning also includes an extensive use of graphics to illustrate, for example, the anticipated relationship of the building to the street or site.

The TOD District establishes objectives, policies, and standards to promote orderly development and redevelopment within the TOD District area for purposes of encouraging high-density mixed-use development, including housing, retail, entertainment, institutional and office uses. The overall intent of the TOD District is to encourage the efficient use of land, be a catalyst for revitalization, and foster a sense of place through development of a new transit-oriented, mixed use, pedestrian-friendly community.

The TOD District would also encourage redevelopment of vacant and/or underutilized, blighted properties, which would enhance the tax base and compliment the surrounding communities and uses as well as better utilize existing public transit infrastructure at Ronkonkoma Station through improved access and increased ridership.

Development within the Ronkonkoma Hub area would be governed by a "Regulating Plan" (see Appendix D and Figure 3). This Regulating Plan designates the subdistricts that comprise the TOD District and the various roadways within and adjacent to the subdistrict. With respect to approvals, the Planning Board would determine whether proposed development within the Ronkonkoma Hub area complies with the Regulating Plan and with the descriptions, building configurations and alignments, and other development parameters applicable to each of the subdistricts, as defined in the TOD District.



- Notes:**
1. The principal frontage shall be the side of the block that is of greatest length, abuts a public street, or that is otherwise approved by the Planning Board at site plan approval. There shall be one principal frontage per block. *Exception:* In Subdistrict C, Hawkins Avenue shall be the principal frontage.
 2. The secondary frontage shall be any side of a block that abuts a public street but is not a principal frontage. *Exception:* In Subdistrict C, Railroad Avenue shall be the only secondary frontage.
 3. Private street locations illustrated here may be adjusted, so long as the requirements of note 5 below are met.
 4. Subdistricts shall be construed to extend to the centerlines of adjoining streets.
 5. Within the subdistricts, blocks shall be subdivided with public or private streets such that the total perimeter of the block is not less than 1300 linear feet and the width of any one street is not less than 100 linear feet. A clearly defined public pedestrian pathway connecting two different streets shall be construed as subdividing the block.

LEGEND

| | |
|---------------|-----------------|
| Subdistrict A | Neighborhood |
| Subdistrict B | Downtown living |
| Subdistrict C | Marketplace |
| Subdistrict D | Main Street |

| | |
|---|--|
| Form & use | Street types |
| C-S-60 (example) | SF-66 (example) |
| Maximum height in feet | Required public right-of-way width in feet |
| Maximum height in stories above average grade | |
| Subdistrict | |

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The subdistricts included within the TOD District are shown on the Regulating Plan (see Figure 3). These subdistricts convey the specific character that the Town wishes to achieve within the Ronkonkoma Hub area.

- Neighborhood Subdistrict (A) -- The Neighborhood Subdistrict is a predominantly residential area with medium-to-high density building types. It allows for a limited amount of ground floor commercial use and live/work units. It provides a transition between single-family homes and more compact mixed-use areas.
- Downtown Living Subdistrict (B) -- The Downtown Living Subdistrict is predominantly a mixed-use residential area with medium-to-high density building types. It allows for up to 50 percent commercial use.
- Marketplace Subdistrict (C) -- The Marketplace Subdistrict allows for predominantly retail-focused mixed-use, maintaining a high level of flexibility to attract diverse local and national retailers.
- Main Street Subdistrict (D) -- The Main Street Subdistrict is intended as predominantly a pedestrian-oriented, mixed-use town center. Regional shopping, entertainment, and outdoor dining uses are encouraged.

As shown on the Regulating Plan, Neighborhood Subdistrict A forms the northern perimeter (along Union Avenue) and the eastern perimeter of the Ronkonkoma Hub TOD area. Downtown Living Subdistrict B is located south of Union Avenue, adjacent to Hawkins Avenue and adjacent to Carroll Avenue. Another portion of Downtown Living Subdistrict B is located east of the Mill Road roundabout, north of the railroad tracks. Marketplace Subdistrict C is surrounded by Union Street to the north, Hawkins Avenue to the east, Garrity Avenue to the west and Railroad Avenue to the south. Finally, Main Street Subdistrict D forms the remainder of the Ronkonkoma Hub TOD area. The majority of Subdistrict D is located along the northern and southern sides of Railroad Avenue, from Ronkonkoma Avenue (with the exception of the area of Marketplace Subdistrict C) to Mill Road, and includes the train station and the existing parking garage. It also extends to the north along several new private streets and abuts Downtown Living Subdistrict B to the east and west (see Figure 3).

Each of the subdistricts is further broken down by maximum height in stories and maximum height in feet, as depicted on the Regulating Plan (see Figure 3). Specifically,

- Neighborhood Subdistrict (A) -- Maximum height of four stories, 70 feet, east of Carroll Avenue and maximum height of three stories, 56 feet west of Carroll Avenue
- Downtown Living Subdistrict (B) -- Maximum height of four stories, 70 feet

- Marketplace Subdistrict (C) -- Maximum height of three stories, 56 feet
- Main Street Subdistrict (D) -- Maximum height of five stories, 70 feet, with the exception of four blocks south of Railroad Avenue, which would have a maximum height of four stories and 60 feet

The Regulating Plan also provides additional development parameters (e.g., street types, principal and secondary frontages, and blocks).

Together with the Regulating Plan, development must also conform to street and roadway standards (including streetscape standards), outdoor space standards, and signage, lighting and parking regulations, as defined in the TOD District.

A more detailed discussion of the proposed TOD District is contained in Section 3.4.2 and Appendix D of this DSGEIS.

**Change of Zone of Parcels within
the Ronkonkoma Hub area to the
TOD District**

The TOD District, upon adoption by the Town Board, is proposed to be applied to the 54 individual tax parcels located within the 53.73±-acre Ronkonkoma Hub area. These parcels are listed below, and are shown in

Figure 4.

Table 1 – Tax Parcels Proposed for Rezoning to TOD District

| No. | Suffolk County Tax Map Number | Current Land Use | Current Zoning |
|-----|-------------------------------|--|----------------|
| 1 | 0200 79900 0300 032000 | Mixed Use - Residential and Commercial | J6 |
| 2 | 0200 79900 0300 033001 | Commercial | J6 |
| 3 | 0200 79900 0300 033002 | Undeveloped | J6 |
| 4 | 0200 79900 0300 034000 | Commercial | J6 |
| 5 | 0200 79900 0300 035000 | Vacant | J6 |
| 6 | 0200 79900 0300 036000 | Commercial | J6 |
| 7 | 0200 79900 0300 037000 | Commercial | J6 |
| 8 | 0200 79900 0300 038000 | Commercial | J6 |
| 9 | 0200 79900 0300 039000 | Commercial | J6 |
| 10 | 0200 79900 0300 040001 | Undeveloped | J6 |
| 11 | 0200 79900 0300 040002 | Vacant | J6 |
| 12 | 0200 79900 0300 041000 | Commercial | J6 |
| 13 | 0200 79900 0300 042000 | Vacant | J6 |
| 14 | 0200 79900 0300 043000 | Vacant | J6 |
| 15 | 0200 79900 0300 044000 | Vacant | J6 |
| 16 | 0200 79900 0300 045001 | LIRR Ronkonkoma Station | L1 |

| No. | Suffolk County Tax Map Number | Current Land Use | Current Zoning |
|-----|-------------------------------|--|----------------|
| 17 | 0200 79900 0300 049000 | LIRR Ronkonkoma Station | L1 |
| 18 | 0200 79900 0300 050000 | LIRR Ronkonkoma Station | L1 |
| 19 | 0200 79900 0400 044000 | Commercial | J6 |
| 20 | 0200 79900 0400 047001 | Commercial | J6 |
| 21 | 0200 79900 0400 048000 | Vacant | J6 |
| 22 | 0200 79900 0400 049000 | Residential | J6 |
| 23 | 0200 79900 0400 051001 | Commercial | L1 |
| 24 | 0200 79900 0400 052000 | Commercial | L1 |
| 25 | 0200 79900 0400 053000 | Commercial | L1 |
| 26 | 0200 79900 0400 054000 | Residential | L1 |
| 27 | 0200 80000 0100 027001 | Commercial | L1 |
| 28 | 0200 80000 0100 028000 | Parking Facility | L1 |
| 29 | 0200 80000 0100 031001 | Commercial | L1 |
| 30 | 0200 80000 0100 033001 | Mixed Use - Residential and Commercial | L1 |
| 31 | 0200 80000 0100 034000 | Commercial | L1 |
| 32 | 0200 80000 0100 035007 | Commercial | L1 |
| 33 | 0200 80000 0100 035008 | Undeveloped | J6 |
| 34 | 0200 80000 0100 035009 | Commercial | L1 |
| 35 | 0200 80000 0100 036000 | Parking Facility | L1 |
| 36 | 0200 80000 0100 038000 | LIRR Ronkonkoma Station | L1 |
| 37 | 0200 80000 0200 009000 | Commercial | L1 |
| 38 | 0200 80000 0200 010000 | Commercial | L1 |
| 39 | 0200 80000 0200 011000 | Commercial | L1 |
| 40 | 0200 80000 0200 012000 | Residential | L1 |
| 41 | 0200 80000 0200 013000 | Commercial | L1 |
| 42 | 0200 80000 0200 014000 | Commercial | L1 |
| 43 | 0200 80000 0200 015000 | Vacant | L1 |
| 44 | 0200 80000 0200 016000 | Commercial | L1 |
| 45 | 0200 80000 0200 017000 | Residential | L1 |
| 46 | 0200 80000 0200 018000 | Residential | L1 |
| 47 | 0200 80000 0200 019000 | Commercial | L1 |
| 48 | 0200 80000 0200 020000 | Residential | L1 |
| 49 | 0200 80000 0200 021000 | Commercial | L1 |
| 50 | 0200 80000 0200 022000 | Commercial | L1 |
| 51 | 0200 80000 0200 023000 | Commercial | L1 |
| 52 | 0200 80000 0200 028001 | Commercial | J4 |
| 53 | 0200 80000 0200 028003 | Commercial | J2 |
| 54 | 0200 80000 0200 028004 | Industrial | J2 |

Sources: Town of Brookhaven Department of Assessor and field verification by VHB, August 2012.



Figure 4
Tax Parcel Map

Ronkonkoma Hub
Transit-Oriented Development

YHA Engineering, Surveying and Landscape Architecture, P.C.

Legend
 Study Area
 Study Area, Tax Parcel



Data Source: Town of Brookhaven GIS

Conceptual Master Plan (Maximum Density Concept Plan)

A Conceptual Master Plan (“Maximum Density Concept Plan”) has been prepared to conform to the parameters of the Regulating Plan (described above). The Maximum Density Concept Plan presented herein is not a specific development proposal, as it is not feasible to define the specific development of the entire 53.73± acres of the Ronkonkoma Hub area. Development is expected to take place over several years, and the specific uses and level of development would be dictated by market demand. However, review of the Maximum Density Concept Plan, which examines maximum potential development permitted within the Ronkonkoma Hub area, enables the Town Board to take a “hard look” at the relevant environmental impacts through the performance of a comprehensive environmental review pursuant to SEQRA and its implementing regulations at 6 NYCRR Part 617.

The Maximum Density Concept Plan presented in Figure 5, which is more fully detailed in the Conceptual Master Plan Package (dated October 11, 2013) in Appendix E, is based upon the conclusions of and the parameters (e.g., maximum development potential and the heights of the buildings) set forth in the *Urban Renewal Plan*, which will ultimately be codified on the Regulating Plan included in the TOD District. The Maximum Density Concept Plan includes the following program:

- 1,450 residential units⁷
- 195,000 SF of retail⁸
- 360,000 SF of office/medical⁹
- 60,000 SF of flex space (including hospitality, conference and exhibition space, and/or residential units)¹⁰

Total parking provided is 3,638 parking spaces, not including those spaces within the existing parking garage (1,043) and existing parking lot (341).

▼
⁷ For purposes of analysis, it was assumed that 50 percent of the units (725) would be rental and 50 percent (725) would be for-sale. The ownership and rental units would each be comprised of 50 percent one-bedroom units and 50 percent two-bedroom units. However, this was done solely for analysis purposes. Actual unit type and bedroom mix will be determined by market demand.

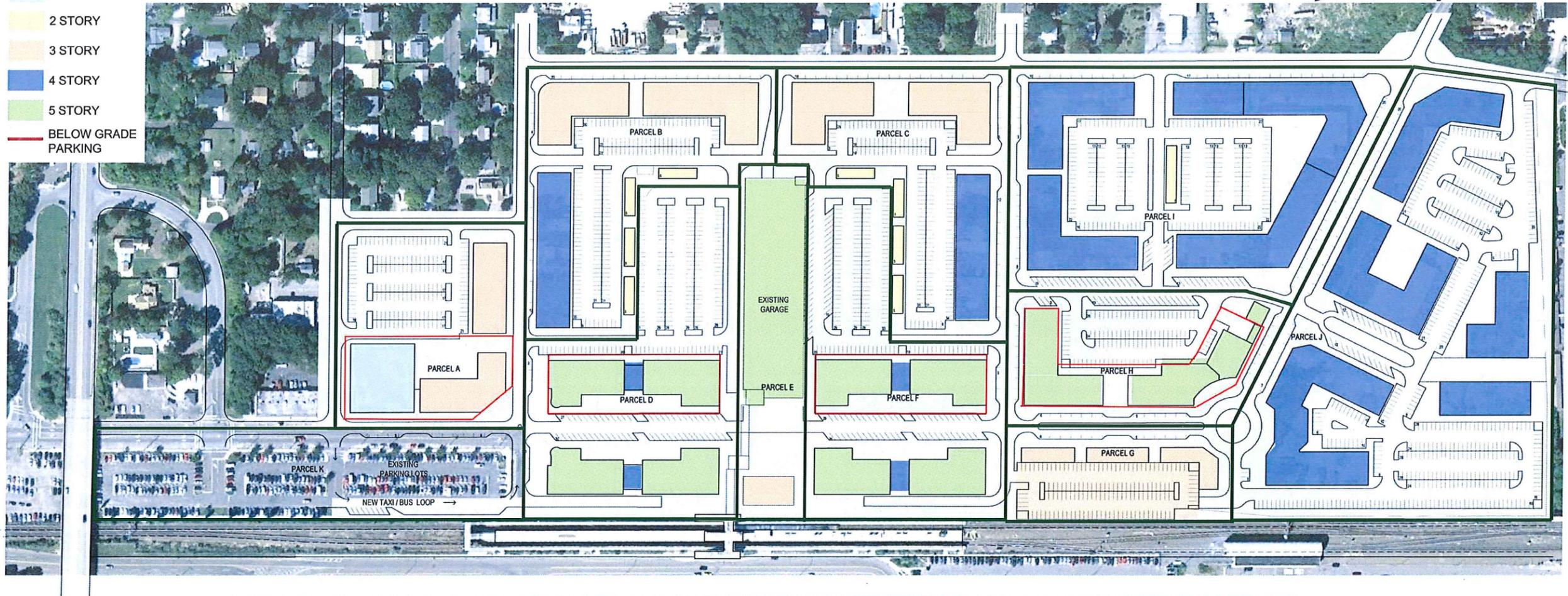
⁸ For purposes of analysis, it was assumed that 40,000 SF of the total 195,000 SF of retail space would be comprised of restaurants (1,080 seats). However, actual retail mix will be determined by market demand.

⁹ For purposes of analysis it was assumed that of the total 360,000 square feet of commercial space, there would be 306,000 SF of general office space and 54,000 SF of medical office space. However, the actual mix of office and medical office space would be determined by market demand.

¹⁰ For purposes of analysis, the flex space has been considered to be a 120-room hotel. The actual use of this flex space will be determined by market demand.

Ronkonkoma HUB • Maximum Density Concept Plan

- LEGEND**
- 1 STORY
 - 2 STORY
 - 3 STORY
 - 4 STORY
 - 5 STORY
 - BELOW GRADE PARKING



| | | | | | | | | | | | |
|--|--|--|---|---|--|---|--|---|--|---|---|
| <p>PARCEL A</p> <p>RESIDENTIAL: 45 UNITS
RETAIL: 47,580 sq ft.</p> <p>PARKING:
SURFACE SPACES: 164
STREET SPACES: N/A
1 LEVEL GARAGE SHOWY 116
TOTAL SPACES: 280</p> <p>PARKING REQUIRED:
RESIDENTIAL: 54 SPACES
RETAIL: 126 SPACES</p> | <p>PARCEL B</p> <p>RESIDENTIAL: 184 UNITS
CARRIAGE UNITS: 8
TOTAL UNITS: 192</p> <p>PARKING:
SURFACE SPACES: 190
STREET SPACES: 26
CARRIAGE SPACES: 20
TOTAL SPACES: 246</p> <p>PARKING REQUIRED:
RESIDENTIAL: 230 SPACES</p> | <p>PARCEL C</p> <p>RESIDENTIAL: 161 UNITS
CARRIAGE UNITS: 8
TOTAL UNITS: 169</p> <p>PARKING:
SURFACE SPACES: 176
STREET SPACES: 35
CARRIAGE SPACES: 20
TOTAL SPACES: 231</p> <p>PARKING REQUIRED:
RESIDENTIAL: 203 SPACES</p> | <p>PARCEL D</p> <p>RESIDENTIAL: 51 UNITS
RETAIL: 39,900 sq ft.
OFFICE/MEDICAL: 181,370 sq ft.</p> <p>PARKING:
SURFACE SPACES: 175
STREET SPACES: 104
GARAGE PARKING: 292
TOTAL SPACES: 571</p> <p>PARKING REQUIRED:
RESIDENTIAL: 61 SPACES
RETAIL: 106 SPACES
OFFICE/MEDICAL: 519 SPACES</p> | <p>PARCEL E</p> <p>RETAIL: 15,900 sq ft.</p> <p>PARKING:
EXISTING GARAGE: 1043
PARKING REQUIRED:
RETAIL: 50 SPACES</p> | <p>PARCEL F</p> <p>RESIDENTIAL: 102 UNITS
RETAIL: 53,200 sq ft.
OFFICE/MEDICAL: 109,370 sq ft.</p> <p>PARKING:
SURFACE SPACES: 204
STREET SPACES: 55
GARAGE PARKING: 292
TOTAL SPACES: 551</p> <p>PARKING REQUIRED:
RESIDENTIAL: 122 SPACES
RETAIL: 141 SPACES
OFFICE/MEDICAL: 313 SPACES</p> | <p>PARCEL G</p> <p>RESIDENTIAL: NONE
RETAIL: 9,800 sq ft.
OFFICE/MEDICAL: 38,425 sq ft.</p> <p>PARKING:
GARAGE SPACES @ 4 STY: 588
STREET SPACES: 11
TOTAL SPACES: 599</p> <p>PARKING REQUIRED:
RESIDENTIAL: NONE
RETAIL: 26 SPACES
OFFICE/MEDICAL: 110 SPACES</p> | <p>PARCEL H</p> <p>RESIDENTIAL: 62 UNITS
RETAIL: 17,420 sq ft.
OFFICE/MED: 30,835 sq ft.
FLEX SPACE: 60,000 sq ft.</p> <p>PARKING:
SURFACE SPACES: 123
STREET SPACES: 43
GARAGE: 140
TOTAL SPACES: 306</p> <p>PARKING REQUIRED:
RESIDENTIAL: 74 SPACES
RETAIL: 46 SPACES
OFFICE/MED: 88 SPACES
FLEX SPACE: 172 SPACES</p> | <p>PARCEL I</p> <p>RESIDENTIAL: 392 UNITS</p> <p>PARKING:
SURFACE SPACES: 238
STREET SPACES: 92
TOTAL SPACES: 330</p> <p>PARKING REQUIRED:
RESIDENTIAL: 471 SPACES</p> | <p>PARCEL J</p> <p>RESIDENTIAL: 437 UNITS
RETAIL: 8,200 sq ft.</p> <p>PARKING:
SURFACE SPACES: 472
STREET SPACES: 52
TOTAL SPACES: 524</p> <p>PARKING REQUIRED:
RESIDENTIAL: 525 SPACES
RETAIL: 22 SPACES</p> | <p>PARCEL K</p> <p>EXISTING PARKING: 341</p> | <p>TOTAL DEVELOPMENT:</p> <p>TOTAL RESIDENTIAL: 1,450 UNITS
TOTAL RETAIL: 195,000 sq ft.
TOTAL OFFICE/MEDICAL: 300,000 sq ft.
TOTAL FLEX SPACE: 60,000 sq ft.</p> <p>PARKING RATIO:</p> <p>RESIDENTIAL: 1.20 SPACES/UNIT
RETAIL: 2.55/1000 sq ft.
OFFICE/MEDICAL: 2.65/1000 sq ft.
FLEX SPACE: 2.65/1000 sq ft.</p> <p>REQUIRED PARKING:</p> <p>RESIDENTIAL: 1,740 SPACES
RETAIL: 517 SPACES
OFFICE/MEDICAL: 1030 SPACES
FLEX SPACE: 172 SPACES
PARKING REQUIRED: 3459</p> <p>PARKING PROVIDED: 3638*</p> <p>*This does NOT include the existing parking garage or existing surface lot in Block K.</p> |
|--|--|--|---|---|--|---|--|---|--|---|---|



TRITEC REAL ESTATE • OCTOBER 10, 2013 • SCALE: 1" = 200'

NILES BOLTON ASSOCIATES



As demonstrated in Section 3.4.2 of this DSGEIS, the Maximum Density Concept Plan complies with the Regulating Plan, which depicts the locations of the subdistricts set forth in the TOD District, and describes the character to be achieved within each of the subdistricts. As illustrated on the Regulating Plan and as noted above, the predominantly residential subdistricts are located within the northern and eastern extents of the Ronkonkoma Hub area, which relates to the existing surrounding residential development, while the predominantly retail subdistrict is situated at the western extent of the Ronkonkoma Hub area, along Hawkins and Railroad Avenues. The Regulating Plan also depicts several different mixed-use subdistricts (the Marketplace and the Main Street Subdistricts), that allow greater building heights, generally situated closer to the railroad tracks and around the train station. The Maximum Density Concept Plan conforms to the Regulating Plan in terms of distribution of uses, heights and density of development (see Figure 5).

2.3 Comparison of Impacts

The following table provides a summary comparison of the impacts of the Theoretical Full Build Plan presented in the 2010 DGEIS and the maximum potential development under the TOD District, which is depicted on the Maximum Density Concept Plan evaluated in this DSGEIS. It should be noted that development potential was limited in the Theoretical Full Build Plan scenario presented in the 2010 DGEIS, as that scenario contemplated the construction of an STP on within the 53.73± Ronkonkoma Hub area. However, since the time of the acceptance of the DGEIS, Suffolk County has decided to form a sewer district and construct a plant on the south side of the LIRR tracks. Accordingly, there is more area available within the 53.73± acres that could accommodate development.



| | Proposed Action in DGEIS | Maximum Development Under TOD District/Proposed Action in DSGEIS |
|--|--|---|
| Soils and Topography | | |
| Soils - General | Disturbance of soils for foundation excavation, utility installation, grading, paving, and landscaping - No significant adverse impacts | Disturbance of soils for foundation excavation, utility installation, grading, paving, and landscaping. No significant adverse impacts |
| Topography - Cut and Fill | Not Determined | Approximately 65,108 CY of cut |
| Topography - General | No significant adverse impacts | No significant adverse impacts |
| Water Resources and Sanitary Disposal | | |
| Groundwater - 208 Study | Compliance w/ Town's stormwater ordinance; use of indigenous vegetation species; installation of adequate drainage structures | Compliance w/ Town's stormwater ordinance; use of indigenous vegetation species; installation of adequate drainage structures |
| Groundwater - Suffolk County Sanitary Code | <p>Article 6 - As an STP would be constructed on-site, sanitary density limitations are not applicable</p> <p>Article 12 - Appropriate SCDHS permits for the installation of underground or above ground storage tanks would be obtained</p> | <p>Article 6 - All sanitary waste is proposed to be accommodated by a new STP to be constructed by Suffolk County, south of the railroad tracks, south of the eastern extent of the Ronkonkoma Hub area</p> <p>Article 12 - All redevelopment of properties where underground or above ground storage tanks are proposed in quantities with a combined capacity greater than 1,100-gallons, the applicant would be required to secure the appropriate permits under Article 12 from the SCDHS</p> |
| Sewage Treatment Plant | On-site STP - capacity of 275,000 gpd | Off-site STP - capacity of 500,000 gpd |
| Sewage Disposal - Generation | 169,000 gpd | 399,060 gpd |
| Groundwater - Water Usage | 186,000 gpd (including irrigation) | 440,000 gpd (including irrigation) |
| Stormwater Runoff - Stormwater Runoff During Construction Activities | Would comply with Town's stormwater ordinance | Would comply with Town's stormwater ordinance |
| Stormwater Runoff - Post-Development Stormwater Runoff Management | Would comply with Town's stormwater ordinance | Would comply with Town's stormwater ordinance |
| Surface Water, Wetlands and Floodplains - General | No wetlands on site | No wetlands on site |
| Ecology | | |
| Vegetation Impacts | Native/Indigenous species to be used | Native/Indigenous species to be used |
| Wildlife Impacts | Suitable habitat would remain after construction activities | Suitable habitat would remain after construction activities |
| Rare Species/Habitat Potential | None | None |



| Land Use and Zoning | Proposed Action in DGEIS | Maximum Development Under TOD District/Proposed Action in DSGEIS |
|---|--|---|
| <i>Land Use - General</i> | <p>Redevelopment of the Project Area with a mix of uses, including:</p> <ul style="list-style-type: none"> • 615 residential units • 60,875 sq. ft. of retail space • 200-seat restaurant • 49,375 sq. ft. of office space • 30,000 sq. ft. of health club space • 5 acres for a STP | <p>Redevelopment of the Project Area with a mix of uses, including:</p> <ul style="list-style-type: none"> • 1,450 residential units • 155,000 sq. ft. of retail space • 40,000 sq. ft. restaurants (1,080 seats) • 306,000 sq. ft. of office space • 54,000 sq. ft. of medical office space • 60,000 sq. ft. of flex space (hotel - 120 rooms) |
| <i>Land Use - Community Character</i> | <p>The proposed TOD would revitalize the area with various TOD-related uses with visual continuity and a user-friendly public realm</p> | <p>The proposed TOD would revitalize the area with various TOD-related uses with visual continuity and a user-friendly public realm</p> |
| <i>Zoning - Form-Based Code</i> | <p>Rezoning of the Project Area to the TOD Zoning District</p> | <p>Rezoning of the Project Area to the TOD Zoning District</p> |
| <i>Zoning - Local Approval Process</i> | <p>Approvals from various local agencies required</p> | <p>Approvals from various local agencies required</p> |
| <i>Zoning - Proposed Impacts of TOD District</i> | <p>Allow for uses currently not permitted; industrial uses not permitted</p> | <p>Allow for uses currently not permitted; industrial uses not permitted</p> |
| <i>Land Use and Implementation Plan - General</i> | <p>N/A</p> | <p>N/A</p> |
| <i>Relevant Land Use Plans - Ronkonkoma Hub Transit-Oriented Planning Study</i> | <p>Proposed action consistent with this plan</p> | <p>Proposed action consistent with this plan</p> |
| <i>Relevant Land Use Plans - Brookhaven 1996 Comprehensive Land Use Plan</i> | <p>Transportation - Consistent
Land Use and Zoning - Use prescribed not consistent with Proposed Action</p> | <p>Transportation - Consistent
Land Use and Zoning - Use prescribed not consistent with Proposed Action</p> |
| <i>Relevant Land Use Plans - Draft Brookhaven 2030 Plan</i> | <p>Consistent with plan</p> | <p>Consistent with plan</p> |
| <i>Relevant Land Use Plans Long Island 2035 Visioning Initiative Final Report</i> | <p>Consistent with plan</p> | <p>Consistent with plan</p> |



| Traffic and Parking | Proposed Action in DGEIS | Maximum Development Under TOD District/Proposed Action in DSGEIS |
|--|--|--|
| <p><i>Traffic - General</i></p> | <p>Full Build: 480 AM Peak Hour Trips/ 811 PM Peak Hour Trips
 TOD Adjusted: 360 AM Peak Hour Trips/ 608 PM Peak Hour Trips</p> | <p>Full Build: 1,514 AM Peak Hour Trips/ 2,413 PM Peak Hour Trips
 TOD Adjusted: 1,135 AM Peak Hour Trips/ 1,810 PM Peak Hour Trips</p> |
| <p><i>Traffic - Traffic Operations Analysis: Worst Case Peak Hour (Build 2020)</i></p> | <p>LIE North Service Road and Hawkins Avenue - Overall LOS: C (AM)
 LIE South Service Road and Hawkins Avenue - Overall LOS: F (PM)
 Hawkins Avenue and Union Avenue - Overall LOS: B (AM/PM)
 Union Avenue and Mill Road - Overall LOS: C (PM)
 Hawkins Avenue and Railroad Avenue - Overall LOS: B (AM/PM)
 Hawkins Avenue and Railroad Avenue - SB LOS: F (AM)
 Ronkonkoma Avenue at 2nd Street/Powell Street - EB LOS: F (AM)</p> | <p>LIE North Service Road and Hawkins Avenue - Overall LOS: E (AM)
 LIE South Service Road and Hawkins Avenue - Overall LOS: F (PM)
 Hawkins Avenue and Union Avenue - Overall LOS: C (PM)
 Union Avenue and Mill Road - Overall LOS: E (PM)
 Hawkins Avenue and Railroad Avenue - Overall LOS: N/A
 Hawkins Avenue and Railroad Avenue - SB LOS: F (AM/PM)
 Ronkonkoma Avenue at 2nd Street/Powell Street - WB LOS: F (PM)/ EB LOS: F (AM)</p> |
| <p><i>Parking - General</i></p> | <p>Parking Required: 3,604 spaces/ Parking Provided: 4,644 spaces</p> | <p>Parking Required: 3,459 spaces/ Parking Provided (Excl. Exstg. Spaces): 3,638 spaces</p> |
| <p><i>Air Quality</i></p> | <p>Potential temporary fugitive dust emissions and emissions from</p> | <p>Potential temporary fugitive dust emissions and emissions from construction vehicle</p> |
| <p><i>Air Quality - Short Term Impacts</i></p> | <p>Potential increases in motor vehicle emissions (CO, PM), not expected</p> | <p>Potential increases in motor vehicle emissions (CO, PM), not expected to be</p> |
| <p><i>Noise</i></p> | <p>Increases of 6 dBA or less</p> | <p>Increases of 6 dBA or less</p> |
| <p><i>Noise - Location of Residential Uses</i></p> | <p>Throughout Ronkonkoma Hub area</p> | <p>No residential uses south of Railroad Avenue between Hawkins Avenue and Mill Road</p> |
| <p><i>Noise - Stationary Sources</i></p> | <p>Would be required to conform to Town's noise ordinance</p> | <p>Would be required to conform to Town's noise ordinance</p> |
| <p><i>Noise - Facility Operations</i></p> | <p>Would be required to conform to Town's noise ordinance</p> | <p>Would be required to conform to Town's noise ordinance</p> |
| <p><i>Noise - Interior</i></p> | <p>Interior noise level not to exceed 45 dBA from external sources</p> | <p>Interior noise level not to exceed 45 dBA from external sources</p> |
| <p><i>Noise - Construction-Related</i></p> | <p>Expected to be below 80 dBA and would conform to Town's noise</p> | <p>Expected to be below 80 dBA and would conform to Town's noise ordinance</p> |

| | Proposed Action in DGEIS | Maximum Development Under TOD District/Proposed Action in DSGEIS |
|---|--|--|
| Socioeconomics | | |
| Projected Population - General | Ownership Units: 545 persons
Rental Units: 513 Persons
Total: 1,058 persons | Ownership Units: 1,324 persons
Rental Units: 1,444 Persons
Total: 2,768 persons |
| Projected Property Tax Revenues | \$2,447,100 (net increase of \$1,954,725) at full build-out | \$16,179,702 (net increase of \$15,711,714) at full build-out |
| Job Generation | Not Determined | Permanent Jobs: 2,740/ Construction Jobs: 1,953 FTE Jobs per year |
| Community Facilities and Services | | |
| Community Facilities and Services - Ambulance Services | Increase of 55.19 calls per year; demand for 0.05 ambulance vehicles; demand for 0.05 full-time personnel. Additional tax revenues to the Ronkonkoma Fire Department (which provides ambulance services) are projected to be \$72,762 at full build-out | Additional tax revenues to the Ronkonkoma Fire Department (which provides ambulance services) are projected to be \$740,000± at full build-out |
| Community Facilities and Services - Fire Protection Services: | Increased need for 2.49 fire personnel; increased need for 0.2 fire vehicles; increased need for 378 sq. ft. of fire protection facility space. Additional tax revenues to the Ronkonkoma Fire Department are projected to be \$72,762 at full build-out | Additional tax revenues to the Ronkonkoma Fire Department are projected to be \$740,000± at full build-out |
| Community Facilities and Services - Police Services | Increased need for 3.02 police personnel; increased need for 3.02 police vehicles; increased need for 302.4 sq. ft. of police protection facility space. Additional tax revenues to the Suffolk County Police Department are projected to be \$255,066 at full build-out | Additional tax revenues to the Suffolk County Police Department are projected to be \$2.1± million at full build-out |
| Community Facilities and Services - Health Care Facilities | Brookhaven Memorial Hospital and Stony Brook Medical Center serve the area | Brookhaven Memorial Hospital and Stony Brook Medical Center serve the area |
| Community Facilities and Services - Educational Facilities | 68 school-aged children to be generated with a cost of \$1,265,242 (net revenue to school district projected to be \$1,634,007 at full build-out) | 214 school-aged children to be generated with a cost of \$4,433,438 (net revenue to the school district projected to be \$6,744,904 at full build-out) |
| Community Facilities and Services - Solid Waste | 124.14± tons per month | 377± tons per month |
| Aesthetics | | |
| Aesthetics - Architectural Features and Streetscape Elements | Overall improvement to architectural character and streetscape elements | Overall improvement to architectural character and streetscape elements |
| Aesthetics - Building Height | Up to 5 stories | Up to 5 stories |
| Cultural Resources | | |
| Cultural Resources - General | No resources identified | No resources identified |

2.4 Purpose, Needs and Benefits

The purpose, needs and benefits of the proposed action have remained the same since the time of the 2010 DGEIS. Since the Town embarked on this planning initiative in 2007, the overall goal was, and remains, to revitalize the Ronkonkoma Hub area. The various actions that comprise the proposed action, which are contemplated herein, are consistent with the stated goals of the *Ronkonkoma Hub Planning Study* as they encourage the efficient use of land, provide for revitalization, and foster a sense of place through development of a new transit-oriented, mixed-use, self-sufficient community. The proposed action would also enhance the tax base through redevelopment of existing vacant/unoccupied parcels and new development by increasing the area's marketability. The TOD District aims to encourage uses that complement the surrounding existing uses as well as better utilize existing public transit infrastructure at the Ronkonkoma Station. The Maximum Density Concept Plan draws upon the conclusions of the *Urban Renewal Plan* as a basis for the design plan, conforms to the proposed TOD District, and achieves the overall goals for the Ronkonkoma Hub area that have been set forth by the Town.

2.5 Project Schedule

A preliminary project schedule has been developed based upon the current status of the proposed action, as follows.

- Urban Renewal Area Designation: 3rd Quarter 2012 - 4th Quarter 2013
- SEQRA Approval and Change of Zone: 3rd Quarter 2012 - 4th Quarter 2013
- Road and Infrastructure Financing: 2nd Quarter 2012 – 2nd Quarter 2014
- STP Design and Construction Process: 4th Quarter 2012 – 4th Quarter 2016
- Property Acquisition Process: 4th Quarter 2012 – 4th Quarter 2016
- Site Plan Approval Process: 1st Quarter 2013 – 4th Quarter 2017
- Vertical Development: 4th Quarter 2014 – 4th Quarter 2020

2.6 Required Permits and Approvals

The following table identifies permits and approvals required for implementation of the proposed action. The approvals noted with an asterisk (*) in the table below would be required for actual development that would occur in accordance with the TOD District. These approvals are not needed for adoption of the *Urban Renewal Plan*, the *Land Use and Implementation Plan*, the TOD District or associated changes of zone of specific properties, which are all Town Board actions.

Table 2 – List of Required Permits/Approvals

| Agency | Type of Permit/Approval Required |
|---|---|
| Town Board | Adoption of <i>Urban Renewal Plan</i>
Adoption of <i>Land Use and Implementation Plan</i>
Adoption of New TOD Zoning District
Change of Zone in the Ronkonkoma Hub area to the New TOD Zoning District
Approval of a Conceptual Master Plan |
| Town Planning Board** | Recommendation on <i>Urban Renewal Plan</i> , Site Plan and Potential Subdivision |
| Suffolk County Department of Health Services* | Water Connection and Sanitary Disposal |
| Local Agencies* | Town of Brookhaven Highway Department – Roadway Improvements |
| Building Department* | Building Permits |
| Suffolk County Executive and/or Legislature* | Establishment of Sewer District and Construction of STP
Agreement(s) to Accommodate Relocation of LIRR Parking |
| Suffolk County Department of Public Works* | Highway Work Permit |
| Suffolk County Planning Commission | Referrals |
| NYS Department of Transportation (NYSDOT)* | Highway Work Permit |
| Metropolitan Transportation Authority (MTA)* | Approval for license and/or sale of property |

▼
**The site plan and potential subdivision approvals are required for actual development. The recommendation on the *Urban Renewal Plan* is required prior to formal action by the Town Board on the *Urban Renewal Plan*.

3.0

Probable Impacts of the Proposed Action

3.1 Soils and Topography

3.1.1 Existing Conditions

Soils

As the area being considered for redevelopment has not changed since the 2010 DGEIS was prepared, the soils reviewed in the 2010 DGEIS have not changed. According to the *Soil Survey of Suffolk County, New York* (USDA, 1975), (hereinafter “*Soil Survey*”), the predominant soils within the Ronkonkoma Hub area are classified as Cut and fill land, gently sloping (CuB); Plymouth loamy sand, zero to three percent slopes (PIA); and Riverhead sandy loam, zero to three percent slopes (RdA). Roughly, the western third of the Ronkonkoma Hub area consists of CuB soils, the middle third of the Ronkonkoma Hub area consists of RdA soils, and the eastern third of the Ronkonkoma Hub area consists of PIA soils.

As shown in the table below, the *Soil Survey* indicates a minimal area of Riverhead and Haven Soils, graded, zero to eight percent slopes (RhB) on the northern-central periphery of the Ronkonkoma Hub area and a minimal area of Plymouth loamy sand, three to eight percent slopes (PIB) at the southeastern corner of the Ronkonkoma Hub area.

According to the following table, these soils have slight to moderate impacts for “homesites” and streets and parking lots, mainly due to slopes. However, this site is relatively flat, as described below. The *Soil Survey* also indicates that three of the soils in the Ronkonkoma Hub area have severe impacts for lawns, landscaping and golf fairways due to a sandy surface layer, which allows for the rapid movement of water without the adequate capacity to hold water available for vegetation. However, as explained in the 2010 DGEIS, the use of topsoil is a common method to help address the potential limitation associated with landscaping.

Table 3 – Engineering and Planning Limitations of On-Site Soils

| Symbol | Mapping Unit | Slopes | Homesites* | Streets and Parking Lots | Lawns, Landscaping and Golf Fairways | Sewage Disposal Fields |
|--------|---------------------------|----------------|------------|--------------------------|--------------------------------------|------------------------|
| CuB** | Cut and fill land | Gently sloping | Slight | Moderate (A) | Severe (B) | Slight |
| PIA** | Plymouth loamy sand | 0 to 3 | Slight | Slight | Severe (B) | Slight (C) |
| PIB | Plymouth loamy sand | 3 to 8 | Slight | Moderate (A)(D) | Severe (B) | Slight |
| RdA** | Riverhead sandy loam | 0 to 3 | Slight | Slight | Slight | Slight (C) |
| RhB | Riverhead and Haven soils | 0 to 8 | Slight | Moderate (A)(D) | Slight | Slight (C) |

Reasons for limitations:

- (A) Slopes.
- (B) Sandy surface layer.
- (C) Possible pollution hazard to lakes, springs, or shallow wells in these rapidly permeable soils.
- (D) Slight for Town or County roads.

* The *Soil Survey* evaluates the engineering and planning limitations of soils for the development of “homesites.” The *Soil Survey* does not include ratings for other types of buildings, and thus, the “homesites” evaluation is used to determine potential limitations for the development of structures.

**Represents predominant soil types mapped in the TOD District area.

Source: *Soil Survey of Suffolk County, New York (USDA, 1975)*

Topography

The boundaries of the Ronkonkoma Hub area have not changed since the preparation of the 2010 DGEIS, which identified elevations ranging from 92± feet to 111± feet above mean sea level (amsl). The site elevation is highest at the western portion of the Ronkonkoma Hub area and then slopes downward to the east. Site elevation increases again at the extreme northeast corner of the Ronkonkoma Hub area. Overall, the topography of the 53.73± acres that comprise the Ronkonkoma Hub area is relatively flat.

3.1.2 Potential Impacts

Soils

As described in the 2010 DGEIS, redevelopment of properties within the Ronkonkoma Hub area would result in the disturbance of soils within the Ronkonkoma Hub area for foundation excavation, utility installation, grading, paving, and landscaping. The disturbance of soils for construction and regrading activities increases the potential for erosion and sedimentation.

Based on the soil characteristics and the planning and engineering limitations defined in the *Soil Survey*, it is not expected that development of properties in accordance with the Maximum Density Concept Plan would have significant adverse soil impacts. As with the theoretical development analyzed in the 2010 DGEIS, the disturbance of soils during construction and regrading activities increases the potential for erosion and sedimentation. Site-specific applications for redevelopment within the Ronkonkoma Hub area would be required to conduct on-site borings to determine specific soil conditions, and to ensure that appropriate measures are implemented to mitigate issues that may arise (e.g., the need for topsoil to establish landscaping, the need for excavation of unsuitable soils and importation of material to facilitate proper drainage).

All development within the Ronkonkoma Hub area would be required to employ proper erosion and sedimentation controls (e.g., the strategic placement of silt fencing and hay bales to prevent overland runoff and to protect on-site drywells from siltation, maintenance of construction entrances to minimize the transport of sediment on to roadways, placement of appropriate cover over soil stockpiles to protect from wind and precipitation), in accordance with Chapter 86 of the Town Code.

Dust control measures would also be employed, as necessary, during dry or windy periods. The appropriate methods of dust control would be determined by the surfaces affected (i.e., roadways or disturbed areas) and would include, as necessary, the application of water with spray adhesives, the use of stone in construction roads, and vegetative cover.

With suitable and proper erosion and sedimentation controls, in accordance with Chapter 86 of the Town Code, it is not expected that site redevelopment would result in significant adverse impacts associated with ground disturbance, regrading and/or construction activities.

Topography

Since the topography is relatively flat, the topographic conditions would not be expected to limit the potential redevelopment, as proposed in the Maximum Density Concept Plan.

Based upon development in accordance with the Maximum Density Concept Plan, preliminary earthwork quantities have been prepared with respect to overall grading, installation of underground parking garages and installation of stormwater management structures. Based upon the preliminary engineering plans (see the *Grading, Drainage and Utilities Plan* in Appendix E of this DSGEIS) and limited available topographic information, the following are the preliminary earthwork calculations for the various project components:

- Grading: 19,550± cubic yards of fill
- Parking Garages: 47,408± cubic yards of cut
- Stormwater Structures: 37,250± cubic yards of cut
- Overall Result: 65,108± cubic yards of cut

However, there are numerous factors that could influence and/or mitigate the actual earthwork volumes, including:

- complete field-surveyed topographic information
- final design of the buildings, parking and other facilities, which may differ from those shown on the preliminary plan
- phasing of the project

As potentially over 65,000 cubic yards of earth would require removal from the Ronkonkoma Hub area, based upon the preliminary engineering plans, and assuming the use of trucks with a capacity of 30 cubic yards, approximately 2,167 truck trips could be required for such removal. However, due to phasing over the build-out period, such trucks trips would not all occur at the same time. In addition, as the parking garages are expected to generate the most cut, if no underground parking garage is proposed for a specific site plan application, fewer overall truck trips associated with material removal would occur at that time.

Moreover, as the proposed development is constructed during the expected build-out period, site engineering plans for each of the development blocks and/or parcels will be developed based on detailed and accurate topographic information and detailed architectural design for the buildings. There would be sufficient opportunity during the design of the various phases of the project to refine grading plans so as to bring the earthwork more into balance as development proceeds. Therefore, the estimate of earthwork quantities provided as part of the preliminary engineering analysis (65,108 cubic yards) and the number of associated truck trips should be considered as the "worst-case" scenario, with the expectation that final design would achieve a more balanced site. As such, no significant adverse impacts to topographic features would be expected.

3.1.3 Proposed Mitigation

In order to ensure that there will be no significant adverse impacts to soils or topography upon implementation of the proposed action, the following mitigation measures will be employed:

- During the course of ultimate construction, there is a potential for soil erosion as is the case with any construction project that includes disturbance of the existing ground surface. As such, erosion and

sedimentation control measures would be undertaken prior to and during construction, in accordance with Chapter 86 of the Town Code.

- Parcels to be developed or redeveloped would implement dust control measures during dry or windy periods. The appropriate methods of dust control would be determined by the surfaces affected (i.e., roadways or disturbed areas) and would include, as necessary, the application of water, the use of stone in construction roads, and vegetative cover.
- As more detailed topographic and architectural plans are developed throughout the build-out period, there would be sufficient opportunity during the design of the various phases of the project to refine grading plans so as to bring the earthwork more into balance as development proceeds.
- Phasing of the project over a number of years would minimize the impact of excavation, as it would spread out the number of truck trips associated with soil removal.

3.2 Water Resources and Sanitary Disposal

3.2.1 Existing Conditions

Groundwater

As noted in the 2010 DGEIS, the water table in the Ronkonkoma Hub area ranges from 45± feet to 48± feet amsl. As previously discussed, the elevation of the Ronkonkoma Hub area ranges from 92± feet to 111± feet amsl. Thus, depth to groundwater ranges from 47± feet to 63± feet below grade surface (bgs), from generally east to west. The groundwater flow direction in the area is generally to the south.

The site is located in Hydrogeologic Zone I: Deep Flow System (Magothy Recharge Area), according to the *208 Study* and the Suffolk County Department of Health Services (SCDHS) Article 6 map. The relevant highest priority areawide alternatives for Zone I are as follows:

- Implement “Best Management Practices” to control runoff and remove nitrogen for treatment plants recharging effluent
- Restrict the use of inorganic fertilizers. Promote the use of low-maintenance lawns
- Control stormwater runoff to minimize the transport of nutrients, metals, sediments, organic chemicals
- Promotes water conservation to reduce overall demand on Long Island’s water supply

As indicated in the 2010 DGEIS, the Ronkonkoma Hub area is not situated within the boundaries of any Special Groundwater Protection Area (SGPA).

In order to protect the groundwater quality in Suffolk County, the SCDHS adopted Articles 6, 7 and 12 of the Suffolk County Sanitary Code (SCSC). A discussion of relevant provisions follows.

Article 6, Sanitary Density and Disposal

Pursuant to Article 6 of the SCSC, sewage discharge from on-site systems in Hydrogeologic Zone I is limited to 600 gallons per day per acre if an on-site sanitary system is used as the method of sanitary waste disposal. Thus, the maximum potential sanitary discharge to on-site sanitary systems for the 53.73±-acre TOD District is approximately 32,238 gallons per day. The Ronkonkoma Hub area is not currently within an area served by public sewers.

As explained on page 34 of the 2010 DGEIS, sanitary waste generated by properties within the Ronkonkoma Hub area is accommodated with individual on-site sanitary systems, as there is no public sewer service. As shown in Table 4, the total sanitary flow by existing land uses within the Ronkonkoma Hub area has been projected at 13,069± gpd, using SCDHS design flow standards. It is important to note, for purposes of comprehensive analysis, the existing vacant developed properties were assumed to be occupied by uses permitted within the zoning district(s) in which they are situated.

Table 4 – Projected Existing Sanitary Flow

| Land Use | Gross Floor Area (square feet) ¹ | Design Category | Design Flow | Design Units | Total Flow (GPD) |
|----------------------------|---|-----------------|-------------|--------------|------------------|
| Residential (9 Lots) | 16,783.24 | Residential | 300 | GPD/unit | 2,700.00 |
| Commercial | 181,835.21 | Gen. Ind. | 0.04 | GPD/sq. ft. | 7,273.41 |
| Office | 10,555.35 | Office | 0.06 | GPD/sq. ft. | 633.32 |
| Commercial/Vacant | 17,788.16 | Gen. Ind. | 0.04 | GPD/sq. ft. | 711.53 |
| Residential/Vacant (1 Lot) | 1,893.33 | Gen. Ind. | 300 | GPD/unit | 300.00 |
| Industrial | 36,249.37 | Gen. Ind. | 0.04 | GPD/sq. ft. | 1,449.97 |
| TOTAL | | | | | 13,068.23 |

1. Based on information from the Town of Brookhaven GIS Database, 2010.

Article 7, Water Pollution Control

The Ronkonkoma Hub area is located in a deep recharge area. As such, the storage of any *restricted toxic or hazardous materials*, as defined in the SCSC, would be regulated by the SCDHS.

Article 12, Toxic and Hazardous Materials Storage and Handling Controls

Article 12, *Toxic and Hazardous Materials Storage and Handling Controls*, relates to the storage and handling of toxic and hazardous materials. Due to the nature of the existing uses within the Ronkonkoma Hub area (i.e., commercial/industrial properties), it is likely that underground and aboveground fuel oil storage tanks exist on many of the properties for the purpose of heating. As such, Environmental Data Resources, Inc. (EDR) was requested to provide a computerized database search of the Ronkonkoma Hub area (see Appendix E of the 2010 DGEIS). The search radius for each database was set at the ASTM-standard radius plus one-half mile. The database output was reviewed specific to the NYSDEC Petroleum Bulk Storage (PBS) database.

The database report also includes a summary of “Orphan” sites. Orphan sites are those sites where due to poor or inadequate address information the location of the property cannot be determined sufficiently for it to be included on the radius map. However, sites with similar street names or zip codes are summarized in the database report as these sites may present environmental risks to the subject

property. There were no listings for the project area within the Orphan Summary of the EDR database report.

The following sites were identified on the subject site to have been registered for above-ground and/or underground storage tanks (ASTs and/or USTs).

➤ Ronkonkoma Lumber Company – 15 Hawkins Avenue

One (1) 18,000-gallon No. 2 fuel oil UST installed in 1965 and removed in 1990

One (1) 25,000-gallon No. 2 fuel oil UST installed in 1965 and removed in 1990

➤ Town Bus WE Transport, 14B Hawkins Avenue

Two (2) 4,000-gallon gasoline UST installed in 1969 and removed in 1990

One (1) 5,000-gallon diesel UST installed in 1991

One (1) 275-gallon No. 2 fuel oil AST installed in 1980

One (1) 100-gallon kerosene AST installed in 1970 and removed in 1991

One (1) 275-gallon waste oil AST installed in 1991 and removed in 2001

One (1) 275-gallon motor oil AST installed in 1991 and removed in 2001

One (1) 2,000-gallon diesel AST installed in 1991 and removed in 2001

One (1) 275-gallon No. 2 fuel oil AST

➤ Delfern Corporation, 6B Union Avenue

One (1) 275-gallon waste oil AST removed in 1994

➤ Whelen Automotive, 234 Carroll Avenue

One (1) 275-gallon waste oil AST removed in 1991

➤ Roadkill, 23 Hawkins Avenue

One (1) 4,000-gallon gasoline UST installed in 1950 and removed in 1990

One (1) 1,000-gallon waste oil UST installed in 1950 and removed in 1990

One (1) 275-gallon No. 2 fuel oil AST

➤ Affordable Cesspool, 49 Hawkins Avenue

One (1) 4,100-gallon sulfuric acid AST

➤ A1 Towing, 47 Hawkins Avenue

One (1) 4,000-gallon gasoline UST installed in 1975 and removed in 1990

Two (2) 3,000-gallon gasoline USTs installed in 1975 and removed in 1990
One (1) 3,000-gallon gasoline UST installed in 1979 and removed in 1990

➤ KPW Enterprise, Inc., One Hawkins Avenue

One (1) 3,000-gallon gasoline UST removed in 1985
Two (2) 2,000-gallon gasoline USTs removed in 1985

➤ Tru Green Corporation, 66 Union Avenue

One (1) 150-gallon industrial waste UST installed in 1982 and removed in 1992
One (1) 6,400-gallon fertilizer AST removed in 1992
One (1) 6,400-gallon methanol AST removed in 1992
One (1) 1,200-gallon industrial waste AST installed in 1982 and removed in 1992

➤ William Mallins Cesspool, 54 Union Avenue

Two (2) 4,000-gallon gasoline USTs installed in 1979 and removed in 1990
One (1) 8,000-gallon diesel UST installed in 1979 and removed in 1990
Two (1) 10,000-gallon sanitary waste USTs installed in 1979
One (1) 4,000-gallon gasoline UST
One (1) 10,000-gallon diesel UST installed in 1991
One (1) 275-gallon waste oil AST installed in 1978 and removed in 2000

➤ Ronkonkoma Wheel Alignment, 54 Union Avenue

One (1) 275-gallon waste oil AST installed in 1979 and removed in 1991

Although the EDR database indicates that the majority of the sites have removed tanks, Article 12 of the SCSC does not require registration of tanks with a combined capacity less than 1,100-gallons. As such, it is likely that there are unregistered USTs and/or ASTs within the project area that would require removal. More specifically, heating oil tanks are likely present on the residential parcels and commercial properties where natural gas is not utilized.

Water Usage

As indicated on page 32 of the 2010 DGEIS, potable water is supplied by the SCWA. As explained in the 2010 DGEIS (pages 32-33) and shown in the table below, the existing water usage by land uses within the Ronkonkoma Hub area is projected at approximately 14,375 gpd, including a 10 percent factor for water not entering the sanitary system (e.g., irrigation).¹²

Table 5 – Projected Existing Water Use

| Land Use | Gross Floor Area
(square feet) ¹ | Design Category | Design Flow ² | Design Units | Total Flow
(GPD) |
|--|--|-----------------|--------------------------|--------------|---------------------|
| Residential (9 Lots) | 16,783.24 | Residential | 300 | gpd/unit | 2,700.00 |
| Commercial | 181,835.21 | Gen. Ind. | 0.04 | gpd/sq. ft. | 7,273.41 |
| Office | 10,555.35 | Office | 0.06 | gpd/sq. ft. | 633.32 |
| Commercial/Vacant | 17,788.16 | Gen. Ind. | 0.04 | gpd/sq. ft. | 711.53 |
| Residential/Vacant (1 Lot) | 1,893.33 | Gen. Ind. | 300 | gpd/unit | 300.00 |
| Industrial | 36,249.37 | Gen. Ind. | 0.04 | gpd/sq. ft. | 1,449.97 |
| TOTAL WATER USAGE | | | | | 13,068.23 |
| ADDITIONAL 10% FOR
WATER NOT ENTERING
SANITARY SYSTEM | | | | | 1,307± |
| TOTAL WATER USAGE | | | | | 14,375± |

1. Based on information from the Town of Brookhaven GIS Database, 2010.
2. Based upon Suffolk County sewage design flow standards.

There are six-inch, eight-inch and 12-inch public water mains owned by SCWA that serve the area within the Ronkonkoma area.

Stormwater Runoff

As discussed in the 2010 DGEIS, several drywells exist on each of the LIRR paved parking areas in order to accommodate stormwater runoff. Drywells also exist on most of the commercial and industrial properties throughout the Ronkonkoma Hub area. Stormwater from existing roadways is discharged to subsurface leaching structures.

Surface Water, Wetlands and Floodplains

As indicated in the 2010 DGEIS, there are no surface waters on or adjoining the Ronkonkoma Hub area. There are no regulated freshwater wetlands on or adjoining

¹² It is important to note that for purposes of comprehensive analysis, the existing vacant developed properties were assumed to be occupied in accordance with current zoning.

the TOD District. The Ronkonkoma Hub area is not situated proximate to any tidal wetlands. Furthermore, Ronkonkoma Hub area is not located within a 100-year or 500-year flood zone.

3.2.2 Potential Impacts

Groundwater

The Long Island Comprehensive Waste Treatment Management Plan

As noted in the 2010 DGEIS, the Ronkonkoma Hub area is located in Hydrogeologic Zone I, which is characterized as a deep flow, Magothy Recharge Area. In order to ensure the protection of groundwater, future site-specific development applications in accordance with the TOD District would be required to comply with the relevant recommendations of the "Wastewater Management Alternatives" and the "Highest Priority Areawide Alternatives" of the 208 Study.

As explained in Section 4.2.1 of the 2010 DGEIS, the first relevant recommendation is to implement best management practices to control runoff and remove nitrogen for treatment plants recharging effluent. A companion recommendation is to control stormwater runoff to minimize the transport of contaminants. In compliance with this recommendation, to control runoff, all site-specific applications would be subject to compliance with the Town's stormwater ordinance (Chapter 86 of the Town Code). Stormwater would be contained and recharged on the site through the use of leaching pools, which are proper drainage methods. The installation of adequate drainage structures and the regrading of sites to direct stormwater would minimize the transport of sediments, nutrients, metals, organic chemicals and bacteria to ground and surface waters.

With respect to sanitary discharge, as explained in greater detail below, Suffolk County is proposing to establish a sewer district and construct a sewage treatment plant on the south side of the LIRR tracks (which location was examined as an alternative in the 2010 DGEIS) that would handle sanitary flow from development within the Ronkonkoma Hub area. That sewage treatment plant would remove nitrogen before recharge to groundwater.

The next recommendation is to restrict the use of inorganic fertilizers, and promote the use of low-maintenance lawns. To comply with this recommendation, development within the Ronkonkoma Hub would be required to incorporate indigenous species, to the maximum extent practicable, to encourage a low-maintenance landscape.

The final relevant recommendation is to promote water conservation to reduce overall demand on Long Island's water supply. In compliance with this

recommendation, water conservation methods would be used to the maximum extent practicable to decrease overall water usage.

Based upon the foregoing, implementation of the proposed action, including development in accordance with the Maximum Density Concept Plan, would comply with the recommendations of the *208 Study* and would minimize impacts to groundwater resources to the maximum extent practicable.

Article 6, Sanitary Density and Disposal

The Ronkonkoma Hub area is situated within Groundwater Management Zone I. Pursuant to Article 6 of the SCSC, the maximum permissible flow for this area is 600 gallons per day per acre or approximately 32,238 gallons per day (based on 53.73± acres) if an on-site sanitary system is used as the method of sanitary waste disposal. All sanitary waste generated by new development within the TOD District area is proposed to be accommodated by a new STP to be constructed by Suffolk County, south of the railroad tracks, south of the eastern extent of the Ronkonkoma Hub area (see discussion below). Thus, the sanitary density limitations are not applicable to the development in conformance with the TOD District.

As indicated in Section 3.2 of this DSGEIS, the Ronkonkoma Hub area is located in Groundwater Management Zone I. In this zone, the maximum allowable sewage flow is 600 gallons per acre per day without formal sewage treatment with nitrogen removal. Sewage generated by the Theoretical Full Build Plan analyzed in the 2010 DGEIS (approximately 169,000 gpd) was greater than the 32,328 gpd of allowable flow for this area, and, therefore formal sewage treatment including nitrogen removal was required. The Theoretical Full Build Plan included the construction of an STP with a capacity of 275,000 gpd, within the boundaries of the Ronkonkoma Hub area. The 275,000-gallon capacity would have accommodated the Theoretical Full Build Plan as well as connection of existing uses to remain and/or redevelopment and connection of parcels not specifically identified in the Theoretical Full Build Plan.

Since the DGEIS was accepted and the public hearing held, the development potential of the Ronkonkoma Hub area has changed. The projected sanitary flow for the development program depicted on the Maximum Density Concept Plan (and based upon the assumptions outlined in Footnotes 3 through 5 regarding the number of restaurant seats, medical office space and hotel rooms) has been calculated using Suffolk County sewage design flow standards, and is shown on the following table.

Table 6 – Projected Sanitary Flow: Development Under Maximum Density Concept Plan

| Use | Flow Rate | Projected Flow (gpd) |
|----------------------------------|--|----------------------|
| 1,450 residential units | 225 gpd/unit | 326,250 |
| 155,000 SF retail | 0.03 gpd/SF | 4,650 |
| 40,000 restaurants (1,080 seats) | 10 gpd/seat + 20 gpd/seat (kitchen flow) | 32,400 |
| 306,000 SF office | 0.06 gpd/SF | 18,360 |
| 54,000 SF medical office | 0.10 gpd/SF | 5,400 |
| 60,000 SF flex (120-room hotel) | 100 gpd/room | 12,000 |
| TOTAL PROJECTED FLOW | | 399,060 gpd |

As this flow, like the Theoretical Full Build plan evaluated in the DGEIS, exceeds the allowable population density equivalent of 32,328 gpd for on-site systems (as described above), connection to an STP is required.

Suffolk County is currently proposing to establish a sewer district and construct a STP on a 7.74-acre property, south of the LIRR tracks, opposite the southeastern portion of the Ronkonkoma Hub area. As part of the development of the new STP, the County is proposing to form a new sewer district, which will include the Ronkonkoma Hub area. The formation of this district is regulated by County Law Article 5-A, Sections 253, 254 and 256A. As part of district formation, the County will conduct an environmental review process in accordance with SEQRA and its implementing regulations. Once SEQRA and other required reviews are completed, formation of the sewer district is expected to occur between 2014 and 2015 and construction is anticipated to be completed by December 2015.

The proposed STP development includes plans for the construction of a sanitary wastewater collection system and associated treatment facilities. According to the draft *Ronkonkoma Hub STP Engineering Report* (March 2013) (hereinafter the “*STP Engineering Report*”) prepared by Cameron Engineering & Associates, LLP (consultant to the Suffolk County Department of Public Works [SCDPW]), the property on which the STP is proposed to be constructed is bounded by Railroad Avenue to the south, Long Island MacArthur Airport to the east, a LIRR parking lot to the west and six MTA-owned lots to the north.

The new treatment plant will be sized with an initial capacity of 500,000 gpd with the ability to expand to 750,000 gpd on the site. The treatment facility will feature the sequence batch reactor (SBR) technology for nitrogen reduction. The capacity was established based upon the approximately 400,000 gpd anticipated for future development within the Ronkonkoma Hub area, plus an additional 100,000 gpd for future connections in the Town of Islip, including, for example, potential future connections to MacArthur Airport. In addition, provisions for an additional 250,000 gpd (for a total capacity of 750,000 gpd) are being considered to accommodate potential future growth within the sewer district.

According to the draft *STP Engineering Report*, if possible, the design will incorporate LEED (Leadership in Energy and Environmental Design) principles in the treatment processes as well as the buildings and site. Also, a high quality effluent suitable for reuse can be produced by the facility if it is determined that there is a local need.

The treated wastewater is proposed to be disposed of on-site via subsurface leaching pools. The leaching field has been designed for an initial 172 leaching pools with an expansion area for an additional 60 pools.

The following tables, reproduced from the draft *STP Engineering Report* (with additional notes), present the expected influent characteristics and the expected effluent requirements. The values shown on Table 7 represent typical influent concentrations from mixed-use developments in Suffolk County. The proposed facility will not accept scavenger waste or leachate. Also, wastewater from any industrial sources will be pretreated prior to discharge to meet County pretreatment standards. However, it should be noted that the proposed TOD District does not permit any new industrial uses within the Ronkonkoma Hub area. Table 8 provides the anticipated effluent limitations to be defined in the State Pollutant Discharge Elimination System (SPDES) permit that is ultimately issued for this facility. Notes have been added to these tables to provide definitions of uncommon parameters.

Table 7 – Typical Influent Concentrations

| Parameter | Value |
|----------------------|----------|
| BOD ₅ (1) | 272 mg/l |
| Suspended Solids | 320 mg/l |
| TKN (2) | 65 mg/l |
| Alkalinity | 250 mg/l |

- (1) The biochemical oxygen demand of wastewater during decomposition occurring over a five-day period. A measure of the organic content of wastewater. Source: http://iaspub.epa.gov/sor_internet/registry/termreg/searchandretrieve/termsandacronyms/search.do?search
- (2) Total Kjeldhal Nitrogen (TKN) is the sum of organic nitrogen and ammonia in a water body and is measured in milligrams per liter (mg/L). TKN is a portion of the total nitrogen measurement. Source: <http://www.unc.edu/~shashi/TablePages/tkn.html>

Table 8 – Expected Effluent Requirements

| Parameter | Value |
|------------------|-------------|
| BOD ₅ | <30 mg/l |
| Suspended Solids | <30 mg/l |
| Total Nitrogen | <10 mg/l |
| TDS (1) | <1,000 mg/l |
| pH | 6.0 – 9.0 |

- (1) Total dissolved solids

According to the draft *STP Engineering Report*, it is the experience of the County that since the treatment system is located indoors, odor control may not be necessary. However, provisions for odor control, including allocation of space and installation of support utilities will be provided in the initial facility construction. If, in the future, an odor control system is warranted, the County will make the necessary improvements. Furthermore, the SCDHS requires enclosed treatment plants to account for proper ventilation, odor control and noise attenuation in accordance with best engineering practices. Therefore, potential odors and noise from the STP would not have a significant adverse impact on the surrounding community, including the properties within the Ronkonkoma Hub.

As future development within the Ronkonkoma Hub area would be connected to a new STP and effluent generated would meet parameters set forth in the STP's SPDES permit (an application for which was submitted to the NYSDEC, and which permit is currently pending), there would be no significant adverse impact to groundwater resources resulting from sewage disposal from the redevelopment of the Ronkonkoma Hub area.

Article 7, Water Pollution Control

Should the storage of any restricted toxic or hazardous materials, as defined in the SCSC, occur in the future for which a permit is required, an applicant would be required to apply for such Article 7 permit from the SCDHS. Compliance with the Article 7 regulations would assist in ensuring that there would be no significant adverse impacts to groundwater quality.

Article 12, Toxic and Hazardous Materials Storage and Handling Controls

It is expected that the natural gas would be used for heating and cooling purposes, and National Grid has previously confirmed its ability to supply natural gas to the Ronkonkoma Hub area. In the event that properties within the Ronkonkoma Hub area do not connect to natural gas, an Article 12 permit from the SCDHS may be required.

The requirement for an Article 12 permit relates to the storage of fuel oil in above ground or underground storage tanks. All redevelopment of properties within the Ronkonkoma Hub area, in accordance with the proposed TOD District, where underground or above ground storage tanks are proposed in quantities with a combined capacity greater than 1,100-gallons, would be required to secure the appropriate permits under Article 12 from the SCDHS. Compliance with these regulations would help ensure that no significant adverse impacts to groundwater would result from tank installation and operation.

At the time of acquisition and/or development, the applicant will perform site specific environmental investigations to confirm environmental conditions, to determine the presence of tanks within the individual properties and to remediate such environmental conditions, as required.

Water Usage

Utilizing the SCDHS design sewage flow rates as the basis for estimating potable water requirements, the domestic water use for development in accordance with the Maximum Density Concept Plan would be approximately 400,000 gpd (see Table 6). With an additional 10 percent of water estimated for irrigation and domestic uses not entering the STP, the total projected potable water demand for development in accordance with the Maximum Density Concept Plan is approximately 440,000 gpd.

Consultations were undertaken with the SCWA to evaluate the available infrastructure in the area and to identify any necessary upgrades required to meet the water demand. According to correspondence from Herman J. Miller, PE, Deputy CEO for Operations, dated June 27, 2013 “based on current conditions, SCWA can provide the volume of water required for domestic water service and fire protection” (see Appendix F of this DSGEIS). Furthermore, Mr. Miller indicated that the required distribution system “improvements can be installed under our standard SCWA contracts.” The letter also acknowledges the potential need for on-site systems to provide the pressure required for certain structures.

Based on the foregoing analyses, there would be sufficient water supply to serve the anticipated future development under the Maximum Density Concept Plan with respect to both domestic and fire protection needs. With respect to fire flow, in the event that the SCWA’s system pressure is not adequate to serve the higher floors of the buildings, a booster pump system would be installed by the Master Developer.

Nonpoint Source Management Handbook

The *Nonpoint Source Management Handbook* was reviewed as to recommendations related to the proposed action. Discussion of the proposed project’s consistency with the relevant recommendations follows:

Land Use

Limit new development, particularly industrial uses, in the deep recharge and critical shallow recharge areas.

Although the subject parcel is located in a deep recharge area, the proposed TOD District does not permit construction of new industrial uses. The purpose of the proposed action is to facilitate the redevelopment of underutilized or vacant parcels

within the TOD District with residential, retail, office, restaurant uses and hospitality and entertainment uses. Thus, the proposed project complies with this recommendation.

Limit the removal of natural vegetation and the creation of lawn areas.

The majority of the properties identified for redevelopment in accordance with the Maximum Density Concept Plan are sites that are paved or otherwise impervious with weedy vegetation. Other areas of the Ronkonkoma Hub area are largely comprised of ecological communities that are considered to be demonstrably secure within New York State by the NYNHP, including Mowed Lawn, Mowed Lawn with Trees and Flower Herb Garden. These are all common in the general surrounding area of the site.

There are areas within the Ronkonkoma Hub area that contain Successional Southern Hardwoods and Successional Shrubland (see Section 3.3 of this DGEIS). However, both communities exist as a result of past clearing or other anthropogenic disturbance, and support a variety of invasive/non-native vegetation. There is also a small area of Pitch Pine-Oak Forest located on the eastern portion of the TOD District area. However, due to the small size of the parcel and the presence of invasive/non-native species in perimeter areas, the parcel does not support a large, undisturbed block of interior woodland habitat.

Although site specific landscaping plans have not yet been developed, the creation of lawn areas are expected to be limited on most building sites to building perimeters and planting areas along the road frontage and site interiors. The designated outdoor space, including public plazas, would be provided as indicated in the TOD District, such that these areas do not constitute less than five percent of the total buildable lot area covered by the proposed site plan application and all previously-approved site plans in the Ronkonkoma Hub TOD District. Future development would comply with this recommendation.

Stormwater Runoff

Minimize grade changes and site clearing. Preserve swales in their natural state. Avoid disturbance of existing grades, vegetation or soils and the alteration of surface hydrology.

The topography of the TOD District area is relatively flat, and thus, there would be no significant changes in grade of properties within the TOD. The only exception is excavation and grading associated with the construction of underground parking garages.

Also, the majority of the properties identified for redevelopment are sites that are paved or otherwise impervious with weedy vegetation. Overall surface hydrology would not, therefore, significantly change. The redevelopment of properties would

require minimal grading to direct stormwater into on-site drainage structures. As part of the Town's stormwater ordinance, all stormwater would be required to be contained and recharged on-site. There are no swales within the Ronkonkoma Hub area. Overall, while minimal grade changes would be required for site redevelopment, drainage would be provided to minimize potential adverse impacts associated with stormwater runoff. As such, the project complies with the intent of this recommendation.

Provide temporary on-site areas to receive stormwater runoff flows that are generated by construction and other site development activities. Do not allow increased sediment resulting from the construction or operation phase of site development to leave the site or to be discharged into stream corridors, marine or freshwater wetlands. Minimize the amount of soil area exposed to rainfall and the period of exposure. Cover or plant exposed soils as soon as possible.

In accordance with Town's stormwater ordinance requirements, a stormwater pollution prevention plan would be required before any land development activity is undertaken. Pursuant to §86-6(B)(1), the stormwater pollution prevention plan is required to contain, among other things, "temporary and permanent structural and vegetative measures...for soil stabilization, runoff control and sediment control for each stage of the project from initial land clearing and grubbing to project close-out." As such, the proposed action complies with this recommendation.

Detain runoff and direct stormwater from road surfaces to sediment basins before discharge to a sump wherever topography limits or precludes on-site recharge.

As previously noted, the topography of the Hub area is relatively flat. Therefore, on-site leaching structures are feasible methods of stormwater control. Stormwater from road surfaces would be handled with a leaching basin system, as described below. Thus, this recommendation is not applicable to the proposed action, as on-site recharge is feasible.

Stabilize exposed slopes during and after construction by using temporary and/or permanent structural or nonstructural stabilization measures.

If areas within the Ronkonkoma Hub are proposed to be regraded to create slopes in excess of 10 percent, slope stabilization methods during and after construction would be required in accordance with Town Code. As such, the proposed action complies with this recommendation.

Fertilizer

Retain as much of the natural vegetation of the site as possible. Minimize grade changes and site clearing.

As indicated earlier, the majority of the properties identified for redevelopment are sites that are paved or otherwise impervious with weedy vegetation. Little natural vegetation currently exists within the Ronkonkoma Hub area.

Grade changes would not be expected to be significant due to existing conditions (i.e., sites are primarily developed and the topography is relatively flat). As such, the project complies with the intent of this recommendation.

Use native plants for the planting of areas that have been disturbed by grading. Consider the use of alternative types of groundcover and other plant materials to avoid or reduce lawn area and the consequent need for fertilizer applications, extensive watering and maintenance.

In conformance with this recommendation, native and low-maintenance species would be planted to the maximum extent practicable.

Stormwater Runoff

Development is subject to Chapter 86 of the Town of Brookhaven Town Code entitled *Stormwater Management and Erosion Control*.

Stormwater Runoff and Management During Construction Activities

As the various components of the future development (whether public infrastructure or individual development blocks) are designed for construction, the applicant(s) will be required to develop plans to address compliance with Chapter 86 of the Town Code (Storm Water Management and Erosion Control), as well as the NYSDEC SPDES General Permit for Storm Water Discharges from Construction Activities (GP-0-10-001). As it is likely that development will proceed in phases over a number of years, it is not possible at this time to provide one overall plan for erosion and sediment control during construction; individual site plan applications would require detailed plans prior to approval, and would be designed in conformance with prevailing regulations.

All individual construction projects within the development (e.g., construction of all or portions of the public roads and infrastructure or construction of individual development blocks) will be required to prepare Erosion and Sediment Control Plans to detail measures needed to control erosion and prevent sediment-laden storm water from leaving the site(s) during construction. Should it be determined that the development as a whole or any part of the overall development plan has the potential to discharge to surface waters, the applicant(s) will also be required to prepare full Storm Water Pollution Prevention Plans, including water quality and quantity control components, which will be submitted to the Town for approval.

Thus, as plans would be required to be prepared in accordance with the Town Code and relevant NYSDEC regulations, no significant adverse impacts associated with stormwater runoff or erosion and sedimentation during construction are expected.

Post-Development Stormwater Runoff Management

Stormwater runoff generated within each of the individual private development blocks will be required to be collected and recharged on-site, in accordance with current Town site plan requirements and Chapter 86 of the Town Code. Therefore, the storm drainage addressed herein is limited to the runoff generated from and collected in the proposed public rights-of way.

In accordance with Town standards for subdivision roadway improvements, a leaching basin system is proposed for each of the individual tributary areas within the public rights-of-way. Each leaching basin system consists of a series of eight-foot-diameter precast concrete drywells, supplemented with precast concrete catch basins where necessary for efficient collection of surface runoff, and 12-inch reinforced concrete interconnecting pipe. Each individual system is designed to store the runoff from a five-inch rainfall. The *Preliminary Grading, Drainage & Utility Plans* (see Appendix E) depict the layout of each of the leaching basin systems in conjunction with the other utilities located in the public roadways.

Therefore, as the stormwater systems will be designed to collect and recharge runoff in accordance with Town requirements, no significant adverse impact with respect to stormwater runoff is anticipated.

Surface Water, Wetlands and Floodplains

Since the Ronkonkoma Hub area does not contain surface waters or wetlands, and is not located within a flood zone, implementation of the proposed action will not impact same.

3.2.3 Proposed Mitigation

In order to ensure that impacts to groundwater and surface water resources are minimized, and to minimize the impacts associated with stormwater runoff, the following mitigation measures are proposed:

- Sanitary waste from newly-developed/redeveloped parcels within the Ronkonkoma Hub area will be accommodated by the proposed off-site STP being developed by Suffolk County, and, therefore, would conform to the prevailing regulations of the Suffolk County Sanitary Code. Moreover, the NYSDEC will establish discharge limits in accordance with the permit

ultimately issued for the STP. These measures will help mitigate potential impacts to groundwater from the sewage effluent generated by development within the Ronkonkoma Hub area.

- Parcels developed or redeveloped within the Ronkonkoma Hub area will implement water conservation measures, including low-flow fixtures, low-flow toilets, and/or drip irrigation.
- Parcels developed or redeveloped within the Ronkonkoma Hub area are required to comply with Chapter 86 of the Town Code, *Storm Water Management and Erosion Control*.
- Parcels developed or redeveloped within the Ronkonkoma Hub area will use native or low maintenance plantings, to the maximum extent practicable, to reduce irrigation needs and fertilizer demand. These measures will mitigate potential impacts to water quantity and quality.

3.3 Ecology

3.3.1 Existing Conditions

The Ronkonkoma Hub area was inspected on June 17 and July 1, 2010, for the purposes of assessing the general ecological conditions within the area. The ecological assessment included a characterization of existing habitats, as well as an inventory of observed and expected flora and fauna. Special attention was given to the possible presence of any rare (i.e., endangered, threatened or special concern) species or ecological communities. An inspection was also undertaken on July 12, 2013, which confirmed that the ecological conditions had not significantly changed since the 2010 investigations. A brief summary of the ecological conditions follows.

Vegetation

The New York Natural Heritage Program's (NYNHP) publication *Ecological Communities of New York State* (Reschke, 1990, as updated by Edinger et al., 2002) contains detailed descriptions of ecological communities found throughout New York State. This resource also provides global and state rarity rankings for each defined ecological community. Based upon the NYNHP community descriptions, the Ronkonkoma Hub area supports nine distinct ecological communities, as originally observed in 2010 and confirmed in July 2013:

- (1) Paved Road/Path
- (2) Urban Structure Exterior
- (3) Railroad
- (4) Mowed Lawn
- (5) Mowed Lawn with Trees
- (6) Flower/Herb Garden
- (7) Successional Shrubland
- (8) Successional Southern Hardwoods
- (9) Pitch Pine-Oak Forest

The first six ecological communities were observed on the developed properties within the Ronkonkoma Hub area. Vegetation in these areas is comprised primarily of ornamental trees, shrubs and herbaceous plants (including grasses), as well as common "weed" species (see Section 3.3.1 of the DGEIS for additional details about these anthropogenic communities).

The latter three of the above-listed ecological communities (i.e., Successional Southern Hardwood, Successional Shrubland and Pitch Pine-Oak Forest) are restricted to two currently-undeveloped areas within the Ronkonkoma Hub area (see Parcels "A" and "B" on Figure 6).



Source: Esri, DigitalGlobe, GeoEye, AeroGRID, IGN, JPL, swisstopo, and the GIS User Community

W&B Engineering, Surveying and Landscape Architecture, P.C.



Figure 6
Parcels A and B of
Ecological Survey

Ronkonkoma Hub
Transit-Oriented Development

Legend
 Study Area
 Ecological Survey Area



Data Sources: Town of Brookhaven GIS

Field observations indicate that Parcel A is in various stages of recovery from past disturbances (i.e., agricultural and/or development-related clearing). The resulting successional habitats support a variety of native and non-native vegetation. The southern portion of Parcel A supports Successional Shrubland habitat that is dominated by non-native/invasive species, including mugwort (*Artemisia vulgaris*), multiflora rose (*Rosa multiflora*), autumn olive (*Elaeagnus umbellata*), Japanese honeysuckle (*Lonicera japonica*), Asiatic bittersweet (*Celastrus obiculatus*) and trumpet creeper (*Campsis radicans*). In particular, dense patches of mugwort up to four feet in height were observed within the Parcel A Successional Shrubland community in July 2013. Scattered trees are also present, including big-tooth aspen (*Populus grandidentata*) and eastern red cedar, as well as non-native/invasive Norway maple (*Acer plantanoides*) and Russian olive (*Celastrus angustifolium*).

The central portion of the parcel supports trees species typical of Successional Southern Hardwoods, including the non-native/invasive species black locust, Norway maple and tree-of-heaven. Scattered native trees, including gray birch and black cherry (*Prunus serotina*), are also present. Poison ivy (*Toxicodendron radicans*) and trumpet creeper vines are dominant or co-dominant in the groundcover, shrub and canopy strata. Some vestiges of pre-disturbance Pitch Pine-Oak Forest remain in interior portions of Parcel A, as evidenced by the presence of characteristic trees of this community, including scarlet oak (*Quercus coccinea*), white oak (*Quercus alba*) and pitch pine (*Pinus rigida*). However, invasive shrub, vine and herbaceous plants have replaced much of the native shrub and groundcover species normally found within this ecological community (i.e., blueberries, huckleberry, bearberry, bracken fern, wintergreen, etc.). Furthermore, as observed in July 2012, native sassafras (*Sassafras albidum*) and black cherry saplings from one to four feet in height have also become dominant within the shrub stratum at several locations in the central portion of Parcel A.

The northern portion of Parcel A supports additional Successional Southern Hardwoods habitat similar to that found on the central portion of the parcel, as described previously.

Unlike Parcel A, Parcel B supports a relatively undisturbed area of Pitch Pine-Oak Forest located within interior portions of this small parcel. Similar to the NYNHP community description, dominant species include white oak, scarlet oak, scrub oak, lowbush blueberry and black huckleberry. As observed in July 2013, poison ivy has become prevalent throughout the groundcover stratum of Parcel B. Invasive/non-native species including mugwort, Japanese honeysuckle, common reed (*Phragmites australis*) and multiflora rose are present-to-dominant in perimeter areas of Parcel B.

As indicated by the above community descriptions, various non-native/invasive plant species are prevalent and/or dominant throughout much of the canopy, shrub and groundcover strata of Parcel A and in perimeter areas of Parcel B. In general, the presence of non-native/invasive vegetation reduces the ecological value of a habitat by out-competing native vegetation and reducing or eliminating foraging, breeding and nesting habitat for native wildlife species.

As described above and in the 2010 DGEIS, based upon field observations from 2010 and 2013, the vast majority of the Ronkonkoma Hub area consists of developed and landscaped habitats, with a small component of currently undeveloped habitats in various stages of recovery from anthropogenic disturbance (Parcel A and Parcel B). Furthermore, as indicated by the above community descriptions, various non-native/invasive plant species are prevalent and/or dominant throughout much of the canopy, shrub and groundcover strata of Parcel A and in perimeter areas of Parcel B. In general, the presence of non-native/invasive vegetation reduces the ecological value of a habitat by out-competing native vegetation and reducing or eliminating foraging, breeding and nesting habitat for native wildlife species.

With respect to individual plant species, the 2010 DGEIS included a list of vegetation observed within the boundaries of the Ronkonkoma Hub area during the two 2010 field inspections. The following 10 additional tree, shrub and herbaceous plant species were observed during the July 2013 field inspection:

| | |
|--------------------|--------------------------------|
| orchard grass | <i>Dactylis glomerata</i> |
| large crabgrass | <i>Digitaria sanguinalis</i> |
| tiger lilly | <i>Lilium sp.</i> |
| tulip tree | <i>Liriodendron tulipifera</i> |
| eastern cottonwood | <i>Populus deltoides</i> |
| common purslane | <i>Portulaca oleracea</i> |
| Chokecherry | <i>Prunus virginiana</i> |
| pin oak | <i>Quercus palustris</i> |
| Brambles | <i>Rubus sp.</i> |
| grey goldenrod | <i>Solidago nemoralis</i> |

Wildlife

As indicated in Section 3.3.2 of the DGEIS, avian species are the most common form of wildlife observed and expected within the Ronkonkoma Hub area. Fifteen bird species were observed on-site during the 2010 and 2013 field inspections, including American crow (*Corvus brachyrhynchos*), American robin (*Turdus migratorius*), black-capped chickadee (*Poecile atricapillus*), blue jay (*Cyanocitta cristata*), chipping sparrow (*Spizella passerina*), European starling (*Sturnus vulgaris*), gray catbird (*Pumetella carolinensis*), house finch (*Haemorhous mexicanus*), house sparrow (*Passer domesticus*), mourning dove (*Zenaida macroura*), northern cardinal (*Cardinalis cardinalis*), northern mockingbird (*Mimus polyglottos*), red-winged blackbird (*Agelaius*

phoeniceus), rock dove (*Columba livia*) and song sparrow (*Melospiza melodia*). All of the above-listed birds are species that are generally well-adapted to suburban, urban and/or disturbed successional habitats. However, due to the developed nature of the Ronkonkoma Hub area and the general surrounding area, as well as the fragmentation of the remaining woodland habitat, it is not expected that avian species that require large, undisturbed blocks of woodland habitat would frequent the area.

Eastern gray squirrel was the only mammal species noted within the Ronkonkoma Hub area during the 2010 and 2013 field inspections, although several other common mammal species such as eastern chipmunk, eastern cottontail, eastern mole, house mouse, little brown bat, masked shrew, meadow vole, Norway rat, raccoon, short-tailed shrew, Virginia opossum, and white-footed mouse, are expected based upon the existing habitat.

No herpetofauna (amphibians and reptiles) were observed within the Ronkonkoma Hub area, although it may support a limited number of species such as eastern garter snake eastern milk snake and northern redback salamander. It is important to note that, due to the predominantly-developed and fragmented nature of the Ronkonkoma Hub area, as well as the absence of surface waters or wetlands on or adjoining the properties within the Ronkonkoma Hub area, most of the species on the New York State Amphibian and Reptile Atlas Project list for the Patchogue, New York Quadrangle topographic map within which the Ronkonkoma Hub is located are not expected (a list of these species is included in Appendix F of the DGEIS).

Rare Species/Habitat Potential

Consultations were undertaken with the NYNHP during preparation of the DGEIS (see Appendix F of the DGEIS). In a response letter (see Appendix F of the 2010 DGEIS and Appendix G of this DSGEIS), NYNHP reported that records exist for three vascular plant species, northern blazing-star (*Liatris scariosa* var. *novae-angliae*), flax-leaf whitetop (*Sericocarpus linifolius*) and showy aster (*Eurybia spectabilis*) in fields and artificial grasslands situated adjacent to runways at Islip-MacArthur Airport, located to the south of the Ronkonkoma Hub area. However, as indicated in the DGEIS, given the condition of the ecological communities observed on the vast majority of the Ronkonkoma Hub area (i.e., developed, landscaped or in various stages of recovery from anthropogenic disturbance), the occurrence of these or other rare plant species is unlikely, and such species were not observed during the field inspections of June and July 2010, as well as the updated field inspection of July 2013.

Four NYNHP historical records exist for vascular plants on or in the vicinity of the site: few-flowered nut rush (*Scleria pauciflora* var. *caroliniana*), silvery aster (*Symphiotrichum concolor* var. *concolor*), southern yellow flax (*Linum medium* var. *texanum*) and velvety bush-clover (*Lespedeza stuevei*). None of the four aforementioned species was observed during the aforementioned field inspections.

Further, due to developed/disturbed nature of the Ronkonkoma Hub area, the occurrence of these or other rare plant species on the site is unlikely.

According to the NYNHP response letter (see Appendix ___ of this DSGEIS), no other records currently exist for rare or State-listed animals, plants, significant natural communities or other significant habitats on or in the immediate vicinity of the Ronkonkoma Hub area.

3.3.2 Potential Impacts

As indicated in Section 3.3.1 of the 2010 DGEIS, much of the existing vegetation on properties within the Ronkonkoma Hub area is comprised of non-native ornamental trees, shrubs and herbaceous plants populating the various lawn/landscaped areas associated with the developed portions of the site. Three ecological communities would be most affected (i.e., Mowed Lawn, Mowed Lawn with Trees, and Flower Herb Garden), but are all common in the general surrounding area of the site. Further, all three communities would continue to exist on properties within the Ronkonkoma Hub area following redevelopment in accordance with the Maximum Density Concept Plan, as these communities are associated with developed properties.

Development in accordance with the Maximum Density Concept Plan would likely result in the clearing of virtually all of the Successional Southern Hardwoods and the Successional Shrubland located on Parcel A of the Ronkonkoma Hub area (see Parcel A on Figure 6).

Both communities exist as a result of past clearing or other anthropogenic disturbance, and support a variety of invasive/non-native vegetation. As a result, the overall ecological value of these communities, both the overall flora of the site and as native wildlife habitat, has been degraded. As such, no significant adverse impacts are anticipated as a result of the clearing and redevelopment of Parcel A. The small area of Pitch Pine-Oak Forest located on Parcel B of the eastern portion of the Ronkonkoma Hub area (see Parcel B on Figure 6) would also be cleared upon implementation of the Maximum Density Concept Plan. However, various invasive/non-native species are prevalent in the perimeter areas of this community. Accordingly, this does not represent a large, undisturbed block of interior woodland habitat. Further, this community is relatively common in the area to the south and southwest of the site.

Based upon the foregoing, the proposed action would not result in significant adverse impacts to local or regional vegetation.

Due to the developed nature of the Ronkonkoma Hub area and general surrounding area, the wildlife species observed or expected on the site are those that are well-



adapted to developed and/or disturbed habitats and human presence. Thus, following construction, it is anticipated that suitable habitat will remain for individuals of most displaced wildlife species. It is further anticipated that individuals of most or all of these species will return to the Ronkonkoma Hub area post-development.

In summary, development within the Ronkonkoma Hub area in accordance with the Maximum Density Concept Plan would not result in significant adverse impacts to the density and diversity of local or regional wildlife populations, as documented in the 2010 DGEIS. Moreover, no significant adverse impacts to rare species or habitats are anticipated.

3.3.3 **Proposed Mitigation**

No significant adverse ecological impacts have been identified as a result of implementation of the proposed action. However, to minimize habitat impacts, development/redevelopment would incorporate native or low maintenance species into the landscaping plan, to the maximum extent practicable.

3.4 Land Use and Zoning

The following sections describe the existing land uses and zoning, as well as land use plans relevant to the TOD area and its intended uses.

3.4.1 Existing Conditions

Land Use

As indicated in the Table 1 of this DSGEIS, the land uses within the Ronkonkoma Hub area encompass approximately 53.73-acres, which is currently comprised of 54 individual tax lots. In general, the majority of the tax parcels contain commercial uses, especially automobile-related businesses, including repair shops. Other commercial uses in the Ronkonkoma Hub area include lawn mower repair, general retail, offices, open-air storage and staging lots, a warehouse, gym, and private parking facility. There are also several single-family residential uses scattered throughout the Ronkonkoma Hub area. Several tax parcels are associated with the MTA, including the LIRR Ronkonkoma terminal station and associated parking lots and parking structure located along Railroad Avenue. Additionally, several lots are mixed-use, developed with both commercial and residential uses (see Figure 7). Pursuant to analyses performed as part of the *Blight Study* (see Appendix B of this DSGEIS), the total approximate gross floor area (gfa) of buildings within the Ronkonkoma Hub area is 232,979± square feet.¹³

The table below includes a summary of land uses in the Ronkonkoma Hub area.

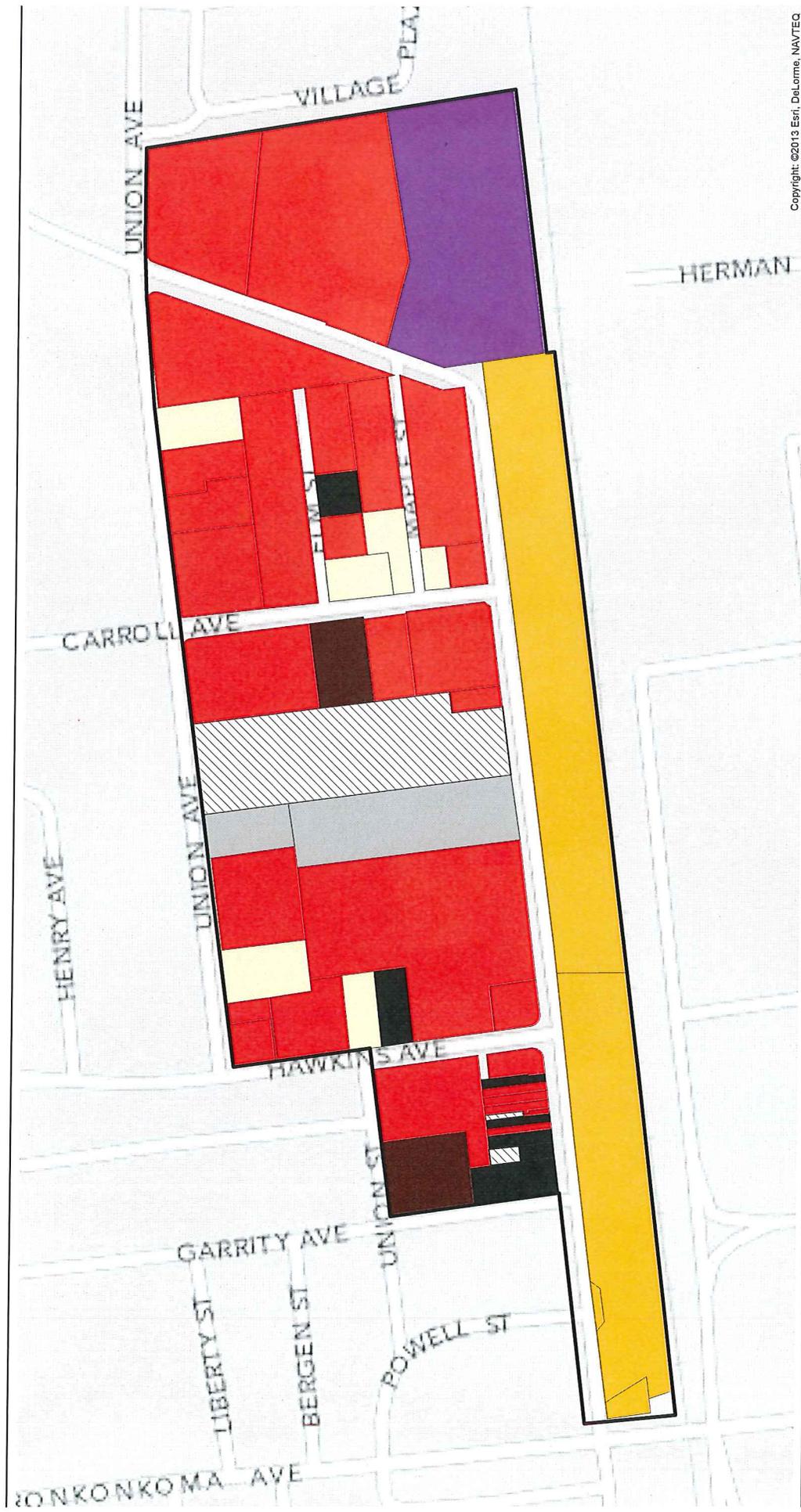
Table 9 – Observed Land Uses in the Ronkonkoma Hub area

| Land Use | Number of SCTM Parcels |
|---|------------------------|
| Commercial | 29 |
| Residential | 6 |
| Industrial | 1 |
| Land Uses Associated with the MTA | 6 |
| Mixed-Use (Commercial and Residential) | 2 ⁽¹⁾ |
| Parcels with Vacant or Partially Vacant Buildings | 7 |
| Undeveloped | 3 |
| Total: | 54 |

Sources: VHB Field Surveys, July and August, 2012; Town of Brookhaven GIS data

⁽¹⁾This count does not include parcels where a vacant commercial use and active residential use were observed.

▼
¹³ Excluding MTA-Owned Parcels



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Figure 7
Existing Land Use Map

Ronkonkoma Hub
Transit-Oriented Development

Prepared for the Town of Brookhaven, October 2013

W&B Engineering, Surveying and Landscape Architecture, P.C.

- Legend
- Study Area
 - Residential
 - Mixed Use - Residential and Commercial
 - Commercial
 - Industrial
 - MTA Parking Facility
 - LIRR Ronkonkoma Station
 - Parcel with Vacant or Partially Vacant Buildings
 - Undeveloped Parcel



To the south of the Ronkonkoma Hub area are the LIRR tracks, which is the dividing line between the Towns of Brookhaven and Islip. To the south of the LIRR tracks are parking areas for the LIRR Ronkonkoma Train Station and a Town of Islip compost facility and, even further south, the Long Island MacArthur Airport. Single-family uses are located in the northwest and eastern portions of the Ronkonkoma Hub area. Residential uses, including a multi-family apartment/condominium complex, border the eastern edge of the Ronkonkoma Hub area.

Zoning

According to GIS-based SCTM parcel data maintained by the Town of Brookhaven, parcels within the Study Area are situated within four zoning districts, including: L Industrial 1 (Light Industry); J Business 6 (Main Street Business District); J Business 2 (General Business); and J Business 4 (Professional and Business Offices) (see Table 10 and Figure 8, below).

Table 10 – Existing Zoning in the Ronkonkoma Hub area

| Zoning District | Number of Lots |
|---|----------------|
| L Industrial 1: Light Industry | 31 |
| J Business 6: Main Street Business District | 20 |
| J Business 2: General Business | 2 |
| J Business 4: Business – Office Building | 1 |
| Total: | 54 |

Source: Town of Brookhaven GIS data



HBH Engineering, Surveying and Landscape Architecture, P.C.

Figure 8
Existing Zoning Map



Ronkonkoma Hub
Transit-Oriented Development

- Legend**
- Study Area
 - J6 Business
 - J2 Business
 - L1 Industrial
 - J4 Business

0 110 220 Feet
Data Source: Town of Brookhaven GIS

The permitted uses within each of these zoning districts are summarized in Table 11, below.

Table 11 – Current Zoning and Summary of Permitted Uses within the Ronkonkoma Hub area

| Zoning District | Summary of Permitted Uses |
|---|--|
| L Industrial 1: Light Industry | Agriculture; banks; churches; commercial laundry; day-care facility; health club; manufacturing; office; printing plants; research and development; veterinarian; and warehouse |
| J Business 6: Main Street Business District | Retail and personal service stores; restaurants and bars; offices; banks; museums; theaters; studios; indoor recreation; private instruction schools; institutions; and second story residential or office use |
| J Business 2: General Business | Banks (without drive-through facility); bowling alleys; places of worship; commercial centers; day care facilities; delicatessens; dry cleaners; health clubs; Laundromats; non-degree granting schools; offices; personal service shops; pharmacies (without drive-through facility); retail stores; shops for custom work; take-out restaurants; undertaking establishments; veterinarians |
| J Business 4: Business –Office Building | Offices; art galleries; banks; day care facilities; exhibit halls; undertaking establishments |

Source: Chapter 85 of the Town of Brookhaven Town Code

Table 12 summarizes the lot and bulk regulations for each of the four zoning districts within the Study Area.

Table 12 – Lot and Bulk Regulations for Existing Zoning Districts within Ronkonkoma Hub area

| | L-1 District | J-2 District | J-6 District | J-4 District |
|---|-------------------|-------------------|--------------------|-----------------|
| Maximum Height (Feet/Stories) | 50/3 | 35/2 | 30/2 | 35/2.5 |
| Maximum Building Area (Percent) | 60 | 50% | 30% | 30 |
| Minimum Lot Area (Square Feet) | 20,000 | 4,000 | 4,000 ¹ | 9,000 |
| Minimum Road Frontage (Feet) | 100 | 40 | 100 | 75 |
| Minimum Front/Rear Yard Setbacks (Feet) | 30/50 | 15/20 | 40/30 | 40/35 |
| Side Yard Setback (Feet) | 10 (Both) | 10 ² | 12 (Both) | 10 ³ |
| Maximum Floor-to-Area Ratio (FAR) | 0.35 ⁴ | 0.35 ⁵ | 0.60 ⁶ | 0.25 |

Source: Chapter 85 of the Town of Brookhaven Town Code

Notes:

- (1) The minimum required lot area for a hotel, place of assembly, private or public automobile parking field or garage shall be two acres
- (2) The minimum required side yard setback for a bank or pharmacy with a drive-through facility shall be 25 feet; The minimum required side yard setback for a commercial center or regional movie theater shall be 50 feet.
- (3) The minimum required side yard setback for a bank with an accessory drive-through facility or an office use with an accessory restaurant or take-out restaurant use shall be 25 feet
- (4) The maximum permitted FAR for a parcel within a designated hydrogeologic sensitive zone shall be 30 percent; the maximum permitted FAR for an electric generating facility shall be 25 percent.
- (5) The maximum permitted FAR for a commercial center or regional movie theater shall be 20 percent; the maximum permitted FAR for a commercial center with a large commercial retailer use shall be 16 percent.
- (6) Maximum building area shall be less than 60,000 square feet of gross floor area.

Relevant Land Use Plans

The redevelopment of the Ronkonkoma Hub area has been a goal of the Town of Brookhaven since the adoption of the *Brookhaven 1996 Comprehensive Land Use Plan* (hereinafter the “1996 Comprehensive Plan”). As discussed below in the summary of the planning documents that address the Ronkonkoma Hub area, while recommended redevelopment of the Ronkonkoma Hub has evolved since the adoption of the *1996 Comprehensive Plan*, the overall vision for the area has remained relatively consistent.

The Brookhaven 1996 Comprehensive Land Use Plan (1996 Comprehensive Plan)

The *1996 Comprehensive Plan* included an assessment of existing land uses; existing zoning and related codes; demographic data depicting the population, housing, social and economic conditions in the Town; historical and cultural facts; previous land use plans such as Brookhaven's 1975 and 1987 plans; community services and facilities; circulation and transportation infrastructure; and environmental resources. It also identified existing problems, deficiencies and needs, as well as community strengths and assets, and set forth goals, aspirations and/or objectives to be achieved. Lastly, alternatives and implementation programs for achieving the plan goals and objectives were proposed.

The *1996 Comprehensive Plan* recognized the advantageous location of the Ronkonkoma Hub proximate to not only the Ronkonkoma LIRR Station, but also to the Long Island - Islip MacArthur Airport and recommended that the Town continue to pursue redevelopment of the Ronkonkoma Hub. With this recommendation, the *1996 Comprehensive Plan* sought “to promote the goal of creating a ‘sense of place’ rezoning”¹⁴ to meet certain standards, such as interconnecting streets, inclusions of sidewalks and bike lanes, construction of housing along the street frontage, providing a mix of housing types, and promoting the development of active recreational sites. Within the *1996 Comprehensive Plan*, it was envisioned that the Ronkonkoma Hub area would be redeveloped with large attractive office buildings and industrial development; however, since the drafting of that plan, these uses have been determined to be no longer beneficial for the area, whereas the benefits of the TOD would meet the Town’s objectives for the Ronkonkoma Hub.

The *1996 Comprehensive Plan* identified the need for an increase in parking capacity at the Ronkonkoma LIRR Station. Since the adoption of the *1996 Comprehensive Plan*, multiple parking improvements have been undertaken, including a MTA-owned public lot expansion east of the Ronkonkoma LIRR Station buildings and a privately-owned parking lot immediately north of the Ronkonkoma LIRR Station buildings along the north side of Railroad Avenue, which provides an additional 500+ parking spaces combined. As discussed in Section 3.5.5 of the 2010 DGEIS, based on a

▼
¹⁴Town of Brookhaven Long Island 1996 Comprehensive Land Use Plan, Town of Brookhaven, 1996.

parking study performed in 2007, parking demand at Ronkonkoma Hub at that time was satisfied by existing parking facilities, but the parking demands would increase significantly upon redevelopment under the TOD concept.

An additional parking study was conducted in April 2011, which examined train station parking lots on Railroad Avenue. This study indicated that all of the lots examined, with the exception of one, were almost fully utilized. Although parking demand will increase, the Master Developer for the Ronkonkoma Hub TOD has reached agreement with the MTA to construct additional parking on the south side of the station to replace parking lots on the north side, and compensate for parking that would be displaced due to development on the north side. Furthermore, the proposed development/redevelopment that could occur within the Ronkonkoma Hub area would provide sufficient parking to meet its own needs.

Draft Brookhaven 2030 Plan

While the *Draft Brookhaven 2030 Plan* has not yet been adopted by the Town of Brookhaven, it identifies the Ronkonkoma LIRR Station as “the most used Station, due to its electrified service as compared to diesel service on the other two routes, and is one of the most used LIRR Stations overall.”¹⁵ Specifically, the *Draft Brookhaven 2030 Plan* addresses the importance of “creating transit-oriented developments surrounding Brookhaven’s Long Island Railroad Stations, including those in Port Jefferson Station, Patchogue, Ronkonkoma, Bellport, Medford, Mastic and Yaphank.”¹⁶

The following two key goals of the *Draft Brookhaven 2030 Plan* are pertinent to the *Urban Renewal Plan*:

- Redirect growth to areas served by infrastructure, revitalize downtowns, and establish pedestrian-oriented centers that have a sense of place
- Expand the range of transportation options

Long Island 2035 Comprehensive Regional Sustainability Plan

The *Long Island 2035 Comprehensive Regional Sustainability Plan*, is intended to guide sustainable development of Long Island’s economy and social and natural environment for the next 25 years. As set forth in the Environment & Infrastructure section of the “Sustainable Strategies for Long Island 2035 - December 2010,” environmental and infrastructure strategies are focused on addressing existing needs, anticipating future growth and protecting Long Island’s natural resources.

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¹⁵ Town of Brookhaven Department of Planning, Environment and Land Management, *Brookhaven 2030 Plan Existing Conditions and Trends Report*, Prepared by Urbitran Associates, July 2008, Page 4. (website: <http://www.brookhaven2030.org/pdfs/ExistingConditionsandTrends.pdf>)
¹⁶ Town of Brookhaven Department of Planning, Environment and Land Management, *Brookhaven 2030 Plan Issues and Opportunities Outreach Report*, Prepared by Urbitran Associates, December 2007, Page 8. (website: http://www.brookhaven2030.org/pdfs/issues_and_opportunities_report.pdf)

One of the strategies, involving transit (T-2) is to “create vibrant, transit-supported communities.” According to the *Long Island 2035 Comprehensive Regional Sustainability Plan*:

transit-supported communities (TSCs) are beneficial because they:

- *create vibrant, walkable communities;*
- *attract young workers;*
- *produce fewer school-age children per unit;*
- *generate greater incremental revenues when compared to single-family development;*
- *encourage transit use; and*
- *decrease traffic congestion.*

In addition to meeting consumer demand, transit-supported communities allow for compact growth in and around rail station areas, creating more development within a short walk of transit and more clusters of development along transit corridors. This form of growth allows more people to live on Long Island without adding to the burden of Long Island roadways. It also adds to the mix of housing on the Island, creating more choice and more availability of housing stock across pricing categories and housing types. With the clustering of worksites at station areas as well, it can be easier to live and work in transit corridors and use the LIRR to travel from home to work. This growth strategy will also boost LIRR ridership by creating reverse commute markets and establishing more consistent, all-day, bi-directional use of the railroad. Currently, however, only 19% of Nassau’s population and 6% of Suffolk’s population are located within a half-mile (10-minute walk) of a transit station.

Ronkonkoma Hub Transit-Oriented Planning Study

In 2007, the Town of Brookhaven embarked upon a two-phased planning study, known as the *Ronkonkoma Hub Transit-Oriented Planning Study* (hereinafter the “*Ronkonkoma Hub Planning Study*”), aimed at revitalizing a multi-block area around the Ronkonkoma Hub. The goal of the *Ronkonkoma Hub Planning Study* was to develop a vision that would include compact, mixed-use redevelopment of underutilized land that supports and expands on the high ridership and recent improvements made to the Ronkonkoma train station. The desired outcome of the *Ronkonkoma Hub Planning Study* was a long-term development strategy that would establish clear and predictable guidance for the revitalization of the blighted, vacant and/or underutilized parcels. The key goals of the *Ronkonkoma Hub Planning Study* included the following:

- Promote quality and healthy communities
- Redirect growth to areas already served by existing infrastructure
- Expand transportation choices to enhance environmental quality
- Reduce vehicle trips around the station

- Support compact, mixed-use, transit-accessible, pedestrian-oriented redevelopment
- Create a sense of place
- Support local businesses
- Create housing choices
- Explore reverse commute opportunities
- Enhance the tax base for the Town and the region to support the variety of taxing districts

Town of Brookhaven Blight to Light Study

In September of 2010, the Town of Brookhaven issued the *Draft Blight to Light Study*, which identified blighted properties within the Town and provided general recommendations for redevelopment of each identified property. The Ronkonkoma Hub is identified within the *Draft Blight to Light Study*, and is described as having limited retail and commercial offerings, unrealized economic potential, vacant and rundown buildings, chaotic zoning patterns, and a lack of investment. The *Draft Blight to Light Study* recommended a number of tools to facilitate the redevelopment of the Ronkonkoma Hub area, including incentive plans and zoning, expedited permitting, special districts and others.

This study was accepted by the Town in October 2010. Subsequently, the Town Board passed the Blight to Light code amendments (Article XLI – Redevelopment Initiative, of the Town Code), giving the Town the means to eradicate suburban blight.

The Ronkonkoma Hub Study Area Blight Study (“Blight Study”)

As indicated in Section 2.0 of this DSGEIS, the Town of Brookhaven performed a *Blight Study* for the purpose of determining whether the Ronkonkoma Hub area contained blighted conditions, as set forth in Article 15 of New York State General Municipal Law, which grants municipalities the power to redevelop areas in their jurisdiction that contain blighting conditions. In order to assess the presence of blighting factors, field surveys of the Ronkonkoma Hub area were conducted with visual inspections of lots, buildings, and public improvements. Also, GIS-based tax parcel and building footprint data, as well as lot size, building coverage and building code violations, among other information, were reviewed.

The *Blight Study* evaluated several factors in determining the presence of blighted conditions, including vacant and underutilized properties and buildings, deteriorated buildings, inadequate curbing and sidewalks, inadequate drainage and sewerage infrastructure, incompatible land uses, as well as aesthetics and visual characteristics. With respect to the existing land use, summaries of the relevant sections relating to vacant and underutilized properties and buildings, deteriorated buildings, and incompatible land uses are discussed below.

A. Vacant Properties and Buildings

Of the 54 tax parcels within the Ronkonkoma Hub area, a total of seven tax parcels were observed to contain vacant and partially vacant buildings, representing approximately 5.5 percent of the total building area (gfa) within the Ronkonkoma Hub area.

B. Underutilized Properties and Buildings

Underutilized properties are generally those properties that are not developed or utilized to their maximum potential, based upon prevailing zoning. Based upon prevailing zoning within the Ronkonkoma Hub area, it was determined that the maximum development potential of the total area of parcels not under MTA ownership (as these parcels are not subject to local zoning¹⁷) is approximately 609,370± square feet of total building area (gfa)¹⁸ (see Table 13).

Table 13 – Estimated Development Potential in terms of GFA within the Ronkonkoma Hub area, by Zoning District

| Zoning District | Area Situated with Zoning District (Square Feet) | Maximum Permitted Floor Area Ratio | Maximum Calculated Permitted Gross Floor Area (Square Feet) |
|-------------------------|--|------------------------------------|---|
| L Industrial 1 District | 679,545± | 0.35 | 237,841± |
| J Business 2 District | 357,262± | 0.35 | 125,042± |
| J Business 4 District | 82,946± | 0.25 | 20,737± |
| J Business 6 District | 506,616± | 0.60 | 225,750± ¹ |
| Total: | 1,626,369±² | - | 609,370± |

Source: Town of Brookhaven provided GIS data.

Notes:

(1) Pursuant to Section 85-251 of the Town Code, the maximum gfa permitted on a lot within the J Business 6 Zoning District is 60,000 square-feet. Thus, the maximum permitted gfa of SCTM No. 799-4-47.1, which is situated within the J Business 6 Zoning District, although comprising approximately 180,774 square feet is only 60,000 square feet. Similarly, the maximum gfa of SCTM No. 800-1-35.8, also situated within the J Business 6 Zoning District, although comprising approximately 149,591 square feet, is also only 60,000 square feet. Thus, the maximum calculated permitted gfa of all tax parcels within the Study Area situated within the J-6 Zoning District that do not exceed the 60,000-square-foot threshold is 105,750± square feet. Therefore, the maximum calculated permitted gfa for all tax parcels situated within the J Business 6 zoning district is 225,750± square feet.

(2) The 1,626,369 square feet (37.3 acres) excludes MTA-Owned parcels, which comprise approximately 11.8± acres and roadways, which comprise 4.9± acres.

However, as further explained below, the properties within the Ronkonkoma Hub area rely upon on-site sanitary systems, and thus, the development potential is restricted due to the maximum permitted (i.e., 600 gallons per day per acre) sanitary density regulations set forth in Article 6 of the Suffolk County Sanitary Code. Based on a commercial land use sanitary design flow factor of 0.06 gpd per square foot, as published by the SCDHS, the 37.3±-acre portion of the Study Area that does not include either MTA-owned parcels or roadways actually has a maximum yield of

¹⁷ SCTM Nos. 200-799-3-45.1, 49, and 50, and 800-1-28, 36, and 38.

¹⁸ It is noted that while the TOD area comprises approximately 54± acres, approximately 4.9± acres of TOD Area are comprised of roads and as such, the total area of all development parcels within the TOD Area is approximately 49.1± acres.

373,000 square feet of commercial space due to the reliance upon on-site sanitary disposal.

As previously mentioned, the current total building area (gfa) within the Ronkonkoma Hub area is approximately 232,979± square feet,¹⁹ which represents approximately 38.2± percent of the maximum potential building area in accordance with the prevailing zoning. As such, there is a potential gross floor area underutilization of approximately 376,391± square feet in gross floor area. It is recognized that it may not be feasible to achieve the maximum permitted development on any individual lot due to particular site conditions such as lot configuration, frontage, parking requirements, etc. Nonetheless, this analysis provides an indication of the extent of unrealized development potential within the Ronkonkoma Hub area.

The *Blight Study* also identified the tax parcels within the Ronkonkoma Hub area that are underdeveloped when compared to estimated maximum calculated permitted gross floor area. At the time of preparation of that the *Blight Study*, various tax parcels contain no building space or are completely underutilized pursuant to the permitted density of the respective zoning district. Specifically, 11 tax parcels (which have the potential for approximately 187,981 square feet of gross floor area) are vacant while 30 tax parcels are partially developed, but have a development potential of an additional 193,775± square feet of gross floor area. This totals an estimated 381,755± square feet of actual gross floor area underutilization.

C. Inadequate Drainage and Sewerage Infrastructure

Observations and recorded complaints of pooling water along roads within the Study Area indicate that drainage infrastructure is inadequate. Lack of such infrastructure contributes to a poor visual and aesthetic appearance, can discourage private investment in the area, and can also contribute to public health threats (e.g., mosquito infestation).

Properties within the Study Area rely upon individual on-site sanitary systems for sewage disposal. These sanitary systems, many of which are likely old, provide no actual physical treatment of sanitary waste (only the benefit of filtration through leaching pools). Moreover, in accordance with Article 6 of the Suffolk County Sanitary Code, for those parcels not under MTA ownership, the maximum potential sanitary discharge is 22,380 gallons per day (gpd).²⁰



¹⁹ Excluding parking structure and LIRR Station buildings on the north and south sides of Railroad Avenue, respectively.
²⁰ Pursuant to the *Long Island Comprehensive Waste Treatment Management Plan (208 Study)*, the site is located in Hydrogeologic Zone I and within such hydrogeologic zone, Article 6 of the Suffolk County Sanitary Code limits sewage discharge from on-site systems to 600 gallons per day per acre. Thus, the maximum potential sanitary discharge to on-site sanitary systems for the 37.3±-acre portion of the Study Area not under MTA ownership is approximately 22,380 gallons per day.

Based upon a commercial land use sanitary design flow factor of 0.06 gpd per square foot, as published by the Suffolk County Department of Health Services, the 37.3±-acre portion of the Study Area, excluding the MTA-owned parcels and roadways, (with a maximum permitted sanitary density of 22,380 gpd as noted above) has a maximum yield of 373,000 square feet of commercial space. While this exceeds the current total building area (232,979± square feet), it is significantly less than the maximum development potential based upon prevailing zoning, which is estimated at 609,370± square feet. In fact, the lack of sewage treatment within the Study Area actually restricts development to only 62± percent of the total development potential and may be a contributing factor in the underutilization of properties described elsewhere in this report.

D. Deteriorated Buildings

The deterioration of buildings and other structures was observed during the field surveys. Observed deterioration include poor condition of roofs, windows, and siding; deterioration of façade and masonry features; fencing that was falling down and/or in disrepair; and lack of paved driveway areas. As noted in the *Blight Study*, deterioration poses the potential for unsafe conditions and creates a visually unappealing appearance, which “can hinder economic growth by discouraging private investment and, thereby, limiting job and property tax revenue generation.”

E. Incompatible Uses

The Ronkonkoma Hub area features a number of intensive commercial uses (including automobile repair and service businesses) interspersed with low-density (single-family) residential uses. Photographs in Appendix B of the *Blight Study* (included with the *Urban Renewal Plan* in Appendix B) illustrate the general character of incompatible land uses within the Ronkonkoma Hub area.

Summary of Findings

As excerpted from the *Blight Study*, several blighting characteristics were identified, including:

- *Vacant and partially vacant properties and buildings* – Seven tax parcels were observed to contain vacant or partially vacant buildings, representing approximately 5.5 percent of the total gfa within the Ronkonkoma Hub area (12,793± square feet), and approximately 6.5 percent of the total area of the Ronkonkoma Hub area (3.52± acres) is undeveloped.
- *Significant underutilization of development potential* – The total developed gross floor area in the Ronkonkoma Hub area (excluding the Ronkonkoma LIRR Station and parcel associated with the LIRR Parking Structure) is 232,978± square feet, representing only 38.2± percent of the total development

potential permitted under existing zoning. This underutilization results in a lower level of economic activity than would otherwise be expected in the Ronkonkoma Hub area and, therefore, lowers levels of employment and property tax revenues.

- *Deteriorated buildings* – Deterioration of building elements was identified in a number of locations within the Ronkonkoma Hub area, creating potentially unsafe conditions and detracting from the area’s desirability as a place for private investment.
- *Inadequate curb and sidewalk areas* – Deteriorated or missing curbs and sidewalks were identified in various Ronkonkoma Hub area locations, detracting from the overall character of the area. Also, the lack of sidewalks hinders pedestrian activity and creates inefficiencies in pedestrian circulation (along with creating potentially dangerous conditions for pedestrians).
- *Lack of appropriate drainage and sewerage infrastructure* – Drainage is inadequate in certain locations, creating undesirable conditions for nearby uses. The lack of sewage treatment in the Ronkonkoma Hub area (i.e., properties rely upon individual on-site sanitary systems rather than a central collection and treatment system) limits the overall development density.
- *Incompatible land uses* – In several Ronkonkoma Hub area locations, residential uses adjoin or are located proximate to commercial uses that are not conducive to a desirable residential environment.
- *Aesthetic and visual character* – The combination of deteriorating buildings and infrastructure with the presence of substantial acreage devoted to the storage of vehicles, equipment, etc., creates an unattractive visual environment, which is not conducive to the attraction of private investment.

As indicated in Section 2.0 of this DSGEIS, the *Blight Study* found sufficient evidence to determine the Ronkonkoma Hub area to be a substandard or insanitary area in accordance with both Article 15 of the New York State General Municipal Law and Article XLI of Chapter 85 of the Town of Brookhaven Town Code. Subsequently, the Town of Brookhaven Town Board, after review of the aforesaid *Blight Study*, by Town Board Resolution 2012-804, dated September 20, 2012, designated the Ronkonkoma Hub as appropriate for urban renewal pursuant to Article 15 of the New York State General Municipal Law, and authorized the preparation of an urban renewal plan. In accordance with the requirements set forth in Article 15 of the General Municipal Law, a draft *Urban Renewal Plan* for the Ronkonkoma Hub has been prepared and is being reviewed by the Town (see *Draft Urban Renewal Plan for the Ronkonkoma Hub* in Section 3.4.2, below).

3.4.2 **Potential Impacts of the Proposed Action**

Land Use and Zoning

In order to redevelop the Ronkonkoma Hub area in accordance with the concept set forth in the draft *Urban Renewal Plan* and the mix and density of development proposed by the Master Developer, the following actions would be required:

- Adoption of the Urban Renewal Plan
- Adoption of the Land Use and Implementation Plan
- Adoption of a TOD District
- Change of zone of parcels within the Ronkonkoma Hub area to the TOD District
- Approval of a Maximum Density Concept Plan

Each of these actions, with respect to the impacts on land use and zoning, are discussed below.

Draft Urban Renewal Plan for the Ronkonkoma Hub

As indicated above, in September 2012, the Town of Brookhaven caused to be prepared the Blight Study, which found sufficient evidence to determine the Ronkonkoma Hub area to be a substandard or insanitary area in accordance with both Article 15 of the New York State General Municipal Law and Article XLI of Chapter 85 of the Town of Brookhaven Town Code. Subsequently, the Town Board, after review of the aforesaid *Blight Study*, designated the Ronkonkoma Hub as appropriate for urban renewal and authorized the preparation of an urban renewal plan (see Appendix B).

In accordance with the requirements set forth in Article 15 of the General Municipal Law, the intent of the draft *Urban Renewal Plan* is to address blighted conditions identified within the Ronkonkoma Hub area, defined by Section 501 of the General Municipal Law as “substandard, insanitary, deteriorated or deteriorating conditions, factors, and characteristics” that constitute a “serious and growing menace, is injurious to the public safety, health, morals and welfare...and constitutes a negative influence on adjacent properties impairing their economic soundness and stability, thereby threatening the source of public revenues.” In order to promote sound growth and development, and to address the aforementioned blighted conditions, Urban Renewal Law allows for the “clearance, replanning, reconstruction, redevelopment, rehabilitation, restoration or conservation” of designated blighted areas.

Urban Renewal Plan Objectives

As set forth in the draft *Urban Renewal Plan* (see Appendix B), its objectives are as follows:

- Eliminate blighting conditions, including: vacant and underutilized properties and buildings; deteriorated buildings; inadequate sidewalks, drainage, and sewerage infrastructure; incompatible land uses; and, aesthetic and visual detriments
- Promote compact, mixed-use development in proximity to the commuter rail station
- Encourage development that supports transit
- Encourage a diverse mix of higher density residential development, commercial, office and retail uses, entertainment and exhibition venues, and open spaces for workers, visitors, and residents
- Promote economic development opportunities
- Encourage a pedestrian-friendly environment and pedestrian-oriented commercial enterprises and consumer services that do not primarily rely on automobile traffic to bring consumers to the area
- Encourage flexibility in site and architectural design
- Maintain a consistently high level of design quality

As discussed in the *Blight Study*, the observed blighting conditions within the Ronkonkoma Hub area include vacant properties and buildings, underutilized properties and buildings, deteriorated buildings, inadequate sidewalks and curbs, inadequate drainage and sewerage infrastructure, incompatible land uses, and aesthetic and visual detriments.

The draft *Urban Renewal Plan* has been developed as a method to revitalize the Ronkonkoma Hub area with higher density residential development, commercial, hospitality, institutional, office, and retail uses, conference, entertainment and exhibition venues, and public designated outdoor spaces to complement and benefit from the presence of the Ronkonkoma LIRR Station and its associated commuter passenger volumes. The draft *Urban Renewal Plan* also proposes an upgrade of public facilities and infrastructure, including roads, sidewalks, curbs, public hardscape and landscape, and various utility infrastructure (e.g., natural gas lines, water mains, and electric distribution), stormwater runoff collection systems, street and walkway lighting, and parking areas. To facilitate the redevelopment of the Ronkonkoma Hub, as discussed in Section 3.2.2 of this DSGEIS, an STP will be constructed, under the auspices of the SCDPW, on the south side of the Long Island Rail Road tracks to accommodate sanitary waste from the Ronkonkoma Hub, with the potential to accommodate other areas (see Section 3.2.2 of this DSGEIS for further discussion of the STP).

The draft *Urban Renewal Plan* includes: redevelopment of private and public properties; adoption and mapping of revised land use regulations; and, specific investments in public infrastructure to improve safety, access, and circulation for its residents. The overall goal of all these undertakings would be to revitalize the Ronkonkoma Hub area as a vibrant, transit-oriented center. Overall, the draft *Urban Renewal Plan* recommends the development of higher density residential development (i.e., a maximum of 1,450 residential dwelling units) within multi-family buildings fronting major thoroughfares in the Ronkonkoma Hub area, approximately 195,000 square feet of retail space, approximately 360,000 square feet of office/medical space, and approximately 60,000 square feet of “flex space,” to be utilized for conference, exhibition, hospitality, and residential uses. There are also open/outdoor space components throughout the Ronkonkoma Hub area. Parking facilities would also be provided to accommodate parking demand generated by the recommended uses, while maintaining the existing MTA-owned parking garage, located in the central portion of the Ronkonkoma Hub area.

A summary of the issues and recommendations concerning the critical components for redevelopment of the Ronkonkoma Hub area, including land use, zoning and other land use controls, building conditions, and public improvements, as well as a consistency analysis of the proposed action with such recommendations, are included below.

➤ Land Uses

Issues:

As described in the summary of the *Blight Study* in Section 3.4.1 of this DSGEIS, the Ronkonkoma Hub area poses challenges related to vacant and underutilized properties and buildings, deteriorated buildings, inadequate sidewalks and curbs, inadequate drainage and sewerage infrastructure, incompatible uses, and aesthetic and visual detriments. Further, the mix of commercial businesses (primarily automobile-related businesses) and single-family residential uses creates a disjointed and inefficient land use pattern, compounded by the presence of vacant and underutilized lots and buildings.

Specifically, and as presented in the *Blight Study*, the Ronkonkoma Hub area features approximately 232,978 square feet of gfa, representing approximately 39± percent of the total allowable gfa within the Ronkonkoma Hub area (i.e., 609,370± square feet gfa) under existing zoning. However, as indicated above, due to the lack of sewage treatment, the existing development in the Ronkonkoma Hub area is actually 62 percent of the maximum development potential for commercial space due to the sanitary density restrictions set forth in Article 6 of the Suffolk County Sanitary Code. Further, approximately 5.5 percent of the total gfa within the Ronkonkoma Hub area is vacant (i.e., 12,793± square feet), and approximately 6.5 percent

of the total area of the Ronkonkoma Hub area (i.e., 3.52± acres) is undeveloped. Such underutilization and vacancies represent unrealized economic potential as well as create an unappealing business environment.

Recommendations:

The draft *Urban Renewal Plan* recommends redevelopment of the Ronkonkoma Hub area with a mix of uses at higher densities than what currently exists, as well as implementing various traffic and streetscape improvements. The high daily commuter volume at the Ronkonkoma LIRR Station (approximately 17,000 riders), proximity of the Ronkonkoma Hub area to major transportation corridors (i.e., the Long Island Expressway), and electric and express train service to New York City make higher development densities feasible and desirable. Additionally, the STP to be constructed to the south of the Ronkonkoma Hub area would permit up to 400,000 gallons per day of sanitary waste from the Ronkonkoma Hub, which would allow for development densities significantly greater than what currently exist. Specifically, the recommended land use development program in the *Urban Renewal Plan* (see Figure 2 of this DSGEIS) includes the following components:

- Several multi-family residential buildings, with maximum heights of three-to-four stories, primarily fronting along Union Avenue and Mill Road.
- Predominantly retail use with residential permitted along the west side of Hawkins Avenue, with a maximum height of three stories.
- Several mixed-use buildings potentially containing office or residential over retail, dining and entertainment uses. These buildings would have maximum heights of five stories along Railroad Avenue and four stories along Mill Road.
- Mixed-use buildings containing commercial, exhibition, hospitality, institutional, and residential uses. These buildings would be situated in the eastern portion of the Project Area, along Railroad Avenue and Mill Road, and would have a maximum height of five stories.
- Mixed-use buildings containing residential, office and institutional uses, with a maximum height of five stories, located adjacent to the existing parking deck.
- Maximum of four-to-five story buildings containing retail, office, dining and entertainment uses, situated along the south side of Railroad Avenue.

- A special use/entertainment venue is recommended in the southern-central portion of the Project Area along the south side of Railroad Avenue, and would be up to four stories in height.
- Improvements to existing streets, the construction of new public and private streets, and the installation/upgrade of traffic signals or construction of a roundabout, and/or other traffic controls, as deemed appropriate in order to improve traffic circulation.

Proposed Action:

In accordance with the recommendations above, the proposed action includes redevelopment of the Ronkonkoma Hub area with the type, configuration and density of the land uses recommended above. Also, the proposed action includes various traffic, streetscape and infrastructure improvements. Accordingly, the proposed action is consistent with this recommendation.

- Zoning and Other Land Use Controls

Issues:

As described in the summary of the *Blight Study* in Section 3.4.1 of this DSGEIS, the Ronkonkoma Hub area currently comprises four separate zoning districts, including the L Industrial 1 (Light Industry), J Business 2 (General Business), J Business 4 (Professional and Business Offices), and J Business 6 (Main Street Business District) districts. These districts do not permit land uses and development densities most appropriate for the Ronkonkoma Hub area, given the daily commuter volumes associated with the Ronkonkoma LIRR Station.

Recommendations:

In order to facilitate the recommended redevelopment of the Ronkonkoma Hub area described in the draft *Urban Renewal Plan*, a TOD District would need to be created and implemented for the entire Ronkonkoma Hub area (see Figure 6 of the draft *Urban Renewal Plan*). A TOD District would permit higher density residential, commercial, office and retail development in mixed-use buildings while also allowing for flexibility in the design and placement of these uses. Implementation of a TOD District would encourage efficient use of land, be a catalyst for revitalization, and foster a sense of place through development of a new transit-oriented, mixed use, pedestrian-friendly community.

A TOD District would also encourage redevelopment of vacant and/or underutilized, blighted properties, which would complement the surrounding communities and uses as well as better utilize existing public transit infrastructure at the Ronkonkoma LIRR Station.

Proposed Action:

In accordance with the recommendations above, the proposed action includes the creation of a TOD District and the rezoning of the Ronkonkoma Hub area. As indicated in the proposed TOD District (see Appendix D), the intent is to allow for comprehensive, transit-oriented, and economically-viable revitalization of the Ronkonkoma Hub area. Thus, the proposed action is consistent with this recommendation.

➤ **Building Conditions**

Issues:

As described in the summary of the *Blight Study* in Section 3.4.1 of this DSGEIS, existing buildings within the Ronkonkoma Hub area are not adequate to accommodate the redevelopment recommendations within the draft *Urban Renewal Plan*. Further, there were observed deteriorated buildings within the Ronkonkoma Hub area. The inadequacy of existing buildings within the Ronkonkoma Hub area to accommodate the recommended development densities will require the construction of new buildings.

Recommendations:

The draft *Urban Renewal Plan* recommends the acquisition and demolition of all structures, except for the existing MTA parking garage and potentially the train station. Individual buildings that are maintained and/or rehabilitated to eliminate code violations and blighting conditions, and which are proposed to be occupied in a manner which meets the objectives of the draft *Urban Renewal Plan* in terms of use, density, design and other factors, may be retained and integrated into the overall development.

Proposed Action:

In accordance with the recommendations above, the proposed action includes creation of a TOD District that, as part of its legislative intent, includes 1) encouraging building reuse and “infill” to create higher densities and 2) facilitating new development, as well as redevelopment of existing vacant/unoccupied parcels that increase the area’s marketability and enhance the tax base. The TOD District codifies the concepts of density, height and

design discussed in the *Urban Renewal Plan*. In addition, the Maximum Density Concept Plan is consistent with the density, height and design standards in the TOD District. Therefore, the proposed action is consistent with this recommendation.

➤ Public Improvements

Issues:

As described in the summary of the *Blight Study* in Section 3.4.1 of this DSGEIS, sidewalk and curb areas within the Ronkonkoma Hub area are in disrepair and, in some cases, non-existent. Drainage infrastructure within the Ronkonkoma Hub area is also inadequate as pooling water along roadways was observed after rain events. Further, the lack of adequate sewerage infrastructure limits the building development potential of the Ronkonkoma Hub area.

Recommendations:

Redevelopment of the Ronkonkoma Hub area with development densities recommended by the draft *Urban Renewal Plan* would require improvements and upgrades to infrastructure, including roads, sidewalks, curbs, public hardscape and landscape, gas lines, water mains, electric distribution, storm water runoff collection systems, street and walkway lighting and public parking areas.

Additionally, the creation of a new sanitary sewer district by Suffolk County, with the STP planned for construction on the south side of the LIRR tracks, would permit development densities significantly greater than those currently existing within the Project Area. As such, the redevelopment recommendations contained in the draft *Urban Renewal Plan* would be feasible in the context of permissible sanitary waste generation.

Proposed Action:

In accordance with the recommendations above, the TOD District, which is one of the components of the proposed action (see Appendix D of this DSGEIS), requires the installation of certain public improvements as part of site plan approval. These include landscaping, streetscaping, roadway development, parking, lighting, etc. Prepared in accordance with the TOD District, the Conceptual Master Plan package presented in Appendix E of this DSGEIS, shows that the development would include the required public improvements, including upgrades to roads, installation of sidewalk and street trees, landscaping, utilities (including gas, water and electric lines), stormwater system, lighting and public parking.

The Suffolk County STP, to be located on the south side of the LIRR tracks, will have an initial design capacity of 500,000 gpd, of which 400,000 gpd would be allocated to the Ronkonkoma Hub area. Therefore, the construction of the STP would make feasible the development of the Ronkonkoma in accordance with the *Urban Renewal Plan*. Thus, the proposed action is consistent with this recommendation.

Land Use and Implementation Plan

Subsequent to the two-phased planning studies and as discussed in Section 2.1 of this DSGEIS, the Town prepared a *Draft Land Use and Implementation Plan*, which set forth a theoretical maximum development scenario. The "Theoretical Full Build Plan" included the redevelopment of opportunity sites with preferred land uses (i.e., multi-family residential, retail, restaurant, and office), which were analyzed in the 2010 DGEIS.

As previously noted, since support for the redevelopment of the Ronkonkoma Hub was evident from the 2010 DGEIS public hearing, which included the *Draft Land Use and Implementation Plan*, the Town issued an RFQ for a Master Developer. After the selection of a Master Developer, a *Blight Study* and draft *Urban Renewal Plan* were prepared. The draft *Urban Renewal Plan* set forth uses and densities for the Ronkonkoma Hub area, as follows:

- A maximum of 1,450 multi-family residential dwelling units
- Approximately 195,000 square feet of retail space
- Approximately 360,000 square feet of office/medical space, and
- Approximately 60,000 square feet of "flex" space, to be utilized for conference, exhibition, hospitality, and/or residential uses.

The *Land Use and Implementation Plan* has been updated to reflect the development densities recommended in the *Urban Renewal Plan* (see Appendix C).

Based upon the *Land Use and Implementation Plan* and the creation of the TOD District, the Master Developer prepared a Maximum Density Concept Plan that reflects the density and type of development discussed in the *Land Use and Implementation Plan*, which have been codified in the TOD District, which is discussed below.

Proposed Creation and Rezoning of Parcels to TOD District

As noted in the 2010 DGEIS, the existing zoning within the Ronkonkoma Hub area is a mix of several business and industrial zoning districts, which does not facilitate a cohesive development scenario for the area. The prevailing zoning does not take

advantage of the area's unique location adjacent to a highly-used LIRR station. The TOD District has been designed to establish the tools necessary for implementing the Vision for the area. This is accomplished by creating opportunities for residential and commercial mixed-use so that people can live, work, shop and play while having easy access to a major commuter rail line.

There are a number of key differences between the existing zoning of area and the proposed TOD District, as follows:

- Instead of four separate business and industrial zones, the entire area would be zoned in a single zoning district that allows flexibility in development
- There is an extensive list of permitted uses that are allowed throughout the TOD District, as opposed to a more limited list permitted by each of the existing individual zoning districts
- No industrial development would be permitted in the TOD District, whereas a portion the Ronkonkoma Hub area is zoned L Industrial 1
- Mixed uses are permitted by right in the TOD District, whereas they are either limited or prohibited in most zoning districts (with the exception of J Business 6)
- Prevailing zoning has minimum lots sizes (as low as 4,000 square feet) and a variety of setback requirements, whereas the TOD District has no minimum lot size, but controls development through building configuration, building alignment with build-to zones
- The TOD District requires the provision of amenities (street trees, street furnishings, etc.) throughout the entire district, while under the prevailing zoning only the J Business 6 zoning district requires such amenities

The TOD District has been designed as a Form-Based Code. As indicated in the DGEIS and the proposed *Land Use and Implementation Plan*, form-based code zoning is different from conventional zoning in that it emphasizes building form and appearance rather than specifying bulk regulations. Form-based code zoning focuses on regulating the public realm, including street types, blocks, and civic spaces and provides for flexibility in use, site and architectural design. Form-based code zoning also includes an extensive use of graphics to illustrate, for example, the anticipated relationship of the building to the street or site.

The TOD District establishes objectives, policies, and standards to promote orderly development and redevelopment within the Ronkonkoma Hub area for purposes of encouraging high-density mixed-use development, housing, retail, office, entertainment and institutional uses. The overall intent of the TOD District is to encourage the efficient use of land, be a catalyst for revitalization, and foster a sense

of place through development of a new transit-oriented, mixed use, pedestrian-friendly community.

The TOD District would also encourage redevelopment of vacant and/or underutilized, blighted properties, which would enhance the tax base, improve aesthetics, and compliment the surrounding communities and uses as well as better utilize existing public transit infrastructure at Ronkonkoma Station through improved access and increased ridership.

The TOD District, should it be adopted by the Town Board, is proposed to be applied to the 54 tax parcels within the 53.73± acres that comprise the Ronkonkoma Hub area (see Table 1) and would replace the underlying business and industrial zoning that currently exists within this area.

Site plan applications for development or redevelopment in the Ronkonkoma Hub area would be subject to the regulations set forth in the TOD District, including the Regulating Plan. As with other site plan applications submitted to the Town for development in other zoning districts, the Planning Board has the ability to approve, conditionally approve or deny such applications.

Development within the Ronkonkoma Hub area is controlled by a "Regulating Plan." This plan designates the subdistricts that comprise the TOD District and the various roadways within and adjacent to the subdistrict. With respect to approvals, the Planning Board would determine whether proposed development within the Ronkonkoma Hub area complies with the Regulating Plan and with the descriptions, building forms and development parameters applicable to each of the subdistricts, as defined in the TOD District. These subdistricts convey the specific character that the Town wishes to achieve within the Ronkonkoma Hub area. The subdistricts included within the TOD District and shown on the Regulating Plan are as follows:

- Neighborhood Subdistrict (A)
- Downtown Living Subdistrict (B)
- Marketplace Subdistrict (C)
- Main Street Subdistrict (D)

The characteristics of each subdistrict, as well as the height and other requirements are discussed in Section 2.2.1 of this DSGEIS. Also see the TOD District in Appendix D of this DSGEIS.

The distribution of uses, building configurations (including height in feet and stories), building alignment, accessory buildings, parking requirements and streetscape requirements are specified for each of the four subdistricts. Other parameters set forth in the TOD District include permitted and prohibited uses, public and private street types, designated outdoor space, signage and supplementary public lighting.

If the existing zoning was allowed to remain in place, rather than the rezoning of the parcels within the Ronkonkoma Hub area to the TOD District, development around the Ronkonkoma train station would continue to occur in a haphazard manner that encourages the proliferation of incompatible land uses. The TOD District, as an FBC, would permit the implementation of the community’s vision for the area as expressed in the key goals cited in the *Ronkonkoma Hub Planning Study*. The TOD District permits land uses that are appropriate for the area, and encourages sound architectural design along with streetscape standards that promote pedestrian activity. The TOD District aims to regulate buildings as well as the public realm in a comprehensive manner. Therefore, the TOD District is a tool that is useful in implementing the community’s vision for the Ronkonkoma Hub area.

Maximum Density Concept Plan

As discussed in Section 2.0 and in 3.4.1 of this DSGEIS, the prior planning efforts of the Town resulted in the development of a Theoretical Full Build Plan for the TOD District and this plan was evaluated in the prior DGEIS. The density of the Theoretical Full Build Plan evaluated in the DGEIS was less than that currently proposed. A comparison of the land uses of the prior Theoretical Full Build Plan and the currently-proposed Maximum Density Concept Plan (see Figure 5 of this DSGEIS) is included in the table below:

Table 14 – Comparative Analysis of Land Uses and Density of the Prior Theoretical Full Build Plan and Proposed Maximum Density Concept Plan

| Land Use | Prior Theoretical Full Build Plan | Proposed Maximum Density Concept Plan |
|------------------------|-----------------------------------|---|
| Residential | 615 units | 1,450 units (maximum) |
| Retail | 60,875 s.f. | 155,000 s.f. |
| Restaurant | 200 seats (total) | 40,000 s.f. (1,080 seats total) |
| Office | 49,375 s.f. | 306,000 s.f. |
| Medical Office | -- | 54,000 s.f. |
| Health Club | 30,000 s.f. | -- |
| Flex Space | -- | 60,000 s.f. |
| Parking | 2,701 new spaces | 3,638 new spaces |
| Sewage Treatment Plant | | |
| Location: | On-Site | Off-site |
| Design Capacity: | 275,000 gpd | 500,000 gpd (expandable to 750,000 gpd) |
| Projected Load: | 169,000 gpd | 400,000 gpd |
| Outdoor Plaza Area | Yes | Yes |

The density of the specific uses as well as the uses set forth as part of the Maximum Density Concept Plan conform to the densities and uses described in the *Urban Renewal Plan* and the *Land Use and Implementation Plan*. The distribution and location of the specific uses, as well as the maximum square footage of the proposed uses, as shown on the Maximum Density Concept Plan, comply with the Regulating Plan.

Furthermore, the proposed parking, as depicted on the Maximum Density Concept Plan, exceeds the parking requirements set forth in the TOD District.

The Maximum Density Concept Plan also conforms to the original goals set forth in the *Ronkonkoma Hub Planning Study*, which have been incorporated into the TOD District. Development in accordance with the Maximum Density Concept Plan would revitalize the blighted, vacant and/or underutilized parcels within the Ronkonkoma Hub area.

The Maximum Density Concept Plan promotes economic development opportunities by providing for 360,000 square feet of office/medical office space and 60,000 square feet of flex space, which permits, among other uses, hospitality and entertainment uses. These uses, along with the new residential development, would enhance the tax base of the area. The proposed uses and their distribution within the Ronkonkoma Hub complement the existing land uses in the surrounding area, with the residential uses located mostly to the north and east (proximate to existing residential land uses), and the mixed-use developments located in the interior of the Hub, closer to the train station. While the Ronkonkoma branch of the LIRR has extremely high ridership, not much activity, other than commuting, occurs around the station. The potential future development around the train station will better support this resource.

The Maximum Density Concept Plan, as depicted in more detail in the Conceptual Master Plan Package (see Appendix E of this DSGEIS), portrays a pedestrian-friendly environment with sidewalks, a large plaza in front of the train station and uniform landscaping and streetscapes (e.g., street trees, furniture). Businesses would be oriented to the street to capture foot traffic around the station and within the overall Hub area. Residents that live within the Ronkonkoma Hub area, as well as the immediately surrounding area and employees and visitors to the Hub, can find places to shop, eat, play, and potentially lodge, all without the need for an automobile.

As depicted on the renderings, included in Section 3.10.2, while not necessarily showing the actual architectural styles and materials, generally reflect the nature and quality of the architectural treatments and facades that would be used within the Ronkonkoma Hub area. The density of the development, the cohesive development styles and the landscaping, streetscape and other amenities provided within the Ronkonkoma Hub area will cultivate a "sense of place." The Maximum Density Concept Plan is a mixed-use, compact community that takes advantage of the proximity to the Ronkonkoma train station, forming a viable and sustainable transit-oriented development.

Relevant Land Use Plans

1996 Comprehensive Plan

Section 3.4.1 of this DSGEIS describes the *1996 Comprehensive Plan* as it relates to the Ronkonkoma Hub area. While the *1996 Comprehensive Plan* is the current official comprehensive plan for the Town, updates are currently being made as part of the *Draft Brookhaven 2030 Plan* described below.

In general, the *1996 Comprehensive Plan* recommends that the Town continue to pursue redevelopment of the Ronkonkoma Hub to take advantage not only of the Hub's location adjacent to the Ronkonkoma rail station, but also its location adjacent to Islip MacArthur Airport. Also, the *1996 Comprehensive Plan* recommends that in order "to promote the goal of creating a 'sense of place' rezonings should be required to meet certain standards."²¹

Transportation

As previously discussed, the *1996 Comprehensive Plan* identifies the need for an increase in parking capacity at the Ronkonkoma train station. The proposed action would result in new opportunities for parking throughout the Ronkonkoma Hub area to accommodate the future development as well as spaces for daily commuters. Each block, as shown in the Maximum Density Concept Plan (see Figure 5), includes on-site parking. The Plan also includes retention of the existing MTA parking garage and the parking area east of Ronkonkoma Avenue and south of Railroad Avenue. Also, according to the Traffic Impact Study, the Master Developer for the Ronkonkoma Hub area is negotiating an agreement with the MTA and Suffolk County to construct additional parking on the south side of the station to replace parking lots on the north side, and compensate for commuter parking that would be displaced due to development on the north side.

Improvements such as new sidewalks and other pedestrian accommodations, bike lanes and landscaped medians are proposed for parts of Hawkins Avenue, Union Avenue and Mill Road as gateways to the Ronkonkoma area, which is generally consistent with the *1996 Comprehensive Plan*.

Land Use and Zoning

As stated in the *1996 Comprehensive Plan*, it was envisioned that the Ronkonkoma Hub area would be redeveloped with large attractive office buildings and industrial development, which would take advantage of the proximity the Long Island MacArthur Airport and Ronkonkoma station. The proposed TOD District seeks to take advantage of the Long Island MacArthur Airport and the LIRR-Ronkonkoma

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²¹ *Town of Brookhaven Long Island 1996 Comprehensive Land Use Plan*, Town of Brookhaven, 1996.

Station by promoting a compact, mixed-use community including residential, retail and office uses for a “live-work-play” environment. Access to the LIRR-Ronkonkoma Station allows for railroad commuters to live within the Ronkonkoma Hub area to reduce automobile dependence. Since the preparation of the 1996 *Comprehensive Plan* and based on more recent land use studies, it has been determined that industrial uses would not be compatible with the TOD concept or the community vision for the area, and, therefore, they are not proposed as part of the TOD District.

Overall, the proposed action is consistent with the goals for the Ronkonkoma Hub area as set forth in the 1996 *Comprehensive Plan*.

Draft Brookhaven 2030 Plan

As discussed in Section 3.4.1 of this DSGEIS, the *Draft Brookhaven 2030 Plan* is, among other things, being prepared to guide future development of the Town of Brookhaven. As previously indicated, the two key goals that are consistent with the proposed action are:

- Redirect growth to areas served by infrastructure, revitalize downtowns, and establish pedestrian-oriented centers that have a sense of place
- Expand the range of transportation options.

These two goals are consistent with those expressed in the *Ronkonkoma Hub Planning Study*, which is one of the studies that formed the basis for the proposed action. Specifically, the *Draft Brookhaven 2030 Plan* calls for the creation of transit-oriented development surrounding Brookhaven’s railroad stations. A *Blight Study* was conducted, and an *Urban Renewal Plan* prepared for the area around the Ronkonkoma train station. Furthermore, a *Land Use and Implementation Plan* for the area around the Ronkonkoma train station is also being evaluated. These plans reinforce the aim of the goals to establish TODs in areas well served by infrastructure, to revitalize downtowns and to enhance the pedestrian experience. The TOD District accomplishes these goals through development of a new transit-oriented, mix-use, self-sufficient community that better utilizes existing public transit infrastructure at the Ronkonkoma station. The proposed action provides for new housing, as well as employment, shopping and entertainment opportunities within walking distance of public transit; thereby expanding the range of alternative transportation options from the typical single-occupant vehicles.

Long Island 2035 Comprehensive Regional Sustainability Plan

As indicated in Section 3.4.1, the *Long Island 2035 Comprehensive Regional Sustainability Plan* is a guidance document for the sustainable development of Long Island over the next 25 years. One of the sections of the report discusses environmental and

infrastructure strategies. One of the strategies is to “create vibrant, transit-supported communities.” These types of communities allow for compact development around railroad stations, making it easier to live and work in transit corridors and to encourage public transit usage, while minimizing vehicle miles traveled in single-occupancy vehicles.

The proposed action comports with the concept of transit-supported communities by creating a walkable environment, where people can live, work, shop and play in a compact, cohesively developed area, without the need to drive. Allowing multi-family residential development within a short walk of the railroad station will encourage transit use. Moreover, permitting office and other commercial development within the Ronkonkoma Hub area may create a reverse commuting market by “establishing more consistent, all-day, bi-directional use of the railroad.”

Overall, the proposed action is consistent with the mission and goals of the *Long Island 2035 Comprehensive Regional Sustainability Plan*.

Ronkonkoma Hub Transit-Oriented Planning Study

As discussed in Section 3.4.1 and through this DSGEIS, in 2007, the Town of Brookhaven began to specifically study the area around the Ronkonkoma train station, and prepared a study aimed at revitalizing this area. This *Ronkonkoma Hub Planning Study* set forth specific community goals that were derived from community visioning sessions and workshops, laid out a long-term development strategy for the area and provided the foundation and guidance for the redevelopment of the Ronkonkoma Hub area. This study established the basis for subsequent studies and reports that have evolved into the current proposed action. As previously demonstrated, the *Land Use and Implementation Plan*, TOD District, and the Maximum Density Concept Plan comport with the concepts contained in the *Ronkonkoma Hub Planning Study*.

The *Land Use and Implementation Plan* (see Appendix C of this DSGEIS) presents the criteria and process for implementing new land use legislation designed to result in the revitalization of the area surrounding the Ronkonkoma train station, through the adoption and application of the TOD District zoning. The *Land Use and Implementation Plan* relies on data, assumptions and conceptual plans developed in earlier phases of the *Ronkonkoma Hub Planning Study*, as well as a market study conducted in August 2010.

The Maximum Density Concept Plan (see Figure 5) is a potential redevelopment option that illustrates overall type and level of development that could take place with the application of the TOD District – a tool the Town has created to implement the Ronkonkoma Hub vision. Other types and combinations of mixed-use development are possible and would be allowed.

The proposed action, including the creation, adoption and application of the TOD District, and the Maximum Density Concept Plan that complies therewith, are consistent with the goals and objectives of the visioning and planning process that culminated in the *Ronkonkoma Hub Planning Study*. It would significantly visually improve the Ronkonkoma Hub area and increase marketability of the land both within and surrounding the area. The TOD District would facilitate the improvement of land use conditions through the redevelopment of vacant, underutilized and/or blighted properties, encourage the efficient use of land, provide for revitalization, and foster a sense of place through development of a new transit-oriented, mixed use, self-sufficient community. This development is anticipated to enhance the tax base, improve aesthetics, complement the surrounding uses, and encourage increased utilization of public transit at and around the Ronkonkoma station.

Town of Brookhaven Blight to Light Study

The *Blight to Light Study*, which was adopted by the Town in October 2010, identified blighted properties in the Town and provided general recommendations for redevelopment of each of the identified properties. As indicated in Section 3.4.1, the *Blight to Light Study*, recommended a number of tools to redevelop and revitalize the Ronkonkoma Hub area, including the development of new zoning. As discussed throughout this DSGEIS, the Town conducted a more specific *Blight Study* for the Ronkonkoma Hub area, and from that prepared an *Urban Renewal Plan*. This plan provides the basis for the development of the TOD District, which is the tool that would be used to facilitate the redevelopment of the Ronkonkoma Hub area. Therefore, the proposed action is consistent with the concepts espoused in the *Blight to Light Study*.

Blight Study

As indicated above, subsequent to the adoption of the *Blight to Light Study*, the Town conducted a *Blight Study* that was specific to the Ronkonkoma Hub area. This study, which is discussed in detail in Sections 2.1 and 3.4.1 of this DSGEIS, identifies a number of blighting conditions and notes that there was sufficient evidence to determine that the Ronkonkoma Hub area be designated as an urban renewal area, leading to the preparation of an urban renewal plan. As the *Urban Renewal Plan, Land Use and Implementation Plan* and TOD District have grown out of the *Blight Study*, the proposed action is consistent with that study. Specifically, the proposed TOD District indicates that such district "is adopted pursuant to, and in accordance with, the...urban renewal and comprehensive plans." Furthermore, the legislative intent of the TOD District indicates that the adoption of the district "is to allow for a comprehensive, transit-oriented, and economically-viable revitalization of the area including and proximate to the LIRR Ronkonkoma train station." Thus, the intent of the TOD District is to revitalize blighted properties through the comprehensive rezoning and redevelopment of the area.

3.4.3 Proposed Mitigation

Based upon the foregoing, while the land use and zoning within the Ronkonkoma Hub area would change, no significant adverse environmental impacts with respect to land use and zoning were identified. The proposed action has been designed to have a positive impact on land use within the Ronkonkoma Hub area through the creation and application of the TOD District, which will allow for a comprehensive, cohesive and flexible development.

3.5 Traffic and Parking

3.5.1 Existing Conditions

A *Traffic Impact Study* (TIS) was prepared to determine whether significant adverse traffic impacts would result from the proposed action and to recommend and evaluate mitigation measures for such impacts, if required. The study also evaluates the expected parking needs to determine the sufficiency of parking spaces to meet the needs after the completion of the project. This report presents the findings of the traffic and parking study and summarizes the data collection process, traffic analysis procedures, and study conclusions.

This study refines the traffic and parking studies performed previously and evaluated in the 2010 DGEIS to reflect the more refined redevelopment concepts that would be permitted, based upon the Ronkonkoma Hub Form-Based Code being considered by the Town Board.

The TIS is annexed in its entirety in Appendix H, and a summary of the study methodology and existing traffic conditions, including a comprehensive evaluation of the existing transportation conditions, including roadway geometry, traffic control devices, peak-hour traffic volumes, roadway operating characteristics, and parking availability, is contained below.

Study Methodology

The following describes the methodology used in this traffic study:

- The Maximum Density Concept Plan and related documents were reviewed to obtain an understanding of the project scope and layout.
- Based on a review of the adjacent roadway system and review of previous studies, eight signalized and two unsignalized intersections were identified as key intersections that may be impacted by the project.
- The prevailing traffic conditions, geometric parameters, traffic control devices and the number and direction of travel lanes at the key locations were observed and inventories were made.
- Manual turning movement counts collected at six key intersections for a previous 2010 study were adjusted to 2013 using a growth factor; and the turning movement counts at four new intersections added in this study were counted using Miovision cameras as on a typical weekday during the weekday a.m. and p.m. peak periods.

- The existing traffic volumes at the previously-identified key intersections were expanded to the future No-Build year, assumed of 2020.
- The traffic generated by the proposed development mix, in accordance with the Maximum Density Concept Plan, was estimated based on recognized traffic engineering standards.
- The site-generated volumes were distributed along the adjacent roadway network and added to the 2020 No-Build volumes to produce the 2020 Build volumes.
- Capacity analyses were performed at the key intersections for the Existing, 2020 No-Build, 2020 Build Conditions.
- The results of the analyses for the Existing, No-Build and Build Conditions were compared to assess any significant traffic impacts that may result from the proposed project.
- The need for traffic mitigation measures was evaluated.
- A parking analysis was conducted to determine that sufficient parking would be provided for the TOD as well as to evaluate the adequacy of replacement parking to be provided to account for existing railroad station parking areas to be displaced with the development of the TOD.
- An evaluation of the potential cumulative effects of Other Planned Developments which may affect traffic conditions in the study area, consisting of the Metropolitan Transportation Authority's Double Track Project, was performed.

Roadways

The principal roadways and intersections in the Ronkonkoma Hub area (also known as the study area) are described below. The descriptions of the roadways and key intersections include the geometric conditions and traffic control characteristics.

Long Island Expressway North and South Service Roads

The Long Island Expressway (LIE) North Service Road runs on the north side of the LIE (Interstate Route 495) and allows only westbound traffic. *The LIE South Service Road* runs on the south side of the LIE and allows only eastbound traffic. The maintenance of the service roads comes under the jurisdiction of SCDPW. However, the traffic signals are maintained by NYSDOT. Both service roads provide two travel lanes in the study area with additional turn lanes at major intersections. Available 2010 NYSDOT hourly count data on the service roads between Ronkonkoma Avenue

and Hawkins Avenue show the Average Annual Daily Traffic (AADT) on the South Service Road to be 10,037 vehicles per day and on the North Service Road the AADT to be 13,783 vehicles per day. The posted speed on this section of the service roads is 40 miles per hour.

While sidewalk is present and continuous on the south side of the South Service Road, sidewalk on the North Service Road is discontinuous with a number of segments where sidewalk is not provided. Shoulders on both service roads are either not present or narrow, making on-street parking impermissible. No dedicated bicycle facilities are provided on either service road in the study area.

Hawkins Avenue

Hawkins Avenue is a north-south collector distributor road under the jurisdiction of the Town of Brookhaven. The road is on the National Highway System (NHS). It runs north from Railroad Avenue, crosses Route 25 in Lake Grove and eventually become Stony Brook Road. It provides one travel lane in each direction, with additional turn lanes at key intersections. The 2010 NYSDOT AADT estimate on Hawkins Avenue in the vicinity of the TOD area is approximately 16,000 vehicles per day (vpd). The posted speed on this roadway is 30 miles per hour.

Sidewalk is provided on both sides of the Hawkins Avenue bridge over the LIE. South of that point, sidewalk is spotty, provided only in some areas of commercial roadside development and absent from others. Shoulders are not provided on the bridge and are variable in width or not present south of that point to Railroad Avenue. Parking is permitted in some areas near the south end of the roadway where the shoulder width allows, but is time limited (2 hours) during weekday periods. No dedicated bicycle facilities are provided on Hawkins Avenue in the study area.

Ronkonkoma Avenue

Ronkonkoma Avenue is a north-south collector distributor road under the jurisdiction of the Town of Brookhaven. It runs north from Railroad Avenue to merge with Hawkins Avenue at a location north of CR 16 (Portion Road). South of Railroad Avenue, Ronkonkoma Avenue is designated as Smithtown Avenue. Ronkonkoma Avenue runs generally to the west of the project area. In the vicinity of the Ronkonkoma Hub area, it provides two travel lanes in each direction with additional turn lanes at key intersections. The 2010 NYSDOT AADT estimate on Ronkonkoma Avenue in the vicinity of the Ronkonkoma Hub area is about 30,000 vpd. The posted speed on this roadway is 30 miles per hour.

Sidewalk is provided on both sides of the Ronkonkoma Avenue bridge over the LIE and extends sound on both sides of the roadway to Powell Street, the south end of the study area, where it terminates. No shoulders are provided on this section of

Ronkonkoma Avenue, so parking is not permitted. No dedicated bicycle facilities are provided on Ronkonkoma Avenue in the study area.

Railroad Avenue / Mill Road

Railroad Avenue is an east-west Town of Brookhaven road that runs east from Ronkonkoma Avenue to the LIRR station. This section of Railroad Avenue is on the NHS. West of Ronkonkoma Avenue the road is designated as Johnson Avenue. East of the station it runs in a north-south direction and is designated *Mill Road*. Mill Road terminates at the LIE South Service Road. It provides one travel lane in each direction with additional turning lanes at key intersections. The 2010 NYSDOT AADT estimate on Railroad Avenue is about 5,000 vehicles per day. The posted speed on this roadway is 30 miles per hour.

Sidewalk on Railroad Avenue in the study area is provided on both sides with the exception of the frontage of two unimproved properties on the north side of the roadway, east of the existing MTA parking garage. Mill Road provides some sidewalk south of Union Avenue, but these segments do not provide a connection to the sidewalk on Railroad Avenue. There are no significant areas of shoulder on Railroad Avenue in the study area as the immediate curbside is either travel lane or parking. There is no striped shoulder on Mill Road south of Union Avenue. Parking is permitted in designated stalls only on Railroad Avenue but is time limited (two hours) during weekday periods. Parking is prohibited on Mill Road in the study area by posting or pavement width, with the exception of a small segment on the west side just south of Union Avenue. There are no dedicated bicycle facilities on Railroad Avenue or Mill Road in the study area. However, there are dedicated bicycle lanes provided on Union Avenue east of the Mill Road intersection.

Union Avenue

Union Avenue is an east-west Town of Brookhaven road that runs east from Hawkins Avenue to CR 19, Patchogue Holbrook Road. It provides one travel lane in each direction with additional turning lanes at key intersections. The 2010 NYSDOT AADT estimate on Union Avenue is about 9,400 vehicles per day. The posted speed on this roadway is 30 miles per hour.

Sidewalk on Union Avenue in the study area is provided only along the frontage of some commercial properties on each side of the roadway. There are no striped shoulders on this section of Union Avenue of any significant width. While there are isolated areas along the south side of Union Avenue where the pavement width would support parking, none was evidenced during field investigations. While there are no dedicated bicycle facilities on the segment of Union Avenue west of Mill Road, there are bicycle lanes provided on both sides of the roadway east of Mill Road.

Powell Street

Powell Street is a short local street that connects Railroad Avenue to Ronkonkoma Avenue. Powell Street provides one travel lane in each direction with additional turning lanes at Railroad Avenue. There is no posted speed on Powell Street.

Powell Street provides continuous sidewalk along its west side from Railroad Avenue to Ronkonkoma Avenue. No shoulders are provided. No parking is permitted on Powell Street by posting and lane width. No dedicated bicycle facilities are provided on Powell Street.

Northwest Link

Northwest Link is a short local street that connects Johnson Avenue to 2nd Street and Ronkonkoma Avenue. Northwest Link provides one travel lane in each direction with an additional turning lane at Johnson Avenue. There is no posted speed on Northwest Link.

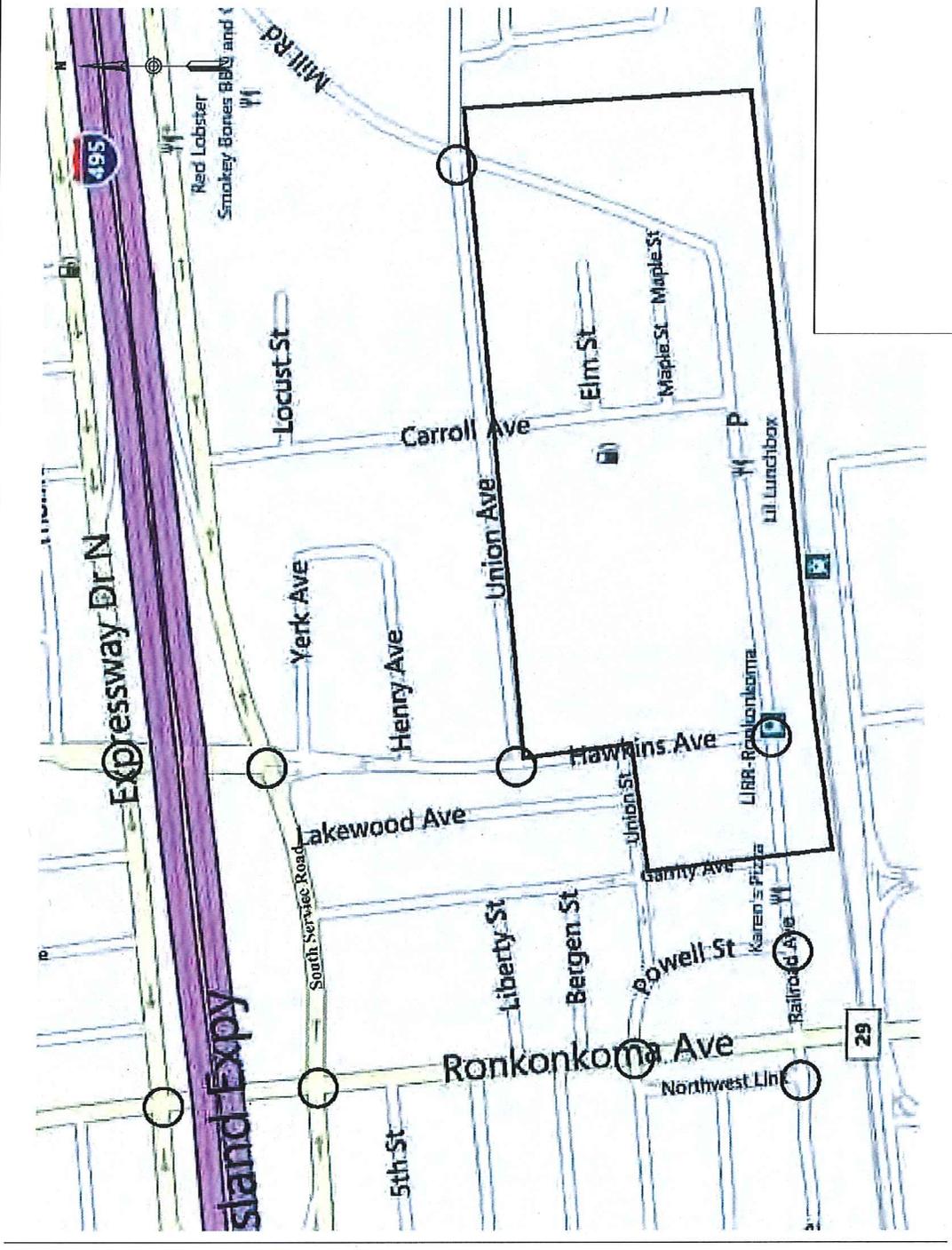
Northwest Link provides continuous sidewalk along its west side from Railroad Avenue to Ronkonkoma Avenue. No shoulders are provided. No parking is permitted on Northwest Link by posting and lane width. No dedicated bicycle facilities are provided on Northwest Link.

Study Area Intersections

To determine the potential traffic impacts of the proposed action, ten key intersections were analyzed for the Existing, No-Build and Build conditions:

1. LIE North Service Road at Hawkins Avenue (Signalized)
2. LIE South Service Road at Hawkins Avenue (Signalized)
3. LIE North Service Road at Ronkonkoma Avenue (Signalized)
4. LIE South Service Road at Ronkonkoma Avenue (Signalized)
5. Hawkins Avenue at Union Avenue (Signalized)
6. Union Avenue at Mill Road (Signalized)
7. Railroad Avenue at Powell Street (Signalized)
8. Johnson Avenue at Northwest Link (Signalized)
9. Hawkins Avenue at Railroad Avenue (Unsignalized)
10. Ronkonkoma Avenue at 2nd Street/Powell Street (Unsignalized)

The key intersections are shown in Figure 9, and aerial photographs and detailed information regarding each intersection are included in Appendix H of this DEIS.



Engineering, Surveying and Landscape Architecture, P.C.



Figure 9
Key Intersections

Ronkonkoma Hub
Transit-Oriented Development

Existing Traffic Volume Data

Intersection turning movement counts were manually collected on May 13, 2010 during the weekday a.m. peak period (7:00 a.m. to 9:00 a.m.) and weekday p.m. peak period (5:00 p.m. to 7:00 p.m.) at the following six key intersections:

- LIE North Service Road at Hawkins Avenue (Signalized)
- LIE South Service Road at Hawkins Avenue (Signalized)
- Hawkins Avenue at Union Avenue (Signalized)
- Union Avenue at Mill Road (Signalized)
- Hawkins Avenue at Railroad Avenue (Unsignalized)
- Ronkonkoma Avenue at 2nd Street/Powell Street (Unsignalized)

These 2010 volumes were adjusted to 2013 using a growth factor obtained from a New York Metropolitan Transportation Council (NYMTC) study.

Additional turning movement counts were collected on February 26, 2013 during the weekday a.m. peak period (7:00 a.m. to 9:00 a.m.) and weekday p.m. peak period (4:00 p.m. to 7:00 p.m.) using the Miovision cameras at the following four key intersections.

- LIE North Service Road at Ronkonkoma Avenue (Signalized)
- LIE South Service Road at Ronkonkoma Avenue (Signalized)
- Railroad Avenue at Powell Street (Signalized)
- Johnson Avenue at Northwest Link (Signalized)

These periods typically reflect the heaviest traffic flows coinciding with commuter activity at the Ronkonkoma LIRR station. Detailed summaries of the turning movement counts are provided in Appendix A of Appendix H of this DSGEIS.

The existing peak hour traffic volumes for the weekday a.m. and p.m. peak hours are shown in Figures 3 and 4, respectively, of Appendix H.

Accident History

Accident data from NYSDOT Accident Location Information System (ALIS) records for the most recent available three-year period was requested. Accident Verbal Description Reports (VDRs) for the period February 1, 2009 through January 31, 2012 were obtained for the key intersections and principal roadway segments in the study area.

Table 1 in Appendix H provides a summary by severity and accident type of accidents history at the following ten key intersections.

- LIE North Service Road at Hawkins Avenue (Signalized)
- LIE South Service Road at Hawkins Avenue (Signalized)
- LIE North Service Road at Ronkonkoma Avenue (Signalized)
- LIE South Service Road at Ronkonkoma Avenue (Signalized)
- Hawkins Avenue at Union Avenue (Signalized)
- Union Avenue at Mill Road (Signalized)
- Railroad Avenue at Powell Street (Signalized)
- Johnson Avenue at Northwest Link (Signalized)
- Hawkins Avenue at Railroad Avenue (Unsignalized)
- Ronkonkoma Avenue at 2nd Street/Powell Street (Unsignalized)

Table 2 in Appendix H provides a summary of non-intersection accidents on the principal roadways in the study area.

- Segment of Ronkonkoma Avenue – 5th Street to Bergen Street
- Segment of Hawkins Avenue – LIE South Service Road to Railroad Avenue
- Segment of Railroad Avenue – Northwest Link to Mill Road
- Segment of Union Avenue – Hawkins Avenue to Mill Road

The analysis of accidents and the Accident VDRs are included in Appendix H of this DSGEIS.

Suffolk County Transit

The LIRR Ronkonkoma Station serves as a regional transit hub, served by not only the LIRR but multiple Suffolk County Transit bus routes that stop on the Brookhaven side of the station. Four bus routes service the station, stopping in the bus and taxi loop located immediately west of the ticket office. Details of the schedules for these routes along with route maps are included in Appendix E of Appendix H of this DSGEIS. A summary description of each route is below.

The Suffolk County Transit S57 bus operates daily (Monday through Saturday) between Sayville and the Smith Haven Mall in Lake Grove providing northbound and southbound service. Service in each direction is approximately hourly with the first stop at the LIRR Ronkonkoma station at 7:40 a.m. and 6:40 a.m. for northbound and southbound service, respectively. The last stop at the station is scheduled at 7:05 p.m. and 7:42 p.m. for northbound and southbound service, respectively

The Suffolk County Transit S59 also operates daily between Sayville and the Smith Haven Mall in Lake Grove providing northbound and southbound service. Service in each direction is approximately hourly with the first stop at the LIRR Ronkonkoma station at 6:16 a.m. and 7:15 a.m. for northbound and southbound service, respectively. The last stop at the station is scheduled at 7:40 p.m. and 8:00 p.m. for northbound and southbound service, respectively.

The Suffolk County Transit 6A bus operates daily (Monday through Saturday) between the Ronkonkoma Station and Coram providing eastbound and westbound service. Service in both directions is approximately hourly.

The Suffolk County Transit 7A bus operates daily (Monday through Saturday) between the Ronkonkoma Station and the Long Island Railroad Patchogue Station providing northbound and southbound service. Service in both directions is approximately hourly.

The presence of both the LIRR, with service to New York City and points west, and bus service from Suffolk County Transit, is anticipated to significantly reduce the use of private vehicles by residents, employees and visitors to the Ronkonkoma Hub TOD. The effects of transit usage on trip making activity are discussed in Section 3.5.2, below.

3.5.2 Potential Impacts

An analysis of future conditions, both with and without the proposed action (“Build” and “No-Build” conditions, respectively), was performed to evaluate the effect of the proposed action on future traffic conditions in the area. The No-Build condition represents the future traffic conditions that can be expected to occur, were the proposed TOD not constructed. The No-Build condition serves to provide a comparison to the Build condition, which represents expected future traffic conditions resulting from both project and non-project-generated traffic. Background traffic volumes in the study area were projected to the year 2020, reflecting the year when the proposed action is expected to be completed and operational.

No-Build Condition

No-Build (2020) traffic volumes include all existing traffic, new traffic due to background traffic growth and new traffic due to other planned developments in the area.

Background Traffic Growth

To account for increases in general population and background growth not related to the proposed action, an annual growth factor was applied to the existing traffic volumes. Based on study data and the findings of the NYMTC, the growth rate anticipated for Suffolk County is 0.63 percent per year. For presenting a more conservative analysis, a growth rate of 0.65 percent per year was adopted. A total growth rate of 4.5 percent was applied to the existing 2013 traffic data to develop the background traffic for the anticipated Build Year of 2020.

Other Planned Developments

The Town of Brookhaven identified two Other Planned Developments within the study area. They are:

- Southwest corner of the LIE South Service Road at Ronkonkoma Avenue – redevelopment of a former shuttered gasoline station with repair service to a gasoline station.
- Southeast corner of the LIE South Service Road at Hawkins Avenue – development of a currently vacant site to a restaurant use.

Discussions with Town of Brookhaven representatives indicate neither of these developments is likely to significantly influence traffic volumes or patterns in the study area. Therefore, they are covered by the background traffic growth rate utilized in this study and discussed previously. It was also indicated that the Town will seek property dedications along both street frontages of each of these sites from the developers for use in potential future roadway widenings.

MTA LIRR Double Track Project

The MTA Long Island Railroad prepared an Environmental Assessment (EA) for the Double Track Project. This project will provide for the completion of two tracks between Farmingdale and Ronkonkoma. Currently, only small sections of two tracks are provided in some areas of this length of the Ronkonkoma Branch. Double Track would fill in and complete the double-tracking of the LIRR Ronkonkoma Branch between Farmingdale and Ronkonkoma to increase service reliability and flexibility and allow increased off-peak service.

The EA was reviewed with respect to traffic and transportation to determine if any changes to peak vehicle traffic volume or conditions could be expected as a result of Double Track that should be accounted for in this study, as Double Track is expected to be completed in 2018, prior to completion of development within the Ronkonkoma Hub area.

Review of the EA reveals a projected increase in *off-peak train service only* as a result of the Double Track Project within the vicinity of the Ronkonkoma Station. The number of trains operating west of the station during the weekday a.m. and p.m. peak hours is unchanged from the No-Build condition, increasing by one train in each direction during only the midday peak hour. As the EA forecasts only increases in off-peak trains near Ronkonkoma, any increases in vehicle trips near the Ronkonkoma station as a result would be limited to off-peak periods when traffic levels in the area are significantly lower than the commuter peak periods. The development proposed with the Ronkonkoma Hub area would generate peak traffic levels within the typical a.m. and p.m. peak commuter periods when the Double

Track Project would not. Therefore, the Double Track Project will not create any impacts to traffic conditions that require evaluation as part of this study.

No-Build Traffic Volumes

The No-Build traffic volumes for the weekday a.m. and p.m. peak hours are shown in Figures 5 and 6 of the TIS in Appendix H of this DSGEIS.

Build Condition

To estimate the traffic impact of the proposed TOD, it is necessary to determine the traffic volumes expected to be generated by the proposed action.

Project-Generated Traffic Volumes

To obtain more specific information regarding the breakdown of the potential uses for the Ronkonkoma Hub area, discussions were held with representatives of the Town of Brookhaven and the Master Developer selected by the Town for development of the TOD. Based on these discussions, and review of the Maximum Density Concept Plan, the following breakdown of the development was utilized in this analysis:²²

- 1,450 Residential Units²³
- 360,000 square feet – Office (including medical office)
- 155,000 square feet – Retail
- 306,000 square feet – Office
- 54,000 square feet – Medical Office
- 540 seats – 4-5 Quality Restaurants (10% open during a.m. peak)
- 540 seats – 4-5 High Turnover Sit Down Restaurants (10% open during a.m. peak)
- 120 Rooms – Hotel²⁴

▼
²² This breakdown was used for analysis purposes and represents a reasonable worst-case condition, based on the Maximum Density Concept Plan. However, the actual development will be based upon market demand at the time of construction.

²³ For analysis purposes, the distribution of unit types used was 50 percent rental apartments and 50 percent ownership condos/townhouses. However, the actual unit-type distribution would be based upon market demand at the time of construction.

²⁴ The Master Developer has indicated that the component of the Maximum Density Concept Plan denoted as Flex Space may be a 120 room hotel.

To estimate the project-generated traffic for the above mix of uses, a review was undertaken of the available trip generation data sources, including the reference published by the Institute of Transportation Engineers (ITE), Trip Generation, 9th Edition. This widely utilized reference source contains trip generation rates for related uses, "Apartments" (Land Use Code #220), "Residential Condos" (Land Use Code #230), "Retail Space" (Land Use Code #820), "General Office Building" (Land Use Code #710), "Medical Office Building" (Land Use Code #720), "Hotel" (Land Use Code #310), "Quality Restaurant" (Land Use Code #931) and "High Turnover Sit Down Restaurant" (Land Use Code #932).

The table below summarizes the full build trip generation data for Maximum Density Concept Plan.

Table 15 – Trip Generation: Maximum Density Concept Plan

| Project Component | Component Size | AM Peak Hour | | | PM Peak Hour | | |
|---|--------------------------|--------------|---------|-------|--------------|---------|-------|
| | | Entering | Exiting | Total | Entering | Exiting | Total |
| APARTMENTS
ITE # 220
Rental Apartment | 725 Units | 72 | 287 | 359 | 270 | 146 | 416 |
| RESIDENTIAL
ITE # 230
Condos/Townhouses | 725 Units | 43 | 209 | 252 | 204 | 101 | 305 |
| HOSPITALITY ²⁵
ITE # 310
HOTEL | 120 Rooms | 81 | 42 | 123 | 81 | 84 | 165 |
| OFFICE/COMMERCIAL
ITE # 710
General Office Building | 306,000 SF | 412 | 56 | 468 | 72 | 349 | 421 |
| MEDICAL OFFICES
ITE # 720
Medical-Dental Building | 54,000 SF | 102 | 27 | 129 | 47 | 120 | 167 |
| RETAIL SPACE
ITE # 820
Shopping Center | 155,000 SF | 92 | 57 | 149 | 276 | 300 | 576 |
| RESTAURANT
ITE # 931
Quality Restaurant
(10% open a.m. Peak) | 540 Seats
(20,000 SF) | 6 | 3 | 9 | 94 | 47 | 141 |
| RESTAURANT
ITE # 932
High Turnover Sit Down
(10% open a.m. Peak) | 540 Seats
(20,000 SF) | 13 | 12 | 25 | 127 | 95 | 222 |
| Total | | 821 | 693 | 1514 | 1171 | 1242 | 2413 |

Source: *Trip Generation* (ITE, 9th Edition). Rates are for weekday a.m. and PM peak hours of adjacent street traffic. Rates for building areas are per 1,000 square feet.

▼
²⁵ The Master Developer has indicated that the component of the Maximum Density Concept Plan denoted as Flex Space may be a 120 room hotel (ITE Land Use Code # 310). The trip generation figures in this table, and used subsequently in the analysis, were calculated based on this component being a Recreational Community Center (ITE Land Use Code #495). The peak period trip generation of a 120 room hotel is significantly less than the Recreational Community Center (approximately half). Therefore, the analysis performed in this study accounts for the presence of the hotel.

Using the ITE rates, the development is likely to generate 1,516 trips (entering 823 trips & exiting 693 trips) during a.m. peak hour and 2,413 trips (entering 1,171 trips and exiting 1,242 trips) during p.m. peak hour. However, this estimate does not account for the TOD nature of the proposal.

Transit -Oriented Development

The proposed project is a TOD, based upon its proximity to mass transit. The entirety of development is located at or within approximately one-quarter mile of the LIRR-Ronkonkoma station. The station historically has been a major transportation hub along the Main Line of the LIRR and is the east-end terminus of electric car service on the Ronkonkoma branch of the LIRR. It is well served by train services, and the frequency of the service is good, with express trains during the peak periods, with convenient connections to reach New York City and parts of Suffolk, Nassau, and Queens Counties. It is heavily frequented by daily commuters to New York City and summer seasonal travelers from New York City with final destinations in Lake Ronkonkoma, Fire Island, and the Hamptons.

The Ronkonkoma LIRR station is also well served by Suffolk Transit Bus, as discussed in Section 3.5.1 of this DSGEIS. Routes S57 (Sayville to Smithaven Mall), S59 (Sayville to Smithaven Mall), 6A (Ronkonkoma Railroad to Coram), and 7A (Ronkonkoma Railroad to Patchogue Railroad) provide convenient connections to all over Suffolk, Nassau, and Queens Counties.

One of the primary goals of any TOD is to reduce dependence on automobiles by situating such TOD proximate to mass transit. The proximity of the development to mass transit works to reduce vehicle trips, as a significant percentage of people residing there would use the train and bus services for their commute to and from work. Similarly, a significant percentage of people employed in the retail and office portion of the proposed development would arrive and leave by transit. The residents and other commuters using the LIRR may choose to shop at the retail stores and patronize restaurants located within the development, thereby reducing the vehicle trips. It is also possible that a percentage of people would both live and work within the development, further reducing vehicle trips.

To estimate the reduction in vehicle trips in a transit-oriented development, various studies were reviewed. Available studies on TODs show a reduction in vehicle trips by almost 50 percent. In order to take a conservative approach, this study assumes only a 25 percent reduction in trip generation. Table 16 shows the trip generation from Table 15 adjusted to conservatively reflect the nature of this TOD.

Table 16 – TOD Trip Generation – Maximum Density Concept Plan

| ITE Trip Generation
(Table 15) | AM Peak Hour Trips | | PM Peak Hour Trips | |
|--|--------------------|---------|--------------------|---------|
| | Entering | Exiting | Entering | Exiting |
| | 821 | 693 | 1,171 | 1,242 |
| | 1,514 | | 2,413 | |
| Trip generation adjusted for Transit Oriented
Development at 75% of the normal rate | AM Peak Hour Trips | | PM Peak Hour Trips | |
| | Entering | Exiting | Entering | Exiting |
| | 615 | 520 | 878 | 932 |
| | 1,135 | | 1,810 | |

As shown in the table above, potential development, as depicted in the Maximum Density Concept Plan, is projected to generate 1,135 trips during the weekday a.m. peak hour and 1,810 trips during the weekday p.m. peak hour.

Pass-by Trips

ITE defines pass-by trips as *trips made as intermediate stops on the way from an origin to a primary trip destination without diversion*. Pass-by trips are attracted from the adjacent street. The concept of pass-by would apply to a variety of land uses including retail and restaurant. Commuters on a primary trip stopping at a retail outlet to make a purchase or stopping at a restaurant to eat before continuing are good examples of pass-by retail trips in the context of this development. Pass-by trip rates would depend on the type and size of the development.

The ITE Trip Generation Manual and Handbook gives the following pass-by trip rate for retail and restaurants.

- LUC #820 – Shopping Center – p.m. – 34 percent
- LUC #931 – Quality Restaurant – p.m. – 44 percent
- LUC #932 – High Turnover Restaurant – p.m. – 43 percent

For a more conservative analysis, a pass-by rate of 20 percent was used for the above land uses during the p.m. peak only. No credit was taken for a.m. peak trips. This reduction was applied to the trip generation assigned to the various intersections in the Build Condition.

Table 17 summarizes the p.m. peak hour pass-by trips and Table 18 shows the resulting net trip generation for the weekday a.m. and p.m. peak hours (after pass-by credit).

Table 17 – Pass-by Trips – PM Peak Hour

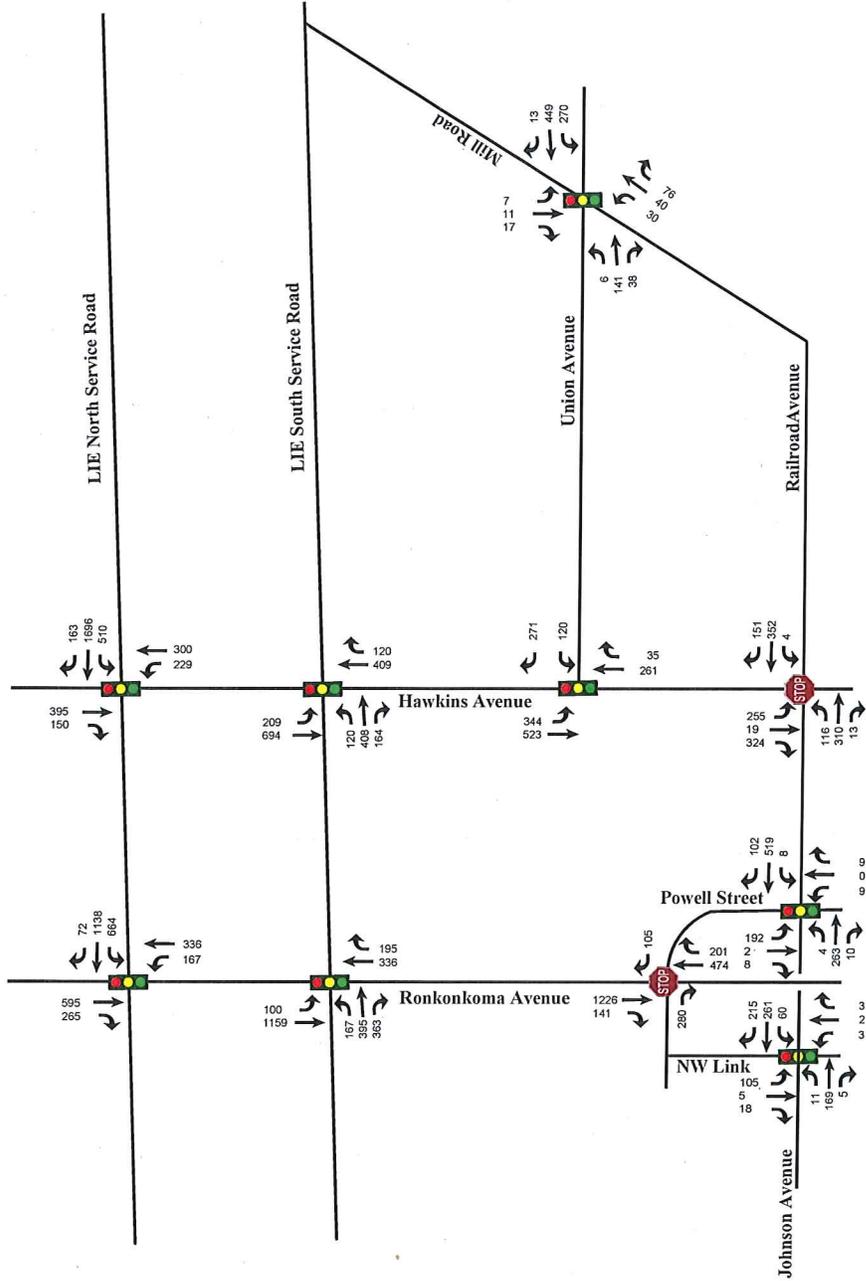
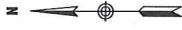
| Trips | Entering | Exiting |
|--|-----------|-----------|
| Generated by site | 878 | 932 |
| Pass-by Rate Applied to Retail & Restaurants | 20% | |
| Total Pass-by | 99 | 99 |

Table 18 – Net Trip Generation after TOD & Pass-by Credits

| ITE Trip Generation
(Table 16) | AM Peak Hour Trips | | PM Peak Hour Trips | |
|-----------------------------------|--------------------|---------|--------------------|---------|
| | Entering | Exiting | Entering | Exiting |
| | 615 | 520 | 779 | 833 |
| | 1,135 | | 1,612 | |

The vehicle trips originating from and destined to the TOD were assigned to the adjacent roadways based on characteristics of the roadway network and existing travel patterns in the area. Details of the trip distribution and assignment are included in Appendix H of this DSGEIS.

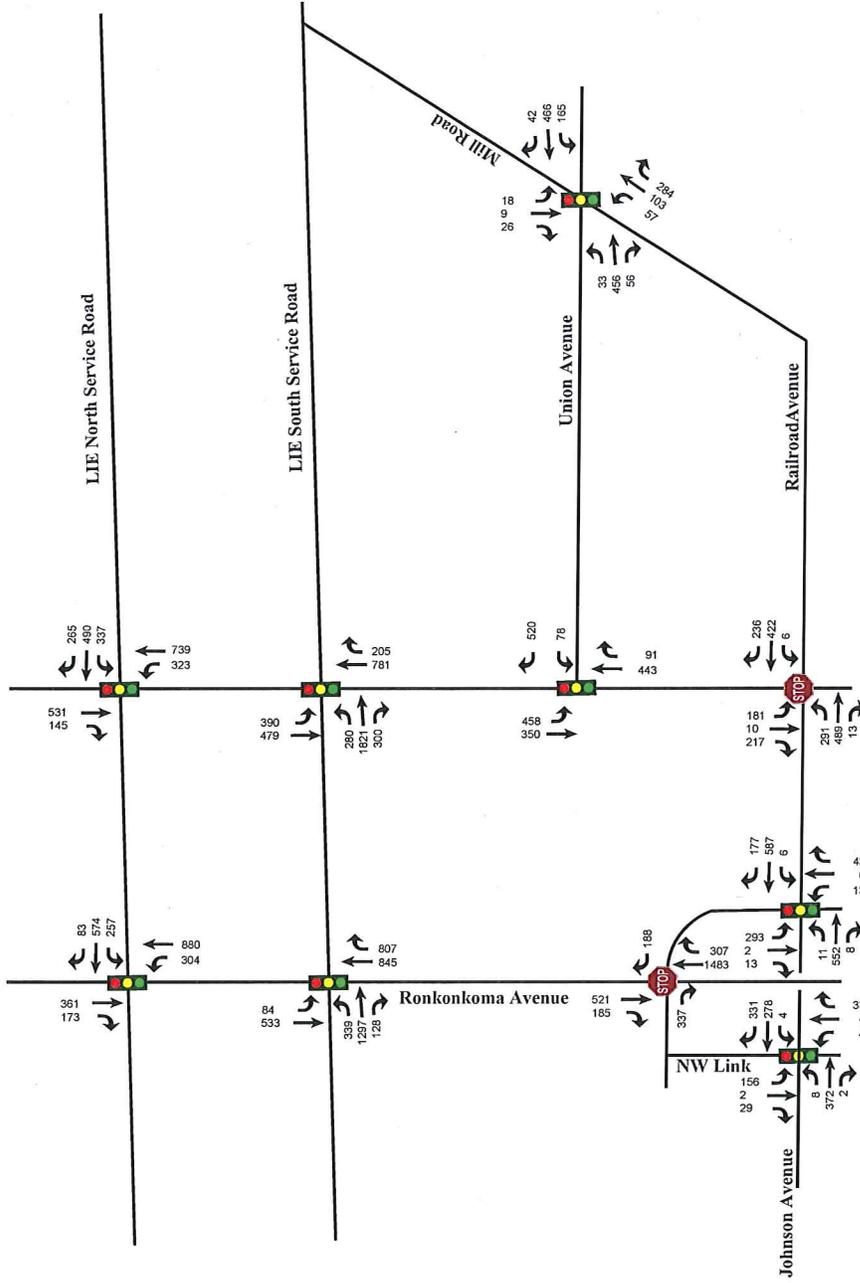
To determine the future Build traffic volumes, the project-generated trips were added to the No-Build traffic volumes at the study intersections. The resulting Build traffic volumes for the weekday a.m. and p.m. peak hours are shown in Figure 10 and Figure 11 of this DSGEIS, respectively.



(Not to scale)



Figure 10
Build Traffic Volumes
AM Peak Hour



(Not to scale)



Engineering, Surveying and Landscape Architecture, P.C.



Figure 11
Build Traffic Volumes
PM Peak Hour

Ronkonkoma Hub
Transit-Oriented Development

Prepared for the Town of Brookhaven, October 2013

Level of Service and Delay Criteria

Measuring existing traffic volumes and projecting future traffic volumes quantifies traffic flow within the study area. To assess quality of traffic flow, roadway capacity analyses were conducted with respect to the Existing, No-Build and future Build conditions. These capacity analyses provide an indication of the adequacy of the roadway facilities to serve the anticipated traffic demands.

The evaluation criteria used to analyze area intersections in this traffic study are based on the 2000 & 2010 *Highway Capacity Manual* (HCM). Level of service provides an index to the operational qualities of a roadway segment or an intersection. Level of service designations range from A to F, with LOS A representing the best operating conditions and LOS F representing the worst operating conditions.

In addition to LOS, vehicle delay time (expressed in seconds per vehicle) is typically used to quantify the traffic operations at intersections. It should be noted that delay time has a range of values for a given LOS letter designation. Therefore, when evaluating intersection capacity results, in addition to the LOS, vehicle delay time should also be considered.

The levels of service designations, which are based on delay, are reported differently for signalized and unsignalized intersections. A discussion of these differences and the LOS definitions for both the signalized and unsignalized intersections can be found in Appendix B of Appendix H of this DSGEIS.

Level of Service Analysis Results

Level of Service (LOS) analyses were conducted for the 2013 Existing, 2020 No-Build and 2020 Build conditions for each of the key intersections.

The results of the capacity analyses for the eight signalized intersections for the weekday a.m. and p.m. peak hours are summarized in Table 19 and Table 21, respectively. The results for the unsignalized intersections of Hawkins Avenue at Railroad Avenue and Ronkonkoma Avenue at 2nd Street/Powell Street for the weekday a.m. and p.m. peak hours are summarized in Tables 8 and 10, respectively. The tables show the results for the 2013 Existing, No-Build and Build conditions. The detailed capacity analysis worksheets are contained in Appendix C of Appendix H of this DSGEIS.

Table 19 – Signalized Intersections Level of Service Summary – Weekday AM Peak Hour

| Intersection | Movement | Lane Group | Existing 2013 | | No-Build 2020 | | Build 2020 | |
|--|----------------|------------|---------------|-------------|---------------|-------------|------------|-------------|
| | | | Delay | LOS | Delay | LOS | Delay | LOS |
| LIE North Service Road & Hawkins Avenue | WB | L | 14.9 | B | 15.4 | B | 17.9 | B |
| | | TR / LTR | 38.1 | D | 50.8 | D | 57.2 | E |
| | | Approach | 33.9 | C | 44.3 | D | 48.7 | D |
| | NB | L | 38.3 | D | 44.0 | D | 145.0 | F |
| | | T | 15.6 | B | 15.4 | B | 13.2 | B |
| | | Approach | 24.2 | C | 26.2 | C | 70.2 | E |
| | SB | TR | 46.3 | D | 50.7 | D | 100.1 | F |
| | | Approach | 46.3 | D | 50.7 | D | 100.1 | F |
| | Overall | | | 34.7 | C | 43.0 | D | 61.2 |
| LIE South Service Road & Hawkins Avenue | EB | L | 18.4 | B | 18.6 | B | 18.6 | B |
| | | TR | 19.6 | B | 19.9 | B | 19.7 | B |
| | | Approach | 19.3 | B | 19.6 | B | 19.5 | B |
| | NB | TR | 25.1 | C | 25.5 | C | 29.2 | C |
| | | Approach | 25.1 | C | 25.5 | C | 29.2 | C |
| | SB | L | 27.0 | C | 28.0 | C | 45.6 | D |
| | | T | 23.3 | C | 23.5 | C | 26.9 | C |
| | | Approach | 24.2 | C | 24.5 | C | 31.2 | C |
| | Overall | | | 22.6 | C | 23.0 | C | 26.9 |
| LIE North Service Road & Ronkonkoma Avenue | WB | L | 31.2 | C | 34.8 | C | 32.3 | C |
| | | TR | 22.6 | C | 23.7 | C | 25.0 | C |
| | | Approach | 25.8 | C | 27.8 | C | 27.6 | C |
| | NB | L | 47.2 | D | 53.4 | D | 67.3 | E |
| | | T | 14.7 | B | 14.6 | B | 11.1 | B |
| | | Approach | 25.5 | C | 27.5 | C | 29.8 | C |
| | SB | TR | 44.5 | D | 55.2 | E | 94.8 | F |
| | | Approach | 44.5 | D | 55.2 | E | 94.8 | F |
| | Overall | | | 31.0 | C | 35.5 | D | 47.0 |
| LIE South Service Road & Ronkonkoma Avenue | EB | L | 29.4 | C | 29.7 | C | 29.7 | C |
| | | TR | 32.6 | C | 34.3 | C | 43.0 | D |
| | | Approach | 31.9 | C | 33.3 | C | 40.6 | D |
| | NB | TR | 26.2 | C | 26.3 | C | 31.8 | C |
| | | Approach | 26.2 | C | 26.3 | C | 31.8 | C |
| | SB | L | 12.1 | B | 12.6 | B | 12.4 | B |
| | | T | 18.6 | B | 21.4 | C | 27.6 | C |
| | | Approach | 18.1 | B | 20.6 | C | 26.4 | C |
| | Overall | | | 23.7 | C | 25.5 | C | 31.9 |

Table 19 - Signalized Intersections Level of Service Summary – Weekday AM Peak Hour ... continued

| Intersection | Movement | Lane Group | Existing 2013 | | No-Build 2020 | | Build 2020 | | |
|---------------------------------|--------------------------|------------|---------------|------------|---------------|------------|------------|-------------|----------|
| | | | Delay | LOS | Delay | LOS | Delay | LOS | |
| Hawkins Avenue & Union Avenue | WB | L | 37.2 | D | 37.8 | D | 38.8 | D | |
| | | R | 3.5 | A | 3.5 | A | 3.6 | A | |
| | | Approach | 15.4 | B | 15.7 | B | 14.4 | B | |
| | NB | TR | 10.9 | B | 11.3 | B | 14.4 | B | |
| | | Approach | 10.9 | B | 11.3 | B | 14.4 | B | |
| | SB | L | 6.2 | A | 6.6 | A | 10.9 | B | |
| | | T | 5.9 | A | 6.2 | A | 8.3 | A | |
| | | Approach | 6.0 | A | 6.4 | A | 9.3 | A | |
| | Overall | | | 9.3 | A | 9.7 | A | 11.4 | B |
| | Mill Road & Union Avenue | EB | L | 3.8 | A | 3.8 | A | 4.8 | A |
| TR | | | 3.6 | A | 3.6 | A | 4.7 | A | |
| Approach | | | 3.6 | A | 3.6 | A | 4.7 | A | |
| WB | | L | 4.6 | A | 4.7 | A | 8.2 | A | |
| | | TR | 4.7 | A | 4.8 | A | 7.4 | A | |
| | | Approach | 4.7 | A | 4.8 | A | 7.7 | A | |
| NB | | LTR | 11.8 | B | 11.8 | B | 18.3 | B | |
| | | Approach | 11.8 | B | 11.8 | B | 18.3 | B | |
| SB | | LTR | 15.8 | B | 16.0 | B | 14.8 | B | |
| | | Approach | 15.8 | B | 16.0 | B | 14.8 | B | |
| Overall | | | 5.5 | A | 5.7 | A | 9.0 | A | |
| Railroad Avenue & Powell Street | EB | L | 12.0 | B | 3.5 | A | 8.0 | A | |
| | | T | 15.5 | B | 2.7 | A | 10.3 | B | |
| | | R | 2.1 | A | 1.2 | A | 1.6 | A | |
| | | Approach | 14.4 | B | 2.6 | A | 9.9 | A | |
| | WB | L | 12.0 | B | 3.2 | A | 8.0 | A | |
| | | TR | 15.1 | B | 2.3 | A | 8.4 | A | |
| | | Approach | 15.0 | B | 2.3 | A | 8.4 | A | |
| | NB | L | 5.9 | A | 5.8 | A | 9.7 | A | |
| | | TR | 3.9 | A | 4.3 | A | 6.2 | A | |
| | | Approach | 4.8 | A | 5.0 | A | 7.9 | A | |
| | SB | L | 6.1 | A | 5.3 | A | 13.9 | B | |
| | | TR | 4.1 | A | 4.3 | A | 6.7 | A | |
| | | Approach | 5.7 | A | 5.1 | A | 13.5 | B | |
| Overall | | | 13.7 | B | 2.7 | A | 9.8 | A | |

Table 19 - Signalized Intersections Level of Service Summary – Weekday AM Peak Hour ... continued

| Intersection | Movement | Lane Group | Existing 2013 | | No-Build 2020 | | Build 2020 | | |
|---------------------------------|----------------|------------|---------------|------------|---------------|------------|------------|------------|----------|
| | | | Delay | LOS | Delay | LOS | Delay | LOS | |
| Johnson Avenue & Northwest Link | EB | L | 10.7 | B | 2.8 | A | 6.9 | A | |
| | | T | 14.0 | B | 2.7 | A | 7.4 | A | |
| | | R | 0.0 | A | 0.4 | A | 0.6 | A | |
| | | Approach | 13.2 | B | 2.6 | A | 7.2 | A | |
| | WB | L | 12.6 | B | 2.7 | A | 7.2 | A | |
| | | T | 15.5 | B | 2.8 | A | 7.4 | A | |
| | | R | 4.4 | A | 1.4 | A | 2.3 | A | |
| | | Approach | 12.3 | B | 2.5 | A | 5.3 | A | |
| | NB | LTR | 6.0 | A | 5.5 | A | 7.9 | A | |
| | | Approach | 6.0 | A | 5.5 | A | 7.9 | A | |
| | SB | L | 6.9 | A | 6.2 | A | 10.3 | B | |
| | | TR | 4.3 | A | 4.4 | A | 5.9 | A | |
| | | Approach | 5.7 | A | 5.1 | A | 9.6 | A | |
| | Overall | | | 6.1 | A | 2.8 | A | 6.5 | A |

Table 20 – Unsignalized Intersections Level of Service Summary – Weekday AM Peak Hour

| Intersection | Critical Approach/
Movement | Existing 2013 | | No-Build 2020 | | Build 2020 | |
|--|--------------------------------|---------------|-----|---------------|-----|------------|-----|
| | | Delay | LOS | Delay | LOS | Delay | LOS |
| Hawkins Avenue & Railroad Avenue | SB | 15.1 | C | 17.3 | C | 119.1 | F |
| Ronkonkoma Avenue & Powell Street/2nd Street | EB | 21.3 | C | 23.5 | C | 54.9 | F |
| | WB | 10.3 | B | 10.4 | B | 11.4 | B |

Table 19 indicates that during the a.m. peak hour in the Build Condition, the LIE North Service Road intersections with Hawkins Avenue and Ronkonkoma Avenue operates at a LOS E and D respectively with one or two individual movements operating with a high delay and a LOS F. All other signalized intersections operate at levels consistent with No-Build conditions.

Table 20 shows that during the weekday a.m. peak hour in the Build Condition, the unsignalized intersection of Hawkins Avenue and Railroad Avenue operates at a LOS F and the eastbound approach at Ronkonkoma Avenue and Powell Street/2nd Street operates at a LOS F.

Table 21 – Signalized Intersections Level of Service Summary – Weekday PM Peak Hour

| Intersection | Movement | Lane Group | Existing 2013 | | No-Build 2020 | | Build 2020 | |
|--|----------------|------------|---------------|--------------|---------------|--------------|------------|--------------|
| | | | Delay | LOS | Delay | LOS | Delay | LOS |
| LIE North Service Road & Hawkins Avenue | WB | L | 19.9 | B | 20.2 | C | 23.7 | C |
| | | TR | 19.1 | B | 19.9 | B | 21.0 | C |
| | | Approach | 19.3 | B | 20.0 | C | 21.9 | C |
| | NB | L | 24.1 | C | 27.1 | C | 170.4 | F |
| | | T | 12.9 | B | 13.1 | B | 12.1 | B |
| | | Approach | 15.5 | B | 16.3 | B | 60.2 | E |
| | SB | TR | 28.2 | C | 28.7 | C | 31.0 | C |
| | | Approach | 28.2 | C | 28.7 | C | 31.0 | C |
| | Overall | | | 20.1 | C | 20.8 | C | 38.2 |
| LIE South Service Road & Hawkins Avenue | EB | L | 18.5 | B | 18.8 | B | 18.8 | B |
| | | TR | 143.7 | F | 168.6 | F | 203.5 | F |
| | | Approach | 128.4 | F | 150.2 | F | 181.9 | F |
| | NB | TR | 106.7 | F | 125.4 | F | 332.2 | F |
| | | Approach | 106.7 | F | 125.4 | F | 332.2 | F |
| | SB | L | 83.9 | F | 98.0 | F | 140.1 | F |
| | | T | 11.7 | B | 11.6 | B | 13.1 | B |
| | | Approach | 49.3 | D | 56.5 | E | 70.1 | E |
| | Overall | | | 109.3 | F | 127.8 | F | 194.8 |
| LIE North Service Road & Ronkonkoma Avenue | WB | L | 21.4 | C | 22.9 | C | 24.9 | C |
| | | TR | 19.9 | B | 21.3 | C | 24.5 | C |
| | | Approach | 20.4 | C | 21.8 | C | 24.6 | C |
| | NB | L | 31.7 | C | 31.2 | C | 27.0 | C |
| | | T | 23.5 | C | 22.1 | C | 15.9 | B |
| | | Approach | 25.5 | C | 24.4 | C | 18.7 | B |
| | SB | TR | 29.6 | C | 30.4 | C | 34.6 | C |
| | | Approach | 29.6 | C | 30.4 | C | 34.6 | C |
| | Overall | | | 24.7 | C | 24.8 | C | 24.2 |
| LIE South Service Road & Ronkonkoma Avenue | EB | L | 31.4 | C | 32.3 | C | 32.3 | C |
| | | TR | 101.4 | F | 122.4 | F | 183.8 | F |
| | | Approach | 86.6 | F | 103.4 | F | 154.6 | F |
| | NB | TR | 124.7 | F | 149.2 | F | 190.5 | F |
| | | Approach | 124.7 | F | 149.2 | F | 190.5 | F |
| | SB | L | 43.2 | D | 44.2 | D | 37.4 | D |
| | | T | 15.7 | B | 15.7 | B | 11.7 | B |
| | | Approach | 20.0 | C | 20.1 | C | 15.2 | B |
| | Overall | | | 92.6 | F | 110.2 | F | 148.1 |

Table 21 - Signalized Intersections Level of Service Summary – Weekday PM Peak Hour ... continued

| Intersection | Movement | Lane Group | Existing 2013 | | No-Build 2020 | | Build 2020 | |
|---------------------------------|----------------|------------|---------------|-------------|---------------|-------------|-------------|-------------|
| | | | Delay | LOS | Delay | LOS | Delay | LOS |
| Hawkins Avenue & Union Avenue | WB | L | 32.7 | C | 33.2 | C | 35.3 | D |
| | | R | 4.9 | A | 5.1 | A | 22.5 | C |
| | | Approach | 9.0 | A | 9.4 | A | 24.1 | C |
| | NB | TR | 10.6 | B | 11.0 | B | 17.0 | B |
| | | Approach | 10.6 | B | 11.0 | B | 17.0 | B |
| | SB | L | 6.1 | A | 6.7 | A | 31.0 | C |
| | | T | 3.2 | A | 3.2 | A | 3.7 | A |
| | | Approach | 5.3 | A | 5.7 | A | 19.2 | B |
| | Overall | | | 7.9 | A | 8.3 | A | 20.1 |
| Mill Road & Union Avenue | EB | L | 6.6 | A | 7.1 | A | 7.7 | A |
| | | TR | 8.7 | A | 9.2 | A | 11.3 | B |
| | | Approach | 8.5 | A | 9.1 | A | 11.1 | B |
| | WB | L | 7.4 | A | 7.9 | A | 17.3 | B |
| | | TR | 10.3 | B | 11.2 | B | 13.0 | B |
| | | Approach | 9.9 | A | 10.7 | B | 14.1 | B |
| | NB | LTR | 18.6 | B | 20.6 | C | 152.1 | F |
| | | Approach | 18.6 | B | 20.6 | C | 152.1 | F |
| | SB | LTR | 16.6 | B | 16.4 | B | 14.0 | B |
| | | Approach | 16.6 | B | 16.4 | B | 14.0 | B |
| | Overall | | | 11.9 | B | 12.9 | B | 55.5 |
| Railroad Avenue & Powell Street | EB | L | 5.8 | A | 5.9 | A | 6.8 | A |
| | | T | 6.9 | A | 7.0 | A | 16.2 | B |
| | | R | 0.4 | A | 0.6 | A | 0.2 | A |
| | | Approach | 6.7 | A | 6.8 | A | 15.8 | B |
| | WB | L | 5.8 | A | 5.8 | A | 6.3 | A |
| | | TR | 4.8 | A | 4.8 | A | 9.4 | A |
| | | Approach | 4.8 | A | 4.8 | A | 9.4 | A |
| | NB | L | 9.8 | A | 10.2 | B | 15.2 | B |
| | | TR | 4.5 | A | 4.8 | A | 6.3 | A |
| | | Approach | 5.6 | A | 5.9 | A | 8.2 | A |
| | SB | L | 9.9 | A | 10.4 | B | 50.5 | D |
| | | TR | 6.2 | A | 6.6 | A | 9.3 | A |
| | | Approach | 9.4 | A | 9.8 | A | 48.4 | D |
| Overall | | | 6.2 | A | 6.3 | A | 18.6 | B |

Table 21 - Signalized Intersections Level of Service Summary – Weekday PM Peak Hour ...continued

| Intersection | Movement | Lane Group | Existing 2013 | | No-Build 2020 | | Build 2020 | |
|---------------------------------|----------|------------|---------------|-----|---------------|-----|------------|-----|
| | | | Delay | LOS | Delay | LOS | Delay | LOS |
| Johnson Avenue & Northwest Link | EB | L | 4.6 | A | 5.2 | A | 7.1 | A |
| | | T | 5.0 | A | 6.9 | A | 14.7 | B |
| | | R | 0.0 | A | 0.0 | A | 0.0 | A |
| | | Approach | 5.0 | A | 6.8 | A | 14.5 | B |
| | WB | L | 4.7 | A | 5.2 | A | 7.0 | A |
| | | T | 4.5 | A | 6.0 | A | 11.2 | B |
| | | R | 1.9 | A | 2.0 | A | 3.1 | A |
| | | Approach | 3.6 | A | 4.6 | A | 6.8 | A |
| | NB | LTR | 4.6 | A | 5.0 | A | 5.5 | A |
| | | Approach | 4.6 | A | 5.0 | A | 5.5 | A |
| | SB | L | 8.4 | A | 9.6 | A | 21.1 | C |
| | | TR | 4.7 | A | 4.9 | A | 5.4 | A |
| | | Approach | 6.7 | A | 7.3 | A | 18.5 | B |
| Overall | | | 4.6 | A | 5.8 | A | 11.2 | B |

Table 22 – Unsignalized Intersections Level of Service Summary – Weekday PM Peak Hour

| Intersection | Critical Approach/Movement | Existing 2013 | | No-Build 2020 | | Build 2020 | |
|--|----------------------------|---------------|-----|---------------|-----|------------|-----|
| | | Delay | LOS | Delay | LOS | Delay | LOS |
| Hawkins Avenue & Railroad Avenue | SB | 23.7 | C | 53.3 | F | 1684.3 | F |
| Ronkonkoma Avenue & Powell Street/2nd Street | EB | 12.1 | B | 12.4 | B | 28.2 | D |
| | WB | 19.9 | C | 21.4 | C | 63.8 | F |

Table 21 shows that during the p.m. weekday peak hour in the Build Condition, the LIE South Service Road intersections with Hawkins Avenue and Ronkonkoma Avenue operate at a LOS F. The LIE North Service Road at Hawkins Avenue moves from a LOS C to LOS D, Hawkins Avenue of Union Avenue moves from a LOS A to LOS C and Union Avenue at Mill Road moves from a LOS B to LOS E. The other signalized intersections operate at levels consistent with No-Build conditions.

Table 22 shows that during the weekday p.m. peak hour in the Build Condition, the unsignalized intersection of Hawkins Avenue and Railroad Avenue operates at a LOS F and the westbound approach at Ronkonkoma Avenue and Powell Street/2nd Street operates at LOS F.

This analysis shows that mitigation is necessary at a number of study intersections. Traffic conditions were simulated and the roadway segments and intersections that require mitigation were identified. These measures of mitigation are necessary to

ensure that the roadway network operates well with the additional volumes generated by the potential development depicted in the Maximum Density Concept Plan. Further analysis performed with identified mitigation is detailed in Section 3.5.3 of this DSGEIS.

Pedestrian and Bicycle Accommodations

The TOD District, prepared by the Town of Brookhaven, specifies the geometry to be utilized for the construction/reconstruction of the roadways within the TOD. This includes cross-sectional elements such as the location and widths of parking, vehicle and bicycle lanes and sidewalk areas, which the Town has designed to accommodate vehicular, bicycle and pedestrian traffic.

Parking

The proposed TOD District, prepared by the Town of Brookhaven, includes required parking ratios for the land uses to be constructed within the TOD. These ratios are based on previous studies performed for the Ronkonkoma Hub area and differ from the basic Town Code in that they account for the specific nature of the TOD. The parking requirements that shall be specifically applicable in the Ronkonkoma Hub TOD are shown in the table below.

Table 23 – TOD District Parking Requirement Ratios

| Land Use | Minimum Parking Requirement | |
|-------------|-----------------------------|----------------|
| Residential | 1.20 | spaces/unit |
| Retail | 2.65 | spaces/1000 SF |
| Office | 2.86 | spaces/1000 SF |
| Restaurant | 0.33 | Per seat |

The ratios include in the TOD District were applied to the land use components and sizes in the Maximum Density Concept Plan to obtain the associated required minimum parking under the proposed code. The results of this exercise are presented below in Table 24.

Table 24 – Minimum Parking Requirements for the Maximum Density Concept Plan

| Use | Size | | Number of Spaces | |
|----------------|---------|-------|------------------------------------|---------------------------------|
| | | | Town Parking Requirements (spaces) | Total Parking required (Spaces) |
| Residential | 1450 | units | 1.2 / Unit | 1740 |
| Retail | 195,000 | SF | 2.65 / 1000 SF | 517 |
| Office/Medical | 360,000 | SF | 2.86 / 1000 SF | 1030 |
| Flex Space | 60,000 | SF | 2.86/1000 SF* | 172 |
| Total | | | | 3,459 |

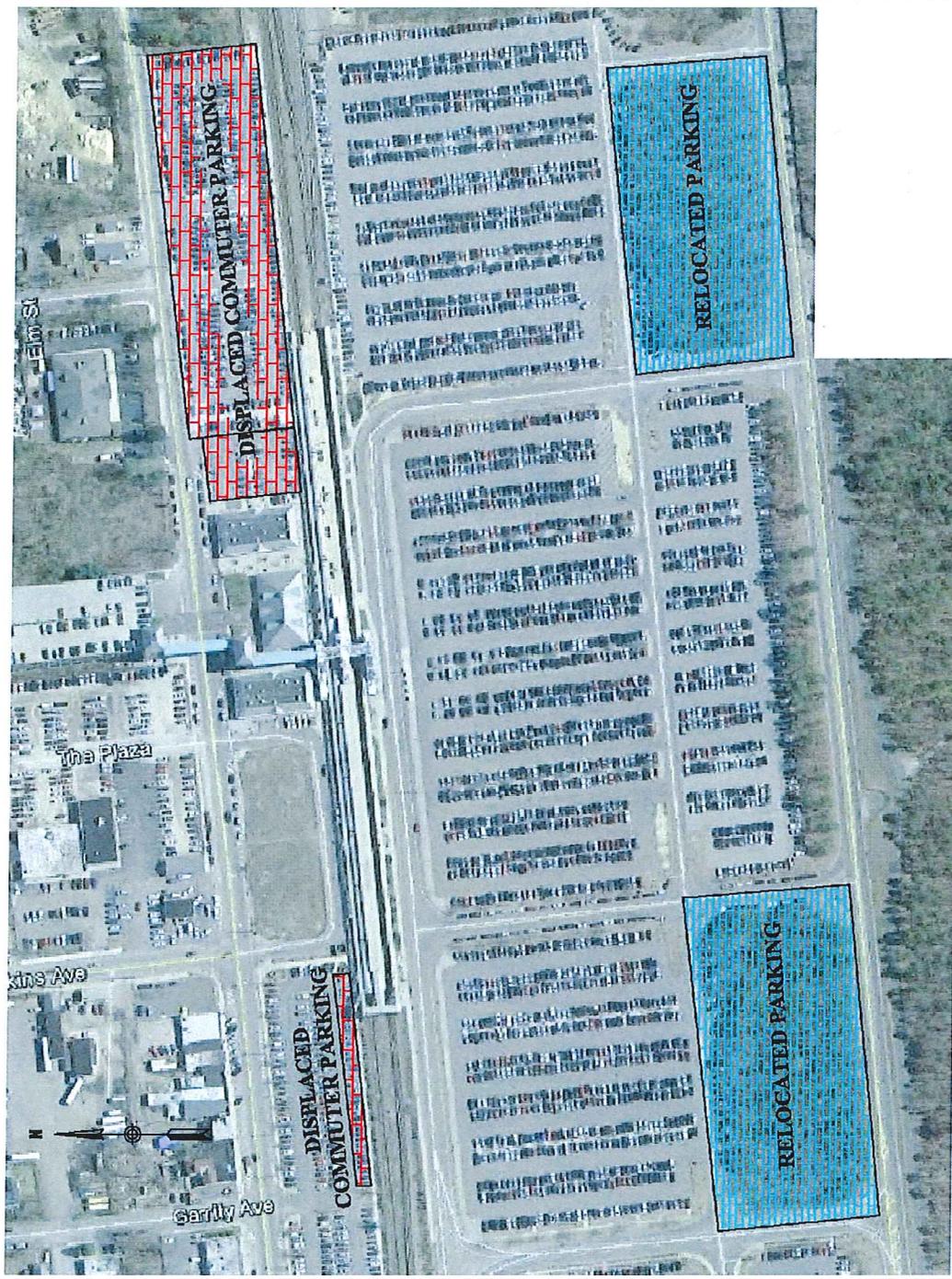
*For purposes of this analysis, Flex Space is treated as office space for calculating parking requirements.

As shown in the table above, 3,459 parking spaces are required, based on the proposed TOD District. The Maximum Density Concept Plan indicates the construction of 3,638 parking stalls within the Ronkonkoma Hub area; this exceeds the TOD District parking requirements.

LIRR Parking

The development of the Ronkonkoma Hub TOD would involve construction on areas that are currently used for commuter parking. The Maximum Density Concept Plan includes redevelopment of what are now parking areas south of the Railroad Avenue and east of the current ticket office. Reestablishing the bus loop and taxi staging area on Parcel K will also eliminate some parking stalls at the southeast end of the commuter lot west of the station. These areas are indicated on Figure 12. In addition, there is a private parking lot immediately west of the parking garage that is used by commuters that will also be displaced. This lot is also shown on Figure 12.

In terms of displaced stalls, the MTA lots south of the Railroad Avenue and east of the station contain a total of 343 stalls. The stalls that would be lost as a result of relocating the bus loop and taxi staging area total 31 stalls. However, 16 of these are handicap stalls, which would likely be relocated within the same area given the need to keep them close to the station. Each pair of handicap stalls would displace three standard stalls. Therefore, the relocation of the bus loop and taxi staging area would result in a loss of 39 stalls in this lot. This brings the total loss of public commuter stalls on the Brookhaven side of the station to 382.



YHB Engineering, Surveying and Landscape Architecture, P.C.



Figure 12
Relocated Commuter Parking

**Ronkonkoma Hub
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A spot parking count was performed during the mid-morning on Thursday April 11, 2013, at the LIRR parking lots on Railroad Avenue and it was found that the lots, except for lot #1, were almost fully utilized. These parking counts can be found in Appendix D of Appendix H of this DSGEIS.

The Master Developer has proposed to the MTA that it would construct additional parking on the south side of the station to replace parking that is displaced on the north side. The two areas which have been identified to be improved to provide parking are indicated on Figure 12. These two areas total over seven acres in size.

Based on the geometry of the parking lot areas available, at least 130 stalls can be provided per acre. This equates to the potential to build over 900 parking stalls in the two identified areas, more than enough to replace parking displaced on the north side as a result of construction of the TOD.

Construction Impacts

Based upon the construction schedule in Section 2.5 of this DSGEIS, construction in the TOD would commence 4th quarter of 2014 and continue for an approximately six year period through the end of 2020. Traffic impacts related to construction could potentially exist during this period.

While the Maximum Density Concept Plan presents the proposed development plan in concept, at this early stage it cannot be known with any certainty what the specifics of the construction schedules for the specific components are or what construction traffic related to that construction would be.

Based on the scale of the development, it has been determined that a construction traffic management and logistics plan would need to be developed for each site plan application. This plan, at a minimum, would require the following:

- Days/Hours of proposed construction activity
- Designated routes of heavy vehicles to and from the site
- Parking areas for workers and heavy vehicles so as not to add to the burden on commuter lots
- Construction staging areas

Based upon the analysis performed, the development of the Ronkonkoma Hub TOD, as proposed, in conjunction with the identified roadway mitigation, would not result in a significant adverse impact on traffic conditions in the study area. While the development would result in an increase in traffic levels in the vicinity of the site, this increase can be handled by the roadway system with the implementation of the identified mitigation (see Section 3.5.3, below).

3.5.3 Proposed Mitigation

Based on the Build condition results, traffic mitigation measures were developed to address project impacts. The mitigation plan developed for the TOD includes improvements to intersections as well as additional travel lanes on roadway segments. The measures discussed below have been developed to mitigate the potential traffic impacts of the development of the Ronkonkoma HUB TOD at full-build.

Improvements are proposed at the ten study intersections which range from roadway widening to add additional lanes to signal timing and phasing changes. The ten intersections are listed below:

1. LIE North Service Road and Hawkins Avenue
2. LIE South Service Road and Hawkins Avenue
3. LIE North Service Road and Ronkonkoma Avenue
4. LIE South Service Road and Ronkonkoma Avenue
5. Hawkins Avenue and Union Avenue
6. Union Avenue and Mill Road
7. Ronkonkoma Avenue and Powell Street/2nd Street
8. Railroad Avenue & Powell Street
9. Johnson Avenue & Northwest Link
10. Hawkins and Railroad Avenue

The proposed mitigation recommended at the study intersections are summarized in Table 25.

Table 25 – Proposed Mitigation at Study Intersections

| Location | | Capacity Improvements | | Signal Improvements |
|----------|--|---|--|---|
| | | Existing Conditions | Proposed Mitigation | |
| 1 | LIE North Service Road & Hawkins Avenue | Westbound – One exclusive left-turn lane, one through lane and a shared through and right-turn lane | Restripe approach to: One shared left-turn and through lane, one through lane and a shared through and right-turn lane | Change PM-cycle length to 120 seconds.
Optimize AM / PM phase-splits |
| | | Northbound - One exclusive left-turn lane, two through lanes | Increase left-turn storage lane by removing a portion of the raised median | |
| 2 | LIE South Service Road & Hawkins Avenue | Eastbound – One exclusive left-turn lane, one through lane and a shared through and right-turn lane | Widen and add a 4 th approach lane. New configuration: One left-turn lane, two through lanes and a shared through and right-turn lane | Change PM-cycle length to 120 seconds.
Optimize AM / PM phase-splits |
| | | Northbound – One through lane and a shared through and right-turn lane | Restripe approach to add an exclusive right-turn lane. New configuration: Two through lanes and an exclusive right-turn lane | |
| | | Southbound - One left-turn lane, two through lanes | Increase left-turn storage lane by removing a portion of the raised median | |
| 3 | LIE North Service Road & Ronkonkoma Avenue | Westbound – One exclusive left-turn lane, one through lane and a shared through and right-turn lane | Restripe approach to: One shared left-turn and through lane, one through lane and a shared through and right-turn lane | Change PM-cycle length to 120 seconds.
Optimize AM / PM phase-splits |
| 4 | LIE South Service Road & Ronkonkoma Avenue | Eastbound – One exclusive left-turn lane, one through lane and a shared through and right-turn lane | Widen and add a 4 th approach lane. New configuration: One exclusive left-turn lane, two through lanes and a shared through and right-turn lane | Change PM-cycle length to 120 seconds.
Optimize AM / PM phase-splits |
| | | Northbound – One through lane and a shared through and right-turn lane | Widen and add a 3 rd approach lane. New configuration: Two through lanes and an exclusive right-turn lane | |

Table 25 – Proposed Mitigation at Study Intersections...continued

| Location | | Capacity Improvements | | Signal Improvements |
|----------|---|---|---|---|
| | | Existing Conditions | Proposed Mitigation | |
| 5 | Hawkins Avenue & Union Avenue | Westbound – One exclusive left-turn lane with storage & one right-turn lane | Widen and add 3 rd approach lane. New configuration: One exclusive left-turn lane and two right-turn lanes | Change PM-cycle length to 100 seconds.

Optimize AM / PM phase-splits

Prohibit right-turns on red westbound |
| | | Northbound – One shared through and right-turn lane | New configuration: One through and a shared through and right-turn lane | |
| 6 | Union Avenue & Mill Road | Northbound – One shared left-turn, through and right-turn lane | Widen and add 2 nd approach lane. New configuration: One shared left-turn and through lane and an exclusive right-turn lane with storage | Change AM / PM-cycle length to 80 seconds.

Optimize AM / PM phase-splits |
| 7 | Ronkoma Avenue & Powell Street / 2 nd Street | Northbound – One through and one shared through and right-turn lane | Restripe median as left turn lane. New configuration: One exclusive left-turn lane, one through and one shared through and right-turn lane. | Add new three phase traffic signal with leading southbound left turn phase. Side streets remain right turn out only.

Signal cycle length same as LIE Service Roads with suitable offset to ensure signal progression |
| | | Southbound – One through and one shared through and right-turn lane | Restripe median as left turn lane. New configuration: One exclusive left-turn lane, one through and one shared through and right-turn lane. | |

Table 25 – Proposed Mitigation at Study Intersections ...continued

| Location | | Capacity Improvements | | Signal Improvements |
|----------|--|---|--|---|
| | | Existing Conditions | Proposed Mitigation | |
| 8 and 9 | Railroad Avenue & Powell Street / Parking Lot & Johnson Avenue at Northwest Link / Parking Lot | | No proposed capacity changes | Run both the intersections off one controller for improved coordination. At Powell Street add protected permitted southbound left-turn phase. |
| 10 | Hawkins Avenue & Railroad Avenue | Westbound – One exclusive left-turn lane, one through and one exclusive right-turn lane | Channelized westbound right turn lane. | Add new three phase traffic signal with leading eastbound left turn phase. |
| | | Southbound – One shared left-turn and through, one exclusive right-turn lane | Channelize southbound right turn lane. | |

In addition to improvements proposed at study intersections, roadway widenings were identified for key roadway segments within the study area. These widenings serve as receiving lanes for approach lanes added at the intersections as well as add mid-block capacity to address future volumes. To better illustrate the proposed intersection improvements and roadway widenings, graphics were developed. Figure 13 presents the improvements proposed in the northern portion of the study area around the Long Island Expressway. Figure 14 presents similar information for the balance of the study area.

Figure 13 indicates that, in addition to the intersection-specific improvements proposed at the service road intersections, a combination of widening and restripings are proposed that would essentially result in both service roads improved to three travel lanes each through the study area. Additional details are provided on Figure 13. Issues related to the availability of right-of-way are discussed in a subsequent section.

Figure 14 presents intersections and midblock improvements identified for the study area south of the LIE. Included here is the improvement of Hawkins Avenue two northbound lanes. On Railroad Avenue, between Hawkins Avenue and Powell Street, a second westbound lane is proposed, requiring elimination of existing on-street parking along the north shoulder. A roundabout is proposed at the Railroad Avenue at Mill Road intersection which will also serve as an access to a portion of the TOD development area. Issues related to availability of right-of-way are discussed in a subsequent section.

The network was reanalyzed with the mitigation in order to measure the effectiveness of the proposed improvements at the various intersections. Table 26 and Table 27 present the results of this analysis for the weekday a.m. and p.m. peak hours, respectively. For ease of comparison, the table also includes the corresponding No-Build and Build condition results.

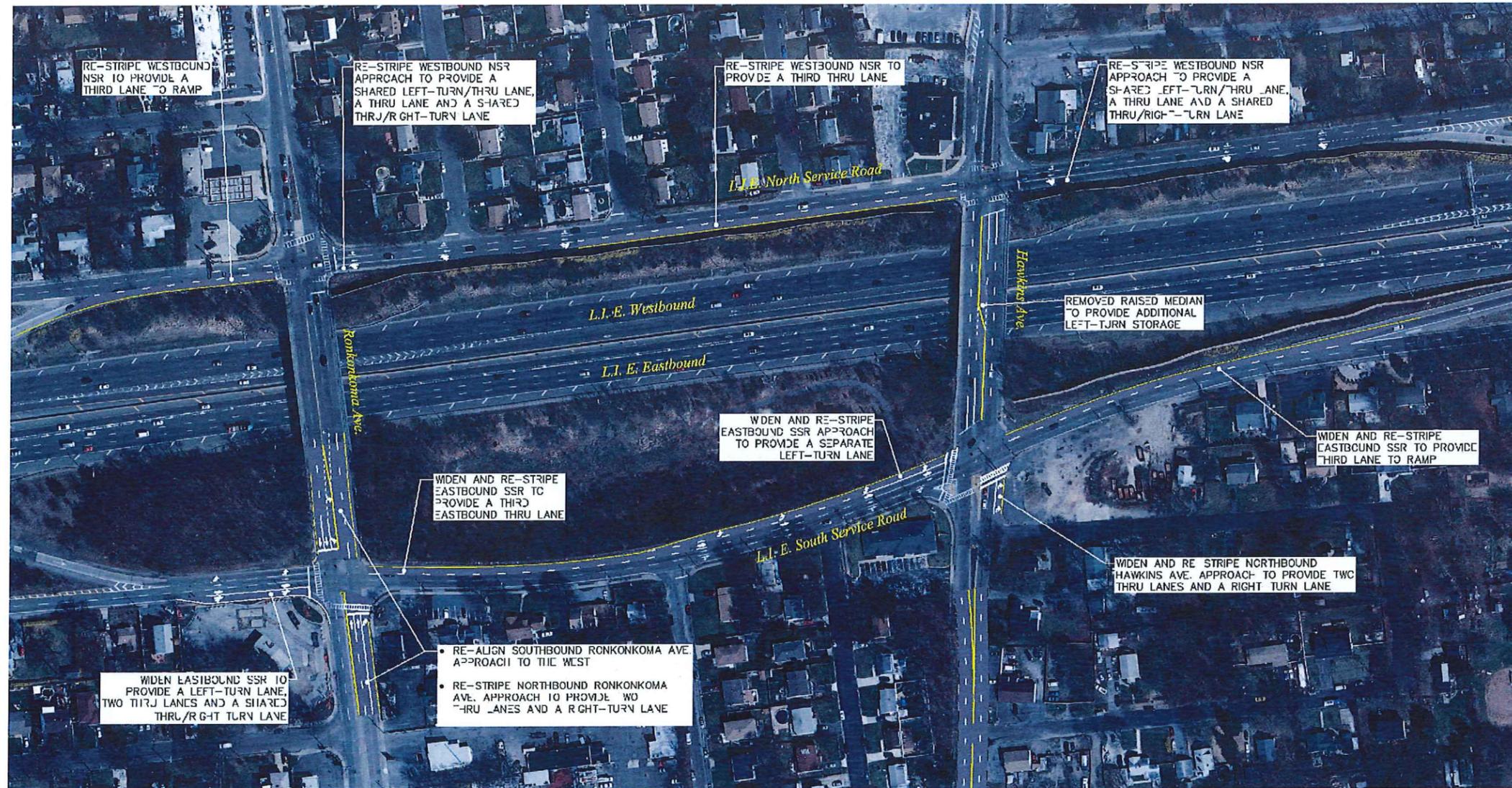




Figure 14
Proposed Mitigation Plan
South Study Area

**Ronkonkoma Hub
Transit-Oriented Development**

Table 26 – No-Build, Build and Build with Mitigation – Weekday AM Peak Hour

| Intersection | Movement | Lane Group | No-Build 2020 | | Build 2020 | | Build with Mitigation | | |
|--|--|------------|---------------|-------------|-------------|-------------|-----------------------|-------------|----------|
| | | | Delay | LOS | Delay | LOS | Delay | LOS | |
| LIE North Service Road & Hawkins Avenue | WB | L | 15.4 | B | 17.9 | B | | | |
| | | TR / LTR | 50.8 | D | 57.2 | E | 50.8 | D | |
| | | Approach | 44.3 | D | 48.7 | D | 50.8 | D | |
| | NB | L | 44.0 | D | 145.0 | F | 51.9 | D | |
| | | T | 15.4 | B | 13.2 | B | 12.6 | B | |
| | | Approach | 26.2 | C | 70.2 | E | 29.6 | C | |
| | SB | TR | 50.7 | D | 100.1 | F | 55.3 | E | |
| | | Approach | 50.7 | D | 100.1 | F | 55.3 | E | |
| | Overall | | | 43.0 | D | 61.2 | E | 48.2 | D |
| LIE South Service Road & Hawkins Avenue | EB | L | 18.6 | B | 18.6 | B | 17.9 | B | |
| | | TR / LTR | 19.9 | B | 19.7 | B | 16.7 | B | |
| | | Approach | 19.6 | B | 19.5 | B | 16.9 | B | |
| | NB | TR / T | 25.5 | C | 29.2 | C | 29.7 | C | |
| | | R | | | | | 6.9 | A | |
| | | Approach | 25.5 | C | 29.2 | C | 24.5 | C | |
| | SB | L | 28.0 | C | 45.6 | D | 28.0 | C | |
| | | T | 23.5 | C | 26.9 | C | 21.2 | C | |
| | | Approach | 24.5 | C | 31.2 | C | 22.8 | C | |
| | Overall | | | 23.0 | C | 26.9 | C | 21.3 | C |
| | LIE North Service Road & Ronkonkoma Avenue | WB | L | 34.8 | C | 32.3 | C | | |
| TR / LTR | | | 23.7 | C | 25.0 | C | 54.2 | D | |
| Approach | | | 27.8 | C | 27.6 | C | 54.2 | D | |
| NB | | L | 53.4 | D | 67.3 | E | 64.5 | E | |
| | | T | 14.6 | B | 11.1 | B | 9.1 | A | |
| | | Approach | 27.5 | C | 29.8 | C | 27.6 | C | |
| SB | | TR | 55.2 | E | 94.8 | F | 65.6 | E | |
| | | Approach | 55.2 | E | 94.8 | F | 65.6 | E | |
| Overall | | | 35.5 | D | 47.0 | D | 53.4 | D | |
| LIE South Service Road & Ronkonkoma Avenue | EB | L | 29.7 | C | 29.7 | C | 26.1 | C | |
| | | TR / LTR | 34.3 | C | 43.0 | D | 27.0 | C | |
| | | Approach | 33.3 | C | 40.6 | D | 26.8 | C | |
| | NB | TR / T | 26.3 | C | 31.8 | C | 26.0 | C | |
| | | R | | | | | 36.1 | D | |
| | | Approach | 26.3 | C | 31.8 | C | 29.8 | C | |
| | SB | L | 12.6 | B | 12.4 | B | 9.4 | A | |
| | | T | 21.4 | C | 27.6 | C | 22.7 | C | |
| | | Approach | 20.6 | C | 26.4 | C | 21.7 | C | |
| | Overall | | | 25.5 | C | 31.9 | C | 24.9 | C |

Table 26– No-Build, Build and Build with Mitigation – Weekday AM Peak Hour

...continued

| Intersection | Movement | Lane Group | No-Build 2020 | | Build 2020 | | Build with Mitigation | | |
|-------------------------------|---------------------------------|------------|---------------|------------|------------|-------------|-----------------------|-------------|----------|
| | | | Delay | LOS | Delay | LOS | Delay | LOS | |
| Hawkins Avenue & Union Avenue | WB | L | 37.8 | D | 38.8 | D | 43.5 | D | |
| | | R | 3.5 | A | 3.6 | A | 19.2 | B | |
| | | Approach | 15.7 | B | 14.4 | B | 26.7 | C | |
| | NB | TR | 11.3 | B | 14.4 | B | 11.2 | B | |
| | | Approach | 11.3 | B | 14.4 | B | 11.2 | B | |
| | SB | L | 6.6 | A | 10.9 | B | 8.9 | A | |
| | | T | 6.2 | A | 8.3 | A | 7.8 | A | |
| | | Approach | 6.4 | A | 9.3 | A | 8.2 | A | |
| | Overall | | | 9.7 | A | 11.4 | B | 13.3 | B |
| Mill Road & Union Avenue | EB | L | 3.8 | A | 4.8 | A | 9.0 | A | |
| | | TR | 3.6 | A | 4.7 | A | 9.3 | A | |
| | | Approach | 3.6 | A | 4.7 | A | 9.3 | A | |
| | WB | L | 4.7 | A | 8.2 | A | 4.5 | A | |
| | | TR | 4.8 | A | 7.4 | A | 5.4 | A | |
| | | Approach | 4.8 | A | 7.7 | A | 5.1 | A | |
| | NB | LTR / LT | 11.8 | B | 18.3 | B | 33.5 | C | |
| | | R | | | | | 9.8 | A | |
| | | Approach | 11.8 | B | 18.3 | B | 21.2 | C | |
| | SB | LTR | 16.0 | B | 14.8 | B | 18.9 | B | |
| | | Approach | 16.0 | B | 14.8 | B | 18.9 | B | |
| | Overall | | | 5.7 | A | 9.0 | A | 8.7 | A |
| | Railroad Avenue & Powell Street | EB | L | 3.5 | A | 8.0 | A | 5.5 | A |
| T | | | 2.7 | A | 10.3 | B | 6.4 | A | |
| R | | | 1.2 | A | 1.6 | A | 0.1 | A | |
| Approach | | | 2.6 | A | 9.9 | A | 6.0 | A | |
| WB | | L | 3.2 | A | 8.0 | A | 11.9 | B | |
| | | TR | 2.3 | A | 8.4 | A | 12.6 | B | |
| | | Approach | 2.3 | A | 8.4 | A | 12.6 | B | |
| NB | | L | 5.8 | A | 9.7 | A | 28.8 | C | |
| | | TR | 4.3 | A | 6.2 | A | 18.4 | B | |
| | | Approach | 5.0 | A | 7.9 | A | 23.4 | C | |
| SB | | L | 5.3 | A | 13.9 | B | 15.4 | B | |
| | | TR | 4.3 | A | 6.7 | A | 9.3 | A | |
| | | Approach | 5.1 | A | 13.5 | B | 15.3 | B | |
| Overall | | | 2.7 | A | 9.8 | A | 12.3 | B | |

**Table 26 – No-Build, Build and Build with Mitigation – Weekday AM Peak Hour
...continued**

| Intersection | Movement | Lane Group | No-Build 2020 | | Build 2020 | | Build with Mitigation | |
|--|----------|------------|---------------|----------|------------|----------|-----------------------|----------|
| | | | Delay | LOS | Delay | LOS | Delay | LOS |
| Johnson Avenue & Northwest Link | EB | L | 2.8 | A | 6.9 | A | 12.1 | B |
| | | T | 2.7 | A | 7.4 | A | 13.7 | B |
| | | R | 0.4 | A | 0.6 | A | 0.0 | A |
| | | Approach | 2.6 | A | 7.2 | A | 13.2 | B |
| | WB | L | 2.7 | A | 7.2 | A | 5.8 | A |
| | | T | 2.8 | A | 7.4 | A | 6.8 | A |
| | | R | 1.4 | A | 2.3 | A | 1.2 | A |
| | | Approach | 2.5 | A | 5.3 | A | 4.4 | A |
| | NB | LTR | 5.5 | A | 7.9 | A | 24.2 | C |
| | | Approach | 5.5 | A | 7.9 | A | 24.3 | C |
| | SB | L | 6.2 | A | 10.3 | B | 11.3 | B |
| | | TR | 4.4 | A | 5.9 | A | 5.5 | A |
| | | Approach | 5.1 | A | 9.6 | A | 6.9 | A |
| Overall | | | 2.8 | A | 6.5 | A | 7.5 | A |
| Ronkonkoma Avenue & Powell Street/2nd Street | EB | R | | | | | 43.6 | D |
| | | Approach | | | | | 43.6 | D |
| | WB | R | | | | | 0.6 | A |
| | | Approach | | | | | 0.6 | A |
| | NB | L | | | | | 11.9 | B |
| | | TR | | | | | 10.9 | B |
| | | Approach | | | | | 10.9 | B |
| | SB | L | | | | | 4.0 | A |
| | | TR | | | | | 9.9 | A |
| | | Approach | | | | | 9.5 | A |
| Overall | | | | | | | 13.1 | B |
| Hawkins Avenue & Railroad Avenue | EB | L | | | | | 9.1 | A |
| | | TR | | | | | 9.8 | A |
| | | Approach | | | | | 9.6 | A |
| | WB | L | | | | | 15.8 | B |
| | | T | | | | | 26.9 | C |
| | | R | | | | | 0.2 | A |
| | | Approach | | | | | 18.8 | B |
| | SB | LT | | | | | 26.9 | C |
| | | R | | | | | 0.4 | A |
| | | Approach | | | | | 12.6 | B |
| Overall | | | | | | | 13.8 | B |

Table 27 – No-Build, Build and Build with Mitigation – Weekday PM Peak Hour

| Intersection | Movement | Lane Group | No-Build 2020 | | Build 2020 | | Build with Mitigation | | |
|--|--|------------|---------------|-------------|--------------|-------------|-----------------------|-------------|----------|
| | | | Delay | LOS | Delay | LOS | Delay | LOS | |
| LIE North Service Road & Hawkins Avenue | WB | L | 20.2 | C | 23.7 | C | | | |
| | | TR / LTR | 19.9 | B | 21.0 | C | 37.6 | D | |
| | | Approach | 20.0 | C | 21.9 | C | 37.6 | D | |
| | NB | L | 27.1 | C | 170.4 | F | 24.8 | C | |
| | | T | 13.1 | B | 12.1 | B | 13.4 | B | |
| | | Approach | 16.3 | B | 60.2 | E | 16.9 | B | |
| | SB | TR | 28.7 | C | 31.0 | C | 40.0 | D | |
| | | Approach | 28.7 | C | 31.0 | C | 40.0 | D | |
| | Overall | | | 20.8 | C | 38.2 | D | 30.5 | C |
| | LIE South Service Road & Hawkins Avenue | EB | L | 18.8 | B | 18.8 | B | 27.8 | C |
| TR / LTR | | | 168.6 | F | 203.5 | F | 90.7 | F | |
| Approach | | | 150.2 | F | 181.9 | F | 83.3 | F | |
| NB | | TR / T | 125.4 | F | 332.2 | F | 94.4 | F | |
| | | R | | | | | 29.6 | C | |
| | | Approach | 125.4 | F | 332.2 | F | 80.9 | F | |
| SB | | L | 98.0 | F | 140.1 | F | 73.8 | E | |
| | | T | 11.6 | B | 13.1 | B | 10.5 | B | |
| | | Approach | 56.5 | E | 70.1 | E | 38.9 | D | |
| Overall | | | 127.8 | F | 194.8 | F | 73.6 | E | |
| LIE North Service Road & Ronkonkoma Avenue | WB | L | 22.9 | C | 24.9 | C | | | |
| | | TR / LTR | 21.3 | C | 24.5 | C | 23.5 | C | |
| | | Approach | 21.8 | C | 24.6 | C | 23.5 | C | |
| | NB | L | 31.2 | C | 27.0 | C | 50.4 | D | |
| | | T | 22.1 | C | 15.9 | B | 16.9 | B | |
| | | Approach | 24.4 | C | 18.7 | B | 25.5 | C | |
| | SB | TR | 30.4 | C | 34.6 | C | 45.4 | D | |
| | | Approach | 30.4 | C | 34.6 | C | 45.4 | D | |
| | Overall | | | 24.8 | C | 24.2 | C | 29.2 | C |
| | LIE South Service Road & Ronkonkoma Avenue | EB | L | 32.3 | C | 32.3 | C | 41.9 | D |
| TR | | | 122.4 | F | 183.8 | F | 62.2 | E | |
| Approach | | | 103.4 | F | 154.6 | F | 58.3 | E | |
| NB | | TR / T | 149.2 | F | 190.5 | F | 15.1 | B | |
| | | R | | | | | 107.3 | F | |
| | | Approach | 149.2 | F | 190.5 | F | 60.2 | E | |
| SB | | L | 44.2 | D | 37.4 | D | 18.5 | B | |
| | | T | 15.7 | B | 11.7 | B | 12.0 | B | |
| | | Approach | 20.1 | C | 15.2 | B | 12.9 | B | |
| Overall | | | 110.2 | F | 148.1 | F | 52.2 | D | |

**Table 27 – No-Build, Build and Build with Mitigation – Weekday PM Peak Hour
...continued**

| Intersection | Movement | Lane Group | No-Build 2020 | | Build 2020 | | Build with Mitigation | |
|---------------------------------|--------------------------|------------|---------------|----------|-------------|----------|-----------------------|----------|
| | | | Delay | LOS | Delay | LOS | Delay | LOS |
| Hawkins Avenue & Union Avenue | WB | L | 33.2 | C | 35.3 | D | 52.7 | D |
| | | R | 5.1 | A | 22.5 | C | 26.6 | C |
| | | Approach | 9.4 | A | 24.1 | C | 30.1 | C |
| | NB | TR | 11.0 | B | 17.0 | B | 15.4 | B |
| | | Approach | 11.0 | B | 17.0 | B | 15.4 | B |
| | SB | L | 6.7 | A | 31.0 | C | 7.8 | A |
| | | T | 3.2 | A | 3.7 | A | 3.1 | A |
| | | Approach | 5.7 | A | 19.2 | B | 5.7 | A |
| | Overall | | 8.3 | A | 20.1 | C | 15.9 | B |
| | Mill Road & Union Avenue | EB | L | 7.1 | A | 7.7 | A | 13.4 |
| TR | | | 9.2 | A | 11.3 | B | 20.7 | C |
| Approach | | | 9.1 | A | 11.1 | B | 20.2 | C |
| WB | | L | 7.9 | A | 17.3 | B | 11.5 | B |
| | | TR | 11.2 | B | 13.0 | B | 12.3 | B |
| | | Approach | 10.7 | B | 14.1 | B | 12.1 | B |
| NB | | LTR / LT | 20.6 | C | 152.1 | F | 38.2 | D |
| | | R | | | | | 12.2 | B |
| | | Approach | 20.6 | C | 152.1 | F | 21.5 | C |
| SB | | LTR | 16.4 | B | 14.0 | B | 14.6 | B |
| | | Approach | 16.4 | B | 14.0 | B | 14.6 | B |
| Overall | | | 12.9 | B | 55.5 | E | 17.3 | B |
| Railroad Avenue & Powell Street | | EB | L | 5.9 | A | 6.8 | A | 19.2 |
| | T | | 7.0 | A | 16.2 | B | 20.5 | C |
| | R | | 0.6 | A | 0.2 | A | 0.1 | A |
| | Approach | | 6.8 | A | 15.8 | B | 20.0 | B |
| | WB | L | 5.8 | A | 6.3 | A | 19.8 | B |
| | | TR | 4.8 | A | 9.4 | A | 27.1 | C |
| | | Approach | 4.8 | A | 9.4 | A | 27.1 | C |
| | NB | L | 10.2 | B | 15.2 | B | 36.5 | D |
| | | TR | 4.8 | A | 6.3 | A | 16.6 | B |
| | | Approach | 5.9 | A | 8.2 | A | 20.8 | C |
| | SB | L | 10.4 | B | 50.5 | D | 17.5 | B |
| | | TR | 6.6 | A | 9.3 | A | 7.0 | A |
| | | Approach | 9.8 | A | 48.4 | D | 17.5 | B |
| | Overall | | 6.3 | A | 18.6 | B | 22.5 | C |

**Table 27 – No-Build, Build and Build with Mitigation – Weekday PM Peak Hour
... continued**

| Intersection | Movement | Lane Group | No-Build 2020 | | Build 2020 | | Build with Mitigation | |
|--|----------------|------------|---------------|----------|-------------|-------------|-----------------------|----------|
| | | | Delay | LOS | Delay | LOS | Delay | LOS |
| Johnson Avenue & Northwest Link | EB | L | 5.2 | A | 7.1 | A | 19.5 | B |
| | | T | 6.9 | A | 14.7 | B | 32.3 | C |
| | | R | 0.0 | A | 0.0 | A | 0.0 | A |
| | | Approach | 6.8 | A | 14.5 | B | 31.9 | C |
| | WB | L | 5.2 | A | 7.0 | A | 18.2 | B |
| | | T | 6.0 | A | 11.2 | B | 16.3 | B |
| | | R | 2.0 | A | 3.1 | A | 6.3 | A |
| | | Approach | 4.6 | A | 6.8 | A | 10.8 | B |
| | NB | LTR | 5.0 | A | 5.5 | A | 17.9 | B |
| | | Approach | 5.0 | A | 5.5 | A | 17.9 | B |
| | SB | L | 9.6 | A | 21.1 | C | 10.4 | B |
| | | TR | 4.9 | A | 5.4 | A | 2.7 | A |
| | | Approach | 7.3 | A | 18.5 | B | 4.1 | A |
| | Overall | | 5.8 | A | 11.2 | B | 17.9 | B |
| Ronkonkoma Avenue & Powell Street/2nd Street | EB | R | | | | | 45.6 | D |
| | | Approach | | | | | | |
| | WB | L | | | | | 37.4 | D |
| | | Approach | | | | | | |
| | NB | L | | | | | 9.2 | A |
| | | TR | | | | | 29.6 | C |
| | | Approach | | | | | 29.5 | C |
| | SB | L | | | | | 53.6 | D |
| | | TR | | | | | 6.7 | A |
| | | Approach | | | | | 16.6 | B |
| | Overall | | | | | 29.4 | C | |
| Hawkins Avenue & Railroad Avenue | EB | L | | | | | 32.2 | C |
| | | TR | | | | | 10.3 | B |
| | | Approach | | | | | 18.3 | B |
| | WB | L | | | | | 16.7 | B |
| | | T | | | | | 38.4 | D |
| | | R | | | | | 0.3 | A |
| | | Approach | | | | | 24.7 | C |
| | SB | LT | | | | | 35.5 | D |
| | | R | | | | | 0.2 | A |
| | | Approach | | | | | 16.7 | B |
| | Overall | | | | | 20.3 | C | |

Table 26 and Table 27 indicate that the proposed improvements would help to mitigate the various intersections to levels of service that are equal to or better than the No-Build level of service.

The intersection of Railroad Avenue at Mill Road was analyzed under the Build with Mitigation Condition as a roundabout as depicted on the Maximum Density Concept Plan. This roundabout would also contain a third leg which would serve as access to and from development at the southeast portion of the TOD. The results of the analysis performed indicate that the roundabout would operate well, as can be seen from the above table. LOS A is expected to prevail at the roundabout during both peak periods.

Some components of the mitigation identified to accommodate the full-build of the Ronkonkoma HUB TOD will require the taking of private property for roadway widening. To determine the level of development that can be supported without acquisition of private property additional analyses were performed. A discussion is included in the TIS in Appendix H.

Mitigation Phasing

The impact analysis identified a range of roadway improvements to mitigate identified impacts. The proposed size of the Ronkonkoma Hub area, both in terms of development area and square footage of buildings, is such that construction will take place in phases over an extended time-frame. In addition, significant infrastructure work, including the development of new roadways and improvements to existing roadways, are included in the development of the TOD.

With some exceptions (discussed below) the development or improvement of the internal and immediate perimeter roadway systems within and around the TOD should be performed as the parcels adjacent to those roads are developed to ensure adequate and safe access to surrounding roadways. Functionally, the proposed improvements to the majority of these roads are to provide parking areas and other roadside amenities and would not add significant vehicle capacity. The roundabout proposed at Railroad Avenue and Mill Road need not be constructed until such time as the adjacent development access which forms the south leg is developed. The northbound right turn lane proposed at the intersection of Mill Road at Union Avenue (described in Table 25 for location 6 and depicted on Figure 14) can be constructed when either the adjacent Parcel I or Parcel K, as shown on the Maximum Density Concept Plan, is developed.

The following discussion focuses on the off-site mitigation phasing, and identifies trip generation thresholds at which certain mitigation must be in place. It is noted that these thresholds are based on the net trip generation, which represents the anticipated trips after adjustments for the TOD and pass-by credits have been applied.

Initial Construction – Hawkins Avenue, in the vicinity of the TOD, south of the LIE, is a primary route of arrival and departure for the TOD and the LIRR Ronkonkoma Station. Currently, delays are experienced on this route, particularly in the evening, coinciding with the daily commuting periods. Prior to occupancy of the initially constructed building(s) within the TOD, Hawkins Avenue should be improved from Railroad Avenue to just south of the LIE. This includes the installation of a new traffic signal at Railroad Avenue. The mitigation detailed in Table 25 for locations 5 and 10 and depicted on Figure 14, shall be completed during this initial phase and prior to building occupancy, with the following exceptions due to the need for additional right-of-way on Hawkins Avenue north of Union Avenue that are not currently available:

- Hawkins Avenue north of Union Avenue to be constructed as two southbound and one northbound lane.
- The northbound Hawkins Avenue approach to Union Avenue striped as a through and a right turn lane
- The westbound Union Avenue approach widened for four lanes but striped for one eastbound and two westbound lanes (a left turn and a right turn lane)
- The southbound right turn lane at Railroad Avenue to be controlled by the traffic signal rather than channelized

As discussed below, the second northbound lane shall be added in a subsequent phase prior to reaching a trip generation threshold of 1,100 vehicle trips in the p.m. peak hour, as this improvement requires that additional land be acquired for roadway widening that is not available currently. The southbound right turn lane to Railroad Avenue shall be modified to a channelized lane upon the development of Parcel A, as shown on the Maximum Density Concept Plan, and the associated conversion of abutting on-street parking to a second westbound through lane.

Mitigation Level Two – Prior to occupancy of buildings in the TOD that increase net trip generation of the development during the weekday p.m. peak period above 400 vehicles per hour (combined entering and exiting), the mitigation detailed in Table 25 for locations 7, 8 and 9 and depicted on Figure 14 shall be completed.

Mitigation Level Three - Prior to occupancy of buildings in the TOD that increase net trip generation of the development during the weekday p.m. peak period above 500 vehicles per hour (combined entering and exiting), the mitigation detailed in Table 25 for locations 2 and 4 and depicted on Figure 13, along the entirety of the LIE South Service Road shall be completed.

Mitigation Level Four – Prior to occupancy of buildings in the TOD that increase net trip generation of the development during the weekday p.m. peak period above 700 vehicles per hour (combined entering and exiting), the mitigation detailed in Table 25 for locations 1 and 3 and depicted on Figure 13, along the entirety of the LIE North Service Road shall be completed.

Mitigation Level Five – Prior to occupancy of buildings in the TOD that increase net trip generation of the development during the weekday p.m. peak period above 1,100 vehicles per hour (combined entering and exiting) the mitigation detailed in Table 25 for location 5 and depicted on Figure 13, performed in part, under the initial mitigation phase described above, shall be completed. This includes the construction of the second northbound lane on Hawkins Avenue from Union Avenue to the LIE South Service Road and the striping of the westbound Union Avenue approach to three lanes as depicted Figure 13.

3.6 Air Quality

3.6.1 Existing Conditions

An air quality study was performed to assess existing air quality conditions in and around the project area and potential air quality impacts from future development of the Ronkonkoma Hub area, including traffic-related and construction-related impacts (see Appendix I for air quality appendix). The purpose of the air quality study is to determine whether the proposed project complies with the 1990 Clean Air Act Amendments (CAAA) generally following the United States Environmental Protection Agency (USEPA) policies and procedures.

The air quality study includes mobile source analyses to determine the potential impact in air pollution from the proposed project.

Background

The CAAA resulted in states being divided into attainment and non-attainment areas, with classifications based upon the severity of their air quality problems. Areas of the country where air pollution levels persistently exceeded the National Ambient Air Quality Standards (NAAQS) may be designated as "non-attainment areas." The subject property is currently located in an attainment area for CO.

Suffolk County is a "Previous Nonattainment Area" which is no longer subject to the one-hour ozone standard as of June 15, 2005. As far as the eight-hour ozone standard, Suffolk County is designated as a non-attainment area for the eight-hour ozone. Suffolk County is also in non-attainment for PM_{2.5} (for the 2007 standard) as of June 7, 2010. Suffolk County is in "attainment" for all of the remaining criteria pollutants (PM₁₀, lead, nitrogen oxide, and sulfur dioxide) for ambient (outdoor) air.

Air Quality Standards

The USEPA, through the 1970 Clean Air Act, has established National Ambient Air Quality Standards (NAAQS) for a number of pollutants. Currently, USEPA and NYSDEC enforce ambient air quality standards for the following eight pollutants: nitrogen dioxide (NO₂), carbon monoxide (CO), sulfur dioxide (SO₂), particulate matter with an aerodynamic diameter less than 10 microns (PM₁₀), particulate matter with an aerodynamic diameter less than 2.5 microns (PM_{2.5}), ozone (O₃) – which is controlled through limiting of nitrogen oxides NO_x and volatile organic carbon (VOC) emissions, and lead (Pb). The 1977 and 1990 CAAA reinforced attainment and maintenance of these standards. There are no major stationary sources emitting significant quantities of pollutants as part of the proposed action, thus only vehicular emissions of CO, NO_x, VOC, Pb, and PM_{2.5} were of concern for this study.

Carbon monoxide emissions from vehicles are associated with incomplete fuel combustion. Impacts from vehicles generally are localized and can cause elevated concentrations within a relatively short distance from heavily traveled traffic light signals and intersections. Consequently, it is appropriate to focus on CO emissions from motor vehicles on a localized or microscale basis.

Nitrogen oxides combine with hydrocarbons to produce ozone and other compounds in the atmosphere that can cause potential health effects including eye and lung irritation. Nitrogen oxides, generally nitric oxide (NO), are formed from high temperature fuel combustion and within a few hours of release are converted to NO₂ in the atmosphere. Further complex reactions occur with VOC in the atmosphere to produce ozone. Since these reactions occur several hours after the initial NO_x release, the pollutant effects occur some distance downwind from the release. Thus, NO₂ impacts are normally studied within the context of a large-scale analysis or mesoscale basis.

Emissions of VOC occur from many processes including stationary fuel combustion sources and process sources (e.g., dry cleaning, painting, and coating), as well as mobile sources. VOC emissions contribute to the formation of smog and when reacted with other chemicals (such as NO_x) in the atmosphere and ultimately produce ozone and other photochemical oxidants. As discussed previously for nitrogen oxides, studies of VOC emissions usually entail mesoscale evaluations of large areas accounting for many emission sources including vehicles.

Up until the 1970s, lead emissions were associated with vehicular fuel combustion. At that time, Federal clean air legislation prompted the conversion of lead-based gasoline to lead-free fuels, which began a systematic phase-out of the sale of leaded gasoline. Emissions of lead from motor vehicles have decreased significantly as a result of lead being phased out as an additive in motor vehicle fuels. The Federal Highway Administration (FHWA) has advised that microscale lead analyses for highway projects are not needed or warranted. Lead emissions from highways have been virtually eliminated as a result of the regulation and legislation prohibiting the manufacture, sale, or introduction into commerce of any engine requiring leaded gasoline since model year 1992, sale of only unleaded gasoline, and the requirement for reformulated gasoline to contain no heavy metals (such as lead).

In 1997, USEPA codified its decision to revise the NAAQS for particulate matter. As part of this revision, new 24-hour and annual PM_{2.5} standards were added. PM_{2.5} can be emitted as a primary pollutant directly from stationary and mobile sources and can be formed in the ambient air through secondary formation. Secondary PM_{2.5} formation is a long-term process taking hours and days and is due to multiple gases (e.g., oxygen, water vapor, and SO₂) chemically reacting in the atmosphere. Because secondary PM_{2.5} formation is a large-scale phenomenon, it would be studied within the context of a large-scale analysis or mesoscale basis.

Primary PM_{2.5} emissions from gasoline powered vehicles are negligible due to the low ash content of gasoline. Most of the PM_{2.5} emissions from vehicle traffic are due to diesel powered vehicles. However, the proposed action will have limited diesel vehicle traffic (mainly local deliveries). Furthermore, the majority of the Suffolk County Transit bus operations are fueled by compressed natural gas (CNG), and USEPA's Heavy-Duty Highway Diesel rule (the "2007 Highway Rule") has regulations to control the emissions from diesel trucks that would reduce the particulate matter emissions by 90 percent. The new diesel regulations have been enacted by the expected completion date of the proposed project and therefore, the proposed project will have negligible PM_{2.5} impacts on the surrounding area. Table 28 presents the NAAQS for criteria pollutants.



Table 28 – National (and Federal) State of New York Ambient Air Quality Standards

| Pollutant | National (Federal) Standards | | | | State of New York Standards | | | |
|---|---------------------------------|--------------------------------|---------------------|---------------------|-----------------------------|-----------------------|---------------------|-----------------------|
| | Primary Standards | | Secondary Standards | | Primary Standards | | Secondary Standards | |
| | Level | Averaging Time | Level | Averaging Time | Level | Averaging Time | Level | Averaging Time |
| Carbon Monoxide | 9 ppm (10 mg/m3) | eight-hour ¹ | None | None | 9 ppm | eight-hour | 9 ppm | eight-hour |
| | 35 ppm (40 mg/m3) | one-hour ¹ | None | None | 35 ppm | one-hour | 35 ppm | one-hour |
| Lead | 0.15 µg/m3 | Quarterly average | Same as Primary | Same as Primary | None ² | | None ² | |
| Nitrogen Dioxide | 53 ppb (0.053 ppm) ³ | Annual (Arithmetic mean) | Same as Primary | Same as Primary | 0.05 ppm | Annual | 0.05 ppm | Annual |
| Total Suspended Particulates (TSP) | 100 ppb | one-hour | None | None | 75 µg/m3 | 12 consecutive months | 75 µg/m3 | 12 consecutive months |
| | None | 12 consecutive months | None | None | 250 µg/m3 | 24-hour | 250 µg/m3 | 24-hour |
| Particulate Matter (PM ₁₀) | None | | None | None | None ⁴ | | None ⁴ | |
| | 150 µg/m3 | 24-hour ³ | Same as Primary | Same as Primary | None | | None | |
| Particulate Matter (PM _{2.5}) | 15 µg/m3 | Annual | Same as Primary | Same as Primary | None | | None | |
| | 35 µg/m3 | (Arithmetic Mean) ⁵ | Same as Primary | Same as Primary | None | | None | |
| Ozone | 0.075 ppm (2008 std) | 24-hour ⁶ | Same as Primary | Same as Primary | None | | None | |
| | 0.08 ppm (1997 std) | eight-hour ⁷ | Same as Primary | Same as Primary | None ⁶ | | None ⁶ | |
| Sulfur Dioxide | 0.12 ppm | eight-hour ⁹ | Same as Primary | Same as Primary | 0.08 ppm | eight-hour | 0.08 ppm | eight-hour |
| | 0.03 ppm | one-hour ¹⁰ | Same as Primary | Same as Primary | 0.12 ppm | one-hour | 0.12 ppm | one-hour |
| | 0.14 ppm | Annual | Same as Primary | Same as Primary | 0.03 ppm | Annual | 0.03 ppm | Annual |
| | 75 ppb ¹¹ | 24-hour ¹ | 0.5 ppm | 3-hour ¹ | 0.14 ppm | 24-hour | 0.14 ppm | 24-hour |
| Hydrocarbons (non-methane) | None | one-hour | None | None | 0.50 ppm | 3-hour | 0.50 ppm | 3-hour |
| | | | | | 0.24 | 3-hour (6-9 am) | 0.24 | 3-hour (6-9 am) |

Sources: U.S. Environmental Protection Agency and State of New York Department of Environmental Conservation.

- (1) Not to be exceeded more than once per year.
- (2) Federal standard for Lead has not yet been adopted by NYS, but is currently being applied to determine compliance status. The 0.15 µg/m3 standard is effective 1/12/2009 & replaces the previous level of 1.5 µg/m3.
- (3) The 0.100 ppm standard is effective 1/22/2010. To attain this standard, the 3-year average of the 98th percentile of the daily maximum one-hour average within an area must not exceed 0.100 ppm.
- (4) Federal standard for PM10 not yet officially adopted by NYS, but it is currently being applied to determine compliance status. The 0.15 µg/m3 standard is effective 1/12/2009 and replaces the previous level of 1.5 µg/m3.
- (5) To attain this standard, the 3-year average of the weighted annual mean PM2.5 concentrations from single or multiple community-oriented monitors must not exceed 15.0 µg/m3.
- (6) To attain this standard, the 3-year average of the 98th percentile of 24-hour concentrations at each population-oriented monitor within an area must not exceed 35 µg/m3 (effective December 17, 2006).
- (7) To attain this standard, the 3-year average of the fourth-highest daily maximum eight-hour average ozone concentrations measured at each monitor within an area over each year must not exceed 0.075 parts per million ("ppm"). (Effective 60 days after publication in the Federal Register)
- (8) Former NYS Standard for Ozone of 0.08 PPM was not officially revised via regulatory process to coincide with the Federal standard of 0.12 PPM which is currently being applied by NYS to determine compliance status.
- (9) (a) To attain this standard, the 3-year average of the fourth-highest daily maximum eight-hour average ozone concentrations measured at each monitor within an area over each year must not exceed 0.08 ppm.
- (b) The 1997 standard—and the implementation rules for that standard—will remain in place for implementation purposes as USEPA undertakes rulemaking to address the transition from the 1997 ozone standard to the 2008 ozone standard.
- (10) (a) The standard is attained when the expected number of days per calendar year with maximum hourly average concentrations above 0.12 ppm is < 1.
- (b) As of June 15, 2005 USEPA revoked the one-hour ozone standard in all areas except the eight-hour ozone nonattainment Early Action Compact (EAC) Area
- (11) Final rule signed June 2, 2010. To attain this standard, the 3-year average of the 98th percentile of the daily maximum one-hour average at each monitor within an area must not exceed 75ppb.

Existing Pollutant Concentrations

The Ronkonkoma Hub area is located in NYSDEC's Region 1. The background concentrations within the Ronkonkoma HUB area were determined using the monitoring data collected at receptor locations closest to the Ronkonkoma Hub within Region 1. For those pollutants not monitored in Region 1, their background concentrations were determined using the monitoring data collected at the closest receptor locations to the project site from Region 2. The following summarizes the results of the air quality monitoring data within the study area. See Table 29 for a list of the existing pollutant concentrations at the closest monitoring sites.

For CO, a review of the NYSDEC monitoring data indicates that the closest monitoring site to the Ronkonkoma Hub area which monitors CO is "Queens College 2," located on the Queens College Campus in Flushing, Queens. The latest monitoring data that has been validated is for the year 2011. In the most recent three years available (2009, 2010, 2011), the maximum one-hour and eight-hour average CO concentrations at the "Queens College 2" receptor are 3.4 and 1.7 parts per million (ppm), respectively, well below the 35 and 9 ppm NAAQS standards.

For lead, also known as Pb, the closest monitoring site to the Ronkonkoma Hub area is "JHS 126," at John Ericsson Junior High School in Brooklyn, within NYSDEC Region 2. At this receptor location, the maximum quarterly average background concentration over the most recent available three years (2007, 2008 and 2009) is 0.02 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$). This background concentration level of Pb represents approximately one eighth of the maximum lead concentration allowed by the NAAQS, well below the standard.

The closest monitoring site which monitors Nitrogen Dioxide (NO_2) is Eisenhower Park located in East Meadow within NYSDEC Region 1. For NO_2 , the maximum annual arithmetic mean background value is 0.0173 ppm (17.3 ppb) for the most recent three years. The existing background concentration level of NO_2 represents approximately one-third of the maximum annual concentration of NO_2 allowed by the NAAQS. The one-hour NAAQS NO_2 standard, effective in January 2010, is based upon the average of the 98th percentile over the most recent three years. The average one-hour NO_2 background value over the most recent three years of data (2009-2011) is 0.058 ppm (58 ppb) which is 58 percent of the NAAQS standard.

For PM_{10} , the closest monitoring site to the Ronkonkoma Hub area which monitors PM_{10} is on Division Street in lower Manhattan (Region 2). The 24-hour background value for PM_{10} over the most recent three years (2009-2011) is 45.3 $\mu\text{g}/\text{m}^3$. This existing 24-hour background concentration of PM_{10} is equivalent to one-third of the maximum 24-hour levels of PM_{10} allowed by the NAAQS.

For PM_{2.5}, the closest monitoring site to the Ronkonkoma HUB area which monitors PM_{2.5} is on Gazza Boulevard in Babylon (Region 1). The 24-hour PM_{2.5} NAAQS is based upon the average of the 98th percentile over the most recent three years. The average 24-hour PM_{2.5} background value over the most recent three years of data (2009-2011) is 23.1 µg/m³. Similarly, the average annual arithmetic mean background value for PM_{2.5} over the most recent three years is 8.5 µg/m³. The existing 24-hour background concentration level of PM_{2.5} represents approximately 57 percent of the maximum 24-hour concentration of PM_{2.5} allowed by the NAAQS. Similarly, the existing annual background concentration level of PM_{2.5} is equivalent to approximately 66 percent of the maximum PM_{2.5} concentration allowed by the NAAQS for a one year period. As discussed above, Suffolk County is in non-attainment for PM_{2.5} (for the 2006 standard) as of June 7, 2010.

For ozone, the closest monitoring site to the Ronkonkoma Hub area is the Babylon site (Region 1). The eight-hour ozone NAAQS is based upon the average of the 98th percentile of the fourth-highest daily maximum eight-hour concentrations over the most recent three years. The average 28-hour ozone background value over the most recent three years of data (2009-2011) is 0.084 ppm, exceeding the NAAQS for an eight-hour concentration period. This exceedance is consistent with the Suffolk County designation as a non-attainment area for the eight-hour ozone. Suffolk County is a "Previous Nonattainment Area" which is no longer subject to the one-hour ozone standard as of June 15, 2005 and therefore the one-hour value is not reported.

For sulfur dioxide (SO₂), the closest monitoring site to the Ronkonkoma Hub area is the Eisenhower Park site (Region 1). There are no SO₂ background concentrations available at this time to use as a base for the new June 2010 SO₂ one-hour standard of 75 ppb. The maximum annual arithmetic mean background value over the most recent three years for SO₂ is 0.005 ppm which is just over 15 percent of the NAAQS standard. Similarly, the maximum 24-hour and 3-hour background value for SO₂ is 0.020 and 0.045 ppm, respectively. These two levels of SO₂ represent less than 15 percent of the maximum concentration levels of SO₂ allowed by the NAAQS during a 24-hour period and the previous three-hour period standard, respectively.

The air quality analysis evaluated the project-level impacts of key mobile source pollutants CO, PM₁₀, and PM_{2.5}.

Table 29 – Existing Pollutant Concentrations at Closest Monitoring Sites

| Pollutant | Averaging Time | Existing Pollutant Concentration | NAAQS (NYSDEC) |
|---|----------------|----------------------------------|---|
| Carbon Monoxide (CO) | Eight-Hour | 1.7 ppm | 9 ppm |
| | One-Hour | 3.4 ppm | 35 ppm |
| Lead (Pb) | Quarterly Avg. | 0.02 µg/m ³ | 0.15 µg/m ³ |
| Nitrogen Dioxide (NO ₂) | Annual | 0.017 ppm | 0.053 (0.05) ppm |
| | One-Hour | 58 ppb | 100 ppb |
| Particulate Matter (PM ₁₀) | 24-Hour | 45.3 µg/m ³ | 150 µg/m ³ |
| Particulate Matter (PM _{2.5}) | Annual | 8.5 µg/m ³ | 15 µg/m ³ |
| | 24-Hour | 23.1 µg/m ³ | 35 µg/m ³ |
| | Eight-Hour* | 0.084 ppm | 0.075 (2008 std)
0.08 (1997 std) ppm |
| Ozone | One-Hour | No longer applicable | |
| Sulfur Dioxide (SO ₂) | Annual | 0.005 ppm | 0.03 ppm |
| | 24-Hour | 0.020 ppm | 0.14 ppm |
| | 3-Hour | 0.045 ppm | 0.5 ppm |
| | One-Hour | Not yet available | 75 ppb |

*Note: Highlighted item(s) represent those NAAQS/NY standards that have been exceeded.
Source: 2009, 20010 and 2011 New York State Ambient Air Quality Reports (http://www.dec.ny.gov/docs/air_pdf)
ppm = parts per million, ppb = parts per billion, µg/m³= micrograms per cubic meter*

**Mobile Source (Microscale)
Analysis Methodology**

The air quality study evaluates the potential air quality impacts of the vehicular traffic associated with the proposed action on the environment. The vehicle traffic represents the worst-case conditions because it includes the increase in traffic volumes due to specific projects proposed for the study area and projected traffic growth over time. These data are then incorporated into the USEPA air quality models to generate air pollutant concentrations that demonstrate whether or not the proposed project would have air quality impacts.

For the purposes of the air quality analysis, the build conditions included the physical and operational mitigation proposed to improve traffic operations (as outlined in the Traffic Impact Study, included in Appendix H of this DSGEIS). The specific scenarios are outlined below.

- 2013 Existing Conditions
- 2020 No-Build Conditions: Background growth and planned roadway improvements from 2013 to 2020
- 2020 Build Conditions: 2020 No Build Conditions plus Full Build of the proposed project
- 2020 Build Conditions with Improvements: 2020 No Build Conditions plus Full Build of the proposed project with the proposed traffic mitigation

The NYSDOT guidelines require that an air quality study be completed for all No-Build and Build alternatives which differ based on roadway geometry, traffic patterns or other factors affecting air quality in the area. These data are incorporated into the USEPA air quality models to generate emissions estimates that demonstrate whether or not the proposed project will have air quality impacts.

The future 2020 No-Build condition reflects future traffic volumes in the project area which include anticipated background traffic volume growth, and includes traffic related to specific project phases within the study area that are expected to be completed in 2020. The future 2020 Build condition includes new traffic anticipated to result from the completion of the proposed project. The future 2020 Build condition with improvements includes new traffic anticipated to result from the completion of the proposed project and the proposed traffic mitigation (that does not require right-of-way (see the traffic discussion in Section 3.5.3 and Appendix H for more details).

The following presents the inputs that were included in the microscale analysis.

Emission Rates. The vehicle emission factors used in the microscale analysis were obtained using the USEPA's MOBILE6.2²⁶ Vehicle Emission Modeling Software. MOBILE6.2 calculates emission factors from motor vehicles in grams per vehicle mile for existing and future conditions.

Traffic Data. The air quality study uses traffic data (volumes, delays, and speeds) developed for each analysis condition based upon the analysis conducted for the Traffic Impact Study.

The microscale analysis utilized the traffic (volumes and speeds) and emission factor data for the 2013 and 2020 No-Build and Build Conditions. These data were

▼
²⁶ MOBILE6.2 (*Mobile Source Emission Factor Model*), The May 2004 release from USEPA, Office of Mobile Sources, Ann Arbor, MI

incorporated into air quality models to demonstrate that the proposed project will meet the 1990 CAAA and the New York State Implementation Plan (SIP) criteria. The 1990 CAAA and the New York SIP establish procedures and commitments to reduce air pollutants to clean the air. The CAAA's require that a project not cause any new violation of the NAAQS for pollutants of concern, or increase the frequency or severity of any existing violations, or delay attainment of any NAAQS.

The objective of the microscale analysis was to evaluate the CO, PM_{2.5} and PM₁₀ concentrations at congested intersections in the study area. The existing and new intersections in the study area were ranked based on traffic volumes and level of service under the Build Condition. Typically, only the most congested intersections (up to six intersections) are modeled for CO emissions. This methodology follows the *EPA Guideline for Modeling Carbon Monoxide from Roadway Intersections*.²⁷ The intersections in the study area were ranked based on traffic volumes and level of service.

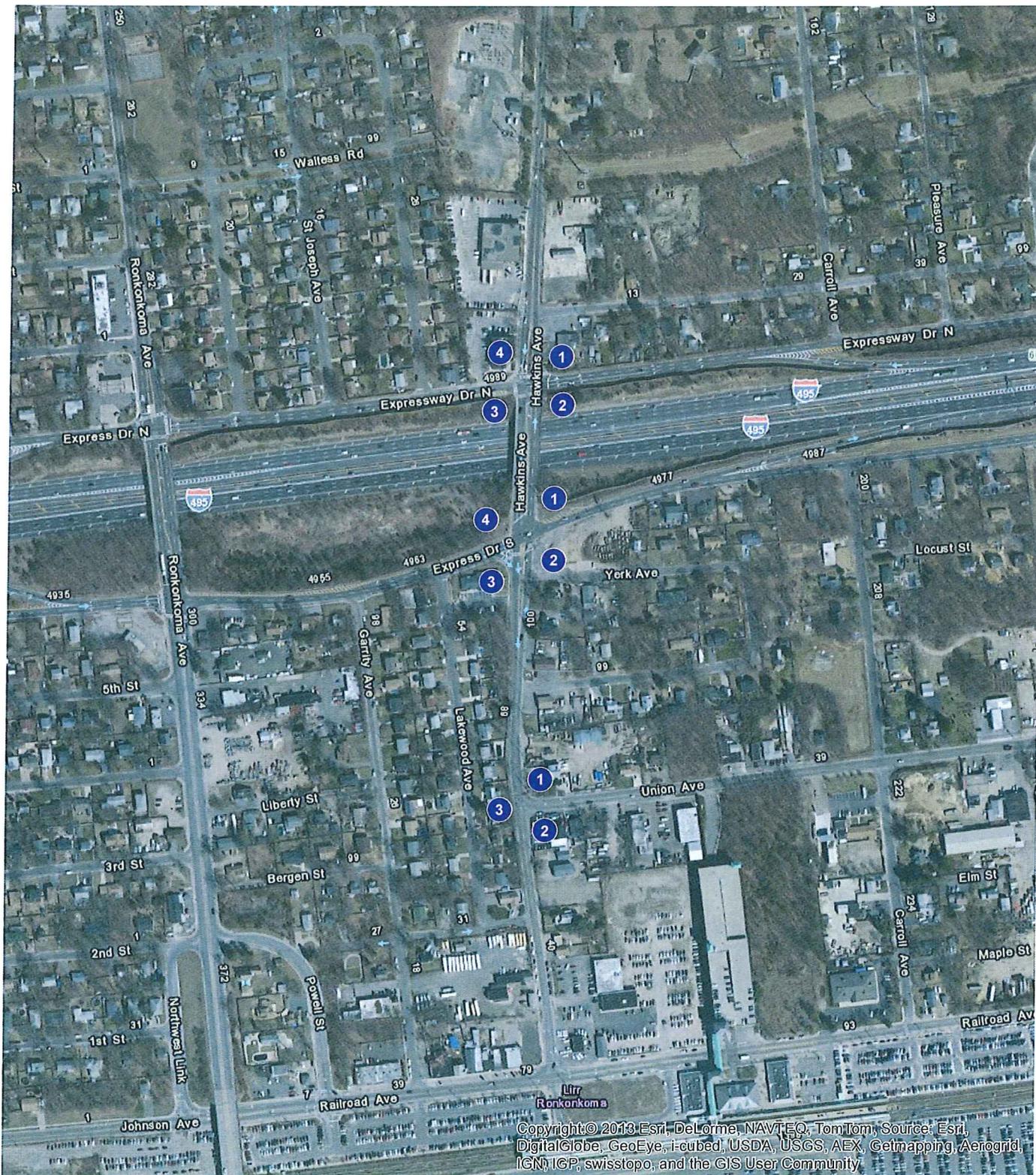
The following intersections were included in the analysis because they represent the most congested intersections that are most likely to be affected by project-related traffic in the study area. Figure 15 presents the air quality study intersections and the corresponding receptor locations.

- LIE North Service Road at Hawkins Avenue
- LIE South Service Road at Hawkins Avenue
- Hawkins Avenue at Union Avenue

The microscale analysis calculated maximum one-hour and eight-hour CO concentrations in the project area during the peak CO season (winter). The analysis also calculated the 24-hour and annual PM_{2.5} concentrations as well as the 24-hour PM₁₀ concentrations. The EPA's computer model CAL3QHC28 Version 2 was used to predict CO and PM concentrations for each intersection. CAL3QHC predicts CO and PM concentrations from vehicles in travel lanes and queues at intersections based upon analysis contained in the traffic analysis.

▼
²⁷ *Guideline for Modeling Carbon Monoxide from Roadway Intersection*, United States Environmental Protection Agency, Office of Air Quality Planning and Standards, EPA-454/R-92-005, November 1992.

²⁸ *User's Guide to CAL3QHC Version 2.0: A Modeling Methodology for Predicting Pollutant Concentrations Near Roadway Intersections*, US Environmental Protection Agency, Office of Air Quality Planning and Standards, Technical Support Division; Research Triangle Park, NC; EPA 454/R 92 006; November 1992.



VHB Engineering, Surveying and Landscape Architecture, P.C.



Figure 15
Microscale Receptors

Legend

Microscale Receptor

Ronkonkoma Hub
Transit-Oriented Development



Data Sources: VHB Field Surveys

Receptor locations were selected near the key intersections based upon areas where the public has access. The intersection receptors were placed at the edge of the roadway, but not closer than ten feet (three meters) from the nearest travel lane, as required by the USEPA. The receptor locations are presented in Figure 15. The results calculated at these receptor locations represent the highest concentrations at each intersection. Receptor locations farther away from the intersections will have lower concentrations because of the CO and PM dispersion characteristics. The receptor locations that are along other roadways in the study area are also expected to have lower CO and PM concentrations than the receptor locations at the intersection. The emission rates for vehicles traveling along these roadways are much lower than the emission rates for vehicles queuing at intersections.

The one-hour CO concentrations were calculated directly using the USEPA computer model, with evening peak hour traffic and emission data. The eight-hour CO concentrations were derived by applying a persistence factor of 0.70 to the one-hour CO concentrations. It represents the average ratio of second highest eight-hour to second highest one-hour based on the evaluation CO monitoring data.

The PM₁₀ and PM_{2.5} concentrations were calculated directly using the USEPA computer model, with evening peak hour traffic and emission data. The emission factors were obtained from the NYSDOT EPM Attachment A, MOBILE6.2 PM₁₀/PM_{2.5} Emission Factors. The 24-hour PM₁₀ and PM_{2.5} concentrations were derived by applying a factor of 0.40 to the resulting CAL3QHC model calculations. The annual PM_{2.5} concentrations were derived by applying a factor of 0.08 to the PM_{2.5} concentrations.

The results of the microscale analysis for CO, PM₁₀ and PM_{2.5} under the existing conditions are shown in Tables 28 through 30 in Section 3.6.2. The CAAA resulted in states being divided into attainment and non-attainment areas, with classifications based upon the severity of their air quality problems. The proposed project is located in Suffolk County, which is an attainment area for CO and PM₁₀ and non-attainment for PM_{2.5} (for the 2007 standard) as of June 7, 2010.

The microscale analysis determined that the one-hour CO concentrations for the 2013 Existing Condition ranged from a minimum of 3.8 parts per million (ppm) at the intersection of LIE South Service Road at Hawkins Avenue to a maximum of 4.7 ppm at the same intersection, as well as, the intersection of Hawkins Avenue at Union Avenue. The corresponding maximum eight-hour CO concentrations ranged from a minimum of 2.0 ppm to a maximum of 2.6 ppm. The microscale CO results are presented in Table 30 (presented below). All the one-hour and eight-hour concentrations are below the CO NAAQS of 35 and 9 ppm, respectively. These values are consistent with the area's designation as a CO Attainment area.

The microscale analysis determined that the 24-hour PM₁₀ concentrations for the 2013 Existing Condition resulted in a minimum of 46.1 micrograms per cubic meter (ug/m³) at the intersections of LIE South Service Road at Hawkins Avenue and

Hawkins Avenue at Union Avenue. The maximum 24 hour PM₁₀ concentration of 46.9 ug/m³ was found at each of the three intersections analyzed. The microscale PM₁₀ results are presented in Table 31 (presented below). All concentrations are below the PM₁₀ NAAQS of 150 ug/m³. These values are consistent with the area's designation as a PM₁₀ attainment area.

The microscale analysis determined that the 24-hour PM_{2.5} concentrations for the 2013 Existing Condition resulted in a minimum of 23.5 ug/m³ at the intersections of the LIE South Service Road at Hawkins Avenue and Hawkins Avenue at Union Avenue. The maximum 24 hour PM₁₀ concentration of 23.9 ug/m³ was found at each of the three intersections analyzed. The maximum annual PM_{2.5} concentrations ranged from a minimum of 8.6 ug/m³ to a maximum of 8.7 ug/m³. The microscale PM_{2.5} results are presented in Table 30. All the 24-hour and annual concentrations are below the PM_{2.5} NAAQS of 35 and 15 ug/m³, respectively within this PM_{2.5} non-attainment area.

3.6.2 Potential Impacts

The following outlines the results of the microscale analysis results for CO, PM_{2.5} and PM₁₀. The project temporary construction emissions and associated mitigation are also discussed.

Carbon Monoxide Microscale Results

The results of the microscale analysis demonstrate that all the CO concentrations for the 2020 No-Build, Build and Build with Improvements Scenarios would be below the one-hour and eight-hour CO NAAQS. Specifically, the results of the microscale analysis indicate that, under future No-Build Conditions, the predicted CO concentrations at the receptor locations are below predicted concentrations for the 2013 Existing Condition. These reductions in CO concentrations can be attributed primarily to more efficient vehicles with enhanced emissions control technologies as mandated by the Federal Motor Vehicle Exhaust Emissions Control Program for new vehicles entering the fleet.

All the one-hour and eight-hour concentrations are below the CO NAAQS of 35 and 9 ppm, respectively. The maximum predicted one-hour and eight-hour CO concentrations for the Existing Conditions, the 2020 No-Build, Build and Build with Improvements Scenarios are presented in Table 30.

Table 30 – Predicted Maximum CO Concentrations (Parts Per Million)

| Intersection ^{2,3} | 2013 | | 2020 | | 2020 | | 2020 | |
|---|--------------------------------|----------------------------------|-------------------|---------------------|-------------------|---------------------|-----------------------|---------------------|
| | Existing | | No-Build | | Build | | Build with Mitigation | |
| | One-Hour ¹
(ppm) | Eight-Hour ¹
(ppm) | One-Hour
(ppm) | Eight-Hour
(ppm) | One-Hour
(ppm) | Eight-Hour
(ppm) | One-Hour
(ppm) | Eight-Hour
(ppm) |
| LIE North Service Road at Hawkins Avenue | | | | | | | | |
| Receptor 1: NE Corner/Residential | 4.2 | 2.3 | 4.2 | 2.3 | 4.3 | 2.3 | 4.1 | 2.2 |
| Receptor 2: SE Corner/Open Space | 4.3 | 2.3 | 4.3 | 2.3 | 4.3 | 2.3 | 4.0 | 2.1 |
| Receptor 3: SW Corner/Open Space | 4.2 | 2.3 | 4.0 | 2.1 | 4.1 | 2.2 | 4.0 | 2.1 |
| Receptor 4: NW Corner/Office Building | 4.1 | 2.2 | 4.0 | 2.1 | 4.1 | 2.2 | 4.1 | 2.2 |
| LIE South Service Road at Hawkins Avenue | | | | | | | | |
| Receptor 1: NE Corner/Open Space | 4.4 | 2.4 | 4.2 | 2.3 | 4.3 | 2.3 | 4.1 | 2.2 |
| Receptor 2: SE Corner/Open Space | 4.5 | 2.5 | 4.4 | 2.4 | 4.5 | 2.5 | 4.3 | 2.3 |
| Receptor 3: SW Corner/Office Building | 4.7 | 2.6 | 4.5 | 2.5 | 4.6 | 2.5 | 4.2 | 2.3 |
| Receptor 4: NW Corner/Open Space | 3.8 | 2.0 | 4.0 | 2.1 | 4.1 | 2.2 | 4.0 | 2.1 |
| Hawkins Avenue at Union Avenue | | | | | | | | |
| Receptor 1: NE Corner/Commercial Area | 3.9 | 2.1 | 3.9 | 2.1 | 4.1 | 2.2 | 3.9 | 2.1 |
| Receptor 2: SE Corner/Commercial Building | 3.9 | 2.1 | 4.0 | 2.1 | 4.8 | 2.7 | 4.5 | 2.5 |
| Receptor 3: SW Corner/Residential | 4.7 | 2.6 | 4.4 | 2.4 | 4.5 | 2.5 | 4.1 | 2.2 |

- 1 The concentrations are expressed in parts per million (ppm). One-hour concentrations included a background concentration of 3.4 ppm. Eight-hour concentrations included a background concentration of 1.7 and a persistence factor of 0.7. The one-hour and eight-hour NAAQS for CO is 35 ppm and 9 ppm, respectively.
- 2 The air quality study assumes that if these intersections meet the NAAQS, then all other intersections, which will have lower volumes and better levels of service, can be assumed to also meet the NAAQS.
- 3 See Figure 15 for locations NW= Northwest, NE= Northeast, SE=Southeast, SW=Southwest

Particulate Matter Microscale Results

The results of the microscale analysis demonstrate that all the 24-hour PM₁₀ concentrations for both the 2020 No-Build, Build and Build with Improvements Scenarios are below the 24-hour NAAQS for PM₁₀. Specifically, the results of the microscale analysis indicate that, under future No-Build Conditions, the predicted PM₁₀ concentrations at the receptor locations are below predicted concentrations for the 2013 Existing Condition. Similar to the CO concentrations, these reductions in PM₁₀ concentrations can be attributed primarily to more efficient vehicles with enhanced emissions control technologies as mandated by the Federal Motor Vehicle Exhaust Emissions Control Program for new vehicles entering the fleet.

All of the 24-hour PM₁₀ concentrations are well below the NAAQS for PM₁₀ of 150 µg/m³. The air quality study assumes that if these intersections meet the NAAQS, then all other intersections, regardless of alternative, which will have lower volumes and better levels of service, can be assumed to also meet the NAAQS. These values include an ambient background PM₁₀ value of 45.3 µg/m³ and are

consistent with the area's designation as a PM₁₀ attainment area. The maximum predicted 24-hour PM₁₀ concentrations for the Existing Conditions, the 2020 No-Build, Build and Build with Improvements Scenarios are presented in Table 31.

In addition, Table 32 presents the maximum predicted 24-hour and annual maximum PM_{2.5} concentrations for the Existing Conditions, the 2020 No-Build, Build and Build with Improvements Scenarios.

Table 31 – Predicted Maximum PM₁₀ Concentrations

| Intersection ^{2,3} | 2013 | 2020 | 2020 | 2020 |
|---|---|------------------------------|------------------------------|------------------------------|
| | Existing | No-Build | Build | Build with Mitigation |
| | 24-Hour ¹ (µg/m ³) | 24-Hour (µg/m ³) | 24-Hour (µg/m ³) | 24-Hour (µg/m ³) |
| LIE North Service Road at Hawkins Avenue | | | | |
| Receptor 1: NE Corner/Residential | 46.9 | 46.5 | 46.5 | 46.5 |
| Receptor 2: SE Corner/Open Space | 46.5 | 46.5 | 46.5 | 46.5 |
| Receptor 3: SW Corner/Open Space | 46.5 | 46.5 | 46.5 | 46.5 |
| Receptor 4: NW Corner/Office Building | 46.5 | 46.5 | 46.5 | 46.5 |
| LIE South Service Road at Hawkins Avenue | | | | |
| Receptor 1: NE Corner/Open Space | 46.9 | 46.9 | 46.9 | 46.9 |
| Receptor 2: SE Corner/Open Space | 46.9 | 46.9 | 46.9 | 46.9 |
| Receptor 3: SW Corner/Office Building | 47.3 | 46.9 | 46.1 | 46.9 |
| Receptor 4: NW Corner/Open Space | 46.1 | 46.1 | 46.1 | 46.1 |
| Hawkins Avenue at Union Avenue | | | | |
| Receptor 1: NE Corner/Commercial Area | 46.1 | 46.1 | 46.5 | 46.1 |
| Receptor 2: SE Corner/Commercial Building | 46.1 | 46.1 | 46.5 | 46.5 |
| Receptor 3: SW Corner/Residential | 46.9 | 46.9 | 46.9 | 46.9 |

- 1 The concentrations are expressed in micrograms per meters cubed (µg/m³) and include a background concentration of 45.3 µg/m³ and a persistence factor of 0.4. The 24-hour NAAQS for PM₁₀ is 150 µg/m³.
- 2 The air quality study assumes that if these intersections meet the NAAQS, then all other intersections, which will have lower volumes and better levels of service, can be assumed to also meet the NAAQS.
- 3 See Figure 15 for locations: NW= Northwest, NE= Northeast, SE=Southeast, SW=Southwest

Table 32 – Predicted Maximum PM_{2.5} Concentrations

| Intersection ^{2,3} | 2013 | | 2020 | | 2020 | | 2020 | |
|---|--|---|---------------------------------|--------------------------------|---------------------------------|--------------------------------|---------------------------------|--------------------------------|
| | Existing | | No-Build | | Build | | Build with Mitigation | |
| | 24-Hour ¹
(µg/m ³) | Annual ¹
(µg/m ³) | 24-Hour
(µg/m ³) | Annual
(µg/m ³) | 24-Hour
(µg/m ³) | Annual
(µg/m ³) | 24-Hour
(µg/m ³) | Annual
(µg/m ³) |
| LIE North Service Road at Hawkins Avenue | | | | | | | | |
| Receptor 1: NE Corner/Residential | 23.9 | 8.7 | 23.9 | 8.7 | 23.9 | 8.7 | 23.5 | 8.6 |
| Receptor 2: SE Corner/Open Space | 23.9 | 8.7 | 23.9 | 8.7 | 23.9 | 8.7 | 23.5 | 8.6 |
| Receptor 3: SW Corner/Open Space | 23.9 | 8.7 | 23.9 | 8.7 | 23.9 | 8.7 | 23.5 | 8.6 |
| Receptor 4: NW Corner/Office Building | 23.9 | 8.7 | 23.9 | 8.7 | 23.9 | 8.7 | 23.5 | 8.6 |
| LIE South Service Road at Hawkins Avenue | | | | | | | | |
| Receptor 1: NE Corner/Open Space | 23.9 | 8.7 | 23.9 | 8.7 | 23.9 | 8.7 | 23.9 | 8.7 |
| Receptor 2: SE Corner/Open Space | 23.9 | 8.7 | 23.9 | 8.7 | 23.9 | 8.7 | 23.9 | 8.7 |
| Receptor 3: SW Corner/Office Building | 23.9 | 8.7 | 23.9 | 8.7 | 23.9 | 8.7 | 23.9 | 8.7 |
| Receptor 4: NW Corner/Open Space | 23.5 | 8.6 | 23.5 | 8.6 | 23.5 | 8.6 | 23.5 | 8.6 |
| Hawkins Avenue at Union Avenue | | | | | | | | |
| Receptor 1: NE Corner/Commercial Area | 23.5 | 8.6 | 23.5 | 8.6 | 23.5 | 8.6 | 23.5 | 8.6 |
| Receptor 2: SE Corner/Commercial Building | 23.5 | 8.6 | 23.9 | 8.7 | 23.5 | 8.6 | 23.9 | 8.7 |
| Receptor 3: SW Corner/Residential | 23.9 | 8.7 | 23.9 | 8.7 | 23.9 | 8.7 | 23.9 | 8.7 |

- 1 The concentrations are expressed in micrograms per meters cubed (µg/m³). 24-hour concentrations include a background concentration of 23.1 µg/m³ and a persistence factor of 0.4. Annual concentrations included a background concentration of 8.5 µg/m³ and a persistence factor of 0.08. The 24-hour and annual NAAQS for PM_{2.5} are 35 µg/m³ and 15 µg/m³ respectively.
- 2 The air quality study assumes that if these intersections meet the NAAQS, then all other intersections, regardless of alternative, which will have lower volumes and better levels of service, can be assumed to also meet the NAAQS.
- 3 See Figure 15 for locations: NW= Northwest, NE= Northeast, SE=Southeast, SW=Southwest

Stationary Source Assessment

Upon redevelopment, the Ronkonkoma Hub area will include stationary sources, such as heating boilers, hot water heaters, and emergency generators. Because project is conceptual in nature, design, the size and number of the stationary sources have not yet been finalized. As these stationary sources move ahead in the design process, the proposed development will obtain operating permits for appropriate equipment under the State of NYSDEC Division of Air Resources (DAR) regulations (6 NYCRR Part 201), as may be required. The NYSDEC DAR regulatory process will ensure that these emission sources meet the NAAQS.

Temporary Construction-Related Emissions

Construction and demolition activities associated with redevelopment in accordance with the Maximum Density Concept Plan will result in a slight, short-term increase in air pollution emissions. The primary source of potential emissions is from fugitive dust resulting from construction operations (e.g., clearing, grading). Fugitive dust consists of soil particles that become airborne when disturbed by heavy equipment operations or through wind erosion of exposed soil after groundcover is removed.

To minimize fugitive dust emissions, as described below, mitigation measures will be employed to control dust. This construction-related air-quality impact (i.e., fugitive dust) would be of relatively short duration. Also, during construction, emission controls from construction vehicles and machinery would include proper maintenance and reduced idling on-site. Therefore, the impacts on ambient air quality from construction activities associated with site-specific development are not expected to be significant.

Overall, air quality in the Ronkonkoma Hub area would not be expected to be substantially affected by redevelopment because of emission control procedures and the temporary nature of construction activities. Emissions from the operation of construction machinery (carbon monoxide [CO], nitrogen oxides [NO_x], particulate matter [PM], volatile organic compounds [VOCs], and greenhouse gases) are short-term and not generally considered substantial. With the implementation of the following mitigation measures to minimize construction-related air quality impacts, no significant adverse impacts would be expected.

- During construction within the Ronkonkoma Hub area, emission controls for construction vehicle emissions would be employed and will include, as appropriate, proper maintenance of all motor vehicles, machinery, and equipment associated with construction activities, such as, the maintenance of manufacture's muffler equipment or other regulatory-required emissions control devices.
- Parcels to be developed or redeveloped will implement dust control measures during dry or windy periods. The appropriate methods of dust control would be determined by the surfaces affected (i.e., roadways or disturbed areas) and would include, as necessary, the application of water, the use of stone in construction roads, and vegetative cover.
- Regular sweeping of pavement of adjacent roadway surfaces during construction will be conducted to minimize the potential for vehicular traffic to create airborne dust and particulate matter.

3.6.3 Proposed Mitigation

In order to mitigate air quality impacts associated with construction, the following measures are proposed: use of emission controls on construction vehicles, dust control and regular sweeping of pavements (see Section 3.6.2, above).

With respect to long-term operations, the calculations of future air quality levels represent cumulative impacts from traffic growth over time. The results of the air quality study demonstrate that the implementation of the proposed action is not expected to result in violations of the NAAQS. Therefore, since no instances wherein

NAAQS standards will be exceeded are anticipated and no adverse impacts from traffic or the various project components associated with the Maximum Density Concept Plan are expected, no specific mitigation is required.

Moreover, the overall TOD project goals, which would reduce vehicular demand and, therefore, reduce air quality impacts include:

- Redirected growth to the Ronkonkoma HUB area, which is already served by existing infrastructure
- Expanded transportation choices to reduce automobile dependence
- Reduced vehicle trips around the station
- Compact, mixed-use, transit-accessible, pedestrian-oriented redevelopment

Thus, the overall impact of the implementation of the TOD would assist in reducing the potential for air quality impacts usually associated with large-scale development.

It should be noted that site-specific applications for development may be subject to air discharge permit requirements for fossil fuel burning emission sources, such as heating boilers and emergency diesel generators. Air regulations in the area of the Ronkonkoma Hub area are administered through and enforced by the NYSDEC, and thus, all site-specific applications involving such systems would be subject to the review and permitting of the NYSDEC.

3.7 Noise

3.7.1 Existing Conditions

Background

As indicated in Section 3.7 of the DGEIS, noise is defined as unwanted or excessive sound. Sound becomes unwanted when it interferes with normal activities such as sleep, work, or recreation. The individual human response to noise is subject to considerable variability since there are many emotional and physical factors that contribute to the differences in reaction to noise.

Sound (noise) is described in terms of loudness, frequency, and duration. Loudness is the sound pressure level measured on a logarithmic scale in units of decibels (dB). For community noise impact assessment, sound level frequency characteristics are based upon human hearing, using an A-weighted (dBA) frequency filter. The A-weighted filter is used because it approximates the way humans hear sound. Common indoor and outdoor sound levels are shown in Table 11 of the DGEIS.

Sound level data can be presented in statistical terms to help describe the noise environment. A near infinite variation in sound levels (various intensities and temporal patterns) can be combined into the same value. The equivalent sound level, or L_{eq} , is used as the monitoring and modeled sound level descriptor. The L_{eq} averages the background sound levels with short-term transient sound levels and provides a uniform method for comparing sound levels that vary over time.

The following general relationships exist between noise levels and human perception:

- A one or two dBA increase is not perceptible to the average person
- A three-dBA increase is a doubling of acoustic energy, but is just barely perceptible to the human ear
- A 10-dBA increase is a tenfold increase in acoustic energy, but is perceived as a doubling in loudness to the average person

FHWA and NYSDOT Impact Criteria

Implementation of the proposed action will result in both vehicular traffic and building operation noise sources. The vehicular traffic sound levels will be compared to the Federal Highway Administration (FHWA) and the NYSDOT noise impact criteria and the building operations will be compared to the Town of Brookhaven's noise impact criteria, as described below.

Traffic noise can adversely affect human activities, such as communication and concentration. The FHWA has established Noise Abatement Criteria (NAC) to help protect the public health and welfare from excessive vehicular traffic noise. Recognizing that different areas are sensitive to noise in different ways, the NAC varies according to land use. The NAC are described in Table 33.

Table 33 – Noise Abatement Criteria, One-Hour A-Weighted Sound Levels in Decibels (dBA)

| Activity Category | Leq(h)* | Description of Activity Category |
|-------------------|---------------|--|
| A | 57 (Exterior) | Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purposes. |
| B | 67 (Exterior) | Picnic areas, recreation areas, playgrounds, active sports areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals. |
| C | 72 (Exterior) | Developed lands, properties, or activities not included in Categories A or B above. |
| D | -- | Undeveloped lands |
| E | 52 (Interior) | Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums. |

Source: 23 CFR Part 772, Procedures for Abatement of Highway Traffic Noise and Construction Noise.

*L_{eq}(h) is energy averaged, one-hour, A-weighted sound level in decibels (dBA).

The NYSDOT has developed noise impact criteria that establish noise thresholds deemed to result in adverse impacts for transportation from motor vehicles and non-highway projects such as building mechanical equipment. It has also established technical procedures for evaluating sound levels and potential impacts from proposed projects. The NYSDOT guidelines, presented in Table 34, set forth appropriate sound levels based upon the contemplated land uses within the Ronkonkoma Hub area.

Table 34 – NYSDOT Noise Impact Criteria

| Activity Category | Noise Impact Criteria |
|-------------------------|---|
| Overall Sound Level | Approach within one decibel of NAC. |
| Transportation Projects | Project increases of six (6) or more decibels |
| Non-highway Projects | Project increases of three (3) or more decibels |

Source: New York State Department of Transportation, Environmental Procedure Manual, Chapter 3.1 August 1998.

The NYSDOT endorses the FHWA's procedures and considers adverse noise impacts to occur when existing or future sound levels approach (within one dBA) or exceed the NAC, or when future sound levels exceed the highest existing sound levels by six dBA or more. For non-highway projects (building mechanical equipment), adverse

noise impacts are considered to occur when the future sound levels exceed the existing sound levels by three dBA or more. These guidance criteria are the recommended maximum levels for identifying locations that may be affected by noise and are more stringent than FHWA criteria, which considers future sound level increases of 10 dBA as a noise impact.

Town of Brookhaven Noise Code

The Town of Brookhaven has adopted a noise code, which regulates noise levels from different sources. Section 50-5 of the Town of Brookhaven Town Code states that:

“no person shall cause, suffer, allow or permit the operation of any source of sound on a particular category of property or any public land or right-of-way in such a manner as to create a sound level that exceeds the particular sound level limits set forth in Table 1 [reproduced as Table 35 herein] when measured at or within the real property line of the receiving property, except those acts specifically prohibited in Chapter §50-6 for which no measurement of sound is required.”

Table 35 – Town of Brookhaven Noise Criteria: Maximum Permissible A-Weighted Sound Pressure Levels by Receiving Property Category (dBA)

| Sound Source
Property Category | Receiving Property Category | | | | | |
|---|---|---------------------------|---------------------------|---------------------------|------------|------------|
| | Another Apartment Within
Multi-dwelling Building | | Residential | | Commercial | Industrial |
| | 7:00 AM
to
10:00 PM | 10:00 PM
to
7:00 AM | 7:00 AM
to
10:00 PM | 10:00 PM
to
7:00 AM | All Times | All Times |
| Apartment within
multidwelling
building | 45 | 40 | 55 | 50 | 65 | 75 |
| Residential | -- | -- | 55 | 50 | 65 | 75 |
| Commercial or
public lands or
rights-of-way
Industrial | -- | -- | 65 | 50 | 65 | 75 |
| Industrial | -- | -- | 65 | 50 | 65 | 75 |

Source: Chapter 50, Attachment 1 Town of Brookhaven Code (Table I)

The noise analysis assumes that the sound data represents sound pressure levels. The noise analysis uses A-weighted decibels to evaluate project-related sound levels because it approximates the way humans hear sound and is the typical unit used to evaluate public noise exposure.

Existing Noise Levels

The analysis of existing noise levels, as presented in the 2010 DGEIS, provides the basis for discussion of noise impacts in this DSGEIS. As noted in the 2010 DGEIS, the existing noise levels within the Ronkonkoma Hub area were evaluated to determine the ambient noise environment. The noise monitoring was conducted as part of the preparation of the DGEIS during the peak morning commuting hours (6:00 a.m. to 10:00 a.m.). These measurements were conducted in conformance with the FHWA noise monitoring guidelines. The existing sound levels were measured using a Type 1 sound analyzer (Larson-Davis model 824). Monitoring data was collected at five locations within the Ronkonkoma Hub area (see Figure 16), as follows:

1. LIRR West Parking Lot ("M1")
2. LIRR East Parking Lot ("M2")
3. Hawkins Avenue and Railroad Avenue ("M3")
4. Mill Road and Union Avenue ("M4")
5. Union Avenue and Carroll Avenue ("M5")

These five monitoring locations were determined based on the planned land uses.²⁹

▼
²⁹ The Ronkonkoma Hub area includes the westernmost MTA parking lot (in which M1 is located), although development is not proposed in that location in the Maximum Density Concept Plan.



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Figure 16
Noise Monitoring Locations Map

Ronkonkoma Hub
Transit-Oriented Development

- Legend**
- Study Area
 - # Noise Monitoring Location
 - 1 West Parking Lot
 - 2 East Parking Lot
 - 3 Hawkins Avenue and Railroad Avenue
 - 4 Mill Road and Railroad Avenue
 - 5 Union Avenue and Carroll Avenue



Data Sources: VHB Field Survey

The measured sound level data under existing conditions was dominated by roadway noise. Intermittent train activity affected noise levels. As indicated in Table 36, the average Leq sound levels at the monitoring locations ranged from 60 dBA to 69 dBA during the daytime period.

Table 36 – Average Existing Noise Monitoring (Baseline) Sound Levels (dBA)

| Receptor Location | Max | Min | Daytime Noise (Leq)
6:00 AM to 10:00 AM |
|---|------|------|--|
| M1 – West Parking Lot | 83.1 | 51.5 | 68 |
| M2 – East Parking Lot (south of Mill Road at Railroad Avenue) | 82.3 | 48.1 | 60 |
| M3 – Hawkins Avenue and Railroad Avenue | 84.7 | 55.3 | 69 |
| M4 – Mill Road and Union Avenue | 85.1 | 54.5 | 69 |
| M5 – Union Avenue and Carroll Avenue | 82.3 | 52.8 | 69 |

LIRR West Parking Lot (M1)

Noise was monitored at M1 from 6:32 a.m. to 7:02 a.m. Noise observed at M1 can be attributed to a combination of parking lot activity, noise from traffic along Railroad Avenue and County Road 29, people talking, and noise generated by passing trains. Train activity that generated noise (i.e., arriving trains, departing trains and passing trains) occurred at 6:35 a.m. (arriving), 6:39 a.m. (departing), 6:47 a.m. (passing), and 6:56 a.m. (passing). The maximum ambient sound pressure level produced from train activity at M1 was 71± dBA. The maximum ambient sound pressure level observed at M1 was 83.1 dBA, which was attributed to a passing truck on County Road 29. The minimum ambient sound pressure level observed at M1 was 51.5 dBA. The average ambient sound pressure level observed at M1 was 68.1 dBA, which is comparable to the noise expected when standing on a sidewalk next to a roadway.

LIRR East Parking Lot (M2)

Noise was monitored at M2 from 7:26 a.m. to 7:56 a.m. Noise observed at M2 can be attributed to a combination of parking lot activity and noise generated by passing trains. Train activity that generated noise (i.e., arriving trains, departing trains and passing trains) occurred at 7:31 a.m. (arriving) and 7:51 a.m. (arriving). No noise was observed related to the departure of either of these trains. The maximum ambient sound pressure level observed at M2 was 82.3 dBA, which was attributed to the arrival of a train at 7:31 a.m. The minimum ambient sound pressure level observed at M2 was 48.1 dBA. The average ambient sound pressure level observed at M2 was 60.3 dBA, which is typical of a suburban commercial area. The average noise level at M2 is significantly lower than at the four other monitoring locations as it does not include noise produced by traffic from surrounding roadways (e.g., no roadways exist proximate to M2).

Hawkins Avenue and Railroad Avenue (M3)

Noise was monitored at M3 from 8:05 a.m. to 8:35 a.m. Noise observed at M3 can be attributed to surrounding development, traffic along Hawkins Avenue and Railroad Avenue, buses servicing the Ronkonkoma Train Station and train activity. The maximum ambient sound pressure level observed at M3 was 84.7 dBA, which was produced by a passing truck on Railroad Avenue. While train activity (an arriving train at 8:27 a.m. and departing at 8:31 a.m.) did generate some noise, noise attributed to train activity was well below the level of noise produced by passing trucks and buses. The minimum ambient sound pressure level observed at this location was 55.3 dBA. The average ambient sound pressure level observed at this location was 69 dBA, which is a typical sound level along a roadway.

Mill Road and Union Avenue (M4)

Noise was monitored at M4 from 8:50 a.m. to 9:20 a.m. Noise observed at M4 was entirely related to surrounding development and traffic along Union Avenue and Mill Road. No noise associated with the LIRR operations was observed from this location. The maximum ambient sound pressure level observed at this location was 85.1 dBA, which was produced by a passing truck. The minimum ambient sound pressure level observed at this location was 54.5 dBA. The average ambient sound pressure level observed at this location was 69 dBA, which is a typical sound level along a roadway.

Union Avenue and Carroll Avenue (M5)

Noise was monitored at M5 from 9:28 a.m. to 9:58 a.m. Noise observed at M5 was entirely related to surrounding development and traffic along Union Avenue and Carroll Avenue. No noise associated with the LIRR operations was observed from this location. The maximum ambient sound pressure level observed at this location was 82.3 dBA, which was produced by a passing truck. The minimum ambient sound pressure level observed at this location was 52.8 dBA. The average ambient sound pressure level observed at this location was 69 dBA, which is a typical sound level along a roadway.

The sound level results for monitoring locations M1, M3, M4 and M5 reflect nearby traffic and intermittent rail activity. These sound levels are typical for an urbanized area located adjacent to major roadways and a rail line.

3.7.2 Potential Impacts

Introduction

The noise impact analysis considered the mobile and stationary source sound levels to determine the potential change in the existing sound levels for sensitive locations

on and in the vicinity of the Ronkonkoma Hub area. The mobile and stationary source noise analysis typically evaluates daytime and nighttime sound levels. The future No Build and Maximum Density Concept Plan (Build) sound levels include cumulative impacts from traffic growth over time and increases in traffic from the proposed development and significant other projects in the study area.

The Ronkonkoma Hub is located in an area where the existing noise environment is largely affected by sound levels from vehicular traffic on surrounding roadways (the Long Island Expressway, LIE North and South Service Roads, Hawkins Avenue, Ronkonkoma Avenue, Railroad Avenue/Mill Road, Union Avenue, other local roadways), commercial activities, the Islip MacArthur Airport, and the Long Island Rail Road.

Mobile Sources

The NYSDOT requires that the proposed action not approach (within one dBA) or exceed the NAC criteria of 66 dBA for a one-hour period and that it not increase sound levels by more than six dBA above existing sound levels. As indicated in Section 3.7 of this DGEIS, monitoring locations M3, M4 and M5 currently experience sound levels that are equal to or exceed the NYSDOT/FHWA highway criteria of 66 dBA or the Town of Brookhaven criteria of 65 dBA (for Residential). The noise levels at these three monitoring locations largely reflect roadway noise, with intermittent rail activity.

It is noted, however, that roadway sound levels are a function of traffic volumes and vehicle speeds. Although traffic volumes on the roadways within the Ronkonkoma Hub area are projected to increase under the Build condition, it is not expected that the proposed action would increase noise levels by more than six dBA above existing noise levels. In fact, it is expected that based on the potential increase in traffic volumes, the Build Condition sound levels will likely remain unchanged, as compared to the Existing Conditions. As such, it is not expected that the proposed action would result in significant adverse noise impacts.

For applications involving residential components, appropriate noise mitigation measures, including building materials, to mitigate interior noise levels would be employed. The USEPA recommends a residential interior noise impact criterion of L_{dn} 45 dBA. The existing exterior sound levels ranged from 60 to 69 dBA. Appropriate interior noise mitigation could include double pane glass windows, which can attain a 40 to 55 dBA reduction in noise levels.

It should also be noted that, based on consultations with the LIRR, no residential development will be permitted south of Railroad Avenue between Hawkins Avenue and Mill Road. This will help ensure that future residents of the proposed development are not adversely impacted by LIRR operational noise.

Stationary Sources

The proposed action would result in changes in sound levels due to rooftop mechanical equipment and during the nighttime period, which is expected to be the dominant stationary noise source. Properties developed or redeveloped would be required to install rooftop equipment that does not exceed Town noise code standards, and same would be evaluated during site plan review. Such equipment would be located in penthouse rooms and/or enclosures, or would utilize the building height and geometry to create building blockage for receptor locations, and/or install, as necessary to attenuate noise, screening around the externally-located rooftop mechanical equipment.

Thus, no significant adverse noise impacts from stationary sources are anticipated.

Noise Related to Operations

The loading and unloading areas for properties within the Ronkonkoma Hub area will be designed and operated to ensure that there would be no adverse noise impacts to the existing residential receptor locations. The loading and service activities for the proposed development would be required to be internally situated or screened from receptor locations to minimize noise associated with loading activities; thus, resulting in no adverse noise impacts to the sensitive receptor locations. In addition, the building operations will be scheduled, to the extent practicable, to minimize nighttime noise impacts.

All uses within the Ronkonkoma Hub area would be subject to compliance with §50-6.B(4) of the Town Code, which states:

"No person shall cause, suffer, allow or permit the following acts:

Loading and unloading: loading, unloading, opening, closing or other handling of boxes, crates, containers, building materials, liquids, garbage cans, refuse or similar objects or the pneumatic or pumped loading or unloading of bulk materials in liquid, gaseous, powder or pellet form or compacting refuse by persons engaged in the business of scavenging or garbage collection, whether private or municipal, between the hours of 10:00 p.m. and 6:00 a.m. and the following day when the latter is a weekday and between the hours of 10:00 p.m. and 7:00 a.m. the following day when the latter is on a holiday, except by permit, when the sound there from creates a noise disturbance across a residential real property line."

As such, required compliance with the Town's noise ordinance will minimize the potential for significant adverse noise impacts from facility operations.

Construction-Related Noise

The Town of Brookhaven's noise code was used as guidance for construction-related noise evaluation. Section 50-6.B(7) of the Town Code states:

"No person shall cause, suffer, allow or permit the following acts:

Construction: operating or permitting the operation of any tools or equipment used in construction, drilling, earth moving, excavating or demolition work between the hours of 6:00 p.m. and 7:00 a.m. the following day on weekdays or at any time on weekends or legal holidays,"

The NYSDOT has established procedures for evaluating sound levels and potential impacts from construction of proposed projects. These procedures state that "construction noise impact will not normally occur at levels under $L_{eq} = 80$ dBA."

Construction period activities may temporarily increase nearby sound levels due to demolition and regrading activities, and the intermittent use of machinery during the construction of the project. The Town's noise code prohibits construction between the hours of 6:00 p.m. and 7:00 a.m. All exterior construction activities, such as site excavation/grading and new building construction activities would be limited to the hours of 7:00 a.m. to 6:00 p.m., as specified in the Town of Brookhaven's Noise Code. All of the daytime construction sound levels are expected to be below 80 dBA. Sound levels would be evaluated at each phase of construction to determine if additional construction noise mitigation measures are necessary.

Equipment likely to be used during each phase of construction include impact pile drivers, front end loaders, grader, bull dozers, backhoes, dump trucks, concrete mixer trucks, concrete pump trucks, cranes, flatbed trucks, pavement scarifier, pavers, and pick-up trucks. However, due to the urbanized nature of the Ronkonkoma Hub area, the study area is not anticipated to experience a noticeable change in sound levels (three dBA or more) from their existing daytime levels due to construction activities.

In summary, the noise impact analysis considered the impacts of the mobile and stationary source impacts of Maximum Density Concept Plan redevelopment within the Ronkonkoma Hub area. The redevelopment of properties, with appropriate mitigation measures, is not anticipated to result in long term adverse noise impacts. In the short term, construction noise is expected to result in temporary increases in ambient noise at some sensitive receptor locations. The future sound levels represent the total sound levels that are expected to occur in the study area and are expected to meet the Town of Brookhaven, NYSDOT, and FHWA noise impact criteria. Moreover, to minimize the potential for residents within the proposed development to be affected by LIRR operational noise, no residential will be permitted south of Railroad Avenue between Hawkins Avenue and Mill Road.

3.7.3 Proposed Mitigation

In order to minimize noise impacts to the maximum extent practicable, the following mitigation measures have been proposed:

- To minimize the potential for residents within the proposed development to be affected by LIRR operational noise, no residential development will be permitted south of Railroad Avenue between Ronkonkoma Avenue and Mill Road.
- Parcels developed or redeveloped with residential land use components should implement mitigation strategies such that interior noise levels do not exceed 45 dBA. Mitigation measures that may be employed to achieve this goal include the following:
 - Use of double-paned glass windows
 - Providing laminating on both layers of window glazings
 - Providing a wider airspace between window panels
 - Upgrading building exterior massing, where necessary and practicable
- Parcels developed or redeveloped would be required to install rooftop equipment that does not exceed Town noise code standards, and same would be evaluated during site plan review. Such equipment would be located in penthouse rooms and/or enclosures, or would utilize the building height and geometry to create building blockage for receptor locations, and/or install, as necessary to attenuate noise, screening around the externally-located rooftop mechanical equipment.
- Loading and service activities on parcels to be developed or redeveloped will be internally situated or screened to minimize noise associated with loading activities from the surrounding residential areas.
- Construction equipment would be required to have appropriate noise muffler systems. Excessive idling of construction equipment engines would be prohibited.

3.8 Socioeconomics

3.8.1 Existing Conditions

Market Analysis

As part of the DGEIS, BBP LLC performed a market analysis to review trends in the residential, retail and office markets in order to identify opportunities for development in the Ronkonkoma Hub area. The market analysis was developed through the completion of several tasks, including:

- Economic and demographic profile – examination of existing and projected demographic and economic factors for the TOD District area and surrounding market areas. These factors are interwoven into the residential, retail and office market analysis sections of this report;
- Residential market analysis – evaluation of demand, supply, and opportunities for transit-oriented housing development (e.g. multifamily dwellings);
- Retail and restaurant market analysis – evaluation of demand, supply and opportunities for various types of retail uses and restaurants;
- Office market analysis – assessment of demand, supply and opportunities for office space to accommodate different types of office-based industries; and
- Analysis of development potential – review of the Draft Land Use Implementation Plan and comparison to market opportunities to identify whether market trends support the concept.

The Market Analysis is included in its entirety in Appendix I of the DGEIS. The key findings for each market component examined are summarized herein.

Residential Market Analysis

- The Ronkonkoma Hub area is situated within a primary and secondary market area: the Towns of Brookhaven and Islip (the primary market) and Suffolk County (the secondary market). It is assumed that the majority of demand for new housing will emerge from the primary market area, with the next largest source of demand coming from the secondary market area.
- The target market of households most likely to prefer multi-family housing near transit includes households earning \$35,000 to \$150,000. This income range includes households that can afford current market rate rents and

purchase prices. The Market Analysis estimates that the majority of demand will emerge from the middle two-thirds of this range (households earning between approximately \$50,000 and \$130,000).

- There were an estimated 337,000 target market households in the primary and secondary study areas in 2009. By 2019, it is projected that nearly 11,000 households will be added in these areas.
- Top tapestry segments (i.e., socioeconomic groups) in the market areas include "Pleasant-ville," "Sophisticated Squires," "Wealthy Seaboard Suburbs," and "Up and Coming Families." These groups are similar in that most households are relatively affluent; consist of married couples; are headed by empty nesters, couples without children, or baby boomers; live in older single-family homes; commute; and enjoy shopping, dining out, and outdoor activities.
- To appeal to the target demographic, new units should offer a broad range of amenities. These include both in-unit amenities (e.g. architecturally distinctive features, private entries, gourmet kitchens, etc.) and community/station area amenities (e.g., convenient services such as child care, pet care, and auto care, as well as destination shops and restaurants).

Retail and Restaurant Market Analysis

- Two classifications of retail goods and services may be offered at the Ronkonkoma Hub area: convenience (e.g., food stores, limited service eating places, etc.) and shoppers goods (e.g., clothing, home furnishings, etc.). The Ronkonkoma Hub area is situated within four associated trade areas: the convenience goods primary trade area (three-mile radius, roughly equal to a five-minute drive), the convenience goods secondary trade area (Suffolk County), the shoppers goods primary trade area (five-mile radius, roughly equal to a ten-minute drive), and the shoppers goods secondary trade area (Suffolk County).
- Retail spending in each trade area is strong and projected to grow as disposable income rises.
- Estimated 2009 retail spending levels on convenience goods were as follows: \$439 million in the convenience goods primary trade area and nearly \$8 billion in the convenience goods secondary trade area. By 2014, these figures are projected to increase to \$463 million in the primary trade area and \$8.6 billion in the secondary trade area.

- In 2009, shoppers goods retail spending levels were as follows: nearly \$1.6 billion in the shoppers goods primary trade area and over \$10.6 billion in the shoppers goods secondary trade area. By 2014, spending is projected to rise to nearly \$1.7 billion in the primary trade area and \$11.4 billion in the secondary trade area.
- Future retail spending could support over 51 million square feet of convenience and shoppers goods retail space in the primary and secondary trade areas (in retail store group categories conducive to downtown development).
- New retailers in the Ronkonkoma Hub area will face competition from other retailers currently located in the trade areas. An analysis of retail leakage was undertaken to understand which categories of retail are underrepresented, as illustrated by retail sales “leaked” beyond the trade area, indicating unmet demand for goods and services (e.g., full-service restaurants, special food services, wine and liquor stores, clothing stores, shoe stores, luggage and leather goods stores, gift stores). Such retail types may offer relatively stronger potential for success in the Ronkonkoma Hub area given their underrepresentation elsewhere.
- Future households, employees and transit riders generated by new development in the study area will offer sources of demand for retail.

Office Market Analysis

- A new or expanding business considering Suffolk County or Long Island is likely to consider Ronkonkoma; therefore the primary and secondary market areas have been defined as Suffolk County and Long Island, respectively.
- Existing office uses are few within the Ronkonkoma Hub area, and represent a very small proportion of the office uses present in Suffolk County and Long Island.
- Top industry clusters in Long Island include: back office and outsourcing; biomedical; communications, software and media services; financial services; front office and producer services; and information technology services.
- Office-based employment and associated demand for office space is projected to grow in Suffolk County and Long Island by 2014.
- Office supply is also projected to grow based on past trends in supply.

- Businesses in growth industries that are compatible with downtown settings should be considered targets for office space in the Ronkonkoma Hub area. Such industries include: real estate, rental and leasing; professional, scientific and technical services; management; and administrative support.

Existing Real Property Tax Revenues

The Ronkonkoma Hub area is comprised of 54 individual tax lots. Based on property data on record in the Town of Brookhaven’s Tax Receiver’s Office, the 54 individual parcels and the structures situated on them represent a total assessed valuation of approximately \$169,160 (see Table 37) and generate a total of approximately \$467,988 in total tax revenues (see Table 38).

Table 37 – Total Assessed Value of Existing Parcels within the Ronkonkoma Hub Area

| No. | Suffolk County Tax Map Number | Assessed Value |
|-----|---------------------------------|----------------|
| 1 | 0200 – 799.00 – 03.00 – 032.000 | \$1,400 |
| 2 | 0200 – 799.00 – 03.00 – 033.001 | \$2,350 |
| 3 | 0200 – 799.00 – 03.00 – 033.002 | \$450 |
| 4 | 0200 – 799.00 – 03.00 – 034.000 | \$800 |
| 5 | 0200 – 799.00 – 03.00 – 035.000 | \$1,700 |
| 6 | 0200 – 799.00 – 03.00 – 036.000 | \$1,700 |
| 7 | 0200 – 799.00 – 03.00 – 037.000 | \$1,710 |
| 8 | 0200 – 799.00 – 03.00 – 038.000 | \$1,700 |
| 9 | 0200 – 799.00 – 03.00 – 039.000 | \$1,340 |
| 10 | 0200 – 799.00 – 03.00 – 040.001 | \$20 |
| 11 | 0200 – 799.00 – 03.00 – 040.002 | \$2,200 |
| 12 | 0200 – 799.00 – 03.00 – 041.000 | \$1,270 |
| 13 | 0200 – 799.00 – 03.00 – 042.000 | \$3,000 |
| 14 | 0200 – 799.00 – 03.00 – 043.000 | \$1,170 |
| 15 | 0200 – 799.00 – 03.00 – 044.000 | \$8,000 |
| 16 | 0200 – 799.00 – 03.00 – 045.001 | \$0 |
| 17 | 0200 – 799.00 – 03.00 – 049.000 | \$0 |
| 18 | 0200 – 799.00 – 03.00 – 050.000 | \$0 |
| 19 | 0200 – 799.00 – 04.00 – 044.000 | \$3,100 |
| 20 | 0200 – 799.00 – 04.00 – 047.001 | \$13,400 |
| 21 | 0200 – 799.00 – 04.00 – 048.000 | \$2,750 |
| 22 | 0200 – 799.00 – 04.00 – 049.000 | \$2,750 |
| 23 | 0200 – 799.00 – 04.00 – 051.001 | \$2,650 |
| 24 | 0200 – 799.00 – 04.00 – 052.000 | \$3,500 |
| 25 | 0200 – 799.00 – 04.00 – 053.000 | \$2,800 |
| 26 | 0200 – 799.00 – 04.00 – 054.000 | \$1,760 |
| 27 | 0200 – 800.00 – 01.00 – 027.001 | \$7,425 |

| No. | Suffolk County Tax Map Number | Assessed Value |
|--------------|---------------------------------|------------------|
| 28 | 0200 – 800.00 – 01.00 – 028.000 | \$180 |
| 29 | 0200 – 800.00 – 01.00 – 031.001 | \$4,875 |
| 30 | 0200 – 800.00 – 01.00 – 033.001 | \$3,200 |
| 31 | 0200 – 800.00 – 01.00 – 034.000 | \$300 |
| 32 | 0200 – 800.00 – 01.00 – 035.007 | \$15,500 |
| 33 | 0200 – 800.00 – 01.00 – 035.008 | \$2,065 |
| 34 | 0200 – 800.00 – 01.00 – 035.009 | \$80 |
| 35 | 0200 – 800.00 – 01.00 – 036.000 | \$0 |
| 36 | 0200 – 800.00 – 01.00 – 038.000 | \$0 |
| 37 | 0200 – 800.00 – 02.00 – 009.000 | \$600 |
| 38 | 0200 – 800.00 – 02.00 – 010.000 | \$4,800 |
| 39 | 0200 – 800.00 – 02.00 – 011.000 | \$2,300 |
| 40 | 0200 – 800.00 – 02.00 – 012.000 | \$2,500 |
| 41 | 0200 – 800.00 – 02.00 – 013.000 | \$2,000 |
| 42 | 0200 – 800.00 – 02.00 – 014.000 | \$400 |
| 43 | 0200 – 800.00 – 02.00 – 015.000 | \$2,200 |
| 44 | 0200 – 800.00 – 02.00 – 016.000 | \$2,200 |
| 45 | 0200 – 800.00 – 02.00 – 017.000 | \$1,500 |
| 46 | 0200 – 800.00 – 02.00 – 018.000 | \$1,200 |
| 47 | 0200 – 800.00 – 02.00 – 019.000 | \$420 |
| 48 | 0200 – 800.00 – 02.00 – 020.000 | \$2,475 |
| 49 | 0200 – 800.00 – 02.00 – 021.000 | \$1,220 |
| 50 | 0200 – 800.00 – 02.00 – 022.000 | \$1,800 |
| 51 | 0200 – 800.00 – 02.00 – 023.000 | \$16,000 |
| 52 | 0200 – 800.00 – 02.00 – 028.001 | \$9,800 |
| 53 | 0200 – 800.00 – 02.00 – 028.003 | \$19,000 |
| 54 | 0200 – 800.00 – 02.00 – 028.004 | \$3,600 |
| TOTAL | | \$169,160 |

Source: Town of Brookhaven Office of the Assessor, 2012.

Table 38 – Existing Property Tax Revenues

| Taxing Jurisdiction | Total Assessed Value | Tax Rate per \$100 AV | Taxable Projected Tax Revenues |
|--|----------------------|-----------------------|--------------------------------|
| <i>Suffolk County Taxes</i> | | | |
| County of Suffolk | \$169,160 | 2.859 | \$4,840 |
| County of Suffolk – Police | \$169,160 | 34.967 | \$55,924 |
| Total Suffolk County Taxes | | | \$60,764 |
| <i>Town of Brookhaven Taxes</i> | | | |
| Town General - Town Wide Fund | \$169,160 | 3.688 | \$7,551 |
| Highway - Town Wide Fund | \$169,160 | 2.784 | \$4,381 |
| Town General - Part Town Fund | \$169,160 | 1.652 | \$2,351 |
| Highway - Part Town Fund | \$169,160 | 11.917 | \$19,345 |
| Total Town of Brookhaven Taxes | | | \$33,629 |
| <i>School Taxes - Sachem Central School District</i> | | | |
| Net School tax | \$169,160 | 186.856 | \$316,086 |
| Net Library tax | \$169,160 | 11.272 | \$19,068 |
| Total School Taxes | | | \$335,153 |
| <i>Other Taxes</i> | | | |
| New York State MTA Tax | \$169,160 | 0.152 | \$257 |
| \$100M Bond Act of 2004 | \$169,160 | 1.593 | \$2,695 |
| Fire District - Lake Ronkonkoma | \$169,160 | 12.257 | \$20,734 |
| Lighting District | \$169,160 | 1.273 | \$2,153 |
| Out of County Tuition Tax | \$169,160 | 0.449 | \$760 |
| Real Property Tax Law | | | \$169,160 |
| Total Other Taxes | | | \$38,442 |
| TOTAL TAXES | | | \$467,988 |

Source: Town of Brookhaven Office of the Assessor, 2012.

As noted in the table above, the parcels comprising the Ronkonkoma Hub area pay taxes to the following taxing jurisdictions:

- Suffolk County
- Suffolk County Police
- New York State Metropolitan Transportation Authority (MTA)
- Town of Brookhaven General Funds
- Town of Brookhaven Highway Funds
- Sachem Central School District (CSD) and Library District
- Lake Ronkonkoma Fire District
- Lighting District

The total tax revenue for the existing land uses within the Ronkonkoma Hub, based on the Statement of Taxes for 2011-2012 for each parcel, is approximately \$467,988.

The existing land uses in the Ronkonkoma Hub area generated \$4,840 and \$68,163 in tax revenue to Suffolk County and the Suffolk County Police, respectively, for a total of \$60,764 to Suffolk County. The Town of Brookhaven received a total of \$33,629, while the Sachem CSD and Library received \$335,153. The New York State MTA, Lake Ronkonkoma Fire District, and Lighting District received \$257, \$20,734, and \$2,153 in 2011-12 tax revenues, respectively.

3.8.2 Potential Impacts

Economic Impacts

The economic impacts have been calculated based upon development in accordance with the Maximum Density Concept Plan, which includes 1,450 dwelling units, 195,000± square feet of retail space, 360,000± square feet of office space, and 60,000 square feet of hospitality/exhibition space (120-room hotel).³⁰

Discretionary Income Impacts

The anticipated residential component of the project would contribute to the local economy through the purchasing power of its residential population. The discretionary income of these new households would be available to be spent on goods and services within the local and regional economy. The potential discretionary income generated by the proposed ownership and rental units is shown below in Table 39.

Table 39 –Discretionary Income

| | Number of Units | Estimated Average Annual Rent per Unit | Estimated Annual Household Income per Unit (Annual Rent / 0.3) | Discretionary Income per Unit (25% of Household Income) | Total Discretionary Income for Rental Units |
|-----------------|-----------------|--|---|---|--|
| Rental Units | 725 | \$32,686 ⁽¹⁾ | \$108,955± | \$27,239± | \$19,748,275 |
| | Number of Units | Estimated Average Unit Purchase Price | Estimated Annual Household Income per Unit (Purchase Price / 3) | Discretionary Income per Unit (25% of Household Income) | Total Discretionary Income for Ownership Units |
| Ownership Units | 725 | \$400,000 ⁽¹⁾ | \$133,333± | \$33,333± | \$24,166,425± |
| Total | | | | | \$43,914,700± |

⁽¹⁾Average rental rates and purchases prices were derived based on input from the Master Developer. Actual rental rates and purchase prices will reflect market conditions at the time of development.

³⁰ These figures are used solely for the purposes of analysis. The exact distribution of uses will be determined by market demand.

As indicated in Table 40, discretionary spending by households in the anticipated rental and ownership units could inject up to an additional \$44 million into the economy. This discretionary household spending would also recirculate through the economy and produce secondary economic impacts, which were calculated using RIMS II Input-Output Multipliers for the Nassau-Suffolk, New York Metropolitan Division (hereinafter "RIMS II Multipliers"). According to the U.S. Department of Commerce Bureau of Economic Analysis (the creator and distributor of the RIMS II data), RIMS II Multipliers show "how local demand shocks affect total gross output, value added, earnings, and employment in the region."³¹

Table 40 shows the secondary economic impacts of the discretionary income calculated in Table 39.

Table 40 – Secondary Economic Impact of \$43,914,700 in Discretionary Income

| Impact On: | RIMS II Multiplier | Economic Impacts |
|---|------------------------------|---------------------|
| Earnings | 0.3040 | \$13,350,069± |
| Employment | 7.9489 (per million dollars) | 349± |
| Gross Output | 1.1053 | \$48,538,918± |
| Discretionary Income | | \$43,914,700± |
| Net Output (Gross Output Minus Discretionary Income) | | \$4,624,218± |

Source: RIMS II Input-Output Multipliers for the Nassau-Suffolk, New York Metropolitan Division, Final Demand Multipliers

As indicated in Table 40, the secondary impacts of the discretionary income generated from the 1,450 ownership and rental units constructed in accordance with the Maximum Density Concept Plan include \$13,350,069 in earnings, \$4,624,218± in net output and 349± jobs.

Population Projections

Implementation of the proposed action could result in the construction of 1,450 one- and two-bedroom dwelling units (725 ownership units and 725 rental units)³² in multi-family and mixed-use buildings within the project area, based upon the Maximum Density Concept Plan.

The table below indicates the population projections based on the individual unit types and counts.

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³¹ <https://www.bea.gov/regional/rims/rimsii/>

³² For purposes of this analysis, a 50 percent/50 percent split was assumed for both type of unit and bedroom mix. However, actual unit types and bedroom mix will be determined by market demand.

Table 41 – Population Generation

| Unit Type | Unit Count | Population Generation Factor | Population Generation |
|-------------------------|------------|------------------------------|-----------------------|
| Rental – One-Bedroom | 363 | 1.67 | 607± |
| Rental – Two-Bedroom | 362 | 2.31 | 837± |
| Ownership – One-Bedroom | 363 | 1.77 | 643± |
| Ownership – Two-Bedroom | 362 | 1.88 | 681± |
| Total Population | | | 2,768± |

Source: Residential Demographic Multipliers - Estimates of the Occupants of New Housing for New York, Rutgers University, Center for Urban Policy Research (June 2006)

As this table indicates, the total population generation based on the anticipated residential development program would be 2,768± persons.

Employment Projections and Impacts

The following section summarizes the potential employment impact, based upon development in accordance with the Maximum Density Concept Plan. The economic and fiscal benefits analysis considers short-term construction and long-term operation of the proposed project.

Construction Jobs

Construction under the Maximum Density Concept Plan would have a short-term economic effect during the construction period. The regional economic benefits include direct expenditure on construction goods and services and indirect and induced economic activity within the region.

The construction period is projected to be approximately six years, according to the Master Developer. It is anticipated that the majority of construction-related workers at the project site would come from the Nassau-Suffolk County region. These workers would be expected to have a positive economic benefit on existing local businesses in the Ronkonkoma Hub and surrounding area, purchasing food, gasoline, convenience shopping, etc.

Based on a projected labor cost of \$284.4 million (60 percent of the total construction cost for development at maximum density, estimated by the Master Developer to be \$474 million) and an average hourly compensation of \$80 per hour per construction worker, as provided by the Master Developer, the projected number of construction hours to complete the proposed construction is 3,555,000. Using 1,820 hours as the average number of construction hours a construction worker works per year (also provided by the Master Developer), the proposed project is projected to generate 1,953± full-time equivalent (FTE) construction jobs per year, or 11,700± FTE construction jobs over the anticipated build-out.

Secondary Economic Impacts of Construction

The secondary economic impacts of the construction phase of the proposed project were calculated using RIMS II Multipliers and the total construction cost (\$474 million, which accounts for land, hard, and soft costs for development at maximum density, as provided by the Master Developer). The secondary impacts are indicated in Table 42.

Table 42 – Secondary Economic Impact of \$474,000,000 Construction Cost

| Impact On: | RIMS II Multiplier | Economic Impacts |
|--|-------------------------------|----------------------|
| Employment | 13.3951 (per million dollars) | 6,349 |
| Earnings | 0.6349 | \$300,942,600 |
| Gross Output | 1.8822 | \$892,162,800 |
| Total Construction Cost | | \$474,000,000 |
| Net Output (Gross Output Minus Total Construction Cost) | | \$418,162,800 |

Source: RIMS II Input-Output Multipliers for the Nassau-Suffolk, New York Metropolitan Division, Final Demand Multipliers

Permanent Jobs

Job generation ratios were calculated on a per-square-foot basis for the proposed mix of uses for the purposes of estimating the permanent job generation potential of the proposed project. The factors utilized for permanent full-time employment opportunities, based on maximum development at full occupancy, included the following:

- One employee per 5,000 square feet of residential space
- One employee per 350 square feet of retail space
- One employee per 200 square feet of office space
- One employee per 500 square feet of hotel space³³

The approximate size of the proposed uses and the associated projected number of full-time permanent employees are indicated in the table below. Based upon this analysis, maximum potential development in accordance with the TOD District, as depicted on the Maximum Density Concept Plan, is expected to generate approximately 2,740 permanent jobs, based upon information provided by the Master Developer.

▼
³³ Job generation factors were provided by the Master Developer. Solely for analysis purposes, this flex space has been considered to be a 120-room hotel. The actual use of this flex space will be determined by market demand.

Table 43 – Projected Permanent Jobs

| Use | Total Area
(Square Feet) | Square feet per
employee | Total Employees |
|--------------|-----------------------------|-----------------------------|-----------------|
| Residential | 1,312,250* | 5,000 | 263± |
| Retail | 195,000 | 350 | 557± |
| Office | 360,000 | 200 | 1,800± |
| Hotel | 60,000 | 500 | 120± |
| Total | | | 2,740± |

*Based upon an average unit size of 905 square feet.

Development in accordance with the proposed TOD District, as depicted on the Maximum Density Concept Plan, would require employees in numerous fields, including, but not limited to: hotel managers, housekeeping staff, retail service (including clerks, cashiers and store managers) and other service needs associated with hotel, retail and residential uses. In addition, there would be groundskeepers, janitorial and maintenance staff, sales positions, medical professionals, IT positions, office workers (e.g., office managers, bookkeepers, clerks), security personnel, business owners, CEOs and professional people (e.g., lawyers, architects, accountants, engineers) associated with office development. Therefore, it is anticipated that development in accordance with the proposed TOD District, as illustrated on the Maximum Density Concept Plan, would provide employment opportunities to people in the surrounding area of the project site.

Average wages associated with these positions and the total potential payrolls generated are shown below in Table 44.

Table 44 – Projected Payrolls Associated with Permanent Job Generation

| Industry | May 2012
Average Wage | Number of Workers | Estimated
Payrolls |
|---|--------------------------|-------------------|-----------------------|
| Retail Trade | \$27,760 | 557 | \$15,462,320± |
| Hotel/Exhibition | \$27,720 | 120 | \$3,326,400± |
| Building Services | \$32,610 | 263 | \$8,576,430± |
| Office and Administrative Support Occupations | \$38,290 | 1,800 | \$68,922,000± |
| Total | | | \$96,287,150± |

Source: May 2012 Metropolitan and Nonmetropolitan Area Occupational Employment and Wage Estimates Nassau-Suffolk, NY Metropolitan Division (http://www.bls.gov/oes/current/oes_35004.htm#13-0000)

As shown in Table 44, the total payroll generated by the maximum density development in accordance with the TOD District is projected to be over \$96 million. The secondary earning and employment impacts generated from these estimated payrolls and jobs were projected using RIMS II multipliers, as shown below in Table 45 and Table 46.

Table 45 – Secondary Earnings Impacts of Payrolls

| Industry | Direct Payrolls | RIMS II Earning Multiplier | Total Payrolls (Direct and Secondary Earnings) |
|-------------------------------------|-----------------|----------------------------|--|
| Retail Trade | \$15,462,320 | 1.6510 | \$25,528,290± |
| Hotel/Exhibition | \$3,326,400 | 2.0971 | \$6,975,793± |
| Buildings Services | \$8,576,430 | 1.5812 | \$13,561,051± |
| Professional and Technical Services | \$68,922,000 | 1.5280 | \$105,312,816± |
| Total | | | \$151,377,950 ± |

Source: RIMS II Input-Output Multipliers for the Nassau-Suffolk, New York Metropolitan Division, Direct Effect Multipliers

Table 46 – Secondary Earnings Impacts of Jobs

| Industry | Direct Jobs Generated | RIMS II Employment Multiplier | Total Jobs (Direct and Secondary Jobs) |
|-------------------------------------|-----------------------|-------------------------------|--|
| Retail Trade | 557 | 1.4451 | 805± |
| Hotel/Exhibition | 120 | 1.8525 | 223± |
| Buildings Services | 263 | 1.3911 | 366± |
| Professional and Technical Services | 1,800 | 1.9303 | 3,475± |
| Total | | | 4,869± |

Source: RIMS II Input-Output Multipliers for the Nassau-Suffolk, New York Metropolitan Division, Direct Effect Multipliers

Projected Property Tax Revenues

As with the DGEIS, consistent with fiscal impact methodology,³⁴ the property tax revenues have been determined by considering what would be generated if the proposed development were completed and occupied today. This approach recognizes that development often requires several years to be completed and that inflation will increase costs and revenues over time. It assumes that the rising costs of public services will be matched by an essentially comparable increase in revenues through increases in the tax rate, all other things held constant.

Implementation of the proposed action would result in the conversion of 54 underutilized parcels in the rezoning area into a mixed-use TOD. The increased market value of the project area with these improvements would result in an increase in property tax revenues. The proposed action is, therefore, expected to generate higher revenues to various taxing jurisdictions in Suffolk County and the Town of Brookhaven.

▼
³⁴ *The Fiscal Impact Handbook*, Robert Burchell and David Listokin, 1978

The property tax analysis was performed using the Maximum Density Concept Plan, which would potentially introduce 1,450 residential units;³⁵ 195,000 square feet of retail; 360,000 square feet of office; and 60,000 square feet of flex space, assumed to be a 120-room, 60,000-square-foot hotel.³⁶

In order to estimate the project's assessed value, the assessed value of comparable new commercial and residential properties in the Town of Brookhaven were reviewed. For the purpose of this analysis, and based on information provided by the Master Developer, it is assumed that the 725 for sale units would have an average purchase price of approximately \$400,000, and the 725 rental apartment units would rent for approximately \$2,724± per month, for an annual rent of \$32,686± (with 10 percent of total annual rent discounted for maintenance costs).

For the purposes of projecting the assessed value of the retail component, an average market rent of \$22 per square foot is assumed,³⁷ with 10 percent of total annual rent discounted for maintenance costs. With regard to the projected assessed value of the commercial component, an average market rent of \$27 per square foot³⁸ is assumed, with 10 percent of total annual rent discounted for maintenance costs. The assessed value of the hotel component was estimated by multiplying the proposed number of rooms (i.e., 120 rooms) to the average daily rate for a hotel room in Suffolk County (\$124³⁹), which was then multiplied by 1,000.⁴⁰

An estimated capitalization rate of nine percent⁴¹ has been applied to those assessed values calculated using the income capitalization approach (i.e., the commercial, retail, and residential rental units), while the Town of Brookhaven's 2012 equalization rate of 0.91 percent was used to calculate the assessed value of all the project components. Using this methodology, the total projected future assessed value based upon development in accordance with the Maximum Density Concept Plan would be \$6,205,777±.

The table below summarizes the projected property tax revenues and the net increase in property taxes generated by development as depicted on the Maximum Density Concept Plan. As indicated in the table below, the total projected property taxes

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³⁵ For analysis purposes, an average 905 square foot unit was considered, and it was assumed that there would be 50 percent rental units and 50 percent ownership units. However, this was done for analysis purposes only, and actual size, unit mix, etc. would be based on market demand.

³⁶ Solely for analysis purposes, this flex space has been considered to be a 120-room hotel. The actual use of this flex space will be determined by market demand.

³⁷ NAI Long Island Long Island Market Report, 4th Quarter 2012, http://www.nailongisland.com/Portals/43/docs/4Q%202012_Market%20Report.pdf

³⁸ NAI Long Island Long Island Market Report, 4th Quarter 2012, http://www.nailongisland.com/Portals/43/docs/4Q%202012_Market%20Report.pdf

³⁹ Provided by Janet Clark of the Long Island Visitors Bureau on December 26, 2012

⁴⁰ Hotel Investments, Issues & Perspectives 3rd Edition, 2002.

⁴¹ The Town of Brookhaven Assessor's Department was contacted on June 13, 2013 for information regarding current capitalization rates within the Town; however, the department was unable to furnish any information. The Town of Brookhaven office of the Receiver of Taxes, which provided the capitalization rate for the 2010 DGEIS, was contacted on June 17, 2013 for the same information. This office was also unable to provide such information. Thus, for the purposes of this analysis, the same capitalization rate used in the 2010 DGEIS (i.e., nine percent) was used herein.

based upon future development in accordance with the Maximum Density Concept Plan is \$16,179,702±, which is an increase of \$15,711,714± over the existing condition. The projected revenues presented are based on 2012 tax rates. With no changes in assessments, these rates are likely to increase over time.

Table 47 – Projected Property Tax Revenues - Maximum Density Concept Plan

| Taxing Jurisdiction | 2012 Tax Rate
(per \$100 AV) | Projected
Taxable Value | Projected Taxes | Net Increase
Over Existing
Conditions |
|---|---------------------------------|----------------------------|----------------------|---|
| <i>Suffolk County</i> | | | | |
| County of Suffolk | 2.859 | \$6,205,777± | \$177,423± | \$172,583± |
| County of Suffolk - Police | 34.967 | \$6,205,777± | \$2,169,974± | \$2,114,050± |
| Total taxes paid to Suffolk County | | | \$2,347,397± | \$2,286,633± |
| <i>Town of Brookhaven</i> | | | | |
| Town General - Town Wide Fund | 3.688 | \$6,205,777± | \$228,869 | \$221,318± |
| Highway - Town Wide Fund | 2.784 | \$6,205,777± | \$172,769 | \$168,388± |
| Town General - Part Town Fund | 1.652 | \$6,205,777± | \$102,519 | \$100,168± |
| Highway - Part Town Fund | 11.917 | \$6,205,777± | \$739,542 | \$720,197± |
| Total taxes paid to the Town of Brookhaven | | | \$1,243,700± | \$1,210,071± |
| <i>School taxes – Sachem CSD</i> | | | | |
| Net School tax | 168.856 | \$6,205,777± | \$10,478,827± | \$10,162,741± |
| Net Library tax | 11.272 | \$6,205,777± | \$699,515± | \$680,447± |
| Total taxes paid to the Sachem CSD | | | \$11,178,342± | \$10,843,189± |
| <i>Other Taxes</i> | | | | |
| New York State MTA Tax | 0.152 | \$6,205,777± | \$9,433± | \$9,176± |
| \$100M Bond Act of 2004 | 1.593 | \$6,205,777± | \$98,858± | \$96,163± |
| Fire District – Lake Ronkonkoma | 12.257 | \$6,205,777± | \$760,642± | \$739,908± |
| Lighting District | 1.273 | \$6,205,777± | \$79,000± | \$76,846± |
| Out of County Tuition Tax | 0.449 | \$6,205,777± | \$27,864± | \$27,104± |
| Real Property Tax Law | 7.001 | \$6,205,777± | \$434,466± | \$422,624± |
| Total Other Taxes | | | \$1,410,263± | \$1,371,821± |
| Total Projected Property Tax Revenues | | | \$16,179,702± | \$15,711,714± |

Sources: Town of Brookhaven Receiver of Taxes, 2012; Assessed value calculated by VHB Engineering, Surveying and Landscape Architecture, P.C.

Projected Property Tax – Town and County

The estimated net increase between the total current tax revenues generated in the project area for Suffolk County (\$60,074±) and the total future tax revenues for the Maximum Density Concept Plan (\$2,347,397±) is projected to be approximately \$2,286,633.

The estimated net increase between the total current tax revenues generated by the project area for the Town of Brookhaven (\$33,629±) and the total future tax revenues for the maximum density development in accordance with the TOD District (\$1,243,700±) is projected to be approximately \$1,210,071.

Projected Property Tax – School and Library

The projected tax revenues presented are based on the current tax rate for the Sachem CSD. With no changes in assessments, these rates are likely to increase over time. The net increase between the total current school and library tax revenues (\$335,153±) for the Sachem CSD generated in the project area and the total future school tax revenues (\$11,178,342±) for maximum density development in accordance with the TOD District are projected to be approximately \$10,843,189±.

Projected Property Tax – Other Special Districts

The net increase between the total current tax revenues generated in the project area for the Lake Ronkonkoma Fire District (\$20,734±) and the total future tax revenues from maximum density development in accordance with the TOD District (\$760,642±) is projected to be approximately \$739,908±, or just under 37 times the tax revenues currently generated by existing development in the area. The net increase between the total current tax revenues generated in the area for the Lighting District (\$2,153±) and the total tax revenues generated by maximum density development under the proposed TOD District (\$79,000±) is projected to be approximately \$76,846±.

Projected Sales Tax Revenue:

Retail

As previously mentioned, the maximum density development in accordance with the proposed TOD District would result in the construction of 195,000 square feet of retail space, situated in various buildings throughout the Ronkonkoma Hub. Based on information provided by the Master Developer, the average sales per square foot of retail space (including restaurants) is estimated at \$300. Therefore, based on the foregoing, the retail component of the Maximum Density Concept Plan would generate approximately \$58.5 million in total sales.

Of the total sales, based on information provided by the New York State Tax Department and the Suffolk County Comptroller's Office, sales tax revenues are allocated as follows:

- 4.0 percent to New York State
- 4.25 percent to Suffolk County
- 0.375 percent to the Metropolitan Commuter Transportation District (MCTD)

Table 48 below estimates the sales tax revenues projected for each taxing jurisdiction based upon development in accordance with the Maximum Density Concept Plan.

Table 48 – Projected Sales Tax Revenue for Proposed Retail Uses

| Jurisdiction | Tax Rate | Projected Annual Sales Tax |
|----------------|---------------|----------------------------|
| New York State | 4.0 percent | \$2,340,000 |
| Suffolk County | 4.25 percent | \$2,486,250 |
| MCTD | 0.375 percent | \$219,375 |
| Total | | \$5,045,625 |

As demonstrated in Table 48, the total sales tax revenue projected to be generated from the retail component of the Maximum Density Concept Plan is \$5,045,625. It is expected that the majority of sales taxes generated by such development would represent a net increase to taxing jurisdictions.

**Projected Sales Tax Revenue:
Hotel**

As previously mentioned, the average daily hotel room rate in Suffolk County is \$124. Based on the proposed 120 rooms and an occupancy rate of 65 percent,⁴² the projected annual revenue of the hotel is \$3,530,280. Table 49 provides estimates of the sales tax revenues to each taxing jurisdiction generated by the hotel. It should be noted that, in addition to the standard New York State, Suffolk County, and MCTD sales tax rates, Suffolk County requires that every facility providing overnight lodging pay an addition tax of three percent of the per-diem rental rate.⁴³

Table 49 – Projected Sales Tax Revenue for Proposed Hotel Use

| Jurisdiction | Tax Rate | Projected Annual Sales Tax |
|-----------------------------------|----------------------------|----------------------------|
| New York State | 4.0 percent | \$141,211± |
| Suffolk County | 4.25 percent | \$150,037± |
| Suffolk County
Hotel/Motel Tax | 3.0 percent of rental rate | \$105,908± |
| MCTD | 0.375 percent | \$13,239± |
| Total | | \$410,395± |

As demonstrated in Table 49, the total sales tax revenue projected to be generated from the hotel component of the Maximum Density Concept Plan is \$410,395±. It is expected that the sales taxes generated by the Maximum Density Concept plan would represent a net increase to taxing jurisdictions over the sales tax currently generated within the Ronkonkoma Hub area.

It should be noted that the projected property and sales tax revenues are based upon development in accordance with the Maximum Density Concept Plan and may vary based upon market conditions and the manner in which the property is actually

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⁴² Average occupancy rate for hotels in Suffolk County from January through November 2012, as provided by Janet Clark of the Long Island Visitors Bureau on December 26, 2012.

⁴³ Suffolk County Government, Department of the Treasurer – Hotel/Motel Tax Program: <http://www.suffolkcountyny.gov/Departments/Treasurer/HotelMotelTaxProgram.aspx>, Accessed June 20, 2013

developed. In addition to the fiscal benefits resulting from increases in property and sales tax revenues generated at the Ronkonkoma Hub itself, future development will result in secondary economic benefits as a result of the increase in visitors to the area.

Conclusions

Based on the analysis presented in this section, while there will be an increase in population in the Ronkonkoma Hub area, the overall socioeconomic impacts of the redevelopment of this area in accordance with the proposed TOD District to the Town of Brookhaven and Suffolk County as a whole are expected to be positive, including:

- \$43,914,700± in potential household discretionary income spending and \$4,624,218± in secondary impacts from this discretionary spending
- 1,953± FTE construction jobs annually (11,700± FTE construction jobs over the projected construction period)
- 2,740± permanent jobs generating \$96,287,150 in payroll. This is projected to generate an additional \$55,090,800± in secondary earnings and an additional 2,129± secondary jobs. Additionally, the discretionary income spending described above is projected to support 349± additional jobs
- \$16,179,702± in projected property tax revenues, a net increase of \$15,711,714± over existing conditions
- \$11,178,342± of the \$16,179,702 in overall projected property tax revenues would go to the Sachem CSD, a net increase of \$10,843,189± over existing conditions
- \$5,045,625± in sales tax revenue from the anticipated retail component and \$410,395± in sales tax revenue from the anticipated hotel component.

Overall, while there would be an increase in population within the Ronkonkoma Hub area, implementation of the proposed action would result in a positive fiscal benefit to the Town and the County, as well as economic benefits to the immediate area within and around the Hub.

3.8.3 Proposed Mitigation

As there are no significant adverse demographic or economic impacts associated with the proposed action, no mitigation measures are required.

3.9 Community Facilities and Services

3.9.1 Existing Conditions

Fire Protection and Ambulance Services

The Ronkonkoma Hub area is located within the jurisdiction of the Ronkonkoma Fire Department. The Ronkonkoma Fire Department maintains one fire house, located at 177 Portion Road, in the hamlet of Lake Ronkonkoma, Town of Brookhaven. The Ronkonkoma Fire Department also provides ambulance services to the area.

Health Care Facilities

Brookhaven Memorial Hospital Medical Center (“Brookhaven Hospital”) is a voluntary, not-for-profit community hospital. Brookhaven Hospital has 321 beds, and is comprised of a main campus, two community multi-disciplinary health centers, and a facility located in downtown Patchogue, which provides a full range of health care services.⁴⁴

Stony Brook University Medical Center (SBUMC) is Suffolk County’s only tertiary hospital and Level 1 Trauma Center, and is the only academic medical center on Long Island. Certified for 571 beds, it is the largest hospital in Suffolk County.⁴⁵

Both hospitals are located just over six miles from the Ronkonkoma Hub area.

Police Protection

The Ronkonkoma Hub area is within the jurisdiction of the Suffolk County Police Department - Fourth Precinct (“SCPD – Fourth Precinct”). The precinct is located at 345 Old Willets Path in the hamlet of Hauppauge. Correspondence was sent to the SCPD – Fourth Precinct on May 28, 2010 requesting information on existing services. According to correspondence dated June 10, 2010 from William J. English, Principal Management Analyst of the SCPD, the Ronkonkoma Hub area is located within Section 405 of the Fourth Precinct.

In addition, to the SCPD Fourth Precinct, the MTA Police services the Ronkonkoma LIRR Station.

▼
⁴⁴ <http://www.brookhavenhospital.org/aboutus/>

⁴⁵ <http://www.stonybrookmedicalcenter.org/regionalresource/>

Educational Facilities

The Ronkonkoma Hub area is located within the Sachem Central School District (CSD). The Sachem CSD is comprised of 12 elementary schools, four middle schools and two high schools. Based on data from www.nysed.gov, the total projected enrollment within the Sachem CSD for the 2013-2014 school year is 14,145 students. Correspondence from Ronald G. Sacks, School Business Administrator, advised that the TOD District area is within the service area of the Gatelot Elementary School, Samoset Middle School and Sachem North High School. The latest available enrollment information for these three schools is included in the table below.⁴⁶

Table 50 – Enrollment of School Properties within Service Area of Ronkonkoma Hub Area (as of May 2012)

| Name and Address of School | Enrollment |
|--|------------|
| Gatelot Elementary School
55 Gatelot Avenue
Lake Ronkonkoma, New York 11779-2391 | 557 |
| Samoset Middle School
51 School Street
Lake Ronkonkoma, New York 11779-2391 | 885 |
| Sachem High School North
212 Smith Road
Lake Ronkonkoma, New York 11779-2391 | 2,326 |

Source: www.nysed.gov

According to information provided from www.nysed.gov, the projected per pupil expenditure for the 2013-2014 school year is \$20,717. This figure represents the total of Actual General Fund Expenses, State and Federal Grants, and Special Education Summer School, divided by the average daily attendance.

Solid Waste

The collection and disposal of solid waste generated by commercial and industrial properties in the Ronkonkoma Hub area is performed by licensed, private carters, and not by the Town. Thus, the ultimate disposal locations are at the discretion of the carter. The collection of solid waste generated by private residences is performed by the Town of Brookhaven Department of Waste Management and is carted to the Town of Brookhaven landfill, located between Horseblock Road to the north and Sunrise Highway to the south, east of Sundial Lane, in the hamlet of Yaphank. Approximately 54.26 tons of solid waste per month is generated by the existing land uses within the Ronkonkoma Hub area (see Table 51).⁴⁷ For purposes of comprehensive analysis, the existing vacant developed properties were assumed occupied.

▼
⁴⁶ 2011-2012 is the latest school year for which the New York State Education Department provides enrollment information for individual schools

⁴⁷ For purposes of comprehensive analysis, the existing vacant developed properties were assumed occupied

Table 51 – Existing Solid Waste Generation

| Land Use | Gross Floor Area (square feet) ¹ | Solid Waste Generation Factor | Waste Generated (tons/month) |
|----------------------------|---|----------------------------------|------------------------------|
| Residential (9 Lots) | 16,783.24 | 4.62 lbs/person/day ² | 1.93 |
| Commercial | 181,835.21 | 13 lbs/1,000 sf/day ³ | 35.95 |
| Office | 10,555.35 | 1 lb/100 sf/day ⁴ | 1.61 |
| Commercial/Vacant | 17,788.16 | 13 lbs/1,000 sf/day ³ | 3.52 |
| Residential/Vacant (1 Lot) | 1,893.33 | 4.62 lbs/person/day ² | 0.22 |
| Industrial | 36,249.37 | 2 lbs/100 sf/day ⁵ | 11.03 |
| TOTAL | | | 54.26 |

1. Based on information from the Town of Brookhaven GIS Database, 2010.
2. Source: U.S. Environmental Protection Agency. *Municipal Solid Waste Generation, Recycling, and Disposal in the United States: Facts and Figures for 2007*. November 2008. Assumes 3.06 people per house.
3. Source: Salvato, Joseph A. et al, *Environmental Engineering*, Fifth Edition. 2003. The factor of 13 lbs/1,000 sf/day is for "retail and service facilities," as published in *Environmental Engineering*, 2003.
4. The factor of 1 lb/100 sf/day is for "commercial office building," as published in *Environmental Engineering*, 2003.
5. The factor of 2 lbs/100 sf/day is for "industrial/warehouse," as published in *Environmental Engineering*, 2003.

3.9.2 Potential Impacts

Fire Protection and Ambulance Service

As noted above, the Ronkonkoma Hub area is located within the jurisdiction of the Ronkonkoma Fire Department. In order to ensure that there will be no significant adverse impacts to the Ronkonkoma Fire Department, all development plans would be required to comply with New York State building and fire codes, and also be reviewed by the Brookhaven Fire Marshal. As indicated in Section 4.2 of the 2010 DGEIS, the greatest needed fire flow (NFF) has been calculated at 4,500 gallons per minute (gpm), which is not considered to be a significant flow rate.

The Master Developer, Trec-Ronk, advised that a meeting was held between the Master Developer and the Ronkonkoma Fire Department Commissioner Ray Griffin on April 12, 2013. Paul Pontieri, Mayor of Patchogue and Patchogue Fire Department Chief Joseph Perry were also in attendance.⁴⁸ The Master Developer provided a summary of such meeting to the Town that, among other things, indicated that the purpose of the meeting was to open the lines of communication early in the design and development process amongst the Master Developer, design professionals and the Fire Department. The Master Developer, in the summary provided to the Town, noted that many issues were vetted with the Patchogue Fire Department and Chief Building Inspect during the design process of New Village (in Patchogue) that would act as a guideline for development at the Ronkonkoma Hub.

⁴⁸ Mayor Pontieri is liaison to the Town of Brookhaven regarding the Ronkonkoma Hub project. In addition, both Mayor Pontieri and Chief Perry were involved in a transit-oriented development in the Village of Patchogue of a similar nature to the proposed Ronkonkoma Hub TOD.

The Master Developer, in its meeting summary, indicated the issues discussed during the design stage included establishment of a fire department control center in the sub-surface parking structure, firefighter access within the sub-surface structure, sizing of hose connections and location of Fire Access Control Panels (FACPs), as well as remote enunciator locations. Water access points were reviewed, as well as hydrant and standpipe locations. Other issues discussed included protection of surrounding buildings during demolition, shoring plans and asbestos remediation plans, street closures, dewatering plans, as well as submission of Fire/Life Safety and Stormwater Pollution Prevention Plans. The Master Developer indicated that it also reviewed maximum truck heights, turning radii and standard elevator and building keys and locations (Knox boxes) with the fire officials. The Master Developer indicated its intention to continue to work with the Fire Department throughout the development process.

The meeting summary provided by the Master Developer indicated that Chief Perry said that the means and method of communication employed at the New Village construction site with the Patchogue Fire Department, once that project was under construction, would be appropriate for use for the Ronkonkoma Hub development. The Master Developer indicated its intention to employ the same manner of communication with the Ronkonkoma Fire Department and the Town of Brookhaven throughout the development of the Ronkonkoma Hub project.

The Master Developer also informed the Town that a meeting was held with the Town of Brookhaven Fire Marshal and Building Department Commissioner on April 23, 2013, and during that meeting the same information as was summarized above was discussed. The Master Developer indicated that no additional information resulted from this meeting.

As noted in the 2010 DGEIS, pursuant to a telephone conversation on September 1, 2010, Chief Vincent Diaz advised that the Fire Department had a 100-foot ladder truck that can accommodate the multi-story buildings within the Ronkonkoma Hub area (see electronic mail confirmation in Appendix J of the 2010 DGEIS). According to the tax revenue analysis in Section 3.8.2 of this DSGEIS, approximately \$739,908 is the estimated annual net increase (from existing conditions) to the Ronkonkoma Fire Department.

The meeting summary provided by the Master Developer to the Town did not identify any specific adverse impacts by the Fire Department, Fire Marshal and Building Department personnel, as noted above.

Overall, the proposed action and the future redevelopment of the Ronkonkoma Hub in accordance with the Maximum Density Concept Plan would not be expected to result in significant adverse impacts to fire protection and ambulance services, provided by the Ronkonkoma Fire Department, as the additional \$740,000± per year in additional property taxes generated by the Maximum Density Concept Plan, at full

build-out, would help off-set costs associated with providing fire protection and ambulance services to the future development.

Health Care Facilities

As indicated above, health care facilities (including two hospitals) are available to residents, employees and visitors to the Ronkonkoma Hub area. It is expected that many of the potential residents of the proposed development would be existing residents of the Town of Brookhaven or nearby municipalities. As both Brookhaven Hospital and SBUMC are health care facilities that already serve this community, it is not anticipated that the proposed development would adversely impact health care services in the area.

Police Protection

The Fourth Precinct of the Suffolk County Police Department currently services the Ronkonkoma Hub area. As indicated in Section 3.9 of this DGEIS, correspondence dated June 10, 2010 from William J. English, Principal Management Analyst of the SCPD, indicated that there were approximately 8,939 service calls in 2009 (see correspondence in Appendix I). However, call data specific to the Ronkonkoma Hub area was not provided.

It is important to note that the Ronkonkoma Hub area is an existing developed area that is currently being served by the Fourth Precinct and there is an existing patrol that covers the Ronkonkoma Hub area. While there will be a substantial increase in density it is not expected that the proposed action would require additional police personnel to serve the Ronkonkoma Hub area.

According to the property tax revenue analysis in Section 3.9.2 of this DSGEIS, based upon the Maximum Density Concept Plan, the estimated annual net increase (from existing conditions) to the Suffolk County Police Department is approximately \$2,114,050.

Overall, it is not expected that redevelopment of the Ronkonkoma Hub area would result in a demand that causes significant adverse impacts to police services. Furthermore, as indicated above, the anticipated annual property taxes received by the Police Department of over \$2.1 million above the existing condition would help to off-set the cost of providing any additional police protection services that may be required to serve the future development within the Ronkonkoma Hub area.

Educational Facilities

The Master Developer indicated in a summary memorandum provided to the Town that it met with James Nolan, District Superintendent, and Bruce Singer, Associate Superintendent of the Sachus School District on January 23, 2013. Paul Pontieri, representing the Town of Brookhaven, was also in attendance. The Master

Developer noted in the summary provided to the Town that student enrollment within the Sachem School District has been steadily declining over the last five school years and has declined overall since the 2005-06 school year. According to data from www.nysed.gov, in the last five school years, enrollment in the Sachem CSD has declined by approximately 4.2 percent, and over the last nine school years (since 2005-06 when the enrollment was 15,623) the District overall has lost over 1,400 students. Peak enrollment in the last decade occurred in the 2005-06 school year, nine school years ago. This information was confirmed by the Town Board as part of this DSGEIS.

According to the summary provided by the Master Developer, at the meeting, both the Superintendent and Associate Superintendent acknowledged the decline in the student enrollment, and noted that young people are leaving Long Island. According the summary memorandum provided by the Master Developer, the Superintendent and Associate Superintendent indicated that the proposed project would be beneficial in keeping young people on Long Island, and expressed no concern over the increase in the number of potential students (see table below).

Based upon the currently configured unit type and bedroom mix, the 1,450 residential dwelling units included in the Maximum Density Concept Plan could potentially generate 214 school-aged children who would attend public school (see Table 52). Based on data provided by the New York State Education Department (NYSED), the projected school enrollment within the Sachem CSD for the 2013-14 school year is 14,145 children. Therefore, the additional 214 school-aged children would represent a 1.5± percent increase in total enrollment from the projected 2013-14 enrollment (14,145) within the Sachem CSD. However, this is still less than the 2005-2006 recent peak enrollment of over 15,600 students within the Sachem CSD.

Table 52 – Projected School-Aged Children Population

| Type of Unit | # of Units | School-aged children per unit | Total School-aged children |
|-----------------------------------|------------|-------------------------------|----------------------------|
| Ownership – One Bedroom | 363 | 0.14 | 51± |
| Ownership – Two Bedroom | 362 | 0.14 | 51± |
| Rental – One Bedroom | 363 | 0.08 | 29± |
| Rental – Two Bedroom | 362 | 0.23 | 83± |
| Total School-aged Children | | | 214± |

Sources: Rutgers University, Center for Urban Policy Research - Residential Demographic Multipliers, Estimates of the Occupants of New Housing.

Based on data in the NYSED Property Tax Report Card for the 2013-14 school year, the per pupil expenditure in the Sachem CSD is projected to be \$20,717±. Therefore, while the total cost to the Sachem CSD for the 214 additional children would be \$4,433,438, the Maximum Density Concept Plan at full development could generate \$11,178,342 annually to the school district (see Section 3.8.2 and Table 47 of this DSGEIS). Therefore, there would be a net annual benefit to the Sachem CSD of approximately \$6,744,904.⁴⁹

With respect to the availability of busing in the area, Ronald G. Sacks, School Business Administrator was contacted during the preparation of the 2010 DGEIS. Mr. Sacks indicated that bus routes currently exist that service the three schools, which serve the Ronkonkoma Hub area. However, the school district was unable to determine at this time whether additional bus routes would be needed.

Overall, based upon the enrollment and property tax information described above, it is not expected that the proposed action would result in significant adverse impacts to the Sachem CSD. In fact, the District would be expected to receive a significant annual revenue benefit.

Solid Waste

As indicated in Table 53 below, development in accordance with the Maximum Density Conceptual Plan would generate approximately 377± tons of solid waste per month. As indicated in Section 3.9.1 of this DSGEIS, the existing properties within the Ronkonkoma Hub area generate approximately 54.26 tons of solid waste per month. Therefore, there would be an increase in solid waste generation of approximately 323± tons per month.

▼
⁴⁹ This figure is based upon on property taxes at full assessment. However, the Master Developer indicated in the memorandum provided to the Town that he would be seeking Industrial Development Agency (IDA) benefits that would include a long-term property tax abatement on the assessed value of the anticipated improvements. The Superintendent and Associate Superintendent of the Sachem CSD expressed no concern such potential IDA tax abatement, according to the Master Developer's memorandum. Both the Superintendent and Associate Superintendent acknowledged that such abatement was needed to offset the acquisition and infrastructure cost required for the proposed project.

Table 53 – Projected Solid Waste Generation (Maximum Density Concept Plan)

| Use | No. of Units | Population Generation | Occupancy ² | Solid Waste | | Total (lbs/day) |
|--|--------------------------|-----------------------|------------------------|-------------|-------------------------|-----------------|
| | | | | per day | Unit | |
| Residential – One-Bedroom Ownership ¹ | 363 | 1.77 | 643± | 4.0 | lbs/capita ³ | 2,572 |
| Residential – Two-Bedroom Ownership | 362 | 1.88 | 681± | 4.0 | lbs/capita | 2,724 |
| Residential – One-Bedroom Rental | 363 | 1.67 | 606± | 4.0 | lbs/capita | 2,424 |
| Residential – Two-Bedroom Rental | 362 | 2.31 | 836± | 4.0 | lbs/capita | 3,344 |
| SUBTOTALS: | | | | | | 11,064 |
| Use | Size (Square Feet/Unit) | | | | | |
| Retail | 155,000 SF | N/A | N/A | 13.00 | lbs/1000sf ⁴ | 2,015 |
| Restaurant | 6,480 meals ⁵ | N/A | 100 percent | 1.2 | lbs/meal | 7,776 |
| Office/Commercial Space | 306,000 SF | N/A | N/A | 1.00 | lbs/100sf ⁶ | 3,060 |
| Medical Office Space | 54,000 | N/A | N/A | 1.00 | lbs/100sf | 540 |
| Hotel | 120 ⁷ | N/A | N/A | 3.00 | lbs/room ⁸ | 360 |
| SUBTOTAL: | | | | | | 13,751 |
| TOTAL (lbs/day) | | | | | | 24,815 |
| TOTAL (tons/month) | | | | | | 377 |

Notes:

¹ For purposes of analysis, it was assumed that half the units would be owner-occupied and half would be rental. In addition it was assumed that half of the units would be one-bedroom and half would be two-bedroom units.

²Rutgers coefficients of occupancy used for residential population.

³ Salvato et al. Environmental Engineering, Fifth Edition. 2003. Solid waste generation factor for "Apartment Building."

⁴Salvato et al. Environmental Engineering, Fifth Edition. 2003. Solid waste generation factor for "Retail and Service."

⁵1,080 seats at 100 percent occupancy times 6 meals per day.

⁶Salvato et al. Environmental Engineering, Fifth Edition. 2003. Solid waste generation factor for "Commercial Building, Office."

⁷Solely for analysis purposes, this flex space has been considered to be a 120-room hotel. The actual use of this flex space will be determined by market demand.

⁸Salvato et al. Environmental Engineering, Fifth Edition. 2003. Solid waste generation factor for "Hotel – First Class."

The collection and disposal of solid waste generated by commercial properties (which would include the retail, office, and flex space uses included on the Maximum Density Concept Plan) would be performed by licensed, private carters, (which is typical practice for Long Island Towns), as noted in Section 4.9.5 of the 2010 DGEIS. Also, the collection and disposal of solid waste from private, multi-family residential developments would also be performed by licensed, private carters. Thus, the ultimate disposal locations are at the discretion of the carter, pursuant to its disposal agreements, and, thus, would not be expected to result in significant adverse impacts to the Town's waste management facilities, practices or plans.

3.9.3 **Proposed Mitigation**

In order to ensure that potential impacts to community service providers are minimized, the following mitigation measures are proposed:

- As discussed in Section 3.9.2 of this DSCEIS, the taxes generated by the proposed redevelopment of the properties within the Ronkonkoma Hub area would assist in off-setting the increases in the provision of community services, including fire protection, police protection and education.
- Parcels developed or redeveloped will comply with New York State building and fire codes.
- All development/redevelopment applications would be required to be reviewed by the Brookhaven Fire Marshal, and would comply with all Fire Marshal requirements.
- Parcels developed or redeveloped will provide proper egress and ingress for emergency service providers, including to below-grade and above-grade parking garages.

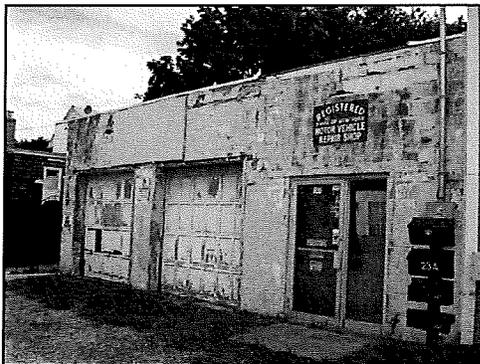
3.10 Aesthetics

3.10.1 Existing Conditions

The visual characteristics of specific streets and areas within the Ronkonkoma Hub area are described in the 2010 DGEIS. Overall, the general aesthetic character of the area is poor and this condition has not improved since the preparation of the 2010 DGEIS.

Subsequent to the 2010 DGEIS, a *Blight Study* was prepared to assess the presence of blighting factors within the Ronkonkoma Hub area. A number of factors contributed to the finding of blight within this area, and many of these factors related to the aesthetic conditions of the area. A discussion of how these factors relate to aesthetic conditions is contained below. In addition, the relation of these factors, among others, to land use is discussed in Section 3.4.2 of this DSGEIS.

Seven tax parcels of the 54 parcels examined (13 percent) were observed to contain vacant and partially vacant buildings, and another three tax parcels (5.5 percent of the total parcels examined) were identified as vacant. Many of the vacant buildings are located along Railroad Avenue and are former retail users or auto-related establishments. The photographs below illustrate examples of vacant buildings and properties within the Ronkonkoma Hub (additional photographs are contained in Appendix B of the *Blight Study*). Vacant buildings contribute to an aesthetically and visually unattractive appearance.



Another factor contributing to blight and poor aesthetic conditions is the deterioration of buildings and other structures. Such deterioration observed within the Ronkonkoma Hub area includes poor conditions or roofs, window and siding; deterioration of façade and masonry features; fencing that was falling down and/or in disrepair; and lack of paved driveway areas. Deterioration creates a visually unappealing appearance.



In many locations within the Ronkonkoma Hub area, particularly along Railroad Avenue, sidewalk and curb areas were observed to be in disrepair, and, in some cases, non-existing. In addition, overgrowth of vegetation and vegetation growing within sidewalk cracks was also observed. Inadequate sidewalk and curb areas contribute to the visual blight within the Study Area.



Observations and recorded complaints of pooling water along roads within the Ronkonkoma Hub area indicate that drainage infrastructure is inadequate. Lack of such infrastructure contributes to a poor visual and aesthetic appearance.

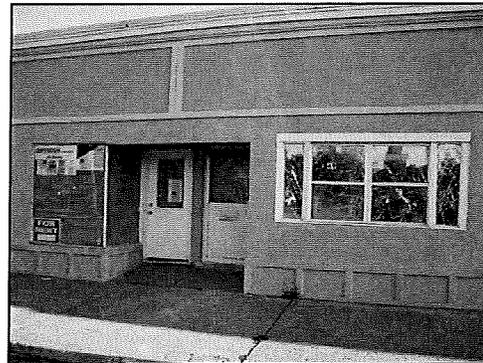
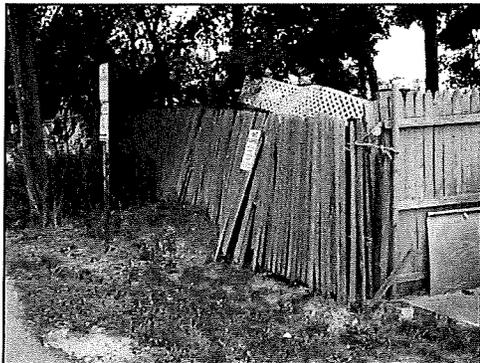
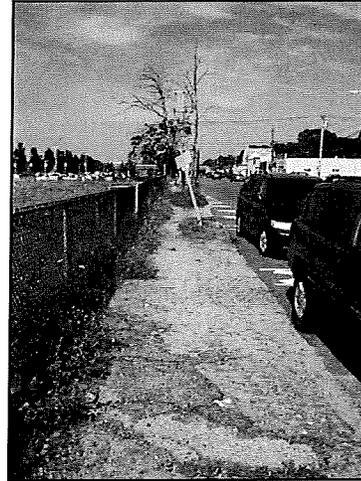
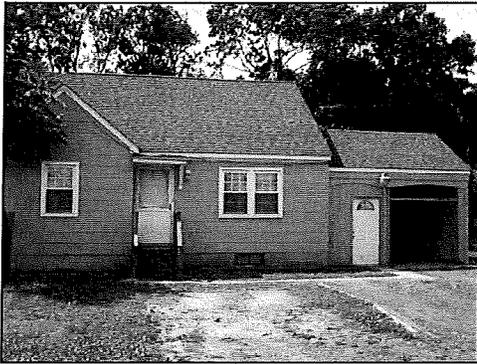


Another blighting condition is incompatible uses. For example, within the Ronkonkoma Hub area, there are a number of intensive commercial uses (including automobile repair and service businesses) interspersed with low-density (single-family) residential uses. Such land uses do not complement one another, and this detracts from the quality (including the aesthetic quality) of the residential environment.



To summarize, the Ronkonkoma Hub area consists of numerous vacant/unoccupied parcels and/or structures, a number of which are in highly visible locations (i.e., Railroad Avenue), a rundown appearance of local businesses as well as large surface parking lots that are active with commuter vehicles during the day but are generally not used during nighttime hours. As noted above, much of Ronkonkoma Hub area lacks adequate pedestrian sidewalks or safe crossings, except in the immediate vicinity of the Ronkonkoma LIRR Station. Further, other tax parcels are utilized as staging and/or storage grounds for commercial uses and/or debris. All of these

conditions create a blighted aesthetic and visual appearance (see photographic examples below).



As indicated in the *Blight Study* and throughout this DGEIS, existing aesthetic conditions within the Ronkonkoma Hub area are poor. Unappealing aesthetic conditions are known to hinder economic growth by discouraging private investment and, thereby, limiting job and property tax revenue generation.

3.10.2 **Potential Impacts**

Urban Renewal Plan

As discussed above, the Town of Brookhaven made a finding of blight with respect to the Ronkonkoma Hub area. Amongst the factors contributing to the blight are the aesthetic conditions of the area. The *Urban Renewal Plan*, which is examined in this DSGEIS (see Section 3.4.2 and Appendix B), has been prepared to promote sound growth and development, and to address the blighted conditions, Urban Renewal Law allows for the “clearance, replanning, reconstruction, redevelopment, rehabilitation, restoration or conservation” of designated blighted areas. One of the objectives of the *Urban Renewal Plan* is to eliminate blighting conditions, including aesthetic and visual detriments.

The *Urban Renewal Plan* proposes to improve the built environment with new and viable uses and to upgrade public facilities and infrastructure, including, but not limited to, roads, sidewalks, curbs, public hardscape and landscape, street and walkway lighting, and parking areas, all of which contribute to the aesthetic character of the Ronkonkoma Hub area.

The *Urban Renewal Plan* provides a framework for the redevelopment of the Ronkonkoma Hub area in a transit-oriented manner with, among other uses, higher density residential development, commercial, hospitality, institutional, office, and retail uses, conference, entertainment and exhibition venues, and public designated outdoor spaces. In order to facilitate the recommended redevelopment of the Ronkonkoma Hub area, the *Urban Renewal Plan* recommends creation and implementation of a TOD District to regulate development within the Hub. Drawing upon the recommendations of the *Ronkonkoma Hub Transit-Oriented Planning Study* and the *Urban Renewal Plan*, the TOD District would set forth the general location and amount of development proposed within the area, which would permit higher density residential, commercial, office and retail development in mixed-use buildings while also allowing for flexibility in the design and placement of these uses, including the construction of buildings from three-to-five-stories in height, along Railroad Avenue, Mill Road and Union Avenue.

Also, in accordance with the goals of the *Ronkonkoma Hub Transit-Oriented Planning Study*, development in accordance with the *Urban Renewal Plan* would change the visual character of the Hub. New outdoor spaces and streetscape improvements would be provided that would contribute to an attractive and inviting pedestrian environment.

In an effort to improve the aesthetics of the area, the *Urban Renewal Plan* recommends orienting the new buildings to have frontage along the major corridors (i.e., Railroad Avenue, Union Avenue and Mill Road), and existing and proposed secondary roads, so that the backs of buildings are not facing these principal roadways.

TOD District

As recommended in the *Urban Renewal Plan*, and as discussed in Section 3.4, above, a TOD District has been proposed to implement the planning concepts described in earlier plans. Aspects of the TOD District that address the aesthetics within the Ronkonkoma Hub area include building configuration and height, building alignment, designated outdoor space, signs, and supplementary public lighting.

A key objective of the TOD District is to locate buildings close to streets and to each other as opposed to separate structures with large front and side yard areas. Therefore, the TOD District provides for building configuration (height and number of stories) and building alignment, including the establishment of build-to-zones. Parking would be in one of several forms, including; structured parking as part of the buildings, located behind the buildings and/or at the rear of lots, or on-street along the key gateway streets such as Railroad Avenue. This approach to orienting buildings and entrances towards the street and the provision of on-street parking would give definition to the street as a public space, and create a comfortable sense of place for pedestrians. The goal is to create a development pattern that avoids the fragmented look of large-format "big-box" buildings sitting within the middle of a site, surrounded by a sea of parking. Instead, the emphasis is on visual continuity between the buildings and streets.

The proposed structures would respect the scale and massing of existing development outside of the Ronkonkoma Hub area by transitioning down in height in the Neighborhood Subdistrict at the northern boundary of the TOD District. Greater density, building type variety and interruptions in roof forms and skyline treatment would enhance the visual interest within the Ronkonkoma Hub area. The variation of building heights is part of the diversity of many attractive urban centers.

High quality streetscape design and landscaping, including a landscaped median within certain streets is an important feature for this type of urban-style neighborhood where the public street space becomes, in effect, the place for the social interactions that builds a sense of community. Additionally, the TOD District contains provisions that call for the incorporation of designated outdoor spaces to create visual relief and interest, provide shade for pedestrians, and to screen the parking and loading areas. The public realm street design standards will also provide for trees along the roadway in addition to the landscaped median.

Visual Assessment of Maximum Density Concept Plan

The Maximum Density Concept Plan was created based upon the requirements of the TOD District, including height, building form and architectural standards. The Maximum Density Concept Plan (as detailed in the Conceptual Master Plan package [see Appendix E] and as illustrated on the renderings, discussed below) depicts various building types (with complementary architectural styles and materials)

ranging in height from one-to-five stories, decorative street lighting, as well as street trees to be installed at regular intervals and coordinated within individual site and plans and with public spaces, as required by the TOD District. The Maximum Density Concept Plan presented and analyzed herein depicts only one of the possible arrangements of uses and buildings that would be permitted in accordance with the TOD District.

In order to evaluate the potential visual impacts of the future development within the Ronkonkoma Hub on the surrounding area, a number of visual analyses were performed by the Master Developer and its consultant. These included a shadow analysis, a before and after analysis from viewpoints within the project area and a line-of-sight analysis. Renderings from areas where the development would be seen) from various vantage points outside the project area were also created.

A shadow analysis was performed by the Master Developer based upon the Maximum Density Concept Plan. In order to apply a conservative analysis method, the methodology outlined in the *New York City CEQR Technical Manual-2012* (hereinafter "*CEQR Manual*"). According to the *CEQR Manual*, the months and days of interest for a shadow analysis:

"encompass the growing season (March through October) and one month between November and February (usually December) representing a cold-weather month. Representative days for the growing season are generally the March 21 vernal equinox (or the September 21 autumnal equinox, which is approximately the same), the June 21 summer solstice, and a spring or summer day halfway between the summer solstice and equinoxes such as May 6 or August 6 (which are approximately the same). For the cold-weather months, the December 21 winter solstice is usually included to demonstrate conditions during cold weather when people who do use open spaces rely most heavily on available sunlight for warmth."

Therefore, four shadow analyses were prepared for the Maximum Density Concept Plan for various times of the day for the Vernal (Spring) Equinox, May 6, Summer Solstice and Winter Solstice (see Figure 17 through Figure 20). It is important to note that, to provide the most conservative analysis, the Maximum Density Concept Plan shows buildings at maximum permissible heights per the proposed TOD District. Thus, the shadow analysis results represent a worst case condition, and the actual impacts may be less, based upon the heights and configurations of the buildings ultimately developed.

The shadow analysis for the Vernal (Spring) Equinox (see Figure 17) shows that at the hours of 11:00 a.m. and 1:00 p.m., when the sun is generally overhead, the potential future buildings do not cast shadows onto any off-site properties, although some limited shadows extend onto Union Avenue. At 7:25 a.m., 1½ hours after sunrise, since the sun rises in the east, shadows would be cast to the west of the potential buildings. Potential new development would cast off-site shadows onto several properties on the west side of Hawkins Avenue/east side of Lakewood

Avenue and the southern portion of Garrity Avenue. Some off-site shadows would also be cast along Union Avenue. At 4:35 p.m., 1½ hour before sunset, as the sun sets in the west, shadows would be cast to the east of the potential buildings. Several shadows would be cast onto the westernmost residential buildings within the adjoining residential complex located directly east of the Ronkonkoma Hub area.

As noted in the *CEQR Manual*, May 6th is a date that is halfway between the Vernal (Spring) Equinox and the Summer Solstice. Therefore, a shadow analysis was performed for this date (see Figure 18). In all cases, the shadows cast were less than those for the Vernal (Spring) Equinox.

Shadow Studies

Ronkonkoma HUB Development

Views represent shadows cast by the proposed maximum density design. Actual development will vary as permitted by code. Times shown are Standard Time.



Spring Equinox, March 21

STEPHEN W. GRESHAM, AIA • SEPTEMBER 26, 2013



Shadow Studies

Ronkonkoma HUB Development

Views represent shadows cast by the proposed maximum density design. Actual development will vary as permitted by code. Times shown are Standard Time.

May 6



STEPHEN W. GRESHAM, AIA • SEPTEMBER 26, 2013



The Summer Solstice shadow analysis illustrated in Figure 19 shows that at 11:00 a.m. and 1:00 p.m., no shadows are cast as the sun is directly overhead at that those times. At and around the summer solstice, the sun is at its highest point in the sky, thus casting shorter shadows than at any other time of the year. At 5:51 a.m., 1½ hours after sunrise, very minimal shadows are cast to the west of the Ronkonkoma Hub area. At 5:57 p.m., 1½ hours prior to sunset, there would be shadows cast onto a couple of the westernmost buildings within the adjoining residential complex to the east.

Finally, a shadow analysis for the Winter Solstice was performed (see Figure 20). At winter solstice, the sun is at its lowest point in the sky during the year, which creates longer shadows than at any other time of the year. However, in general, there are fewer outdoor activities that would potentially be affected by such shadows. During the 11:00 a.m. and 1:00 p.m. timeframes, shadows are cast generally to the north of the potential future buildings to properties on the north side of Union Avenue. At 8:43 a.m., 1½ hours after sunrise, the shadows extend farther north of Union Avenue. In addition, shadows are cast along portions of Hawkins Avenue and Lakewood Avenue and on 1 property to the west thereof. At 2:58 p.m., 1½ hours before sunset, the shadows shift to the north and east, casting shadows along Union Avenue and properties to the north thereof. Shadows are also cast onto several of the buildings on the adjoining residential complex to the east. Although the shadows are the longest on and around the Winter Solstice, as previously indicated, this is the time of year is when outdoor activities and use of backyards, open spaces and recreation areas are at their lowest.

The shadow analyses demonstrate that, for the most part, off-site shadows cast by the potential future development on the site (as depicted in the Maximum Density Concept Plan) affect a small number of properties outside the Ronkonkoma Hub area. Furthermore, the time of year when the shadows are the longest (and would affect the most properties) is on and around the Winter Solstice. This is the time of year when outdoor activity is at its lowest. Thus, although there would be some shadow impacts outside the Ronkonkoma Hub area, they would not be prolonged. Accordingly, no significant adverse, sustained shadow impacts are anticipated.

Shadow Studies

Ronkonkoma HUB Development

Views represent shadows cast by the proposed maximum density design. Actual development will vary as permitted by code. Times shown are Standard Time.



Summer Solstice,
June 21

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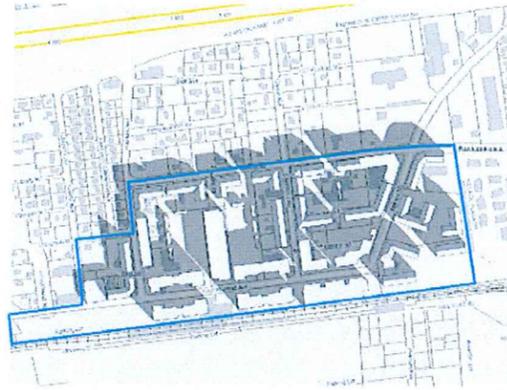
Figure 19
Shadow Studies
Summer Solstice

**Ronkonkoma Hub
Transit-Oriented Development**

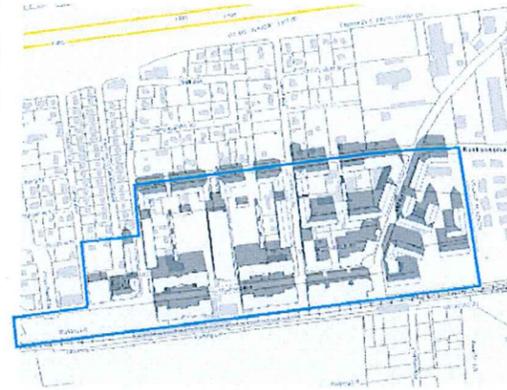
Shadow Studies

Ronkonkoma HUB Development

Views represent shadows cast by the proposed maximum density design. Actual development will vary as permitted by code. Times shown are Standard Time.



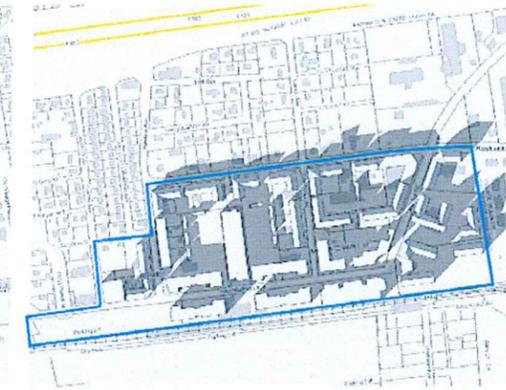
8:43 am (sunrise 7:13 am)



11:00 am



1:00 pm



2:58 pm (sunset 4:28 pm)

Winter Solstice, December 21

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In addition to the shadow analysis, several renderings of the development shown on the Maximum Density Concept Plan have been prepared by the Master Developer, depicting potential development within certain portions of the Ronkonkoma Hub area. These renderings portray the general character of the area and show general scale and form of development based upon the building diagrams included in the TOD District. While the exact buildings in the specific locations have not been finalized, as this is a conceptual Maximum Density Plan, the architectural character will be consistent with what is shown on the following renderings. Photographs showing the existing visual condition at the location of each rendering are included to illustrate the “before” and potential “after” conditions.

Hawkins Avenue and Union Avenue Looking Southeast

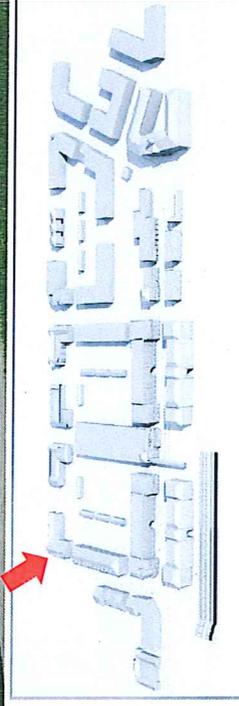
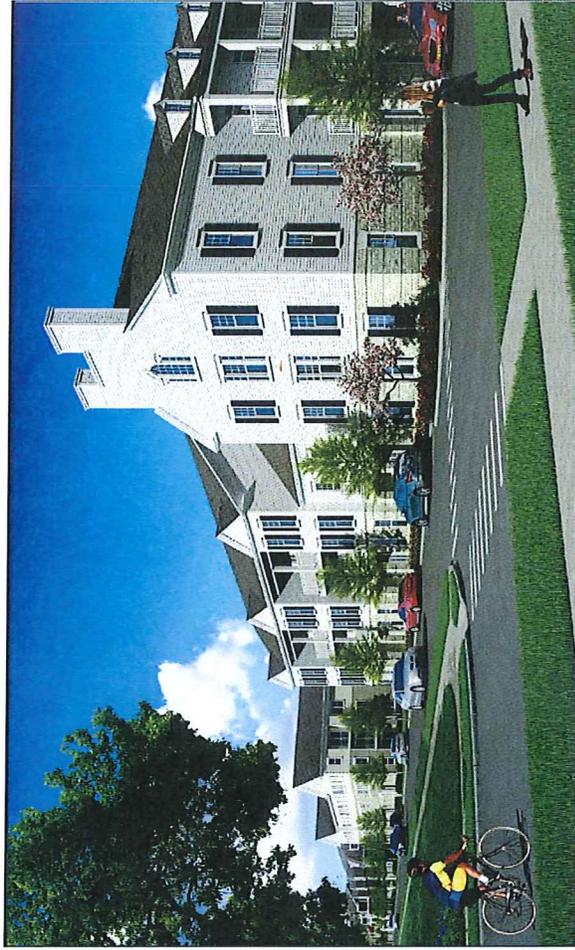
As shown in Figure 21, the existing appearance of this intersection is of randomly parked cars within an automobile repair shop, poles and overhead wires and several deciduous trees both tucked in between buildings on the south side of Union Avenue and on the north side of Union Avenue. The street contains cracked pavement and there is no curbing or sidewalks along the property. Cars are parked where sidewalk would typically be located. There are several buildings located on the corner lot ranging in height from one-to-two stories. The buildings are packed tightly on the site and are not cohesive in appearance.

The rendering of the potential development in this area shows that, based upon the Maximum Density Concept Plan the automotive uses (with cars randomly parked within sites and along the street and “sidewalk” area) would potentially be replaced with three-story multi-family residential units, with a cohesive appearance and consistent landscaping along the building frontage, whereas the buildings currently do not relate to each other architecturally. Streets would be repaved and sidewalks would be installed in front of the buildings, where currently no sidewalk exists. The south side of Union Avenue would become all residential, forming the northern boundary of the Ronkonkoma Hub area. As with all the renderings described herein and below, it is expected that the general architectural characteristics and materials of the buildings would be as shown on the rendering.

EXISTING CONDITION



POTENTIAL FUTURE CONDITION



Hawkins Avenue Looking South from North of Union Street

The view looking south along Hawkins Avenue, from just north of Union Street (a one-way street going east), is of residential development on the west side, north of Union Street, with overgrown vegetation along the street, some broken fencing, minimal, if any, sidewalk and no curbing (see Figure 22). On the east side of Hawkins, north of Union Street, there is an open unpaved, minimally landscaped lot with several buildings set back from the roadway. There is no sidewalk and no curbing along this frontage and puddles are forming near the driveway.

South of Union Street (not shown on the photograph), the appearance Hawkins Avenue is visually disjointed. There are open, paved parking lots that are in poor condition, both parking areas and buildings along the street with a wide variation in building setbacks and no uniform building line, a bus depot, automobile repair shops with cars randomly parked on the site, as well as visually incoherent and dilapidated buildings, most of which are one-story in height. Part of the street in this area has sidewalks and curbing, while other portions of Hawkins contain cracked pavement and no curbing. Deciduous trees along the west side of the street obscure the bus depot when the leaves are on the trees; however, most of the area along this street contains minimal vegetation. There are poles and overhead wires along the length of the west side of Hawkins Avenue in this area.

The rendering depicts four-story buildings of cohesive architectural style on the east side of the street, with three-story buildings of complementary architectural style on the west side of the street. The buildings on both sides of the street frame the view looking south toward the railroad tracks. New curbing is shown along the edge of pavements and landscaped areas are shown between the street and sidewalk areas, replacing the overgrown landscaping and the undefined edge of pavement. Formalized on-street parking is shown on the east side of the street.

EXISTING CONDITION



POTENTIAL FUTURE CONDITION

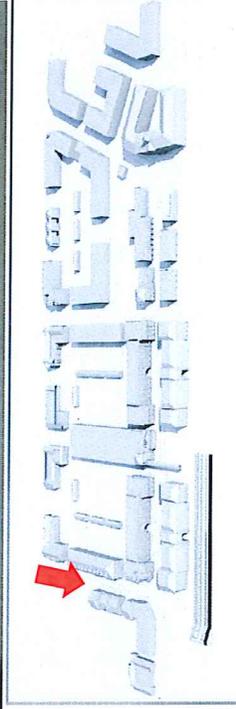
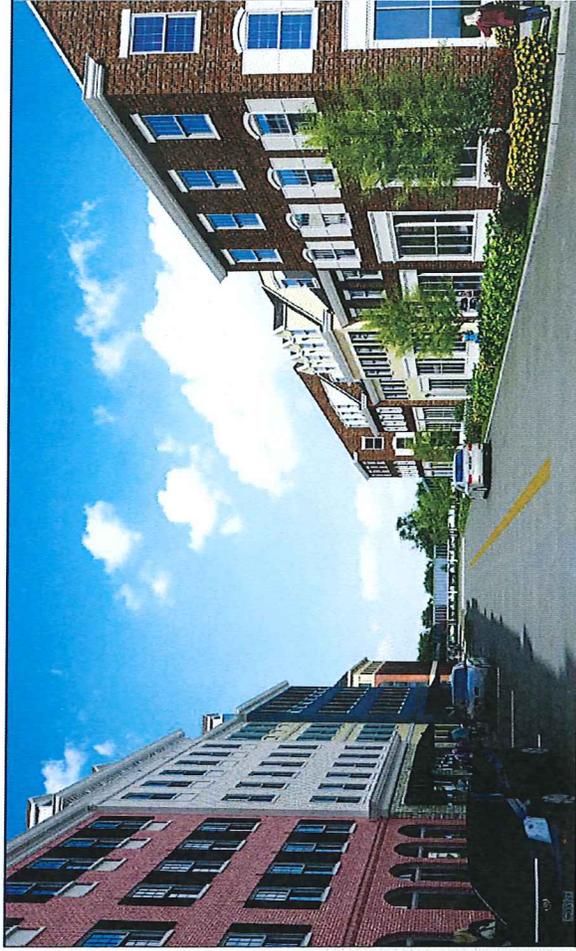


Figure 22
Hawkins Avenue
Photo/Rendering

**Ronkonkoma Hub
Transit-Oriented Development**

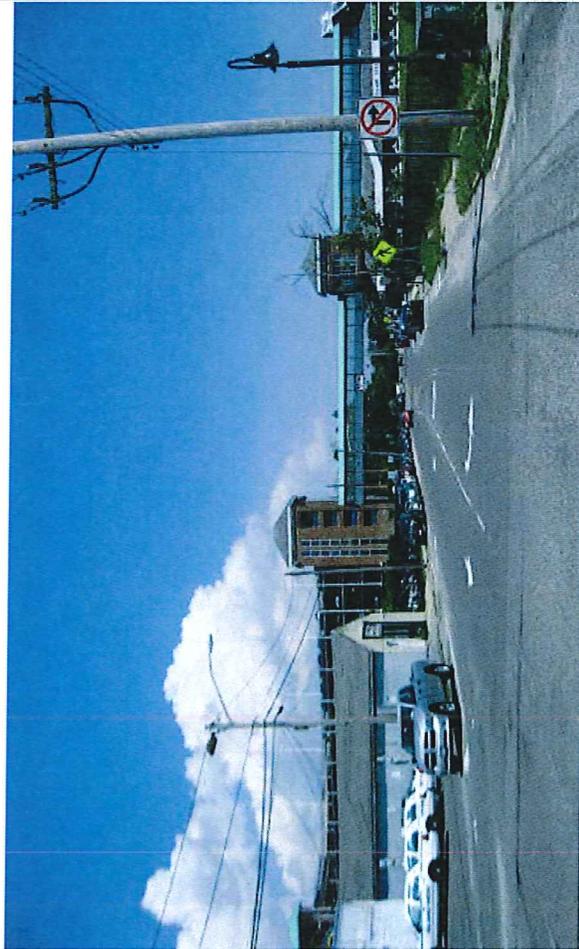
Railroad Avenue and Hawkins Avenue Looking East

The view from Hawkins Avenue looking east along Railroad Avenue is very open (see Figure 23). There are no trees on either side of the street, which provides an extensive view of the buildings and uses in this area. Railroad Avenue contains a wide swath of pavement with parking on both sides of the roadway. On the south side of Railroad Avenue, the area contains an open, unkempt grass field. There are minimal overhead wires and poles along this side of the street. There is minimal sidewalk and what is there is in poor condition. There is curbing on the portion of the street closest to the railroad station. On the north side, there are disparate one-story buildings (including automobile repair and a storefront church). Sidewalks are present, but there is minimal vegetation, and what vegetation is present is not maintained.

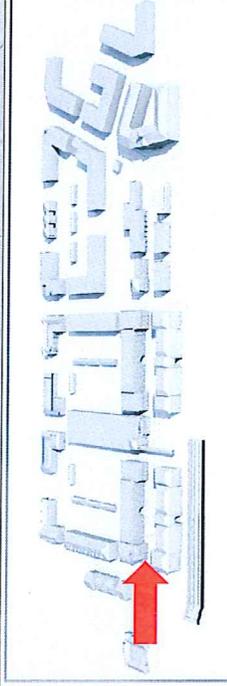
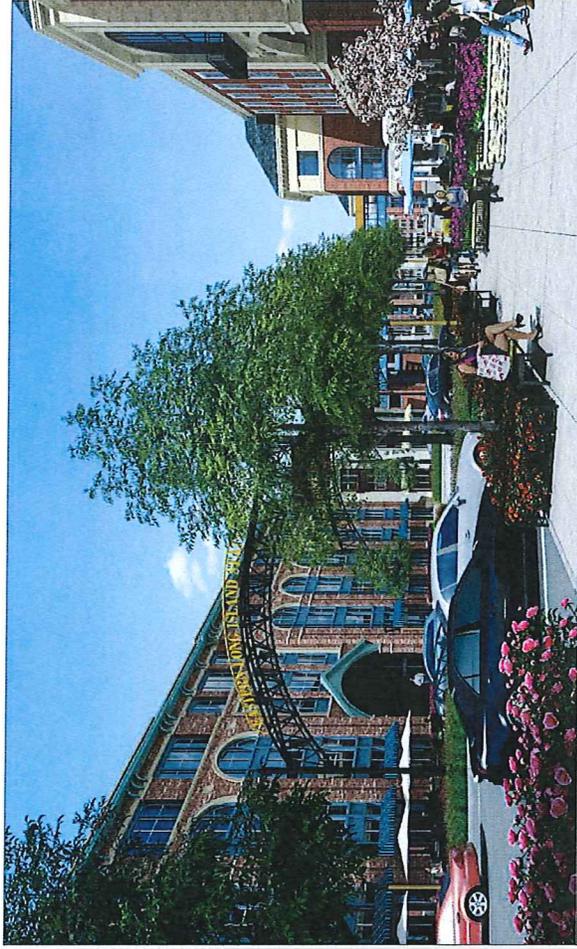
The parking garage and pedestrian overpass that leads to the train station are visible in the background.

As shown on the rendering, the view looking east toward the pedestrian overpass adjacent to the train station is framed by five-story buildings of varied, but complementary architectural styles on either side of Railroad Avenue. These would replace the existing one- and two-story buildings of incompatible uses (e.g., church situated next to a taxi stand) and open parking lots on the north side and the open parking lots in front of the railroad tracks. The buildings located on the south side of Railroad Avenue would shield views of the tracks from the street. Wide sidewalks allow for the placement of trees wells, planters, benches, outdoor cafes and other pedestrian amenities along the storefronts. The wide sidewalks also encourage the articulation of building facades so that the street wall is varied. The rendering depicts angled, head-in parking along both sides of Railroad Avenue. Figure 23 illustrates that the entrance to the Ronkonkoma Station area, from the west, would be completely redesigned to provide a welcoming, architecturally pleasing and pedestrian-friendly environment. This would replace the wide open roadway consisting of minimal sidewalks, minimal vegetation and, which does not foster pedestrian activity.

EXISTING CONDITION



POTENTIAL FUTURE CONDITION



Station Square Looking North

As shown in Figure 24, this view is looking north from the Ronkonkoma station building to the entrance of the existing parking garage for the Ronkonkoma train station with the existing stair tower and pedestrian bridge to the left of the photograph. The photograph shows the grass area and flagpole in front of the train station with the open-air parking garage as the main element in the view. To the right of the photograph there are several large trees and other deciduous vegetation.

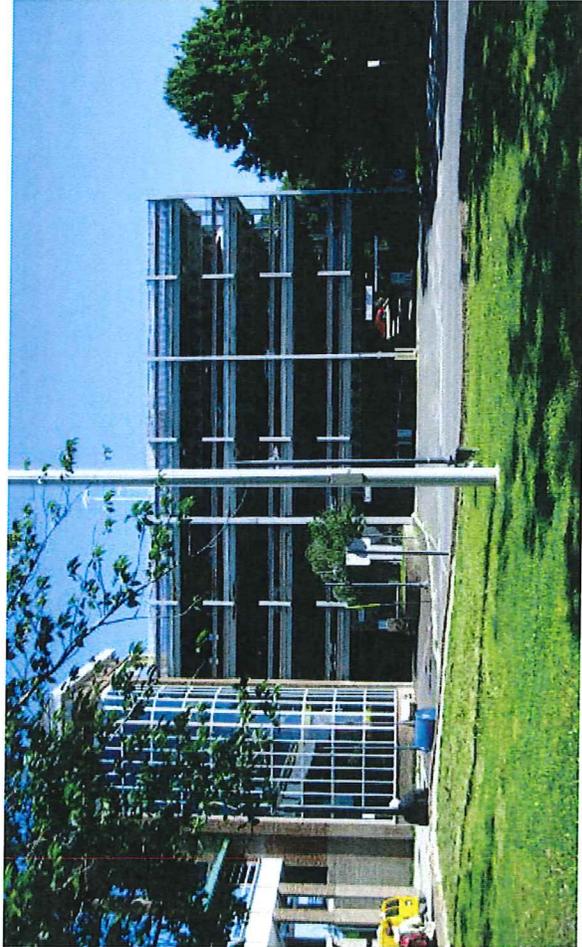
The rendering shows an open pedestrian plaza with decorative pavers defining various spaces in front of a re-imagined parking garage and pedestrian overpass, situated behind retail establishments. Development in accordance with the Maximum Density Concept Plan shows mixed use buildings of four and five-stories would flank the parking garage, replacing the surface parking lot to the west and the vacant, overgrown lot to the east. The parking garage, rather than acting as a stand-alone, monolithic, mono-functional facility, would be integrated into the overall design of the area.

Railroad Avenue and Carroll Avenue Looking Toward Mill Road

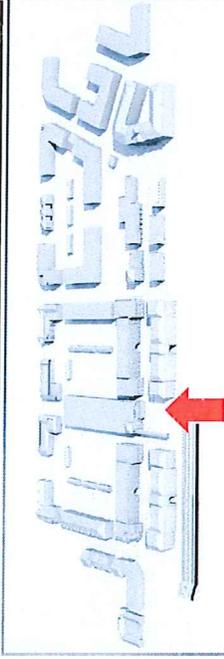
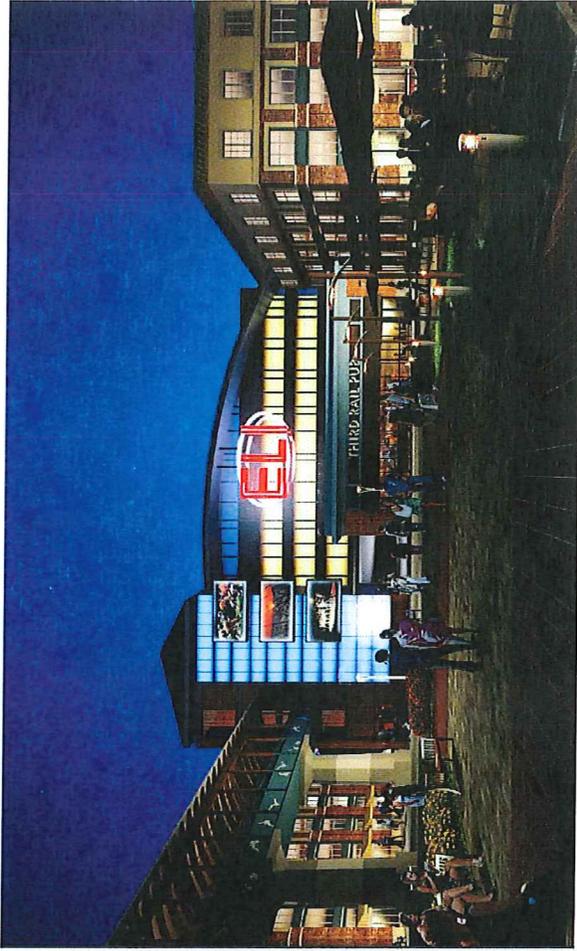
The view looking east from Railroad Avenue and Carroll Avenue toward Mill Road is generally of open parking areas and overhead wires on the south side of Railroad Avenue and a single-family home/small business with head-in parking on the north side of Railroad Avenue (east of Carroll Avenue) (see Figure 25). There is no curbing and no sidewalk on the north side of the street, where vegetation comes up to the edge of the pavement. The south side of Railroad Avenue, adjacent to the surface railroad parking lots contains new sidewalk and curbing, brick-pavers along the street, and new trees within tree wells. Lighting is provided by both tall pole-mounted fixtures, as well as shorter decorative light standards located between the street trees. Overhead wires are present on the south side, while there are no overhead wires or poles on the north side of the street.

The view shown in this rendering is east of the railroad station, along Railroad Avenue, looking beyond the proposed traffic circle at Mill Road. This viewpoint depicts a landscaped median separating eastbound and westbound traffic. Three-story buildings are shown on the south side of Railroad Avenue, while taller buildings are shown along the north side. Both sides of the street contain bump-outs, with parallel parking in between. The bump-outs would allow for additional plantings along the sidewalks, as well as the placement of street furniture. The existing railroad parking lots that are visible on the south side would be shielded from the street view by the proposed three-story buildings. A four-story building is shown as the focal point in the distance, beyond the traffic circle at Mill Road.

EXISTING CONDITION



POTENTIAL FUTURE CONDITION



EXISTING CONDITION



POTENTIAL FUTURE CONDITION

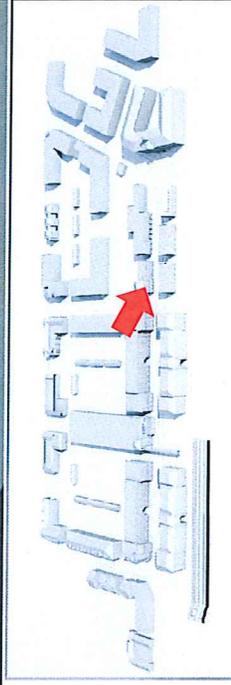
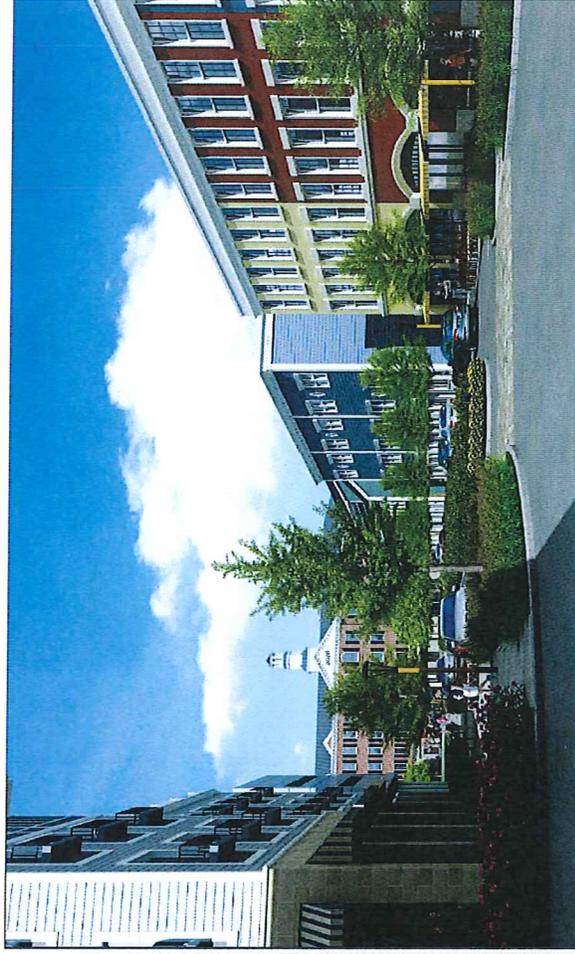


Figure 25
Railroad Avenue and Carroll Avenue
Looking Toward Mill Road
Photo/Renderings

Ronkonkoma Hub
Transit-Oriented Development

Union Avenue and Carroll Avenue Looking Southeast

As seen in Figure 26, the view looking southeast along Union Avenue, from just west of Carroll Avenue is of a nicely landscaped property, with sidewalk and curbing on the south side of Union Avenue, west of Carroll Avenue, followed by an industrial development, partially hidden behind deciduous trees and a retaining wall and chain-link fencing. The north side of Union Avenue contains uneven and cracking pavement, no defined edge of pavement and overgrown vegetation. High tension utility poles line the north side and cross over Union Avenue to the south side of the street.

Farther east along Carroll Avenue (not shown), the view looking east along the north side of Union Avenue is of one-story single-family homes with lawn up to the edge of pavement, trees along the edge of the lawn and poles with overhead wires along the street on the north side of Union Avenue, as noted above. The views of the south side of Union at Carroll are of overgrown vegetation behind a small wall with additional overgrown vegetation that is in poor condition on the outside of the fence. It is likely that in winter (since the trees are deciduous) the industrial uses containing an open yard and material stockpiles would be visible from the street. In addition, there is no sidewalk or curbing, and pavement appears to be in poor condition adjacent to the edge of the roadway.

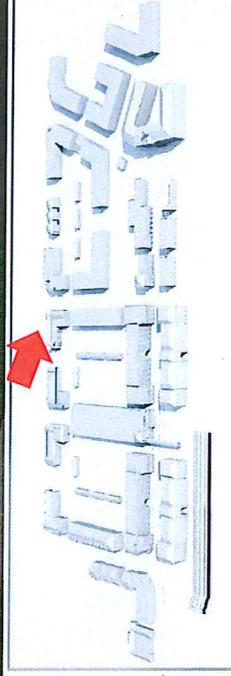
The rendering shown in Figure 26 depicts three-story, multiple residences along the south side of Union Avenue, continuing the residential development, which defines the northern boundary of the Ronkonkoma Hub area. The area along the front of these buildings would be landscaped with sidewalk along the length of the area. While sidewalk currently exists along some portions of Union Avenue, sidewalk would continue along the length of the Ronkonkoma Hub area.

Based on the renderings, which depict potential development as contemplated in the Maximum Density Concept Plan, and the analyses presented above, the adoption of the *Urban Renewal Plan*, creation of the TOD District and the redevelopment of properties in accordance with the TOD District would result in beneficial impacts to the visual character of the area, as blighted and aesthetically unattractive properties would be replaced with new visually pleasing and cohesive development.

EXISTING CONDITION



POTENTIAL FUTURE CONDITION



In addition to the before/after photographs/renderings from within the Ronkonkoma Hub area, the Master Developer performed six viewshed studies for areas further outside the boundaries of the Ronkonkoma Hub area to evaluate the potential visual impacts of the Maximum Density Concept Plan from the surrounding area.

Figure 27 shows the six areas from which the additional viewshed analyses were conducted by the Master Developer. These include the following:

- View 1: Ronkonkoma Avenue overpass looking northeast
- View 2: Liberty Street and Garrity Avenue, looking east-southeast
- View 3: Henry Avenue (N-S and E-W), looking south
- View 4: Cedar Street, looking south
- View 5: Babcock Avenue, looking southwest
- View 6: Winchester Road, looking west

View 1 from the Ronkonkoma Avenue overpass looking toward the southwestern portion of the Ronkonkoma Hub area shows that the potential development, as depicted on the Maximum Density Concept Plan, would be visible from this vantage point. However, there are no privately-owned parcels located between this viewpoint and the development area. As can be seen on Figure 28, the current view from the overpass is of the railroad tracks and the existing parking lot along Railroad Avenue, with some perimeter vegetation and with barely discernible buildings in the background. Based upon the Maximum Density Concept Plan, the future view would still be comprised of the vegetation, railroad tracks and parking lot, but would also include the proposed buildings along both sides of Railroad Avenue, within the Main Street Subdistrict. A simulation of these future buildings is presented in View 1. Upon redevelopment, the view of this area from the overpass would be of a more developed area around the railroad tracks and station. The illustration in the lower right corner of this figure depicts the potential building and architectural character of the Main Street Subdistrict along Railroad Avenue from within the Ronkonkoma Hub area. This is the same area that would be visible from the Ronkonkoma Avenue overpass.

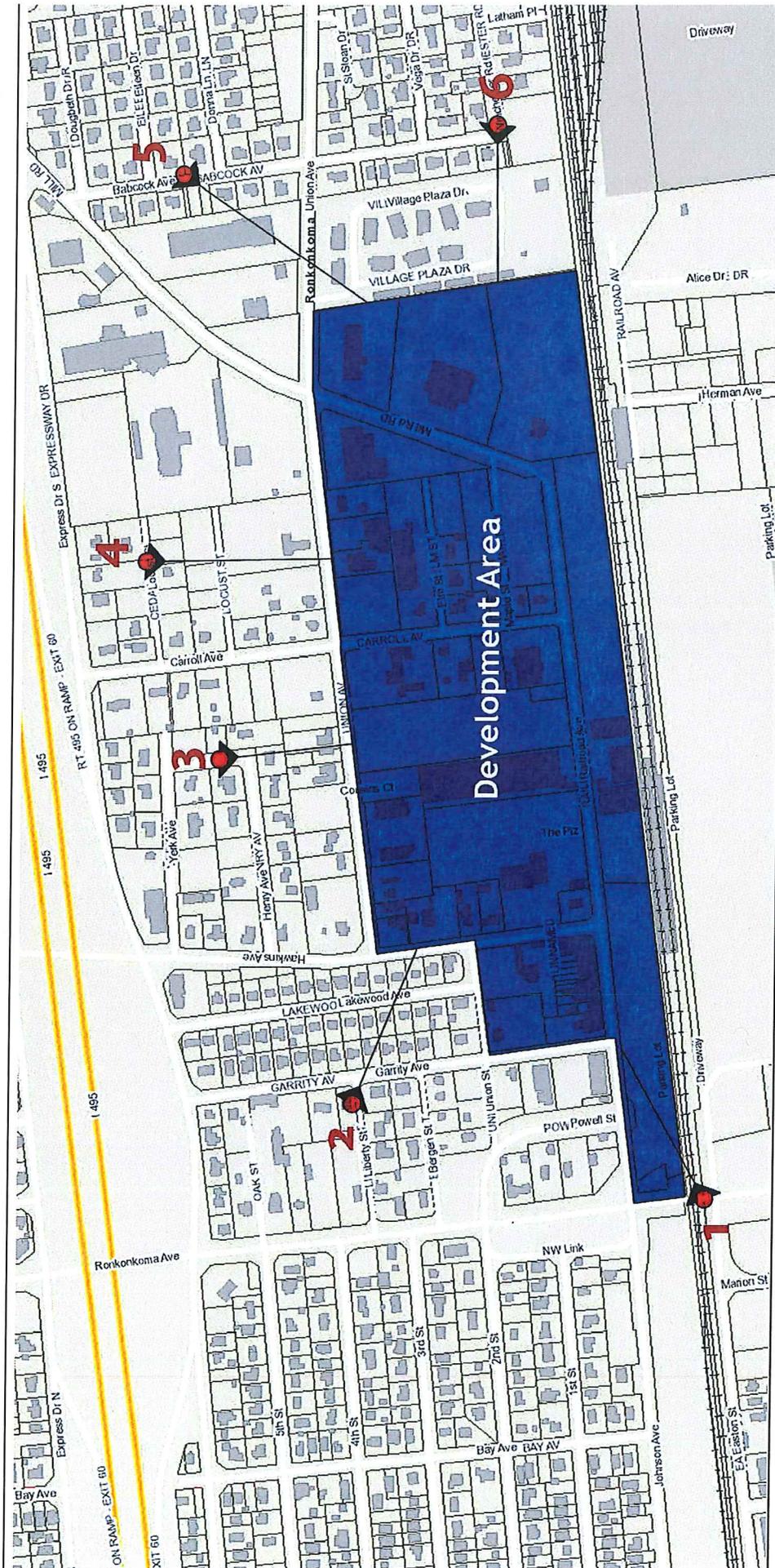
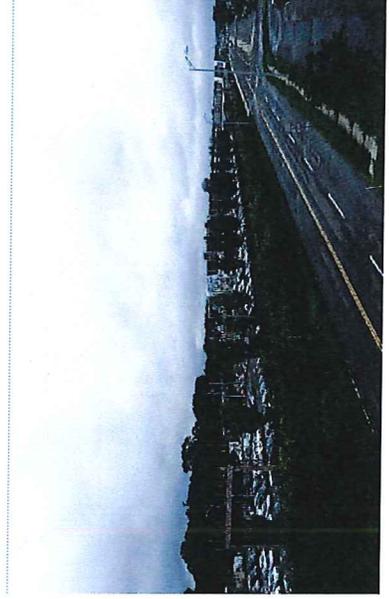


Figure 27
Viewshed Studies
Key Map

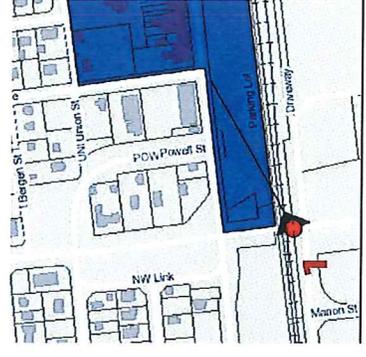
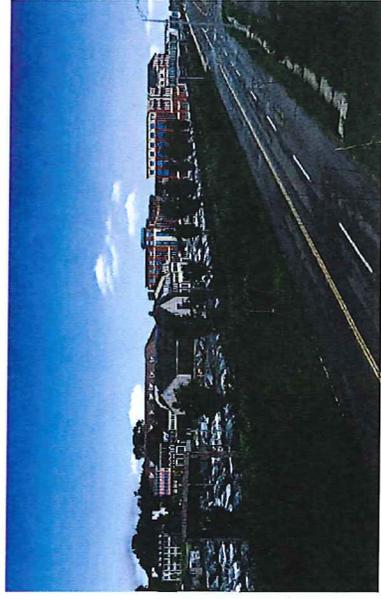
Ronkonkoma Hub
Transit-Oriented Development

Viewshed Studies
Ronkonkoma Hub Development

View 1
Ronkonkoma Ave. overpass looking northeast.



View 1
Approximation of allowable development envelope.



Analysis:
This view is from the highway overpass. There are no private parcels between the point-of-view and the development area.

New Development
Artist's rendering of proposed new development character along Railroad Ave.



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Figure 28
Viewshed Studies
View 1

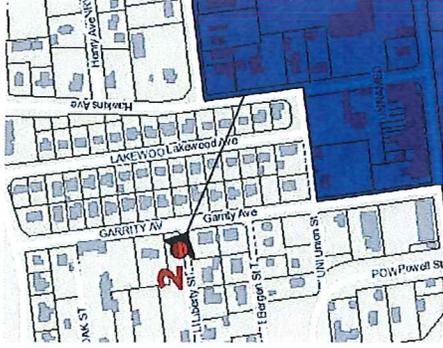
Ronkonkoma Hub
Transit-Oriented Development

View 2 is from Liberty Street and Garrity Avenue, looking south toward the northwestern portion of the Ronkonkoma Hub area near Hawkins Avenue, just south of Union Street. The potential future development in this line-of-sight is limited to maximum three-story buildings within this portion of the Neighborhood Subdistrict. The line-of-sight analysis shown on Figure 29 indicates that for a person standing at the corner of Liberty Street and Garrity Avenue, or in that general vicinity, the future potential development based upon the Maximum Density Concept Plan would not be visible. The line-of-sight drawing indicates that the view toward the Ronkonkoma Hub area would be blocked by an existing residence along the east side of Garrity Avenue, and beyond that, by multiple lines of mature trees. Therefore, based on the analysis provided, the potential future residential development, which is illustrated in the lower right corner of Figure 29 would not be visible from View 2.

The view looking south from Henry Avenue and the general vicinity, as depicted in View 3 and shown on Figure 30, shows that views from this area toward the potential future development (within the Neighborhood Subdistrict, consisting of maximum three-story, multi-family residences in this location) would be blocked by existing two-story houses, a tree-line and a deep-wooded lot that exists between this area and the Ronkonkoma Hub area. Therefore, based on the analysis provided, the potential future residential development, which is illustrated in the lower right corner of Figure 30 would not be visible from View 3.

View 4 was taken looking south from Cedar Street, which is several blocks north of the northern boundary of the proposed Ronkonkoma Hub area. As with View 3, views from this area toward the potential future development (within the Neighborhood Subdistrict, consisting of maximum three-story multi-family residences in this location) would be obscured by one- and two-story residences as well as stands of trees that exist between this area and the Ronkonkoma Hub area, as seen on the line-of-sight drawing on Figure 31. Thus, based upon this line-of-sight analysis, views of the potential future residential development at the northern extent of the Ronkonkoma Hub area, which is illustrated in the lower right corner of Figure 31, would not be visible from the area of Cedar Street shown in View 4.

Viewshed Studies
Ronkonkoma Hub Development



Analysis:
The development in this line-of-sight is limited to three stories. Two-story houses and multiple lines of mature trees block views of the new development area.



New Development
Artist's rendering of proposed new development.



Figure 29
Viewshed Studies
View 2

Ronkonkoma Hub
Transit-Oriented Development

Prepared for the Town of Brookhaven, October 2013

View 2
Liberty & Garity, looking east southeast.



Diagrams indicate a simplified approximation of the sightlines at each location, to scale.

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WHP Engineering, Surveying and Landscape Architecture, P.C.

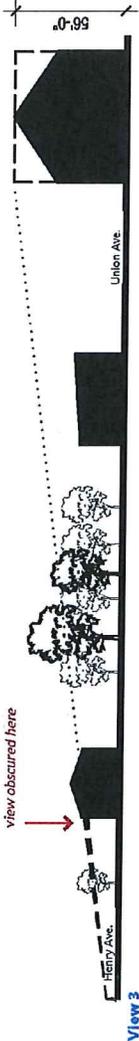
Viewshed Studies
Ronkonkoma Hub Development



Henry Ave. (E-W) looking south.



View 3
Henry Ave. (N-S) looking south.



Diagrams indicate a simplified approximation of the sightlines at each location, to scale.

Analysis:
The development in this line-of-sight is limited to three stories, two-story houses, a tree line, and a deep wooded lot block views of the new development area.



New Development
Artist's rendering of proposed new development.

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Figure 30
Viewshed Studies
View 3

Ronkonkoma Hub
Transit-Oriented Development

Viewshed Studies

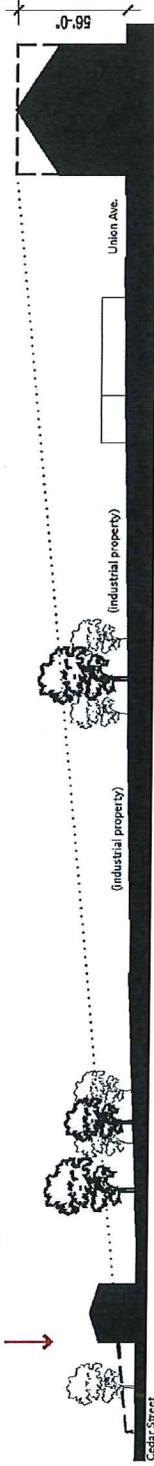
Ronkonkoma Hub Development



View 4
Cedar Street looking south.



View obscured here



View 4

Diagrams indicate a simplified approximation of the sightlines at each location, to scale.

Analysis:

The development in this line-of-sight is limited to three stories. The view from Cedar Street is blocked by either one and two story houses, or two stands of trees block views of the new development area. From Cedar Street, a one-story house effectively blocks the view.



New Development
Artist's rendering of proposed new development.

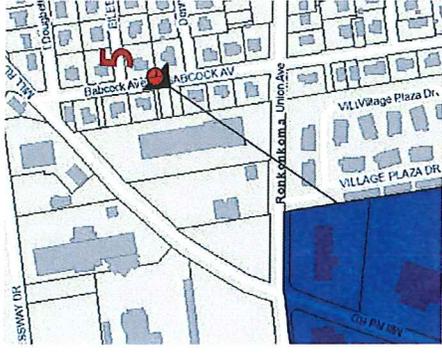
STEPHEN W. GRESHAM, AIA - OCTOBER 11, 2013

View 5, depicted in Figure 32, was taken from Babcock Avenue, between Eileen Drive and Donna Lane, looking southwest toward the eastern extent of the Neighborhood Subdistrict within the Ronkonkoma Hub area. While the potential future residential buildings according to the Regulating Plan would be permitted to be up to 70 feet in height in this area, based on the analysis provided, views from Babcock Avenue would be blocked by existing two-story residences, a warehouse building located between Union Avenue and Mill Road, and by an apartment building within the multi-family residential complex to the east, as well as a variety of stands of trees in the area. Moving north or south along Babcock Avenue, views of the potential future development would be obscured either by the existing residences along the west side of Babcock Avenue or the warehouse building to the north or the existing residences on the west side of Babcock Avenue and the garages and residences associated with the Fairfield development to the south. Furthermore, although the permitted building height would be up to four stories in this part of the Neighborhood Subdistrict, the land in this area of the Ronkonkoma Hub area is situated at a lower elevation than the viewpoint. This elevation difference assists in blocking the view from View 5 to the potential future development.

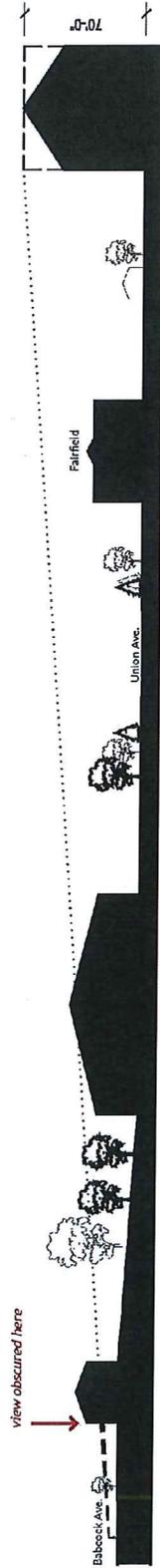
Finally, with respect to View 6, which is shown on Figure 33, the views from Winchester Road at the southern terminus of Babcock Avenue to the potential future development would be blocked. Specifically, a stand of mature trees and a line of evergreen trees separate the properties on Winchester Road from the adjacent multi-family residential complex and the potential future development within the Neighborhood Subdistrict (with maximum four-story buildings) within the Ronkonkoma Hub area. In addition, views from the adjacent Babcock Avenue are blocked by trees, as well as two stories home and three-story apartment buildings and their associated garages, which are located directly adjacent to the eastern boundary of the Ronkonkoma Hub area.

The line-of-sight analyses demonstrate that views from the surrounding neighborhoods to the north and east to the potential future development within the Ronkonkoma Hub area would be obscured by existing development and/or mature trees. The one exception is the view from the Ronkonkoma Avenue overpass (a public roadway) located to the southwest of the Hub, which is situated at a higher elevation than the proposed development,

Viewshed Studies
Ronkoma Hub Development



View 5
Babcock Ave looking southwest.



View 5
Diagrams indicate a simplified approximation of the sightlines at each location, to scale.

Analysis:
Two-story houses, a stand of trees, a warehouse building, two densely planted treelines, and a three story apartment building block views of the new development area. In addition, the new development is located at a lower elevation than the viewpoint.

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WBG Engineering, Surveying and Landscape Architecture, P.C.

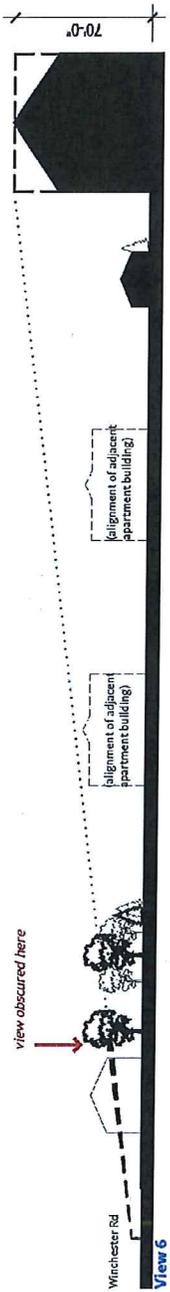
Figure 32
Viewshed Studies
View 5



Ronkoma Hub
Transit-Oriented Development

Viewshed Studies
Ronkonkoma Hub Development

View 6
Winchester Rd. looking west.



Diagrams indicate a simplified approximation of the sightlines at each location, to scale.

Analysis:

A stand of mature trees and a line of evergreen trees separates Winchester-Road properties from the adjacent apartment community and the new development.

From adjacent Babcock Avenue, views are blocked by the trees and also by two story homes, and three story apartment buildings.

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Figure 33
Viewshed Studies
View 6

**Ronkonkoma Hub
Transit-Oriented Development**

3.10.3 **Proposed Mitigation**

- In order to ensure that there will be positive impacts to the visual character of the Ronkonkoma Hub area, and no significant adverse impacts will be created, the TOD District has incorporated design measures that must be complied with, to wit: any proposed building must meet the requirements of the building configuration, alignment and parking placement for the subdistrict in which it is located, as set forth in the TOD District.

- Requirement for street assembly, streetscape improvements, designated outdoor spaces, signs and public supplementary lighting controls are specified in the TOD District. All development/redevelopment must conform to the specific requirements for the subdistrict in which it is located.

3.11 Cultural Resources

3.11.1 Existing Conditions

The 2010 DGEIS did not identify any sites within or directly adjacent to the Ronkonkoma Hub area that are on National and State Registers of Historic Places. Furthermore, the Ronkonkoma Hub area is not situated within an archaeologically-sensitive area, and there are no historic properties that exist within or adjacent to the Ronkonkoma Hub area.

According to the 2010 DGEIS, there are no Town-designated Historic Landmarks situated within or adjacent to the Ronkonkoma Hub area, and there are no Town-designated historic districts within or adjacent to the Ronkonkoma Hub area.⁵⁰

3.11.2 Potential Impacts

Redevelopment of properties within the Ronkonkoma Hub area in accordance with the Maximum Density Concept Plan would not result in any adverse impacts to cultural resources.

The utilization of Ronkonkoma LIRR Station was integral for the development of the adjacent Lake Ronkonkoma area to become one of the premiere resort areas in the northeast United States in the late 19th and early 20th centuries. It is anticipated that the proposed redevelopment will allow for the continuation of the historical tradition of the Ronkonkoma LIRR as a major transportation hub since its construction in 1883.

3.11.3 Proposed Mitigation

There have been no significant historic or archaeological resources identified within or adjacent to the Ronkonkoma Hub area. Thus, no mitigation measures are required.

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⁵⁰ There is one Society for the Preservation of Long Island Antiquities (SPLIA) site known as the Fisher Hotel/Horway General Store located at the northeast corner of Garrity and Railroad Avenues. SPLIA is a non-profit organization dedicated to understanding, celebrating, and preserving Long Island's cultural heritage. It is a regional advocate for historic preservation on Long Island.

4.0

Unavoidable Adverse Effects

The environmental impacts associated with the implementation of the proposed action, including ultimate development in accordance with the TOD District, have been described in and mitigation measures for most of these impacts have been discussed in Section 3.0 of this DSGEIS. Those impacts that cannot be either entirely avoided or fully mitigated are described below.

4.1 Short-Term Impacts

The proposed adoption of the *Urban Renewal Plan* and the *Land Use and Implementation Plan*, creation of the TOD District, the rezoning of the properties therein to the TOD District would not have any short-term physical impacts. However, development within the Ronkonkoma Hub area, in accordance with the TOD District, will ultimately have several temporary construction-related impacts that cannot be completely mitigated. These impacts are associated with the site preparation and development, including demolition, grading, excavation, installation of utilities and construction of building and parking facilities. It is anticipated that these impacts will cease upon completion of the construction. Specific impacts are identified below:

- Soils will be disturbed by grading, excavation, and mounding activities during construction and ultimate site development.
- Despite the use of extensive and strategically-placed erosion control devices, minor occurrences of erosion may occur.
- During demolition and construction, there is the potential for minor releases of fugitive dust during dry periods.

- There may be a temporary impact to roadways due to the movement of construction vehicles associated with site development activities.
- Temporary increases in noise levels and vibrations may result during demolition activities.
- Increases in noise levels at the site boundaries may result from construction activities.

4.2 Long-Term Impacts

Several long-term impacts associated with development in accordance with the TOD District have been identified. Mitigation measures have been proposed to reduce or eliminate most of these long-term adverse impacts. Those adverse long-term impacts, which cannot be fully mitigated, are set forth below:

- Development and redevelopment activities would potentially increase the area of impervious surfaces (buildings and pavement), which would increase runoff on the subject properties. However, stormwater will be contained and recharged within property boundaries, as required by Chapter 86 of the Town Code.
- Although the traffic study, based upon the Maximum Density Concept Plan, has determined that the surrounding roadways can accommodate the increases in traffic that will result from implementation of the proposed action, with the implementation of mitigation measures, additional vehicle trips will result from this action.
- There will be an increase in sanitary discharge associated with maximum development in accordance with the TOD District. However, the proposed STP, being developed by Suffolk County, would accommodate sanitary waste generated within the Ronkonkoma Hub area.
- There will be an increase in the amount of potable water used within the Ronkonkoma Hub area.
- There would be additional solid waste generated at the site, although same would not adversely impact solid waste management strategies or plans.
- The proposed development would increase permanent population, including school-aged children

5.0

Conditions and Criteria Under Which Future Actions Will Be Undertaken or Approved Including Requirements For Subsequent SEQRA Compliance

6 NYCRR §617.10(c) and (d) state, in pertinent part:

“(c) Generic EISs...should set forth specific conditions or criteria under which future actions will be undertaken or approved, including requirements for any subsequent SEQRA compliance...”

(d) When a final generic EIS has been filed under this part:

- (5) No further SEQRA compliance is required if a subsequent proposed action will be carried out in conformance with the conditions and thresholds established for such actions in the generic EIS or its findings statement;*
- (6) An amended findings statement must be prepared if the subsequent proposed action was adequately addressed in the generic EIS but was not addressed or was not adequately addressed in the findings statement for the generic EIS;*
- (7) A negative declaration must be prepared if a subsequent proposed action was not addressed or was not adequately addressed in the generic EIS and the subsequent action will not result in any significant environmental impacts;*
- (8) A supplement to the final generic EIS must be prepared if the subsequent proposed action was not addressed or was not adequately*

addressed in the generic EIS and the subsequent action may have one or more significant adverse environmental impacts."

Based on the analyses contained in this DSGEIS, the following represent the conditions and thresholds, which, if met, would allow full development of the Ronkonkoma Hub area within the Town of Brookhaven without the need for further SEQRA compliance or further approval from the Town Board:

- Total development of the Ronkonkoma Hub area shall not exceed the following development limits:⁵¹
 - 1,450 residential units
 - Approximately 195,000 SF - retail
 - Approximately 360,000 SF - office/medical
 - Approximately 60,000 SF - flex space (including hospitality, conference and exhibition space, and/or residential units)
- Sanitary discharge to the proposed STP associated with development/redevelopment of parcels within the Ronkonkoma Hub area shall not exceed 400,000 gpd. In the event that development/redevelopment is proposed that would cause this capacity to be exceeded, additional evaluation must be conducted and additional sewage capacity must be secured to support the additional development.
- No residential development shall be permitted south of Railroad Avenue between Hawkins Avenue and Mill Road in order to minimize the potential for residents within the proposed development to be affected by LIRR operational noise.
- The development or improvement of the internal and immediate perimeter roadway systems within and bordering the Ronkonkoma TOD area should be performed as the parcels adjacent to those roads are developed to ensure adequate and safe access to surrounding roadways. Functionally, the proposed improvements to the majority of these roads are to provide parking areas and other roadside amenities to serve the adjacent and surrounding parcels.
- The roundabout proposed at Railroad Avenue and Mill Road must be completed at such time as the adjacent development access which forms the south leg is developed (see Condition Figure B).

▼
⁵¹ With the exception of the limitation on residential units (which is a maximum), the amount of retail, office/medical and flex space can vary (as same will be dictated by actual market demand), as long as such development conforms with the requirements of the TOD District.

Traffic Mitigation Table

| Location | | Capacity Improvements | | Signal Improvements |
|----------|--|---|--|---|
| | | Existing Conditions | Proposed Mitigation | |
| 1 | LIE North Service Road & Hawkins Avenue | Westbound – One exclusive left-turn lane, one through lane and a shared through and right-turn lane | Restripe approach to: One shared left-turn and through lane, one through lane and a shared through and right-turn lane | Change PM-cycle length to 120 seconds.
Optimize AM / PM phase-splits |
| | | Northbound - One exclusive left-turn lane, two through lanes | Increase left-turn storage lane by removing a portion of the raised median | |
| 2 | LIE South Service Road & Hawkins Avenue | Eastbound – One exclusive left-turn lane, one through lane and a shared through and right-turn lane | Widen and add a 4 th approach lane. New configuration: One left-turn lane, two through lanes and a shared through and right-turn lane | Change PM-cycle length to 120 seconds.
Optimize AM / PM phase-splits |
| | | Northbound – One through lane and a shared through and right-turn lane | Restripe approach to add an exclusive right-turn lane. New configuration: Two through lanes and an exclusive right-turn lane | |
| | | Southbound - One left-turn lane, two through lanes | Increase left-turn storage lane by removing a portion of the raised median | |
| 3 | LIE North Service Road & Ronkonkoma Avenue | Westbound – One exclusive left-turn lane, one through lane and a shared through and right-turn lane | Restripe approach to: One shared left-turn and through lane, one through lane and a shared through and right-turn lane | Change PM-cycle length to 120 seconds.
Optimize AM / PM phase-splits |
| 4 | LIE South Service Road & Ronkonkoma Avenue | Eastbound – One exclusive left-turn lane, one through lane and a shared through and right-turn lane | Widen and add a 4 th approach lane. New configuration: One exclusive left-turn lane, two through lanes and a shared through and right-turn lane | Change PM-cycle length to 120 seconds.
Optimize AM / PM phase-splits |
| | | Northbound – One through lane and a shared through and right-turn lane | Widen and add a 3 rd approach lane. New configuration: Two through lanes and an exclusive right-turn lane | |

Traffic Mitigation Table...continued

| Location | | Capacity Improvements | | Signal Improvements |
|----------|--|---|---|---|
| | | Existing Conditions | Proposed Mitigation | |
| 5 | Hawkins Avenue & Union Avenue | Westbound – One exclusive left-turn lane with storage & one right-turn lane | Widen and add 3 rd approach lane. New configuration: One exclusive left-turn lane and two right-turn lanes | Change PM-cycle length to 100 seconds.

Optimize AM / PM phase-splits

Prohibit right-turns on red westbound |
| | | Northbound – One shared through and right-turn lane | New configuration: One through and a shared through and right-turn lane | |
| 6 | Union Avenue & Mill Road | Northbound – One shared left-turn, through and right-turn lane | Widen and add 2 nd approach lane. New configuration: One shared left-turn and through lane and an exclusive right-turn lane with storage | Change AM / PM-cycle length to 80 seconds.

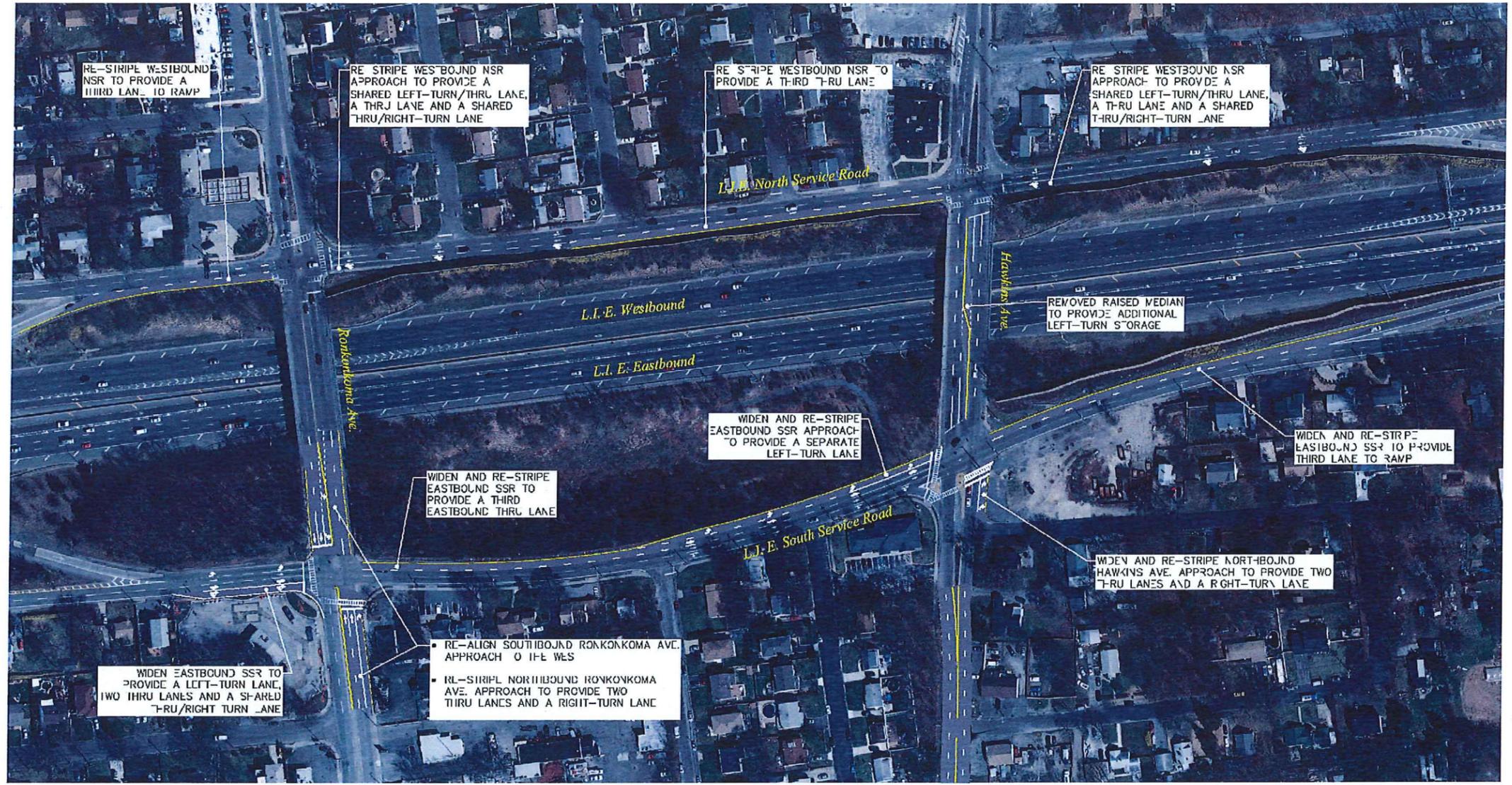
Optimize AM / PM phase-splits |
| 7 | Ronkonkoma Avenue & Powell Street / 2 nd Street | Northbound – One through and one shared through and right-turn lane | Restripe median as left turn lane. New configuration: One exclusive left-turn lane, one through and one shared through and right-turn lane. | Add new three phase traffic signal with leading southbound left turn phase. Side streets remain right turn out only.

Signal cycle length same as LIE Service Roads with suitable offset to ensure signal progression |
| | | Southbound – One through and one shared through and right-turn lane | Restripe median as left turn lane. New configuration: One exclusive left-turn lane, one through and one shared through and right-turn lane. | |

Traffic Mitigation Table...continued

| Location | | Capacity Improvements | | Signal Improvements |
|----------|--|---|--|---|
| | | Existing Conditions | Proposed Mitigation | |
| 8 and 9 | Railroad Avenue & Powell Street / Parking Lot & Johnson Avenue at Northwest Link / Parking Lot | | No proposed capacity changes | Run both the intersections off one controller for improved coordination. At Powell Street add protected permitted southbound left-turn phase. |
| 10 | Hawkins Avenue & Railroad Avenue | Westbound – One exclusive left-turn lane, one through and one exclusive right-turn lane | Channelized westbound right turn lane. | Add new three phase traffic signal with leading eastbound left turn phase. |
| | | Southbound – One shared left-turn and through, one exclusive right-turn lane | Channelize southbound right turn lane. | |





- The northbound right turn lane proposed at the intersection of Mill Road at Union Avenue (described in the Traffic Mitigation Table for location 6 and depicted on Condition Figure A) must be constructed when either the adjacent Parcel I or Parcel K, as shown on the Maximum Density Concept Plan, is developed.
- With respect to off-site mitigation, the following discussion provides the required off-site mitigation phasing, and identifies trip generation thresholds at which certain mitigation must be in place. It is noted that these thresholds are based on the net trip generation, which represents the anticipated trips after adjustments for the TOD and pass-by credits⁵² have been applied.
 - *Mitigation Level One (Initial Construction)* – Prior to occupancy of the initially constructed building(s) within the TOD, Hawkins Avenue should be improved from Railroad Avenue to just south of the LIE. This includes the installation of a new traffic signal at Railroad Avenue. The mitigation detailed in the Traffic Mitigation Table for locations 5 and 10 and depicted on Condition Figure A, shall be completed during this initial phase and prior to building occupancy (except for the requirement for an additional northbound lane on Hawkins Avenue north of Union Avenue for which additional right-of-way is required, which is discussed as a separate mitigation phasing item).
 - *Mitigation Level Two* – Prior to occupancy of buildings in the TOD that increase net trip generation of the development during the weekday p.m. peak period above 400 vehicles per hour (combined entering and exiting), the mitigation detailed in the Traffic Mitigation Table for locations 7, 8 and 9 and depicted on Figure A shall be completed.
 - *Mitigation Level Three* – Prior to occupancy of buildings in the TOD that increase net trip generation of the development during the weekday p.m. peak period above 500 vehicles per hour (combined entering and exiting), the mitigation detailed in the Traffic Mitigation Table for locations 2 and 4 and depicted on Figure B, along the entirety of the LIE South Service Road shall be completed.

▼
⁵² The TOD credit is a reduction in gross trip generation of 25 percent, applied to all uses in the TOD. The pass-by credit is a further reduction in trip generation for retail and restaurant uses within the TOD as prescribed in the Institute of Transportation Engineer's *Trip Generation Manual*, latest edition, but shall not exceed 20 percent for any specific use (see Section 3 of the Traffic Impact Study in Appendix H).

- *Mitigation Level Four* – Prior to occupancy of buildings in the TOD that increase net trip generation of the development during the weekday p.m. peak period above 700 vehicles per hour (combined entering and exiting), the mitigation detailed in the Traffic Mitigation Table for locations 1 and 3 and depicted on Figure B, along the entirety of the LIE North Service Road shall be completed.
- *Mitigation Level Five* – Upon reaching a trip generation of 1,100 vehicles in the p.m. peak hour (combined entering and exiting trips), traffic mitigation along Hawkins Avenue, between Union Avenue and the LIE South Service Road that was begun under *Mitigation Level One (Initial Construction)* must be completed, as detailed in the Traffic Mitigation Table for location 5 and depicted on Figure A. This includes the construction of the second northbound lane on Hawkins Avenue from Union Avenue to the LIE South Service Road and the striping of the westbound Union Avenue approach to three lanes as depicted on Figure A. No building permits shall be issued for development that would result in a trip generation of greater than 1,100 vehicles in the p.m. peak hour (combined entering and exiting) until such traffic mitigation is implemented, unless same is deemed unnecessary by the Town Board based upon a change in traffic conditions.

In the event that any of the conditions are proposed to be exceeded by future development, additional SEQRA compliance would be necessary in accordance with 6 NYCRR §617.10(d)(2), (3) or (4), as would be appropriate, given the actual development plan proposed and the associated potential environmental impacts associated therewith.

Furthermore, with respect to future development approvals (i.e., after the Town Board adopts the TOD District, applies the zoning to the Ronkonkoma Hub area, and approves the Maximum Density Concept Plan, as described above), the applicants will be required to obtain site plan approval from the Planning Board for proposed development. In addition to the standard site plan application requirements, at the time a site plan is submitted to the Town, an applicant must:

- Prepare and submit a construction traffic management and logistics plan. This plan, at a minimum, should indicate the following:
 - Days/hours of proposed construction activity
 - Designated routes of heavy vehicles to and from the site
 - Parking areas for workers and heavy vehicles
 - Construction staging areas
- If existing designated commuter parking will be temporarily or permanently displaced to accommodate the proposed development, prepare and submit a plan that demonstrates that parking will be replaced at a minimum ratio of one-to-one. Such replacement parking shall be in place prior to the

displacement of existing designated commuter parking, and shall be acceptable to the MTA.

- Provide a letter of sewer availability (or documentation from the appropriate regulatory agency as to the approved method of sanitary discharge) prior to final site plan approval.
- Demonstrate (for multi-story buildings) that there is adequate water pressure for the higher elevations in the buildings, and, where necessary, install a booster pump system.
- Implement water conservation measures, including low-flow fixtures, low-flow toilets, and/or drip irrigation.
- Submit confirmation that the site plan has been submitted to the Ronkonkoma Fire Department for review.

6.0

Irretrievable and Irreversible Commitment of Resources

The redevelopment of properties within the Ronkonkoma Hub area in accordance with the *Urban Renewal Plan*, the *Land Use and Implementation Plan* and TOD District, would preclude other uses of the property (e.g., industrial use, which is not a permitted use in the TOD District).

In addition, the limited areas of Successional Shrubland, Successional Southern Hardwoods, and Pitch Pine-Oak Forest would likely be removed in their entirety from within the Ronkonkoma Hub area property to accommodate potential future development.

Certain additional resources related to the construction aspects of the development would be committed. These resources include, but are not limited to, concrete, asphalt, lumber, paint and topsoil. Mechanical equipment resources would be committed to assist personnel in the construction at the property. The operation of construction equipment will require electricity, water resources and fossil fuels. Furthermore, the construction phase would require the commitment of manpower resources, as well as time.

7.0

Growth-Inducing Impacts

Growth-inducing aspects are generally described as the long-term secondary effects of the proposed action. The TOD District is proposed by the Town of Brookhaven to encourage the efficient use of land, be a catalyst for revitalization, and foster a sense of place through development of a new transit-oriented, mixed use, self-sufficient community. This development would in turn enhance the tax base and complement the surrounding uses as well as better utilize existing public transit infrastructure at Ronkonkoma Station through improved access and increased ridership. In essence, the proposed TOD District will facilitate growth.

With the addition of the new residential units, retail and office space, and hospitality uses, the proposed TOD District will revitalize the Ronkonkoma Hub area and create positive growth by attracting more businesses, residents, and visitors to the area. Development in accordance with the TOD District, as depicted on the Maximum Density Concept Plan is estimated to generate a population of 2,768± residents, including 214± school-aged children.

Also, development in accordance with the Maximum Density Concept Plan would provide approximately 2,740 permanent jobs, based on the proposed square footage of the development. In addition, the permanent jobs that would be generated would create more secondary jobs in and around the Ronkonkoma Hub area. Thus, employment opportunities will be created for professionals, young adults, part-time workers, college students, senior citizens and those who may wish to supplement a current salary. The socioeconomic analysis indicated that the projected permanent jobs would generate an additional \$55,090,800± in secondary earnings and 2,129 secondary jobs.

Also, the secondary impacts of the discretionary income generated from the 1,450 residential units constructed in accordance with the Maximum Density Concept Plan include \$13,350,069 in earnings, \$4,624,218± in net output and 349± jobs.

It is important to note that, as a portion of the Ronkonkoma Hub area is currently developed, the potential growth associated with the proposed action would be through infill and redevelopment. As such, the potential growth-inducing aspects of the proposed action are consistent with the Town's objectives for removal of blighted properties and revitalization of areas containing such blighted properties.

8.0

Use and Conservation Of Energy

Currently, LIPA and National Grid provide electricity and natural gas service, respectively, to the Ronkonkoma Hub area, and would continue to do so under the proposed redevelopment. As the potential development in accordance with the TOD District would increase the demand for both electricity and natural gas, consultations were undertaken with LIPA and National Grid for review of the both plans. In correspondence dated August 19, 2010, LIPA confirmed its ability to provide electric service to the properties within the Ronkonkoma Hub area. By electronic mail on August 26, 2010, National Grid confirmed its ability to supply natural gas to the properties within the Ronkonkoma Hub area (see correspondence from LIPA and National Grid in Appendix J of the 2010 DGEIS). In order to update this information based upon the development parameters set forth in the *Urban Renewal Plan* and TOD District, LIPA and National Grid were again contacted to request availability. To date, no written response to the request for information has been received.

For all site-specific applications under the TOD District, both LIPA and National Grid (or equivalent) would be consulted to confirm service availability and to identify potential site improvements.

As such, it would not be expected that the proposed action would result in a significant adverse impact due to increased energy demands.



9.0

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