River Knoll
Full Environmental Assessment Form

Name of Applicant

Glenco Group
9 Ridge Road
Bronxville, NY 10708

Prepared By

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EAF Part 1

Full Environmental Assessment Form
Part 1 – Project and Setting

Instructions for Completing Part 1

Part 1 is to be completed by the applicant or project sponsor. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification.

Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information; indicate whether missing information does not exist, or is not reasonable available to the sponsor; and, when possible, generally describe work or studies which would be necessary to update or fully develop that information.

Applicants/sponsors must complete all items in Sections A & B. In Sections C, D, & E, most items contain an initial question that must be answered either "Yes" or "No." If the answer to the initial question is "Yes," complete the sub-questions that follow. If the answer to the initial question is "No," proceed to the next question. Section F allows the project sponsor to identify and attach any additional information. Section G requires the name and signature of the project sponsor to verify that the information contained in Part 1 is accurate and complete.

A. Project and Sponsor Information

Name of Action or Project: **River Knoll**		
Project Location (describe, and attach a general location map): **40 Croton Dam Road (former Stony Lodge Hospital)**		
Brief Description of Proposed Action (include purpose or need): **The Proposed Project is a multi-family residential development consisting of 188 units of housing, ninety-six (96) 1-bedroom and ninety-two (92) 2-bedroom units, distributed in four (4) buildings. Each building would be 3 stories in height. Additional amenities would include 376 parking spaces in a surface lot adjacent to the buildings, a central courtyard and swimming pool for residents. Entrance to the development would be off Croton Dam Road.**		
Name of Applicant/Sponsor: **Glenco Group LLC / Glen M. Vetromile, Managing Member**	Telephone: **917-589-5550** EMail: **glen@glencogroupny.com**	
Address: **9 Ridge Road**		
City/PO: **Bronxville**	State: **NY**	Zip Code: **10708**
Project Contact (if not same as sponsor; give name and title/role):	Telephone: E-Mail:	
Address:		
City/PO:	State:	Zip Code:
Property Owner (if not same as sponsor): **Stony Lodge Hospital, Carter Pottash**	Telephone: **917-710-2456** E-Mail:	
Address: **PO Box 1250**		
City/PO: **Briarcliff Manor**	State: **NY**	Zip Code: **10510**

B. Government Approvals

B. Government Approvals Funding, or Sponsorship. ("Funding" includes grants, loans, tax relief, and any other forms of financial assistance.)			
Government Entity		**If Yes: Identify Agency and Approval(s) Required**	**Application Date (Actual or projected)**
a. City Council, Town Board, or Village Board of Trustees	☑ Yes ☐ No	Rezoning (Zoning Amendment)	
b. City, Town or Village Planning Board or Commission	☑ Yes ☐ No	Site Plan Approval MS4 (stormwater Compliance) Steep Slopes Permit Wetland Permit (Town buffer) Water/Sewer District Connection	
c. City Council, Town or Village Zoning Board of Appeals	☐ Yes ☑ No		
d. Other local agencies	☑ Yes ☐ No	Roadway Improvements to Croton Dam Road Environmental Advisory Board	
e. County agencies	☑ Yes ☐ No	WCDOH Water/Sewer Connections	
f. Regional agencies	☐ Yes ☑ No		
g. State agencies	☑ Yes ☐No	NYSDEC SWPPP	
h. Federal agencies	☐ Yes ☑ No		

i. Coastal Resources

i. Is the project site within a Coastal Area, or the waterfront area of a Designated Inland Waterway? ☐ Yes ☑ No

If Yes,

ii. If the project site located in a community with an approved Local Waterfront Revitalization Program? ☑ Yes ☐ No

iii. Is the project site within a Coastal Erosion Hazard Area? ☐ Yes ☑ No

C. Planning and Zoning

C.1. Planning and zoning actions.

Will administrative or legislative adoption, or amendment of a plan, local law, ordinance, rule or regulation be the only approval(s) which must be granted to enable the proposed action to proceed? ☑ Yes ☐ No

- **If Yes**, complete sections C, F and G.
- **If No**, proceed to question C.2 and complete all remaining sections and questions in Part 1.

C.2. Adopted land use plans.

a. Do any municipally adopted (city, town, village or county) comprehensive land use plan(s) include the site where the proposed action would be located? ☐ Yes ☑ No

If Yes, does the comprehensive plan include specific recommendations for the site where the proposed action would be located? ☐ Yes ☐ No

b. Is the site of the proposed action within any local or regional special planning district (for example: Greenway Brownfield Opportunity Area (BOA); designated State or Federal heritage area; watershed management plan; or other?) ☐ Yes ☑ No

If Yes, identify the plan(s):

____

c. Is the proposed action located wholly or partially within an area listed in an adopted municipal open space plan, or an adopted municipal farmland protection plan? ☐ Yes ☑ No

If Yes, identify the plan(s):

____

C.3. Zoning	
a. Is the site of the proposed action located in a municipality with an adopted zoning law or ordinance? If Yes, what is the zoning classification(s) including any applicable overlay district? R-15	☑ Yes ☐ No
b. Is the use permitted or allowed by a special or conditional use permit?	☐ Yes ☑ No
c. Is a zoning change requested as part of the proposed action? If Yes, *i.*What is the proposed new zoning for the site? **Proposed MF2 (Multifamily Residence 2) District**	☑ Yes ☐ No
C.4. Existing community services.	
a. In what school district is the project site located? **Ossining Union Free School District**	
b. What police or other public protection forces serve the project site? **Village of Ossining Police Department, Town of Ossining Police Department**	
c. Which fire protection and emergency medical services serve the project site? **Ossining Fire Department, Ossining Volunteer Ambulance Corps**	
d. What parks serve the project site? **Veterans Memorial Park**	

D. Project Details

D.1. Proposed and Potential Development	
a. What is the general nature of the proposed action (e.g., residential, industrial, commercial, recreational; if mixed, include all components)? **Residential**	
b. a. Total acreage of the site of the proposed action? ________**17.89**______ acres b. Total acreage to be physically disturbed? _________**10.8**_____ acres c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? ______**17.89**____ acres	
c. Is the proposed action an expansion of an existing project or use? *i.* If Yes, what is the approximate percentage of the proposed expansion and identify the units (e.g., acres, miles, housing units, square feet)? %_________________ Units: _________________	☐ Yes ☑No
d. Is the proposed action a subdivision, or does it include a subdivision? If Yes, *i.* Purpose or type of subdivision? (e.g., residential, industrial, commercial; if mixed, specify types) *ii.*Is a cluster/conservation layout proposed? *iii.* Number of lots proposed? _________ *iv.* Minimum and maximum proposed lot sizes? Minimum ________ Maximum ________	☐ Yes ☑ No ☐ Yes ☐ No
e. Will proposed action be constructed in multiple phases? *i.* If No, anticipated period of construction: __**12**_____ months *ii.* If Yes: • Total number of phases anticipated _______ • Anticipated commencement date of phase 1 (including demolition) ______ month ____year • Anticipated completion date of final phase ______ month ____year • Generally describe connections or relationships among phases, including any contingencies where progress of one phase may determine timing or duration of future phases:	☐ Yes ☑ No

f. Does the project include new residential uses? ☑ Yes ☐ No

If Yes, show number of units proposed.

	One Family	Two Family	Three Family	Multiple Family (four or more)
Initial Phase	____________	____________	____________	_________**188**_____________
At completion of all phases	____________	____________	____________	_________________________

g. Does the proposed action include new non-residential construction (including expansions)? ☐ Yes ☑ No

If Yes,

i. Total number of structures ___________

ii. Dimensions (in feet) of largest proposed structure: _______ height; _______ width; and _______ length

iii. Approximate extent of building space to be heated or cooled: ____________________ square feet

h. Does the proposed action include construction or other activities that will result in the impoundment of any liquids, such as creation of a water supply, reservoir, pond, lake, waste lagoon or other storage? ☐ Yes ☑ No

If Yes,

i. Purpose of the impoundment: ____

ii. If a water impoundment, the principal source of the water: ☐ Ground Water ☐ Surface water streams ☐ Other specify:

____

iii. If other than water, identify the type of impounded/contained liquids and their source.

____

iv. Approximate size of the proposed impoundment. Volume: _____________ million gallons; surface area: ______________ acres

v. Dimensions of the proposed dam or impounding structure: ________ height; _______ length

vi. Construction method/materials for the proposed dam or impounding structure (e.g., earth fill, rock, wood, concrete):

____

D.2. Project Operations

a. Does the proposed action include any excavation, mining, or dredging, during construction, operations, or both? (Not including general site preparation, grading, or installation of utilities or foundations where all excavated materials will remain onsite) ☐ Yes ☑ No

If Yes:

i. What is the purpose of the excavation or dredging? ____

ii. How much material (including rock, earth, sediments, etc.) is proposed to be removed from the site?

- Volume (specify tons or cubic yards):________________________________
- Over what duration of time? ____

iii. Describe nature and characteristics of materials to be excavated or dredged, and plans to use, manage or dispose of them.

____

iv. Will there be onsite dewatering or processing of excavated materials? ☐ Yes ☐ No

If yes, describe.

____

v. What is the total area to be dredged or excavated? _____________________________ acres

vi. What is the maximum area to be worked at any one time? _______________________ acres

vii. What would be the maximum depth of excavation or dredging? __________________ feet

viii. Will the excavation require blasting? ☐ Yes ☐ No

ix. Summarize site reclamation goals and plan:

____

b. Would the proposed action cause or result in alteration of, increase or decrease in size of, or encroachment into any existing wetland, waterbody, shoreline, beach or adjacent area? ☐ Yes ☑ No

If Yes,

i. Identify the wetland or waterbody which would be affected (by name, water index number, wetland map number or geographic description):

____

ii. Describe how the proposed action would affect that water body or wetland, e.g., excavation, fill, placement of structures, or alteration of channels, banks and shorelines. Indicate extent of activities, alterations and additions in square feet or acres:

____

iii. Will proposed action cause or result in disturbance to bottom sediments? ☐ Yes ☑ No

If Yes, describe: ____

iv. Will proposed action cause or result in the destruction or removal of aquatic vegetation? ☐ Yes ☑No

If Yes:

- acres of aquatic vegetation proposed to be removed ____
- expected acreage of aquatic vegetation remaining after project completion ____________________________
- purpose of proposed removal (e.g., beach clearing, invasive species control, boat access): ________________
- proposed method of plant removal: ____
- if chemical/herbicide treatment will be used, specify product(s): ______________________________

v. Describe any proposed reclamation/mitigation following disturbance:

____

c. Will the proposed action use, or create a new demand for water? ☑ Yes ☐ No

If Yes:

i. Total anticipated water usage/demand per day: ___**42,000**______________ gallons/day

ii. Will the proposed action obtain water from an existing public water supply? ☑ Yes ☐ No

If Yes:

- Name of district or service area: _____**Ossining Water District**________________________________
- Does the existing public water supply have capacity to serve the proposal? ☑ Yes ☐ No
- Is the project site in the existing district? ☑ Yes ☐ No
- Is expansion of the district needed? ☐ Yes ☑ No
- Do existing lines serve the project site? ☑ Yes ☐ No

iii. Will line extension within an existing district be necessary to supply the project? ☐ Yes ☑ No

If Yes:

- Describe extensions or capacity expansions proposed to serve this project:________________________
- Source(s) of supply for the district: ____

iv. Is a new water supply district or service area proposed to be formed to serve the project site? ☐ Yes ☑ No

If Yes:

- Applicant/sponsor for new district: ____
- Date application submitted or anticipated: ____
- Proposed source(s) of supply for new district: ____

v. If a public water supply will not be used, describe plans to provide water supply for the project:

____

vi. If water supply will be from wells (public or private), maximum pumping capacity: _____ gallons/minute.

d. Will the proposed action generate liquid wastes? ☑ Yes ☐ No

If Yes:

i. Total anticipated liquid waste generation per day: _**42,000 gallons/day**

ii. Nature of liquid wastes to be generated (e.g., sanitary wastewater, industrial; if combination, describe all components and approximate volumes or proportions of each):

_**Sanitary Wastewater**____ *iii*. Will the proposed action use any existing public wastewater treatment facilities? ☑ Yes ☐ No

If Yes:

- Name of wastewater treatment plant to be used: _________**Ossining Wastewater Treatment Plant**_______________________
- Name of district: ____
- Does the existing wastewater treatment plant have capacity to serve the project? ☑ Yes ☐ No
- Is the project site in the existing district? ☑ Yes ☐ No
- Is expansion of the district needed? ☐ Yes ☑ No
- Do existing sewer lines serve the project site? ☑ Yes ☐ No
- Will line extension within an existing district be necessary to serve the project? ☐ Yes ☑ No
  If yes:
- Describe extensions or capacity expansions proposed to serve this project:

  New private sanitary sewer service line

iv. Will a new wastewater (sewage) treatment district be formed to serve the project site? ☐ Yes ☑ No

If Yes:

- Applicant/sponsor for new district:____
- Date application submitted or anticipated:__________________________________
- What is the receiving water for the wastewater discharge?___________________________

v. If public facilities will not be used, describe plans to provide wastewater treatment for the project, including specifying proposed receiving water (name and classification if surface discharge, or describe subsurface disposal plans):

vi. Describe any plans or designs to capture, recycle or reuse liquid waste

e. Will the proposed action disturb more than one acre and create stormwater runoff, either from new point sources (i.e., ditches, pipes, swales, curbs, gutters or other concentrated flows of stormwater) or non-point source (i.e., sheet flow) during construction or post construction? ☑ Yes ☐ No

If Yes:

i. How much impervious surface will the project create in relation to total size of project parcel?

_3173,107 Square feet or _3.97_ acres (impervious surface)
_779,182 _ Square feet or 17.89_ acres (parcel size)

ii. Describe types of new point sources

Roads and Buildings

iii. Where will the stormwater runoff be directed (i.e., on-site stormwater management facility/structures, adjacent properties, groundwater, on-site surface water or off-site surface waters)?

On site storm water management

- If to surface waters, identify receiving water bodies or wetlands: ___________________________
- Will stormwater runoff flow to adjacent properties? ☐ Yes ☑ No

iv. Does proposed plan minimize impervious surfaces, use pervious materials or collect and re-use stormwater? ☑ Yes ☐ No

f. Does the proposed action include, or will it use on-site, one or more sources of air emissions, including fuel combustion, waste incineration, or other processes or operations? ☐ Yes ☑ No

If Yes, identify:

i. Mobile sources during project operations (e.g., heavy equipment, fleet or delivery vehicles)

ii. Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers)

iii. Stationary sources during operations (e.g., process emissions, large boilers, electric generation)

g. Will any air emission sources in D.2.f (above) require a NY State Air Registration, Air Facility Permit, or Federal Clean Air Act Title IV or Title V permit? If Yes, *i*. Is the project site located in an Air quality non-attainment area? (Area routinely or periodically fails to meet ambient air quality standards for all or some parts of the year) *ii*. In addition to emissions as calculated in the application, the project will generate: • ________ Tons/year (short tons) of Carbon Dioxide (CO_2) • ________ Tons/year (short tons) of Nitrous Oxide (N_2O) • ________ Tons/year (short tons) of Perfluorocarbons (PFCs) • ________ Tons/year (short tons) of Sulfur Hexafluoride (SF_6) • ________ Tons/year (short tons) of Carbon Dioxide equivalent of Hydroflourocarbons (HFCs) • ________ Tons/year (short tons) of Hazardous Air Pollutants (HAPs)	☐ Yes ☑ No ☐ Yes ☐ No
h. Will the proposed action generate or emit methane (including, but not limited to, sewage treatment plants, landfills, composting facilities)? If Yes, *i*. Estimate methane generation in tons/year (metric): ____________________ *ii*. Describe any methane capture, control or elimination measures included in project design (e.g., combustion to generate heat or electricity, flaring): ____________________ ____________________	☐ Yes ☑ No
i. Will the proposed action result in the release of air pollutants from open-air operations or processes, such as quarry or landfill operations? If Yes: Describe operations and nature of emissions (e.g., diesel exhaust, rock particulates/dust): ____________________ ____________________	☐ Yes ☑ No
j. Will the proposed action result in a substantial increase in traffic above present levels or generate substantial new demand for transportation facilities or services? If Yes: *i*. When is the peak traffic expected (check all that apply): ☐ Morning ☐ Evening ☐ Weekend ☐ Randomly between hours of _______ to _______. *ii*. For commercial activities only, projected number of semi-trailer truck trips/day: ____N/A_________ *iii*. Parking spaces: Existing __112_______ Proposed __376_______ Net increase/decrease _+264________ *iv*. Does the proposed action include any shared use parking? *v*. If the proposed action includes any modification of existing roads, creation of new roads or change in existing access, describe: **Refer to attached traffic study prepared by JMC Engineering** ____________________ *vi*. Are public/private transportation service(s) or facilities available within ½ mile of the proposed site? *vii*. Will the proposed action include access to public transportation or accommodations for use of hybrid, electric or other alternative fueled vehicles? *viii*. Will the proposed action include plans for pedestrian or bicycle accommodations for connections to existing pedestrian or bicycle routes?	☐ Yes ☑ No ☐ Yes ☑ No ☐ Yes ☑ No ☑ Yes ☐ No ☐ Yes ☑ No
k. Will the proposed action (for commercial or industrial projects only) generate new or additional demand for energy? If Yes: *i*. Estimate annual electricity demand during operation of the proposed action:__**126,700 BTU/SF typical for multi-unit residential**__ *ii*. Anticipated sources/suppliers of electricity for the project (e.g., on-site combustion, on-site renewable, via grid/local utility, or other): **Con Edison** ____________________ *iii*. Will the proposed action require a new, or an upgrade to, an existing substation?	☑ Yes ☐ No ☐ Yes ☑ No

l. Hours of operation. Answer all items which apply.

i. During Construction: motorized in acc. with Town §130-6.

- Monday – Friday: __8 am to 8 pm_
- Saturday: Friday: ___9 am to 5 pm
- Sunday: Friday: 9 am to 5 pm
- Holidays: Friday: 9 am to 5 pm _____

ii. During Operations:

- Monday – Friday: _________________
- Saturday: ________________________
- Sunday: _________________________
- Holidays: ________________________

m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction, operation, or both? ☐ Yes ☑ No

If Yes:

i. Provide details including sources, time of day and duration:

Use of motorized construction equipment will comply with Town Code §130: Noise

ii. Will proposed action remove existing natural barriers that could act as a noise barrier or screen? ☐ Yes ☑ No

Describe:

n. Will the proposed action have outdoor lighting? ☑ Yes ☐ No

If Yes:

i. Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures:

Dark sky compliant LED fixtures with no spill onto neighboring properties

ii. Will proposed action remove existing natural barrier that could act as light barrier or screen? ☐Yes ☑ No

Describe:

o. Does the proposed action have the potential to produce odors for more than one hour per day? ☐ Yes ☑ No

If yes, describe possible sources, potential frequency and duration of odor emissions, and proximity to nearest occupied structures: ______________________________

p. Will the proposed action include any bulk storage of petroleum (combined capacity of over 1,100 gallons) or chemical products (185 gallons in above ground storage or any amount in underground storage)? ☐ Yes ☑ No

If Yes,

i. Product(s) to be stored ______________________________

ii. Volume(s) ________ per unit time ________ (e.g., month, year)

iii. Generally describe proposed storage facilities

q. Will the proposed action (commercial, industrial and recreational projects only) use pesticides (i.e., herbicides, insecticides) during construction or operation? ☑Yes ☐ No

If Yes:

i. Describe proposed treatment(s):

Normal landscaping

ii. Will the proposed action use Integrated Pest Management Practices? ☐ Yes ☐ No

r. Will the proposed action (commercial or industrial projects only) involve or require the management or disposal of solid waste (excluding hazardous materials)? ☑ Yes ☐No

If Yes: NOTE:

i. Describe any solid waste(s) to be generated during construction or operation of the facility:

- Construction: _______________ tons per ________________ (unit of time)
- Operation: _______________ tons per ________________ (unit of time)

ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste:

- Construction:
  Disposal of construction and demolition debris
- Operation:
  Household solid waste

iii. Proposed disposal methods/facilities for solid waste generated on-site:

- Construction:
  Private carting to MRF for reusable C&D debris
- Operation:
  Private carting of household solid waste

s. Does the proposed action include construction or modification of a solid waste management facility? ☐ Yes ☑ No

If Yes:

i. Type of management or handling of waste proposed for the site (e.g., recycling or transfer station, composting, landfill, or other disposal activities): ________________________________

ii. Anticipated rate of disposal/processing:

- _______ Tons/month, if transfer or other non-combustion/thermal treatment, or
- _______ Tons/hour, if combustion or thermal treatment

iii. If landfill, anticipated site life: _______________ years

t. Will proposed action at the site involve the commercial generation, treatment, storage, or disposal of hazardous waste? ☐ Yes ☑ No

If Yes:

i. Name(s) of all hazardous wastes or constituents to be generated, handled or managed at facility:

ii. Generally describe processes or activities involving hazardous waste or constituents:

iii. Specify amount to be handled or generated: ____ tons/month

iv. Describe any proposals for on-site minimization, recycling or reuse of hazardous constituents:

v. Will any hazardous wastes be disposed at an existing offsite hazardous waste facility? ☐ Yes ☐ No

If Yes: provide name and location of facility:

If No: Describe proposed management of any hazardous wastes which will not be sent to a hazardous waste facility:

E. Site and Setting of Proposed Action

E.1 Land uses on and surrounding the project site

a. Existing land uses.

i. Check all land uses that occur on, adjoining and near the project site.

☐ Urban ☐ Industrial ☐ Commercial ☑ Residential (suburban) ☐ Rural (non-farm)
☐ Forest ☐ Agriculture ☐ Aquatic ☑ Other (specify): Institution (hospital)

ii. If mix of uses, generally describe:

____
____

b. Land uses and covertypes on the project site.

Land use or covertype	Current Acreage	Acreage After Project Completion	Change (Acres +/-)
• Roads, buildings, and other paved or impervious surfaces	**2.92**	**3.97**	**+1.05**
• Forested (**including shrubby land**)	**7.3**	**7.8**	**+0.50**
• Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural) **(including upland and stormwater basin meadows)**	**0**	**3**	**+3**
• Agricultural (includes active orchards, field, greenhouse, etc.)	**0**	**0**	**0**
• Surface water features (lakes, ponds, streams, rivers, etc.)	**0**	**0**	**0**
• Wetlands (freshwater or tidal)	**0.25**	**0.25**	**0**
• Non-vegetated (bare rock, earth or fill)	**0**	**0**	**0**
• Other Describe:___**Lawn**________________________	**7.4**	**2.8**	**-4.6**

c. Is the project site presently used by members of the community for public recreation? ☐ Yes ☑ No

i. If yes: explain: ____

d. Are there any facilities serving children, the elderly, people with disabilities (e.g., schools, hospitals, licensed day care centers, or group homes) within 1500 feet of the project site? ☐ Yes ☑ No

If Yes:

i. Identify Facilities:

____

e. Does the project site contain an existing dam? ☐ Yes ☑ No

If Yes:

i. Dimensions of the dam and impoundment:

- Dam height: ______________________________ feet
- Dam length: ______________________________ feet
- Surface area: ______________________________ acres
- Volume impounded: __________________________ gallons OR acre-feet

ii. Dam's existing hazard classification: ____

iii. Provide date and summarize results of last inspection:

____

f. Has the project site ever been used as a municipal, commercial or industrial solid waste management facility, or does the project site adjoin property which is now, or was at one time, used as a solid waste management facility? ☐ Yes ☑ No

If Yes:

i. Has the facility been formally closed?

- If yes, cite sources/documentation: ____

ii. Describe the location of the project site relative to the boundaries of the solid waste management facility:

____

iii. Describe any development constraints due to the prior solid waste activities:

____
____

g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin property which is now or was at one time used to commercially treat, store, and/or dispose of hazardous waste? ☑ Yes ☐ No

If Yes:

i. Describe waste(s) handled and waste management activities, including approximate time when activities occurred:

Possible Hospital Waste due to past uses from 1917 until 2012. Hospital waste was taken off the site once closed.

h. Potential contamination history. Has there been a reported spill at the proposed project site, or have any remedial actions been conducted at or adjacent to the proposed site? ☑ Yes ☐ No

If Yes:

i. Is any portion of the site listed on the NYSDEC Spills Incidents database or Environmental Site Remediation database? Check all that apply: ☑ Yes ☐ No

☑ Yes – Spills Incidents database Provide DEC ID number(s): _0905666______________________________

☐ Yes – Environmental Site Remediation database Provide DEC ID number(s): ______________________________________

☐ Neither database

ii. If site has been subject of RCRA corrective activities, describe control measures:

____

iii. Is the project within 2000 feet of any site in the NYSDEC Environmental Site Remediation database? ☐ Yes ☑ No

If yes, provide DEC ID number(s): ____

iv. If yes to (i), (ii) or (iii) above, describe current status of site(s):

Spill closed

v. Is the project site subject to an institutional control limiting property uses? ☐ Yes ☑ No

- If yes, DEC site ID number: ____
- Describe the type of institutional control (e.g., deed restriction or easement): ______________________________
- Describe any use limitations: ____
- Describe any engineering controls: ____
- Will the project affect the institutional or engineering controls in place? ☐ Yes ☐ No
- Explain: ____

____
____
____
____

E.2. Natural Resources On or Near Project Site

a. What is the average depth to bedrock on the project site? ______5___ feet

b. Are there bedrock outcroppings on the project site? ☐ Yes ☑No

If Yes, what proportion of the site is comprised of bedrock outcroppings? ________________%

c. Predominant soil type(s) present on project site _Chatfield charton complex_ ___71.8____%

Urban land Paxon complex _____13.9___%

Hollis Rock outcrop complex_ _____9.7____%

d. What is the average depth to the water table on the project site? Average: ___6.7_ feet

e. Drainage status of project site soils:

☑ Well Drained: _95_% of Site

☐ Moderately Well Drained: _____% of Site

☑ Somewhat Poorly Drained: ___5_% of Site

☐ Poorly Drained: _____% of Site

f. Approximate proportion of proposed action site with slopes: :	☑ 0-10%: ☑10-15%: ☑15% or greater:	_ 28_% of Site _16__% of Site _57__% of Site

g. Are there any unique geologic features on the project site? ☐ Yes ☑ No

If Yes, describe:

____

h. Surface water features:

i. Does any portion of the project site contain wetlands or other waterbodies (including streams, rivers, ponds or lakes)? ☑ Yes ☐ No

ii. Do any wetlands or other waterbodies adjoin the project site? ☑ Yes ☐ No

If Yes to either i or ii, continue. If No, skip to E.2.1.

iii. Are any of the wetlands or waterbodies within or adjoining the project site regulated by any federal, state or local agency? ☑ Yes ☐ No

iv. For each identified regulated wetland and waterbody on the project site, provide the following information.

- Streams: Name ________________________________ Classification___________________________
- Lakes or Ponds: Name ________________________________ Classification___________________________
- Wetlands: Name __**un-mapped emergent wetland**_____ Approximate Size__1/4 acre_____

  Wetland No. (if regulated by DEC) ____________________

v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired waterbodies? ☐ Yes ☑☐ No

If yes, name of impaired water body/bodies and basis for listing as impaired:

____

i. Is the project site in a designated Floodway? ☐ Yes ☑ No

j. Is the project site in the 100 year Floodplain? ☐ Yes ☑ No

k. Is the project site in the 500 year Floodplain? ☐ Yes ☑ No

l. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer? ☐ Yes ☑ No

If Yes:

i. Name of aquifer: ____

m. Identify the predominant wildlife species that occupy or use the project site: ____________________________

___grey squirrel ___________	____American robin________	____song sparrow_______
____raccoon___________	_____black-capped chickadee___	____________________________

____

____

ii. Source(s) of description or evaluation: ____onsite observations and Wildlife Resources of Westchester County (WC Planning 1987)_____________________

iii. Extent of community/habitat: **Mowed Lawn with Trees** (Edinger et al, NYSDEC 2002)

- Currently: _____15_____ acres
- Following completion of project as proposed: _____14_______ acres
- Gain or loss (indicate + or -): ____-1.0____________ acres

o. Does project site contain any species of plant or animal that is listed by the federal government or NYS as endangered or threatened, or does it contain any areas identified as habitat for an endangered or threatened species? ☐ Yes ☑ No

p. Does the project site contain any species of plant or animal that is listed by NYS as rare, or as a species of special concern? ☐ Yes ☑ No

q. Is the project site or adjoining area currently used for hunting, trapping, fishing, or shell fishing? ☐ Yes ☑ No

If yes, give a brief description of how the proposed action may affect that use:

____

E.3. Designated Public Resources On or Near the Project Site	
a. Is the project site, or any portion of it, located in a designated agricultural district certified pursuant to Agriculture and Marks Law, Article 25-AA, Sections 303 and 304? If Yes, provide county plus district name/number: ______________________________	☐ Yes ☑ No
b. Are agricultural lands consisting of highly productive soils present? *i*. If Yes: acreage(s) on project site? ______________________ *ii*. Source(s) of soil rating(s) __Web Soil Survey______________	☐ Yes ☑ No
c. Does the project site contain all or part of, or is it substantially contiguous to, a registered National Natural Landmark? If Yes: *i*. Nature of the natural landmark: ☐ Biological Community ☐ Geological Feature *ii*. Provide brief description of landmark, including values behind designation and approximate size/extent: ______________________________ ______________________________	☐ Yes ☑ No
d. Is the project site located in or does it adjoin a state-listed Critical Environmental Area? If Yes: *i*. CEA name: ______________________________ *ii*. Basis for designation: ______________________________ *iii*. Designating agency and date: ______________________________	☐ Yes ☑ No
e. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on, or has been nominated by the NYS Board of Historic Preservation for inclusion on, the State or National Register of Historic Places? If Yes: *i*. Nature of historic/archaeological resource: ☐ Archaeological Site ☐ Historic Building or District *ii*. Name:______________________________ *iii*. Brief description of attributes on which listing is based: ______________________________ ______________________________	☐ Yes ☑ No
f. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory?	☐ Yes ☑ No
g. Have additional archaeological or historic site(s) or resourced been identified on the project site? If Yes: *i*. Describe possible resource(s): ______________________________ *ii*. Basis for identification: ______________________________	☐ Yes ☑ No
h. Is the project site within five miles of any officially designated and publicly accessible federal, state, or local scenic or aesthetic resource? If Yes: *i*. Identify resource: ______________________________ *ii*. Nature of, or basis for, designation (e.g., established highway overlook, state or local park, state historic trail or scenic byway, etc.): ______________________________ *iii*. Distance between project and resource: ____________________ miles.	☐ Yes ☑ No
i. Is the project site located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR 666? If Yes: *i*. Identify the name of the river and its designation: ______________________________	☐ Yes ☑ No
ii. Is the activity consistent with development restrictions contain in 6NYCRR Part 666?	☐ Yes ☐ No

F. Additional Information
Attach any additional information which may be needed to clarify your project.

If you have identified any adverse impacts which could be associated with your proposal, please describe those impacts plus any measures which you propose to avoid or minimize them.

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

Applicant/Sponsor Name ______________________________________ Date ______________________________________

Signature ____ Title ______________________________________

EAF Part 2

Agency Use Only [If applicable]
Project :
Date :

Full Environmental Assessment Form
Part 2 - Identification of Potential Project Impacts

Part 2 is to be completed by the lead agency. Part 2 is designed to help the lead agency inventory all potential resources that could be affected by a proposed project or action. We recognize that the lead agency's reviewer(s) will not necessarily be environmental professionals. So, the questions are designed to walk a reviewer through the assessment process by providing a series of questions that can be answered using the information found in Part 1. To further assist the lead agency in completing Part 2, the form identifies the most relevant questions in Part 1 that will provide the information needed to answer the Part 2 question. When Part 2 is completed, the lead agency will have identified the relevant environmental areas that may be impacted by the proposed activity.

If the lead agency is a state agency **and** the action is in any Coastal Area, complete the Coastal Assessment Form before proceeding with this assessment.

Tips for completing Part 2:

- Review all of the information provided in Part 1.
- Review any application, maps, supporting materials and the Full EAF Workbook.
- Answer each of the 18 questions in Part 2.
- If you answer "**Yes"** to a numbered question, please complete all the questions that follow in that section.
- If you answer "**No"** to a numbered question, move on to the next numbered question.
- Check appropriate column to indicate the anticipated size of the impact.
- Proposed projects that would exceed a numeric threshold contained in a question should result in the reviewing agency checking the box "Moderate to large impact may occur."
- The reviewer is not expected to be an expert in environmental analysis.
- If you are not sure or undecided about the size of an impact, it may help to review the sub-questions for the general question and consult the workbook.
- When answering a question consider all components of the proposed activity, that is, the "whole action".
- Consider the possibility for long-term and cumulative impacts as well as direct impacts.
- Answer the question in a reasonable manner considering the scale and context of the project.

1. Impact on Land
Proposed action may involve construction on, or physical alteration of, the land surface of the proposed site. (See Part 1. D.1)   ☐ NO   ☑ YES
If "Yes", answer questions a - j. If "No", move on to Section 2.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may involve construction on land where depth to water table is less than 3 feet.	E2d	☑	☐
b. The proposed action may involve construction on slopes of 15% or greater.	E2f	☐	☑
c. The proposed action may involve construction on land where bedrock is exposed, or generally within 5 feet of existing ground surface.	E2a	☐	☑
d. The proposed action may involve the excavation and removal of more than 1,000 tons of natural material.	D2a	☐	☑
e. The proposed action may involve construction that continues for more than one year or in multiple phases.	D1e	☑	☐
f. The proposed action may result in increased erosion, whether from physical disturbance or vegetation removal (including from treatment by herbicides).	D2e, D2q	☑	☐
g. The proposed action is, or may be, located within a Coastal Erosion hazard area.	B1i	☑	☐
h. Other impacts: ______________________________ ______________________________		☐	☐

2. Impact on Geological Features The proposed action may result in the modification or destruction of, or inhibit access to, any unique or unusual land forms on the site (e.g., cliffs, dunes, minerals, fossils, caves). (See Part 1. E.2.g) *If "Yes", answer questions a - c. If "No", move on to Section 3.*	☑ NO	☐ YES	
	Relevant Part I Question(s)	**No, or small impact may occur**	**Moderate to large impact may occur**
a. Identify the specific land form(s) attached: ___	E2g	☐	☐
b. The proposed action may affect or is adjacent to a geological feature listed as a registered National Natural Landmark. Specific feature: ___	E3c	☐	☐
c. Other impacts: ___		☐	☐

3. Impacts on Surface Water The proposed action may affect one or more wetlands or other surface water bodies (e.g., streams, rivers, ponds or lakes). (See Part 1. D.2, E.2.h) *If "Yes", answer questions a - l. If "No", move on to Section 4.*	☑ NO	☐ YES	
	Relevant Part I Question(s)	**No, or small impact may occur**	**Moderate to large impact may occur**
a. The proposed action may create a new water body.	D2b, D1h	☐	☐
b. The proposed action may result in an increase or decrease of over 10% or more than a 10 acre increase or decrease in the surface area of any body of water.	D2b	☐	☐
c. The proposed action may involve dredging more than 100 cubic yards of material from a wetland or water body.	D2a	☐	☐
d. The proposed action may involve construction within or adjoining a freshwater or tidal wetland, or in the bed or banks of any other water body.	E2h	☐	☐
e. The proposed action may create turbidity in a waterbody, either from upland erosion, runoff or by disturbing bottom sediments.	D2a, D2h	☐	☐
f. The proposed action may include construction of one or more intake(s) for withdrawal of water from surface water.	D2c	☐	☐
g. The proposed action may include construction of one or more outfall(s) for discharge of wastewater to surface water(s).	D2d	☐	☐
h. The proposed action may cause soil erosion, or otherwise create a source of stormwater discharge that may lead to siltation or other degradation of receiving water bodies.	D2e	☐	☐
i. The proposed action may affect the water quality of any water bodies within or downstream of the site of the proposed action.	E2h	☐	☐
j. The proposed action may involve the application of pesticides or herbicides in or around any water body.	D2q, E2h	☐	☐
k. The proposed action may require the construction of new, or expansion of existing, wastewater treatment facilities.	D1a, D2d	☐	☐

l. Other impacts: ____		☐	☐

4. Impact on groundwater
The proposed action may result in new or additional use of ground water, or may have the potential to introduce contaminants to ground water or an aquifer. ☑ NO ☐ YES
(See Part 1. D.2.a, D.2.c, D.2.d, D.2.p, D.2.q, D.2.t)
If "Yes", answer questions a - h. If "No", move on to Section 5.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may require new water supply wells, or create additional demand on supplies from existing water supply wells.	D2c	☐	☐
b. Water supply demand from the proposed action may exceed safe and sustainable withdrawal capacity rate of the local supply or aquifer. Cite Source: ______________________________	D2c	☐	☐
c. The proposed action may allow or result in residential uses in areas without water and sewer services.	D1a, D2c	☐	☐
d. The proposed action may include or require wastewater discharged to groundwater.	D2d, E2l	☐	☐
e. The proposed action may result in the construction of water supply wells in locations where groundwater is, or is suspected to be, contaminated.	D2c, E1f, E1g, E1h	☐	☐
f. The proposed action may require the bulk storage of petroleum or chemical products over ground water or an aquifer.	D2p, E2l	☐	☐
g. The proposed action may involve the commercial application of pesticides within 100 feet of potable drinking water or irrigation sources.	E2h, D2q, E2l, D2c	☐	☐
h. Other impacts: ____		☐	☐

5. Impact on Flooding
The proposed action may result in development on lands subject to flooding. ☑ NO ☐ YES
(See Part 1. E.2)
If "Yes", answer questions a - g. If "No", move on to Section 6.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may result in development in a designated floodway.	E2i	☐	☐
b. The proposed action may result in development within a 100 year floodplain.	E2j	☐	☐
c. The proposed action may result in development within a 500 year floodplain.	E2k	☐	☐
d. The proposed action may result in, or require, modification of existing drainage patterns.	D2b, D2e	☐	☐
e. The proposed action may change flood water flows that contribute to flooding.	D2b, E2i, E2j, E2k	☐	☐
f. If there is a dam located on the site of the proposed action, is the dam in need of repair, or upgrade?	E1e	☐	☐

g. Other impacts: ____ ____		☐	☐

6. Impacts on Air

The proposed action may include a state regulated air emission source. ☑NO ☐YES

(See Part 1. D.2.f., D,2,h, D.2.g)

If "Yes", answer questions a - f. If "No", move on to Section 7.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. If the proposed action requires federal or state air emission permits, the action may also emit one or more greenhouse gases at or above the following levels:			
i. More than 1000 tons/year of carbon dioxide (CO_2)	D2g	☐	☐
ii. More than 3.5 tons/year of nitrous oxide (N_2O)	D2g	☐	☐
iii. More than 1000 tons/year of carbon equivalent of perfluorocarbons (PFCs)	D2g	☐	☐
iv. More than .045 tons/year of sulfur hexafluoride (SF_6)	D2g	☐	☐
v. More than 1000 tons/year of carbon dioxide equivalent of hydrochloroflourocarbons (HFCs) emissions	D2g	☐	☐
vi. 43 tons/year or more of methane	D2h	☐	☐
b. The proposed action may generate 10 tons/year or more of any one designated hazardous air pollutant, or 25 tons/year or more of any combination of such hazardous air pollutants.	D2g	☐	☐
c. The proposed action may require a state air registration, or may produce an emissions rate of total contaminants that may exceed 5 lbs. per hour, or may include a heat source capable of producing more than 10 million BTU's per hour.	D2f, D2g	☐	☐
d. The proposed action may reach 50% of any of the thresholds in "a" through "c", above.	D2g	☐	☐
e. The proposed action may result in the combustion or thermal treatment of more than 1 ton of refuse per hour.	D2s	☐	☐
f. Other impacts: ____ ____		☐	☐

7. Impact on Plants and Animals

The proposed action may result in a loss of flora or fauna. (See Part 1. E.2. m.-q.) ☑NO ☐YES

If "Yes", answer questions a - j. If "No", move on to Section 8.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may cause reduction in population or loss of individuals of any threatened or endangered species, as listed by New York State or the Federal government, that use the site, or are found on, over, or near the site.	E2o	☐	☐
b. The proposed action may result in a reduction or degradation of any habitat used by any rare, threatened or endangered species, as listed by New York State or the federal government.	E2o	☐	☐
c. The proposed action may cause reduction in population, or loss of individuals, of any species of special concern or conservation need, as listed by New York State or the Federal government, that use the site, or are found on, over, or near the site.	E2p	☐	☐
d. The proposed action may result in a reduction or degradation of any habitat used by any species of special concern and conservation need, as listed by New York State or the Federal government.	E2p	☐	☐

e. The proposed action may diminish the capacity of a registered National Natural Landmark to support the biological community it was established to protect.	E3c	◻	◻
f. The proposed action may result in the removal of, or ground disturbance in, any portion of a designated significant natural community. Source: ___	E2n	◻	◻
g. The proposed action may substantially interfere with nesting/breeding, foraging, or over-wintering habitat for the predominant species that occupy or use the project site.	E2m	◻	◻
h. The proposed action requires the conversion of more than 10 acres of forest, grassland or any other regionally or locally important habitat. Habitat type & information source: ___	E1b	◻	◻
i. Proposed action (commercial, industrial or recreational projects, only) involves use of herbicides or pesticides.	D2q	◻	◻
j. Other impacts: ___		◻	◻

8. Impact on Agricultural Resources

The proposed action may impact agricultural resources. (See Part 1. E.3.a. and b.) ☑NO ☐YES

If "Yes", answer questions a - h. If "No", move on to Section 9.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may impact soil classified within soil group 1 through 4 of the NYS Land Classification System.	E2c, E3b	◻	◻
b. The proposed action may sever, cross or otherwise limit access to agricultural land (includes cropland, hayfields, pasture, vineyard, orchard, etc).	E1a, Elb	◻	◻
c. The proposed action may result in the excavation or compaction of the soil profile of active agricultural land.	E3b	◻	◻
d. The proposed action may irreversibly convert agricultural land to non-agricultural uses, either more than 2.5 acres if located in an Agricultural District, or more than 10 acres if not within an Agricultural District.	E1b, E3a	◻	◻
e. The proposed action may disrupt or prevent installation of an agricultural land management system.	El a, E1b	◻	◻
f. The proposed action may result, directly or indirectly, in increased development potential or pressure on farmland.	C2c, C3, D2c, D2d	◻	◻
g. The proposed project is not consistent with the adopted municipal Farmland Protection Plan.	C2c	◻	◻
h. Other impacts: ___		◻	◻

9.	**Impact on Aesthetic Resources** The land use of the proposed action are obviously different from, or are in sharp contrast to, current land use patterns between the proposed project and a scenic or aesthetic resource. (Part 1. E.1.a, E.1.b, E.3.h.) *If "Yes", answer questions a - g. If "No", go to Section 10.*	☑ NO	☐ YES

	Relevant Part I Question(s)	**No, or small impact may occur**	**Moderate to large impact may occur**
a. Proposed action may be visible from any officially designated federal, state, or local scenic or aesthetic resource.	E3h	☐	☐
b. The proposed action may result in the obstruction, elimination or significant screening of one or more officially designated scenic views.	E3h, C2b	☐	☐
c. The proposed action may be visible from publicly accessible vantage points: i. Seasonally (e.g., screened by summer foliage, but visible during other seasons) ii. Year round	E3h	 ☐ ☐	 ☐ ☐
d. The situation or activity in which viewers are engaged while viewing the proposed action is: i. Routine travel by residents, including travel to and from work ii. Recreational or tourism based activities	E3h E2q, E1c	 ☐ ☐	 ☐ ☐
e. The proposed action may cause a diminishment of the public enjoyment and appreciation of the designated aesthetic resource.	E3h	☐	☐
f. There are similar projects visible within the following distance of the proposed project: 0-1/2 mile ½ -3 mile 3-5 mile 5+ mile	D1a, E1a, D1f, D1g	☐	☐
g. Other impacts: ______________________________ ______________________________		☐	☐

10.	**Impact on Historic and Archeological Resources** The proposed action may occur in or adjacent to a historic or archaeological resource. (Part 1. E.3.e, f. and g.) *If "Yes", answer questions a - e. If "No", go to Section 11.*	☑ NO	☐ YES

	Relevant Part I Question(s)	**No, or small impact may occur**	**Moderate to large impact may occur**
a. The proposed action may occur wholly or partially within, or substantially contiguous to, any buildings, archaeological site or district which is listed on or has been nominated by the NYS Board of Historic Preservation for inclusion on the State or National Register of Historic Places.	E3e	☐	☐
b. The proposed action may occur wholly or partially within, or substantially contiguous to, an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory.	E3f	☐	☐
c. The proposed action may occur wholly or partially within, or substantially contiguous to, an archaeological site not included on the NY SHPO inventory. Source: ______________________________	E3g	☐	☐

d. Other impacts: ______________________________		◻	◻
e. If any of the above (a-d) are answered "Yes", continue with the following questions to help support conclusions in Part 3:			
i. The proposed action may result in the destruction or alteration of all or part of the site or property.	E3e, E3g, E3f	◻	◻
ii. The proposed action may result in the alteration of the property's setting or integrity.	E3e, E3f, E3g, E1a, E1b	◻	◻
iii. The proposed action may result in the introduction of visual elements which are out of character with the site or property, or may alter its setting.	E3e, E3f, E3g, E3h, C2, C3	◻	◻

11. Impact on Open Space and Recreation

The proposed action may result in a loss of recreational opportunities or a reduction of an open space resource as designated in any adopted municipal open space plan.
(See Part 1. C.2.c, E.1.c., E.2.q.)
If "Yes", answer questions a - e. If "No", go to Section 12.

☑ NO ☐ YES

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may result in an impairment of natural functions, or "ecosystem services", provided by an undeveloped area, including but not limited to stormwater storage, nutrient cycling, wildlife habitat.	D2e, E1b E2h, E2m, E2o, E2n, E2p	◻	◻
b. The proposed action may result in the loss of a current or future recreational resource.	C2a, E1c, C2c, E2q	◻	◻
c. The proposed action may eliminate open space or recreational resource in an area with few such resources.	C2a, C2c E1c, E2q	◻	◻
d. The proposed action may result in loss of an area now used informally by the community as an open space resource.	C2c, E1c	◻	◻
e. Other impacts: ______________________________		◻	◻

12. Impact on Critical Environmental Areas

The proposed action may be located within or adjacent to a critical environmental area (CEA). (See Part 1. E.3.d)
If "Yes", answer questions a - c. If "No", go to Section 13.

☑ NO ☐ YES

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may result in a reduction in the quantity of the resource or characteristic which was the basis for designation of the CEA.	E3d	◻	◻
b. The proposed action may result in a reduction in the quality of the resource or characteristic which was the basis for designation of the CEA.	E3d	◻	◻
c. Other impacts: ______________________________		◻	◻

13. Impact on Transportation The proposed action may result in a change to existing transportation systems. ☐ NO ☑ YES (See Part 1. D.2.j) *If "Yes", answer questions a - g. If "No", go to Section 14.*			
	Relevant Part I Question(s)	**No, or small impact may occur**	**Moderate to large impact may occur**
a. Projected traffic increase may exceed capacity of existing road network.	D2j	☑	☐
b. The proposed action may result in the construction of paved parking area for 500 or more vehicles.	D2j	☑	☐
c. The proposed action will degrade existing transit access.	D2j	☑	☐
d. The proposed action will degrade existing pedestrian or bicycle accommodations.	D2j	☑	☐
e. The proposed action may alter the present pattern of movement of people or goods.	D2j	☑	☐
f. Other impacts: ______________________________		☐	☐

14. Impact on Energy The proposed action may cause an increase in the use of any form of energy. ☐ NO ☑ YES (See Part 1. D.2.k) *If "Yes", answer questions a - e. If "No", go to Section 15.*			
	Relevant Part I Question(s)	**No, or small impact may occur**	**Moderate to large impact may occur**
a. The proposed action will require a new, or an upgrade to an existing, substation.	D2k	☑	☐
b. The proposed action will require the creation or extension of an energy transmission or supply system to serve more than 50 single or two-family residences or to serve a commercial or industrial use.	D1f, D1q, D2k	☑	☐
c. The proposed action may utilize more than 2,500 MWhrs per year of electricity.	D2k	☑	☐
d. The proposed action may involve heating and/or cooling of more than 100,000 square feet of building area when completed.	D1g	☑	☐
e. Other Impacts: ______________________________		☐	☐

15. Impact on Noise, Odor, and Light The proposed action may result in an increase in noise, odors, or outdoor lighting. ☑ NO ☐ YES (See Part 1. D.2.m., n., and o.) *If "Yes", answer questions a - f. If "No", go to Section 16.*			
	Relevant Part I Question(s)	**No, or small impact may occur**	**Moderate to large impact may occur**
a. The proposed action may produce sound above noise levels established by local regulation.	D2m	☐	☐
b. The proposed action may result in blasting within 1,500 feet of any residence, hospital, school, licensed day care center, or nursing home.	D2m, E1d	☐	☐
c. The proposed action may result in routine odors for more than one hour per day.	D2o	☐	☐

d. The proposed action may result in light shining onto adjoining properties.	D2n	☐	☐
e. The proposed action may result in lighting creating sky-glow brighter than existing area conditions.	D2n, E1a	☐	☐
f. Other impacts: ______________________________		☐	☐

16. Impact on Human Health

The proposed action may have an impact on human health from exposure to new or existing sources of contaminants. (See Part 1.D.2.q., E.1. d. f. g. and h.) ☑ NO ☐ YES

If "Yes", answer questions a - m. If "No", go to Section 17.

	Relevant Part I Question(s)	No,or small impact may cccur	Moderate to large impact may occur
a. The proposed action is located within 1500 feet of a school, hospital, licensed day care center, group home, nursing home or retirement community.	E1d	☐	☐
b. The site of the proposed action is currently undergoing remediation.	E1g, E1h	☐	☐
c. There is a completed emergency spill remediation, or a completed environmental site remediation on, or adjacent to, the site of the proposed action.	E1g, E1h	☐	☐
d. The site of the action is subject to an institutional control limiting the use of the property (e.g., easement or deed restriction).	E1g, E1h	☐	☐
e. The proposed action may affect institutional control measures that were put in place to ensure that the site remains protective of the environment and human health.	E1g, E1h	☐	☐
f. The proposed action has adequate control measures in place to ensure that future generation, treatment and/or disposal of hazardous wastes will be protective of the environment and human health.	D2t	☐	☐
g. The proposed action involves construction or modification of a solid waste management facility.	D2q, E1f	☐	☐
h. The proposed action may result in the unearthing of solid or hazardous waste.	D2q, E1f	☐	☐
i. The proposed action may result in an increase in the rate of disposal, or processing, of solid waste.	D2r, D2s	☐	☐
j. The proposed action may result in excavation or other disturbance within 2000 feet of a site used for the disposal of solid or hazardous waste.	E1f, E1g E1h	☐	☐
k. The proposed action may result in the migration of explosive gases from a landfill site to adjacent off site structures.	E1f, E1g	☐	☐
l. The proposed action may result in the release of contaminated leachate from the project site.	D2s, E1f, D2r	☐	☐
m. Other impacts: ______________________________			

17. Consistency with Community Plans

The proposed action is not consistent with adopted land use plans. ☑ NO ☐ YES

(See Part 1. C.1, C.2. and C.3.)

If "Yes", answer questions a - h. If "No", go to Section 18.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action's land use components may be different from, or in sharp contrast to, current surrounding land use pattern(s).	C2, C3, D1a E1a, E1b	☐	☐
b. The proposed action will cause the permanent population of the city, town or village in which the project is located to grow by more than 5%.	C2	☐	☐
c. The proposed action is inconsistent with local land use plans or zoning regulations.	C2, C2, C3	☐	☐
d. The proposed action is inconsistent with any County plans, or other regional land use plans.	C2, C2	☐	☐
e. The proposed action may cause a change in the density of development that is not supported by existing infrastructure or is distant from existing infrastructure.	C3, D1c, D1d, D1f, D1d, Elb	☐	☐
f. The proposed action is located in an area characterized by low density development that will require new or expanded public infrastructure.	C4, D2c, D2d D2j	☐	☐
g. The proposed action may induce secondary development impacts (e.g., residential or commercial development not included in the proposed action)	C2a	☐	☐
h. Other: _______________		☐	☐

18. Consistency with Community Character

The proposed project is inconsistent with the existing community character. ☑ NO ☐ YES

(See Part 1. C.2, C.3, D.2, E.3)

If "Yes", answer questions a - g. If "No", proceed to Part 3.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may replace or eliminate existing facilities, structures, or areas of historic importance to the community.	E3e, E3f, E3g	☐	☐
b. The proposed action may create a demand for additional community services (e.g. schools, police and fire)	C4	☐	☐
c. The proposed action may displace affordable or low-income housing in an area where there is a shortage of such housing.	C2, C3, D1f D1g, E1a	☐	☐
d. The proposed action may interfere with the use or enjoyment of officially recognized or designated public resources.	C2, E3	☐	☐
e. The proposed action is inconsistent with the predominant architectural scale and character.	C2, C3	☐	☐
f. Proposed action is inconsistent with the character of the existing natural landscape.	C2, C3 E1a, E1b E2g, E2h	☐	☐
g. Other impacts: _______________		☐	☐

PRINT FULL FORM

EAF Addendum A

LIST OF TABLES

LIST OF FIGURES

A. INTRODUCTION

This EAF Addendum was prepared in support of the Application for a Rezoning and Site Plan approval for the River Knoll project. The River Knoll project (“Proposed Project” or “River Knoll”), will be 169 market-rate rental units plus 19 affordable rental units, as mandated by Article VI of the Town of Ossining’s zoning code, for a total of 188 units of multi-family housing on the site of Stony Lodge Hospital – a child and adolescent psychiatric center. The hospital has been closed for many years and displays considerable deferred maintenance and is a blight to its immediate neighborhood This proposal describes a residential use that will repurpose the property with a use in keeping with its neighbors, an attractive design using Hudson Valley vernacular, and a purposeful major emphasis by River Knoll on clustering its building at the center of the large 18-acre site. This will be done to maximize greenspace and generously enlarge the green buffers to its adjacent neighbors. In doing so, the property will maintain significant permanent open space, totaling approximately 14 acres (78% of site), that will be beneficial to the community in perpetuity. Additionally, this new and compatible use will bring new neighbors and provide new economic activity to the Town through new demand for its stores, restaurants and the like.

The site is roughly bounded by Croton Dam Road, Pershing Avenue, Grandview Avenue, and Narragansett Avenue. The majority of the 17.9 acre site lies within the Town of Ossining (16.7 acres or 93%); 1.2 acres (7%) is within the Village of Ossining (collectively, the “Property”). The Applicant, The Glenco Group, LLC, has applied to the Town Board of the Town of Ossining for approval of the rezoning application and referral of the site plan application to the Town Planning Board. The Town of Ossining’s draft 2015 Comprehensive Plan Update specifically recommends that the Stony Lodge Hospital property be analyzed for reuse/redevelopment. This Addendum complements the Full Environmental Assessment Form (FEAF) Part 1 submitted with the Application by providing the Town with additional information related to the potential environmental impacts of the Proposed Project. It is the intent of this Addendum to assist the Town Board in adopting a determination of significance, pursuant to the State Environmental Quality Review Act (SEQRA) (6 NYCRR Part 617).

As indicated in the environmental assessment that follows and in the attached studies, the Proposed Project will not produce significant adverse impacts to the Town of Ossining’s natural environment, infrastructure, traffic or community services. It is anticipated that at full build-out River Knoll will have approximately 370 residents, of which approximately 22-29 students will be enrolled in the Ossining Union Free School District or approximately a 0.6% student population increase (3,850 total Ossining UFSD enrollments). Projected net tax revenue growth to the Town of Ossining, Village of Ossining, and Ossining Union Free School District will substantially offset additional costs for providing emergency services and costs to educate new school-age children that may reside at River Knoll. Redevelopment of this former institutional property will bring new residents to the Town who will provide additional economic activity through new demand for commercial services, restaurants, and stores. The Project will provide a free peak-hour shuttle service along a route to and from the nearby Metro North station, as an amenity for its residents. The Proposed Project will remove deteriorating and defunct structures of the largely abandoned hospital and eliminate a blighting influence to the residential neighborhoods of the Town and Village. The large and protected open space and expansive and greatly enlarged landscaped buffers will separate River Knoll from the surrounding residential neighborhood, and, very importantly, will also maintain the well-liked, and very visible large grassy meadow fronting on Croton Dam Road. The removal of former Stony Lodge utility buildings and parking areas currently situated adjacent to the northern and southern property boundaries, and located immediately adjacent to single family residential properties, will be replaced with the planting of new trees and shrubs that will create beautiful landscaped buffers ranging from a minimum of 150 feet to upward of 265 feet in width from the nearest neighbors and, thereby, substantially mitigate the potential for visual and noise conflicts, and provide enhanced greenery for the backyards of *all* adjacent property owners

B. PROJECT DESCRIPTION

The Proposed Project is a residential development of well-amenitized and upscale multi-family community consisting of 169 market rate rental units plus 19 Town-mandated affordable rental units, for a total of 188 units. As shown in the proposed site plan, **Figure A-1**, the Proposed Project will include ninety-six (96) one-bedroom and ninety-two (92) two-bedroom units, distributed in four (4) low-rise buildings. Each building will be 3 stories in height. Additional amenities will include a formal entrance courtyard with porte-cochere, a fitness center with state-of-the-art exercise equipment, a yoga studio, and a club room providing gathering areas, billiards, and Wi-Fi equipped library areas. Outdoor amenities will include a swimming pool for residents with landscaped terraces, an outdoor kitchen for private entertaining, quiet landscaped reading pockets, a dedicated dog walk, and an expansive open space buffer around the perimeter of the site including a walkway to Veterans Memorial Park. The individual units will have hard wood floors, a stainless appliance package and individual washer/dryers.

The sole entrance to River Knoll will remain from the current property access point on Croton Dam Road, though it will be made more beautiful and dramatic with a sweeping drive and stone wall entrance features. The current post and rail fencing that runs along the entire frontage of Croton Dam Road will remain. An internal, but landscaped, emergency access will be provided by a separate looping driveway diverging from the same entrance. A total of 376 parking spaces will be provided for River Knoll including: 204 spaces in secured and well-lighted parking facilities beneath each of the four residential buildings which provide direct elevator access to the residential buildings above. Additionally, 28 parking spaces will be provided in six free-standing garages located adjacent to the buildings, and 144 surface parking spaces will also be provided.

River Knoll is designed to appeal to active seniors (65+), empty nesters whose children may be off to college and who want to scale down to simpler living, young families without children, and young professionals, all of whom seek a lifestyle that is free of home maintenance, yet provides a high level of amenity, quality, and security, and very importantly, a sense of community. River Knoll will provide a new housing type that is currently unavailable in the Town of Ossining. Increasingly, people's time commitments to work, family, recreation and travel, limits their time available for the maintenance of a home. And apartment living affords them a more carefree lifestyle with the maintenance of their residences performed by professionals. Yet communities like River Knoll provide the amenities and quality they seek that is not available elsewhere in this marketplace. River Knoll also, very importantly, provides the opportunity for residents seeking to

10.7.15

Proposed Project Site Plan
Figure A-1

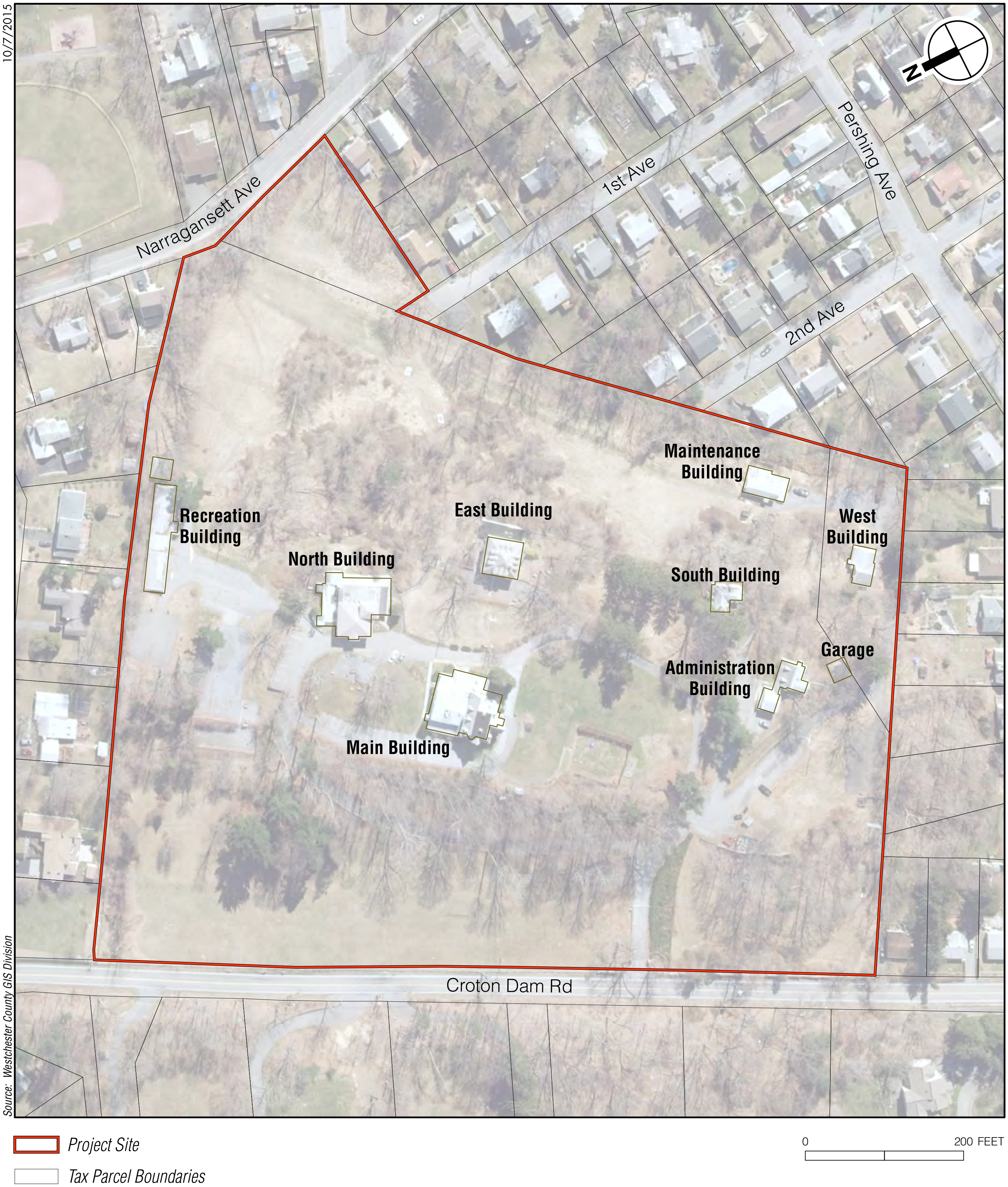
scale down from larger homes, yet stay in the greater-Ossining community they have attachment to, and we expect it to be of special appeal to that population of local residents. A free peak-hour shuttle service from Metro North will be an amenity that will attract residents who may be looking for an alternative mode of transportation.

The Property is currently occupied by buildings that comprise Stony Lodge Psychiatric Hospital. The site is large at 17.9 acres, of which 16.65 acres are within the Town of Ossining and 1.24 acres are within the Village of Ossining. Most of the buildings are currently vacant and display significant deferred maintenance and deterioration. The current arrangement of hospital buildings is shown in **Figure A-2**. The Administration building and the Maintenance building on the South side of the property are still occupied for maintenance and administrative staff. Although the oldest building was constructed in 1868, most of the other buildings were built in the 1930s, 50s and 60s, and the architectural integrity of the buildings of all of them, including the oldest, has been severely compromised by numerous additions that have no uniformity of design and are of negligible architectural value. In addition, without costly maintenance the buildings will continue to deteriorate due to their uninhabited state and, as importantly, they are technically defunct for the purpose of operating a psychiatric hospital. Consequently, all existing buildings will have to be demolished and paved surfaces, particularly on the northern and southern sections of the Property will be removed and converted to new lawn, landscaping, and tree buffers. As shown in **Figure A-1**, the residential buildings that will comprise River Knoll have been purposely clustered in the center of the site to maximize green buffers, protect the large meadows, minimize land disturbance, minimize removal of vegetation, and minimize excavation. By clustering the buildings in the center of the site, the construction of River Knoll will be primarily on previously disturbed land.

The focal point of River Knoll will be the *Manor House* (Building A) that will be situated at the highest point of the property providing spectacular views to the Hudson River. The *Manor House* will be the signature building yet it will be *lower* in height than the current hospital — a specific goal of the design of the building's plan. The façade of the *Manor* will have stone/brick cladding, Juliet balconies, and tall clerestory-style windows. The building's footprint is organized in wings providing several courtyards for the residences and thus, adding visual interest to each of the building's elevations. The *Manor* will be three (3) stories with a 32,000 sf footprint and contain 80 apartment units. Architecturally, the *Manor* will be of a Hudson Valley architectural vernacular, yet blending modern elements. Materials used will draw from the surrounding area in tone and texture and will include a stone façade complimented by wood-textured cladding. The approach to the *Manor* from Croton Dam Road will provide a dramatic and sweeping driveway winding up to a formal entry courtyard. From this perch residents will be afforded beautiful views of the Hudson River. This point will be the formal entrance to the main lobby. The *Manor* will be situated in the same approximate area as the existing Main hospital building, though it will be lower in height.

The three (3) smaller residential buildings (Buildings B-1, B-2, and B-3) are approximately 40,500 square feet in size and three (3) stories. Each B building will have 36 units each. These three buildings are situated to provide views of the meadows below, but yet fit into the existing contours of the site to minimize disturbance. Each building will be lower in height as compared to the existing Stony Lodge Hospital main building. The smaller buildings will complement the styling of the *Manor* building by using matching materials and Hudson Valley architectural vernacular.

Each residential unit at River Knoll will be provided a minimum of one garage parking space that will have direct elevator access to its respective unit (204 total). The garages will all be fully



Stony Lodge Hospital Current Buildings

RIVER KNOLL

Figure A-2

lighted and secure with automated garage doors and camera security systems. Additional parking will be available in either free-standing garages (28 spaces) or 144 surface parking spaces in front of the three smaller residential buildings. A comprehensive landscaping plan is being developed to preserve and enhance the front and rear existing meadows, to maintain mature trees, and address one small wetland on the site. An abundance of new plantings and meadows will enhance these existing natural resources to provide a park like experience as you make your way through the site. Existing rock outcroppings hidden by overgrown vegetation will become landscape features. Except for a proposed alley of trees which reinforces the arrival experience to the main entrance at Building A, much of the proposed landscape treatment will be informal, consistent with the pastoral quality of the site. In addition, the removal of the current out-buildings and impervious surfaces located at the perimeter of the site, will offer the opportunity to enlarge and re-vegetate these areas with wide buffers ranging from a minimum of 150-feet to upwards of 265- feet in depth. These new green buffers will separate the new development from adjacent residential properties and greatly enhance their backyard views.

The existing and very visible, bucolic landscape along Croton Dam Road will be maintained and enhanced. The existing grassy meadow will be replaced with an upland wildflower mix (i.e., Creeping Fescue, Goldenrod, False Indigo, New England Aster, Black Eyed Susan, Little Bluestem, and Milkweed). Areas designated for storm water management will be treated as wet meadows and planted with a combination of wet site tolerant seed mix (i.e., Sedges, Carex, Bulrush, and New England Aster); live herbaceous plants (i.e., Joe Pye Weed, Switchgrass, and Blue Flag); and native shrubs and trees (i.e., Viburnum, Shadblow Serviceberry, Grey Dogwood, and River Birch). For the existing buffers, healthy trees within undisturbed areas are being identified, surveyed and mapped to protect and preserve them. There will be selective removals and pruning to help promote the health and growth of the trees to remain. The new buffers will be landscaped using as mix of shade trees, evergreens, flowering trees and shrubs (i.e., Red Maple, Red Oak, Bicolor Oak, Sweetgum, Spruce, Fir, Great Western Cedar, Viburnum, and Inkberry).

Unlike the current condition under which stormwater runoff is discharged untreated directly to the surrounding neighborhoods and streets, the Proposed Project will convey runoff to a new onsite stormwater system. This will consist of high density polyethylene pipe, manholes, catch basins with sumps, outlet control structures and infiltration basins. In this way, the Proposed Project will provide a net reduction in the peak rates of stormwater runoff for the 10 and 100-year storms to the benefit of surrounding properties. It will also result in reduced water quality impacts to the Town and Village's drainage systems and receiving surface waters (Oliver Pond Watershed).

The 16.65 acres within the Town of Ossining is currently zoned R-15, single family residential. The Proposed Project will require a petition to re-zone the site consistent with amendments proposed as part of the Town's Comprehensive Plan, currently being updated. The proposed zoning petition, attached herein as **Appendix A** is for a new 'MF 2' (Multifamily Residence 2) zoning district to be added to the Town's zoning for a multi-family residential district. The 1.24 acres within the Village of Ossining is zoned S-50 single family residential. No structures or paved areas are proposed in the 1.24 acres of land within the Village of Ossining's jurisdiction.

PROJECT SITE PARCELS

The Project Site, the former Stony Lodge Psychiatric Hospital campus, consists of 3 parcels located in the Town and Village of Ossining, as listed in **Table A-1**.

Table A-1
Project Site Parcels

Tax ID	Address	Owner	Area (Sq. ft.)
Parcels East in Town of Ossining			
89.08-1-83	40 Croton Dam Road	Stony Lodge Hospital Inc.	16.65
		Total	**16.65**
Parcels in Village of Ossining			
90.05-1-27	Narragansett Ave	Stony Lodge Hospital Inc.	0.60
89.12-13	Croton Dam Road	Stony Lodge Hospital Inc.	0.64
		Total	**1.24**
Source: Town of Ossining GIS (http://www.caigisonline.com/OssiningNY/ accessed 9/29/15)			

REQUIRED APPROVALS

The Proposed Project will require permits and approvals from the Town and Village of Ossining, as well as stormwater management and sewer/water approvals from the New York State Department of Environmental Conservation (NYSDEC) and Westchester County Department of Health (WCDOH), as listed in **Table A-2**.

Table A-2
Required Approvals & Referrals

Agency	Approval
Required Approvals	
Town of Ossining	Rezoning (Zoning Amendment)
	Site Plan Approval
	MS4 (Stormwater) Compliance
	Steep Slopes Permit (Ch. 167)
	Wetland Permit (Ch. 105) – *if regulated by Town*
	Roadway Improvements – Croton Dam Rd
Village of Ossining	Water/Sewer District Connection
NYS Department of Environmental Conservation	SPDES General Permit for Stormwater Discharges from Construction Activity
Westchester County Department of Health	Water and Sewer Connections
Required Referrals	
Westchester County Department of Planning	§239-m Referral
NY State Historic Preservation Office (SHPO)	State Historic Preservation Act Compliance
Town of Ossining Departments and Boards	Town Board
	Planning Board
	Highway Department
	Environmental Advisory Board

C. LAND USE & COMMUNITY CHARACTER

EXISTING CONDITIONS

The surrounding area contains a variety of land uses as shown in **Figure A-3**. The project site comprises the Stony Lodge Hospital grounds, formerly used as a psychiatric treatment hospital for adolescents. There are 9 existing buildings on the property (see **Figure A-2**). The oldest building, also known as the Main Building, stands at the top of the hill and was built circa 1868 likely as a private residence. Later, in the 20th Century, portions of the building were removed, and architecturally incompatible sections added to expand it; it was dramatically remodeled in

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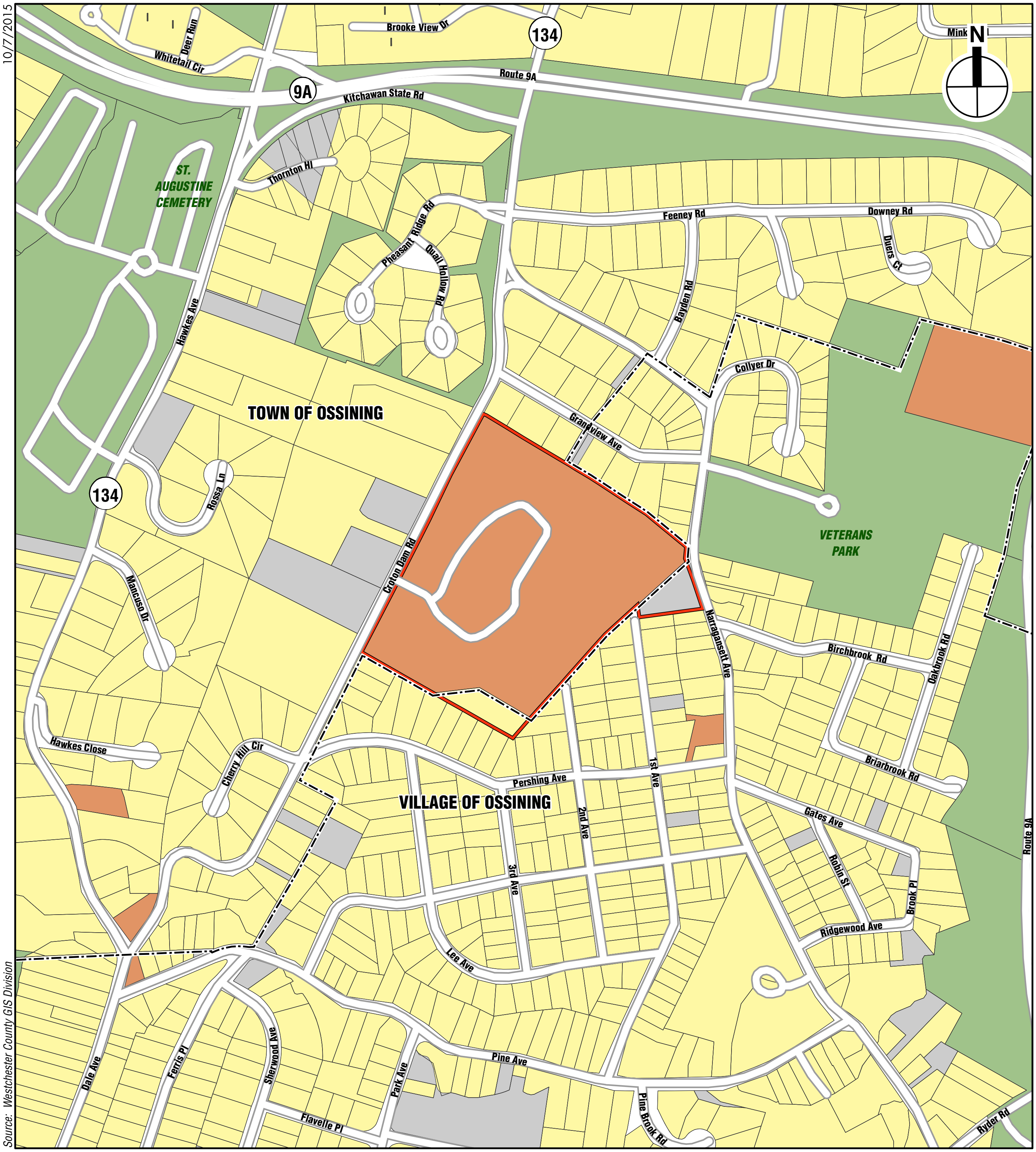

Source: Westchester County GIS Division

Project Site

Village/Town Boundary

Tax Parcel Boundaries

Social and Health Services

Open Space and Recreation

Residential

Vacant/Undeveloped

0 500 FEET

Existing Land Use

RIVER KNOLL

Figure A-3

the late 1940s with additional renovations undertaken subsequently to adapt the building to meet the hospital's needs for use as an acute psychiatric program. The North Building and East Building were built in 1931, with the South Building also built in the 1930s. Additional buildings were built on the hospital campus in the 1950s including a garage, the Maintenance Building (1951), the Administration Building (1953), and the Recreation Room in what was a large garage close to residential neighbors (1954). The West building was built in 1960s.[1]

The majority of land uses surrounding the project site consist of single family residential uses. Notable non-residential land uses in the vicinity of the Project Site include the Bethel Nursing and Rehab Center, located at 17 Narragansett Ave, in Ossining, which is shown as *Social and Health Services* land use. The Saint Augustine Cemetery and the Veterans Park are two *Open Space and Recreation* areas located within a ½ mile radius of the project site.

POTENTIAL IMPACTS

The Proposed Project will create new land uses more in keeping with the overall character of the surrounding residential neighborhoods than the previous hospital use. The small portions of the project site in the Village of Ossining, will contain no buildings/parking and would be converted to permanent open space The Proposed Project will be consistent with nearby land uses which include various housing types and open spaces including parks and cemetery lands Therefore, no significant adverse impacts to land use are anticipated as a result of the Proposed Project.

The Proposed Project will improve the visual character of the study area as the present open space will stay the same, however new and wider green buffers will be added to the northern, eastern and southern portions of the property. Additionally, the majority of the Proposed Project's buildings will be similarly hidden from view due to the topography, vegetation and stands of trees on the site and, beneficially, will be approximately 10 feet *lower* than the existing hospital at its highest point. The portions of the Proposed Project that will be visible will be in the Hudson Valley design vernacular as previously discussed, and a significant improvement over the hospital buildings that are in disrepair. Therefore, no significant adverse impacts to land use will occur as a result of the Proposed Project.

D. PUBLIC POLICY

EXISTING CONDITIONS

The Town of Ossining has an approved Comprehensive Plan from 2002 ("2002 Plan") and has been in the process of updating it since 2014. It is projected that the 2015 update to the Comprehensive Plan will be approved by the end of the year.

The 2002 Plan has eight (8) sections, three of which are applicable to the redevelopment of the Stony Lodge Hospital into a multi-family residence and new residential multi-family zoning district.

First, the Environmental Resources section of the 2002 Plan's goal is to "Preserve existing open space, acquire new properties for preservation and recreation, and protect the trees, water supply and watersheds, steep slopes, view-sheds, scenic resources, wildlife habitats and other significant environmental assets to the community". The Proposed Project is in alignment with

[1] Dates of construction of the buildings provided by Kevin Czipo, the CFO and main administrator of the Stony Lodge Hospital.

this goal as it proposes to preserve its existing open space, expand the buffers of landscaped area separating new structures from all surrounding properties, add new greenery and trees, and remove peripheral buildings/pavement to create larger and contiguous areas of enhanced vegetated open space. Where the Proposed Project encroaches minimally onto the present open space it correspondingly adds substantial new green buffers and allows the Proposed Project to protect and expand existing habitat areas occupied by trees and shrubs.

Second, the Proposed Project is consistent with the Residential portion of the 2002 Plan as it will "preserve the quality, character and stability of neighborhoods within the Town… make a wide range of housing opportunities available to members of the community… and require suitable buffer areas for non-residential uses and properties abutting neighborhoods and residential areas". The Proposed Project is located on a site previously used as a psychiatric hospital and is surrounded by residential uses. By proposing a zoning amendment and allowing for the building of a residential community, the Proposed Project will not change, but instead will be compatible with the character of the surrounding neighborhoods.

Third, consistent with the 2002 Plan's goal of making a wide range of housing opportunities available to members of the community, the Proposed Project will provide new highly-amenitized rental apartment units not currently available in the Ossining marketplace. In addition, the 2002 Plan devotes itself to work towards financial assistance for more affordable housing options in its "Residential" chapter. In this vein, the Proposed Project will offer 10 percent of its units as affordable and increase the economic accessibility to members of the community.

Finally, the 2002 Plan seeks to "promote development and redevelopment to be consistent with the current scale and historic character of the community… preserve residential neighborhoods, and protect environmental resources" within the Future Development and Redevelopment Section. By clustering River Knoll in the center of the site and removing hospital buildings that are currently situated adjacent to the boundaries of the property, increasing the width of the vegetated buffer, and installing a new landscaping plan, the project site will be more compatible with and enhancing of the residential land use of the surrounding area. By redeveloping the site for residential use, the Proposed Project will prevent the attractive nuisance that unoccupied buildings can cause, will bring new community members to the Town, and promote thoughtful redevelopment consistent with this 2002 Plan's goals.

The new 2015 Comprehensive Plan Update of the Town of Ossining will not substantively alter land use policies relevant to the site. In fact, included in the draft "Future Development and Redevelopment" chapter of its Comprehensive Plan Update is a policy specific to the Stony Lodge Hospital property. The proposed policy recommends the Town be open to an analysis of the zoning of the subject property so that it can be reused or redeveloped. The update to the Comprehensive Plan states:

> "The Town should be open to an analysis of the zoning of the underutilized and non-conforming Stony Lodge Hospital property in order for this property to be adaptively reused or redeveloped in a manner that is feasible and which protects surrounding neighborhoods and environmental resources to the maximum extent practicable."

Further, the Comprehensive Plan Update as well as the 2002 Comprehensive Plan stress the importance of protecting and conserving the Town's environmental resources including open space, landscaped buffers, trees, water supplies, watersheds, steep slopes, viewsheds, scenic resources wildlife habitats and other important environmental assets of the community. The proposed project will keep the existing open space on the Stony Lodge Hospital property and will improve upon it with additional native landscaping, as discussed below under Natural Resources. The one small onsite wetland identified and delineated will remain undisturbed. Lastly, the reuse of the property with a multi-family development will significantly minimize additional impacts to the site's open space and steep slopes as compared to an alternative single-family residential as-of-right development which would clearly require substantially more disturbance, reduced buffers, and loss of vegetated habitat.

A small portion of the project site is also located within the Village of Ossining. The 2009 Village of Ossining's Comprehensive Plan stresses the need for affordable housing in an entire chapter. The Village aims to have a 10 percent affordable housing goal in all new and remodeling of six dwelling units or more. In addition, similar to the Town requirements on affordable housing, the Village of Ossining, per §62-3 and §62-4 of its code, requires that each residential development application that proposes the construction or rehabilitation of six or more dwelling units of purchase or rent provide 10 percent affordable housing units. The Proposed Project is in conformity with these Village goals as it incorporates 10 percent affordable housing.

POTENTIAL IMPACTS

As summarized above, the Proposed Project is consistent with the existing 2002 Town Comprehensive Plan and the proposed update of Town of Ossining's Comprehensive Plan, expected to be adopted by the end of 2015. The Town of Ossining's draft 2015 Plan specifically identifies the project site as appropriate for adaptive reuse and/or redevelopment to a use that would be protective of environmental resources and the surrounding residential neighborhoods. The Village of Ossining calls for an increase in the number of affordable housing units. The Proposed Project will provide 10 percent of its dwelling units as affordable housing as mandated by Article VI of the Town of Ossining's zoning code.

In addition to updates to the Comprehensive Plan, the Town of Ossining is currently considering modifications to several local laws including the Subdivision of Land Chapter (Section 176); Tree Protection Chapter (Section 183); Freshwater Wetlands, Watercourses and Water Bodies Protection Chapter (Section 105); and Steep Slope Protection Chapter (Section 167). The proposed code amendments have been reviewed and only those related to Steep Slopes (§167) and Wetlands (§105) apply to the Proposed Project. Both the existing Steep Slopes code and proposed amendments indicate that the Project will require a steep slopes permit due to the presence of slopes greater than 15% in areas of proposed site disturbance**.** While the existing wetlands code does not apply to the onsite wetland because it is less than ½ acre in size, the proposed revisions the code appear to remove this size exclusion, and therefore the one wetland delineated onsite may be regulated by the Town. See discussions of steep slopes under Geology and discussion of wetlands under Natural Resources, below.

E. ZONING

EXISTING CONDITIONS

The majority of the Project Site (16.2 acres) is zoned R-15 in the Town of Ossining. This district is a One Family Residence District with a 15,000 square foot minimum lot size. A small 1.1 acre portion of the Project Site is located in the Village of Ossining, and is zoned S-50. This is a Single Family Residence District with a 5,000 square foot minimum lot size. Multifamily uses are not permitted as-of-right in either district. See **Figure A-4** for the zoning map of the proposed project site.

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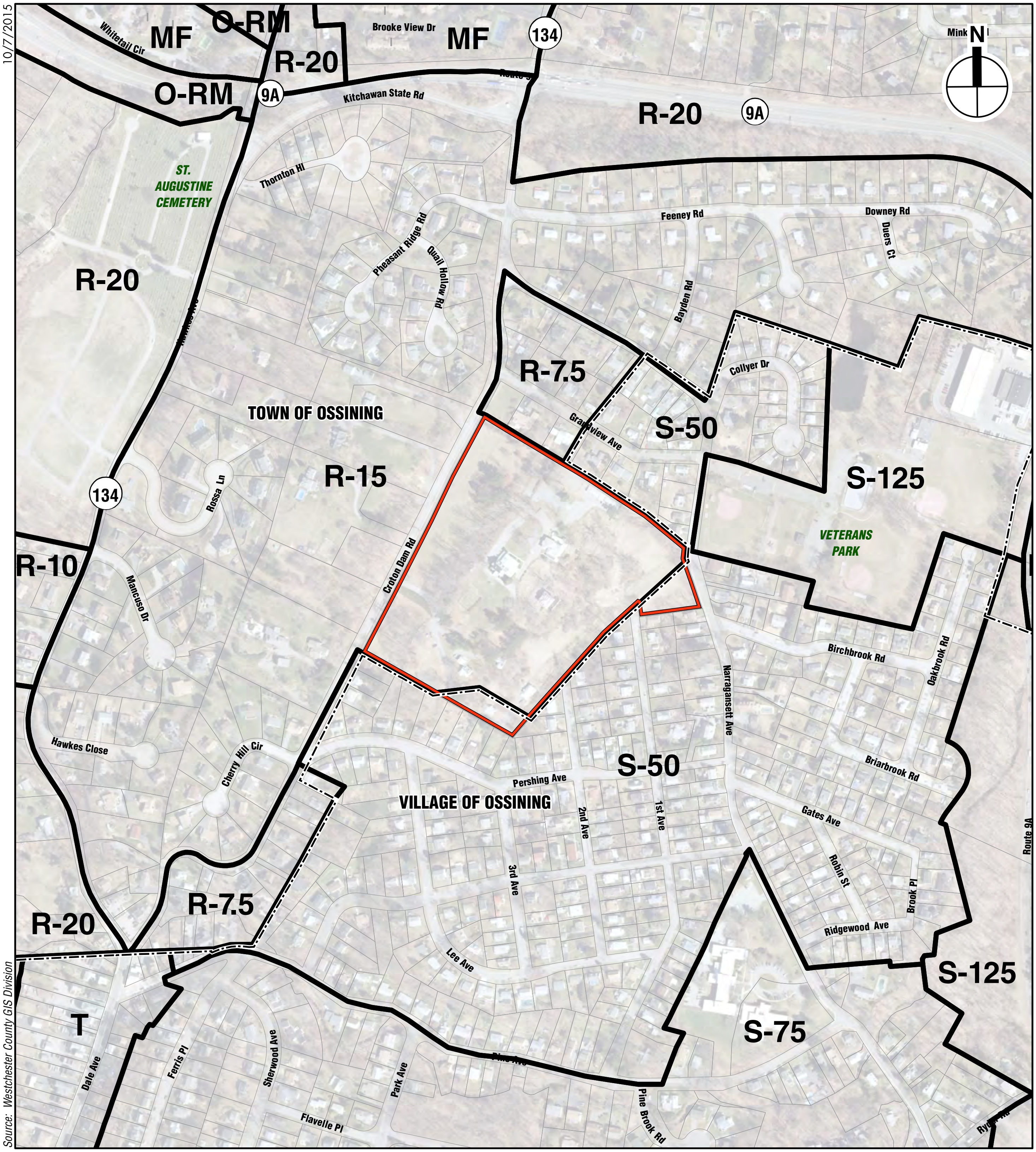


Source: Westchester County GIS Division

Project Site
Village/Town Boundary
Tax Parcel Boundaries
Zoning Boundaries

MF - Multi-Family
O-RM - Office-Research Manufacturing
R-15 - One-Family Residential
R-20 - One-Family Residential
R-7.5 - One-Family Residential
S-100 - One-Family Residential
S-125 - One-Family Residential
S-50 - One-Family Residential
S-75 - One-Family Residential
T - One-Family Residential

0 500 FEET

Zoning Map
Figure A-4

RIVER KNOLL

POTENTIAL IMPACTS

The Proposed Project will require that a new zoning district be adopted to accommodate the use. Accompanying this application is a proposed zoning petition that would amend the Town's code to include a multi-family residence district known as the MF2 (Multifamily Residence 2) District. The petition would also re-map the Project Site from the R-15 (One Family Residence) District to the MF2 (Multifamily Residence 2) District. See full text of the proposed zoning petition in **Appendix A**.

Multi-family housing would be permitted in this new district as a conditional use subject to approval by the Planning Board. Goals and conditions of the district would include:

- Enabling more undeveloped permanent open space as the proposed, new residential community will be clustered to the center of the Premises;
- Preserving more mature stands of trees;
- Maintaining the scenic meadow along the entire frontage of Croton Dam Road as well as the expansive meadow on the easterly side of the Premises;
- Allowing for the addition of sizeable new green buffer areas protecting adjacent homeowners along the northerly and southerly boundaries of the Premises;
- Minimizing internal roadways and extensive infrastructure that would require more impervious surfaces and increased excavation, disrupting the terrain in a manner that also would necessitate tree removal; and
- Producing a fiscally beneficial change to the Premises improving revenue generation for the Town, Village and School District.

The following bulk regulations would apply in the proposed MF2 Multifamily Residence District, as shown in Table A-3.

Table A-3
Proposed MF2 Zoning Bulk Regulations

Minimum Requirements	Row or Attached Dwelling	Multiple
Lot area (square feet)	10 acres	10 acres
Lot area per dwelling unit (square feet)*	4,250*	4,250*
Lot width (feet)	50	250
Lot depth (feet)	250	250
Front yard (feet)	200	200
One side yard (feet)	100	100
Both side yards (feet)	200	200
Rear yard (feet)	100	100
Livable floor area dwelling unit (square feet)	850	700 per for 1 or more bedrooms
Usable open space	50%	50%
Maximum Permitted:		
Building height		
Stories	3	3
Feet	50	50
Building coverage (percent)	12	12

Note: Consistent with §200-33 hereof at least ten percent (10%) of the units shall be designated as below-market-rate (BMR) units, permitting a density bonus of 20% for sites of 10 acres or more as set forth in Article VI hereof.

Table A-4 compares the existing bulk provisions for the Project Site under current zoning with proposed MF2 zoning.

Table A-4
Comparison of Existing and Proposed Zoning

	R-15 requirements	Proposed MF2 Zoning
Minimum Requirements		
Lot areas (sf)	15,000	10 acres
Lot width (feet)	90	50 (row or attached dwelling); 250 (multiple)
Lot depth	120	250
Front Yard (feet)	30	200
1 side yard (feet)	14	100
Both side yards (feet)	30	200
Rear yard (feet)	32	100
Livable floor area per dwelling unit (square feet)	850	850 (row or attached) 700 (multiple, for 1 or more bedrooms)
Maximum Permitted		
Stories	2 ½	3
Height (feet)	35	50
Building coverage (percent)	25	12

F. CULTURAL AND HISTORIC RESOURCES

EXISTING CONDITIONS

The project site is the Stony Lodge Hospital property. Stony Lodge Hospital was established as a psychiatric hospital in 1927 for adults. It was later modified to serve inner city children, 5 to 17 years of age, with mental health issues. The hospital provided psychiatric care for 61 children patients at a time, on an average rolling basis of two weeks, hosting an average of 600 patients per year.

There are 9 existing buildings on the property (see **Figure A-2**). The oldest building, also known as the Main Building, stands at the top of the hill and was built circa 1868 likely as a private residence. Later, in the 20th Century, portions of the building were removed, and architecturally incompatible sections added to expand it; it was dramatically remodeled in the late 1940s with additional renovations undertaken subsequently to adapt the building to meet the hospital's needs for use as an acute psychiatric program. The North Building and East Building were built in 1931, with the South Building also built in the 1930s. Additional buildings were built on the hospital campus in the 1950s including a garage, the Maintenance Building (1951), the Administration Building (1953), and the Recreation Room in what was a large garage close to residential neighbors (1954). The West building was built in 1960s.[2] All of the buildings are in a state of disrepair. **Appendix B** contains photos of the existing building conditions.

As construction of the project would require a New York State permit (Stormwater Pollution Prevention Plan – SWPPP), a submission to the New York State Office of Parks, Recreation and Historic Preservation Office (OPRHP) was made to initiate consultation pursuant to SEQRA and

[2] Dates of construction of the buildings provided by Kevin Czipo, the CFO and main administrator of the Stony Lodge Hospital.

Section 14.09 of the New York State Historic Preservation Act so that historic and cultural resources may be identified and potential project impacts assessed. Results of the coordination with OPRHP will be made part of the public record during SEQRA.

POTENTIAL IMPACTS

On October 20, 2015 OPRHP requested that a Phase 1A Archaeological Documentary Study ("Phase 1A") be prepared to evaluate the potential archaeological sensitivity of the site. OPRHP requested that the Phase 1A include additional information regarding the history of the Stony Lodge Hospital as well as the 19th century Main Building prior to its association with the hospital. The Phased 1A will analyze the archaeological sensitivity of the project site and determine its potential to yield both precontact and historic period archaeological resources. The Phase 1A will include a contextual overview of the development history of the project site, an assessment of past disturbance of the project site, an analysis of the local topography and elevation, and the identification of any potential resource types that may be present on the site. The Phase 1A will also make a determination as to whether or not an additional archaeological investigation (i.e. Phase 1B testing) is necessary. The Phase 1A will be submitted to OPRHP for review and comment as part of the site plan review process.

Based on OPRHP's review of the information provided, an evaluation of the project's potential impacts on historic and cultural resources will be undertaken, with any necessary measures to avoid, minimize or mitigate adverse impacts on historic and cultural resources determined in consultation with OPRHP.

G. GEOLOGY, SOILS AND TOPOGRAPHY

EXISTING CONDITIONS

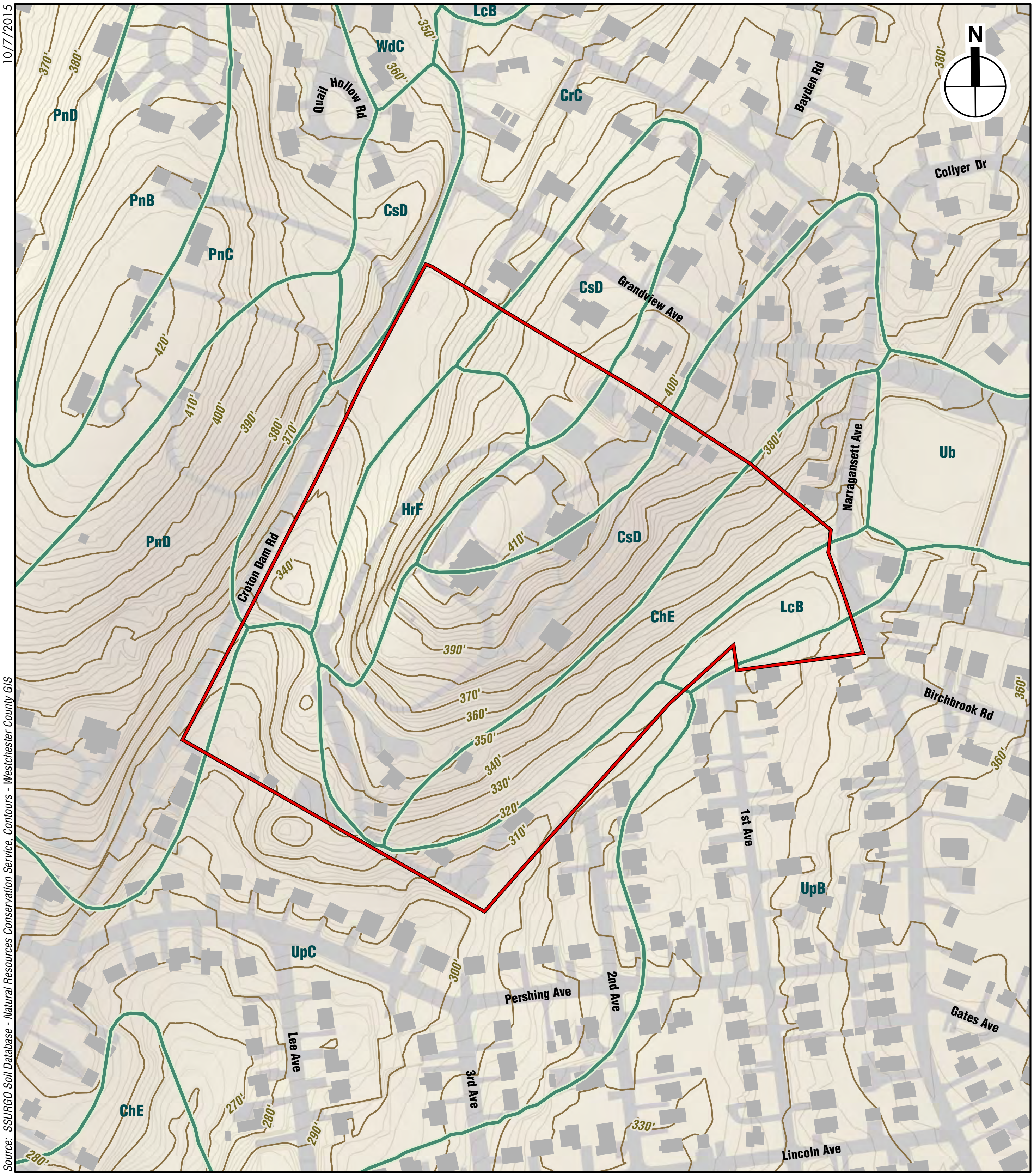
Topography of the project site has a high point at the center of the property at elevation 414' where the main Stony Lodge Hospital building is located, as shown in **Figure A-5**. The site descends in elevation towards the peripheries with a low point of 305' at the southeast corner of the site. The Town regulates steep slope disturbance in Chapter 167: Steep Slope Protection. "Steep Slopes" are defined as those areas between 15-25% slope with a minimum area of .3 acre or greater; areas between 25-35% slopes with a minimum area of .2 acre or greater, and; areas 35% or greater with a minimum area of .1 acre or greater. Assessment of the project site indicates that slopes greater than 15% are present onsite and would be disturbed by the Proposed Project. **Table A-5** indicates the acreage and percentage of slope categories onsite.

Table A-5
Existing Steep Slopes

Slope Category	SF (Acres)	Percent of Site
0-15%	336,732 (7.8)	43%
15-25%	242,867 (5.5)	31%
25-35%	122,749 (2.8)	16%
35% or greater	76,834 (1.8)	10%
TOTAL	*779,182/17.9*	*100%*

Note: Slope categories conform to Town of Ossining Code Sect.167: Steep Slope Protection.

The project site is underlain by Manhattan Formation bedrock, which is metamorphic schist bedrock of Ordovician age. Onsite soils are comprised primarily of Chatfield-Charlton complex and Charleton Loam, which are both well drained soils with bedrock occurring at depths greater



Project Site

SSURGO Soil Map Unit Boundaries

10 Foot Contour Intervals

0 200 FEET

Soils and Topography

Figure A-5

RIVER KNOLL

than 6 feet according to the Natural Resource Conservation Service (NRCS) soil survey. **Table A-6** lists the characteristics of the soils mapped for the project site.

Table A-6
Onsite Soils

Soil Name	Drainage Class	Depth to seasonal high water	Depth to Bedrock	Percent of Site
CsD – Chatfield-Charleton complex, hilly, very rocky	Well drained	> 6 feet	> 60 inches	31%
CrC – Charleton-Chatfield complex, rolling, very rocky	Well drained	> 6 feet	> 60 inches	20%
ChE – Charlton loam, 25 to 35 percent slopes	Well drained	> 6 feet	> 60 inches	18%
HrF – Hollis-Rock outcrop complex, very steep	Somewhat excessively drained	> 6 feet	10 to 20 inches	13%
UpC – Urban land-Paxton complex, 8 to 15 percent slopes	Well drained	1.5 to 2.5 feet**	> 60 inches	12%
LcB – Leicester loam, 3 to 8 percent slopes, stony*	Somewhat poorly drained	1.5 feet	> 60 inches	5%
PnD – Paxton fine sandy loam, 15 to 25 percent slopes	Well drained	1.5 to 2.5 feet**	> 60 inches	1%

Notes:
* Listed as a soil mapping unit which can contain Hydric Soils by the National Technical Committee on Hydric Soil (NTCHS).
** perched seasonal water table.
Sources: NRCS Web Soil Survey

POTENTIAL IMPACTS

In accordance with the NYSDEC's SPDES General Permit for Stormwater Discharges from Construction Activity (GP-0-15-002), a stormwater pollution prevention plan (SWPPP) will be prepared and submitted for review to the Town and NYSDEC. This will include plans detailing the erosion control measures to be used during construction to avoid impacts from erosion/sedimentation. By limiting the footprint of the disturbance, clustering buildings in close proximity on the upper elevations of the site, and installation and inspection of erosion control measures throughout construction, significant adverse impacts to onsite soils will be avoided.

A cut and fill analysis was completed for the necessary grading of the site to accommodate the proposed preliminary site plan. This analysis demonstrates that the project would generate an excess of material of approximately 25,750 cubic yards. This excess material will need to be disposed of offsite. This quantity of excess material is based on a conservative estimate used for trucking purposing and assumes that the majority of the excavated material will be rock. This estimate also accounts for that portion of the excavated material that will remain onsite as part of regrading, including rock that will be processed into item #4 and used onsite as compacted fill under building foundations, roadways, and other fill areas. Additional opportunities to minimize cut and fill amounts will be explored during the site plan review process. The proposed multi-family residential structures are designed to work with the existing contours of the site and also stay within the already disturbed areas from the prior hospital use. These measures will minimize the need for cut/fill and to avoid significant changes to the site's topography.

The Proposed Project will require a steep slopes permit from the Town of Ossining. As shown in **Figure A-6: Steep Slope Disturbance**, approximately 4.6 acres of steep slopes (>15% slope)

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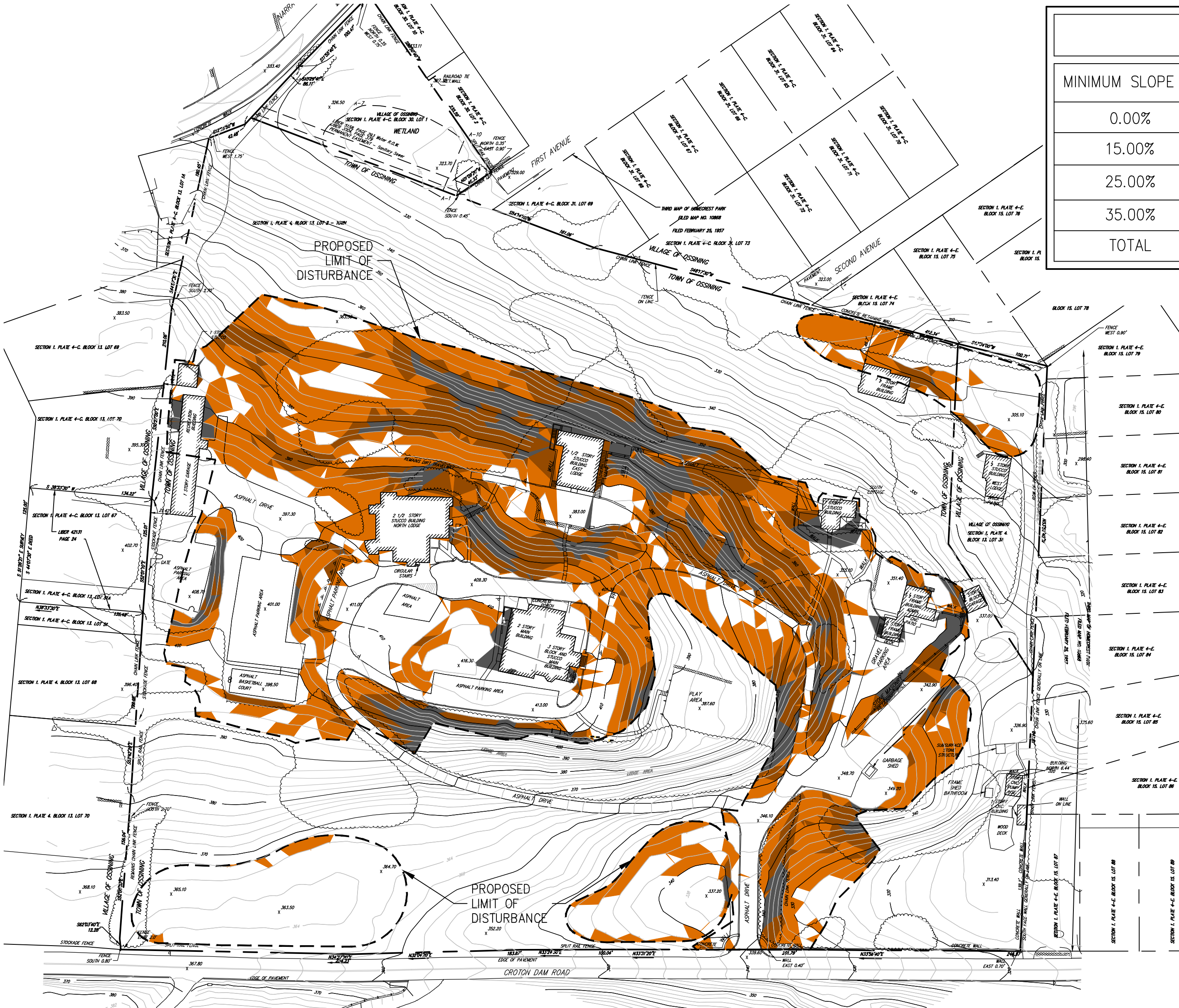

SLOPES TABLE

MINIMUM SLOPE	MAXIMUM SLOPE	AREA (SF/ACRES)	COLOR
0.00%	15.00%	191,748/4.4	
15.00%	25.00%	109,388/2.5	
25.00%	35.00%	57,258/1.3	
35.00%	VERTICAL	35,047/0.8	
TOTAL		393,441/9.0	

Steep Slope Disturbance

Figure A-6

RIVER KNOLL

would be regraded during construction. After construction, all constructed slopes will conform to Town Engineering requirements to ensure safety and stability. A detailed erosion control plan will be included in the Stormwater Pollution Prevention Plan to ensure that all steep slope disturbance (clearing/grading) does not result in the movement of soil in stormwater runoff and avoids erosion/sedimentation.

If blasting for bedrock removal is required, the Proposed Project will comply with New York State and Town of Ossining regulations on blasting (Town Code §123).

H. NATURAL RESOURCES

EXISTING CONDITIONS

The Project Site consists of developed areas of buildings, driveways and mowed lawn interspersed with unmaintained wooded/shrubby areas. During onsite inspection, areas of mowed/maintained lawn were found to be dominated by Kentucky bluegrass (*Poa pratensis*), crabgrass (*Digitaria sp*.), common plantain (*Plantago major*), English plantain (*Plantago lanceolata*), and red clover (*Trifolium pratense*). Wooded areas onsite contain Norway maple (*Acer platanoides*), black locust (*Robinia pseudoacacia*), and black walnut (*Juglans nigra*) in the tree layer, with multiflora rose (*Rosa multiflora*), porcelainberry (Ampelopsis brevipedunculata) Asiatic bittersweet (*Celastrus orbiculatus*), Japanese stiltgrass (*Microstegium vimineum*), and goldenrods (*Solidago spp*) in the understory.

A small herbaceous wetland area (0.10-0.20 acres) is located in the northeast corner of the site, consisting of an area of sweetflag (*Acorus calamus*), New York aster (*Symphyotrichum novi-belgii*), arrowleaf tearthumb (*Persicaria sagittata*) and umbrella sedge (*Cyperus strigosus*). This wetland was delineated in accordance with federal and Town of Ossining requirements.[3]

There are no NYSDEC-mapped streams or wetlands on the Project Site. There are no U.S. Fish and Wildlife National Wetland Inventory (NWI)-mapped wetlands on the Project Site. See **Figure A-7** showing the NWI-mapped wetlands in proximity to the Project Site**.**

POTENTIAL IMPACTS

Although implementation of the Proposed Project will result in an increase in impervious surface of approximately 5% or 1.05 acres, the new pavement and buildings will be clustered in the center of the site where the existing hospital buildings and accessory uses are located. All existing impervious surfaces (buildings/pavement) around the periphery of the 17.9 acre site will be removed and converted to pervious landscaped areas, as shown in **Figure A-8: Existing Impervious to be Converted to Open Space**. In this way, the vegetated buffers surrounding the Proposed Project will be expanded, particularly to the east, south and west, which will create wide vegetated buffer areas of 150 feet to 265 feet separating the four new buildings from

[3] Environmental Laboratory 1987. "Corps of Engineers Wetlands Delineation Manual," Technical Report Y-87-1, US Army Engineer Waterways Experiment Station, Vicksburg, Miss; U.S. Army Corps of Engineers. 2011. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (version 2.0), ed. J.S. Wakeley, R.W. Lichvar, C.V. Noble, and J.F. Berkowitz. ERDC/EL TR-12-1. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

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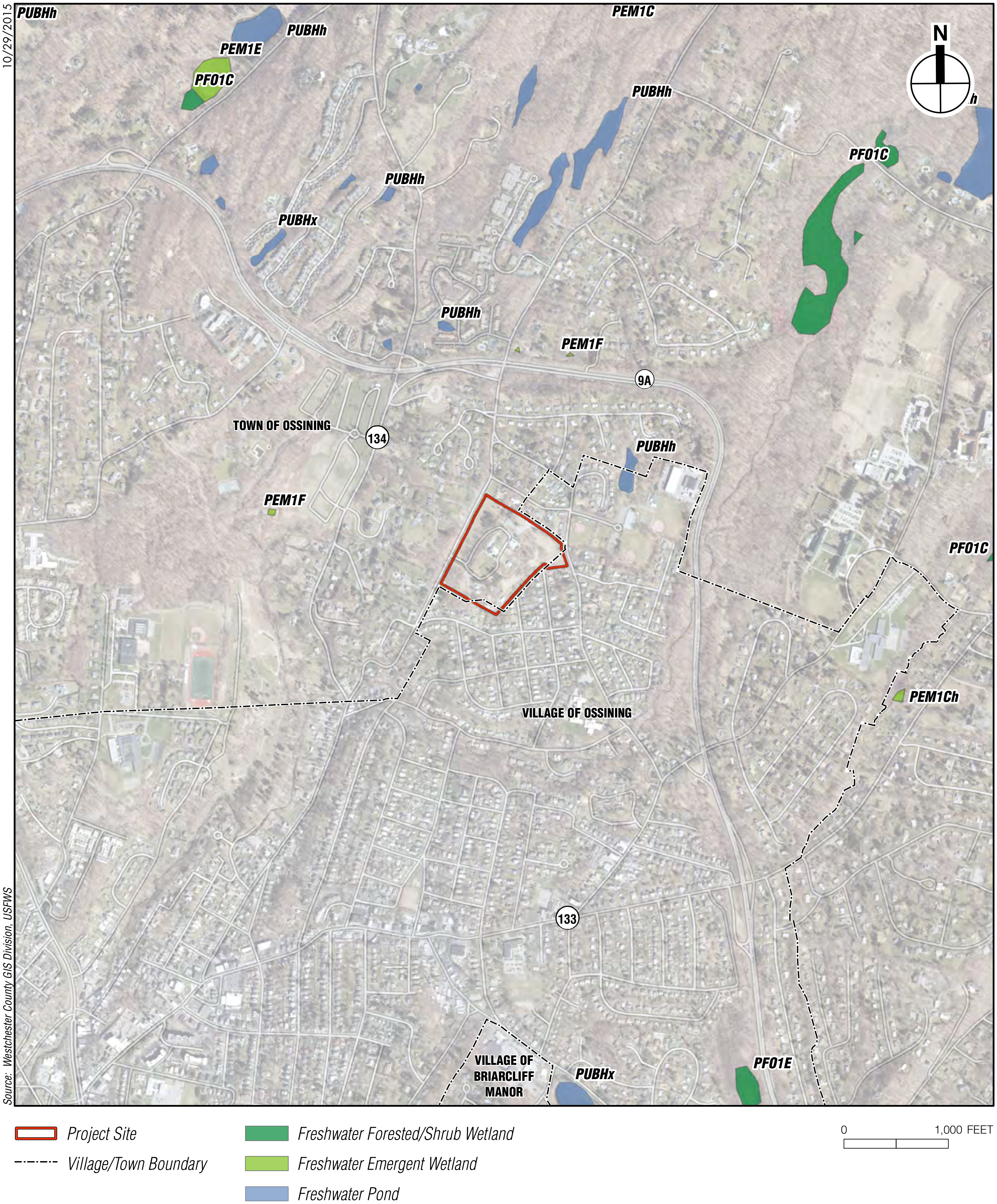

Source: Westchester County GIS Division, USFWS

USFWS Mapped Wetlands

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Figure A-7

Existing impervious (pavement/buildings) to be removed and converted to landscaped area

Existing Impervious to be Converted to Pervious Open Space

Figure A-8

RIVER KNOLL

surrounding properties. This is a substantial improvement over existing conditions under which some of the hospital's buildings and parking areas are directly adjacent the property line.

The wooded periphery of the site and the majority of wooded/shrub areas scattered throughout the site will remain undisturbed, serving to retain the wooded buffers that conceal the site, provide wildlife habitat, and add to the site's visual appeal. Detention basins have been preferentially located in areas currently occupied by lawn to the maximum extent. Although some disturbance the partially wooded/shrubby slope in the center of the site would be required for placement of buildings B1, B2 and B3, with implementation of the proposed landscaping plan, the site will realize a net increase unmaintained meadow/forest/shrub habitat.

The wetland delineated onsite is approximately ¼ acres in size, and therefore under the ½ acre minimum size regulated by Town Code Chapter 105: Freshwater Wetlands, Watercourses, and Water Body Protection. This wetland is also not regulated by the Village of Ossining's Chapter 149: Freshwater Wetlands as this ordinance only regulates those wetlands mapped and regulated by the NYSDEC. No such wetlands are mapped on the Project Site. Nevertheless, the onsite wetland may be regulated by the U.S. Army Corps of Engineers (USACE) and will therefore be avoided. In addition, proposed amendments to the Town Wetland Code are currently under consideration by the Town which may reduce the minimum size of wetlands regulated. Whether regulated by the Town or not, the Proposed Project will avoid any direct disturbance to this wetland. The only disturbance proposed within the 100-foot buffer of the preliminary wetland boundary is a temporary disturbance for installation of the gas service line (+/- 20 feet from the wetland boundary) and a water line (+/- 40 feet from the wetland boundary). A water meter pit along the water line within 40 feet of the wetland boundary will be a permanent structure within the buffer. These areas of buffer disturbance currently consist of maintained lawn and will be fully restored/replanted as lawn after installation. No detriments to the 100-foot wetland buffer would result. These utility locations are preliminary and are subject to change based on coordination with the Town, Village and utilities companies.

The wetland area is dominated by herbaceous species (grasses/forbs) and will remain in this condition if periodically maintained (mowed) as it has been in the past. Alternatively, the wetland may be allowed to become colonized by native woody vegetation through natural succession if mowing is discontinued.

As discussed under Project Description above, existing wooded buffers on the site will be preserved and enhanced. Healthy trees within undisturbed areas are being identified, surveyed and mapped to protect and preserve them. There will be selective removals and pruning to help promote the health and growth of the trees to remain. New wooded buffers will be landscaped using as mix of shade trees, evergreens, flowering trees and shrubs (i.e., Red Maple, Red Oak, Bicolor Oak, Sweetgum, Spruce, Fir, Great Western Cedar, Viburnum, and Inkberry). The lawn/meadow fronting on Croton Dam Road will be enhanced with an upland wildflower mix and stormwater management basins planted with a wet tolerant seed mix, live herbaceous plants, and native shrubs and trees. The cumulative effect of preserving the wooded buffer and enhancing the proposed landscaping plan will be a net increase in floral diversity and habitat quality, despite the loss of approximately 1.0 acre of existing open space for the construction of the proposed buildings/drives.

I. VISUAL IMPACTS AND COMMUNITY CHARACTER

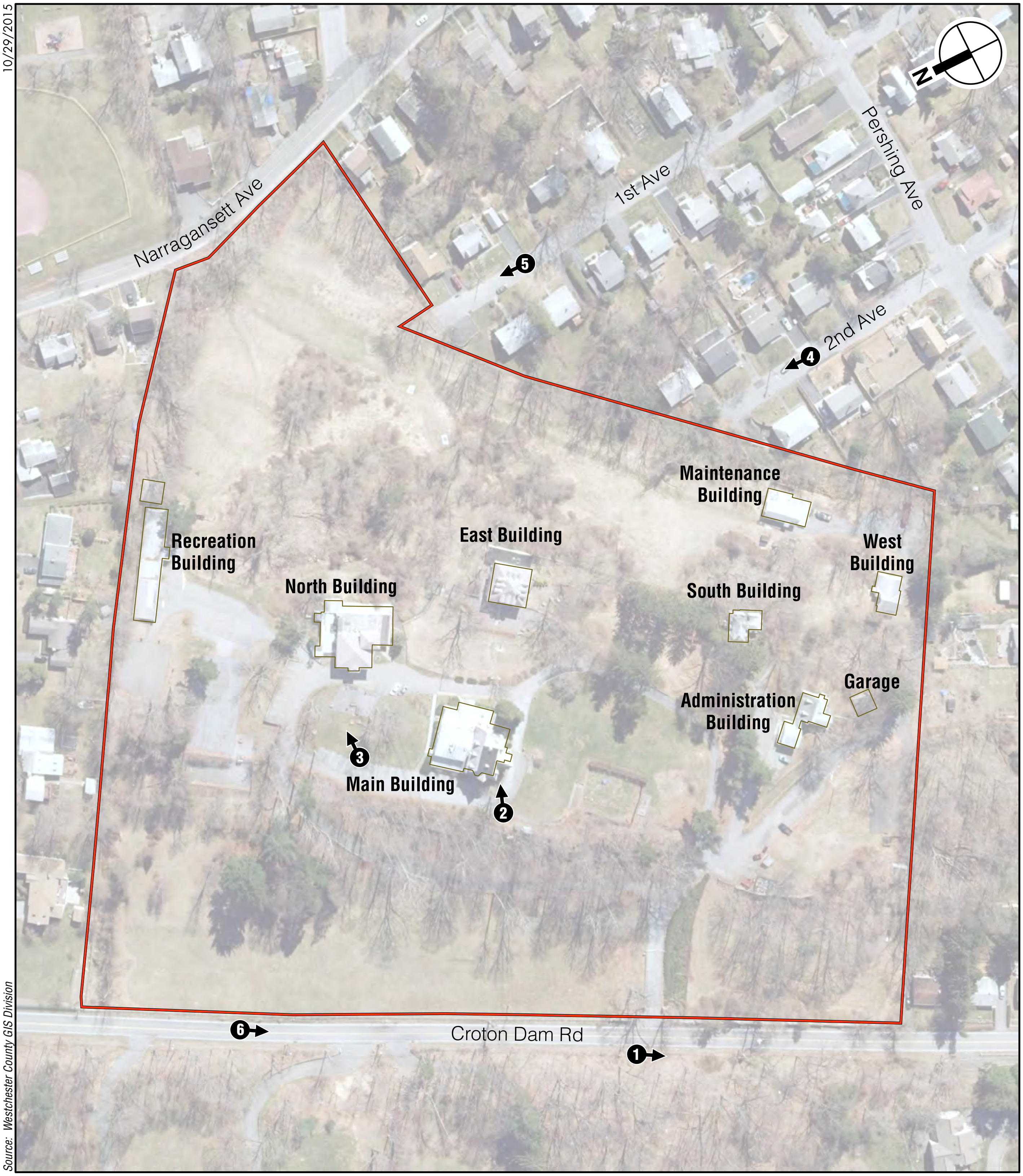
EXISTING CONDITIONS

Views of the Project Site from adjacent roadways are shown in **Figure A-9** and **Figures A-9a** to **A-9c**. The current buildings on Stony Lodge Hospital are located at the top of a hill and are partially visible from the west side of the property from Croton Dam Road. The northern boundary of the property has structures along the property edge (non-conforming) that are fully visible from the homes situated on Grandview Avenue, and these buildings will be razed and replaced with dense green buffer. Similarly, the southern boundary has hospital buildings situated near the property edge that can be viewed by the homes on both Second Avenue and Pershing Avenue, and these buildings will also be razed and replaced by dense green buffer. Lastly, the eastern boundary of the property has structures that are partially hidden from the immediate neighborhoods due, in part, to current landscaping. In winter months, with deciduous tree foliage fallen, the hospital buildings are dramatically more visible. The property is a large gated property on Croton Dam Road in the Town of Ossining. The only portion of the property clearly visible to the public's eye is the large amount of lawn (the "meadow") on the bottom of the hill fronting on Croton Dam Road, as can be seen in Figure A-9c. The overall views of the project site from surrounding properties are fully obscured by wooded borders of mature trees 60 feet or more in height and by additional expanses of wooded areas on the more steeply sloped, interior portions of the site. Views of the Project Site from Croton Dam Road include the large expanse of lawn along the roadway frontage and the wooded border of mature trees further upslope. The larger hospital buildings within the central, higher elevation portions of the site are partially visible from Croton Dam Road. Similarly, views of the site from the surrounding residential community are obscured by thick boarders of mature trees. As shown in **Figures A-9a**, **A-9c,** and **A-9b**, none of the surrounding roadways provide views of the existing hospital buildings owing to the presence of mature trees or other vegetation. It is noted especially that neither Narragansett Avenue nor Pershing Avenue, nor the two dead-end streets closest to the site including 1st Avenue and 2nd Avenue, provide views to the upper, interior portions of the site and its main buildings are located. Dense vegetation and mature trees obscure these views.

POTENTIAL IMPACTS

As discussed above, views of the site are obscured by buffer vegetation from all vantage points. In addition, the proposed residential buildings will be lower in elevation than the tallest building currently onsite – the Hospital Main Building. All trees and other woody vegetation along the site's periphery will be preserved, and supplemented with a mix of shade trees, evergreens, flowering trees and shrubs (i.e., Red Maple, Red Oak, Bicolor Oak, Sweetgum, Spruce, Fir, Great Western Cedar, Viburnum, and Inkberry)

Regarding the entryway and lawn area along Croton Dam Road, the existing grassy meadow will be replaced with an upland wildflower mix (i.e., Creeping Fescue, Goldenrod, False Indigo, New England Aster, Black Eyed Susan, Little Bluestem, and Milkweed). Areas designated for storm water management in this meadow area will be treated as wet meadows and planted with a combination of wet site tolerant seed mix (i.e., Carex, Bulrush, and New England Aster); live herbaceous plants (i.e., Joe Pye Weed, Switchgrass, and Blue Flag); and native shrubs and trees (i.e., Viburnum, Shadblow Serviceberry, Grey Dogwood, and River Birch).



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Source: Westchester County GIS Division

Project Site

Photo View Direction and Reference Number

0 200 FEET

Visual Analysis Location Key

Figure A-9

RIVER KNOLL

Entrance to Stony Lodge Hospital **1**

View from Main Building **2**

View on South Building and Recreation Building **3**

View on the Property from 2nd Avenue **4**

Visual Photographs
Figure A-9b

View on the Property from 1st Avenue **5**

Existing Onsite Lawn at Entrance off Croton Dam Road **6**

J. TRAFFIC AND TRANSPORTATION

The proposed redevelopment will reconstruct a new and widened driveway at the same location as the existing driveway. The driveway sight distances will be improved based on the 43 mph 85th percentile design speed determined by an Automatic Traffic Recorder (ATR). The reoccupancy of the hospital volumes based on the 2006 counts have been incorporated into the no-build volumes. The resulting 2017 no-build volumes represent traffic operation in 2017 without the redevelopment of the site.

The Proposed Project will generate an increase in *peak* vehicle trips as compared to the previous, hospital use as shown in **Table A-7** below. The redevelopment will result in approximately 45 net additional total trips during the peak weekday AM hour and 61 net additional total trips during the peak weekday PM hour based on the ITE data. The actual vehicle trips are expected to be less than suggested by the ITE data since a peak weekday jitney service is proposed to transport residents to and from the train station. In order to provide a conservative analysis, no credit has been taken for the jitney bus operations.

Table A-7
Proposed Development Volumes[1]

Description	Peak Weekday AM Hour			Peak Weekday PM Hour		
	Enter	Exit	Total	Enter	Exit	Total
a. Re-occupied Hospital Driveway Trip Volumes[2]	30	21	51	16	44	60
b. Proposed 188 Unit Apartments Primary Trip Volumes (ITE Code 220)[3]	19	77	96	79	42	121
c. Net Primary Trips (Row c = Row b - Row a)	**(11)**	**56**	**45**	**63**	**(2)**	**61**

Notes:
1 Trip generation is based on ITE (Institute of Transportation Engineers) Trip Generation Manual, 9th Edition.
2 Re-occupied driveway volumes are generated from 2006 existing turning movement counts performed at the Stony Lodge Hospital.
3 Apartment (ITE Code 220) is defined by ITE as rental dwelling units located within the same building with at least three other dwelling units.

To evaluate the changes in traffic associated with the Proposed Project, the following intersections were analyzed. Only the last intersection – Croton Dam Road and NYS Route 9A is signalized.

1. Dale Avenue & Pine Avenue
2. Croton Dam Road & Hawkes Avenue
3. Croton Dam Road & Pershing Avenue with Cherry Hill Drive
4. Croton Dam Road & Site Driveway
5. Croton Dam Road & Kitchawan State Road
6. Croton Dam Road & NYS Route 9A

Intersection capacity analysis computed based on the Build Volumes with and without recommended improvements indicate that the intersections can essentially operate at the same levels of service as projected for the No-Build Volumes. Projected operations with the proposed redevelopment are shown on Tables 2 and 3 of the Traffic Study, found in **Appendix C**.

The five unsignalized intersections are projected to continue operating with minimal delays with the Proposed Project.

During the peak weekday AM hour, the overall intersection of *Croton Dam Road and Route 9A* is projected to continue to operate at a level of service D with recommended improvements. Traffic signal timing changes are recommended for consideration by NYSDOT at the intersection of *Croton Dam Road and Route 9A* during the peak weekday morning hours. The proposed timing change consists of a reduction of the signal cycle length from 150 seconds to 140 seconds, with various timing modifications for individual phases. With the proposed improvements, the southbound Croton Dam Road approach is projected to improve to a level of service E from an F under the no-build condition. Under the build conditions with improvements, the overall eastbound approach is projected to operate at a level of service D and the westbound thru/right movement is projected to operate at a level of service C._All other turning movements at the studied intersections are projected to operate at the same levels of service as experienced under the no-build condition.

During the peak weekday PM hour, the levels of services projected under the build condition at the intersection of *Croton Dam Road and Route 9A* are the same as projected in the no-build condition with recommended improvements. The average delays per vehicle for the turning movements at the intersection of *Croton Dam Road and Route 9A* projected under the build condition are generally the same or reduced compared to the delay under no-build conditions. The turning movements at the unsignalized intersections within the study area are projected to operate at a level of service B or better.

Therefore, the Proposed Project with the recommended traffic improvements will not have a significant impact on traffic operations in the study area.

For additional details, see **Appendix C** of this Environmental Assessment for the full Traffic Study.

K. DEMOGRAPHICS

EXISTING CONDITIONS

According to the United States Census Bureau, the total population of the Town of Ossining in 2010 was 37,674. The 2014 US Census identifies the population of Ossining as 38,214, a 1.4 percent increase. The average number of people per household was 2.83.

Stony Lodge Hospital had an average 250 employees coming in and out daily with about 60 in-patients every two weeks, going to an average of 600 inpatients yearly, and 15 to 20 outpatients weekly.

POTENTIAL IMPACTS

Residential multipliers specific to housing type and developed from US Census analyses can be used to estimate the number of new residents from the Proposed Project. *Rutgers University, Center for Urban Policy Research, Residential Demographic Multipliers – Estimates of the Occupants of New Housing*, published in June 2006, was used for rental housing[4]. It is estimated that the residential population of Proposed Project will be approximately 373 people. This presumes 1.67 person per dwelling units for one bedroom units, and 2.31 persons per two-bedroom units.

[4] Also comparable development projects; Bay Area Economics prepared for the Town of Tuxedo, March 16, 2010.

L. COMMUNITY FACILITIES

SCHOOLS EXISTING CONDITIONS

The Ossining Union Free School District operates six schools that serve the Town of Ossining and the Village of Ossining: Park Early Childhood Center, Claremont Elementary School, Brookside Elementary School, Roosevelt Elementary School, Anne M. Dorner Middle School, and Ossining High School. Data obtained from the School District indicates that it had a total of 4,900 students enrolled in Kindergarten to Grade 12 in the 2015-2016 school year. The latest available New York State School District Report Card from 2011-2012 indicates that average class size for Grade 8 and Grade 10 ranges from 18 students to 30 students, depending on the subject. Each of the schools in the district is classified as in “Good Standing,” the highest possible ranking in New York State’s accountability system.

SCHOOLS POTENTIAL IMPACTS

METHODOLOGY

There are two primary methods used by planners to estimate the number of school-age children (SAC) that would be generated by a project:

1) use of a “multiplier” of the number of SAC per housing unit based on US Census data and specific to housing unit type, size (e.g., bedroom count), and median value/rent; and
2) Use of case study data obtained from the local school district for the number of registered public-school students per address for representative multi-family buildings.

Both of these approaches have limitations related to quality and age of data and must be seen as approximations of actual school-age children generation. However, both methods are widely used by communities as an effective method for anticipating potential effects of new development. For the purpose of estimating potential impact, both of these approaches are presented herein.

Residential Multiplier

Two different sets of residential multipliers were used to estimate SAC for the Proposed Project:

- The Rutgers University Center for Urban Policy Research (CUPR); and
- A Bay Area Economics analysis completed for the Town of Tuxedo (BAE).[5]

Rutgers University (CUPR) Multipliers

The Rutgers University Center for Urban Policy Research (CUPR is frequently used in the preparation of environmental and fiscal impact assessments. CUPR uses US Census data to develop statistically reliable multipliers for a number of different potential community impact categories including the number of SAC.

In June 2006, CUPR released a series of reports entitled “Residential Demographic Multipliers: Estimates of the Occupants of New Housing” based upon the 2000 US Census 5% Public Use Microdata Sample (PUMS) data. Separate reports were prepared for the states of New York,

[5] The BAE study is included herein because it analyzed comparable public school children generation rates for new development in the lower Hudson Valley.

New Jersey, Connecticut, and Massachusetts. Each report provides specific multipliers for the total number of people per dwelling unit by age, the total number of SAC by grade level, and the total number of public school-age children (PSAC) by grade for new housing units constructed between 1990 and 2000. Each of these values is provided based upon the type of housing unit (single-family detached, single-family attached, multi-family owner-occupied, multi-family renter occupied, and mobile homes), the number of bedrooms, and the value of the housing unit expressed in terms of top-third, middle-third, and lower-third of value.

The CUPR multipliers for total SAC and PSAC for different housing types are shown in **Table A-8** and the application of those multipliers to the Proposed Project is shown in **Table A-9**.

Table A-8
CUPR Residential Multipliers

Bedroom Count	Rental		
	Value	**SAC**	**PSAC**
1 BR	All Values	0.16	0.15
	< $500	0.10	0.09
	$500 to $1,000	0.30	0.27
	> $1,000	**0.08**	0.07
2 BR	All Values	0.49	0.43
	< $750	0.74	0.67
	$750 to $1,100	0.51	0.45
	> $1,100	**0.23**	0.16

Notes:
SAC = Total School-Age Children
PSAC = Public School-Age Children
Bold numbers indicate those selected for use in the analysis of the River Knoll project.
Sources: Rutgers University Center for Urban Policy Research, "Residential Demographic Multipliers: Estimates of the Occupants of New Housing" (June 2006).

Table A-9
Application of CUPR Residential Multipliers to River Knoll Project

Unit Type	No. Proposed	Multiplier	Projected students
1BR	96	0.08	7.7
2BR	92	0.23	21.2
Totals	188	--	28.9

Sources: Rutgers University, Center for Urban Policy Research, Residential Demographic Multipliers – Estimates of the Occupants of New Housing, June 2006. Total number of school age children for rental units in buildings with five or more units and highest assumed rents.

Application of the CUPR multipliers to the Proposed Project would yield 28.9 students.

Although frequently used, the CUPR multipliers reflect a state-wide analysis of urban areas (e.g., cities of 100,000 or more persons) including New York City. Consequently, including NYC multi-family housing units skews multi-family housing characteristics due to factors not found in suburban communities like the Town of Ossining. It is widely recognized that families living in large urban areas have more school aged children per bedroom than the typical suburban multi-family resident.

Bay Area Economics Analysis

The Town of Tuxedo in Rockland County recognized the limitation of the CUPR process for suburban lower Hudson Valley communities and retained Bay Area Economics, a highly-regarded economic consulting firm, to advise the Town on the appropriate multipliers to use in evaluating a residential project. BAE's evaluation excludes housing units and persons in areas with population of 100,000 or more and housing units within the lower decile (lowest 10 percent) in value. The study area includes the greater New York metropolitan area including all of Long Island, northern New Jersey, the Hudson River Valley in New York, and the western half of Connecticut. The calculated SAC multipliers for rental apartments are presented in **Table A-10** and the application of those multipliers to the Proposed Project is shown in **Table A-11**.

Table A-10
BAE Residential Multipliers

Bedroom Count	Rental	
	Value	SAC
1 BR	All Values	0.051
2 BR	All Values	0.232

Note: SAC = Total School-Age Children
Source: Bay Area Economics Interagency Memorandum, prepared for the Town of Tuxedo, March 16, 2010.

Table A-11
Application of BAE Residential Multipliers to River Knoll Project

Unit Type	No. Proposed	Multiplier	Projected students
1BR	96	0.051	4.9
2BR	92	0.232	21.3
Totals	188	--	26.2

Source: Bay Area Economics Interagency Memorandum, prepared for the Town of Tuxedo, March 16, 2010.

Application of the BAE multipliers to the Proposed Project would yield 26.2 students.

Case-Study Analysis

To evaluate SAC using local conditions, AKRF used a case-study analysis to estimate school-age children based on actual conditions within comparable housing products in Westchester County. The latter set of data is presented in **Table A-12**.

Table A-12
School Generation Rates for Nearby Developments

Development	Location	Total Units	No. of School Children	Number of Children to Dwelling Unit Ratio
Avalon on the Sound	New Rochelle, NY	1000	125	0.1250
The Avalon	Bronxville, NY	110	12	0.1091
Avalon Willow	Mamaroneck, NY	227	20	0.0881
Avalon Green	Elmsford, NY	105	12	0.1143
Avalon Ossining[6]	Ossining, NY	168	25	0.1488

[6] Avalon Ossining includes three (3) bedroom units and the public school generation rates have not been adjusted for these larger units.

			Average	0.1170
River Knoll	**Ossining, NY**	**188**	**22**	**0.1170**
Sources: Avalon Development Company; Ossining Union Free School District				

Using actual data from comparable projects the number of school-age children that would be generated by the Proposed Project 188-unit project would be 22 students, s**ee Table A-13**.

Table A-13
Comparison of School-Age Multipliers and Estimated Students

Data Source	Estimated Students
Rutgers University CUPR Multipliers	28.9
Bay Area Economics BAE Multipliers	26.2
Average of Local Case Studies Multipliers	22.0

EMERGENCY SERVICES EXISTING CONDITIONS

The Proposed Project area is served by the Ossining Fire Department (OFD). The Fire Department is responsible for fighting fires within the Town as well as the Village of Ossining. Their average response time to calls is 5 to 6 minutes. The OFD is a voluntary department consisting of 450 members, with 6 engines, 1 rescue vehicle, 1 tower ladder vehicle and 1 aerial ladder vehicle. The OFD responds to responds to 600-700 calls per year.[7]

The Town and Village of Ossining Police Departments have merged their departments according to the Town of Ossining Website. The Ossining Volunteer Ambulance District Received 2,246 calls in 2010, with 405 in the Town of Ossining and 1,541 in the Village of Ossining; the rest of the calls belonging to other municipalities in the District.

While the subject site was fully operational as an acute psychiatric hospital for adolescents, the Town received a large number of calls for emergency services.

Correspondence requesting data on existing conditions and potential impacts from the proposed project has been requested. When such data is provided by Town service providers, this EAF will be amended.

EMERGENCY SERVICES POTENTIAL IMPACTS

The Proposed Project would include 188 residential units. Minimal demand for emergency services would be anticipated as a result of the Proposed Project as the new uses will be marginal compared to the current Town population. In contrast, Stony Lodge was a very frequent user of Emergency Services.

The Ossining Police Department responds to many calls for service each year. With a population of 37,680 people, the number of calls is typical for a suburban residential community. With approximately 373 additional residents in the 188 new dwelling units and the same ratio of calls per person per year, it would not be expected to be significantly different. The Proposed Project would be built with the latest building and fire codes reducing the risk of a fire compared to the average building in Ossining. It should be noted that the Proposed Project is actually four

[7] Matthew Scarduzio, Chief of Ossining Fire Dept.

distinct and isolated buildings plus six stand-alone garages that would have a state-of-the-art detection system and would be fully sprinklered, further reducing potential risk of fire. The height of the project is well below the capacity of the Fire Department's existing equipment. It is not anticipated that any increase in manpower or equipment will be required to provide fire protection services to this project.

Ossining Volunteer Ambulance Corps services approximately 38,000 people within the Town of Ossining. The average number of calls per year is 405, or 0.10 calls per person per year. With approximately 373 additional residents in the 188 new dwelling units and the same ratio of calls per person per year, the number of total calls to OVAC could increase by 3 calls. That number of new calls should not result in any material impact to OVAC.

M. FISCAL IMPACTS

This section describes the fiscal impacts of the Proposed Project to the Town of Ossining, the Ossining Free School District, and the Ossining Public Library. It identifies existing municipal revenues and expenditures including the property taxes currently generated by the Project Site, and estimates the property tax revenues that would be generated by the Project Site in the future with the Proposed Project. These future property tax revenues are then evaluated against the expected municipal demands generated by the Proposed Project, with particular focus on the projected cost of project-generated school children.

EXISTING CONDITIONS

As shown in **Table A-14**, the Town of Ossining's adopted 2015 budget includes approximately $11.37 million in appropriations to three funds: Town General; Town Outside General; and Highway. The expenditures from the General Fund include overall administrative operating expenses of the Town, including salaries and benefits for Town employees. The Town Outside General fund supports the police department and other public services such as animal control, building inspection, youth programs, and planning. The Highway fund supports street maintenance, snow removal, and machinery costs to accompany those activities. For the 2015 adopted budget, of the $11.36 million of appropriations, 73 percent ($8.31 million) is funded by property taxes.

The Town of Ossining also has $2.46 million appropriated to special districts: Townwide Water; Consolidated Sewer District; North State Road Sewer District; Lighting District; Fire Protection District; Refuse/Recycling District; and Ambulance District (see **Table A-14**). Of the total appropriations for these special districts, $2.25 million (91 percent) is funded by property taxes.

The Project Site is within the boundaries of the Ossining Union Free School District, which has a projected 2015-2016 school year enrollment of 4,904 students. As shown in **Table A-14**, the 2015-2016 proposed budget is approximately $117.21 million, of which 82 percent ($96.34 million) is to be raised by property taxes.

The Project Site is also within the boundaries of the Ossining Public Library district. As shown in **Table A-14**, the proposed budget for 2015-2016 is $3.89 million, of which 98 percent ($3.81 million) is to be raised by property taxes.

Two of the three Project Site parcels are within the Village of Ossining (see **Table A-2** and **Figure A-2)**. As shown in **Table A-15**, the 2015 adopted budget for the Village was approximately $52.99 million. Of this amount $21.19 million (or 40 percent) is to be raised by property taxes.

Table A-14
Town of Ossining 2015 Adopted Budget Summary, 2015-2016 Ossining Union Free School District Budget, and 2015-2016 Ossining Public Library Budget

Fund	2015 Spending	Less Non-Tax Revenue	Less Appropriated Fund Balance	Amount To Be Raised by Property Taxes
Town General (Fund 10)	$5,377,191	$1,975,293	$153,341	$3,248,557
Town Outside (Total)	$5,989,300	$932,785	$0	$5,056,515
Town Outside General (Fund 20)	$3,707,576	$911,930	$0	$2,795,646
Highway (Fund 31)	$2,281,724	$20,855	$0	$2,260,869
Total Town	**$11,366,491**	**$2,908,078**	**$153,341**	**$8,305,072**
Special Districts				
Townwide Water (Fund 50)	$55,273	$2,089	$0	$53,184
Consolidated Sewer District (Fund 45)	$458,569	$159,005	$40,114	$259,450
North State Road Sewer District (Fund 51)	$55,234	$9,000	$0	$46,234
Lighting District (Fund 63); Fire Protection District (Fund 64); Refuse/Recycling District (Fund 65)	$1,282,378	$4,500	$0	$1,277,878
Ambulance District (Fund 66)	$612,981	$223	$0	$612,758
Special Districts Total	**$2,464,435**	**$174,817**	**$40,114**	**$2,249,504**
Town including Special Districts	**$13,830,926**	**$3,082,895**	**$193,455**	**$10,554,576**
Ossining Union Free School District	**$117,213,394**	**$20,873,065**	**$0**	**$96,340,329**
Ossining Public Library	**$3,892,440**	**$79,500**	**$0**	**$3,812,940**

Sources: 2015 Town of Ossining Adopted Budget; Ossining Union Free School District 2015-2016 Proposed Budget; and Ossining Public Library Budget Proposal for 2015-2016

Table A-15
Village of Ossining 2015 Adopted Budget

Fund	2015 Appropriations	Less Estimated Revenues	Less Appropriated Fund Balance	Amount To Be Raised by Property Taxes
General Fund	$34,330,633	$12,495,195	$650,000	$21,185,438
Water Fund	$10,215,030	$9,715,030	$500,000	$0
Sewer Fund	$1,524,061	$1,444,061	$80,000	$0
Section 8 Program	$3,133,970	$3,133,970	$0	$0
Debt Service Fund	$3,783,944	$3,495,800	$288,144	$0
Total	**$52,987,638**	**$30,284,056**	**$1,518,144**	**$21,185,438**

Source: Village of Ossining Fiscal Year 2015 Adopted Budget

TAX REVENUES GENERATED BY PROJECT SITE PARCELS

The budget process determines the amount of local taxation required to meet appropriations. For 2015, the Town requires approximately $8.31 million in property taxes as contributions to the annual budget's three funds (Town General, Town Outside General, and Highway); special districts require approximately $2.25 million in property taxes as contributions to the special districts' annual budgets. In addition, Ossining Union Free School District and Ossining Public Library require property taxes of approximately $96.34 million and $3.81 million, respectively. Once the amount of required tax revenue is established, property tax rates are determined for each budget fund. Two factors determine these rates: (1) the portion of the budget that is to be financed by real property taxes, and (2) the total taxable assessed valuation. The property tax rate (known as the "millage rate") is the amount to be paid for every $1,000 of assessed valuation. The 2015 tax rates by taxing jurisdiction are shown in **Table A-16**.

Table A-16
2015 Property Tax Rates

Tax Jurisdiction	Tax Rate per $1,000 Assessed Value (Millage Rate)
Town/County Tax Bill	
County Tax	59.239
Townwide	12.497
Unincorporated Town	101.331
Ambulance District	3.665
County Solid Waste	5.574
County Sewer Ossining	13.501
Refuse, Light, Fire	25.139
Town-wide Water District	0.904
School/Library Tax Bill	
Ossining School Tax	439.078
Library Tax	17.378
Village Tax Bill	
Village Tax	188.911

Note: Tax rates are rounded.
Sources: Tax of Ossining Town/County 2015 Tax Bills, Town of Ossining School Tax Notice, Village of Ossining Tax Bills; AKRF, Inc.

In 2015, the full market value of the three tax lots that comprise the project site was approximately $3.08 million, and the taxable assessed value was approximately $188,993. As shown in **Table A-17**, the Project Site generated approximately $124,263 for its various taxing jurisdictions in 2015. The largest portion (65 percent, or $80,348) was for the Ossining Union Free School District.

Table A-17
Tax Revenues Generated by the Project Site (2015)

		89.08-1-83	89.12-2-13	90.05-1-27	Total Site
Full Market Valuation		$3,037,849	$15,193	$22,471	$3,075,513
Taxable Assessed Valuation		$180,752	$904	$1,337	$182,993
	Mill Rate[1]				
County Tax	59.239	$10,708	$54	$79	$10,840
Townwide	12.497	$2,259	$11	$17	$2,287
Unincorporated Town	101.331	$18,316	NA	NA	$18,316
Ambulance District	3.665	$663	$3	$5	$671
County Solid Waste	5.574	$1,007	$5	$7	$1,020
County Sewer Ossining	13.501	$2,440	$12	$18	$2,471
Refuse, Light, Fire	25.139	$4,544	NA	NA	$4,544
Townwide Water District	0.904	$163	NA	NA	$163
Ossining School Tax	439.078	$79,364	$397	$587	$80,348
Library Tax	17.378	$3,141	$16	$23	$3,180
Village Tax	188.911	$0	$171	$253	$423
Total		**$122,605**	**$669**	**$989**	**$124,263**

Notes: Values are rounded to the nearest dollar and may not sum to total.
[1] Mill Rate is provided in dollars per $1,000 of assessed value.
Sources: School District Tax Bills for 2015, Town of Ossining Town/County Tax Bills for 2015, and Village of Ossining Tax Bills for 2015.

POTENTIAL IMPACTS

TAX REVENUES GENERATED BY PROPOSED PROJECT

The Town of Ossining uses an income-based approach to assessing the value of income-producing properties, including rental multifamily apartment buildings. With this approach, the Town Assessor's office estimates gross rental revenue using information the building's management and knowledge of comparable projects within the local area. The Assessor applies standard occupancy and expense factors to derive the property's net operating income (NOI), which is then converted into an estimated market value using a capitalization rate of 12 percent.[8] The market value of the income-producing property is combined with the market value of the underlying land to generate a total market value for the tax parcel.

Based on market conditions, comparable projects within the local area, and project information provided by the Applicant, the proposed project's market value is projected to be in excess of $26 million. The Town of Ossining currently applies a uniform equalization rate of 5.95 percent to convert market value to assessed value for property taxation purposes. The millage rates described above are then applied to the assessed value to determine a parcel's total property tax burden for the fiscal year. **Table A-18** presents the projected annual tax revenues that would be generated by the Project Site based on the current equalization rate and 2015 tax rates.

As shown in **Table A-18**, the Proposed Project is projected to generate over $1.06 million annually in property tax revenues to the Town, special districts, Ossining Union Free School District, and Ossining Public Library. Of the $1.06 million estimated total, approximately 65 percent ($687,804) is estimated to be generated annually for the Ossining Union Free School District.

Table A-18
Projected Tax Revenues Generated by the Project Site
(Based on 2015 Tax Rates)

		89.08-1-83	89.12-2-13	90.05-1-27	Total Site
Full Market Valuation		$26,289,627	$15,193	$22,471	$26,327,291
Taxable Assessed Valuation		$1,564,233	$904	$1,337	$1,566,474
	Millage Rate				
County Tax	59.239	$92,664	$54	$79	$92,796
Townwide	12.497	$19,548	$11	$17	$19,576
Unincorporated Town	101.331	$158,505	NA	NA	$158,505
Ambulance District	3.665	$5,733	$3	$5	$5,741
County Solid Waste	5.574	$8,719	$5	$7	$8,732
County Sewer Ossining	13.501	$21,119	$12	$18	$21,149
Refuse, Light, Fire	25.139	$39,323	NA	NA	$39,323
Townwide Water District	0.904	$1,414	NA	NA	$1,414
Ossining School Tax	439.078	$686,820	$397	$587	$687,804
Library Tax	17.378	$27,183	$16	$23	$27,222
Village Tax	188.911	NA	$171	$253	$423
Total		**$1,061,028**	**$669**	**$989**	**$1,062,686**

Notes: Values are rounded to the nearest dollar and may not sum to total.
Sources: Tax rates based on 2015 Town of Ossining Adopted Budget, Ossining Union Free School District 2015-2016 Proposed Budget, and Ossining Public Library Budget Proposal for 2015-2016.

[8] The 12 percent figure represents a "loaded" capitalization rate that accounts for property taxes.

It should be noted that the Town of Ossining is currently undertaking a Town-wide reassessment of every parcel for the first time since the 1970s. Following that reassessment, the 5.95 percent equalization rate will be eliminated; as a result, beginning with the 2016 assessment roll (to be released on June 1, 2016), the assessed value of every parcel in the Town will be equal to the market value, as determined by the Assessor. Because the reassessment will be revenue-neutral, all millage rates will be adjusted to account for the elimination of the equalization rate.

MUNICIPAL DEMANDS GENERATED BY THE PROPOSED PROJECT

As discussed in Section K, “Community Facilities,” the Proposed Project is not expected to have any significant adverse impacts on local municipal services, including emergency services. The Proposed Project would result in service calls for police and fire services typical for a residential suburban community, and significantly less than the number of emergency service calls that were experienced by the Town when the site was occupied by an acute psychiatric facility for adolescents. However, as indicated in Section K, there are sufficient personnel and department resources to provide adequate service to the Proposed Project in the event of an emergency.

Ossining Union Free School District

Data obtained from the Ossining Union Free School District for the 2015-2016 School Year (the latest information available) reveals that the average cost per student is $19,645. As discussed above, the Proposed Project would yield between 22 and 29 school-aged children, with the variation in estimates depending upon the methodology used to project the number of school-aged children. Assuming $19,645 per student, the Proposed Project would generate costs for the Ossining Union Free School District within the range of $451,835 to $569,705 annually. This project-generated cost to the Ossining Union Free School District would be well below the estimated $687,804 in annual project-generated revenues to the Ossining Union Free School District. Therefore, the Proposed Project would not have a significant adverse impact on Ossining Union Free School District.

N. INFRASTRUCTURE AND UTILITIES EXISTING CONDITIONS

WATER AND WASTE WATER EXISTING CONDITIONS

The Town of Ossining is supplied with potable water by the Ossining Water Department which serves 47,000 customers. Sewage generated within the Village and the Town of Ossining, including the project site, is conveyed to the Ossining Wastewater Treatment Plant, which produces an average approximately 1,300 millions of gallons per year (2006 average).

WATER AND WASTEWATER POTENTIAL IMPACTS

The Proposed Project would create new demand for water and wastewater. As indicated above, potable water and sewer service are supplied to the project site by the Ossining Water Department. Anticipated demands for water and wastewater services are shown in **Table A-19**. The Stony Lodge Hospital would have consumed approximately 14,185 gallons per day when it was open.[9]

[9] New York State Department of Environmental Conservation, Design Standards for Intermediate Sized Wastewater Treatment Works, 2014: Table B-3 – Typical per unit Hydraulic Loading Rates. This report presents an average use of 175 gallons water per day for each hospital bed; 15 gallons of water per day

Table A-19
Projected Water Demand and Wastewater Flows

Project Component	Units	Flow Rate (gal./day)	Total Flow (gal./day)
Studio/1BR	96	110	10,560
2BR	92	220	20,240
Total	**188 Units**	**--**	**30,800**
Source: ICC-ES 1194 Plumbing Fixtures Guidelines.			

Since the anticipated demands for water and wastewater services are only a small portion of the total capacity of the respective systems, no significant adverse impacts are anticipated as a result of the Proposed Project.

The daily estimate would be equivalent to approximately 11.2 million gallons per year. Ossining Water District currently supplies 1.30 billion gallons a year. Thus project represents an increase in demand of 0.86%.

Wastewater generation from the Proposed Project would be essentially similar to water consumption. The Proposed Project is located within Ossining Sewer District and is treated at the Ossining Wastewater Treatment Plant. This plant treats an average of 3.6 million gallons per day. Wastewater flows from the Proposed Project represent an increase of approximately 1.17% or 0.0117 over existing flows.

STORMWATER EXISTING CONDITIONS

The site has been analyzed as three drainage areas under existing conditions as shown in drawing DA-1 “Existing Drainage Area Map” (See **Appendix D**).

Existing Drainage Area 1 includes the western portion of the site, and consists of existing buildings, paved driveways, asphalt areas, woods and lawn areas. Runoff from Existing Drainage Area 1 flows south and west towards Design Point 1 in the southwest corner of the site.

Existing Drainage Area 2 includes the eastern portion of the site and consists of existing buildings, paved driveways, asphalt areas, woods and lawn areas. Runoff from Existing Drainage Area 2 flows east and south towards design point 2 which is an existing manhole located in the southeast corner of the site.

Existing Drainage Area 3 is located on the western side of the site and consists of the existing driveway entrance, lawn and wooded areas. Runoff from Existing Drainage Area 3 flows west, down the existing driveway and into an existing catch basin in Croton Dam Road (Design Point 3).

Preliminary existing peak rates of runoff to the design points (DPs) for each of the three drainage areas for the 10 and 100 year storms are shown in Table A-_, below.

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for each staff member; and 30 gallons of water per outpatients. With an average of 61 beds, 230 staff members and 2 outpatients per day (15 to 20 per week), the average daily use is of 14,185 gallons of water per day for the Stony Lodge Hospital.

STORMWATER POTENTIAL IMPACTS

The impacts of the proposed redevelopment of the Stony Lodge site will be improved over existing conditions with the construction of stormwater management areas. The total disturbance required to complete the proposed construction is approximately 9.0 acres. The site improvements will result in an increase in impervious surfaces of approximately 1.1 acres from existing conditions. The proposed Stormwater Pollution Prevention Plan (SWPPP) will be in compliance with the requirements of NYSDEC SPDES General Permit No. GP-0-15-002 for Stormwater Discharges from Construction Activity and Chapter 168 “Stormwater Management and Erosion and Sediment Control” of the Code of the Town of Ossining. Erosion control measures to be employed during construction will conform to the New York Standards and Specifications for Erosion and Sediment Control (August, 2005). The proposed stormwater management improvements will provide runoff reduction, water quality treatment for the 90% rainfall event, stream channel protection and attenuate peak rates of runoff for the 10 and 100-year storms as required by NYSDEC SPDES General Permit No. GP-0-15-002.

Preliminary modeling of existing and proposed stormwater runoff has been analyzed based on the proposed site plan. The full preliminary stormwater analysis is contained in **Appendix D**. Runoff from all areas of development will be captured and treated in one of three (3) new stormwater management facilities (infiltration basins) as shown on Large Scale Drawings DA-2 “Proposed Drainage Area Map” contained in **Appendix D** and shown conceptually in **Figure A-1**: Site Plan. Preliminary peak rates of runoff to the design points and percentage reduction in runoff rates under the existing and proposed conditions for the 10 and 100 year storms are provided in the **Table A-20** below:

Table A-20
Percent Reductions in Peak Rates of Runoff (Existing vs. Proposed Conditions)

Design Point	Storm Recurrence Interval	Existing Peak Runoff Rate (cfs)	Proposed Peak Runoff Rate (cfs)	Percent Reduction (%)
1	10 year	11.11	10.37	6.7
	100 year	23.20	23.17	0.1
2	10 year	15.33	15.32	0.1
	100 year	42.12	31.66	24.8
3	10 year	1.89	0.00	100
	100 year	4.19	0.00	100

Based on the preliminary stormwater analysis, the Proposed Project will provide an improvement (reduction) in runoff rates to all design points (discharge points) as compared to existing conditions, under which runoff leaves the site without any formal detention or stormwater controls. The proposed stormwater management plan will result in an improvement to water quality impacts to the Town and Village’s drainage systems and receiving surface waters (Oliver Pond Watershed).

As part of the site plan review process, test pits and infiltration tests will need to be performed in the locations of the proposed infiltration basins to confirm adequate separation from bedrock and groundwater and adequate infiltration rates. An operation and maintenance plan for the infiltration basins will also be needed and will be included in the SWPPP. The proposed stormwater management system will be developed in accordance with the redevelopment standards of the NYSDEC Stormwater Management Design Manual. See full “Stormwater Pollution Prevention Plan Narrative” and exhibits provided in **Appendix D**.

SOLID WASTE EXISTING CONDITIONS

The Stony Lodge Hospital generated approximately 178 tons per year during its operations based on industry-reported solid waste generation rates for hospitals.[10]

SOLID WASTE POTENTIAL IMPACTS

The Proposed Project would generate approximately 137 tons of solid waste per year[11]. The decrease in waste generation with the Proposed Project is due mainly to the switch from an institutional use (hospital) to a multifamily residential use. Since the waste generation will be reduced, no significant impacts on solid waste generations are anticipated.

O. HAZARDOUS MATERIALS

EXISTING CONDITIONS

A Phase I Environmental Site Assessment (ESA) was prepared for the Stony Lodge Hospital site by Schoor De Palma Inc. in March 2006, and is included as **Appendix E**. The site of the Hospital is located on 40 Croton Dam Road within the Town of Ossining (parcel number 89.08-1-83) and comprises 16.2 of the 17.9 acres for the Proposed Project. The last acre is comprised of two parcels located in the Village of Ossining (Parcel number 90.05-1-27 and 89.12-13). The first parcel is currently vacant while the second one contains the West Building of the Stony Lodge Hospital.

The Phase I ESAs include a history of the prior uses of the properties and a summary of the regulatory databases on known spills or releases in the immediate area. The reports conclude that Underground Storage Tanks (USTs), Aboveground Storage Tanks (ASTs) are present on site. The Site inspection reports indicate that Solid Waste Disposal was observed on the property, but that to the knowledge of the property manager's only vegetative debris had been dumped on that location. Finally there was no indication of past release of Polychlorinated Biphenyl compounds (PCBs) due to the types of electrical equipment. Aside from those findings, there appear to be no Recognized Environmental Conditions that require remediation on the properties.

Underground Storage Tanks (USTs) and Above Ground Storage Tanks (ASTs) have existed and currently exist at the Project Property. According to information in the records review, one 1,500, one 2,000 and one 2,000 gallon #2 fuel oil USTs were closed in place. In 2001, two 550 gallon, and one 1,000 gallon USTs, as well as three 275 gallon containing #2 fuel oil and one 275 gallon diesel ASTs were administratively closed. There are four 275 gallon ASTs and two 300 gallon AST's, and three 1,800 gallon #2 fuel oil USTs remaining in service.

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[10] According to the State of California, Hospitals generate 16 lbs. of waste per bed per day (http://www.calrecycle.ca.gov/wastechar/wastegenrates/Institution.htm last accessed 10.15.15). Since the hospital had 61 beds, this makes 976 lbs. per day, or 356,240 lbs. or 178 tons per year.

[11] According to the state of California (http://www.calrecycle.ca.gov/wastechar/wastegenrates/Residential.htm last accessed 10.15.15) the average apartment unit waste generation is of 4 lbs a day, or 1460 lbs. per year. Since the project involves 188 apartments, the total waste generation would be of 274,480 lbs. or 137 tons per year.

POTENTIAL IMPACTS

Every Storage Tank (Underground and Above Ground) recognized during the Phase I will be removed prior to construction in a manner that complies with all applicable laws, rules, and regulations. Tanks removals are regulated by state and federal laws.

The New York State federal regulations with regards to tank removals are as follows:

- 6 NYCRR Part 612, Registration of Petroleum Storage Facilities
- 6 NYCRR Part 613, Handling and Storage of Petroleum
- 6 NYCRR Part 614, Standards for New and Substantially Modified Petroleum Storage Facilities

The Federal Regulations for tank removals include:

- 40 CFR Part 280
- 40 CFR Part 281

Because the removal of the tanks will follow the mentioned regulation, this issue should not constitute a significant adverse environmental impact.

If any additional recognized environmental conditions are identified during construction, they will be handled in a manner that complies with all applicable laws, rules, and regulations. This issue should, therefore, not constitute a significant adverse environmental impact.

P. CONSTRUCTION IMPACTS

The project will be constructed in a single phase. Construction access will be via the existing site driveway off of Croton Dam Road. Construction will be sequenced in such a manner that any area which is disturbed will first be protected with erosion and sediment controls.

Construction sequencing will be as follows:

1. Installation of erosion and sediment control measures
2. Demolition of existing buildings as required
3. Clear undeveloped portion of property which is to be developed
4. Strip and stockpile topsoil
5. Begin building and parking lot construction, rough grading
6. Install storm drain and sanitary sewer system complete (immediately install erosion & sediment control protection on all inlets)
7. Install utilities (gas, electric and telephone) as required
8. Install concrete and asphalt concrete pavement complete
9. Finish grading, redistribute topsoil and establish vegetation and/or landscaping
10. Clean pavements and storm drain system of all accumulated sediment in conjunction with the removal of all temporary sediment and erosion control devices.
11. Complete site and building construction.

All construction and demolition debris, not proposed to be recycled shall be disposed of in accordance with the regulations of all local, state and federal authorities having jurisdiction.

Q. FUTURE WITHOUT THE PROPOSED PROJECT

There are no development projects pending within the vicinity of the project site that would affect the impacts analysis. In the Future without the Proposed Project, conditions outside the project site and surrounding area would not significantly change. The project site, however, would be guaranteed to be used, according to the owner, either for continued hospital use, with a return of inpatient services after a sale to new not-for-profit owners, or, according to the owner, for use as of-right single family homes of 4-bedrooms spread out over all usable areas of the land, most especially the relatively flat front “meadow.” In such a subdivision, the visibility of such homes would be dramatically higher than that of the Proposed Project, and the impact on the schools would also be dramatically higher, since 4-bedroom homes will generate far more school-age children than 1 and 2 bedroom elevator rental apartments. As a hospital, it is common knowledge that, in New York State, hospitals are almost all not-for-profit, so the use as a not-for- profit hospital would have an impact based on loss of current tax payments, and loss of projected increased tax revenues from the Proposed Project. If the owner would follow its alternate plan for 4-bedroom single family homes, potentially, according to the owner, developed with affordable housing funding support, additional demands on community facilities and services, especially on school enrollment, would be anticipated as a result of any development of the property.

An as-of-right residential proposal would not provide the design benefits of the Proposed Project as further enumerated below:

a. Permanent open space would be non-existent and all green areas would be simply those areas incorporated into individual homeowner lots. None of the benefits of clustering as the Proposed Project provides would be realized;
b. Virtually all of the beautiful existing mature stands of trees would be eliminated and likely replaced with small shrubbery around each home;
c. The scenic meadow along the entire frontage of Croton Dam Road would be eliminated and would now be single family homes with multiple driveways accessing Croton Dam Road;
d. The large and expansive meadow on the easterly side of the Property and fronting Narragansett Avenue would be eliminated and would now be comprised of homes;
e. The sizeable new green buffer areas protecting adjacent homeowners along the northerly and southerly boundaries of the Premises would be eliminated as these areas would then be individual homeowner lots; and
f. Internal roadways and infrastructure would be triple that of the Proposed Project and would, in turn, require more impervious surfaces and increased excavation, disrupting the terrain in a manner that also necessitates extensive tree removal.

Such a proposal would not provide the fiscal benefits as the Proposed Project would, most particularly because significant school children generation would be created by such a proposal and would prove to be a much larger impact to the School District. ✷

Appendix A: Zoning Petition

CUDDY & FEDER LLP

445 Hamilton Avenue, 14th Floor
White Plains, New York 10601
Tel 914.761.1300 Fax 914.761.5372
www.cuddyfeder.com

November 5, 2015

BY EMAIL (SANELLI@TOWNOFOSSINING.COM) & FEDERAL EXPRESS
Ms. Sandy Anelli
Secretary to the Planning Board
Town of Ossining
16 Croton Avenue
Ossining, NY 10562

Re: Application of Stony Lodge Hospital, Inc. and Glenco Group LLC
Premises: Stony Lodge Hospital, 40 Croton Dam Road, Ossining, New York

Dear Ms. Anelli:

On behalf of Stony Lodge Hospital, Inc. and Glenco Group LLC, we respectfully submit draft versions of a Petition to Amend the Zoning Code of the Town of Ossining and a Full Environmental Assessment Form with supplemental documentation ("EAF") in support of the proposed redevelopment of these Premises that are currently occupied by buildings comprising Stony Lodge Psychiatric Hospital as a multifamily rental community containing 169 market-rate units and 19 below-market-rate ("BMR") units. The proposed redevelopment would be known as "River Knoll" has been designed to preserve significant open space, including the meadow area, along the Croton Dam Road frontage. A more detailed description of the proposed River Knoll community is contained in the enclosed documents.

The Premises comprises 17.9 acres, of which 16.65 acres are within the Town of Ossining and 1.24 acres are within the Village of Ossining. The proposed Petition addresses only the Town of Ossining portion of the Premises with the buildings and improvement located within the Town's boundaries, as well. However, the EAF addresses the use of the entire Premises and potential impacts arising from this development.

As directed by Supervisor Donnelly, we are submitting this documentation to you to forward to Mr. David H. Stolman, President of Frederick P. Clark Associates, Inc., the Town's Planning Consultant, and Wayne Spector, Esq., the Town's Attorney for their review and comment. We intend to submit the enclosed to the Town for its review and consideration within the next week or so following receipt of comments from Messrs. Stolman and Spector. Please let us know if you need additional copies of any of the documents, or if we may be of assistance in any way.

Thank you for your courtesy and assistance in this matter.

Very truly yours,

William S. Null

Enclosures

cc: Hon. Susanne Donnelly, Supervisor; Mr. Glen Vetromile; and Ms. Nanette Bourne

C&F: 2924519.2

TOWN BOARD, TOWN OF OSSINING
STATE OF NEW YORK

---X

In the Matter of the Application of:

STONY LODGE HOSPITAL, INC.
and **GLENCO GROUP LLC** **PETITION**

For an Amendment to the Zoning Code of the Town of Ossining to:

(1) Establish a new zoning district to be known as the MF2 (Multifamily Residence 2) District; and

(2) Re-Map the Subject Premises commonly known as "Stony Lodge Hospital" situated at 51 Croton Dam Road, Ossining, New York, which Premises are designated on the Tax Assessment Map of the Town of Ossining as Section 1, Plate 4, Block 13, Lot 2 and Section 1, Plate 4-C, Block 30, Lot 1 from the R-15 (One Family Residence) District into the MF2 (Multifamily Residence 2) District.

---X

TO THE HONORABLE SUPERVISOR AND MEMBERS OF THE TOWN BOARD:

The Petition of STONY LODGE HOSPITAL, INC. and GLENCO GROUP LLC (collectively the "Petitioner") respectfully shows and alleges in support of Petitioner's request:

1. Ownership Information: The Petitioner includes Stony Lodge Hospital, Inc., the owner of the Premises, and Glenco Group LLC, the Contract-Vendee thereof. The Premises comprise approximately 779,182 square feet of real property, or 17.89 acres, of which 1.24 acres is situated within the Village of Ossining, which Premises have frontage on Croton Dam Road in the Town of Ossining.

2. Description of the Subject Premises & Present Mapping: The portion of the Premises wholly within the Town of Ossining is the subject of this Petition (the "Subject Premises") and is mapped in the R-15 (One Family Residence) District in accordance with the Zoning Code of the Town of Ossining (the "Zoning Code"). The Subject Premises, including the portion thereof situated in the Village of Ossining was most recently operated and known as Stony Lodge Hospital, a 61-bed, private psychiatric hospital for children and adolescents, which were opened in 1927.

3. Reasons Supporting Petition: The operation of Stony Lodge Hospital is a legally permitted use in accordance with the Zoning Code. In the almost 100 years since the opening of Stony Lodge Hospital, the properties surrounding it have been developed with single family residences. During the past century, the area has been transformed from the rural character existing when the Stony Lodge Hospital first opened to a suburban neighborhood of single family homes. Stony Lodge Hospital employed approximately 250 people and ran multiple shifts to operate the 7 day per week, 24 hours per day demands of a hospital. In addition, delivery trucks, including large multi-axle trucks, regularly serviced the Hospital to provide supplies. Police and fire department vehicles regularly were dispatched to the Premises and ambulances frequented the site for emergency transport of patients. Outside agencies also sent staff daily to coordinate care. Family members visited by car, usually in the evening and on weekends. Lastly, regional conferences were regularly held on-site including attendance by outside visitors from the County and State.

While the Stony Lodge Hospital is a legally permitted use under the Zoning Code, multi-family housing would redevelop this hilly and rocky site with a use more compatible with the surrounding community thereby:

a. Enabling more undeveloped permanent open space as the proposed, new residential community will be clustered to the center of the Premises;
b. Preserving more mature stands of trees;
c. Maintaining the scenic meadow along the entire frontage of Croton Dam Road as well as the expansive meadow on the easterly side of the Premises;
d. Allowing for the addition of sizeable new green buffer areas protecting adjacent homeowners along the northerly and southerly boundaries of the Premises;
e. Minimizing internal roadways and extensive infrastructure that would require more impervious surfaces and increased excavation, disrupting the terrain in a manner that also would necessitate tree removal; and
f. Producing a fiscally beneficial change to the Premises improving revenue generation for the Town, Village and School District.

4. Documents detailing Subject Premises: Annexed hereto are the following documents detailing the Subject Premises in connection with this proposed zoning amendment and remapping:

a. **Exhibit A** contains an excerpt of the relevant portion of the Town of Ossining

Zoning Map identifying and the showing the location of the Subject Premises (highlighted in yellow); and

b. **Exhibit B** is a survey entitled, "Survey of Property situate in the Town of Ossining Westchester County, New York," dated February 27, 2006, last revised March 15, 2006, prepared by Thomas C. Merritts Land Surveyors, P.C. showing the Subject Premises with the buildings and improvements comprising Stony Lodge Hospital.

5. Existing Mapping of Adjacent Lands: **Exhibit A** is an excerpt from the Official Zoning Map of the Town of Ossining showing the zoning classifications affecting the Subject Premises and the properties adjacent thereto, as follows:

Northerly Boundary: The properties immediately to the north of the Subject Premises are: (a) situated in the Town of Ossining, mapped in the R-7.5 (One-Family Residence) District, and improved with single-family residential uses; and (b) situated in the Village of Ossining, mapped in the S-50 (One Family Residence) District, and improved with single-family residential uses.

Southerly Boundary: The properties immediately to the south of the Subject Premises are situated in the Village of Ossining, mapped in the S-50 (One Family Residence) District, and improved with single-family residential uses.

Easterly Boundary: The properties immediately to the east of the Subject Premises are situated in the Village of Ossining, mapped in the S-50 (One Family Residence) District, and improved with single-family residential uses.

Westerly Boundary: The properties immediately to the west of the Subject Premises within the Town of Ossining are across Croton Dam Road and are mapped in the R-15 (One Family Residence) District, and improved with single-family residential uses.

6. Proposed Use of the Subject Premises: The Petitioner proposes develop a new multifamily community to be known as "River Knoll." The Stony Lodge Hospital buildings will be demolished. Thereafter, River Knoll will be constructed utilizing existing developed portions of the site with the buildings clustered to the center of the property to facilitate the substantial expansion of open space to create a generous buffer between the surrounding single-family, residential neighborhood. This new community would be comprised of 169 market-rate and 19 Affordable housing units (providing more below-market-rate (BMR) units than mandated by Article VI of the Zoning Code), totaling 188 dwelling units within four (4)

buildings. Parking for the residents of River Knoll will be provided in a combination of secured garages and at-grade spaces. Amenity space for the residents of River Knoll, will include a fitness center and swimming pool, among other things.

To illustrate the proposed River Knoll development the Petitioner has prepared a Concept Site Plan, copies of which accompany this Petition as **Exhibit C** and are incorporated herein by reference, as more particularly described below:

a. Plans prepared by Minno & Wasko, Architects and Planners, entitled "River Knoll, Town of Ossining, Westchester County, New York," dated October 2, 2015, consisting of the following sheets:
   i. Concept Site Plan, including "Development Program";
   ii. Concept Site Plan Overlay showing existing Stony Lodge Hospital buildings;

b. Plans prepared by John Meyer Consulting, entitled "River Knoll, 40 Croton Dam Road, Town of Ossining, New York" dated October 2, 2015, consisting of the following sheets:
   i. "Site Existing Conditions Plan" (SP-1);
   ii. "Conceptual Site Layout Plan" (SP-2); and
   iii. "Conceptual Site Grading Plan" (SP-3).

7. <u>SEQR Compliance and Planning Considerations in Support of Petition:</u> The Environmental Assessment Form ("EAF") annexed hereto as **Exhibit D**, outlines the relevant information regarding the potential environmental impacts associated with this zoning and map amendments.

We respectfully submit that the Town Board should recognize that the transition of the Subject Premises from its current institutional use would be beneficial to the surrounding community. Accordingly, this Petition proposes an amendment to the Zoning Code to permit the adaptive reuse of the property in a manner that is feasible and which protects surrounding neighborhoods and environmental resources to the maximum extent practicable. Given the substantial financial costs involved in demolishing the existing Stony Lodge Hospital improvements, this Petition proposes the adaptive reuse of the Subject Premises for multi-family housing and requests the adoption of an amendment to the Zoning Code establishing a new Multifamily Residence District that would permit a greater density of housing than the existing "MF Multifamily Residence District" set forth in the Zoning Code and exceeds the requirements of the Town's affordable housing mandate in its provision of BMR's creating

19, rather than 17 affordable apartments. Petitioner's request regarding the remapping of the Subject Premises to permit its use as a "multifamily development" is wholly consistent with the Comprehensive Plan of the Town of Ossining.

8. Proposed Zoning Code Amendments: We respectfully submit that the Zoning Code should be amended by adding the following provisions:

a. The words "MF-2 Multifamily District" shall be inserted in "§200-3. Classes of districts" to recognize the establishment of the "MF2 District," as noted by the underlined text below:

The Town of Ossining is hereby divided into the classes of districts listed below:

Symbol	**Title**
R-40	One-Family Residence District
R-30	One-Family Residence District
R-20	One-Family Residence District
R-20A	One-Family Residence District
R-15	One-Family Residence District
R-10	One-Family Residence District
R-7.5	One-Family Residence District
R-5	One-Family Residence District
MF	Multifamily District
MF-I	Multifamily-Inn District
MF-2	Multifamily District
NC	Neighborhood Commercial District
GB	General Business District
GB-1	General Business District-1
O-RB	Office-Research Business District
O-RE	Office-Research Education District
BE	Business Education District

b. A new "§200-16.A. MF2 Multifamily District" should be established as set forth below, which District shall be mapped in areas that have at least 10 acres with frontage on a collector road. This new "§200-16.A. MF2 Multifamily District" would be inserted in the Zoning Code following "§200-16. MF Multifamily District" and prior to "§200-17 NC Neighborhood Commercial District" and would read as follows:

§200-16.A. MF2 Multifamily District

In an MF2 Multifamily District, no building or premises shall be used, and no building or part of a building shall be erected or altered, which is arranged, intended or designed to be used, in whole or in part, for any uses except the following:

A. Permitted uses.

(1) Any permitted use or accessory use listed in, and as regulated in, the R-40 Residence District.

B. Uses permitted by special permit upon approval by the Board of Appeals in accordance with Article IX hereof. The following uses are permitted subject to approval by the Board of Appeals in accordance with the provisions of §200-45. These uses are subject to the requirements specified below and elsewhere in this chapter, including site plan approval by the Planning Board in accordance with §200-50 hereof.

(1) Any use so permitted in, and as regulated in, the R-10 Residence District.

C. Conditional uses permitted upon approval by the Planning Board in accordance with Article XI hereof. The following conditional uses are permitted subject to approval by the Planning Board in accordance with §200-49 hereof. These uses are subject to the requirements specified herein and elsewhere in this chapter, including site plan approval in accordance with §200-50 hereof.

(1) Multiple dwellings, subject to the following requirements:

(a) To enable and encourage flexibility of design and development of larger parcels of land in such a manner as to promote the most appropriate thereof, to facilitate the adequate and economical provision of vehicular access and utilities thereto, and to preserve the natural and scenic qualities of such lands, the Planning Board is hereby authorized, simultaneous with its review of the Site Plan in accordance with §200-50 hereof, to consider the architectural design and layout of multiple dwellings developed hereunder without regard to pre-determined, maximum lengths of buildings, established minimum distances between them.

(b) In furtherance of the flexibility set forth in §200-16.C.(1) above, it is expressly noted that the dimensional parameters otherwise applicable to MF Multifamily District developments in accordance with §200-16, shall not be applicable to MF2 Multifamily District developments.

(c) Signs, subject to the requirements of §200-28, and not more than one building identification sign of an area not greater than 14 square feet and located in the front or side yard.

(2) Row or attached dwellings, in addition to being subject to the provisions of Subsection C above, shall also be subject to the following conditions:

(a) The maximum number of dwelling units in a group of row dwellings shall be six.

(3) Additional requirements for multiple-family and row and/or attached dwellings.

(a) At least 1/3 of the net site area shall be devoted to permanent open space and/or for sites suitable for recreation.

(b) Any such construction shall be subject to the New York State Multiple Family Building Code.

c. A new “§200-22.A. MF2 Multifamily Residence District” would be added to “Chapter 200, Article IV, Bulk Regulations” and would be inserted after “§200-22. MF Multifamily Residence District and MF-I Multifamily-Inn Residence District” and before “§200-23. NC Neighborhood Commercial District, GB General Business District and GB-1 General Business District-1,” which new “§200-22.A. would read as follows:

§200-22.A. MF2 Multifamily Residence District
The following bulk regulations shall apply in the MF Multifamily Residence District and the MF2 Multifamily Residence District:

Minimum Requirements	Row or Attached Dwelling	Multiple
Lot area (square feet)	10 acres	10 acres
Lot area per dwelling unit (square feet)*	4,250*	4,250*
Lot width (feet)	50	250
Lot depth (feet)	250	250
Front yard (feet)	200	200
One side yard (feet)	100	100
Both side yards (feet)	200	200
Rear yard (feet)	100	100
Livable floor area dwelling unit (square feet)	850	700 per for 1 or more bedrooms
Usable open space	50%	50%
Maximum Permitted:		

Minimum Requirements	Row or Attached Dwelling	Multiple
Building height		
Stories	3	3
Feet	50	50
Building coverage	12%	12%
* NOTE: Consistent with §200-33 hereof at least ten percent (10%) of the units shall be designated as below-market-rate (BMR) units, permitting a density bonus of 20% for sites of 10 acres or more as set forth in Article VI hereof.		

c. To consistently encourage the construction of below-market-rate (BMR) units in future developments in the MF2 District, Article VI of the Zoning Code, entitled "Affordable Housing" should be amended, as follows:

i. At §200-34 entitled "Residential density bonus; Multifamily, General Business and One-Family Residence Districts," the text should be modified, so that it reads as follows [with proposed inserted text <u>underscored</u>]:

§200-34. Residential density bonus; Multifamily, General Business and One-Family Residence Districts.

A. To achieve the purposes above, the approval authority shall grant a residential density bonus for multiple, row or attached dwellings constructed or rehabilitated in the MF <u>and MF2</u> District<u>s</u>, with 1/2 of said density bonus consisting of below-market-rate units as defined and regulated in this article. The maximum permitted density bonus shall be in accordance with the following schedule:

Size of Property (acres)	Maximum Permitted Density Bonus
10 or more	20%
More than 5 but fewer than 10	30%
Fewer than or equal to 5	40%

B. To achieve the purposes above, the approval authority shall grant a residential density bonus for multiple, row or attached dwellings constructed or rehabilitated in the GB District, with 1/2 of said density bonus consisting of below-market-rate units as defined and regulated in this article. The maximum permitted density bonus shall be in accordance with the following schedule:

Size of Property (acres)	Maximum Permitted Density Bonus
10 or more	20%
More than 5 but fewer than 10	30%

Size of Property (acres)	Maximum Permitted Density Bonus
More than 2 but fewer than 5	40%
Fewer than 2	100%

C. To achieve the purposes above, for dwelling units constructed or rehabilitated in the One-Family Residence Districts, the approval authority shall grant a residential density bonus, with 1/2 of said density bonus consisting of below-market-rate units as defined and regulated in this article. The maximum permitted density bonus shall be in accordance with the schedule in §200-34A above. To assist in achieving the density permitted, the applicant may apply to the Planning Board for a cluster development pursuant to §200-31 of this chapter.

WHEREFORE, Petitioner respectfully requests that this Petition be granted in its entirety so that the Zoning Code may be amended as aforesaid and the Subject Premises may be mapped in the MF2 District, as set forth herein.

Dated: November , 2015

STONY LODGE HOSPITAL, INC.

By:______________________________

GLENCO GROUP LLC

BY:______________________________

EXHIBIT A

Excerpt of the Relevant Portion of the Town of Ossining Zoning Map

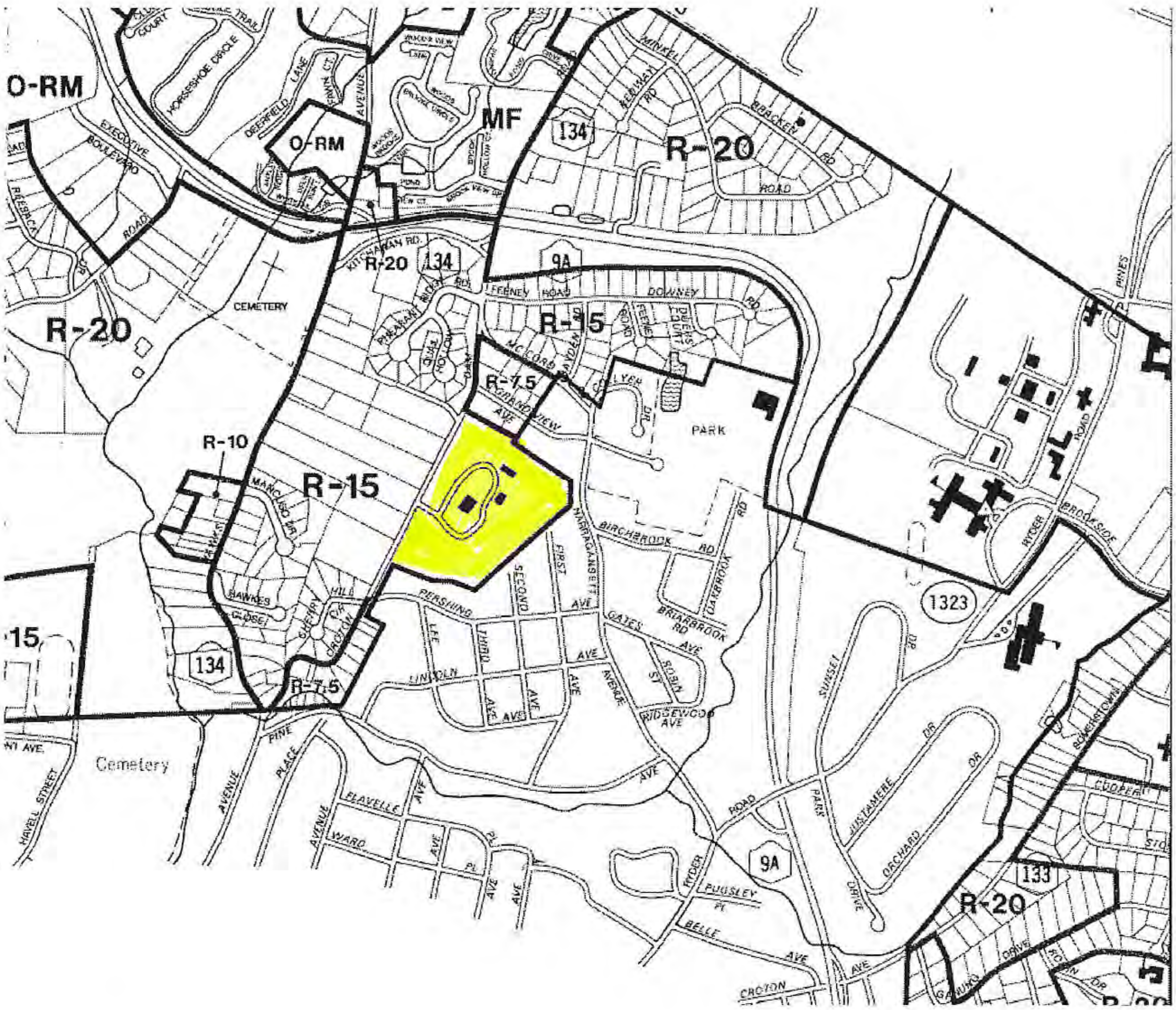


EXHIBIT B

Survey of Property

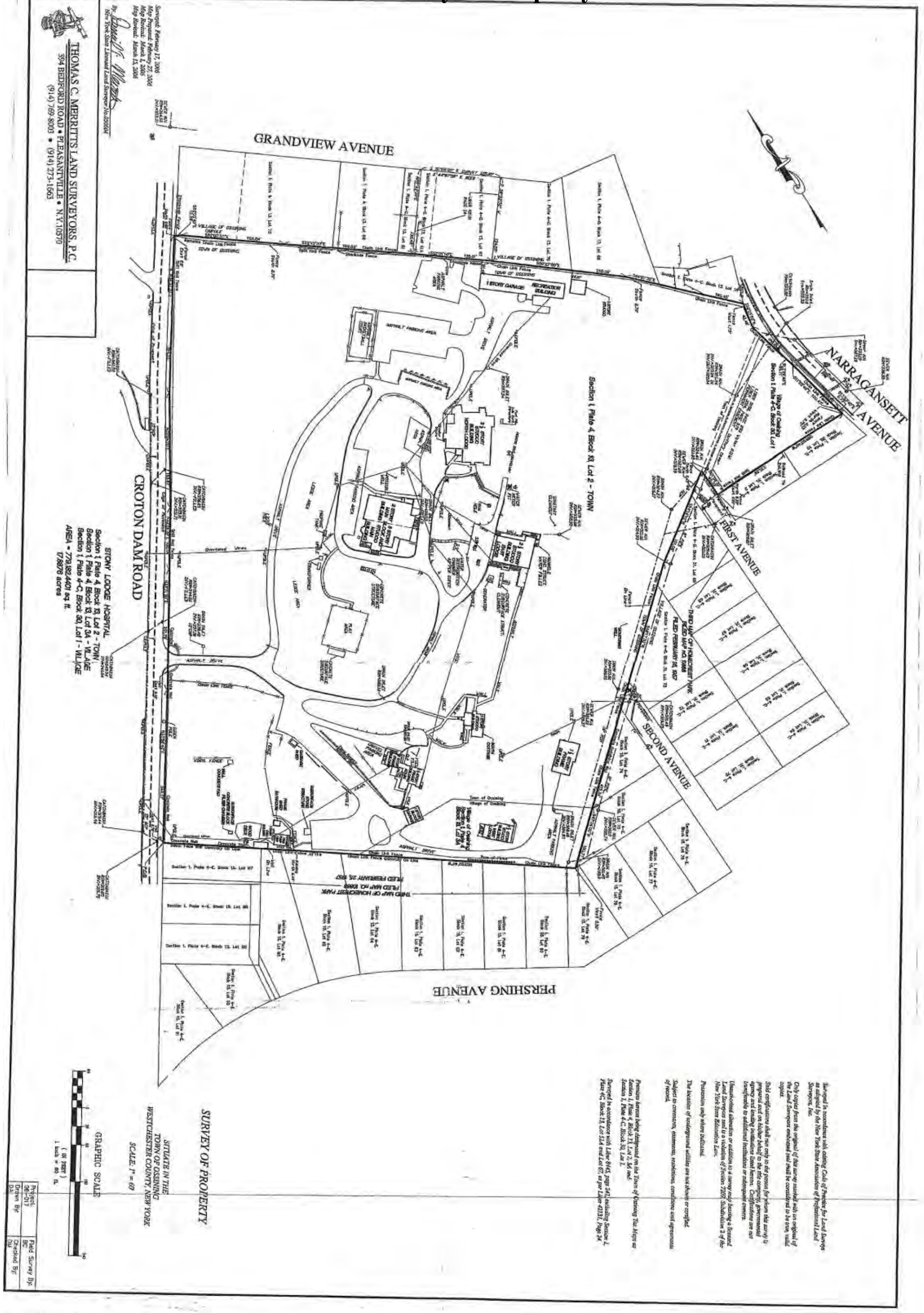


EXHIBIT C

Concept Site Plan

As Noted in this Petition the following plans are submitted in furtherance of this request to amend the Zoning Code and are incorporated herein by reference:

a. Plans prepared by Minno & Wasko, Architects and Planners, entitled “River Knoll, Town of Ossining, Westchester County, New York,” dated October 2, 2015, consisting of the following sheets:

   i. Concept Site Plan, including “Development Program”;

   ii. Concept Site Plan Overlay showing existing Stony Lodge Hospital buildings;

b. Plans prepared by John Meyer Consulting, entitled “River Knoll, 40 Croton Dam Road, Town of Ossining, New York” dated October 2, 2015, consisting of the following sheets:

   iii. “Site Existing Conditions Plan” (SP-1);

   iv. “Conceptual Site Layout Plan” (SP-2); and

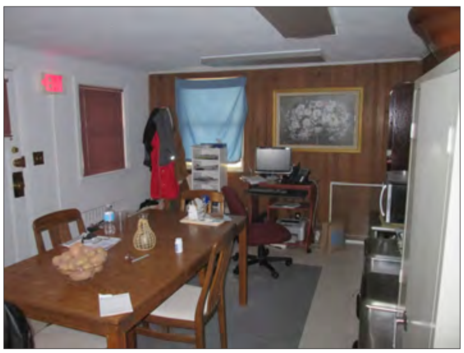
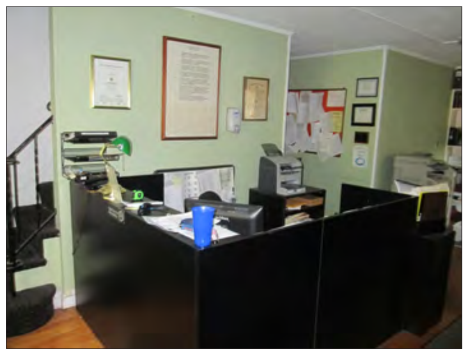
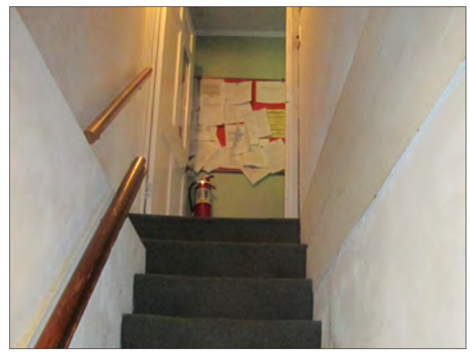
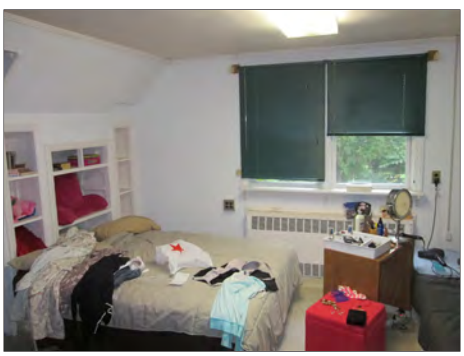
   v. “Conceptual Site Grading Plan” (SP-3).

EXHIBIT D

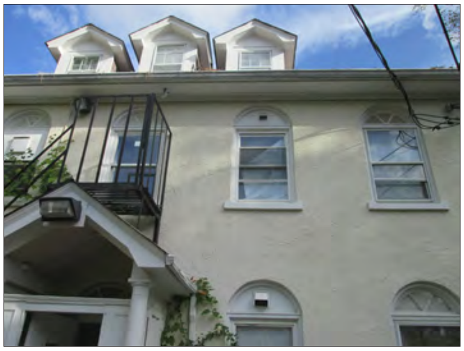
Environmental Assessment Form (“EAF”)

Appendix B: Existing Building Conditions Photos

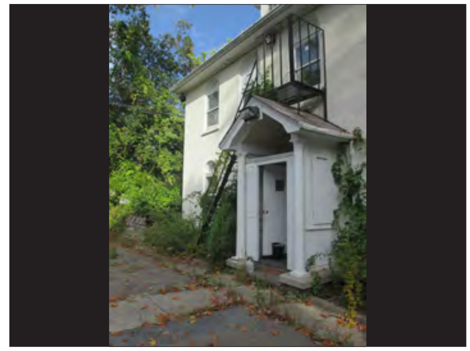


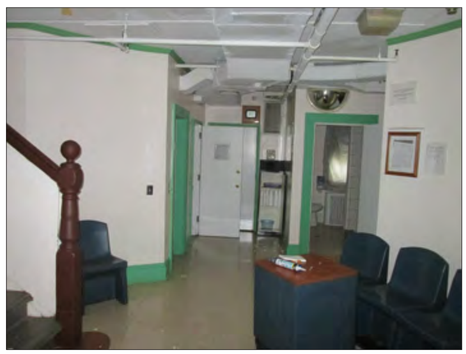






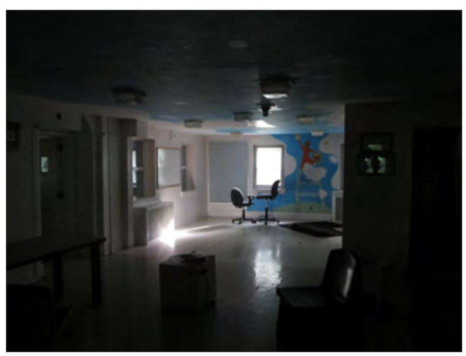
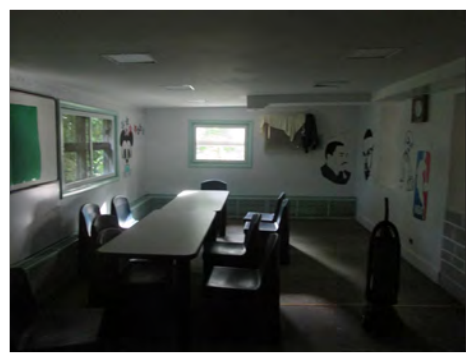

Existing Building Conditions
Admin Building
Appendix B-1








Existing Building Conditions
East Building
Appendix B-2









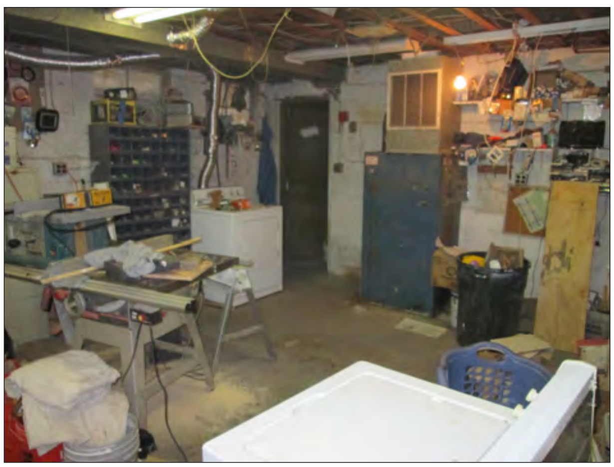


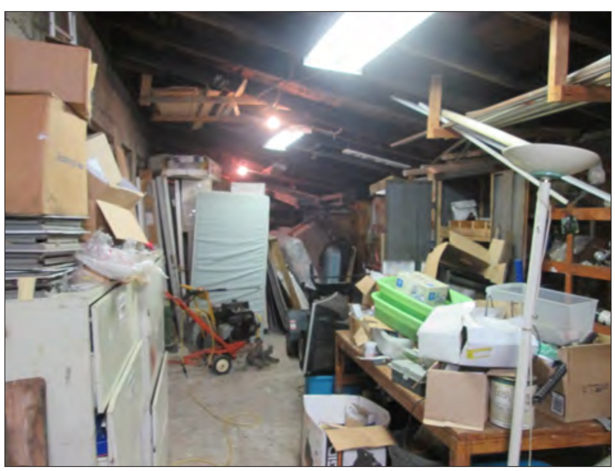




Existing Building Conditions
Main Building
Appendix B-4

Existing Building Conditions
Main Building
Appendix B-5





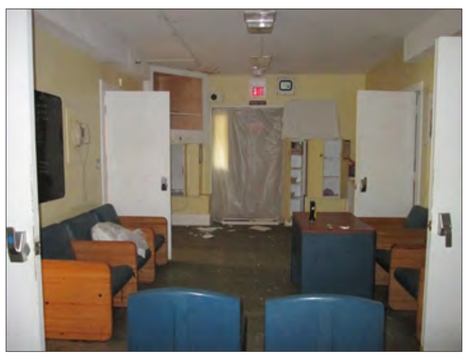
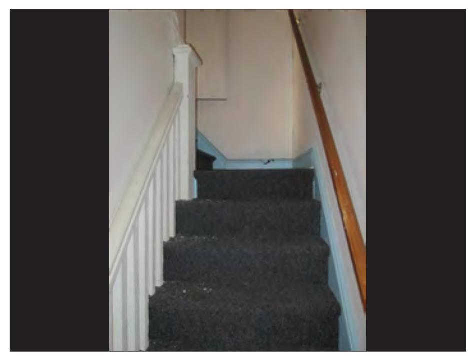
Existing Building Conditions
Maintenance Building

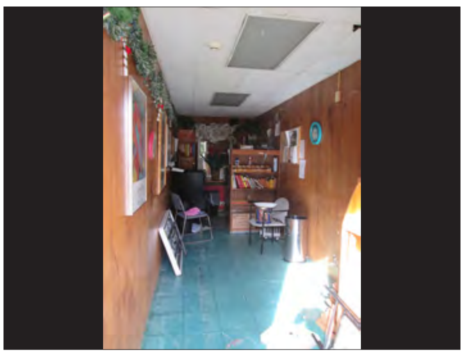
Appendix B-7



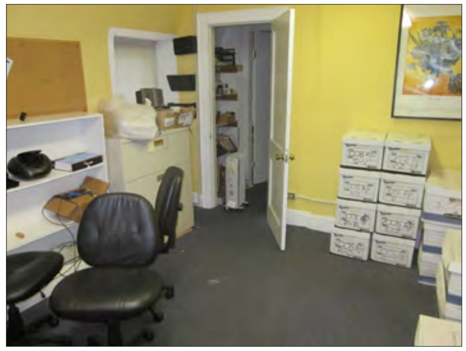


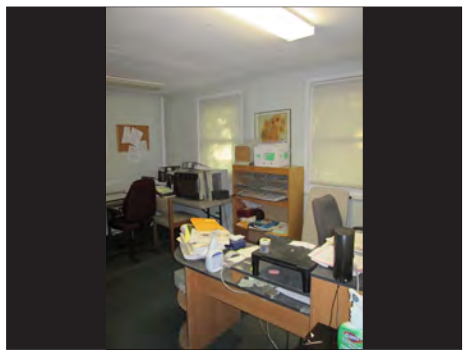
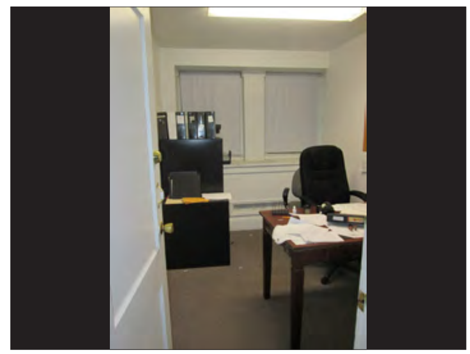
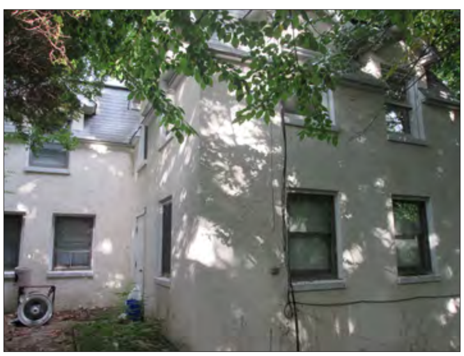


Existing Building Conditions
Recreation Building
Appendix B-9


Existing Building Conditions
South Building
Appendix B-10

Existing Building Conditions
West Building
Appendix B-11

Appendix C: Traffic Study

TRAFFIC STUDY

RIVER KNOLL

40 CROTON DAM ROAD
TOWN OF OSSINING, NEW YORK

Prepared for: **Glenco**
9 Ridge Road
Bronxville, NY 10708

Prepared by:

120 Bedford Road
Armonk, NY 10504
JMC Project **15064**

Date: November 4, 2015

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TABLE OF CONTENTS

LIST OF APPENDICES

I. INTRODUCTION

This Traffic Study has been prepared to assess existing conditions as well as future traffic operations in association with the proposed River Knoll redevelopment located at 40 Croton Dam Road in the Town of Ossining, NY. The location of the site is illustrated on the figures included in Appendix B.

The subject property operated as a hospital since 1927. The Stony Lodge Hospital began closing in 2012. The Applicant proposes to demolish the existing hospital and construct four buildings which would provide a total of 188 apartment units, consisting of 169 market-rate rental units and 19 affordable rental units. The proposed redevelopment will include amenities for the residents such as a swimming pool, fitness center, yoga studio, club room, etc.

The property is accessed via a single driveway located along Croton Dam Road. The proposed redevelopment will reconstruct a new and widened driveway at the same location as the existing driveway. The driveway sight distances will be improved based on the 43 mph 85th percentile design speed determined by an Automatic Traffic Recorder (ATR).

II. EXISTING CONDITIONS

A. Existing Roadway Network

JMC performed field reconnaissance at the site and adjoining roadway network in order to gather existing conditions data. The field work included a determination of lane widths, striping, horizontal and vertical alignments, signs, traffic signal phasing and timings, speed limits, pedestrian activities, traffic flows, on street parking, sidewalks, curbing, etc.

NYS Route 9A is generally a north/south state highway which changes to an east/west roadway within the study area. In the vicinity of the subject property, Route 9A provides two travel lanes in each direction and widens at intersections to provide additional lanes. It has a posted speed limit of 40 mph and on-street parking is prohibited.

Croton Dam Road is a north/south roadway connecting to Kitchawan Road in the north and Dale Avenue in the south. It provides one travel lane in each direction. The roadway has a posted speed limit of 30 mph and parking is prohibited on both sides of the street.

Kitchawan State Road is an east/west state roadway and is also referenced as NYS Route 134. It provides one travel lane in each direction. The roadway has a posted speed limit of 30 mph and on-street parking is prohibited.

Pershing Avenue and Pine Avenue are east/west roadways which connect to Narragansett Avenue in the east. Pershing Avenue connects to Croton Dam Road in the west. Cherry Hill Drive opposes Pershing Avenue at Croton Dam Road. Pine Avenue connects to Dale Avenue is the west. They provide one travel lane in each direction. The roadways have a posted speed limit of 30 mph and parking is permitted in certain locations along the roads.

Dale Avenue and Hawkes Avenue are north/south state roadways within the study area. These roads are also referenced as NYS Route 134. They provide one travel lane in each direction. On-street parking is prohibited along Hawkes Avenue and is permitted on one side of Dale Avenue. The roadways have a posted speed limit of 30 mph.

In order to evaluate the changes in traffic associated with the proposed redevelopment, the following intersections have been analyzed:

1. Dale Avenue & Pine Avenue
2. Croton Dam Road & Hawkes Avenue
3. Croton Dam Road & Pershing Avenue with Cherry Hill Drive
4. Croton Dam Road & Site Driveway
5. Croton Dam Road & Kitchawan State Road
6. Croton Dam Road & NYS Route 9A

Pine Avenue intersects Dale Avenue at an unsignalized ‘T’ intersection. Both Dale Avenue approaches provide a single thru lane with shared turning movements. Pine Avenue provides a single travel lane with shared turning movements. Pine Avenue is controlled by a stop sign.

Croton Dam Road intersects Hawkes Avenue at a three-legged unsignalized intersection. Hawkes Avenue provides a single thru lane with shared turning movements in both directions. Croton Dam Road provides a single travel lane with shared turning movements and is stop sign controlled.

The intersection Croton Dam Road and Pershing Avenue with Cherry Hill Drive is a four-legged unsignalized intersection. Each approach provides a single travel lane with shared turning movements. The Pershing Avenue and Cherry Hill Circle are controlled by a stop sign.

The site driveway intersects Croton Dam Road at an unsignalized ‘T’ intersection. Both Croton Dam Road approaches provide a single thru lane with shared turning movements. The site driveway provides a single travel lane with shared turning movements. The site driveway is controlled by a stop sign.

Kitchawan State Road intersects Croton Dam Road at a three-legged unsignalized intersection. Croton Dam Road provides a single thru lane with shared turning movements in both directions. Kitchawan State Road provides a single travel lane with shared turning movements and is stop sign controlled.

The intersection of Croton Dam Road and NYS Route 9A is a signalized four-legged intersection. The Route 9A eastbound approach provides a 110 foot long separate left turn lane and two thru lanes as well as a 190 foot long right turn lane. The Route 9A westbound approach provides a 150 foot long separate left turn lane and two thru lanes with shared right turning movements. The northbound and southbound approaches provides a single travel lane with shared turning movements. The traffic signal provides a three phase operation. First, the Route 9A left turn lanes are provided the protected green indication which is then followed by the thru and right turn movements along Route 9A. The Croton Dam Road approaches are given the green indication with permissive turning movements.

B. Existing Volumes

Manual traffic counts were performed in order to quantify and analyze existing peak hour volumes as well as to establish base conditions for projecting future operations. The counts included pedestrian activities and truck traffic.

Traffic counts were conducted from 7:00 – 9:00 AM and 3:00 – 6:00 PM for all the studied intersections. All studied intersections were counted on Thursday, September 17, 2015. The peak hour volumes occurred between 7:15-8:15 AM during the weekday morning and 4:00-6:00 PM during the weekday afternoon. These counted peak hour volumes were increased and balanced based on our comparative review of automatic traffic recorder (ATR) data taken along Croton Dam Road in the vicinity of the existing site driveway from September 15, 2015 to September 27, 2015. The increased volumes are shown on Figures 1 and 2 "2015 Existing Volumes". All figures are included in Appendix B.

C. Intersection Analysis Methodology

The intersections have been analyzed based on the methodologies of the 2010 Highway Capacity Manual. Information derived from the manual relative to the level of service criteria is provided below.

1. Level-of-Service Criteria for Signalized Intersections

Levels of Service (LOS) for signalized intersections are defined in terms of delay, which is a measure of driver discomfort, frustration, fuel consumption, and lost travel time. The delay experienced by a motorist is made up of a number of factors that relate to control, geometrics, traffic and incidents. Total delay is the difference between the travel time actually experienced and the reference travel time that would result during ideal conditions: in the absence of traffic control, in the absence of geometric delay, in the absence of any incidents, and when there are no other vehicles on the road. Only the portion of total delay attributed to the control facility is quantified. This delay is called control delay. Control delay includes the delays of initial deceleration, move-up time in the queue, stops, and reacceleration. In this chapter, control delay may also be referred to as signal delay. Specifically, LOS criteria for traffic signals are stated in terms of the average control delay per vehicle, typically for a peak 15-minute analysis period. Delay is a complex measure and is dependent on a number of variables, including the quality of progression, the cycle length, the green ratio, and the volume/capacity *(v/c)* ratio for the lane group in question.

LOS A describes operations with very low control delay, up to 10 seconds per vehicle. This level of services occurs when progression is extremely favorable and most vehicles arrive during the green phase. Most vehicles do not stop at all. *LOS B* describes operations which control delay greater than 10 and up to 20 seconds per vehicle. This level generally occurs with good progression, short cycle lengths, or both. *LOS C* describes operations with control delay greater than 20 and up to 35 seconds per vehicle. These higher delays may result from fair progression, longer cycle lengths, or both. *LOS D* describes operations with control delay greater than 35 and up to 55 seconds per vehicle. At level D, the influence of congestion becomes more noticeable. LOS E describes operations with control delay greater than 55 and up to 80 seconds per vehicle. *LOS F* describes operations with control delay in excess of 80 seconds per vehicle.

2. <u>Level of Service for Unsignalized Intersections</u>

The Levels of Service (LOS) for Two Way Stop Control (TWSC) and All Way Stop Control (AWSC) intersections are determined by the computed or measured control delay and are defined for each minor movement. LOS is not defined for the intersection as a whole for TWSC intersections. LOS criteria are presented below.

Unsignalized Level of Service Criteria	
Level of Service	**Delay Range (Seconds/Vehicle)**
A	≤10
B	>10 and ≤15
C	>15 and ≤25
D	>25 and ≤35
E	>35 and ≤50
F	>50

The LOS criteria for unsignalized intersections are somewhat different than the criteria used for signalized intersections. The primary reason for this difference is that drivers expect different levels of performance from different kinds of transportation facilities. A number of driver behavior considerations combine to make delays at signalized intersections less onerous than delays at unsignalized intersections. For example, drivers at signalized intersections are able to relax during the red interval, whereas drivers on the minor approaches to unsignalized intersections must remain attentive to the task of identifying acceptable gaps and vehicle conflicts. Also, there is often much more variability in the amount of delay experienced by individual drivers at an unsignalized intersections versus that at signalized intersections. For these reasons, it is considered that the control delay threshold for any given LOS would be less for an unsignalized intersection than it would be for a signalized intersection.

D. Existing Operations

The intersection capacity analyses based on existing volumes and conditions are shown on Tables 2 and 3. The specific volume/capacity ratios, delay for average vehicle in seconds and the associated levels of service are summarized for each lane group, the approach as well as the overall intersection as applicable on Tables 2 and 3. All tables are included in Appendix A.

During the peak weekday AM hour, the overall intersection of Croton Dam Road and Route 9A operates at a level of service C. The Route 9A westbound left turn lane operates close to capacity at a level of service F while the eastbound left turn lane operates at a level of service E. The Croton Dam Road approaches operate at a level of service E. All other movements at the studied intersections operate at a level of service C or better.

During the peak weekday PM hour, the overall intersection of Croton Dam Road and Route 9A operates at a level of service E. Both Route 9A left turn lanes operate at a level of service F. The Route 9A westbound thru and right turning movements operate over capacity and at a level of service F. The Croton Dam Road northbound approach operates over capacity at a level of service F while the southbound approach operates close to capacity at a level of service F. All other movements at the studied intersections operate at a level of service C or better.

III. PROJECTED CONDITIONS

A. No-Build Volumes

In order to project future traffic increases to the 2017 design year, the existing volumes were increased by a general growth rate of 2% per year compounded annually. The traffic volumes associated from the proposed Sunshine Children's Home & Rehabilitation Center in New Castle, the proposed Upper Westchester Muslim Society development in New Castle and the proposed Hudson Ridge Wellness Center development in Cortlandt will not generate substantial traffic volumes in the study area and have been considered as part of the general growth volumes.

Table 1 depicts the traffic volumes associated with the reoccupancy of the previous hospital use on the development property based on traffic counts conducted at the site driveway in 2006. The Hospital had 250 employees, with multiple shifts coming and going 24 hours a day. In addition, delivery trucks, including large multi-axle trucks, came daily with food and supplies, as did ambulances 24 hours a day. Family members came by car to visit, usually in the evening and weekends. Staff came by even when not working, to pick up paychecks and meet with their supervisors. Outside agencies sent staff daily to coordinate care, and job seekers visited daily weekdays and weekends in significant numbers. Vans were used to transport patients daily to outside medical specialists and emergency rooms, when ambulances were not used. Regional conferences were regularly held on-site with outside visitors from the County and State. Federal Express and UPS came daily more than once for deliveries and pickups. By State regulation, incidents involving the patients required State reporting and police investigation, which by law required the local police to be involved and necessitated frequent trips by police cars. In summary, there was constant traffic. In addition, there have always been, and there continue to be, outpatients coming for treatment.

The reoccupancy of the hospital volumes based on the 2006 counts have been incorporated into the no-build volumes. The resulting 2017 no-build volumes represent traffic operation in 2017 without the redevelopment of the site.

Under no-build conditions with the reoccupancy of the previous hospital use, all turning movements are projected to generally operate at the same levels of service as experienced under existing conditions for both studied peak hours, except at the signalized intersection of Route 9A and Croton Dam Road. The signalized intersection is projected to increase in overall delay to a level of service D during the peak morning hour. The Route 9A westbound left turn lane is projected to operate over capacity. The northbound approach is projected to operate over capacity and the southbound approach is projected close to capacity at a level of service F.

During the peak afternoon hour, the signalized intersection is projected to operate at the same levels of service as experienced under existing conditions. The southbound and northbound approaches are projected to operate over capacity under the no-build condition.

B. <u>Build Volumes</u>

The projected traffic associated with the proposed 188 apartment units redevelopment is based on vehicle trip information published by the Institute of Transportation Engineers (ITE) in its publication "Trip Generation Manual, 9th Edition." Table 1 shows the traffic volumes associated with the reoccupancy of the previous land use and the proposed land use as well as the net change in traffic volumes between them. The redevelopment will result in approximately 45 net additional total trips during the peak weekday AM hour and 61 net additional total trips during the peak weekday PM hour based on the ITE data. The actual vehicle trips are expected to be less than suggested by the ITE data since a peak weekday jitney bus is proposed to transport residents to and from the train station. In order to provide a conservative analysis, no credit has been taken for the peak weekday jitney bus operations. The primary trips for the redevelopment have been shown in the figures in Appendix B.

The primary trips were routed through the intersections based on existing traffic volumes and the roadway network. Adding the redevelopment related traffic results in 2017 Build Volumes which reflect projected volumes after the completion of the redevelopment.

IV. FINDINGS & CONCLUSION

Intersection capacity analysis computed based on the Build Volumes with and without recommended improvements indicate that the intersections can essentially operate at the same levels of service as projected for the No-Build Volumes. Projected operations with the proposed redevelopment are shown on Tables 2 and 3. The five unsignalized intersections are projected to continue operating with minimal delays.

During the peak weekday AM hour, the overall intersection of Croton Dam Road and Route 9A is projected to continue to operate at a level of service D with recommended improvements. Traffic signal timing changes are recommended for consideration by NYSDOT at the intersection of Route 9A and Croton Dam Road during the peak weekday morning hours. The timing change consists of a reduction of the signal cycle length from 150 seconds to 140 seconds, with various timing modifications for individual phases. With the proposed improvements, the southbound Croton Dam Road approach is projected to improve to a level of service E from an F under the no-build condition. Under the build conditions with improvements, the overall eastbound approach is projected to operate at a level of service D and the westbound thru/right movement is projected to operate at a level of service C. All other turning movements at the studied intersections are projected to operate at the same levels of service as experienced under the no-build condition. As previously mentioned, the actual vehicle trips are expected to be less than considered herein since a peak weekday jitney bus is proposed to transport residents to and from the train station. Since no credit has been taken for the peak weekday jitney bus operations, the future delays will likely be shorter than indicated on Tables 2 and 3.

During the peak weekday PM hour, the levels of services projected under the build condition at the intersection of Croton Dam Road and Route 9A are the same as projected in the no-build condition. The average delays per vehicle for the turning movements at the intersection of Croton Dam Road and Route 9A projected under the build condition are generally the same or reduced compared to the delay under no-build conditions. The turning movements at the unsignalized intersections within the study area are projected to operate at a level of service B or better.

It is the professional opinion of JMC that the redevelopment of the site with the recommended improvements will not have a significant impact on traffic operations in the study area.

Respectfully submitted,

JMC Planning Engineering Landscape Architecture & Land Surveying, PLLC

Richard J. Pearson, PE, PTOE	Marc Petroro, PE
Senior Associate Principal	Project Manager

APPENDIX A

TABLES

TABLE 1

PROPOSED DEVELOPMENT VOLUMES

DESCRIPTION	PEAK WEEKDAY AM HOUR			PEAK WEEKDAY PM HOUR		
	ENTER	EXIT	TOTAL	ENTER	EXIT	TOTAL
a. Re-occupied Hospital Driveway Trip Volumes[(1)]	30	21	51	16	44	60
b. Proposed 188 Unit Apartments Primary Trip Volumes (ITE Code 220)[(2)(3)]	19	77	96	79	42	121
c. Net Primary Trips (Row c = Row b - Row a)	**(11)**	**56**	**45**	**63**	**(2)**	**61**

Notes:

(1) Re-occupied driveway volumes are generated from 2006 existing turning movement counts included in the "Due Diligence Traffic Study" prepared by Schoor Depalma Engineers and Consultants.

(2) Trip generation is based on ITE (Institute of Transportation Engineers) Trip Generation Manual, 9th Edition.

(3) Apartment (ITE Code 220) is defined by ITE as rental dwelling units located within the same building with at least three other dwelling units.

TABLE 2

INTERSECTION OPERATIONS-PEAK WEEKDAY AM HOUR

INTERSECTION	APPROACH	LANE GROUP	2015 EXISTING			2017 NO BUILD			2017 BUILD		
			V/C(1)	DELAY(2)	LOS(3)	V/C(1)	DELAY(2)	LOS(3)	V/C(1)	DELAY(2)	LOS(3)
1. Dale Avenue & Pine Avenue (Unsignalized)	WESTBOUND	LEFT/RIGHT	0.21	12.1	B	0.22	12.5	B	0.23	12.5	B
	NORTHBOUND	THRU/RIGHT	-	-	-	-	-	-	-	-	-
	SOUTHBOUND	LEFT/THRU	0.06	8.1	A	0.06	8.1	A	0.06	8.1	A
2. Croton Dam Road & Hawkes Avenue (Unsignalized)	WESTBOUND	LEFT/RIGHT	0.17	11.2	B	0.19	11.4	B	0.20	11.6	B
	NORTHBOUND	THRU/RIGHT	-	-	-	-	-	-	-	-	-
	SOUTHBOUND	LEFT/THRU	0.01	7.9	A	0.01	7.9	A	0.01	7.9	A
3. Croton Dam Road & Pershing Avenue /Cherry Hill Circle (Unsignalized)	EASTBOUND	LEFT/THRU /RIGHT	0.01	9.3	A	0.01	9.4	A	0.01	9.5	A
	WESTBOUND	LEFT/THRU /RIGHT	0.03	10.4	B	0.04	10.4	B	0.04	10.6	B
	NORTHBOUND	LEFT/THRU /RIGHT	0.00	7.4	A	0.00	7.4	A	0.00	7.4	A
	SOUTHBOUND	LEFT/THRU /RIGHT	0.00	7.6	A	0.01	7.6	A	0.02	7.7	A
4. Croton Dam Road & Site Driveway (Unsignalized)	WESTBOUND	LEFT/RIGHT				0.03	9.7	A	0.11	10.1	B
	NORTHBOUND	THRU/RIGHT		N/A		-	-	-	-	-	-
	SOUTHBOUND	LEFT/THRU				0.02	7.7	A	0.01	7.6	A
5. Croton Dam Road & Kitchawan State Road (Unsignalized)	EASTBOUND	LEFT/RIGHT	0.19	11.8	B	0.21	12.4	B	0.21	12.5	B
	NORTHBOUND	LEFT/THRU	0.02	7.7	A	0.02	7.8	A	0.02	7.8	A
	SOUTHBOUND	THRU/RIGHT	-	-	-	-	-	-	-	-	-
6. Croton Dam Road & NYS Route 9A (Signalized)	EASTBOUND	LEFT	0.85	70.4	E	0.85	73.5	E	0.85	73.4	E
		THRU	0.87	22.0	C	0.90	24.2	C	0.90	24.2	C
		RIGHT	0.09	8.7	A	0.10	8.8	A	0.10	8.7	A
		COMPOSITE	-	24.4	C	-	26.6	C	-	26.5	C
	WESTBOUND	LEFT	0.98	212.9	F	1.06	217.8	F	1.03	215.2	F
		THRU/RIGHT	0.48	18.3	B	0.50	18.7	B	0.50	18.8	B
		COMPOSITE	-	19.8	B	-	20.8	C	-	20.6	C
	NORTHBOUND	LEFT/THRU /RIGHT	0.89	72.8	E	1.02	108.6	F	1.26	196.3	F
	SOUTHBOUND	LEFT/THRU /RIGHT	0.91	77.9	E	0.98	96.1	F	0.96	89.9	F
	INTERSECTION	COMPOSITE	-	31.5	C	-	37.6	D	-	45.6	D
6. Croton Dam Road & NYS Route 9A (Signalized With Improvements)	EASTBOUND	LEFT							0.85	73.3	E
		THRU							0.95	33.6	C
		RIGHT							0.10	11.0	B
		COMPOSITE							-	35.1	D
	WESTBOUND	LEFT		N/A			N/A		1.04	222.0	F
		THRU/RIGHT							0.53	22.9	C
		COMPOSITE							-	24.8	C
	NORTHBOUND	LEFT/THRU /RIGHT							1.03	107.1	F
	SOUTHBOUND	LEFT/THRU /RIGHT							0.82	62.8	E
	INTERSECTION	COMPOSITE							-	41.3	D

Notes:

(1) V/C represents volume/capacity ratio

(2) Delay is average seconds delay per vehicle

(3) LOS represents level of service

TABLE 3

INTERSECTION OPERATIONS-PEAK WEEKDAY PM HOUR

INTERSECTION	APPROACH	LANE GROUP	2015 EXISTING			2017 NO BUILD			2017 BUILD		
			V/C(1)	DELAY(2)	LOS(3)	V/C(1)	DELAY(2)	LOS(3)	V/C(1)	DELAY(2)	LOS(3)
1. Dale Avenue & Pine Avenue (Unsignalized)	WESTBOUND	LEFT/RIGHT	0.15	10.9	B	0.16	11.2	B	0.17	11.3	B
	NORTHBOUND	THRU/RIGHT	-	-	-	-	-	-	-	-	-
	SOUTHBOUND	LEFT/THRU	0.04	7.8	A	0.04	7.9	A	0.04	7.9	A
2. Croton Dam Road & Hawkes Avenue (Unsignalized)	WESTBOUND	LEFT/RIGHT	0.19	10.7	B	0.21	10.9	B	0.21	10.9	B
	NORTHBOUND	THRU/RIGHT	-	-	-	-	-	-	-	-	-
	SOUTHBOUND	LEFT/THRU	0.00	7.7	A	0.00	7.7	A	0.00	7.8	A
3. Croton Dam Road & Pershing Avenue /Cherry Hill Circle (Unsignalized)	EASTBOUND	LEFT/THRU /RIGHT	0.01	9.2	A	0.01	9.4	A	0.01	9.5	A
	WESTBOUND	LEFT/THRU /RIGHT	0.04	11.1	B	0.06	11.1	B	0.08	10.7	B
	NORTHBOUND	LEFT/THRU /RIGHT	0.00	7.5	A	0.00	7.5	A	0.00	7.5	A
	SOUTHBOUND	LEFT/THRU /RIGHT	0.02	7.6	A	0.03	7.6	A	0.03	7.7	A
4. Croton Dam Road & Site Driveway (Unsignalized)	WESTBOUND	LEFT/RIGHT				0.07	9.6	A	0.07	10.3	B
	NORTHBOUND	THRU/RIGHT		N/A		-	-	-	-	-	-
	SOUTHBOUND	LEFT/THRU				0.00	7.5	A	0.04	7.7	A
5. Croton Dam Road & Kitchawan State Road (Unsignalized)	EASTBOUND	LEFT/RIGHT	0.13	12.2	B	0.14	12.8	B	0.15	13.2	B
	NORTHBOUND	LEFT/THRU	0.02	7.9	A	0.23	7.9	A	0.02	8.1	A
	SOUTHBOUND	THRU/RIGHT	-	-	-	-	-	-	-	-	-
6. Croton Dam Road & NYS Route 9A (Signalized)	EASTBOUND	LEFT	0.86	82.8	F	0.86	84.6	F	0.86	84.6	F
		THRU	0.41	10.8	B	0.43	11.0	B	0.43	11.2	B
		RIGHT	0.14	8.6	A	0.15	8.7	A	0.18	9.0	A
		COMPOSITE	-	19.0	B	-	19.4	B	-	19.4	B
	WESTBOUND	LEFT	0.81	112.6	F	0.81	110.7	F	0.80	103.8	F
		THRU/RIGHT	1.01	59.0	F	1.05	72.4	F	1.05	72.4	F
		COMPOSITE	-	58.5	E	-	71.5	E	-	71.5	E
	NORTHBOUND	LEFT/THRU /RIGHT	1.18	181.7	F	1.58	348.8	F	1.50	314.6	F
	SOUTHBOUND	LEFT/THRU /RIGHT	0.98	105.0	F	1.02	116.7	F	1.05	125.8	F
	INTERSECTION	COMPOSITE	-	56.4	E	-	76.3	E	-	74.0	E

Notes:

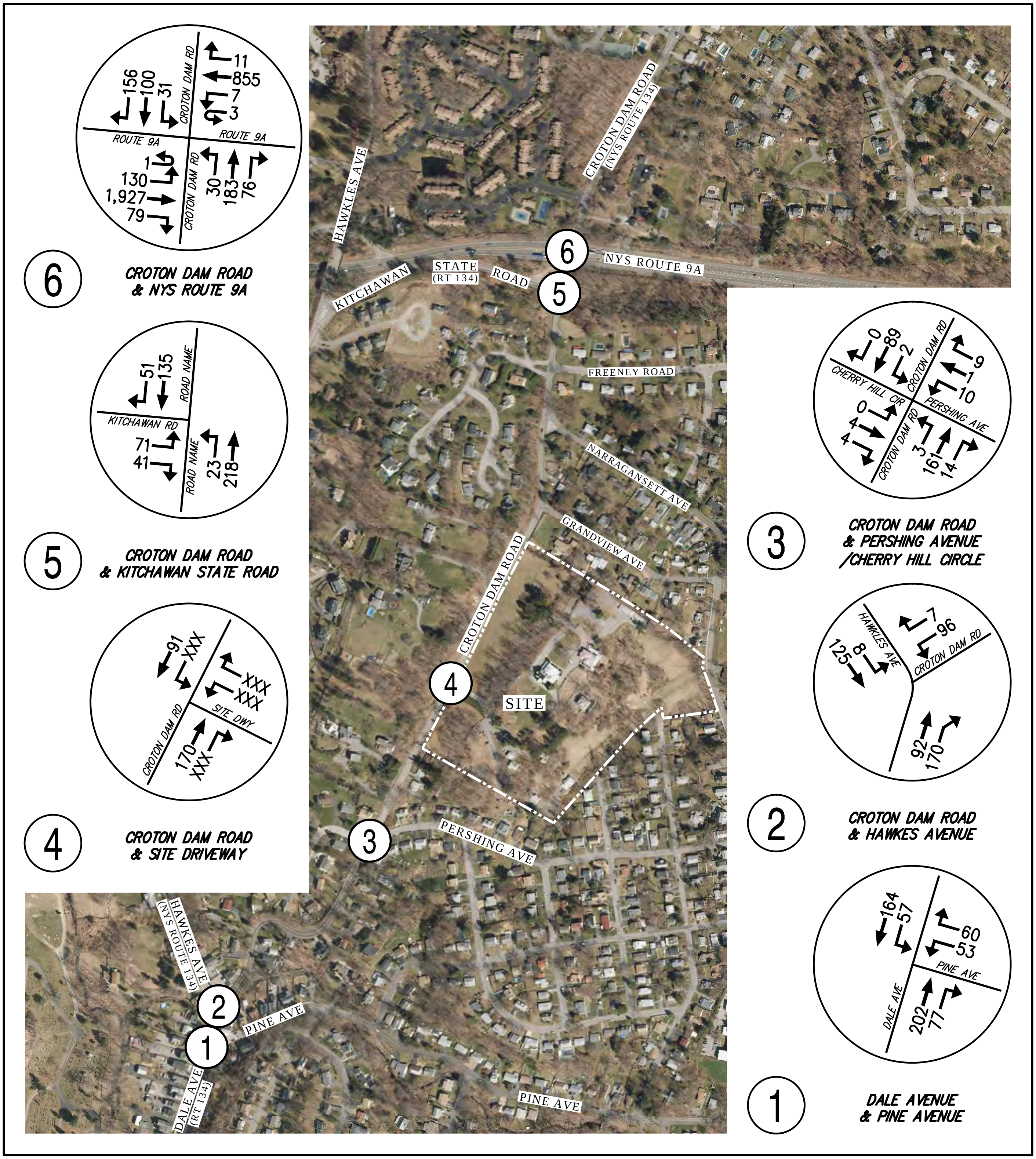
(1) V/C represents volume/capacity ratio

(2) Delay is average seconds delay per vehicle

(3) LOS represents level of service

APPENDIX B

FIGURES



RIVER KNOLL

40 CROTON DAM ROAD — TOWN OF OSSINING, NEW YORK

2015 EXISTING VOLUMES

PEAK WEEKDAY AM HOUR (7:15 - 8:15)

DATE: 11/04/2015 — JMC PROJECT: 15064

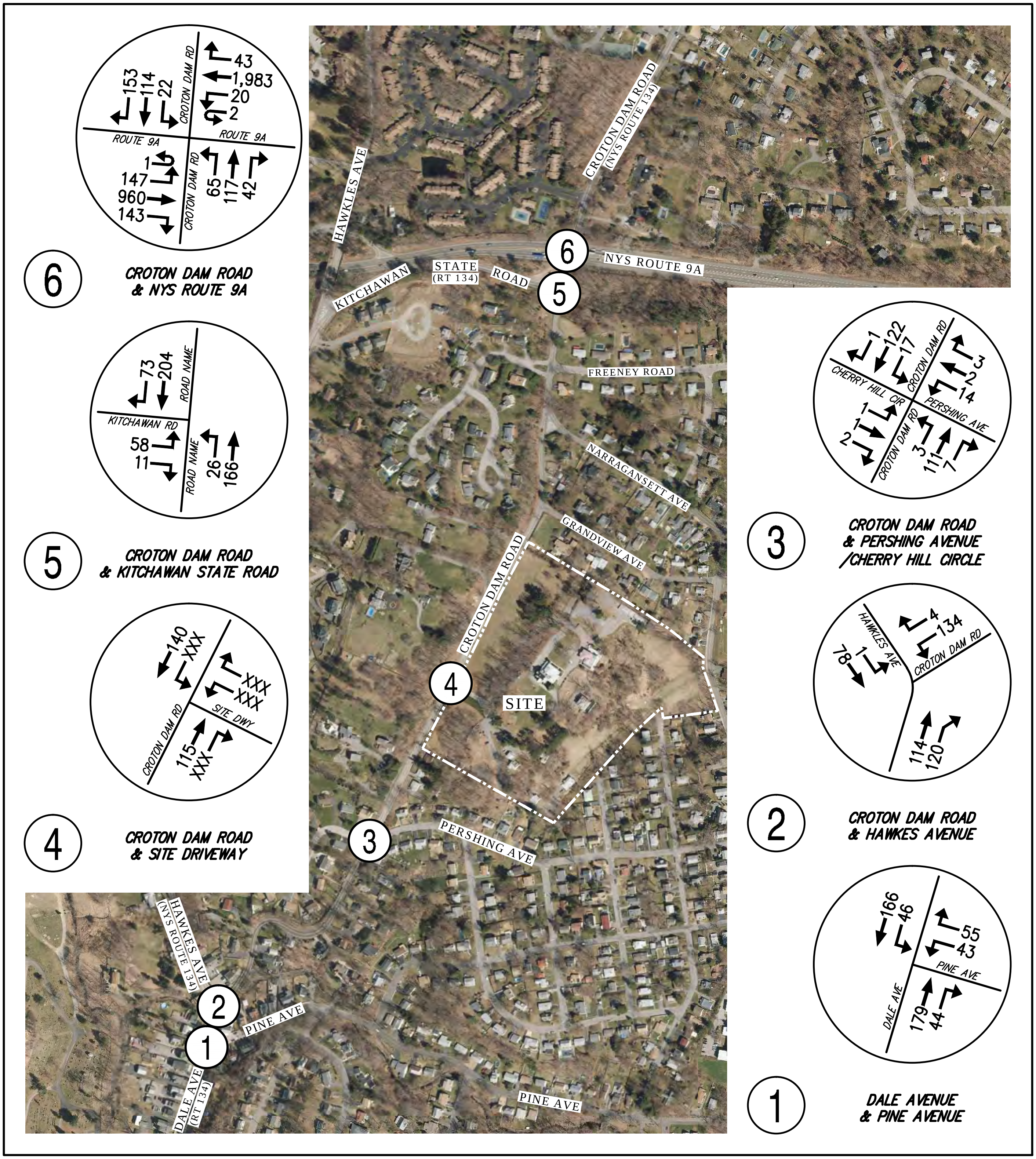
FIGURE: 01 — SCALE: 1" = 600'

120 BEDFORD RD
ARMONK
NY 10504

(914) 273-5225
fax 273-2102

JMCPLLC.COM

15064–TRAFFIC–FIG.dwg; TRAFFIC–FIGS.tab



RIVER KNOLL

40 CROTON DAM ROAD — TOWN OF OSSINING, NEW YORK

2015 EXISTING VOLUMES

PEAK WEEKDAY PM HOUR (5:00 - 6:00)

DATE: 11/04/2015 — JMC PROJECT: 15064

FIGURE: 02 — SCALE: 1" = 600'

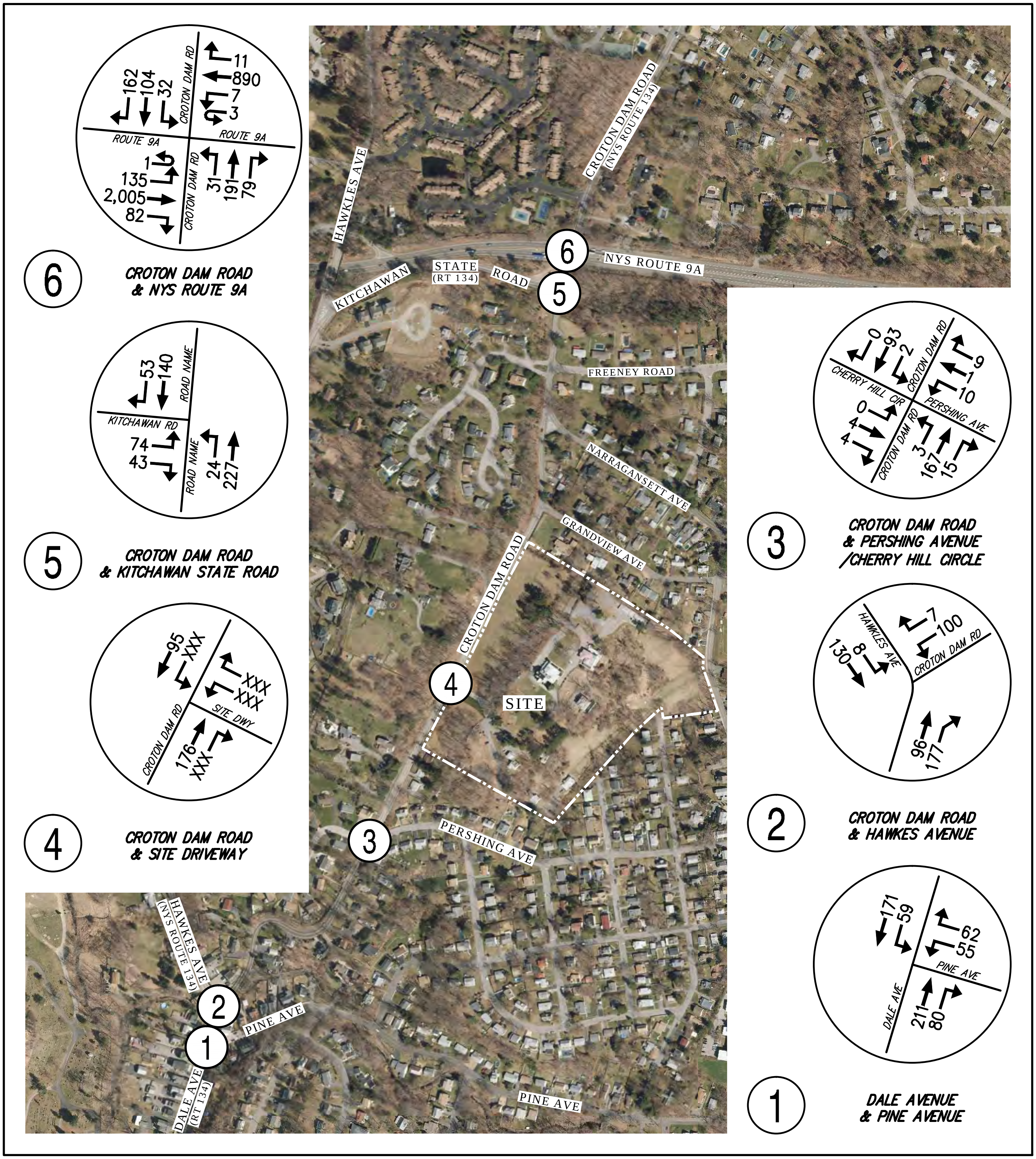
120 BEDFORD RD
ARMONK
NY 10504

(914) 273-5225
fax 273-2102

JMCPLLC.COM

JMC

15064–TRAFFIC–FIG.dwg; TRAFFIC–FIGS.tab



RIVER KNOLL

40 CROTON DAM ROAD | TOWN OF OSSINING, NEW YORK

2017 GENERAL GROWTH VOLUMES

PEAK WEEKDAY AM HOUR

DATE: 11/04/2015 | JMC PROJECT: 15064

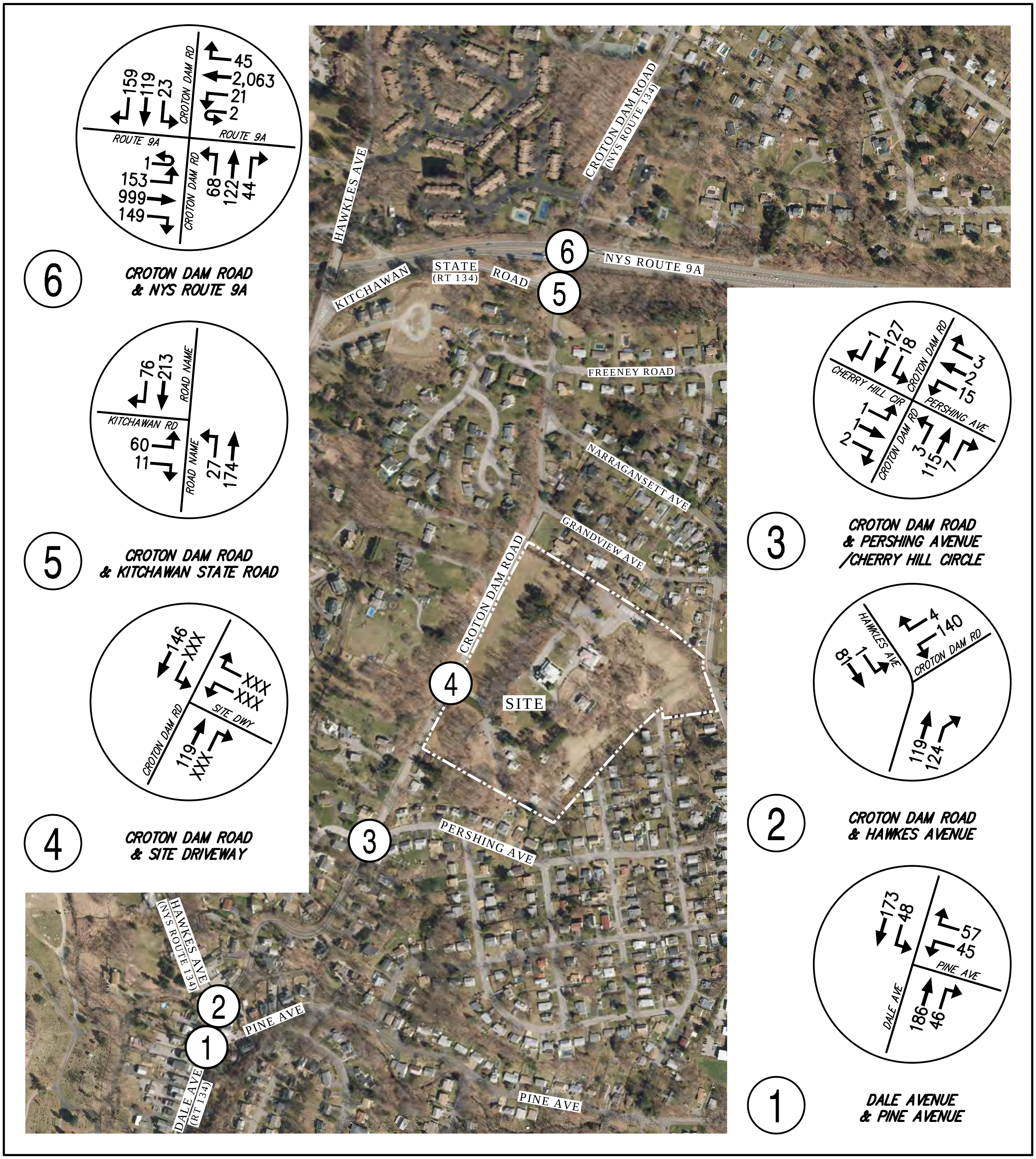
FIGURE: 03 | SCALE: 1" = 600'

120 BEDFORD RD
ARMONK
NY 10504

(914) 273-5225
fax 273-2102

JMCPLLC.COM

15064–TRAFFIC–FIG.dwg; TRAFFIC–FIGS.tab



RIVER KNOLL

40 CROTON DAM ROAD — TOWN OF OSSINING, NEW YORK

2017 GENERAL GROWTH VOLUMES

PEAK WEEKDAY PM HOUR

DATE: 11/04/2015 — JMC PROJECT: 15064

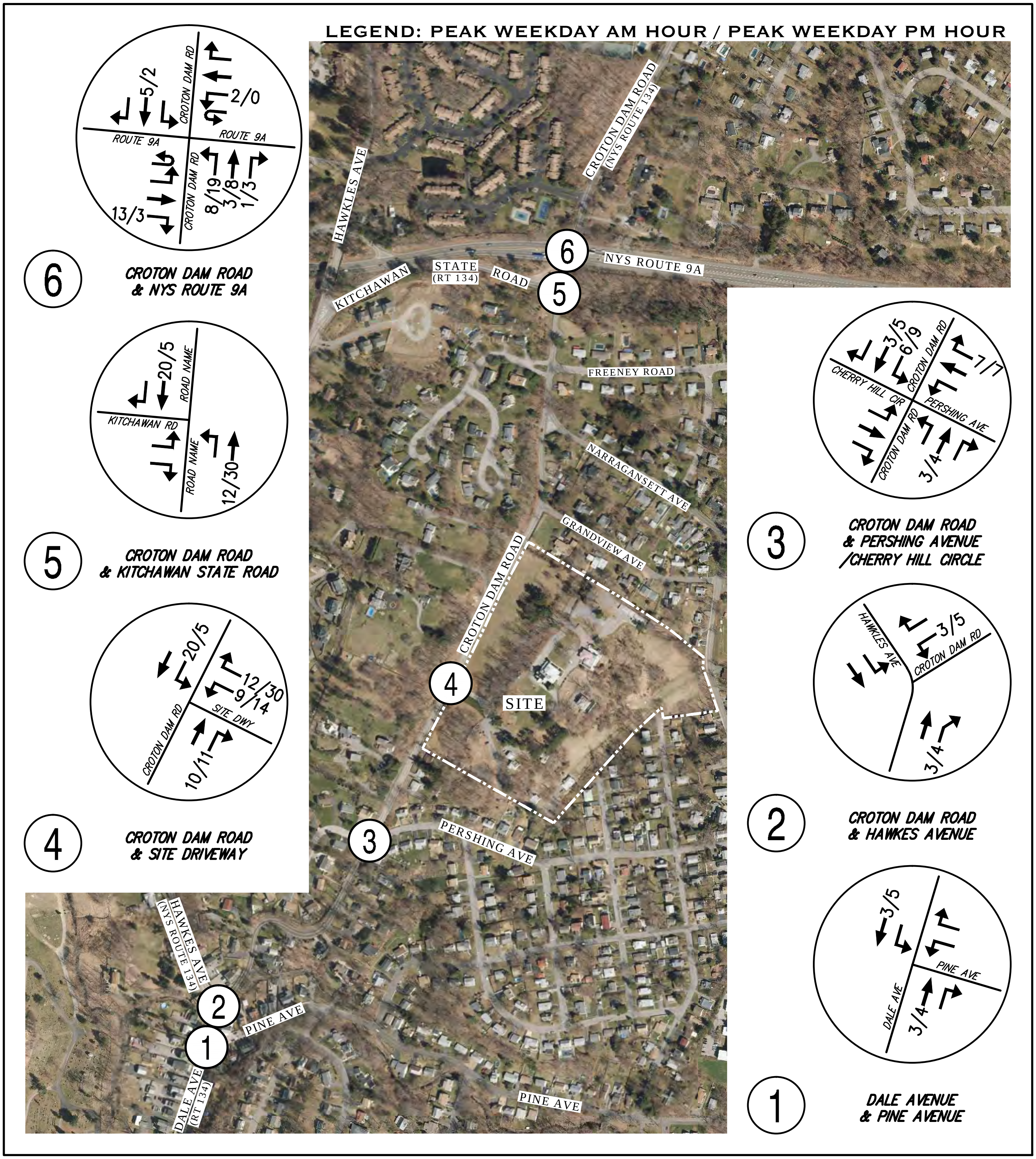
FIGURE: 04 — SCALE: 1" = 600'

120 BEDFORD RD
ARMONK
NY 10504

(914) 273-5225
fax 273-2102

JMCPLLC.COM

15064–TRAFFIC–FIG.dwg; TRAFFIC–FIGS.tab



RIVER KNOLL

40 CROTON DAM ROAD — TOWN OF OSSINING, NEW YORK

RE-OCCUPIED VOLUMES

DATE: 11/04/2015 — JMC PROJECT: 15064

FIGURE: 05 — SCALE: 1" = 600'

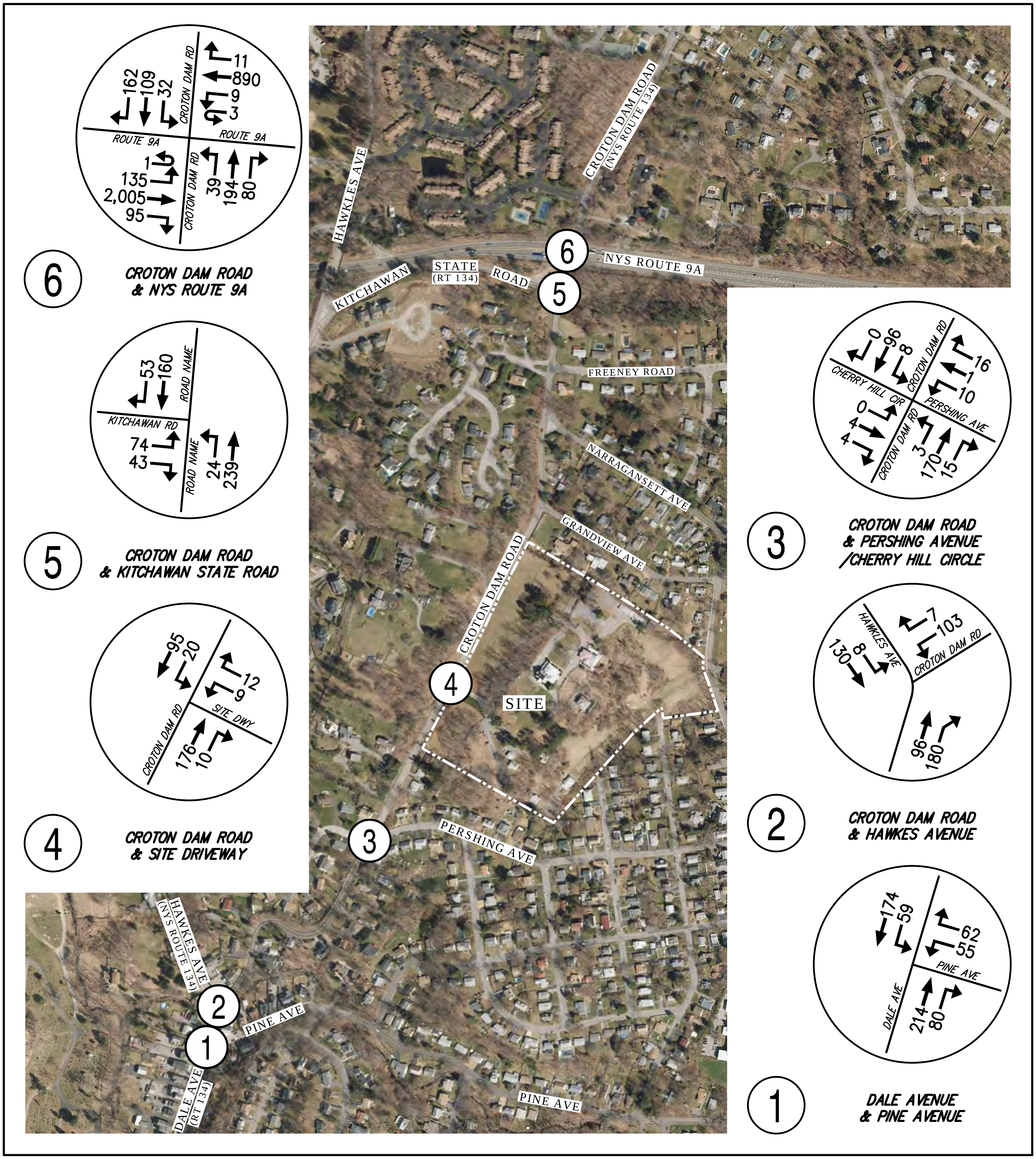
120 BEDFORD RD
ARMONK
NY 10504

(914) 273-5225
fax 273-2102

JMCPLLC.COM

JMC

15064–TRAFFIC–FIG.dwg; TRAFFIC–FIGS.tab



RIVER KNOLL

40 CROTON DAM ROAD — TOWN OF OSSINING, NEW YORK

2017 NO BUILD VOLUMES

PEAK WEEKDAY AM HOUR (7:15 - 8:15)

DATE: 11/04/2015

JMC PROJECT: 15064

FIGURE: 06

SCALE: 1" = 600'

120 BEDFORD RD
ARMONK
NY 10504

(914) 273-5225
fax 273-2102

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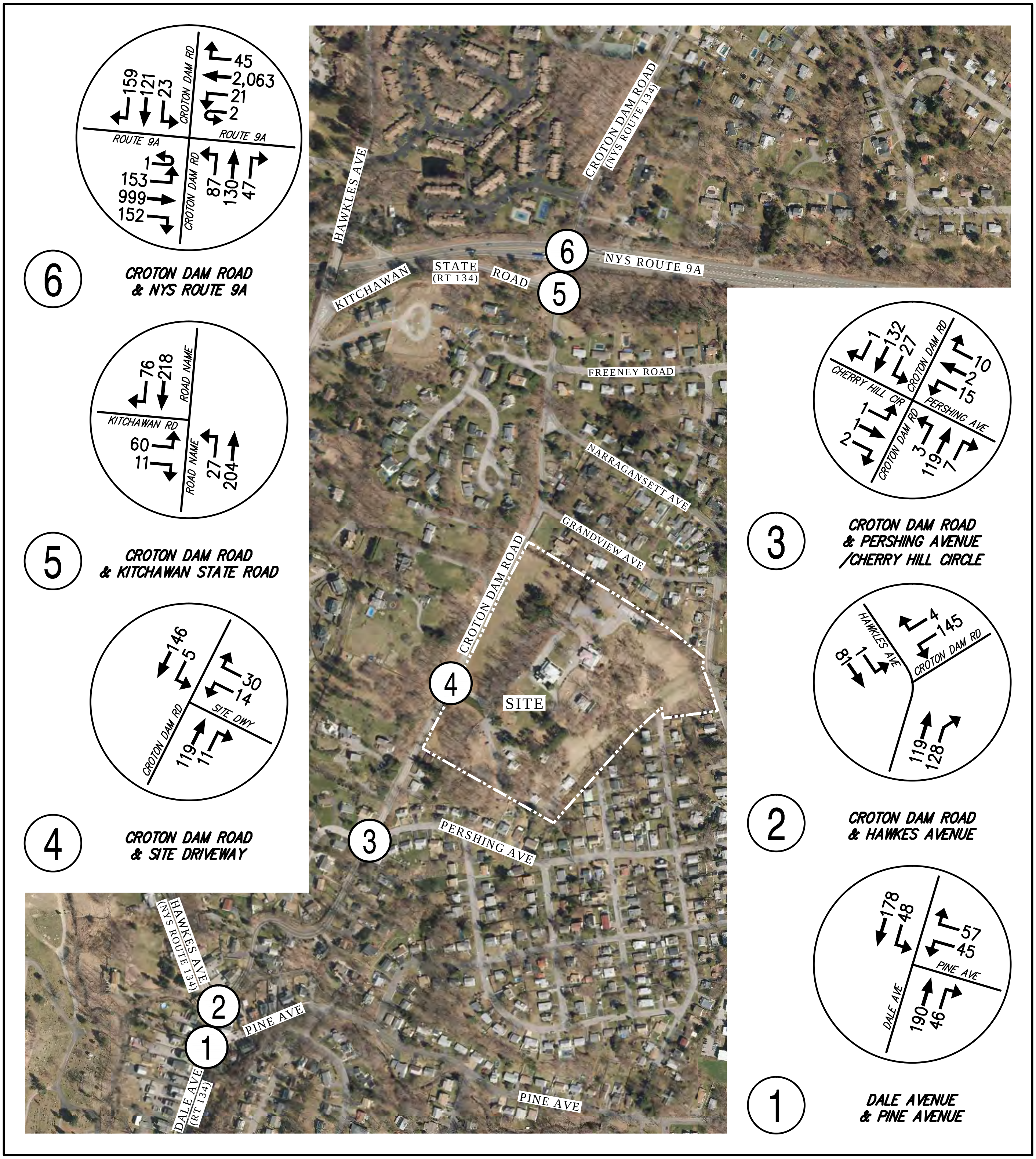
15064-TRAFFIC-FIG.dwg; TRAFFIC-FIGS.tab



RIVER KNOLL

40 CROTON DAM ROAD — TOWN OF OSSINING, NEW YORK

2017 NO BUILD VOLUMES

PEAK WEEKDAY PM HOUR (5:00 - 6:00)

DATE: 11/04/2015 — JMC PROJECT: 15064

FIGURE: 07 — SCALE: 1" = 600'

120 BEDFORD RD
ARMONK
NY 10504

(914) 273-5225
fax 273-2102

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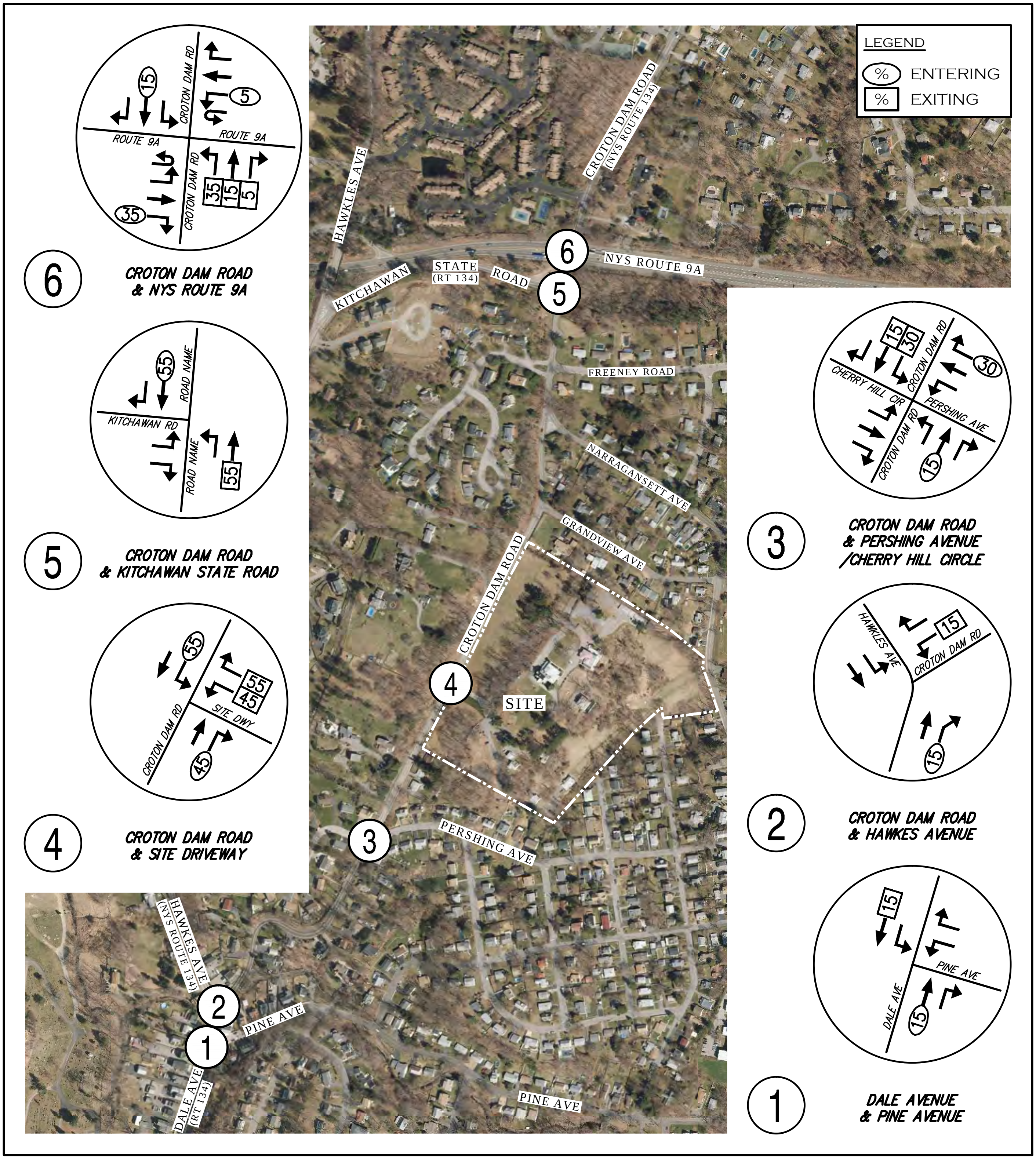
15064–TRAFFIC–FIG.dwg; TRAFFIC–FIGS.tab



RIVER KNOLL

40 CROTON DAM ROAD — TOWN OF OSSINING, NEW YORK

PRIMARY TRIP DISTRIBUTIONS

DATE: 11/04/2015 — JMC PROJECT: 15064

FIGURE: 08 — SCALE: 1" = 600'

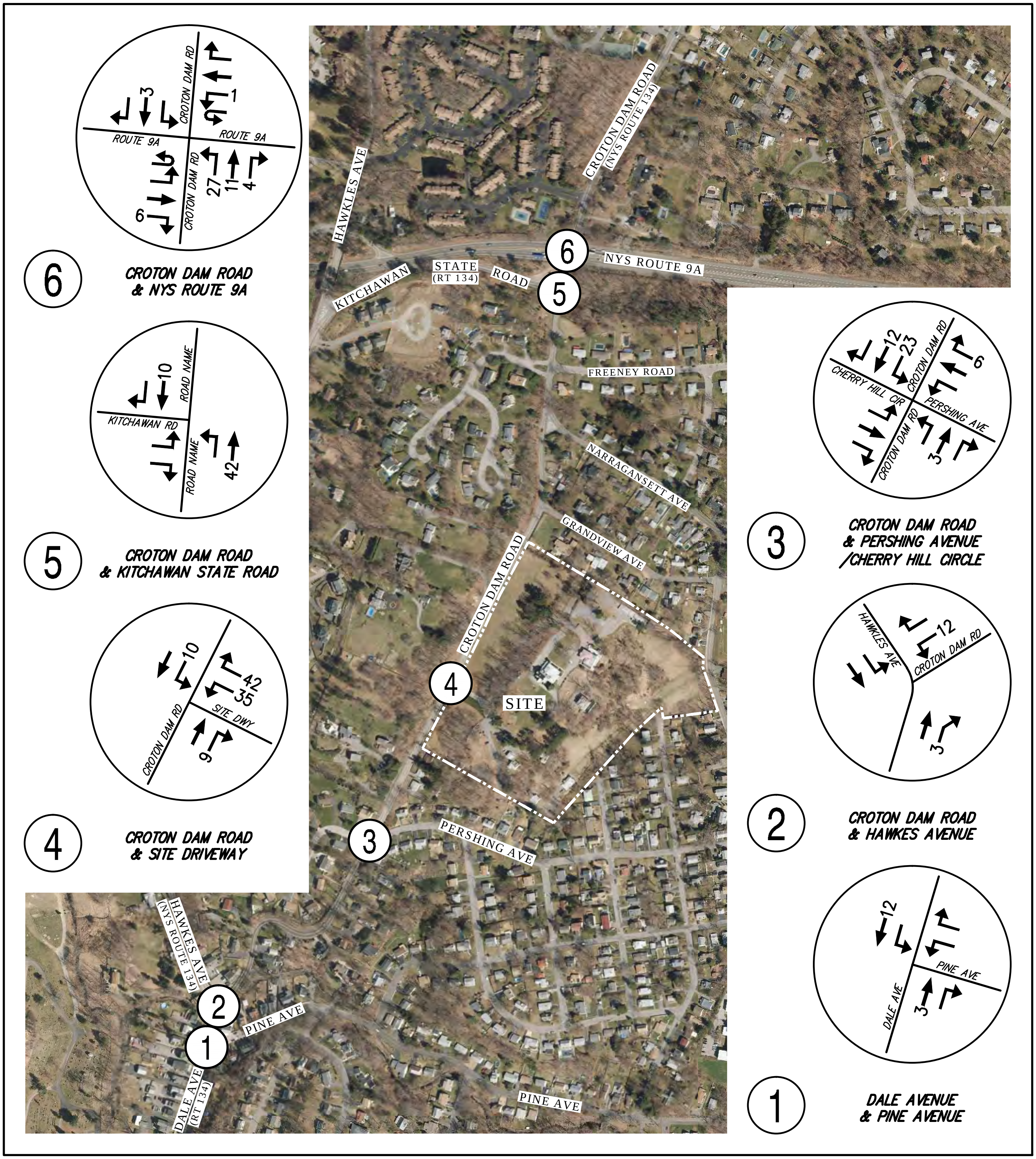
120 BEDFORD RD
ARMONK
NY 10504

(914) 273-5225
fax 273-2102

JMCPLLC.COM

JMC

15064–TRAFFIC–FIG.dwg; TRAFFIC–FIGS.tab



RIVER KNOLL

40 CROTON DAM ROAD TOWN OF OSSINING, NEW YORK

PRIMARY TRIP VOLUMES

PEAK WEEKDAY AM HOUR

DATE: 11/04/2015 JMC PROJECT: 15064

FIGURE: 09 SCALE: 1" = 600'

120 BEDFORD RD
ARMONK
NY 10504

(914) 273-5225
fax 273-2102

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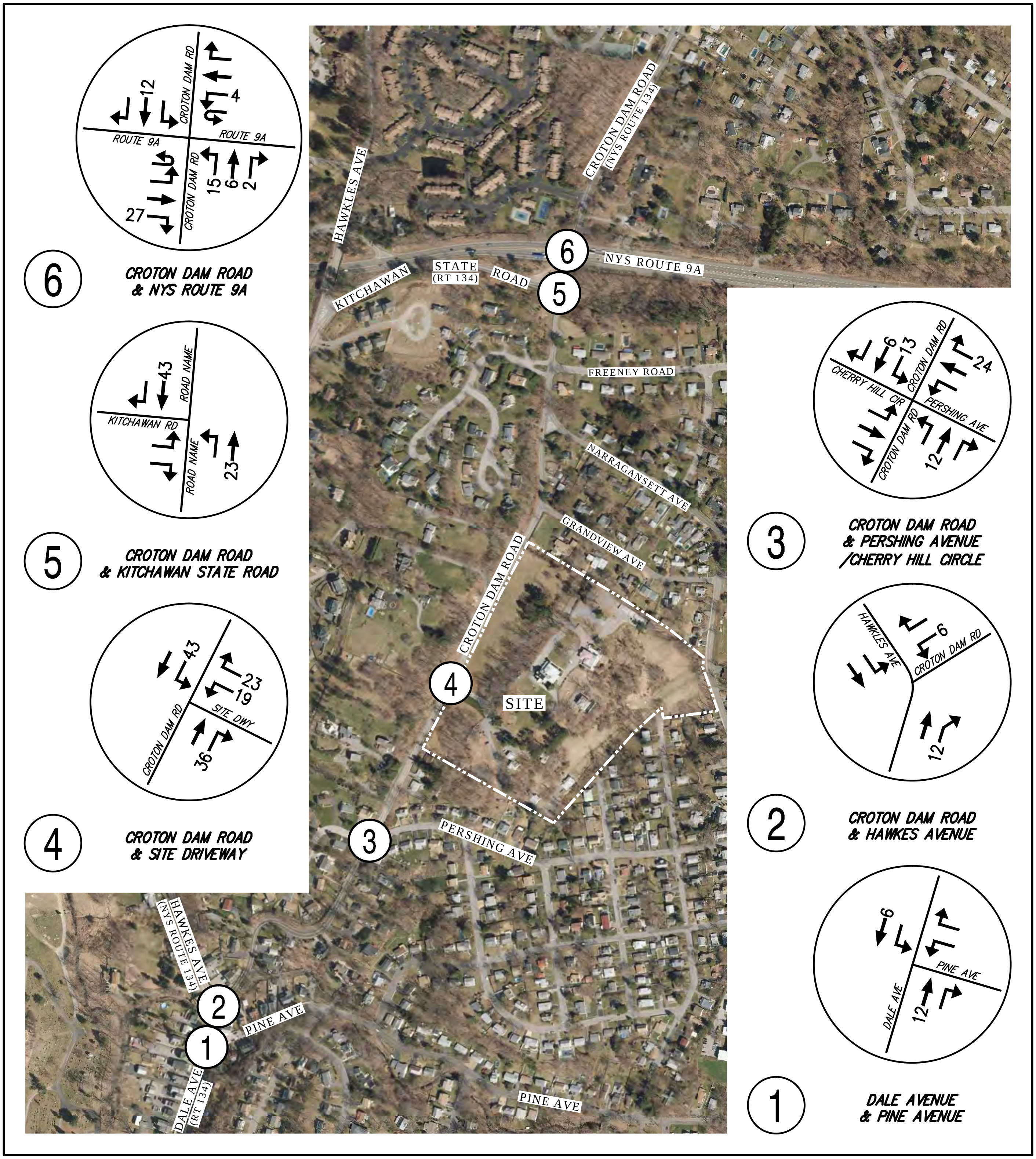
JMC

15064–TRAFFIC–FIG.dwg; TRAFFIC–FIGS.tab



RIVER KNOLL

40 CROTON DAM ROAD — TOWN OF OSSINING, NEW YORK

PRIMARY TRIP VOLUMES

PEAK WEEKDAY PM HOUR

DATE: 11/04/2015 — JMC PROJECT: 15064

FIGURE: 10 — SCALE: 1" = 600'

120 BEDFORD RD
ARMONK
NY 10504

(914) 273-5225
fax 273-2102

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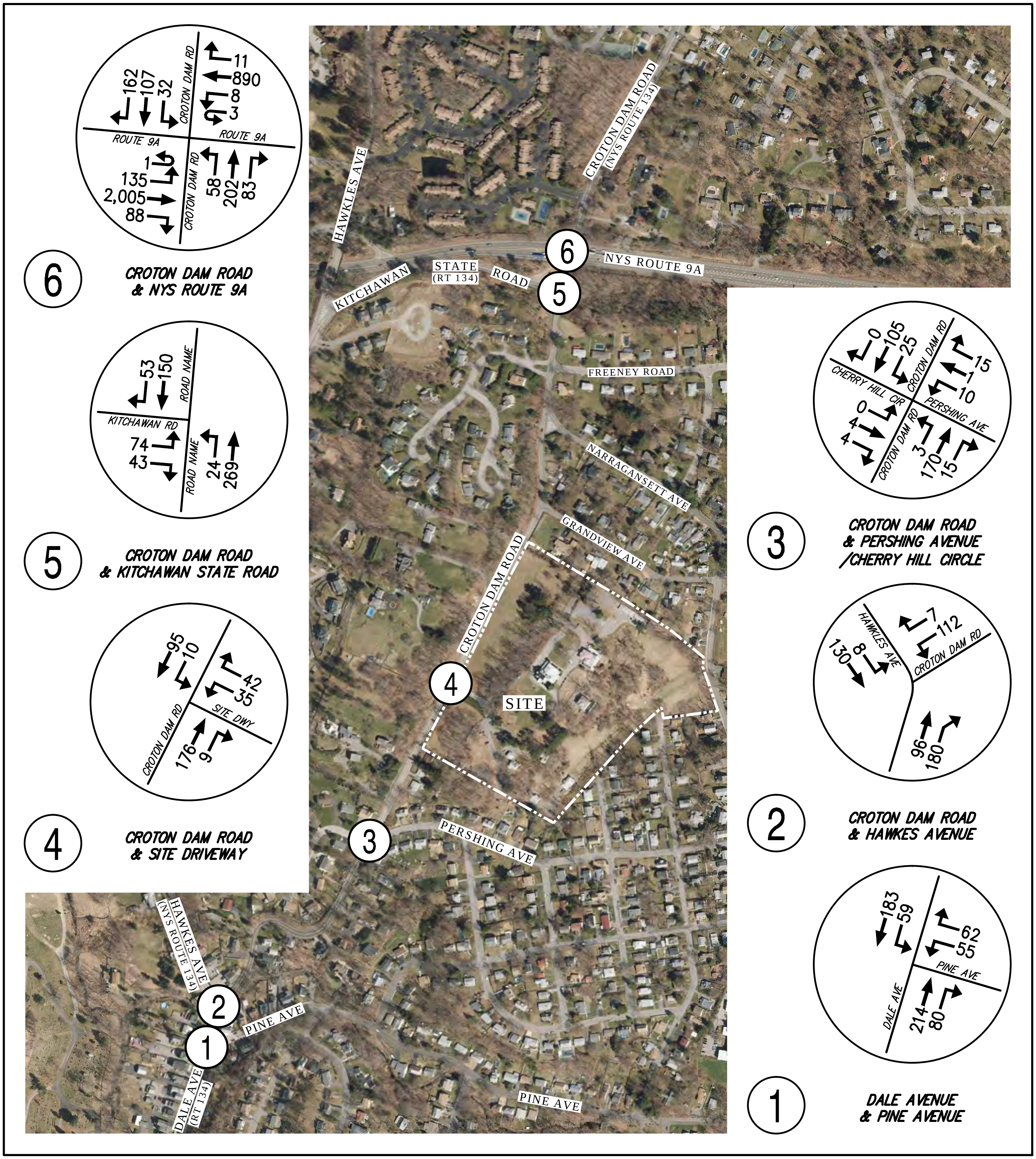

RIVER KNOLL

40 CROTON DAM ROAD — TOWN OF OSSINING, NEW YORK

2017 BUILD VOLUMES

PEAK WEEKDAY AM HOUR (7:15 - 8:15)

DATE: 11/04/2015

JMC PROJECT: 15064

FIGURE: 11

SCALE: 1" = 600'

120 BEDFORD RD
ARMONK
NY 10504

(914) 273-5225
fax 273-2102

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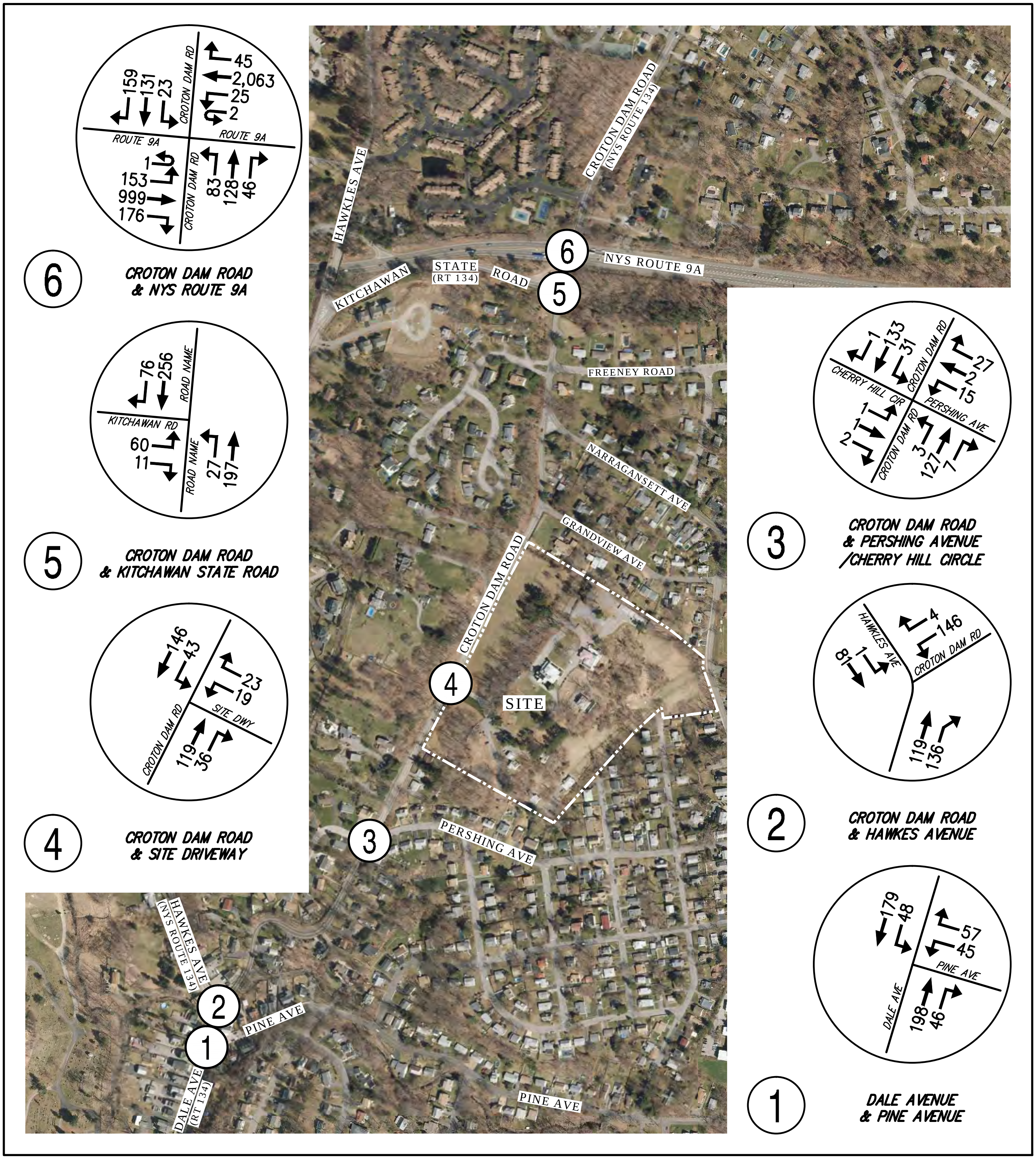
15064–TRAFFIC–FIG.dwg; TRAFFIC–FIGS.tab



RIVER KNOLL

40 CROTON DAM ROAD — TOWN OF OSSINING, NEW YORK

2017 BUILD VOLUMES

PEAK WEEKDAY PM HOUR (5:00 - 6:00)

DATE: 11/04/2015 — JMC PROJECT: 15064

FIGURE: 12 — SCALE: 1" = 600'

120 BEDFORD RD
ARMONK
NY 10504

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JMC

15064-TRAFFIC-FIG.dwg; TRAFFIC-FIGS.tab

APPENDIX C

CAPACITY ANALYSES

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	53	60	202	77	57	164
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	13	10	10	10	10
Grade (%)	-6%		-3%			3%
Storage Length (ft)	0	0		0	0	
Storage Lanes	1	0		0	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.928		0.963			
Flt Protected	0.977					0.987
Satd. Flow (prot)	1604	0	1707	0	0	1509
Flt Permitted	0.977					0.987
Satd. Flow (perm)	1604	0	1707	0	0	1509
Link Speed (mph)	30		30			30
Link Distance (ft)	477		315			163
Travel Time (s)	10.8		7.2			3.7
Confl. Peds. (#/hr)				3	3	
Confl. Bikes (#/hr)						
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	1%	3%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)	5	5				5
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	63	71	240	92	68	195
Shared Lane Traffic (%)						
Lane Group Flow (vph)	134	0	332	0	0	263
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	53	60	202	77	57	164
Conflicting Peds, #/hr	0	0	0	3	3	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	-6	-	-3	-	-	3
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	0	0	1	3	0	0
Mvmt Flow	63	71	240	92	68	195

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	617	289	0	0	332	0
Stage 1	286	-	-	-	-	-
Stage 2	331	-	-	-	-	-
Critical Hdwy	5.2	5.6	-	-	4.1	-
Critical Hdwy Stg 1	4.2	-	-	-	-	-
Critical Hdwy Stg 2	4.2	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	561	792	-	-	1239	-
Stage 1	844	-	-	-	-	-
Stage 2	818	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	525	790	-	-	1236	-
Mov Cap-2 Maneuver	525	-	-	-	-	-
Stage 1	844	-	-	-	-	-
Stage 2	766	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.1	0	2.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	639	1236	-
HCM Lane V/C Ratio	-	-	0.211	0.055	-
HCM Control Delay (s)	-	-	12.1	8.1	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.8	0.2	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	96	7	92	170	8	125
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	10	10	10	10
Grade (%)	-5%		-3%			-5%
Storage Length (ft)	0	0		0	0	
Storage Lanes	1	0		0	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.991		0.912			
Flt Protected	0.955					0.997
Satd. Flow (prot)	1843	0	1636	0	0	1812
Flt Permitted	0.955					0.997
Satd. Flow (perm)	1843	0	1636	0	0	1812
Link Speed (mph)	30		30			30
Link Distance (ft)	231		163			286
Travel Time (s)	5.3		3.7			6.5
Confl. Peds. (#/hr)		1		1	1	
Confl. Bikes (#/hr)						
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	1%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	113	8	108	200	9	147
Shared Lane Traffic (%)						
Lane Group Flow (vph)	121	0	308	0	0	156
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	2.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	96	7	92	170	8	125
Conflicting Peds, #/hr	0	1	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	-5	-	-3	-	-	-5
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	0	0	1	0	0	0
Mvmt Flow	113	8	108	200	9	147

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	375	210	0	0	309	0
Stage 1	209	-	-	-	-	-
Stage 2	166	-	-	-	-	-
Critical Hdwy	5.4	5.7	-	-	4.1	-
Critical Hdwy Stg 1	4.4	-	-	-	-	-
Critical Hdwy Stg 2	4.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	699	860	-	-	1263	-
Stage 1	880	-	-	-	-	-
Stage 2	909	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	692	859	-	-	1262	-
Mov Cap-2 Maneuver	692	-	-	-	-	-
Stage 1	879	-	-	-	-	-
Stage 2	901	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.2	0	0.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	701	1262	-
HCM Lane V/C Ratio	-	-	0.173	0.007	-
HCM Control Delay (s)	-	-	11.2	7.9	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.6	0	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	4	4	10	1	9	3	161	14	2	89	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	15	15	15	13	13	13	11	11	11	11	11	11
Grade (%)		-15%			1%			4%			-4%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.932			0.939			0.989				
Flt Protected					0.976			0.999			0.999	
Satd. Flow (prot)	0	1629	0	0	1498	0	0	1707	0	0	1801	0
Flt Permitted					0.976			0.999			0.999	
Satd. Flow (perm)	0	1629	0	0	1498	0	0	1707	0	0	1801	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		176			414			330			747	
Travel Time (s)		4.0			9.4			7.5			17.0	
Confl. Peds. (#/hr)			2	2					1	1		
Confl. Bikes (#/hr)												
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	25%	0%	0%	100%	0%	0%	4%	7%	0%	4%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)	5	5	5	5	5	5						
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	5	5	11	1	10	3	183	16	2	101	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	10	0	0	22	0	0	202	0	0	103	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	4	4	10	1	9	3	161	14	2	89	0
Conflicting Peds, #/hr	0	0	2	2	0	0	0	0	1	1	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-15	-	-	1	-	-	4	-	-	-4	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	0	25	0	0	100	0	0	4	7	0	4	0
Mvmt Flow	0	5	5	11	1	10	3	183	16	2	101	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	313	316	104	312	308	194	103	0	0	201	0	0
Stage 1	108	108	-	200	200	-	-	-	-	-	-	-
Stage 2	205	208	-	112	108	-	-	-	-	-	-	-
Critical Hdwy	4.1	3.75	4.7	7.3	7.7	6.3	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	3.1	2.75	-	6.3	6.7	-	-	-	-	-	-	-
Critical Hdwy Stg 2	3.1	2.75	-	6.3	6.7	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4.225	3.3	3.5	4.9	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	835	734	999	633	465	848	1502	-	-	1383	-	-
Stage 1	987	835	-	798	578	-	-	-	-	-	-	-
Stage 2	951	819	-	892	646	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	819	728	996	624	461	846	1501	-	-	1382	-	-
Mov Cap-2 Maneuver	819	728	-	624	461	-	-	-	-	-	-	-
Stage 1	983	832	-	795	576	-	-	-	-	-	-	-
Stage 2	935	816	-	881	643	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.3	10.4	0.1	0.2
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1501	-	-	841	694	1382	-	-
HCM Lane V/C Ratio	0.002	-	-	0.011	0.033	0.002	-	-
HCM Control Delay (s)	7.4	0	-	9.3	10.4	7.6	0	-
HCM Lane LOS	A	A	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	0	0	170	0	0	91
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	11	11	11	11
Grade (%)	-5%		7%			-7%
Storage Length (ft)	0	0		0	0	
Storage Lanes	1	0		0	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt						
Flt Protected						
Satd. Flow (prot)	1818	0	1704	0	0	1828
Flt Permitted						
Satd. Flow (perm)	1818	0	1704	0	0	1828
Link Speed (mph)	30		30			30
Link Distance (ft)	188		747			836
Travel Time (s)	4.3		17.0			19.0
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	4%	0%	0%	4%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	0	0	193	0	0	103
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	193	0	0	103
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	0	0	170	0	0	91
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	-5	-	7	-	-	-7
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	0	0	4	0	0	4
Mvmt Flow	0	0	193	0	0	103

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	296	193	0	0	193	0
Stage 1	193	-	-	-	-	-
Stage 2	103	-	-	-	-	-
Critical Hdwy	5.4	5.7	-	-	4.1	-
Critical Hdwy Stg 1	4.4	-	-	-	-	-
Critical Hdwy Stg 2	4.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	759	877	-	-	1392	-
Stage 1	891	-	-	-	-	-
Stage 2	953	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	759	877	-	-	1392	-
Mov Cap-2 Maneuver	759	-	-	-	-	-
Stage 1	891	-	-	-	-	-
Stage 2	953	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1392	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	-	-	0	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	71	41	23	218	135	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	12	12
Grade (%)	-2%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.950				0.963	
Flt Protected	0.969			0.995		
Satd. Flow (prot)	1635	0	0	1788	1741	0
Flt Permitted	0.969			0.995		
Satd. Flow (perm)	1635	0	0	1788	1741	0
Link Speed (mph)	35			30	30	
Link Distance (ft)	990			933	161	
Travel Time (s)	19.3			21.2	3.7	
Confl. Peds. (#/hr)	1		1			1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	7%	4%	2%	4%	8%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	77	45	25	237	147	55
Shared Lane Traffic (%)						
Lane Group Flow (vph)	122	0	0	262	202	0
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	71	41	23	218	135	51
Conflicting Peds, #/hr	1	0	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-2	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	7	4	2	4	8
Mvmt Flow	77	45	25	237	147	55

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	462	176	203	0	-	0
Stage 1	175	-	-	-	-	-
Stage 2	287	-	-	-	-	-
Critical Hdwy	6.03	6.07	4.14	-	-	-
Critical Hdwy Stg 1	5.03	-	-	-	-	-
Critical Hdwy Stg 2	5.03	-	-	-	-	-
Follow-up Hdwy	3.527	3.363	2.236	-	-	-
Pot Cap-1 Maneuver	585	863	1357	-	-	-
Stage 1	870	-	-	-	-	-
Stage 2	784	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	572	862	1356	-	-	-
Mov Cap-2 Maneuver	572	-	-	-	-	-
Stage 1	869	-	-	-	-	-
Stage 2	767	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.8	0.7	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1356	-	652	-	-
HCM Lane V/C Ratio	0.018	-	0.187	-	-
HCM Control Delay (s)	7.7	0	11.8	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.7	-	-

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Volume (vph)	1	130	1927	79	3	7	855	11	30	183	76	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	11	11	12	11	11	11	13	13	13	11
Grade (%)			-2%				1%			0%		
Storage Length (ft)		110		190		150		0	0		0	0
Storage Lanes		1		1		1		0	0		0	0
Taper Length (ft)		25				25			25			25
Lane Util. Factor	0.95	1.00	*1.00	1.00	0.95	1.00	*1.00	0.95	1.00	1.00	1.00	1.00
Ped Bike Factor										1.00		
Frt				0.850			0.998			0.964		
Flt Protected		0.950				0.950				0.995		
Satd. Flow (prot)	0	1538	3567	1460	0	1334	3408	0	0	1843	0	0
Flt Permitted		0.950				0.950				0.791		
Satd. Flow (perm)	0	1538	3567	1460	0	1334	3408	0	0	1465	0	0
Right Turn on Red				No				Yes			No	
Satd. Flow (RTOR)							1					
Link Speed (mph)			40				40			30		
Link Distance (ft)			1697				1673			161		
Travel Time (s)			28.9				28.5			3.7		
Confl. Peds. (#/hr)									1			
Confl. Bikes (#/hr)												
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	100%	14%	4%	8%	0%	43%	7%	9%	0%	3%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)			0%				0%			0%		
Adj. Flow (vph)	1	138	2050	84	3	7	910	12	32	195	81	33
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	139	2050	84	0	10	922	0	0	308	0	0
Turn Type	Prot	Prot	NA	Perm	Prot	Prot	NA		Perm	NA		Perm
Protected Phases	5	5	2		1	1	6			8		
Permitted Phases				2					8			4
Detector Phase	5	5	2	2	1	1	6		8	8		4
Switch Phase												
Minimum Initial (s)	3.0	3.0	10.0	10.0	3.0	3.0	10.0		5.0	5.0		5.0
Minimum Split (s)	10.0	10.0	17.0	17.0	10.0	10.0	17.0		11.0	11.0		11.0
Total Split (s)	27.0	27.0	92.0	92.0	27.0	27.0	92.0		31.0	31.0		31.0
Total Split (%)	18.0%	18.0%	61.3%	61.3%	18.0%	18.0%	61.3%		20.7%	20.7%		20.7%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0		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	2.0		2.0
Lost Time Adjust (s)		0.0	0.0	0.0		0.0	0.0			0.0		
Total Lost Time (s)		7.0	7.0	7.0		7.0	7.0			6.0		
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	None	Min	Min	None	None	Min		None	None		None

Intersection Summary

Lane Group	SBT	SBR
Lane Configurations		
Volume (vph)	100	156
Ideal Flow (vphpl)	1900	1900
Lane Width (ft)	11	11
Grade (%)	-4%	
Storage Length (ft)		0
Storage Lanes		0
Taper Length (ft)		
Lane Util. Factor	1.00	1.00
Ped Bike Factor	0.99	
Frt	0.927	
Flt Protected	0.995	
Satd. Flow (prot)	1673	0
Flt Permitted	0.776	
Satd. Flow (perm)	1305	0
Right Turn on Red		No
Satd. Flow (RTOR)		
Link Speed (mph)	30	
Link Distance (ft)	419	
Travel Time (s)	9.5	
Confl. Peds. (#/hr)		1
Confl. Bikes (#/hr)		
Peak Hour Factor	0.94	0.94
Growth Factor	100%	100%
Heavy Vehicles (%)	1%	4%
Bus Blockages (#/hr)	0	0
Parking (#/hr)		
Mid-Block Traffic (%)	0%	
Adj. Flow (vph)	106	166
Shared Lane Traffic (%)		
Lane Group Flow (vph)	305	0
Turn Type	NA	
Protected Phases	4	
Permitted Phases		
Detector Phase	4	
Switch Phase		
Minimum Initial (s)	5.0	
Minimum Split (s)	11.0	
Total Split (s)	31.0	
Total Split (%)	20.7%	
Yellow Time (s)	4.0	
All-Red Time (s)	2.0	
Lost Time Adjust (s)	0.0	
Total Lost Time (s)	6.0	
Lead/Lag		
Lead-Lag Optimize?		
Recall Mode	None	

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 126.1
Natural Cycle: 100
Control Type: Actuated-Uncoordinated
* User Entered Value

Splits and Phases: 6: Croton Dam Rd & NYS Route 9A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Volume (veh/h)	1	130	1927	79	3	7	855	11	30	183	76	31
Number		5	2	12		1	6	16	3	8	18	7
Initial Q (Qb), veh		0	0	0		0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00		1.00		1.00		1.00	1.00		1.00	1.00
Parking Bus, Adj		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln		1674	1845	1777		1453	1766	1890	1976	1934	1976	1938
Adj Flow Rate, veh/h		138	2050	84		7	910	12	32	195	81	33
Adj No. of Lanes		1	2	1		1	2	0	0	1	0	0
Peak Hour Factor		0.94	0.94	0.94		0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %		14	4	8		43	7	7	3	3	3	1
Cap, veh/h		163	2360	966		7	1887	25	52	212	83	53
Arrive On Green		0.10	0.64	0.64		0.01	0.54	0.54	0.20	0.20	0.20	0.20
Sat Flow, veh/h		1595	3690	1510		1384	3479	46	106	1075	421	109
Grp Volume(v), veh/h		138	2050	84		7	462	460	308	0	0	305
Grp Sat Flow(s),veh/h/ln		1595	1845	1510		1384	1766	1758	1602	0	0	1541
Q Serve(g_s), s		10.8	57.1	2.7		0.6	20.5	20.5	0.0	0.0	0.0	0.9
Cycle Q Clear(g_c), s		10.8	57.1	2.7		0.6	20.5	20.5	24.1	0.0	0.0	25.0
Prop In Lane		1.00		1.00		1.00		0.03	0.10		0.26	0.11
Lane Grp Cap(c), veh/h		163	2360	966		7	958	954	348	0	0	336
V/C Ratio(X)		0.85	0.87	0.09		0.98	0.48	0.48	0.89	0.00	0.00	0.91
Avail Cap(c_a), veh/h		252	2476	1013		218	1185	1180	348	0	0	336
HCM Platoon Ratio		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	1.00		1.00	1.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh		55.9	18.5	8.7		63.0	18.0	18.0	49.9	0.0	0.0	50.5
Incr Delay (d2), s/veh		14.6	3.5	0.0		149.9	0.4	0.4	22.9	0.0	0.0	27.4
Initial Q Delay(d3),s/veh		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		5.4	29.9	1.1		0.5	10.1	10.1	12.9	0.0	0.0	13.1
LnGrp Delay(d),s/veh		70.4	22.0	8.7		212.9	18.3	18.3	72.8	0.0	0.0	77.9
LnGrp LOS		E	C	A		F	B	B	E			E
Approach Vol, veh/h			2272				929			308		
Approach Delay, s/veh			24.4				19.8			72.8		
Approach LOS			C				B			E		

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.7	88.0		31.0	20.0	75.7		31.0
Change Period (Y+Rc), s	7.0	7.0		6.0	7.0	7.0		6.0
Max Green Setting (Gmax), s	20.0	85.0		25.0	20.0	85.0		25.0
Max Q Clear Time (g_c+I1), s	2.6	59.1		27.0	12.8	22.5		26.1
Green Ext Time (p_c), s	0.0	22.0		0.0	0.3	43.6		0.0

Intersection Summary		
HCM 2010 Ctrl Delay		31.5
HCM 2010 LOS		C

Notes

User approved ignoring U-Turning movement.

Movement	SBT	SBR
Lane Configurations	✣	
Volume (veh/h)	100	156
Number	4	14
Initial Q (Qb), veh	0	0
Ped-Bike Adj(A_pbT)		1.00
Parking Bus, Adj	1.00	1.00
Adj Sat Flow, veh/h/ln	1890	1938
Adj Flow Rate, veh/h	106	166
Adj No. of Lanes	1	0
Peak Hour Factor	0.94	0.94
Percent Heavy Veh, %	1	1
Cap, veh/h	117	166
Arrive On Green	0.20	0.20
Sat Flow, veh/h	593	839
Grp Volume(v), veh/h	0	0
Grp Sat Flow(s),veh/h/ln	0	0
Q Serve(g_s), s	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0
Prop In Lane		0.54
Lane Grp Cap(c), veh/h	0	0
V/C Ratio(X)	0.00	0.00
Avail Cap(c_a), veh/h	0	0
HCM Platoon Ratio	1.00	1.00
Upstream Filter(I)	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0
LnGrp Delay(d),s/veh	0.0	0.0
LnGrp LOS		
Approach Vol, veh/h	305	
Approach Delay, s/veh	77.9	
Approach LOS	E	

Timer

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	43	55	179	44	46	166
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	13	10	10	10	10
Grade (%)	-6%		-3%			3%
Storage Length (ft)	0	0		0	0	
Storage Lanes	1	0		0	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.924		0.973			
Flt Protected	0.978					0.989
Satd. Flow (prot)	1599	0	1751	0	0	1512
Flt Permitted	0.978					0.989
Satd. Flow (perm)	1599	0	1751	0	0	1512
Link Speed (mph)	30		30			30
Link Distance (ft)	477		315			163
Travel Time (s)	10.8		7.2			3.7
Confl. Peds. (#/hr)				5	5	
Confl. Bikes (#/hr)						
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)	5	5				5
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	48	61	199	49	51	184
Shared Lane Traffic (%)						
Lane Group Flow (vph)	109	0	248	0	0	235
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	2.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	43	55	179	44	46	166
Conflicting Peds, #/hr	0	0	0	5	5	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	-6	-	-3	-	-	3
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	48	61	199	49	51	184

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	510	228	0	0	248	0
Stage 1	223	-	-	-	-	-
Stage 2	287	-	-	-	-	-
Critical Hdwy	5.2	5.6	-	-	4.1	-
Critical Hdwy Stg 1	4.2	-	-	-	-	-
Critical Hdwy Stg 2	4.2	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	625	848	-	-	1330	-
Stage 1	882	-	-	-	-	-
Stage 2	843	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	596	845	-	-	1325	-
Mov Cap-2 Maneuver	596	-	-	-	-	-
Stage 1	882	-	-	-	-	-
Stage 2	804	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.9	0	1.7
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	714	1325	-
HCM Lane V/C Ratio	-	-	0.153	0.039	-
HCM Control Delay (s)	-	-	10.9	7.8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.5	0.1	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	134	4	114	120	1	78
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	10	10	10	10
Grade (%)	-5%		-3%			-5%
Storage Length (ft)	0	0		0	0	
Storage Lanes	1	0		0	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.996		0.931			
Flt Protected	0.954					0.999
Satd. Flow (prot)	1850	0	1676	0	0	1816
Flt Permitted	0.954					0.999
Satd. Flow (perm)	1850	0	1676	0	0	1816
Link Speed (mph)	30		30			30
Link Distance (ft)	231		163			286
Travel Time (s)	5.3		3.7			6.5
Confl. Peds. (#/hr)				1	1	
Confl. Bikes (#/hr)						
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	143	4	121	128	1	83
Shared Lane Traffic (%)						
Lane Group Flow (vph)	147	0	249	0	0	84
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	3.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	134	4	114	120	1	78
Conflicting Peds, #/hr	0	0	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	-5	-	-3	-	-	-5
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	143	4	121	128	1	83

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	270	186	0	0	249	0
Stage 1	185	-	-	-	-	-
Stage 2	85	-	-	-	-	-
Critical Hdwy	5.4	5.7	-	-	4.1	-
Critical Hdwy Stg 1	4.4	-	-	-	-	-
Critical Hdwy Stg 2	4.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	780	884	-	-	1328	-
Stage 1	896	-	-	-	-	-
Stage 2	966	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	779	883	-	-	1327	-
Mov Cap-2 Maneuver	779	-	-	-	-	-
Stage 1	896	-	-	-	-	-
Stage 2	964	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.7	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	782	1327	-
HCM Lane V/C Ratio	-	-	0.188	0.001	-
HCM Control Delay (s)	-	-	10.7	7.7	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.7	0	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	1	1	2	14	2	3	3	111	7	17	122	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	15	15	15	13	13	13	11	11	11	11	11	11
Grade (%)		-15%			1%			4%			-4%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.919			0.978			0.992			0.999	
Flt Protected		0.990			0.965			0.999			0.994	
Satd. Flow (prot)	0	1789	0	0	1613	0	0	1784	0	0	1815	0
Flt Permitted		0.990			0.965			0.999			0.994	
Satd. Flow (perm)	0	1789	0	0	1613	0	0	1784	0	0	1815	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		176			414			330			747	
Travel Time (s)		4.0			9.4			7.5			17.0	
Confl. Peds. (#/hr)			1	1					1	1		
Confl. Bikes (#/hr)												
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	6%	2%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)	5	5	5	5	5	5						
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	1	1	3	18	3	4	4	141	9	22	154	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	5	0	0	25	0	0	154	0	0	177	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	1	1	2	14	2	3	3	111	7	17	122	1
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	1	1	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-15	-	-	1	-	-	4	-	-	-4	-
Peak Hour Factor	79	79	79	79	79	79	79	79	79	79	79	79
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	6	2	0
Mvmt Flow	1	1	3	18	3	4	4	141	9	22	154	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	356	357	157	355	354	147	157	0	0	150	0	0
Stage 1	199	199	-	154	154	-	-	-	-	-	-	-
Stage 2	157	158	-	201	200	-	-	-	-	-	-	-
Critical Hdwy	4.1	3.5	4.7	7.3	6.7	6.3	4.1	-	-	4.16	-	-
Critical Hdwy Stg 1	3.1	2.5	-	6.3	5.7	-	-	-	-	-	-	-
Critical Hdwy Stg 2	3.1	2.5	-	6.3	5.7	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.254	-	-
Pot Cap-1 Maneuver	811	771	954	592	563	902	1435	-	-	1407	-	-
Stage 1	953	874	-	846	767	-	-	-	-	-	-	-
Stage 2	969	879	-	797	731	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	791	754	952	580	551	900	1434	-	-	1406	-	-
Mov Cap-2 Maneuver	791	754	-	580	551	-	-	-	-	-	-	-
Stage 1	949	858	-	843	764	-	-	-	-	-	-	-
Stage 2	958	876	-	780	718	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.2	11.1	0.2	0.9
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1434	-	-	853	611	1406	-	-
HCM Lane V/C Ratio	0.003	-	-	0.006	0.039	0.015	-	-
HCM Control Delay (s)	7.5	0	-	9.2	11.1	7.6	0	-
HCM Lane LOS	A	A	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	0	0	115	0	0	140
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	11	11	11	11
Grade (%)	-5%		7%			-7%
Storage Length (ft)	0	0		0	0	
Storage Lanes	1	0		0	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt						
Flt Protected						
Satd. Flow (prot)	1818	0	1772	0	0	1864
Flt Permitted						
Satd. Flow (perm)	1818	0	1772	0	0	1864
Link Speed (mph)	30		30			30
Link Distance (ft)	188		747			836
Travel Time (s)	4.3		17.0			19.0
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	0%	0%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	0	0	146	0	0	177
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	146	0	0	177
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection						
Int Delay, s/veh	0					

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	0	0	115	0	0	140
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	-5	-	7	-	-	-7
Peak Hour Factor	79	79	79	79	79	79
Heavy Vehicles, %	0	0	0	0	0	2
Mvmt Flow	0	0	146	0	0	177

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	323	146	0	0	146	0
Stage 1	146	-	-	-	-	-
Stage 2	177	-	-	-	-	-
Critical Hdwy	5.4	5.7	-	-	4.1	-
Critical Hdwy Stg 1	4.4	-	-	-	-	-
Critical Hdwy Stg 2	4.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	738	925	-	-	1448	-
Stage 1	923	-	-	-	-	-
Stage 2	902	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	738	925	-	-	1448	-
Mov Cap-2 Maneuver	738	-	-	-	-	-
Stage 1	923	-	-	-	-	-
Stage 2	902	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1448	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	-	-	0	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	58	11	26	166	204	73
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	12	12
Grade (%)	-2%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.978				0.965	
Flt Protected	0.960			0.993		
Satd. Flow (prot)	1713	0	0	1793	1801	0
Flt Permitted	0.960			0.993		
Satd. Flow (perm)	1713	0	0	1793	1801	0
Link Speed (mph)	35			30	30	
Link Distance (ft)	990			933	161	
Travel Time (s)	19.3			21.2	3.7	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	0%	0%	2%	1%	4%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	63	12	28	180	222	79
Shared Lane Traffic (%)						
Lane Group Flow (vph)	75	0	0	208	301	0
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	58	11	26	166	204	73
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-2	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	0	0	2	1	4
Mvmt Flow	63	12	28	180	222	79

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	498	261	301	0	-	0
Stage 1	261	-	-	-	-	-
Stage 2	237	-	-	-	-	-
Critical Hdwy	6.02	6	4.1	-	-	-
Critical Hdwy Stg 1	5.02	-	-	-	-	-
Critical Hdwy Stg 2	5.02	-	-	-	-	-
Follow-up Hdwy	3.518	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	562	794	1272	-	-	-
Stage 1	806	-	-	-	-	-
Stage 2	824	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	549	794	1272	-	-	-
Mov Cap-2 Maneuver	549	-	-	-	-	-
Stage 1	806	-	-	-	-	-
Stage 2	804	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.2	1.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1272	-	577	-	-
HCM Lane V/C Ratio	0.022	-	0.13	-	-
HCM Control Delay (s)	7.9	0	12.2	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.4	-	-

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Volume (vph)	1	147	960	143	2	20	1983	43	65	117	42	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	11	11	12	11	11	11	13	13	13	11
Grade (%)			-2%				1%			0%		
Storage Length (ft)		110		190		150		0	0		0	0
Storage Lanes		1		1		1		0	0		0	0
Taper Length (ft)		25				25			25			25
Lane Util. Factor	0.95	1.00	*1.00	1.00	0.95	1.00	*1.00	0.95	1.00	1.00	1.00	1.00
Ped Bike Factor										1.00		
Frt				0.850			0.997			0.975		
Flt Protected		0.950				0.950				0.986		
Satd. Flow (prot)	0	1762	3602	1546	0	1660	3570	0	0	1838	0	0
Flt Permitted		0.950				0.950				0.377		
Satd. Flow (perm)	0	1762	3602	1546	0	1660	3570	0	0	703	0	0
Right Turn on Red				No				Yes			No	
Satd. Flow (RTOR)							2					
Link Speed (mph)			40				40			30		
Link Distance (ft)			1697				1673			161		
Travel Time (s)			28.9				28.5			3.7		
Confl. Peds. (#/hr)									1			
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	3%	2%	0%	5%	2%	5%	6%	0%	5%	9%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)			0%				0%			0%		
Adj. Flow (vph)	1	158	1032	154	2	22	2132	46	70	126	45	24
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	159	1032	154	0	24	2178	0	0	241	0	0
Turn Type	Prot	Prot	NA	Perm	Prot	Prot	NA		Perm	NA		Perm
Protected Phases	5	5	2		1	1	6			8		
Permitted Phases				2					8			4
Detector Phase	5	5	2	2	1	1	6		8	8		4
Switch Phase												
Minimum Initial (s)	3.0	3.0	10.0	10.0	3.0	3.0	10.0		5.0	5.0		5.0
Minimum Split (s)	10.0	10.0	17.0	17.0	10.0	10.0	17.0		11.0	11.0		11.0
Total Split (s)	27.0	27.0	92.0	92.0	27.0	27.0	92.0		31.0	31.0		31.0
Total Split (%)	18.0%	18.0%	61.3%	61.3%	18.0%	18.0%	61.3%		20.7%	20.7%		20.7%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0		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	2.0		2.0
Lost Time Adjust (s)		0.0	0.0	0.0		0.0	0.0			0.0		
Total Lost Time (s)		7.0	7.0	7.0		7.0	7.0			6.0		
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	None	Min	Min	None	None	Min		None	None		None

Intersection Summary

Lane Group	SBT	SBR
Lane Configurations		
Volume (vph)	114	153
Ideal Flow (vphpl)	1900	1900
Lane Width (ft)	11	11
Grade (%)	-4%	
Storage Length (ft)		0
Storage Lanes		0
Taper Length (ft)		
Lane Util. Factor	1.00	1.00
Ped Bike Factor	0.99	
Frt	0.929	
Flt Protected	0.996	
Satd. Flow (prot)	1676	0
Flt Permitted	0.911	
Satd. Flow (perm)	1533	0
Right Turn on Red		No
Satd. Flow (RTOR)		
Link Speed (mph)	30	
Link Distance (ft)	419	
Travel Time (s)	9.5	
Confl. Peds. (#/hr)		1
Confl. Bikes (#/hr)		
Peak Hour Factor	0.93	0.93
Growth Factor	100%	100%
Heavy Vehicles (%)	1%	3%
Bus Blockages (#/hr)	0	0
Parking (#/hr)		
Mid-Block Traffic (%)	0%	
Adj. Flow (vph)	123	165
Shared Lane Traffic (%)		
Lane Group Flow (vph)	312	0
Turn Type	NA	
Protected Phases	4	
Permitted Phases		
Detector Phase	4	
Switch Phase		
Minimum Initial (s)	5.0	
Minimum Split (s)	11.0	
Total Split (s)	31.0	
Total Split (%)	20.7%	
Yellow Time (s)	4.0	
All-Red Time (s)	2.0	
Lost Time Adjust (s)	0.0	
Total Lost Time (s)	6.0	
Lead/Lag		
Lead-Lag Optimize?		
Recall Mode	None	

Intersection Summary

Area Type:	Other
Cycle Length: 150	
Actuated Cycle Length: 147.3	
Natural Cycle: 150	
Control Type: Actuated-Uncoordinated	
* User Entered Value	

Splits and Phases: 6: Croton Dam Rd & NYS Route 9A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Volume (veh/h)	1	147	960	143	2	20	1983	43	65	117	42	22
Number		5	2	12		1	6	16	3	8	18	7
Initial Q (Qb), veh		0	0	0		0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00		1.00		1.00		1.00	1.00		1.00	1.00
Parking Bus, Adj		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln		1919	1863	1881		1808	1852	1890	1976	1924	1976	1938
Adj Flow Rate, veh/h		158	1032	154		22	2132	46	70	126	45	24
Adj No. of Lanes		1	2	1		1	2	0	0	1	0	0
Peak Hour Factor		0.93	0.93	0.93		0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %		0	3	2		5	2	2	0	0	0	1
Cap, veh/h		184	2508	1076		27	2124	46	71	100	32	41
Arrive On Green		0.10	0.67	0.67		0.02	0.59	0.59	0.17	0.17	0.17	0.17
Sat Flow, veh/h		1828	3726	1599		1722	3613	78	227	580	185	83
Grp Volume(v), veh/h		158	1032	154		22	1089	1089	241	0	0	312
Grp Sat Flow(s),veh/h/ln		1828	1863	1599		1722	1852	1839	993	0	0	1688
Q Serve(g_s), s		12.3	18.1	5.0		1.8	85.0	85.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s		12.3	18.1	5.0		1.8	85.0	85.0	25.0	0.0	0.0	25.0
Prop In Lane		1.00		1.00		1.00		0.04	0.29		0.19	0.08
Lane Grp Cap(c), veh/h		184	2508	1076		27	1089	1081	204	0	0	319
V/C Ratio(X)		0.86	0.41	0.14		0.81	1.00	1.01	1.18	0.00	0.00	0.98
Avail Cap(c_a), veh/h		253	2508	1076		238	1089	1081	204	0	0	319
HCM Platoon Ratio		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	1.00		1.00	1.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh		64.0	10.7	8.6		70.9	29.8	29.8	60.7	0.0	0.0	60.5
Incr Delay (d2), s/veh		18.8	0.1	0.1		41.7	27.3	29.2	121.0	0.0	0.0	44.5
Initial Q Delay(d3),s/veh		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		7.2	9.4	2.2		1.2	51.5	51.7	14.9	0.0	0.0	16.3
LnGrp Delay(d),s/veh		82.8	10.8	8.6		112.6	57.0	59.0	181.7	0.0	0.0	105.0
LnGrp LOS		F	B	A		F	E	F	F			F
Approach Vol, veh/h			1344				2200			241		
Approach Delay, s/veh			19.0				58.5			181.7		
Approach LOS			B				E			F		

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.3	104.3		31.0	21.6	92.0		31.0
Change Period (Y+Rc), s	7.0	7.0		6.0	7.0	7.0		6.0
Max Green Setting (Gmax), s	20.0	85.0		25.0	20.0	85.0		25.0
Max Q Clear Time (g_c+I1), s	3.8	20.1		27.0	14.3	87.0		27.0
Green Ext Time (p_c), s	0.0	50.9		0.0	0.3	0.0		0.0

Intersection Summary		
HCM 2010 Ctrl Delay		56.4
HCM 2010 LOS		E

Notes

User approved ignoring U-Turning movement.

Movement	SBT	SBR
Lane Configurations		
Volume (veh/h)	114	153
Number	4	14
Initial Q (Qb), veh	0	0
Ped-Bike Adj(A_pbT)		1.00
Parking Bus, Adj	1.00	1.00
Adj Sat Flow, veh/h/ln	1888	1938
Adj Flow Rate, veh/h	123	165
Adj No. of Lanes	1	0
Peak Hour Factor	0.93	0.93
Percent Heavy Veh, %	1	1
Cap, veh/h	123	154
Arrive On Green	0.17	0.17
Sat Flow, veh/h	712	893
Grp Volume(v), veh/h	0	0
Grp Sat Flow(s),veh/h/ln	0	0
Q Serve(g_s), s	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0
Prop In Lane		0.53
Lane Grp Cap(c), veh/h	0	0
V/C Ratio(X)	0.00	0.00
Avail Cap(c_a), veh/h	0	0
HCM Platoon Ratio	1.00	1.00
Upstream Filter(I)	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0
LnGrp Delay(d),s/veh	0.0	0.0
LnGrp LOS		
Approach Vol, veh/h	312	
Approach Delay, s/veh	105.0	
Approach LOS	F	

Timer

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	55	62	214	80	59	174
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	13	10	10	10	10
Grade (%)	-6%		-3%			3%
Storage Length (ft)	0	0		0	0	
Storage Lanes	1	0		0	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.928		0.963			
Flt Protected	0.977					0.988
Satd. Flow (prot)	1604	0	1707	0	0	1510
Flt Permitted	0.977					0.988
Satd. Flow (perm)	1604	0	1707	0	0	1510
Link Speed (mph)	30		30			30
Link Distance (ft)	477		315			163
Travel Time (s)	10.8		7.2			3.7
Confl. Peds. (#/hr)				3	3	
Confl. Bikes (#/hr)						
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	1%	3%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)	5	5				5
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	65	74	255	95	70	207
Shared Lane Traffic (%)						
Lane Group Flow (vph)	139	0	350	0	0	277
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	55	62	214	80	59	174
Conflicting Peds, #/hr	0	0	0	3	3	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	-6	-	-3	-	-	3
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	0	0	1	3	0	0
Mvmt Flow	65	74	255	95	70	207

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	650	305	0	0	350	0
Stage 1	302	-	-	-	-	-
Stage 2	348	-	-	-	-	-
Critical Hdwy	5.2	5.6	-	-	4.1	-
Critical Hdwy Stg 1	4.2	-	-	-	-	-
Critical Hdwy Stg 2	4.2	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	543	778	-	-	1220	-
Stage 1	834	-	-	-	-	-
Stage 2	808	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	507	776	-	-	1217	-
Mov Cap-2 Maneuver	507	-	-	-	-	-
Stage 1	834	-	-	-	-	-
Stage 2	754	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.5	0	2.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	621	1217	-
HCM Lane V/C Ratio	-	-	0.224	0.058	-
HCM Control Delay (s)	-	-	12.5	8.1	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.9	0.2	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	103	7	96	180	8	130
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	10	10	10	10
Grade (%)	-5%		-3%			-5%
Storage Length (ft)	0	0		0	0	
Storage Lanes	1	0		0	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.992		0.912			
Flt Protected	0.955					0.997
Satd. Flow (prot)	1845	0	1636	0	0	1812
Flt Permitted	0.955					0.997
Satd. Flow (perm)	1845	0	1636	0	0	1812
Link Speed (mph)	30		30			30
Link Distance (ft)	231		163			286
Travel Time (s)	5.3		3.7			6.5
Confl. Peds. (#/hr)		1		1	1	
Confl. Bikes (#/hr)						
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	1%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	121	8	113	212	9	153
Shared Lane Traffic (%)						
Lane Group Flow (vph)	129	0	325	0	0	162
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	2.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	103	7	96	180	8	130
Conflicting Peds, #/hr	0	1	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	-5	-	-3	-	-	-5
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	0	0	1	0	0	0
Mvmt Flow	121	8	113	212	9	153

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	392	221	0	0	326	0
Stage 1	220	-	-	-	-	-
Stage 2	172	-	-	-	-	-
Critical Hdwy	5.4	5.7	-	-	4.1	-
Critical Hdwy Stg 1	4.4	-	-	-	-	-
Critical Hdwy Stg 2	4.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	687	849	-	-	1245	-
Stage 1	873	-	-	-	-	-
Stage 2	905	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	680	848	-	-	1244	-
Mov Cap-2 Maneuver	680	-	-	-	-	-
Stage 1	872	-	-	-	-	-
Stage 2	897	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.4	0	0.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	689	1244	-
HCM Lane V/C Ratio	-	-	0.188	0.008	-
HCM Control Delay (s)	-	-	11.4	7.9	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.7	0	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	4	4	10	1	16	3	170	15	8	96	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	15	15	15	13	13	13	11	11	11	11	11	11
Grade (%)		-15%			1%			4%			-4%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.932			0.919			0.989				
Flt Protected					0.982			0.999			0.996	
Satd. Flow (prot)	0	1629	0	0	1493	0	0	1707	0	0	1799	0
Flt Permitted					0.982			0.999			0.996	
Satd. Flow (perm)	0	1629	0	0	1493	0	0	1707	0	0	1799	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		176			414			330			747	
Travel Time (s)		4.0			9.4			7.5			17.0	
Confl. Peds. (#/hr)			2	2					1	1		
Confl. Bikes (#/hr)												
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	25%	0%	0%	100%	0%	0%	4%	7%	0%	4%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)	5	5	5	5	5	5						
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	5	5	11	1	18	3	193	17	9	109	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	10	0	0	30	0	0	213	0	0	118	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	4	4	10	1	16	3	170	15	8	96	0
Conflicting Peds, #/hr	0	0	2	2	0	0	0	0	1	1	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-15	-	-	1	-	-	4	-	-	-4	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	0	25	0	0	100	0	0	4	7	0	4	0
Mvmt Flow	0	5	5	11	1	18	3	193	17	9	109	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	349	348	112	345	340	205	111	0	0	212	0	0
Stage 1	129	129	-	211	211	-	-	-	-	-	-	-
Stage 2	220	219	-	134	129	-	-	-	-	-	-	-
Critical Hdwy	4.1	3.75	4.7	7.3	7.7	6.3	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	3.1	2.75	-	6.3	6.7	-	-	-	-	-	-	-
Critical Hdwy Stg 2	3.1	2.75	-	6.3	6.7	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4.225	3.3	3.5	4.9	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	815	722	992	601	444	836	1492	-	-	1370	-	-
Stage 1	979	832	-	786	571	-	-	-	-	-	-	-
Stage 2	945	817	-	868	630	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	788	713	989	590	438	834	1491	-	-	1369	-	-
Mov Cap-2 Maneuver	788	713	-	590	438	-	-	-	-	-	-	-
Stage 1	975	824	-	783	569	-	-	-	-	-	-	-
Stage 2	920	814	-	853	624	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.4	10.4	0.1	0.6
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1491	-	-	829	703	1369	-	-
HCM Lane V/C Ratio	0.002	-	-	0.011	0.044	0.007	-	-
HCM Control Delay (s)	7.4	0	-	9.4	10.4	7.6	0	-
HCM Lane LOS	A	A	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	9	12	176	10	20	95
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	11	11	11	11
Grade (%)	-5%		7%			-7%
Storage Length (ft)	0	0		0	0	
Storage Lanes	1	0		0	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.921		0.993			
Flt Protected	0.980					0.991
Satd. Flow (prot)	1641	0	1696	0	0	1824
Flt Permitted	0.980					0.991
Satd. Flow (perm)	1641	0	1696	0	0	1824
Link Speed (mph)	30		30			30
Link Distance (ft)	188		747			836
Travel Time (s)	4.3		17.0			19.0
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	4%	0%	0%	4%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	10	14	200	11	23	108
Shared Lane Traffic (%)						
Lane Group Flow (vph)	24	0	211	0	0	131
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	1.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	9	12	176	10	20	95
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	-5	-	7	-	-	-7
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	0	0	4	0	0	4
Mvmt Flow	10	14	200	11	23	108

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	359	206	0	0	211	0
Stage 1	206	-	-	-	-	-
Stage 2	153	-	-	-	-	-
Critical Hdwy	5.4	5.7	-	-	4.1	-
Critical Hdwy Stg 1	4.4	-	-	-	-	-
Critical Hdwy Stg 2	4.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	711	864	-	-	1372	-
Stage 1	882	-	-	-	-	-
Stage 2	918	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	698	864	-	-	1372	-
Mov Cap-2 Maneuver	698	-	-	-	-	-
Stage 1	882	-	-	-	-	-
Stage 2	901	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.7	0	1.3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	784	1372	-
HCM Lane V/C Ratio	-	-	0.03	0.017	-
HCM Control Delay (s)	-	-	9.7	7.7	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.1	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	74	43	24	239	160	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	12	12
Grade (%)	-2%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.950				0.966	
Flt Protected	0.969			0.995		
Satd. Flow (prot)	1634	0	0	1788	1748	0
Flt Permitted	0.969			0.995		
Satd. Flow (perm)	1634	0	0	1788	1748	0
Link Speed (mph)	35			30	30	
Link Distance (ft)	990			933	161	
Travel Time (s)	19.3			21.2	3.7	
Confl. Peds. (#/hr)	1		1			1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	7%	4%	2%	4%	8%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	80	47	26	260	174	58
Shared Lane Traffic (%)						
Lane Group Flow (vph)	127	0	0	286	232	0
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	74	43	24	239	160	53
Conflicting Peds, #/hr	1	0	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-2	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	7	4	2	4	8
Mvmt Flow	80	47	26	260	174	58

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	516	205	233	0	-	0
Stage 1	204	-	-	-	-	-
Stage 2	312	-	-	-	-	-
Critical Hdwy	6.03	6.07	4.14	-	-	-
Critical Hdwy Stg 1	5.03	-	-	-	-	-
Critical Hdwy Stg 2	5.03	-	-	-	-	-
Follow-up Hdwy	3.527	3.363	2.236	-	-	-
Pot Cap-1 Maneuver	548	832	1323	-	-	-
Stage 1	847	-	-	-	-	-
Stage 2	766	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	535	831	1322	-	-	-
Mov Cap-2 Maneuver	535	-	-	-	-	-
Stage 1	846	-	-	-	-	-
Stage 2	748	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.4	0.7	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1322	-	616	-	-
HCM Lane V/C Ratio	0.02	-	0.206	-	-
HCM Control Delay (s)	7.8	0	12.4	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.8	-	-

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Volume (vph)	1	135	2005	95	3	9	890	11	39	194	80	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	11	11	12	11	11	11	13	13	13	11
Grade (%)			-2%				1%			0%		
Storage Length (ft)		110		190		150		0	25		0	25
Storage Lanes		1		1		1		0	0		0	0
Taper Length (ft)		25				25			25			25
Lane Util. Factor	0.95	1.00	*1.00	1.00	0.95	1.00	*1.00	0.95	1.00	1.00	1.00	1.00
Ped Bike Factor										1.00		
Frt				0.850			0.998			0.965		
Flt Protected		0.950				0.950				0.994		
Satd. Flow (prot)	0	1538	3567	1460	0	1305	3408	0	0	1844	0	0
Flt Permitted		0.950				0.950				0.705		
Satd. Flow (perm)	0	1538	3567	1460	0	1305	3408	0	0	1308	0	0
Right Turn on Red				No				Yes			No	
Satd. Flow (RTOR)							1					
Link Speed (mph)			40				40			30		
Link Distance (ft)			1697				1673			161		
Travel Time (s)			28.9				28.5			3.7		
Confl. Peds. (#/hr)									1			
Confl. Bikes (#/hr)												
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	100%	14%	4%	8%	0%	43%	7%	9%	0%	3%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)			0%				0%			0%		
Adj. Flow (vph)	1	144	2133	101	3	10	947	12	41	206	85	34
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	145	2133	101	0	13	959	0	0	332	0	0
Turn Type	Prot	Prot	NA	Perm	Prot	Prot	NA		Perm	NA		Perm
Protected Phases	5	5	2		1	1	6			8		
Permitted Phases				2					8			4
Detector Phase	5	5	2	2	1	1	6		8	8		4
Switch Phase												
Minimum Initial (s)	3.0	3.0	10.0	10.0	3.0	3.0	10.0		5.0	5.0		5.0
Minimum Split (s)	10.0	10.0	17.0	17.0	10.0	10.0	17.0		11.0	11.0		11.0
Total Split (s)	27.0	27.0	92.0	92.0	27.0	27.0	92.0		31.0	31.0		31.0
Total Split (%)	18.0%	18.0%	61.3%	61.3%	18.0%	18.0%	61.3%		20.7%	20.7%		20.7%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0		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	2.0		2.0
Lost Time Adjust (s)		0.0	0.0	0.0		0.0	0.0			0.0		
Total Lost Time (s)		7.0	7.0	7.0		7.0	7.0			6.0		
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	None	Min	Min	None	None	Min		None	None		None

Intersection Summary

Lane Group	SBT	SBR
Lane Configurations		
Volume (vph)	109	162
Ideal Flow (vphpl)	1900	1900
Lane Width (ft)	11	11
Grade (%)	-4%	
Storage Length (ft)		0
Storage Lanes		0
Taper Length (ft)		
Lane Util. Factor	1.00	1.00
Ped Bike Factor	0.99	
Frt	0.928	
Flt Protected	0.995	
Satd. Flow (prot)	1675	0
Flt Permitted	0.757	
Satd. Flow (perm)	1275	0
Right Turn on Red		No
Satd. Flow (RTOR)		
Link Speed (mph)	30	
Link Distance (ft)	419	
Travel Time (s)	9.5	
Confl. Peds. (#/hr)		1
Confl. Bikes (#/hr)		
Peak Hour Factor	0.94	0.94
Growth Factor	100%	100%
Heavy Vehicles (%)	1%	4%
Bus Blockages (#/hr)	0	0
Parking (#/hr)		
Mid-Block Traffic (%)	0%	
Adj. Flow (vph)	116	172
Shared Lane Traffic (%)		
Lane Group Flow (vph)	322	0
Turn Type	NA	
Protected Phases	4	
Permitted Phases		
Detector Phase	4	
Switch Phase		
Minimum Initial (s)	5.0	
Minimum Split (s)	11.0	
Total Split (s)	31.0	
Total Split (%)	20.7%	
Yellow Time (s)	4.0	
All-Red Time (s)	2.0	
Lost Time Adjust (s)	0.0	
Total Lost Time (s)	6.0	
Lead/Lag		
Lead-Lag Optimize?		
Recall Mode	None	

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 129.2
Natural Cycle: 120
Control Type: Actuated-Uncoordinated
* User Entered Value

Splits and Phases: 6: Croton Dam Rd & NYS Route 9A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Volume (veh/h)	1	135	2005	95	3	9	890	11	39	194	80	32
Number		5	2	12		1	6	16	3	8	18	7
Initial Q (Qb), veh		0	0	0		0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00		1.00		1.00		1.00	1.00		1.00	1.00
Parking Bus, Adj		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln		1675	1845	1777		1421	1766	1890	1976	1935	1976	1938
Adj Flow Rate, veh/h		144	2133	101		10	947	12	41	206	85	34
Adj No. of Lanes		1	2	1		1	2	0	0	1	0	0
Peak Hour Factor		0.94	0.94	0.94		0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %		14	4	8		43	7	7	3	3	3	1
Cap, veh/h		169	2375	972		9	1896	24	56	193	75	52
Arrive On Green		0.11	0.64	0.64		0.01	0.54	0.54	0.19	0.19	0.19	0.19
Sat Flow, veh/h		1595	3690	1510		1353	3481	44	128	995	386	108
Grp Volume(v), veh/h		144	2133	101		10	481	478	332	0	0	322
Grp Sat Flow(s),veh/h/ln		1595	1845	1510		1353	1766	1759	1509	0	0	1536
Q Serve(g_s), s		11.4	62.9	3.3		0.9	21.9	21.9	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s		11.4	62.9	3.3		0.9	21.9	21.9	25.0	0.0	0.0	25.0
Prop In Lane		1.00		1.00		1.00		0.03	0.12		0.26	0.11
Lane Grp Cap(c), veh/h		169	2375	972		9	962	958	324	0	0	329
V/C Ratio(X)		0.85	0.90	0.10		1.06	0.50	0.50	1.02	0.00	0.00	0.98
Avail Cap(c_a), veh/h		248	2436	997		210	1166	1161	324	0	0	329
HCM Platoon Ratio		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	1.00		1.00	1.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh		56.6	19.4	8.8		63.9	18.3	18.3	52.5	0.0	0.0	52.4
Incr Delay (d2), s/veh		16.9	4.9	0.0		152.5	0.4	0.4	56.2	0.0	0.0	43.7
Initial Q Delay(d3),s/veh		0.0	0.0	0.0		1.3	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		5.8	33.3	1.4		0.7	10.8	10.7	16.5	0.0	0.0	15.4
LnGrp Delay(d),s/veh		73.5	24.2	8.8		217.8	18.7	18.7	108.6	0.0	0.0	96.1
LnGrp LOS		E	C	A		F	B	B	F			F
Approach Vol, veh/h			2378				969			332		
Approach Delay, s/veh			26.6				20.8			108.6		
Approach LOS			C				C			F		

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.9	89.9		31.0	20.6	77.1		31.0
Change Period (Y+Rc), s	7.0	7.0		6.0	7.0	7.0		6.0
Max Green Setting (Gmax), s	20.0	85.0		25.0	20.0	85.0		25.0
Max Q Clear Time (g_c+I1), s	2.9	64.9		27.0	13.4	23.9		27.0
Green Ext Time (p_c), s	0.0	18.0		0.0	0.3	45.5		0.0

Intersection Summary		
HCM 2010 Ctrl Delay		37.6
HCM 2010 LOS		D

Notes

User approved ignoring U-Turning movement.

Movement	SBT	SBR
Lane Configurations		
Volume (veh/h)	109	162
Number	4	14
Initial Q (Qb), veh	0	0
Ped-Bike Adj(A_pbT)		1.00
Parking Bus, Adj	1.00	1.00
Adj Sat Flow, veh/h/ln	1891	1938
Adj Flow Rate, veh/h	116	172
Adj No. of Lanes	1	0
Peak Hour Factor	0.94	0.94
Percent Heavy Veh, %	1	1
Cap, veh/h	118	159
Arrive On Green	0.19	0.19
Sat Flow, veh/h	608	820
Grp Volume(v), veh/h	0	0
Grp Sat Flow(s),veh/h/ln	0	0
Q Serve(g_s), s	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0
Prop In Lane		0.53
Lane Grp Cap(c), veh/h	0	0
V/C Ratio(X)	0.00	0.00
Avail Cap(c_a), veh/h	0	0
HCM Platoon Ratio	1.00	1.00
Upstream Filter(I)	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0
LnGrp Delay(d),s/veh	0.0	0.0
LnGrp LOS		
Approach Vol, veh/h	322	
Approach Delay, s/veh	96.1	
Approach LOS	F	

Timer

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	45	57	190	46	48	178
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	13	10	10	10	10
Grade (%)	-6%		-3%			3%
Storage Length (ft)	0	0		0	0	
Storage Lanes	1	0		0	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.925		0.974			
Flt Protected	0.978					0.990
Satd. Flow (prot)	1601	0	1753	0	0	1513
Flt Permitted	0.978					0.990
Satd. Flow (perm)	1601	0	1753	0	0	1513
Link Speed (mph)	30		30			30
Link Distance (ft)	477		315			163
Travel Time (s)	10.8		7.2			3.7
Confl. Peds. (#/hr)				5	5	
Confl. Bikes (#/hr)						
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)	5	5				5
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	50	63	211	51	53	198
Shared Lane Traffic (%)						
Lane Group Flow (vph)	113	0	262	0	0	251
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	2.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	45	57	190	46	48	178
Conflicting Peds, #/hr	0	0	0	5	5	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	-6	-	-3	-	-	3
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	50	63	211	51	53	198

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	541	242	0	0	262	0
Stage 1	237	-	-	-	-	-
Stage 2	304	-	-	-	-	-
Critical Hdwy	5.2	5.6	-	-	4.1	-
Critical Hdwy Stg 1	4.2	-	-	-	-	-
Critical Hdwy Stg 2	4.2	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	605	835	-	-	1314	-
Stage 1	873	-	-	-	-	-
Stage 2	833	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	576	832	-	-	1309	-
Mov Cap-2 Maneuver	576	-	-	-	-	-
Stage 1	873	-	-	-	-	-
Stage 2	793	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.2	0	1.7
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	696	1309	-
HCM Lane V/C Ratio	-	-	0.163	0.041	-
HCM Control Delay (s)	-	-	11.2	7.9	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.6	0.1	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	145	4	119	128	1	81
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	10	10	10	10
Grade (%)	-5%		-3%			-5%
Storage Length (ft)	0	0		0	0	
Storage Lanes	1	0		0	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.997		0.930			
Flt Protected	0.954					0.999
Satd. Flow (prot)	1852	0	1674	0	0	1816
Flt Permitted	0.954					0.999
Satd. Flow (perm)	1852	0	1674	0	0	1816
Link Speed (mph)	30		30			30
Link Distance (ft)	231		163			286
Travel Time (s)	5.3		3.7			6.5
Confl. Peds. (#/hr)				1	1	
Confl. Bikes (#/hr)						
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	154	4	127	136	1	86
Shared Lane Traffic (%)						
Lane Group Flow (vph)	158	0	263	0	0	87
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	3.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	145	4	119	128	1	81
Conflicting Peds, #/hr	0	0	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	-5	-	-3	-	-	-5
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	154	4	127	136	1	86

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	283	196	0	0	263	0
Stage 1	195	-	-	-	-	-
Stage 2	88	-	-	-	-	-
Critical Hdwy	5.4	5.7	-	-	4.1	-
Critical Hdwy Stg 1	4.4	-	-	-	-	-
Critical Hdwy Stg 2	4.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	770	874	-	-	1313	-
Stage 1	890	-	-	-	-	-
Stage 2	964	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	769	873	-	-	1312	-
Mov Cap-2 Maneuver	769	-	-	-	-	-
Stage 1	890	-	-	-	-	-
Stage 2	962	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.9	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	771	1312	-
HCM Lane V/C Ratio	-	-	0.206	0.001	-
HCM Control Delay (s)	-	-	10.9	7.7	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.8	0	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	1	1	2	15	2	10	3	119	7	27	132	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	15	15	15	13	13	13	11	11	11	11	11	11
Grade (%)		-15%			1%			4%			-4%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.919			0.950			0.993			0.999	
Flt Protected		0.990			0.974			0.999			0.992	
Satd. Flow (prot)	0	1789	0	0	1582	0	0	1786	0	0	1808	0
Flt Permitted		0.990			0.974			0.999			0.992	
Satd. Flow (perm)	0	1789	0	0	1582	0	0	1786	0	0	1808	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		176			414			330			747	
Travel Time (s)		4.0			9.4			7.5			17.0	
Confl. Peds. (#/hr)			1	1					1	1		
Confl. Bikes (#/hr)												
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	6%	2%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)	5	5	5	5	5	5						
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	1	1	3	19	3	13	4	151	9	34	167	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	5	0	0	35	0	0	164	0	0	202	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	1	1	2	15	2	10	3	119	7	27	132	1
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	1	1	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-15	-	-	1	-	-	4	-	-	-4	-
Peak Hour Factor	79	79	79	79	79	79	79	79	79	79	79	79
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	6	2	0
Mvmt Flow	1	1	3	19	3	13	4	151	9	34	167	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	408	405	170	403	402	157	169	0	0	160	0	0
Stage 1	237	237	-	164	164	-	-	-	-	-	-	-
Stage 2	171	168	-	239	238	-	-	-	-	-	-	-
Critical Hdwy	4.1	3.5	4.7	7.3	6.7	6.3	4.1	-	-	4.16	-	-
Critical Hdwy Stg 1	3.1	2.5	-	6.3	5.7	-	-	-	-	-	-	-
Critical Hdwy Stg 2	3.1	2.5	-	6.3	5.7	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.254	-	-
Pot Cap-1 Maneuver	783	754	944	549	528	890	1421	-	-	1395	-	-
Stage 1	939	868	-	835	759	-	-	-	-	-	-	-
Stage 2	964	878	-	759	703	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	750	730	942	533	511	889	1420	-	-	1394	-	-
Mov Cap-2 Maneuver	750	730	-	533	511	-	-	-	-	-	-	-
Stage 1	935	844	-	832	756	-	-	-	-	-	-	-
Stage 2	944	875	-	735	683	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.4	11.1	0.2	1.3
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1420	-	-	829	623	1394	-	-
HCM Lane V/C Ratio	0.003	-	-	0.006	0.055	0.025	-	-
HCM Control Delay (s)	7.5	0	-	9.4	11.1	7.6	0	-
HCM Lane LOS	A	A	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.2	0.1	-	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	14	30	119	11	5	146
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	11	11	11	11
Grade (%)	-5%		7%			-7%
Storage Length (ft)	0	0		0	0	
Storage Lanes	1	0		0	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.908		0.989			
Flt Protected	0.984					0.998
Satd. Flow (prot)	1624	0	1753	0	0	1861
Flt Permitted	0.984					0.998
Satd. Flow (perm)	1624	0	1753	0	0	1861
Link Speed (mph)	30		30			30
Link Distance (ft)	188		747			836
Travel Time (s)	4.3		17.0			19.0
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	0%	0%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	18	38	151	14	6	185
Shared Lane Traffic (%)						
Lane Group Flow (vph)	56	0	165	0	0	191
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	1.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	14	30	119	11	5	146
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	-5	-	7	-	-	-7
Peak Hour Factor	79	79	79	79	79	79
Heavy Vehicles, %	0	0	0	0	0	2
Mvmt Flow	18	38	151	14	6	185

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	355	158	0	0	165	0
Stage 1	158	-	-	-	-	-
Stage 2	197	-	-	-	-	-
Critical Hdwy	5.4	5.7	-	-	4.1	-
Critical Hdwy Stg 1	4.4	-	-	-	-	-
Critical Hdwy Stg 2	4.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	714	912	-	-	1426	-
Stage 1	915	-	-	-	-	-
Stage 2	888	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	710	912	-	-	1426	-
Mov Cap-2 Maneuver	710	-	-	-	-	-
Stage 1	915	-	-	-	-	-
Stage 2	884	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.6	0	0.2
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	836	1426	-
HCM Lane V/C Ratio	-	-	0.067	0.004	-
HCM Control Delay (s)	-	-	9.6	7.5	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	60	11	27	204	218	76
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	12	12
Grade (%)	-2%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.979				0.965	
Flt Protected	0.960			0.994		
Satd. Flow (prot)	1714	0	0	1794	1801	0
Flt Permitted	0.960			0.994		
Satd. Flow (perm)	1714	0	0	1794	1801	0
Link Speed (mph)	35			30	30	
Link Distance (ft)	990			933	161	
Travel Time (s)	19.3			21.2	3.7	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	0%	0%	2%	1%	4%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	65	12	29	222	237	83
Shared Lane Traffic (%)						
Lane Group Flow (vph)	77	0	0	251	320	0
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	60	11	27	204	218	76
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-2	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	0	0	2	1	4
Mvmt Flow	65	12	29	222	237	83

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	558	278	320	0	-	0
Stage 1	278	-	-	-	-	-
Stage 2	280	-	-	-	-	-
Critical Hdwy	6.02	6	4.1	-	-	-
Critical Hdwy Stg 1	5.02	-	-	-	-	-
Critical Hdwy Stg 2	5.02	-	-	-	-	-
Follow-up Hdwy	3.518	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	522	778	1251	-	-	-
Stage 1	793	-	-	-	-	-
Stage 2	792	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	508	778	1251	-	-	-
Mov Cap-2 Maneuver	508	-	-	-	-	-
Stage 1	793	-	-	-	-	-
Stage 2	771	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.8	0.9	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1251	-	537	-	-
HCM Lane V/C Ratio	0.023	-	0.144	-	-
HCM Control Delay (s)	7.9	0	12.8	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.5	-	-

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Volume (vph)	1	153	999	152	2	21	2063	45	87	130	47	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	11	11	12	11	11	11	13	13	13	11
Grade (%)			-2%				1%			0%		
Storage Length (ft)		110		190		150		0	0		0	0
Storage Lanes		1		1		1		0	0		0	0
Taper Length (ft)		25				25			25			25
Lane Util. Factor	0.95	1.00	*1.00	1.00	0.95	1.00	*1.00	0.95	1.00	1.00	1.00	1.00
Ped Bike Factor										1.00		
Frt				0.850			0.997			0.976		
Flt Protected		0.950				0.950				0.984		
Satd. Flow (prot)	0	1762	3602	1546	0	1660	3570	0	0	1833	0	0
Flt Permitted		0.950				0.950				0.323		
Satd. Flow (perm)	0	1762	3602	1546	0	1660	3570	0	0	602	0	0
Right Turn on Red				No				Yes			No	
Satd. Flow (RTOR)							2					
Link Speed (mph)			40				40			30		
Link Distance (ft)			1697				1673			161		
Travel Time (s)			28.9				28.5			3.7		
Confl. Peds. (#/hr)									1			
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	3%	2%	0%	5%	2%	5%	6%	0%	5%	9%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)			0%				0%			0%		
Adj. Flow (vph)	1	165	1074	163	2	23	2218	48	94	140	51	25
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	166	1074	163	0	25	2266	0	0	285	0	0
Turn Type	Prot	Prot	NA	Perm	Prot	Prot	NA		Perm	NA		Perm
Protected Phases	5	5	2		1	1	6			8		
Permitted Phases				2					8			4
Detector Phase	5	5	2	2	1	1	6		8	8		4
Switch Phase												
Minimum Initial (s)	3.0	3.0	10.0	10.0	3.0	3.0	10.0		5.0	5.0		5.0
Minimum Split (s)	10.0	10.0	17.0	17.0	10.0	10.0	17.0		11.0	11.0		11.0
Total Split (s)	27.0	27.0	92.0	92.0	27.0	27.0	92.0		31.0	31.0		31.0
Total Split (%)	18.0%	18.0%	61.3%	61.3%	18.0%	18.0%	61.3%		20.7%	20.7%		20.7%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0		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	2.0		2.0
Lost Time Adjust (s)		0.0	0.0	0.0		0.0	0.0			0.0		
Total Lost Time (s)		7.0	7.0	7.0		7.0	7.0			6.0		
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	None	Min	Min	None	None	Min		None	None		None

Intersection Summary

Lane Group	SBT	SBR
Lane Configurations		
Volume (vph)	121	159
Ideal Flow (vphpl)	1900	1900
Lane Width (ft)	11	11
Grade (%)	-4%	
Storage Length (ft)		0
Storage Lanes		0
Taper Length (ft)		
Lane Util. Factor	1.00	1.00
Ped Bike Factor	0.99	
Frt	0.929	
Flt Protected	0.996	
Satd. Flow (prot)	1676	0
Flt Permitted	0.904	
Satd. Flow (perm)	1521	0
Right Turn on Red		No
Satd. Flow (RTOR)		
Link Speed (mph)	30	
Link Distance (ft)	419	
Travel Time (s)	9.5	
Confl. Peds. (#/hr)		1
Confl. Bikes (#/hr)		
Peak Hour Factor	0.93	0.93
Growth Factor	100%	100%
Heavy Vehicles (%)	1%	3%
Bus Blockages (#/hr)	0	0
Parking (#/hr)		
Mid-Block Traffic (%)	0%	
Adj. Flow (vph)	130	171
Shared Lane Traffic (%)		
Lane Group Flow (vph)	326	0
Turn Type	NA	
Protected Phases	4	
Permitted Phases		
Detector Phase	4	
Switch Phase		
Minimum Initial (s)	5.0	
Minimum Split (s)	11.0	
Total Split (s)	31.0	
Total Split (%)	20.7%	
Yellow Time (s)	4.0	
All-Red Time (s)	2.0	
Lost Time Adjust (s)	0.0	
Total Lost Time (s)	6.0	
Lead/Lag		
Lead-Lag Optimize?		
Recall Mode	None	

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 147.8
Natural Cycle: 150
Control Type: Actuated-Uncoordinated
* User Entered Value

Splits and Phases: 6: Croton Dam Rd & NYS Route 9A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Volume (veh/h)	1	153	999	152	2	21	2063	45	87	130	47	23
Number		5	2	12		1	6	16	3	8	18	7
Initial Q (Qb), veh		0	0	0		0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00		1.00		1.00		1.00	1.00		1.00	1.00
Parking Bus, Adj		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln		1919	1863	1881		1807	1852	1890	1976	1921	1976	1938
Adj Flow Rate, veh/h		165	1074	163		23	2218	48	94	140	51	25
Adj No. of Lanes		1	2	1		1	2	0	0	1	0	0
Peak Hour Factor		0.93	0.93	0.93		0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %		0	3	2		5	2	2	0	0	0	1
Cap, veh/h		191	2510	1077		28	2116	46	75	78	26	41
Arrive On Green		0.10	0.67	0.67		0.02	0.59	0.59	0.17	0.17	0.17	0.17
Sat Flow, veh/h		1828	3726	1599		1721	3613	78	247	454	153	85
Grp Volume(v), veh/h		165	1074	163		23	1133	1133	285	0	0	326
Grp Sat Flow(s),veh/h/ln		1828	1863	1599		1721	1852	1839	854	0	0	1701
Q Serve(g_s), s		12.9	19.2	5.4		1.9	85.0	85.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s		12.9	19.2	5.4		1.9	85.0	85.0	25.0	0.0	0.0	25.0
Prop In Lane		1.00		1.00		1.00		0.04	0.33		0.18	0.08
Lane Grp Cap(c), veh/h		191	2510	1077		28	1085	1077	180	0	0	320
V/C Ratio(X)		0.86	0.43	0.15		0.81	1.04	1.05	1.58	0.00	0.00	1.02
Avail Cap(c_a), veh/h		252	2510	1077		237	1085	1077	180	0	0	320
HCM Platoon Ratio		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	1.00		1.00	1.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh		64.0	10.9	8.6		71.2	30.1	30.1	61.7	0.0	0.0	61.1
Incr Delay (d2), s/veh		20.6	0.1	0.1		39.6	39.7	42.3	287.1	0.0	0.0	55.6
Initial Q Delay(d3),s/veh		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.1
%ile BackOfQ(50%),veh/ln		7.6	9.9	2.4		1.2	55.1	55.4	21.6	0.0	0.0	17.7
LnGrp Delay(d),s/veh		84.6	11.0	8.7		110.7	69.8	72.4	348.8	0.0	0.0	116.7
LnGrp LOS		F	B	A		F	F	F	F			F
Approach Vol, veh/h			1402				2289			285		
Approach Delay, s/veh			19.4				71.5			348.8		
Approach LOS			B				E			F		

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.4	104.8		31.0	22.2	92.0		31.0
Change Period (Y+Rc), s	7.0	7.0		6.0	7.0	7.0		6.0
Max Green Setting (Gmax), s	20.0	85.0		25.0	20.0	85.0		25.0
Max Q Clear Time (g_c+I1), s	3.9	21.2		27.0	14.9	87.0		27.0
Green Ext Time (p_c), s	0.0	52.7		0.0	0.3	0.0		0.0

Intersection Summary		
HCM 2010 Ctrl Delay		76.3
HCM 2010 LOS		E

Notes
User approved ignoring U-Turning movement.

Movement	SBT	SBR
Lane Configurations		
Volume (veh/h)	121	159
Number	4	14
Initial Q (Qb), veh	0	0
Ped-Bike Adj(A_pbT)		1.00
Parking Bus, Adj	1.00	1.00
Adj Sat Flow, veh/h/ln	1888	1938
Adj Flow Rate, veh/h	130	171
Adj No. of Lanes	1	0
Peak Hour Factor	0.93	0.93
Percent Heavy Veh, %	1	1
Cap, veh/h	125	154
Arrive On Green	0.17	0.17
Sat Flow, veh/h	723	892
Grp Volume(v), veh/h	0	0
Grp Sat Flow(s),veh/h/ln	0	0
Q Serve(g_s), s	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0
Prop In Lane		0.52
Lane Grp Cap(c), veh/h	0	0
V/C Ratio(X)	0.00	0.00
Avail Cap(c_a), veh/h	0	0
HCM Platoon Ratio	1.00	1.00
Upstream Filter(I)	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0
LnGrp Delay(d),s/veh	0.0	0.0
LnGrp LOS		
Approach Vol, veh/h	326	
Approach Delay, s/veh	116.7	
Approach LOS	F	

Timer

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	55	62	214	80	59	183
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	13	10	10	10	10
Grade (%)	-6%		-3%			3%
Storage Length (ft)	0	0		0	0	
Storage Lanes	1	0		0	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.928		0.963			
Flt Protected	0.977					0.988
Satd. Flow (prot)	1604	0	1707	0	0	1510
Flt Permitted	0.977					0.988
Satd. Flow (perm)	1604	0	1707	0	0	1510
Link Speed (mph)	30		30			30
Link Distance (ft)	477		315			163
Travel Time (s)	10.8		7.2			3.7
Confl. Peds. (#/hr)				3	3	
Confl. Bikes (#/hr)						
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	1%	3%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)	5	5				5
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	65	74	255	95	70	218
Shared Lane Traffic (%)						
Lane Group Flow (vph)	139	0	350	0	0	288
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	55	62	214	80	59	183
Conflicting Peds, #/hr	0	0	0	3	3	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	-6	-	-3	-	-	3
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	0	0	1	3	0	0
Mvmt Flow	65	74	255	95	70	218

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	660	305	0	0	350	0
Stage 1	302	-	-	-	-	-
Stage 2	358	-	-	-	-	-
Critical Hdwy	5.2	5.6	-	-	4.1	-
Critical Hdwy Stg 1	4.2	-	-	-	-	-
Critical Hdwy Stg 2	4.2	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	537	778	-	-	1220	-
Stage 1	834	-	-	-	-	-
Stage 2	802	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	501	776	-	-	1217	-
Mov Cap-2 Maneuver	501	-	-	-	-	-
Stage 1	834	-	-	-	-	-
Stage 2	748	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.5	0	2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	617	1217	-
HCM Lane V/C Ratio	-	-	0.226	0.058	-
HCM Control Delay (s)	-	-	12.5	8.1	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.9	0.2	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	112	7	96	180	8	130
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	10	10	10	10
Grade (%)	-5%		-3%			-5%
Storage Length (ft)	0	0		0	0	
Storage Lanes	1	0		0	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.992		0.912			
Flt Protected	0.955					0.997
Satd. Flow (prot)	1845	0	1636	0	0	1812
Flt Permitted	0.955					0.997
Satd. Flow (perm)	1845	0	1636	0	0	1812
Link Speed (mph)	30		30			30
Link Distance (ft)	231		163			286
Travel Time (s)	5.3		3.7			6.5
Confl. Peds. (#/hr)		1		1	1	
Confl. Bikes (#/hr)						
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	1%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	132	8	113	212	9	153
Shared Lane Traffic (%)						
Lane Group Flow (vph)	140	0	325	0	0	162
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	2.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	112	7	96	180	8	130
Conflicting Peds, #/hr	0	1	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	-5	-	-3	-	-	-5
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	0	0	1	0	0	0
Mvmt Flow	132	8	113	212	9	153

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	392	221	0	0	326	0
Stage 1	220	-	-	-	-	-
Stage 2	172	-	-	-	-	-
Critical Hdwy	5.4	5.7	-	-	4.1	-
Critical Hdwy Stg 1	4.4	-	-	-	-	-
Critical Hdwy Stg 2	4.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	687	849	-	-	1245	-
Stage 1	873	-	-	-	-	-
Stage 2	905	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	680	848	-	-	1244	-
Mov Cap-2 Maneuver	680	-	-	-	-	-
Stage 1	872	-	-	-	-	-
Stage 2	897	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.6	0	0.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	688	1244	-
HCM Lane V/C Ratio	-	-	0.203	0.008	-
HCM Control Delay (s)	-	-	11.6	7.9	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.8	0	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	4	4	10	1	15	3	170	15	25	105	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	15	15	15	13	13	13	11	11	11	11	11	11
Grade (%)		-15%			1%			4%			-4%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.932			0.921			0.989				
Flt Protected					0.981			0.999			0.991	
Satd. Flow (prot)	0	1629	0	0	1493	0	0	1707	0	0	1798	0
Flt Permitted					0.981			0.999			0.991	
Satd. Flow (perm)	0	1629	0	0	1493	0	0	1707	0	0	1798	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		176			414			330			747	
Travel Time (s)		4.0			9.4			7.5			17.0	
Confl. Peds. (#/hr)			2	2					1	1		
Confl. Bikes (#/hr)												
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	25%	0%	0%	100%	0%	0%	4%	7%	0%	4%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)	5	5	5	5	5	5						
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	5	5	11	1	17	3	193	17	28	119	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	10	0	0	29	0	0	213	0	0	147	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	4	4	10	1	15	3	170	15	25	105	0
Conflicting Peds, #/hr	0	0	2	2	0	0	0	0	1	1	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-15	-	-	1	-	-	4	-	-	-4	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	0	25	0	0	100	0	0	4	7	0	4	0
Mvmt Flow	0	5	5	11	1	17	3	193	17	28	119	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	398	397	122	394	389	205	121	0	0	212	0	0
Stage 1	178	178	-	211	211	-	-	-	-	-	-	-
Stage 2	220	219	-	183	178	-	-	-	-	-	-	-
Critical Hdwy	4.1	3.75	4.7	7.3	7.7	6.3	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	3.1	2.75	-	6.3	6.7	-	-	-	-	-	-	-
Critical Hdwy Stg 2	3.1	2.75	-	6.3	6.7	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4.225	3.3	3.5	4.9	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	788	705	983	557	412	836	1479	-	-	1370	-	-
Stage 1	961	824	-	786	571	-	-	-	-	-	-	-
Stage 2	945	817	-	815	594	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	754	685	980	540	401	834	1478	-	-	1369	-	-
Mov Cap-2 Maneuver	754	685	-	540	401	-	-	-	-	-	-	-
Stage 1	957	804	-	783	569	-	-	-	-	-	-	-
Stage 2	921	814	-	788	580	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.5	10.6	0.1	1.5
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1478	-	-	806	667	1369	-	-
HCM Lane V/C Ratio	0.002	-	-	0.011	0.044	0.021	-	-
HCM Control Delay (s)	7.4	0	-	9.5	10.6	7.7	0	-
HCM Lane LOS	A	A	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0.1	-	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	35	42	176	9	10	95
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	11	11	11	11
Grade (%)	-5%		7%			-7%
Storage Length (ft)	0	0		0	0	
Storage Lanes	1	0		0	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.926		0.994			
Flt Protected	0.978					0.995
Satd. Flow (prot)	1646	0	1697	0	0	1825
Flt Permitted	0.978					0.995
Satd. Flow (perm)	1646	0	1697	0	0	1825
Link Speed (mph)	30		30			30
Link Distance (ft)	188		747			836
Travel Time (s)	4.3		17.0			19.0
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	4%	0%	0%	4%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	40	48	200	10	11	108
Shared Lane Traffic (%)						
Lane Group Flow (vph)	88	0	210	0	0	119
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	2.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	35	42	176	9	10	95
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	-5	-	7	-	-	-7
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	0	0	4	0	0	4
Mvmt Flow	40	48	200	10	11	108

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	336	205	0	0	210	0
Stage 1	205	-	-	-	-	-
Stage 2	131	-	-	-	-	-
Critical Hdwy	5.4	5.7	-	-	4.1	-
Critical Hdwy Stg 1	4.4	-	-	-	-	-
Critical Hdwy Stg 2	4.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	728	865	-	-	1373	-
Stage 1	883	-	-	-	-	-
Stage 2	933	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	721	865	-	-	1373	-
Mov Cap-2 Maneuver	721	-	-	-	-	-
Stage 1	883	-	-	-	-	-
Stage 2	925	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.1	0	0.7
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	793	1373	-
HCM Lane V/C Ratio	-	-	0.11	0.008	-
HCM Control Delay (s)	-	-	10.1	7.6	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	74	43	24	269	150	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	12	12
Grade (%)	-2%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.950				0.965	
Flt Protected	0.969			0.996		
Satd. Flow (prot)	1634	0	0	1791	1745	0
Flt Permitted	0.969			0.996		
Satd. Flow (perm)	1634	0	0	1791	1745	0
Link Speed (mph)	35			30	30	
Link Distance (ft)	990			933	161	
Travel Time (s)	19.3			21.2	3.7	
Confl. Peds. (#/hr)	1		1			1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	7%	4%	2%	4%	8%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	80	47	26	292	163	58
Shared Lane Traffic (%)						
Lane Group Flow (vph)	127	0	0	318	221	0
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	74	43	24	269	150	53
Conflicting Peds, #/hr	1	0	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-2	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	7	4	2	4	8
Mvmt Flow	80	47	26	292	163	58

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	538	194	222	0	-	0
Stage 1	193	-	-	-	-	-
Stage 2	345	-	-	-	-	-
Critical Hdwy	6.03	6.07	4.14	-	-	-
Critical Hdwy Stg 1	5.03	-	-	-	-	-
Critical Hdwy Stg 2	5.03	-	-	-	-	-
Follow-up Hdwy	3.527	3.363	2.236	-	-	-
Pot Cap-1 Maneuver	533	844	1335	-	-	-
Stage 1	855	-	-	-	-	-
Stage 2	743	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	520	843	1334	-	-	-
Mov Cap-2 Maneuver	520	-	-	-	-	-
Stage 1	854	-	-	-	-	-
Stage 2	725	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.5	0.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1334	-	605	-	-
HCM Lane V/C Ratio	0.02	-	0.21	-	-
HCM Control Delay (s)	7.8	0	12.5	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.8	-	-

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Volume (vph)	1	135	2005	88	3	8	890	11	58	202	83	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	11	11	12	11	11	11	13	13	13	11
Grade (%)			-2%				1%			0%		
Storage Length (ft)		110		190		150		0	0		0	0
Storage Lanes		1		1		1		0	0		0	0
Taper Length (ft)		25				25			25			25
Lane Util. Factor	0.95	1.00	*1.00	1.00	0.95	1.00	*1.00	0.95	1.00	1.00	1.00	1.00
Ped Bike Factor										1.00		
Frt				0.850			0.998			0.967		
Flt Protected		0.950				0.950				0.992		
Satd. Flow (prot)	0	1538	3567	1460	0	1313	3408	0	0	1846	0	0
Flt Permitted		0.950				0.950				0.591		
Satd. Flow (perm)	0	1538	3567	1460	0	1313	3408	0	0	1100	0	0
Right Turn on Red				No				Yes			No	
Satd. Flow (RTOR)							1					
Link Speed (mph)			40				40			30		
Link Distance (ft)			1697				1673			161		
Travel Time (s)			28.9				28.5			3.7		
Confl. Peds. (#/hr)									1			
Confl. Bikes (#/hr)												
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	100%	14%	4%	8%	0%	43%	7%	9%	0%	3%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)			0%				0%			0%		
Adj. Flow (vph)	1	144	2133	94	3	9	947	12	62	215	88	34
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	145	2133	94	0	12	959	0	0	365	0	0
Turn Type	Prot	Prot	NA	Perm	Prot	Prot	NA		Perm	NA		Perm
Protected Phases	5	5	2		1	1	6			8		
Permitted Phases				2					8			4
Detector Phase	5	5	2	2	1	1	6		8	8		4
Switch Phase												
Minimum Initial (s)	3.0	3.0	10.0	10.0	3.0	3.0	10.0		5.0	5.0		5.0
Minimum Split (s)	10.0	10.0	17.0	17.0	10.0	10.0	17.0		11.0	11.0		11.0
Total Split (s)	27.0	27.0	92.0	92.0	27.0	27.0	92.0		31.0	31.0		31.0
Total Split (%)	18.0%	18.0%	61.3%	61.3%	18.0%	18.0%	61.3%		20.7%	20.7%		20.7%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0		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	2.0		2.0
Lost Time Adjust (s)		0.0	0.0	0.0		0.0	0.0			0.0		
Total Lost Time (s)		7.0	7.0	7.0		7.0	7.0			6.0		
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	None	Min	Min	None	None	Min		None	None		None

Intersection Summary

Lane Group	SBT	SBR
Lane Configurations	✣	
Volume (vph)	107	162
Ideal Flow (vphpl)	1900	1900
Lane Width (ft)	11	11
Grade (%)	-4%	
Storage Length (ft)		0
Storage Lanes		0
Taper Length (ft)		
Lane Util. Factor	1.00	1.00
Ped Bike Factor	0.99	
Frt	0.927	
Flt Protected	0.995	
Satd. Flow (prot)	1673	0
Flt Permitted	0.761	
Satd. Flow (perm)	1280	0
Right Turn on Red		No
Satd. Flow (RTOR)		
Link Speed (mph)	30	
Link Distance (ft)	419	
Travel Time (s)	9.5	
Confl. Peds. (#/hr)		1
Confl. Bikes (#/hr)		
Peak Hour Factor	0.94	0.94
Growth Factor	100%	100%
Heavy Vehicles (%)	1%	4%
Bus Blockages (#/hr)	0	0
Parking (#/hr)		
Mid-Block Traffic (%)	0%	
Adj. Flow (vph)	114	172
Shared Lane Traffic (%)		
Lane Group Flow (vph)	320	0
Turn Type	NA	
Protected Phases	4	
Permitted Phases		
Detector Phase	4	
Switch Phase		
Minimum Initial (s)	5.0	
Minimum Split (s)	11.0	
Total Split (s)	31.0	
Total Split (%)	20.7%	
Yellow Time (s)	4.0	
All-Red Time (s)	2.0	
Lost Time Adjust (s)	0.0	
Total Lost Time (s)	6.0	
Lead/Lag		
Lead-Lag Optimize?		
Recall Mode	None	

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 129.2
Natural Cycle: 150
Control Type: Actuated-Uncoordinated
* User Entered Value

Splits and Phases: 6: Croton Dam Rd & NYS Route 9A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Volume (veh/h)	1	135	2005	88	3	8	890	11	58	202	83	32
Number		5	2	12		1	6	16	3	8	18	7
Initial Q (Qb), veh		0	0	0		0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00		1.00		1.00		1.00	1.00		1.00	1.00
Parking Bus, Adj		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln		1675	1845	1777		1429	1766	1890	1976	1937	1976	1938
Adj Flow Rate, veh/h		144	2133	94		9	947	12	62	215	88	34
Adj No. of Lanes		1	2	1		1	2	0	0	1	0	0
Peak Hour Factor		0.94	0.94	0.94		0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %		14	4	8		43	7	7	3	3	3	1
Cap, veh/h		169	2376	972		9	1895	24	66	161	62	53
Arrive On Green		0.11	0.64	0.64		0.01	0.54	0.54	0.19	0.19	0.19	0.19
Sat Flow, veh/h		1595	3690	1510		1361	3481	44	173	827	318	111
Grp Volume(v), veh/h		144	2133	94		9	481	478	365	0	0	320
Grp Sat Flow(s),veh/h/ln		1595	1845	1510		1361	1766	1759	1317	0	0	1562
Q Serve(g_s), s		11.4	62.8	3.0		0.8	21.9	21.9	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s		11.4	62.8	3.0		0.8	21.9	21.9	25.0	0.0	0.0	25.0
Prop In Lane		1.00		1.00		1.00		0.03	0.17		0.24	0.11
Lane Grp Cap(c), veh/h		169	2376	972		9	962	957	289	0	0	334
V/C Ratio(X)		0.85	0.90	0.10		1.03	0.50	0.50	1.26	0.00	0.00	0.96
Avail Cap(c_a), veh/h		248	2438	998		212	1167	1162	289	0	0	334
HCM Platoon Ratio		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	1.00		1.00	1.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh		56.5	19.3	8.7		63.9	18.3	18.3	52.5	0.0	0.0	52.1
Incr Delay (d2), s/veh		16.8	4.8	0.0		150.8	0.4	0.4	143.8	0.0	0.0	37.8
Initial Q Delay(d3),s/veh		0.0	0.0	0.0		0.4	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		5.8	33.3	1.3		0.7	10.8	10.7	21.7	0.0	0.0	14.8
LnGrp Delay(d),s/veh		73.4	24.2	8.7		215.2	18.8	18.8	196.3	0.0	0.0	89.9
LnGrp LOS		E	C	A		F	B	B	F			F
Approach Vol, veh/h			2371				968			365		
Approach Delay, s/veh			26.5				20.6			196.3		
Approach LOS			C				C			F		

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.8	89.8		31.0	20.6	77.0		31.0
Change Period (Y+Rc), s	7.0	7.0		6.0	7.0	7.0		6.0
Max Green Setting (Gmax), s	20.0	85.0		25.0	20.0	85.0		25.0
Max Q Clear Time (g_c+I1), s	2.8	64.8		27.0	13.4	23.9		27.0
Green Ext Time (p_c), s	0.0	18.1		0.0	0.3	45.4		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	45.6
HCM 2010 LOS	D

Notes

User approved ignoring U-Turning movement.

Movement	SBT	SBR
Lane Configurations		
Volume (veh/h)	107	162
Number	4	14
Initial Q (Qb), veh	0	0
Ped-Bike Adj(A_pbT)		1.00
Parking Bus, Adj	1.00	1.00
Adj Sat Flow, veh/h/ln	1891	1938
Adj Flow Rate, veh/h	114	172
Adj No. of Lanes	1	0
Peak Hour Factor	0.94	0.94
Percent Heavy Veh, %	1	1
Cap, veh/h	119	163
Arrive On Green	0.19	0.19
Sat Flow, veh/h	611	839
Grp Volume(v), veh/h	0	0
Grp Sat Flow(s),veh/h/ln	0	0
Q Serve(g_s), s	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0
Prop In Lane		0.54
Lane Grp Cap(c), veh/h	0	0
V/C Ratio(X)	0.00	0.00
Avail Cap(c_a), veh/h	0	0
HCM Platoon Ratio	1.00	1.00
Upstream Filter(I)	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0
LnGrp Delay(d),s/veh	0.0	0.0
LnGrp LOS		
Approach Vol, veh/h	320	
Approach Delay, s/veh	89.9	
Approach LOS	F	

Timer

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	45	57	198	46	48	179
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	13	10	10	10	10
Grade (%)	-6%		-3%			3%
Storage Length (ft)	0	0		0	0	
Storage Lanes	1	0		0	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.925		0.975			
Flt Protected	0.978					0.990
Satd. Flow (prot)	1601	0	1755	0	0	1513
Flt Permitted	0.978					0.990
Satd. Flow (perm)	1601	0	1755	0	0	1513
Link Speed (mph)	30		30			30
Link Distance (ft)	477		315			163
Travel Time (s)	10.8		7.2			3.7
Confl. Peds. (#/hr)				5	5	
Confl. Bikes (#/hr)						
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)	5	5				5
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	50	63	220	51	53	199
Shared Lane Traffic (%)						
Lane Group Flow (vph)	113	0	271	0	0	252
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	2.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	45	57	198	46	48	179
Conflicting Peds, #/hr	0	0	0	5	5	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	-6	-	-3	-	-	3
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	50	63	220	51	53	199

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	552	251	0	0	271	0
Stage 1	246	-	-	-	-	-
Stage 2	306	-	-	-	-	-
Critical Hdwy	5.2	5.6	-	-	4.1	-
Critical Hdwy Stg 1	4.2	-	-	-	-	-
Critical Hdwy Stg 2	4.2	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	599	826	-	-	1304	-
Stage 1	868	-	-	-	-	-
Stage 2	832	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	569	823	-	-	1299	-
Mov Cap-2 Maneuver	569	-	-	-	-	-
Stage 1	868	-	-	-	-	-
Stage 2	791	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.3	0	1.7
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	688	1299	-
HCM Lane V/C Ratio	-	-	0.165	0.041	-
HCM Control Delay (s)	-	-	11.3	7.9	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.6	0.1	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	146	4	119	136	1	81
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	10	10	10	10
Grade (%)	-5%		-3%			-5%
Storage Length (ft)	0	0		0	0	
Storage Lanes	1	0		0	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.997		0.928			
Flt Protected	0.954					0.999
Satd. Flow (prot)	1852	0	1670	0	0	1816
Flt Permitted	0.954					0.999
Satd. Flow (perm)	1852	0	1670	0	0	1816
Link Speed (mph)	30		30			30
Link Distance (ft)	231		163			286
Travel Time (s)	5.3		3.7			6.5
Confl. Peds. (#/hr)				1	1	
Confl. Bikes (#/hr)						
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	155	4	127	145	1	86
Shared Lane Traffic (%)						
Lane Group Flow (vph)	159	0	272	0	0	87
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	3.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	146	4	119	136	1	81
Conflicting Peds, #/hr	0	0	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	-5	-	-3	-	-	-5
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	155	4	127	145	1	86

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	287	200	0	0	271	0
Stage 1	199	-	-	-	-	-
Stage 2	88	-	-	-	-	-
Critical Hdwy	5.4	5.7	-	-	4.1	-
Critical Hdwy Stg 1	4.4	-	-	-	-	-
Critical Hdwy Stg 2	4.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	766	870	-	-	1304	-
Stage 1	887	-	-	-	-	-
Stage 2	964	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	765	869	-	-	1303	-
Mov Cap-2 Maneuver	765	-	-	-	-	-
Stage 1	887	-	-	-	-	-
Stage 2	962	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.9	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	767	1303	-
HCM Lane V/C Ratio	-	-	0.208	0.001	-
HCM Control Delay (s)	-	-	10.9	7.8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.8	0	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	1	1	2	15	2	27	3	127	7	31	133	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	15	15	15	13	13	13	11	11	11	11	11	11
Grade (%)		-15%			1%			4%			-4%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.919			0.918			0.993			0.999	
Flt Protected		0.990			0.983			0.999			0.991	
Satd. Flow (prot)	0	1789	0	0	1542	0	0	1786	0	0	1805	0
Flt Permitted		0.990			0.983			0.999			0.991	
Satd. Flow (perm)	0	1789	0	0	1542	0	0	1786	0	0	1805	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		176			414			330			747	
Travel Time (s)		4.0			9.4			7.5			17.0	
Confl. Peds. (#/hr)			1	1					1	1		
Confl. Bikes (#/hr)												
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	6%	2%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)	5	5	5	5	5	5						
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	1	1	3	19	3	34	4	161	9	39	168	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	5	0	0	56	0	0	174	0	0	208	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	1	1	2	15	2	27	3	127	7	31	133	1
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	1	1	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-15	-	-	1	-	-	4	-	-	-4	-
Peak Hour Factor	79	79	79	79	79	79	79	79	79	79	79	79
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	6	2	0
Mvmt Flow	1	1	3	19	3	34	4	161	9	39	168	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	440	426	171	424	423	167	171	0	0	171	0	0
Stage 1	248	248	-	174	174	-	-	-	-	-	-	-
Stage 2	192	178	-	250	249	-	-	-	-	-	-	-
Critical Hdwy	4.1	3.5	4.7	7.3	6.7	6.3	4.1	-	-	4.16	-	-
Critical Hdwy Stg 1	3.1	2.5	-	6.3	5.7	-	-	-	-	-	-	-
Critical Hdwy Stg 2	3.1	2.5	-	6.3	5.7	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.254	-	-
Pot Cap-1 Maneuver	766	747	943	531	513	878	1418	-	-	1382	-	-
Stage 1	935	867	-	825	751	-	-	-	-	-	-	-
Stage 2	956	877	-	748	695	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	713	720	941	514	495	877	1417	-	-	1381	-	-
Mov Cap-2 Maneuver	713	720	-	514	495	-	-	-	-	-	-	-
Stage 1	931	839	-	822	748	-	-	-	-	-	-	-
Stage 2	912	874	-	721	673	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.5	10.7	0.2	1.4
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1417	-	-	814	687	1381	-	-
HCM Lane V/C Ratio	0.003	-	-	0.006	0.081	0.028	-	-
HCM Control Delay (s)	7.5	0	-	9.5	10.7	7.7	0	-
HCM Lane LOS	A	A	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.3	0.1	-	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	19	23	119	36	43	146
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	11	11	11	11
Grade (%)	-5%		7%			-7%
Storage Length (ft)	0	0		0	0	
Storage Lanes	1	0		0	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.926		0.968			
Flt Protected	0.978					0.989
Satd. Flow (prot)	1646	0	1716	0	0	1851
Flt Permitted	0.978					0.989
Satd. Flow (perm)	1646	0	1716	0	0	1851
Link Speed (mph)	30		30			30
Link Distance (ft)	188		747			836
Travel Time (s)	4.3		17.0			19.0
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	0%	0%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	24	29	151	46	54	185
Shared Lane Traffic (%)						
Lane Group Flow (vph)	53	0	197	0	0	239
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	19	23	119	36	43	146
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	-5	-	7	-	-	-7
Peak Hour Factor	79	79	79	79	79	79
Heavy Vehicles, %	0	0	0	0	0	2
Mvmt Flow	24	29	151	46	54	185

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	467	173	0	0	196	0
Stage 1	173	-	-	-	-	-
Stage 2	294	-	-	-	-	-
Critical Hdwy	5.4	5.7	-	-	4.1	-
Critical Hdwy Stg 1	4.4	-	-	-	-	-
Critical Hdwy Stg 2	4.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	635	897	-	-	1389	-
Stage 1	905	-	-	-	-	-
Stage 2	826	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	608	897	-	-	1389	-
Mov Cap-2 Maneuver	608	-	-	-	-	-
Stage 1	905	-	-	-	-	-
Stage 2	790	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.3	0	1.8
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	738	1389	-
HCM Lane V/C Ratio	-	-	0.072	0.039	-
HCM Control Delay (s)	-	-	10.3	7.7	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.1	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	60	11	27	197	256	76
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	12	12
Grade (%)	-2%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.979				0.969	
Flt Protected	0.960			0.994		
Satd. Flow (prot)	1714	0	0	1794	1811	0
Flt Permitted	0.960			0.994		
Satd. Flow (perm)	1714	0	0	1794	1811	0
Link Speed (mph)	35			30	30	
Link Distance (ft)	990			933	161	
Travel Time (s)	19.3			21.2	3.7	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	0%	0%	2%	1%	4%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	65	12	29	214	278	83
Shared Lane Traffic (%)						
Lane Group Flow (vph)	77	0	0	243	361	0
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	60	11	27	197	256	76
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-2	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	0	0	2	1	4
Mvmt Flow	65	12	29	214	278	83

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	593	320	361	0	-	0
Stage 1	320	-	-	-	-	-
Stage 2	273	-	-	-	-	-
Critical Hdwy	6.02	6	4.1	-	-	-
Critical Hdwy Stg 1	5.02	-	-	-	-	-
Critical Hdwy Stg 2	5.02	-	-	-	-	-
Follow-up Hdwy	3.518	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	500	738	1209	-	-	-
Stage 1	763	-	-	-	-	-
Stage 2	797	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	487	738	1209	-	-	-
Mov Cap-2 Maneuver	487	-	-	-	-	-
Stage 1	763	-	-	-	-	-
Stage 2	775	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.2	1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1209	-	514	-	-
HCM Lane V/C Ratio	0.024	-	0.15	-	-
HCM Control Delay (s)	8.1	0	13.2	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.5	-	-

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Volume (vph)	1	153	999	176	2	25	2063	45	83	128	46	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	11	11	12	11	11	11	13	13	13	11
Grade (%)			-2%				1%			0%		
Storage Length (ft)		110		190		150		0	0		0	0
Storage Lanes		1		1		1		0	0		0	0
Taper Length (ft)		25				25			25			25
Lane Util. Factor	0.95	1.00	*1.00	1.00	0.95	1.00	*1.00	0.95	1.00	1.00	1.00	1.00
Ped Bike Factor										1.00		
Frt				0.850			0.997			0.976		
Flt Protected		0.950				0.950				0.984		
Satd. Flow (prot)	0	1762	3602	1546	0	1659	3570	0	0	1834	0	0
Flt Permitted		0.950				0.950				0.306		
Satd. Flow (perm)	0	1762	3602	1546	0	1659	3570	0	0	570	0	0
Right Turn on Red				No				Yes			No	
Satd. Flow (RTOR)							2					
Link Speed (mph)			40				40			30		
Link Distance (ft)			1697				1673			161		
Travel Time (s)			28.9				28.5			3.7		
Confl. Peds. (#/hr)									1			
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	3%	2%	0%	5%	2%	5%	6%	0%	5%	9%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)			0%				0%			0%		
Adj. Flow (vph)	1	165	1074	189	2	27	2218	48	89	138	49	25
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	166	1074	189	0	29	2266	0	0	276	0	0
Turn Type	Prot	Prot	NA	Perm	Prot	Prot	NA		Perm	NA		Perm
Protected Phases	5	5	2		1	1	6			8		
Permitted Phases				2					8			4
Detector Phase	5	5	2	2	1	1	6		8	8		4
Switch Phase												
Minimum Initial (s)	3.0	3.0	10.0	10.0	3.0	3.0	10.0		5.0	5.0		5.0
Minimum Split (s)	10.0	10.0	17.0	17.0	10.0	10.0	17.0		11.0	11.0		11.0
Total Split (s)	27.0	27.0	92.0	92.0	27.0	27.0	92.0		31.0	31.0		31.0
Total Split (%)	18.0%	18.0%	61.3%	61.3%	18.0%	18.0%	61.3%		20.7%	20.7%		20.7%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0		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	2.0		2.0
Lost Time Adjust (s)		0.0	0.0	0.0		0.0	0.0			0.0		
Total Lost Time (s)		7.0	7.0	7.0		7.0	7.0			6.0		
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	None	Min	Min	None	None	Min		None	None		None

Intersection Summary

Lane Group	SBT	SBR
Lane Configurations		
Volume (vph)	131	159
Ideal Flow (vphpl)	1900	1900
Lane Width (ft)	11	11
Grade (%)	-4%	
Storage Length (ft)		0
Storage Lanes		0
Taper Length (ft)		
Lane Util. Factor	1.00	1.00
Ped Bike Factor	0.99	
Frt	0.931	
Flt Protected	0.996	
Satd. Flow (prot)	1681	0
Flt Permitted	0.908	
Satd. Flow (perm)	1533	0
Right Turn on Red		No
Satd. Flow (RTOR)		
Link Speed (mph)	30	
Link Distance (ft)	419	
Travel Time (s)	9.5	
Confl. Peds. (#/hr)		1
Confl. Bikes (#/hr)		
Peak Hour Factor	0.93	0.93
Growth Factor	100%	100%
Heavy Vehicles (%)	1%	3%
Bus Blockages (#/hr)	0	0
Parking (#/hr)		
Mid-Block Traffic (%)	0%	
Adj. Flow (vph)	141	171
Shared Lane Traffic (%)		
Lane Group Flow (vph)	337	0
Turn Type	NA	
Protected Phases	4	
Permitted Phases		
Detector Phase	4	
Switch Phase		
Minimum Initial (s)	5.0	
Minimum Split (s)	11.0	
Total Split (s)	31.0	
Total Split (%)	20.7%	
Yellow Time (s)	4.0	
All-Red Time (s)	2.0	
Lost Time Adjust (s)	0.0	
Total Lost Time (s)	6.0	
Lead/Lag		
Lead-Lag Optimize?		
Recall Mode	None	

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 147.8
Natural Cycle: 150
Control Type: Actuated-Uncoordinated
* User Entered Value

Splits and Phases: 6: Croton Dam Rd & NYS Route 9A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Volume (veh/h)	1	153	999	176	2	25	2063	45	83	128	46	23
Number		5	2	12		1	6	16	3	8	18	7
Initial Q (Qb), veh		0	0	0		0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00		1.00		1.00		1.00	1.00		1.00	1.00
Parking Bus, Adj		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln		1919	1863	1881		1806	1852	1890	1976	1922	1976	1938
Adj Flow Rate, veh/h		165	1074	189		27	2218	48	89	138	49	25
Adj No. of Lanes		1	2	1		1	2	0	0	1	0	0
Peak Hour Factor		0.93	0.93	0.93		0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %		0	3	2		5	2	2	0	0	0	1
Cap, veh/h		191	2498	1072		34	2116	46	75	82	27	41
Arrive On Green		0.10	0.67	0.67		0.02	0.59	0.59	0.17	0.17	0.17	0.17
Sat Flow, veh/h		1828	3726	1599		1720	3613	78	242	477	155	83
Grp Volume(v), veh/h		165	1074	189		27	1133	1133	276	0	0	337
Grp Sat Flow(s),veh/h/ln		1828	1863	1599		1720	1852	1839	875	0	0	1705
Q Serve(g_s), s		12.9	19.4	6.4		2.3	85.0	85.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s		12.9	19.4	6.4		2.3	85.0	85.0	25.0	0.0	0.0	25.0
Prop In Lane		1.00		1.00		1.00		0.04	0.32		0.18	0.07
Lane Grp Cap(c), veh/h		191	2498	1072		34	1085	1077	183	0	0	320
V/C Ratio(X)		0.86	0.43	0.18		0.80	1.04	1.05	1.50	0.00	0.00	1.05
Avail Cap(c_a), veh/h		252	2498	1072		237	1085	1077	183	0	0	320
HCM Platoon Ratio		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	1.00		1.00	1.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh		64.0	11.1	8.9		70.9	30.1	30.1	61.5	0.0	0.0	61.1
Incr Delay (d2), s/veh		20.6	0.1	0.1		32.9	39.7	42.3	253.1	0.0	0.0	64.7
Initial Q Delay(d3),s/veh		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		7.6	9.9	2.9		1.4	55.1	55.4	20.2	0.0	0.0	18.6
LnGrp Delay(d),s/veh		84.6	11.2	9.0		103.8	69.8	72.4	314.6	0.0	0.0	125.8
LnGrp LOS		F	B	A		F	F	F	F			F
Approach Vol, veh/h			1428				2293			276		
Approach Delay, s/veh			19.4				71.5			314.6		
Approach LOS			B				E			F		

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.9	104.3		31.0	22.2	92.0		31.0
Change Period (Y+Rc), s	7.0	7.0		6.0	7.0	7.0		6.0
Max Green Setting (Gmax), s	20.0	85.0		25.0	20.0	85.0		25.0
Max Q Clear Time (g_c+I1), s	4.3	21.4		27.0	14.9	87.0		27.0
Green Ext Time (p_c), s	0.0	52.9		0.0	0.3	0.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	74.0
HCM 2010 LOS	E

Notes

User approved ignoring U-Turning movement.

Movement	SBT	SBR
Lane Configurations		
Volume (veh/h)	131	159
Number	4	14
Initial Q (Qb), veh	0	0
Ped-Bike Adj(A_pbT)		1.00
Parking Bus, Adj	1.00	1.00
Adj Sat Flow, veh/h/ln	1889	1938
Adj Flow Rate, veh/h	141	171
Adj No. of Lanes	1	0
Peak Hour Factor	0.93	0.93
Percent Heavy Veh, %	1	1
Cap, veh/h	130	149
Arrive On Green	0.17	0.17
Sat Flow, veh/h	757	865
Grp Volume(v), veh/h	0	0
Grp Sat Flow(s),veh/h/ln	0	0
Q Serve(g_s), s	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0
Prop In Lane		0.51
Lane Grp Cap(c), veh/h	0	0
V/C Ratio(X)	0.00	0.00
Avail Cap(c_a), veh/h	0	0
HCM Platoon Ratio	1.00	1.00
Upstream Filter(I)	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0
LnGrp Delay(d),s/veh	0.0	0.0
LnGrp LOS		
Approach Vol, veh/h	337	
Approach Delay, s/veh	125.8	
Approach LOS	F	

Timer

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	55	62	214	80	59	183
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	13	10	10	10	10
Grade (%)	-6%		-3%			3%
Storage Length (ft)	0	0		0	0	
Storage Lanes	1	0		0	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.928		0.963			
Flt Protected	0.977					0.988
Satd. Flow (prot)	1604	0	1707	0	0	1510
Flt Permitted	0.977					0.988
Satd. Flow (perm)	1604	0	1707	0	0	1510
Link Speed (mph)	30		30			30
Link Distance (ft)	477		315			163
Travel Time (s)	10.8		7.2			3.7
Confl. Peds. (#/hr)				3	3	
Confl. Bikes (#/hr)						
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	1%	3%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)	5	5				5
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	65	74	255	95	70	218
Shared Lane Traffic (%)						
Lane Group Flow (vph)	139	0	350	0	0	288
Sign Control	Stop		Free			Free

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	55	62	214	80	59	183
Conflicting Peds, #/hr	0	0	0	3	3	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	-6	-	-3	-	-	3
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	0	0	1	3	0	0
Mvmt Flow	65	74	255	95	70	218

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	660	305	0	0	350	0
Stage 1	302	-	-	-	-	-
Stage 2	358	-	-	-	-	-
Critical Hdwy	5.2	5.6	-	-	4.1	-
Critical Hdwy Stg 1	4.2	-	-	-	-	-
Critical Hdwy Stg 2	4.2	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	537	778	-	-	1220	-
Stage 1	834	-	-	-	-	-
Stage 2	802	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	501	776	-	-	1217	-
Mov Cap-2 Maneuver	501	-	-	-	-	-
Stage 1	834	-	-	-	-	-
Stage 2	748	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.5	0	2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	617	1217	-
HCM Lane V/C Ratio	-	-	0.226	0.058	-
HCM Control Delay (s)	-	-	12.5	8.1	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.9	0.2	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	112	7	96	180	8	130
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	10	10	10	10
Grade (%)	-5%		-3%			-5%
Storage Length (ft)	0	0		0	0	
Storage Lanes	1	0		0	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.992		0.912			
Flt Protected	0.955					0.997
Satd. Flow (prot)	1845	0	1636	0	0	1812
Flt Permitted	0.955					0.997
Satd. Flow (perm)	1845	0	1636	0	0	1812
Link Speed (mph)	30		30			30
Link Distance (ft)	231		163			286
Travel Time (s)	5.3		3.7			6.5
Confl. Peds. (#/hr)		1		1	1	
Confl. Bikes (#/hr)						
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	1%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	132	8	113	212	9	153
Shared Lane Traffic (%)						
Lane Group Flow (vph)	140	0	325	0	0	162
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	2.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	112	7	96	180	8	130
Conflicting Peds, #/hr	0	1	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	-5	-	-3	-	-	-5
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	0	0	1	0	0	0
Mvmt Flow	132	8	113	212	9	153

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	392	221	0	0	326	0
Stage 1	220	-	-	-	-	-
Stage 2	172	-	-	-	-	-
Critical Hdwy	5.4	5.7	-	-	4.1	-
Critical Hdwy Stg 1	4.4	-	-	-	-	-
Critical Hdwy Stg 2	4.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	687	849	-	-	1245	-
Stage 1	873	-	-	-	-	-
Stage 2	905	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	680	848	-	-	1244	-
Mov Cap-2 Maneuver	680	-	-	-	-	-
Stage 1	872	-	-	-	-	-
Stage 2	897	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.6	0	0.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	688	1244	-
HCM Lane V/C Ratio	-	-	0.203	0.008	-
HCM Control Delay (s)	-	-	11.6	7.9	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.8	0	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	4	4	10	1	15	3	170	15	25	105	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	15	15	15	13	13	13	11	11	11	11	11	11
Grade (%)		-15%			1%			4%			-4%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.932			0.921			0.989				
Flt Protected					0.981			0.999			0.991	
Satd. Flow (prot)	0	1629	0	0	1493	0	0	1707	0	0	1798	0
Flt Permitted					0.981			0.999			0.991	
Satd. Flow (perm)	0	1629	0	0	1493	0	0	1707	0	0	1798	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		176			414			330			747	
Travel Time (s)		4.0			9.4			7.5			17.0	
Confl. Peds. (#/hr)			2	2					1	1		
Confl. Bikes (#/hr)												
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	25%	0%	0%	100%	0%	0%	4%	7%	0%	4%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)	5	5	5	5	5	5						
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	5	5	11	1	17	3	193	17	28	119	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	10	0	0	29	0	0	213	0	0	147	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	4	4	10	1	15	3	170	15	25	105	0
Conflicting Peds, #/hr	0	0	2	2	0	0	0	0	1	1	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-15	-	-	1	-	-	4	-	-	-4	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	0	25	0	0	100	0	0	4	7	0	4	0
Mvmt Flow	0	5	5	11	1	17	3	193	17	28	119	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	398	397	122	394	389	205	121	0	0	212	0	0
Stage 1	178	178	-	211	211	-	-	-	-	-	-	-
Stage 2	220	219	-	183	178	-	-	-	-	-	-	-
Critical Hdwy	4.1	3.75	4.7	7.3	7.7	6.3	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	3.1	2.75	-	6.3	6.7	-	-	-	-	-	-	-
Critical Hdwy Stg 2	3.1	2.75	-	6.3	6.7	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4.225	3.3	3.5	4.9	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	788	705	983	557	412	836	1479	-	-	1370	-	-
Stage 1	961	824	-	786	571	-	-	-	-	-	-	-
Stage 2	945	817	-	815	594	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	754	685	980	540	401	834	1478	-	-	1369	-	-
Mov Cap-2 Maneuver	754	685	-	540	401	-	-	-	-	-	-	-
Stage 1	957	804	-	783	569	-	-	-	-	-	-	-
Stage 2	921	814	-	788	580	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.5	10.6	0.1	1.5
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1478	-	-	806	667	1369	-	-
HCM Lane V/C Ratio	0.002	-	-	0.011	0.044	0.021	-	-
HCM Control Delay (s)	7.4	0	-	9.5	10.6	7.7	0	-
HCM Lane LOS	A	A	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0.1	-	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	35	42	176	9	10	95
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	11	11	11	11
Grade (%)	-5%		7%			-7%
Storage Length (ft)	0	0		0	0	
Storage Lanes	1	0		0	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.926		0.994			
Flt Protected	0.978					0.995
Satd. Flow (prot)	1646	0	1697	0	0	1825
Flt Permitted	0.978					0.995
Satd. Flow (perm)	1646	0	1697	0	0	1825
Link Speed (mph)	30		30			30
Link Distance (ft)	188		747			836
Travel Time (s)	4.3		17.0			19.0
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	4%	0%	0%	4%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	40	48	200	10	11	108
Shared Lane Traffic (%)						
Lane Group Flow (vph)	88	0	210	0	0	119
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	2.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	35	42	176	9	10	95
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	-5	-	7	-	-	-7
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	0	0	4	0	0	4
Mvmt Flow	40	48	200	10	11	108

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	336	205	0	0	210	0
Stage 1	205	-	-	-	-	-
Stage 2	131	-	-	-	-	-
Critical Hdwy	5.4	5.7	-	-	4.1	-
Critical Hdwy Stg 1	4.4	-	-	-	-	-
Critical Hdwy Stg 2	4.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	728	865	-	-	1373	-
Stage 1	883	-	-	-	-	-
Stage 2	933	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	721	865	-	-	1373	-
Mov Cap-2 Maneuver	721	-	-	-	-	-
Stage 1	883	-	-	-	-	-
Stage 2	925	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.1	0	0.7
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	793	1373	-
HCM Lane V/C Ratio	-	-	0.11	0.008	-
HCM Control Delay (s)	-	-	10.1	7.6	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	74	43	24	269	150	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	12	12
Grade (%)	-2%			0%	0%	
Storage Length (ft)	0	0	0			0
Storage Lanes	1	0	0			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.950				0.965	
Flt Protected	0.969			0.996		
Satd. Flow (prot)	1634	0	0	1791	1745	0
Flt Permitted	0.969			0.996		
Satd. Flow (perm)	1634	0	0	1791	1745	0
Link Speed (mph)	35			30	30	
Link Distance (ft)	990			933	161	
Travel Time (s)	19.3			21.2	3.7	
Confl. Peds. (#/hr)	1		1			1
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	7%	4%	2%	4%	8%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	80	47	26	292	163	58
Shared Lane Traffic (%)						
Lane Group Flow (vph)	127	0	0	318	221	0
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	74	43	24	269	150	53
Conflicting Peds, #/hr	1	0	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-2	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	7	4	2	4	8
Mvmt Flow	80	47	26	292	163	58

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	538	194	222	0	-	0
Stage 1	193	-	-	-	-	-
Stage 2	345	-	-	-	-	-
Critical Hdwy	6.03	6.07	4.14	-	-	-
Critical Hdwy Stg 1	5.03	-	-	-	-	-
Critical Hdwy Stg 2	5.03	-	-	-	-	-
Follow-up Hdwy	3.527	3.363	2.236	-	-	-
Pot Cap-1 Maneuver	533	844	1335	-	-	-
Stage 1	855	-	-	-	-	-
Stage 2	743	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	520	843	1334	-	-	-
Mov Cap-2 Maneuver	520	-	-	-	-	-
Stage 1	854	-	-	-	-	-
Stage 2	725	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.5	0.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1334	-	605	-	-
HCM Lane V/C Ratio	0.02	-	0.21	-	-
HCM Control Delay (s)	7.8	0	12.5	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.8	-	-

Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Volume (vph)	1	135	2005	88	3	8	890	11	58	202	83	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	11	11	12	11	11	11	13	13	13	11
Grade (%)			-2%				1%			0%		
Storage Length (ft)		110		190		150		0	0		0	0
Storage Lanes		1		1		1		0	0		0	0
Taper Length (ft)		25				25			25			25
Lane Util. Factor	0.95	1.00	*1.00	1.00	0.95	1.00	*1.00	0.95	1.00	1.00	1.00	1.00
Ped Bike Factor										1.00		
Frt				0.850			0.998			0.967		
Flt Protected		0.950				0.950				0.992		
Satd. Flow (prot)	0	1538	3567	1460	0	1313	3408	0	0	1846	0	0
Flt Permitted		0.950				0.950				0.691		
Satd. Flow (perm)	0	1538	3567	1460	0	1313	3408	0	0	1286	0	0
Right Turn on Red				No				Yes			No	
Satd. Flow (RTOR)							1					
Link Speed (mph)			40				40			30		
Link Distance (ft)			1697				1673			161		
Travel Time (s)			28.9				28.5			3.7		
Confl. Peds. (#/hr)									1			
Confl. Bikes (#/hr)												
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	100%	14%	4%	8%	0%	43%	7%	9%	0%	3%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)			0%				0%			0%		
Adj. Flow (vph)	1	144	2133	94	3	9	947	12	62	215	88	34
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	145	2133	94	0	12	959	0	0	365	0	0
Turn Type	Prot	Prot	NA	Perm	Prot	Prot	NA		Perm	NA		Perm
Protected Phases	5	5	2		1	1	6			8		
Permitted Phases				2					8			4
Detector Phase	5	5	2	2	1	1	6		8	8		4
Switch Phase												
Minimum Initial (s)	3.0	3.0	10.0	10.0	3.0	3.0	10.0		5.0	5.0		5.0
Minimum Split (s)	10.0	10.0	17.0	17.0	10.0	10.0	17.0		11.0	11.0		11.0
Total Split (s)	30.0	30.0	92.0	92.0	10.0	10.0	72.0		38.0	38.0		38.0
Total Split (%)	21.4%	21.4%	65.7%	65.7%	7.1%	7.1%	51.4%		27.1%	27.1%		27.1%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0		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	2.0		2.0
Lost Time Adjust (s)		0.0	0.0	0.0		0.0	0.0			0.0		
Total Lost Time (s)		7.0	7.0	7.0		7.0	7.0			6.0		
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	None	Min	Min	None	None	Min		None	None		None

Intersection Summary

Lane Group	SBT	SBR
Lane Configurations	✣	
Volume (vph)	107	162
Ideal Flow (vphpl)	1900	1900
Lane Width (ft)	11	11
Grade (%)	-4%	
Storage Length (ft)		0
Storage Lanes		0
Taper Length (ft)		
Lane Util. Factor	1.00	1.00
Ped Bike Factor	0.99	
Frt	0.927	
Flt Protected	0.995	
Satd. Flow (prot)	1674	0
Flt Permitted	0.830	
Satd. Flow (perm)	1396	0
Right Turn on Red		No
Satd. Flow (RTOR)		
Link Speed (mph)	30	
Link Distance (ft)	419	
Travel Time (s)	9.5	
Confl. Peds. (#/hr)		1
Confl. Bikes (#/hr)		
Peak Hour Factor	0.94	0.94
Growth Factor	100%	100%
Heavy Vehicles (%)	1%	4%
Bus Blockages (#/hr)	0	0
Parking (#/hr)		
Mid-Block Traffic (%)	0%	
Adj. Flow (vph)	114	172
Shared Lane Traffic (%)		
Lane Group Flow (vph)	320	0
Turn Type	NA	
Protected Phases	4	
Permitted Phases		
Detector Phase	4	
Switch Phase		
Minimum Initial (s)	5.0	
Minimum Split (s)	11.0	
Total Split (s)	38.0	
Total Split (%)	27.1%	
Yellow Time (s)	4.0	
All-Red Time (s)	2.0	
Lost Time Adjust (s)	0.0	
Total Lost Time (s)	6.0	
Lead/Lag		
Lead-Lag Optimize?		
Recall Mode	None	

Intersection Summary

Area Type:	Other
Cycle Length: 140	
Actuated Cycle Length: 133.5	
Natural Cycle: 150	
Control Type: Actuated-Uncoordinated	
* User Entered Value	

Splits and Phases: 6: Croton Dam Rd & NYS Route 9A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Volume (veh/h)	1	135	2005	88	3	8	890	11	58	202	83	32
Number		5	2	12		1	6	16	3	8	18	7
Initial Q (Qb), veh		0	0	0		0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00		1.00		1.00		1.00	1.00		1.00	1.00
Parking Bus, Adj		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln		1675	1845	1777		1429	1766	1890	1976	1937	1976	1938
Adj Flow Rate, veh/h		144	2133	94		9	947	12	62	215	88	34
Adj No. of Lanes		1	2	1		1	2	0	0	1	0	0
Peak Hour Factor		0.94	0.94	0.94		0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %		14	4	8		43	7	7	3	3	3	1
Cap, veh/h		169	2251	921		9	1777	23	74	204	78	54
Arrive On Green		0.11	0.61	0.61		0.01	0.51	0.51	0.24	0.24	0.24	0.24
Sat Flow, veh/h		1595	3690	1510		1361	3481	44	181	864	332	106
Grp Volume(v), veh/h		144	2133	94		9	481	478	365	0	0	320
Grp Sat Flow(s),veh/h/ln		1595	1845	1510		1361	1766	1759	1376	0	0	1520
Q Serve(g_s), s		12.0	72.4	3.5		0.9	24.8	24.8	4.7	0.0	0.0	0.0
Cycle Q Clear(g_c), s		12.0	72.4	3.5		0.9	24.8	24.8	32.0	0.0	0.0	27.3
Prop In Lane		1.00		1.00		1.00		0.03	0.17		0.24	0.11
Lane Grp Cap(c), veh/h		169	2251	921		9	902	898	356	0	0	388
V/C Ratio(X)		0.85	0.95	0.10		1.04	0.53	0.53	1.03	0.00	0.00	0.82
Avail Cap(c_a), veh/h		271	2315	947		30	902	898	356	0	0	388
HCM Platoon Ratio		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	1.00		1.00	1.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh		59.6	24.4	11.0		67.3	22.3	22.3	52.8	0.0	0.0	49.4
Incr Delay (d2), s/veh		13.7	9.1	0.0		154.0	0.6	0.6	54.3	0.0	0.0	13.5
Initial Q Delay(d3),s/veh		0.0	0.0	0.0		0.7	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		6.0	39.3	1.5		0.7	12.2	12.1	18.6	0.0	0.0	13.0
LnGrp Delay(d),s/veh		73.3	33.6	11.0		222.0	22.9	22.9	107.1	0.0	0.0	62.8
LnGrp LOS		E	C	B		F	C	C	F			E
Approach Vol, veh/h			2371				968			365		
Approach Delay, s/veh			35.1				24.8			107.1		
Approach LOS			D				C			F		

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.9	89.7		38.0	21.3	76.2		38.0
Change Period (Y+Rc), s	7.0	7.0		6.0	7.0	7.0		6.0
Max Green Setting (Gmax), s	3.0	85.0		32.0	23.0	65.0		32.0
Max Q Clear Time (g_c+I1), s	2.9	74.4		29.3	14.0	26.8		34.0
Green Ext Time (p_c), s	0.0	8.3		1.1	0.4	31.4		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	41.3
HCM 2010 LOS	D

Notes

User approved ignoring U-Turning movement.

Movement	SBT	SBR
Lane Configurations		
Volume (veh/h)	107	162
Number	4	14
Initial Q (Qb), veh	0	0
Ped-Bike Adj(A_pbT)		1.00
Parking Bus, Adj	1.00	1.00
Adj Sat Flow, veh/h/ln	1891	1938
Adj Flow Rate, veh/h	114	172
Adj No. of Lanes	1	0
Peak Hour Factor	0.94	0.94
Percent Heavy Veh, %	1	1
Cap, veh/h	141	193
Arrive On Green	0.24	0.24
Sat Flow, veh/h	597	817
Grp Volume(v), veh/h	0	0
Grp Sat Flow(s),veh/h/ln	0	0
Q Serve(g_s), s	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0
Prop In Lane		0.54
Lane Grp Cap(c), veh/h	0	0
V/C Ratio(X)	0.00	0.00
Avail Cap(c_a), veh/h	0	0
HCM Platoon Ratio	1.00	1.00
Upstream Filter(I)	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0
LnGrp Delay(d),s/veh	0.0	0.0
LnGrp LOS		
Approach Vol, veh/h	320	
Approach Delay, s/veh	62.8	
Approach LOS	E	

Timer

APPENDIX D

AUTOMATIC TRAFFIC RECORDER DATA AND TURNING MOVEMENT COUNTS

Traffic Databank

716 S Sixth Ave
Mount Vernon, NY 10550

Site Code:
Station ID:
CROTON DAM RD
OSSINING, NY
Latitude: 0' 0.0000 Undefined

Start	14-Sep-15		15-Sep-15		16-Sep-15		17-Sep-15		18-Sep-15		Weekday Average		19-Sep-15		20-Sep-15	
Time	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
12:00 AM	*	*	*	*	*	*	*	*	*	*	*	*	8	11	21	13
01:00	*	*	*	*	*	*	*	*	*	*	*	*	12	11	20	7
02:00	*	*	*	*	*	*	*	*	*	*	*	*	6	12	16	4
03:00	*	*	*	*	*	*	*	*	*	*	*	*	3	8	6	10
04:00	*	*	*	*	*	*	*	*	*	*	*	*	4	9	4	14
05:00	*	*	*	*	*	*	*	*	*	*	*	*	5	12	5	5
06:00	*	*	*	*	*	*	*	*	*	*	*	*	22	33	6	19
07:00	*	*	*	*	*	*	*	*	*	*	*	*	54	**93**	18	36
08:00	*	*	*	*	*	*	*	*	*	*	*	*	68	80	51	37
09:00	*	*	*	*	*	*	*	*	*	*	*	*	69	92	44	**81**
10:00	*	*	*	*	*	*	*	*	54	**65**	54	**65**	87	87	48	62
11:00	*	*	*	*	*	*	*	*	**63**	54	**63**	54	**92**	92	**72**	74
12:00 PM	*	*	*	*	*	*	*	*	99	65	99	65	105	**102**	98	86
01:00	*	*	*	*	*	*	*	*	72	76	72	76	91	91	**121**	**91**
02:00	*	*	*	*	*	*	*	*	112	90	112	90	86	72	82	79
03:00	*	*	*	*	*	*	*	*	106	107	106	107	101	86	119	77
04:00	*	*	*	*	*	*	*	*	109	**118**	109	**118**	101	75	99	60
05:00	*	*	*	*	*	*	*	*	115	102	115	102	**118**	78	104	68
06:00	*	*	*	*	*	*	*	*	**125**	110	**125**	110	104	65	85	38
07:00	*	*	*	*	*	*	*	*	106	74	106	74	75	46	58	42
08:00	*	*	*	*	*	*	*	*	64	41	64	41	57	39	64	25
09:00	*	*	*	*	*	*	*	*	51	39	51	39	57	20	41	30
10:00	*	*	*	*	*	*	*	*	35	27	35	27	35	25	19	19
11:00	*	*	*	*	*	*	*	*	38	17	38	17	30	22	13	9
Total	0	0	0	0	0	0	0	0	1149	985	1149	985	1390	1261	1214	986
Day	0		0		0		0		2134		2134		2651		2200	
AM Peak	-	-	-	-	-	-	-	-	11:00	10:00	11:00	10:00	11:00	07:00	11:00	09:00
Vol.	-	-	-	-	-	-	-	-	63	65	63	65	92	93	72	81
PM Peak	-	-	-	-	-	-	-	-	18:00	16:00	18:00	16:00	17:00	12:00	13:00	13:00
Vol.	-	-	-	-	-	-	-	-	125	118	125	118	118	102	121	91

Traffic Databank

716 S Sixth Ave
Mount Vernon, NY 10550

Site Code:
Station ID:
CROTON DAM RD
OSSINING, NY
Latitude: 0' 0.0000 Undefined

Start	21-Sep-15		22-Sep-15		23-Sep-15		24-Sep-15		25-Sep-15		Weekday Average		26-Sep-15		27-Sep-15	
Time	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
12:00 AM	7	3	12	6	6	6	8	7	6	15	8	7	17	16	44	14
01:00	5	4	4	4	2	5	1	4	4	5	3	4	8	7	14	8
02:00	2	8	3	8	4	4	1	8	4	7	3	7	3	16	8	8
03:00	4	11	1	14	1	14	1	8	4	9	2	11	1	13	6	9
04:00	7	9	7	7	6	5	3	6	5	11	6	8	1	10	3	8
05:00	11	13	14	12	11	10	9	13	18	22	13	14	9	9	3	7
06:00	58	77	53	83	47	78	57	90	60	76	55	81	17	39	11	23
07:00	83	**130**	79	**148**	73	**146**	**91**	**152**	90	**151**	83	**145**	50	91	32	40
08:00	**89**	96	**88**	91	**81**	93	87	106	**96**	94	**88**	96	77	78	43	46
09:00	63	52	81	71	60	83	75	77	75	64	71	69	**92**	92	60	**85**
10:00	65	52	56	62	58	58	59	63	73	71	62	61	92	101	63	78
11:00	72	55	65	50	80	73	68	62	53	71	68	62	72	**107**	**101**	78
12:00 PM	81	57	66	55	83	70	83	61	94	74	81	63	88	88	**118**	81
01:00	67	52	64	75	105	74	70	57	62	68	74	65	**114**	93	94	**101**
02:00	77	81	93	81	87	64	86	69	98	74	88	74	106	79	92	89
03:00	90	86	95	82	103	74	116	97	109	101	103	88	111	**94**	98	71
04:00	**137**	**112**	123	90	122	102	122	82	**146**	106	**130**	98	90	72	108	69
05:00	108	97	**132**	**94**	**142**	**103**	107	**99**	108	**112**	119	**101**	113	89	108	63
06:00	112	102	101	86	97	77	**131**	90	119	90	112	89	95	58	82	50
07:00	87	71	91	72	94	50	94	81	114	78	96	70	78	49	88	43
08:00	63	39	58	46	60	40	68	61	81	45	66	46	59	30	*	*
09:00	41	23	63	35	45	27	56	47	56	59	52	38	57	25	*	*
10:00	25	16	31	36	39	37	42	23	48	47	37	32	47	26	*	*
11:00	10	21	17	16	11	14	17	10	33	17	18	16	42	20	*	*
Total	1364	1267	1397	1324	1417	1307	1452	1373	1556	1467	1438	1345	1439	1302	1176	971
Day	2631		2721		2724		2825		3023		2783		2741		2147	
AM Peak	08:00	07:00	08:00	07:00	08:00	07:00	07:00	07:00	08:00	07:00	08:00	07:00	09:00	11:00	11:00	09:00
Vol.	89	130	88	148	81	146	91	152	96	151	88	145	92	107	101	85
PM Peak	16:00	16:00	17:00	17:00	17:00	17:00	18:00	17:00	16:00	17:00	16:00	17:00	13:00	15:00	12:00	13:00
Vol.	137	112	132	94	142	103	131	99	146	112	130	101	114	94	118	101

Comb. Total	2631	2721	2724	2825	5157	4917	5392	4347
ADT	ADT 2,675	AADT 2,675						

Traffic Databank

716 S Sixth Ave
Mount Vernon, NY 10550

Site Code:
Station ID:
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OSSINING, NY
Latitude: 0' 0.0000 Undefined

SB

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
09/18/15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	**1**	**1**	**1**	**2**	**15**	17	15	2	0	0	0	0	0	0	54	31-40	32
11:00	0	1	0	1	9	**27**	**16**	**6**	**3**	0	0	0	0	0	**63**	36-45	43
12 PM	1	0	1	8	14	44	26	4	1	0	0	0	0	0	99	36-45	70
13:00	0	0	0	3	20	31	15	3	0	0	0	0	0	0	72	31-40	51
14:00	1	0	1	**11**	20	**48**	26	4	0	**1**	0	0	0	0	112	36-45	74
15:00	0	0	0	8	28	40	25	3	**2**	0	0	0	0	0	106	31-40	68
16:00	**2**	**1**	1	6	**34**	42	17	4	2	0	0	0	0	0	109	31-40	76
17:00	1	0	1	8	25	46	25	**8**	1	0	0	0	0	0	115	36-45	71
18:00	0	1	2	9	33	43	**29**	7	1	0	0	0	0	0	**125**	31-40	76
19:00	0	1	2	8	25	40	24	5	1	0	0	0	0	0	106	31-40	65
20:00	0	0	**3**	5	18	28	8	2	0	0	0	0	0	0	64	31-40	46
21:00	1	0	1	4	10	23	7	5	0	0	0	0	0	0	51	31-40	33
22:00	0	0	2	1	13	13	2	3	1	0	0	0	0	0	35	31-40	26
23:00	0	0	0	2	20	6	6	3	1	0	0	0	0	0	38	31-40	26
Total	7	5	15	76	284	448	241	59	13	1	0	0	0	0	1149		
Percent	0.6%	0.4%	1.3%	6.6%	24.7%	39.0%	21.0%	5.1%	1.1%	0.1%	0.0%	0.0%	0.0%	0.0%			
AM Peak	10:00	10:00	10:00	10:00	10:00	11:00	11:00	11:00	11:00						11:00		
Vol.	1	1	1	2	15	27	16	6	3						63		
PM Peak	16:00	16:00	20:00	14:00	16:00	14:00	18:00	17:00	15:00	14:00					18:00		
Vol.	2	1	3	11	34	48	29	8	2	1					125		

Traffic Databank
716 S Sixth Ave
Mount Vernon, NY 10550

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OSSINING, NY
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SB

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
09/19/15	0	0	0	3	0	4	0	0	**1**	0	0	0	0	0	8	36-45	4
01:00	**1**	0	1	0	5	3	1	1	0	0	0	0	0	0	12	31-40	8
02:00	0	0	0	0	1	4	1	0	0	0	0	0	0	0	6	33-42	5
03:00	0	0	0	2	0	1	0	0	0	0	0	0	0	0	3	20-29	2
04:00	0	0	0	0	0	2	1	1	0	0	0	0	0	0	4	34-43	3
05:00	0	0	0	0	1	1	3	0	0	0	0	0	0	0	5	35-44	4
06:00	0	0	0	1	5	8	7	1	0	0	0	0	0	0	22	35-44	15
07:00	1	0	**2**	1	8	21	19	2	0	0	0	0	0	0	54	36-45	40
08:00	1	0	0	1	11	17	26	**12**	0	0	0	0	0	0	68	36-45	43
09:00	1	**1**	1	2	7	28	17	12	0	0	0	0	0	0	69	36-45	45
10:00	0	0	1	3	14	34	**30**	5	0	0	0	0	0	0	87	36-45	64
11:00	0	0	0	**4**	**20**	**38**	24	6	0	0	0	0	0	0	**92**	36-45	62
12 PM	1	1	0	1	17	45	24	**15**	1	0	0	0	0	0	105	36-45	69
13:00	0	0	1	8	20	35	21	5	1	0	0	0	0	0	91	36-45	56
14:00	2	0	0	7	19	36	16	4	**2**	0	0	0	0	0	86	31-40	55
15:00	**3**	**3**	**4**	8	27	33	15	6	1	0	**1**	0	0	0	101	31-40	60
16:00	3	1	1	4	33	33	23	3	0	0	0	0	0	0	101	31-40	66
17:00	1	0	0	**11**	**37**	**55**	10	3	1	0	0	0	0	0	**118**	31-40	92
18:00	1	1	1	2	24	44	**27**	3	1	0	0	0	0	0	104	36-45	71
19:00	1	0	0	9	19	31	12	3	0	0	0	0	0	0	75	31-40	50
20:00	1	0	0	3	15	25	9	3	1	0	0	0	0	0	57	31-40	40
21:00	0	0	1	3	13	29	10	1	0	0	0	0	0	0	57	31-40	42
22:00	0	0	1	2	7	17	5	3	0	0	0	0	0	0	35	31-40	24
23:00	1	0	0	2	9	7	8	3	0	0	0	0	0	0	30	31-40	16
Total	18	7	14	77	312	551	309	92	9	0	1	0	0	0	1390		
Percent	1.3%	0.5%	1.0%	5.5%	22.4%	39.6%	22.2%	6.6%	0.6%	0.0%	0.1%	0.0%	0.0%	0.0%			
AM Peak	01:00	09:00	07:00	11:00	11:00	11:00	10:00	08:00	00:00						11:00		
Vol.	1	1	2	4	20	38	30	12	1						92		
PM Peak	15:00	15:00	15:00	17:00	17:00	17:00	18:00	12:00	14:00		15:00				17:00		
Vol.	3	3	4	11	37	55	27	15	2		1				118		

Traffic Databank

716 S Sixth Ave
Mount Vernon, NY 10550

Site Code:
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OSSINING, NY
Latitude: 0' 0.0000 Undefined

SB

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
09/20/15	0	0	0	1	7	9	3	1	0	0	0	0	0	0	21	31-40	16
01:00	0	0	0	1	2	8	6	3	0	0	0	0	0	0	20	36-45	14
02:00	0	0	0	0	4	6	4	1	1	0	0	0	0	0	16	36-45	10
03:00	0	0	0	0	0	3	2	1	0	0	0	0	0	0	6	36-45	5
04:00	0	0	0	0	3	0	0	1	0	0	0	0	0	0	4	26-35	3
05:00	0	0	0	0	1	1	3	0	0	0	0	0	0	0	5	35-44	4
06:00	0	0	0	0	1	5	0	0	0	0	0	0	0	0	6	31-40	6
07:00	0	0	0	1	3	6	3	**5**	0	0	0	0	0	0	18	31-40	9
08:00	0	0	0	1	9	25	11	2	**3**	0	0	0	0	0	51	35-44	36
09:00	0	0	0	1	3	16	17	5	2	0	0	0	0	0	44	36-45	33
10:00	1	**2**	**1**	1	7	17	15	4	0	0	0	0	0	0	48	36-45	32
11:00	**2**	0	0	**4**	**11**	**34**	**21**	0	0	0	0	0	0	0	**72**	36-45	55
12 PM	0	0	0	6	27	45	17	2	**1**	0	0	0	0	0	98	31-40	72
13:00	**4**	0	1	3	30	42	**29**	**10**	1	**1**	0	0	0	0	**121**	31-40	72
14:00	3	0	0	4	19	28	25	3	0	0	0	0	0	0	82	36-45	53
15:00	4	0	**4**	8	**35**	37	23	6	1	1	0	0	0	0	119	31-40	72
16:00	1	1	2	9	26	40	19	1	0	0	0	0	0	0	99	31-40	66
17:00	1	0	1	**10**	23	**48**	16	4	1	0	0	0	0	0	104	31-40	71
18:00	0	0	0	2	19	38	18	7	1	0	0	0	0	0	85	31-40	57
19:00	1	0	0	0	12	22	14	8	1	0	0	0	0	0	58	35-44	36
20:00	0	0	0	4	14	26	14	5	0	1	0	0	0	0	64	31-40	40
21:00	0	**2**	1	2	13	16	5	1	1	0	0	0	0	0	41	31-40	29
22:00	0	0	0	1	7	6	5	0	0	0	0	0	0	0	19	31-40	13
23:00	0	0	0	0	7	4	1	0	1	0	0	0	0	0	13	31-40	11
Total	17	5	10	59	283	482	271	70	14	3	0	0	0	0	1214		
Percent	1.4%	0.4%	0.8%	4.9%	23.3%	39.7%	22.3%	5.8%	1.2%	0.2%	0.0%	0.0%	0.0%	0.0%			
AM Peak	11:00	10:00	10:00	11:00	11:00	11:00	11:00	07:00	08:00						11:00		
Vol.	2	2	1	4	11	34	21	5	3						72		
PM Peak	13:00	21:00	15:00	17:00	15:00	17:00	13:00	13:00	12:00	13:00					13:00		
Vol.	4	2	4	10	35	48	29	10	1	1					121		

Traffic Databank

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SB

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
09/21/15	0	0	0	0	0	4	1	1	1	0	0	0	0	0	7	36-45	5
01:00	0	0	0	0	0	1	3	1	0	0	0	0	0	0	5	41-50	4
02:00	0	0	0	0	0	1	0	0	0	0	**1**	0	0	0	2	29-38	1
03:00	0	0	0	1	0	1	0	1	1	0	0	0	0	0	4	44-53	2
04:00	0	0	0	1	1	3	1	1	0	0	0	0	0	0	7	36-45	4
05:00	0	0	0	0	0	4	1	5	1	0	0	0	0	0	11	41-50	6
06:00	0	0	0	1	13	18	20	6	0	0	0	0	0	0	58	36-45	38
07:00	0	0	1	4	12	32	**27**	5	**2**	0	0	0	0	0	83	36-45	59
08:00	1	0	0	**6**	11	**34**	26	**10**	1	0	0	0	0	0	**89**	36-45	60
09:00	0	**1**	1	3	10	22	18	7	1	0	0	0	0	0	63	36-45	40
10:00	0	0	**2**	6	15	22	15	4	0	1	0	0	0	0	65	36-45	37
11:00	**2**	0	0	0	**18**	28	18	4	0	**2**	0	0	0	0	72	31-40	46
12 PM	0	0	0	3	17	39	18	4	0	0	0	0	0	0	81	34-43	57
13:00	0	0	1	6	14	24	20	1	1	0	0	0	0	0	67	36-45	44
14:00	0	0	0	7	17	28	21	3	1	0	0	0	0	0	77	36-45	49
15:00	1	0	1	6	20	30	**26**	5	1	0	0	0	0	0	90	36-45	56
16:00	**3**	0	1	**12**	**37**	**50**	26	**7**	1	0	0	0	0	0	**137**	31-40	87
17:00	2	0	0	10	30	40	23	3	0	0	0	0	0	0	108	31-40	70
18:00	1	0	**2**	10	28	46	20	5	0	0	0	0	0	0	112	31-40	74
19:00	0	0	1	6	18	38	20	4	0	0	0	0	0	0	87	35-44	58
20:00	1	0	1	0	13	26	12	7	**3**	0	0	0	0	0	63	31-40	39
21:00	1	0	0	0	12	9	13	5	1	0	0	0	0	0	41	36-45	22
22:00	1	0	0	0	7	8	7	1	1	0	0	0	0	0	25	31-40	15
23:00	0	0	0	0	4	3	3	0	0	0	0	0	0	0	10	31-40	7
Total	13	1	11	82	297	511	339	90	16	3	1	0	0	0	1364		
Percent	1.0%	0.1%	0.8%	6.0%	21.8%	37.5%	24.9%	6.6%	1.2%	0.2%	0.1%	0.0%	0.0%	0.0%			
AM Peak	11:00	09:00	10:00	08:00	11:00	08:00	07:00	08:00	07:00	11:00	02:00				08:00		
Vol.	2	1	2	6	18	34	27	10	2	2	1				89		
PM Peak	16:00		18:00	16:00	16:00	16:00	15:00	16:00	20:00						16:00		
Vol.	3		2	12	37	50	26	7	3						137		

Traffic Databank
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SB

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
09/22/15	0	0	0	0	3	6	1	2	0	0	0	0	0	0	12	31-40	9
01:00	0	0	0	0	2	1	1	0	0	0	0	0	0	0	4	29-38	3
02:00	0	**1**	0	1	0	0	1	0	0	0	0	0	0	0	3	9-18	1
03:00	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	44-53	1
04:00	0	0	0	0	2	1	2	1	1	0	0	0	0	0	7	41-50	3
05:00	0	0	0	0	1	4	6	2	1	0	0	0	0	0	14	36-45	10
06:00	1	0	0	2	10	14	21	4	1	0	0	0	0	0	53	36-45	35
07:00	**2**	0	1	3	12	26	**29**	4	1	0	**1**	0	0	0	79	36-45	55
08:00	0	0	1	**9**	12	32	22	9	**2**	**1**	0	0	0	0	**88**	36-45	54
09:00	1	1	**2**	3	15	**33**	18	8	0	0	0	0	0	0	81	36-45	51
10:00	0	0	0	5	12	17	16	5	1	0	0	0	0	0	56	36-45	33
11:00	0	0	2	7	**16**	19	10	**10**	1	0	0	0	0	0	65	31-40	35
12 PM	0	0	0	3	13	30	17	2	1	0	0	0	0	0	66	36-45	47
13:00	2	0	0	6	11	17	21	5	**2**	0	0	0	0	0	64	36-45	38
14:00	4	**3**	1	7	20	29	22	6	1	0	0	0	0	0	93	36-45	51
15:00	0	0	2	**10**	23	35	19	5	1	0	0	0	0	0	95	31-40	58
16:00	1	0	1	8	31	44	**32**	5	1	0	0	0	0	0	123	36-45	76
17:00	4	0	2	8	**34**	**52**	25	**7**	0	0	0	0	0	0	**132**	31-40	86
18:00	3	0	**4**	5	26	34	20	7	1	**1**	0	0	0	0	101	31-40	60
19:00	2	0	1	2	26	36	18	4	2	0	0	0	0	0	91	31-40	62
20:00	**5**	1	1	3	13	22	11	2	0	0	0	0	0	0	58	31-40	35
21:00	1	0	1	4	17	22	14	4	0	0	0	0	0	0	63	31-40	39
22:00	0	0	0	1	7	16	5	1	1	0	0	0	0	0	31	31-40	23
23:00	1	0	0	0	4	6	4	1	1	0	0	0	0	0	17	31-40	10
Total	27	6	19	87	310	496	335	94	20	2	1	0	0	0	1397		
Percent	1.9%	0.4%	1.4%	6.2%	22.2%	35.5%	24.0%	6.7%	1.4%	0.1%	0.1%	0.0%	0.0%	0.0%			
AM Peak	07:00	02:00	09:00	08:00	11:00	09:00	07:00	11:00	08:00	08:00	07:00				08:00		
Vol.	2	1	2	9	16	33	29	10	2	1	1				88		
PM Peak	20:00	14:00	18:00	15:00	17:00	17:00	16:00	17:00	13:00	18:00					17:00		
Vol.	5	3	4	10	34	52	32	7	2	1					132		

Traffic Databank

716 S Sixth Ave
Mount Vernon, NY 10550

Site Code:
Station ID:
CROTON DAM RD
OSSINING, NY
Latitude: 0' 0.0000 Undefined

SB

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
09/23/15	0	0	0	0	1	5	0	0	0	0	0	0	0	0	6	31-40	6
01:00	**2**	0	0	0	0	0	0	0	0	0	0	0	0	0	2	8-17	1
02:00	0	0	0	0	1	1	2	0	0	0	0	0	0	0	4	34-43	3
03:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	24-33	1
04:00	0	0	0	1	0	1	0	3	0	**1**	0	0	0	0	6	46-55	3
05:00	0	0	0	0	1	4	3	2	**1**	0	0	0	0	0	11	36-45	7
06:00	1	0	0	0	8	24	13	1	0	0	0	0	0	0	47	36-45	37
07:00	2	0	0	**3**	9	23	**26**	**10**	0	0	0	0	0	0	73	36-45	49
08:00	1	**1**	0	1	12	33	20	10	1	1	**1**	0	0	0	**81**	36-45	53
09:00	1	0	**3**	3	9	20	18	5	1	0	0	0	0	0	60	36-45	38
10:00	1	0	0	3	1	24	19	9	1	0	0	0	0	0	58	36-45	43
11:00	0	0	0	2	**13**	**36**	20	9	0	0	0	0	0	0	80	36-45	56
12 PM	0	0	1	3	16	35	24	3	1	0	0	0	0	0	83	36-45	59
13:00	1	0	0	**16**	26	42	14	5	0	0	**1**	0	0	0	105	31-40	68
14:00	0	0	0	3	15	46	21	1	0	**1**	0	0	0	0	87	36-45	67
15:00	2	0	1	11	25	43	17	2	**2**	0	0	0	0	0	103	31-40	68
16:00	**3**	0	1	7	34	43	**27**	6	1	0	0	0	0	0	122	31-40	77
17:00	3	**1**	**3**	3	**41**	**55**	25	**10**	1	0	0	0	0	0	**142**	31-40	96
18:00	3	0	2	4	23	32	25	6	2	0	0	0	0	0	97	35-44	57
19:00	2	0	2	9	25	36	13	5	1	1	0	0	0	0	94	31-40	61
20:00	0	0	1	4	19	26	8	1	1	0	0	0	0	0	60	31-40	45
21:00	0	1	1	6	7	22	5	3	0	0	0	0	0	0	45	31-40	29
22:00	0	0	0	3	9	14	10	3	0	0	0	0	0	0	39	36-45	24
23:00	0	0	0	0	1	4	5	1	0	0	0	0	0	0	11	36-45	9
Total	22	3	15	82	297	569	315	95	13	4	2	0	0	0	1417		
Percent	1.6%	0.2%	1.1%	5.8%	21.0%	40.2%	22.2%	6.7%	0.9%	0.3%	0.1%	0.0%	0.0%	0.0%			
AM Peak	01:00	08:00	09:00	07:00	11:00	11:00	07:00	07:00	05:00	04:00	08:00				08:00		
Vol.	2	1	3	3	13	36	26	10	1	1	1				81		
PM Peak	16:00	17:00	17:00	13:00	17:00	17:00	16:00	17:00	15:00	14:00	13:00				17:00		
Vol.	3	1	3	16	41	55	27	10	2	1	1				142		

Traffic Databank

716 S Sixth Ave
Mount Vernon, NY 10550

Site Code:
Station ID:
CROTON DAM RD
OSSINING, NY
Latitude: 0' 0.0000 Undefined

SB

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
09/24/15	0	0	0	0	1	3	2	2	0	0	0	0	0	0	8	34-43	5
01:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	24-33	1
02:00	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	34-43	1
03:00	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	34-43	1
04:00	0	0	0	0	2	0	1	0	0	0	0	0	0	0	3	25-34	2
05:00	0	0	0	1	0	5	1	0	0	**1**	**1**	0	0	0	9	36-45	6
06:00	0	**1**	0	1	6	19	23	6	0	0	1	0	0	0	57	36-45	42
07:00	**3**	0	**1**	2	14	**34**	26	**10**	1	0	0	0	0	0	**91**	36-45	60
08:00	1	0	0	**4**	**17**	32	**30**	3	0	0	0	0	0	0	87	36-45	62
09:00	0	0	0	0	7	33	23	10	**2**	0	0	0	0	0	75	36-45	56
10:00	0	0	0	1	10	20	20	7	1	0	0	0	0	0	59	36-45	40
11:00	1	0	0	4	16	22	14	10	0	1	0	0	0	0	68	31-40	38
12 PM	0	**1**	0	3	12	32	23	10	2	0	0	0	0	0	83	36-45	55
13:00	0	0	1	4	10	25	20	9	1	0	0	0	0	0	70	36-45	45
14:00	1	0	0	7	20	38	15	5	0	0	0	0	0	0	86	31-40	58
15:00	1	0	1	8	**32**	45	21	7	1	0	0	0	0	0	116	31-40	77
16:00	**2**	0	1	**12**	29	37	25	**14**	2	0	0	0	0	0	122	31-40	66
17:00	0	0	**2**	7	26	43	23	6	0	0	0	0	0	0	107	31-40	69
18:00	1	0	1	7	28	**56**	**28**	5	**5**	0	0	0	0	0	**131**	32-41	84
19:00	0	0	0	9	32	37	12	4	0	0	0	0	0	0	94	31-40	69
20:00	2	0	2	2	21	24	15	2	0	0	0	0	0	0	68	31-40	45
21:00	2	0	0	9	13	20	10	1	1	0	0	0	0	0	56	31-40	33
22:00	0	0	0	3	6	17	12	3	1	0	0	0	0	0	42	36-45	29
23:00	1	0	0	0	8	4	2	1	1	0	0	0	0	0	17	31-40	12
Total	15	2	9	84	311	546	348	115	18	2	2	0	0	0	1452		
Percent	1.0%	0.1%	0.6%	5.8%	21.4%	37.6%	24.0%	7.9%	1.2%	0.1%	0.1%	0.0%	0.0%	0.0%			
AM Peak	07:00	06:00	07:00	08:00	08:00	07:00	08:00	07:00	09:00	05:00	05:00				07:00		
Vol.	3	1	1	4	17	34	30	10	2	1	1				91		
PM Peak	16:00	12:00	17:00	16:00	15:00	18:00	18:00	16:00	18:00						18:00		
Vol.	2	1	2	12	32	56	28	14	5						131		

Traffic Databank

716 S Sixth Ave
Mount Vernon, NY 10550

Site Code:
Station ID:
CROTON DAM RD
OSSINING, NY
Latitude: 0' 0.0000 Undefined

SB

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
09/25/15	0	0	0	0	3	0	1	2	0	0	0	0	0	0	6	26-35	3
01:00	0	0	0	0	2	0	0	1	0	1	0	0	0	0	4	25-34	2
02:00	0	0	0	0	0	2	2	0	0	0	0	0	0	0	4	35-44	4
03:00	0	0	0	0	3	0	0	1	0	0	0	0	0	0	4	26-35	3
04:00	0	**1**	0	0	0	3	1	0	0	0	0	0	0	0	5	36-45	4
05:00	0	0	0	0	3	6	5	2	1	1	0	0	0	0	18	35-44	11
06:00	0	0	0	2	9	27	16	4	0	**2**	0	0	0	0	60	36-45	43
07:00	**2**	0	0	**3**	15	26	27	11	**4**	1	**1**	0	0	0	90	36-45	53
08:00	2	0	0	3	17	26	**32**	**15**	0	0	0	**1**	0	0	**96**	36-45	58
09:00	0	0	1	3	12	**33**	21	2	3	0	0	0	0	0	75	36-45	54
10:00	0	1	**6**	1	**18**	20	22	5	0	0	0	0	0	0	73	36-45	42
11:00	0	0	0	3	7	20	16	7	0	0	0	0	0	0	53	36-45	36
12 PM	0	0	3	6	16	37	22	**10**	0	0	0	0	0	0	94	36-45	59
13:00	1	0	**5**	4	10	22	16	4	0	0	0	0	0	0	62	36-45	38
14:00	2	1	0	6	20	43	17	7	**2**	0	0	0	0	0	98	31-40	63
15:00	**6**	1	1	6	17	49	23	4	2	0	0	0	0	0	109	36-45	72
16:00	0	0	0	**12**	**31**	**64**	**32**	6	0	**1**	0	0	0	0	**146**	36-45	96
17:00	2	0	2	9	25	49	17	4	0	0	0	0	0	0	108	31-40	74
18:00	2	0	1	4	28	58	20	6	0	0	0	0	0	0	119	31-40	86
19:00	1	0	1	6	26	53	15	9	2	1	0	0	0	0	114	31-40	79
20:00	2	**2**	3	7	22	29	12	3	1	0	0	0	0	0	81	31-40	51
21:00	2	0	1	8	12	21	9	2	1	0	0	0	0	0	56	31-40	33
22:00	0	0	2	2	17	19	7	1	0	0	0	0	0	0	48	31-40	36
23:00	0	0	0	3	10	10	9	1	0	0	0	0	0	0	33	31-40	20
Total	22	6	26	88	323	617	342	107	16	7	1	1	0	0	1556		
Percent	1.4%	0.4%	1.7%	5.7%	20.8%	39.7%	22.0%	6.9%	1.0%	0.4%	0.1%	0.1%	0.0%	0.0%			
AM Peak	07:00	04:00	10:00	07:00	10:00	09:00	08:00	08:00	07:00	06:00	07:00	08:00			08:00		
Vol.	2	1	6	3	18	33	32	15	4	2	1	1			96		
PM Peak	15:00	20:00	13:00	16:00	16:00	16:00	16:00	12:00	14:00	16:00					16:00		
Vol.	6	2	5	12	31	64	32	10	2	1					146		

Traffic Databank

716 S Sixth Ave
Mount Vernon, NY 10550

Site Code:
Station ID:
CROTON DAM RD
OSSINING, NY
Latitude: 0' 0.0000 Undefined

SB

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
09/26/15	0	0	1	1	6	2	6	1	0	0	0	0	0	0	17	32-41	8
01:00	0	0	0	0	1	2	2	1	2	0	0	0	0	0	8	36-45	4
02:00	0	0	0	0	0	2	1	0	0	0	0	0	0	0	3	34-43	3
03:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	19-28	1
04:00	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	29-38	1
05:00	0	0	0	0	3	2	2	2	0	0	0	0	0	0	9	31-40	5
06:00	0	0	1	2	2	6	3	3	0	0	0	0	0	0	17	34-43	9
07:00	0	0	1	2	9	24	9	1	**4**	0	0	0	0	0	50	35-44	33
08:00	1	0	1	3	11	20	26	**13**	2	0	0	0	0	0	77	36-45	46
09:00	1	0	0	4	11	**42**	**28**	4	2	0	0	0	0	0	**92**	36-45	70
10:00	2	0	**4**	**7**	**14**	35	20	7	3	0	0	0	0	0	92	36-45	55
11:00	**4**	**1**	2	6	13	24	16	5	1	0	0	0	0	0	72	36-45	40
12 PM	0	0	**4**	7	19	32	21	3	**2**	0	0	0	0	0	88	36-45	53
13:00	0	0	1	9	**43**	35	23	2	0	**1**	0	0	0	0	**114**	31-40	78
14:00	2	0	2	8	30	37	21	5	0	1	0	0	0	0	106	31-40	67
15:00	**6**	**2**	2	**14**	23	42	17	3	2	0	0	0	0	0	111	31-40	65
16:00	2	0	0	6	26	39	12	5	0	0	0	0	0	0	90	31-40	65
17:00	0	0	0	5	30	**45**	**27**	**6**	0	0	0	0	0	0	113	31-40	75
18:00	0	1	2	5	24	40	18	4	1	0	0	0	0	0	95	31-40	64
19:00	3	0	0	7	20	31	10	6	1	0	0	0	0	0	78	31-40	51
20:00	0	0	0	1	13	32	10	3	0	0	0	0	0	0	59	31-40	45
21:00	0	0	2	6	17	18	11	3	0	0	0	0	0	0	57	31-40	35
22:00	0	0	0	5	13	15	9	4	1	0	0	0	0	0	47	31-40	28
23:00	0	0	1	6	9	17	8	1	0	0	0	0	0	0	42	31-40	26
Total	21	4	24	105	337	543	300	82	21	2	0	0	0	0	1439		
Percent	1.5%	0.3%	1.7%	7.3%	23.4%	37.7%	20.8%	5.7%	1.5%	0.1%	0.0%	0.0%	0.0%	0.0%			
AM Peak	11:00	11:00	10:00	10:00	10:00	09:00	09:00	08:00	07:00						09:00		
Vol.	4	1	4	7	14	42	28	13	4						92		
PM Peak	15:00	15:00	12:00	15:00	13:00	17:00	17:00	17:00	12:00	13:00					13:00		
Vol.	6	2	4	14	43	45	27	6	2	1					114		

Traffic Databank

716 S Sixth Ave
Mount Vernon, NY 10550

Site Code:
Station ID:
CROTON DAM RD
OSSINING, NY
Latitude: 0' 0.0000 Undefined

SB

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
09/27/15	1	0	**1**	4	8	18	5	6	1	0	0	0	0	0	44	31-40	26
01:00	0	0	1	1	1	7	3	1	0	0	0	0	0	0	14	35-44	10
02:00	**2**	0	0	1	2	2	0	0	1	0	0	0	0	0	8	31-40	4
03:00	0	0	0	1	0	3	2	0	0	0	0	0	0	0	6	35-44	5
04:00	0	0	0	0	0	2	0	0	0	**1**	0	0	0	0	3	30-39	2
05:00	0	0	0	1	0	0	1	0	1	0	0	0	0	0	3	19-28	1
06:00	0	0	0	0	1	3	4	3	0	0	0	0	0	0	11	36-45	7
07:00	0	0	1	1	7	7	12	2	1	0	**1**	0	0	0	32	36-45	19
08:00	2	**2**	0	2	3	8	15	**11**	0	0	0	0	0	0	43	41-50	26
09:00	1	0	1	2	8	26	17	3	1	1	0	0	0	0	60	36-45	43
10:00	2	0	0	1	14	24	15	5	**2**	0	0	0	0	0	63	34-43	39
11:00	1	0	0	**6**	**20**	**38**	**25**	9	2	0	0	0	0	0	**101**	36-45	63
12 PM	**3**	0	0	8	21	43	**34**	5	**3**	0	**1**	0	0	0	**118**	36-45	77
13:00	1	0	0	4	22	38	23	6	0	0	0	0	0	0	94	36-45	61
14:00	0	0	1	2	20	41	20	6	1	**1**	0	0	0	0	92	36-45	61
15:00	1	0	**2**	**11**	24	38	16	4	0	1	1	0	0	0	98	31-40	62
16:00	3	**2**	1	8	**26**	41	27	0	0	0	0	0	0	0	108	34-43	68
17:00	0	0	2	4	22	**45**	24	**10**	1	0	0	0	0	0	108	35-44	69
18:00	1	0	0	4	26	38	9	4	0	0	0	0	0	0	82	31-40	64
19:00	2	0	2	9	23	34	16	2	0	0	0	0	0	0	88	31-40	57
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	20	4	12	70	248	456	268	77	14	4	3	0	0	0	1176		
Percent	1.7%	0.3%	1.0%	6.0%	21.1%	38.8%	22.8%	6.5%	1.2%	0.3%	0.3%	0.0%	0.0%	0.0%			
AM Peak	02:00	08:00	00:00	11:00	11:00	11:00	11:00	08:00	10:00	04:00	07:00				11:00		
Vol.	2	2	1	6	20	38	25	11	2	1	1				101		
PM Peak	12:00	16:00	15:00	15:00	16:00	17:00	12:00	17:00	12:00	14:00	12:00				12:00		
Vol.	3	2	2	11	26	45	34	10	3	1	1				118		
Total	182	43	155	810	3002	5219	3068	881	154	28	11	1	0	0	13554		
Percent	1.3%	0.3%	1.1%	6.0%	22.1%	38.5%	22.6%	6.5%	1.1%	0.2%	0.1%	0.0%	0.0%	0.0%			

	15th Percentile :	31 MPH
	50th Percentile :	37 MPH
	85th Percentile :	43 MPH
	95th Percentile :	47 MPH
Stats	10 MPH Pace Speed :	36-45 MPH
	Number in Pace :	8287
	Percent in Pace :	61.1%
	Number of Vehicles > 35 MPH :	9362
	Percent of Vehicles > 35 MPH :	69.1%
	Mean Speed(Average) :	38 MPH

Traffic Databank

716 S Sixth Ave
Mount Vernon, NY 10550

Site Code:
Station ID:
CROTON DAM RD
OSSINING, NY
Latitude: 0' 0.0000 Undefined

NB

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
09/18/15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	2	**1**	**4**	**8**	**13**	**22**	**11**	3	**1**	0	0	0	0	0	**65**	31-40	35
11:00	**3**	0	0	3	12	19	11	**4**	0	**2**	0	0	0	0	54	31-40	31
12 PM	**3**	0	**2**	1	14	16	23	6	0	0	0	0	0	0	65	36-45	39
13:00	3	0	0	2	12	28	23	7	1	0	0	0	0	0	76	36-45	51
14:00	2	**1**	2	**7**	23	25	27	3	0	0	0	0	0	0	90	36-45	52
15:00	1	0	0	5	24	**45**	27	5	0	0	0	0	0	0	107	36-45	72
16:00	3	0	0	5	22	40	**31**	**15**	**2**	0	0	0	0	0	**118**	36-45	71
17:00	2	0	0	3	21	38	28	8	1	**1**	0	0	0	0	102	36-45	66
18:00	0	0	1	7	**32**	34	25	8	2	0	0	0	**1**	0	110	31-40	66
19:00	1	0	1	3	24	27	12	5	1	0	0	0	0	0	74	31-40	51
20:00	2	0	0	2	19	13	4	1	0	0	0	0	0	0	41	31-40	32
21:00	1	0	1	5	5	16	8	3	0	0	0	0	0	0	39	36-45	24
22:00	0	0	0	3	9	9	6	0	0	0	0	0	0	0	27	31-40	18
23:00	0	0	0	2	6	5	2	2	0	0	0	0	0	0	17	31-40	11
Total	23	2	11	56	236	337	238	70	8	3	0	0	1	0	985		
Percent	2.3%	0.2%	1.1%	5.7%	24.0%	34.2%	24.2%	7.1%	0.8%	0.3%	0.0%	0.0%	0.1%	0.0%			
AM Peak	11:00	10:00	10:00	10:00	10:00	10:00	10:00	11:00	10:00	11:00					10:00		
Vol.	3	1	4	8	13	22	11	4	1	2					65		
PM Peak	12:00	14:00	12:00	14:00	18:00	15:00	16:00	16:00	16:00	17:00			18:00		16:00		
Vol.	3	1	2	7	32	45	31	15	2	1			1		118		

Traffic Databank
716 S Sixth Ave
Mount Vernon, NY 10550

Site Code:
Station ID:
CROTON DAM RD
OSSINING, NY
Latitude: 0' 0.0000 Undefined

NB

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
09/19/15	0	0	0	0	4	3	4	0	0	0	0	0	0	0	11	36-45	7
01:00	0	**1**	1	0	3	4	1	0	1	0	0	0	0	0	11	31-40	7
02:00	1	0	0	0	3	6	1	1	0	0	0	0	0	0	12	31-40	9
03:00	0	0	0	2	1	3	1	0	1	0	0	0	0	0	8	36-45	4
04:00	0	0	0	1	1	5	1	0	0	**1**	0	0	0	0	9	34-43	6
05:00	0	0	0	1	2	8	1	0	0	0	0	0	0	0	12	31-40	10
06:00	0	0	0	5	5	10	9	3	1	0	0	0	0	0	33	36-45	19
07:00	1	0	1	4	**30**	36	13	5	**3**	0	0	0	0	0	**93**	31-40	66
08:00	0	1	0	3	11	**41**	15	7	1	0	**1**	0	0	0	80	36-45	56
09:00	2	0	1	**9**	24	31	19	5	1	0	0	0	0	0	92	31-40	55
10:00	1	0	0	5	18	22	**31**	**8**	2	0	0	0	0	0	87	36-45	53
11:00	**4**	0	**2**	7	26	30	17	6	0	0	0	0	0	0	92	31-40	56
12 PM	2	0	0	4	18	**40**	**29**	5	4	0	0	0	0	0	**102**	36-45	69
13:00	2	0	**3**	**7**	19	27	23	5	**5**	0	0	0	0	0	91	36-45	50
14:00	2	0	1	1	12	26	20	**8**	1	**1**	0	0	0	0	72	36-45	46
15:00	**6**	0	1	6	**26**	22	19	5	1	0	0	0	0	0	86	31-40	48
16:00	3	0	1	4	22	23	12	7	2	1	0	0	0	0	75	31-40	45
17:00	0	0	0	3	16	31	18	8	2	0	0	0	0	0	78	35-44	49
18:00	0	0	3	7	11	26	12	4	1	0	**1**	0	0	0	65	36-45	38
19:00	0	0	0	4	15	16	8	2	0	1	0	0	0	0	46	31-40	31
20:00	1	0	1	2	14	11	5	3	2	0	0	0	0	0	39	31-40	25
21:00	0	0	0	3	5	8	3	1	0	0	0	0	0	0	20	31-40	13
22:00	0	0	0	2	8	6	7	2	0	0	0	0	0	0	25	31-40	14
23:00	0	0	1	2	8	4	4	3	0	0	0	0	0	0	22	30-39	12
Total	25	2	16	82	302	439	273	88	28	4	2	0	0	0	1261		
Percent	2.0%	0.2%	1.3%	6.5%	23.9%	34.8%	21.6%	7.0%	2.2%	0.3%	0.2%	0.0%	0.0%	0.0%			
AM Peak	11:00	01:00	11:00	09:00	07:00	08:00	10:00	10:00	07:00	04:00	08:00				07:00		
Vol.	4	1	2	9	30	41	31	8	3	1	1				93		
PM Peak	15:00		13:00	13:00	15:00	12:00	12:00	14:00	13:00	14:00	18:00				12:00		
Vol.	6		3	7	26	40	29	8	5	1	1				102		

Traffic Databank

716 S Sixth Ave
Mount Vernon, NY 10550

Site Code:
Station ID:
CROTON DAM RD
OSSINING, NY
Latitude: 0' 0.0000 Undefined

NB

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
09/20/15	0	0	1	3	6	1	1	1	0	0	0	0	0	0	13	26-35	9
01:00	0	0	1	0	3	1	0	2	0	0	0	0	0	0	7	31-40	4
02:00	0	0	0	1	0	2	1	0	0	0	0	0	0	0	4	34-43	3
03:00	0	0	0	0	1	4	3	1	**1**	0	0	0	0	0	10	36-45	7
04:00	0	0	**3**	1	5	4	0	1	0	0	0	0	0	0	14	31-40	9
05:00	0	0	0	0	1	2	1	1	0	0	0	0	0	0	5	36-45	3
06:00	0	0	0	2	4	8	4	1	0	0	0	0	0	0	19	31-40	12
07:00	0	0	0	1	9	13	8	3	1	0	**1**	0	0	0	36	31-40	22
08:00	1	0	0	1	9	16	4	5	1	0	0	0	0	0	37	31-40	25
09:00	1	0	1	2	**20**	**28**	**19**	**7**	1	**1**	1	0	0	0	**81**	31-40	48
10:00	**2**	0	1	5	19	19	14	1	0	1	0	0	0	0	62	31-40	38
11:00	2	0	1	**12**	19	20	16	4	0	0	0	0	0	0	74	31-40	39
12 PM	2	0	0	3	12	**46**	15	**8**	0	0	0	0	0	0	86	36-45	61
13:00	**5**	0	0	5	11	40	**19**	8	**3**	0	0	0	0	0	**91**	36-45	59
14:00	2	**1**	0	**7**	18	26	17	7	1	0	0	0	0	0	79	31-40	44
15:00	3	0	0	7	14	32	12	8	1	0	0	0	0	0	77	31-40	46
16:00	1	0	1	6	**21**	18	9	3	1	0	0	0	0	0	60	31-40	39
17:00	2	0	**2**	4	16	28	12	3	0	**1**	0	0	0	0	68	31-40	44
18:00	1	0	1	0	8	17	7	4	0	0	0	0	0	0	38	31-40	25
19:00	3	0	0	3	11	12	8	4	1	0	0	0	0	0	42	31-40	23
20:00	0	0	0	1	10	10	2	0	2	0	0	0	0	0	25	31-40	20
21:00	2	0	0	3	7	10	6	1	1	0	0	0	0	0	30	31-40	17
22:00	0	0	0	0	4	5	6	4	0	0	0	0	0	0	19	36-45	11
23:00	0	0	0	2	0	4	2	1	0	0	0	0	0	0	9	36-45	6
Total	27	1	12	69	228	366	186	78	14	3	2	0	0	0	986		
Percent	2.7%	0.1%	1.2%	7.0%	23.1%	37.1%	18.9%	7.9%	1.4%	0.3%	0.2%	0.0%	0.0%	0.0%			
AM Peak	10:00		04:00	11:00	09:00	09:00	09:00	09:00	03:00	09:00	07:00				09:00		
Vol.	2		3	12	20	28	19	7	1	1	1				81		
PM Peak	13:00	14:00	17:00	14:00	16:00	12:00	13:00	12:00	13:00	17:00					13:00		
Vol.	5	1	2	7	21	46	19	8	3	1					91		

Traffic Databank
716 S Sixth Ave
Mount Vernon, NY 10550

Site Code:
Station ID:
CROTON DAM RD
OSSINING, NY
Latitude: 0' 0.0000 Undefined

NB

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
09/21/15	0	0	0	0	1	1	1	0	0	0	0	0	0	0	3	29-38	2
01:00	0	0	0	0	2	2	0	0	0	0	0	0	0	0	4	30-39	4
02:00	0	0	0	0	2	4	1	1	0	0	0	0	0	0	8	31-40	6
03:00	0	0	0	0	5	4	1	1	0	0	0	0	0	0	11	31-40	9
04:00	1	0	0	0	2	1	4	0	0	1	0	0	0	0	9	35-44	5
05:00	0	0	1	2	2	3	1	3	0	1	0	0	0	0	13	29-38	5
06:00	1	0	0	4	13	35	14	6	**2**	**2**	0	0	0	0	77	34-43	49
07:00	1	0	**2**	**9**	**41**	**38**	25	**12**	1	1	0	0	0	0	**130**	31-40	79
08:00	**3**	0	2	5	19	28	**34**	3	2	0	0	0	0	0	96	36-45	62
09:00	0	0	2	3	18	14	9	4	2	0	0	0	0	0	52	31-40	32
10:00	1	0	0	0	14	22	12	3	0	0	0	0	0	0	52	31-40	36
11:00	1	0	1	0	14	19	16	3	0	0	**1**	0	0	0	55	36-45	35
12 PM	1	0	2	7	16	15	11	5	0	0	0	0	0	0	57	31-40	31
13:00	1	0	0	2	12	20	13	1	2	**1**	0	0	0	0	52	34-43	33
14:00	**4**	0	0	4	15	28	20	8	2	0	0	0	0	0	81	36-45	48
15:00	1	0	0	4	16	21	26	**15**	3	0	0	0	0	0	86	36-45	47
16:00	3	0	0	6	19	43	**31**	6	**4**	0	0	0	0	0	**112**	36-45	74
17:00	2	0	1	3	13	**50**	16	9	2	1	0	0	0	0	97	36-45	66
18:00	0	0	0	5	**34**	33	24	4	2	0	0	0	0	0	102	31-40	67
19:00	0	0	**3**	**9**	23	22	10	3	1	0	0	0	0	0	71	31-40	45
20:00	3	0	0	2	16	11	4	3	0	0	0	0	0	0	39	31-40	27
21:00	1	0	0	1	4	12	4	1	0	0	0	0	0	0	23	31-40	16
22:00	1	0	0	3	2	5	3	0	1	1	0	0	0	0	16	34-43	8
23:00	0	0	0	1	4	7	4	5	0	0	0	0	0	0	21	36-45	11
Total	25	0	14	70	307	438	284	96	24	8	1	0	0	0	1267		
Percent	2.0%	0.0%	1.1%	5.5%	24.2%	34.6%	22.4%	7.6%	1.9%	0.6%	0.1%	0.0%	0.0%	0.0%			
AM Peak	08:00		07:00	07:00	07:00	07:00	08:00	07:00	06:00	06:00	11:00				07:00		
Vol.	3		2	9	41	38	34	12	2	2	1				130		
PM Peak	14:00		19:00	19:00	18:00	17:00	16:00	15:00	16:00	13:00					16:00		
Vol.	4		3	9	34	50	31	15	4	1					112		

Traffic Databank

716 S Sixth Ave
Mount Vernon, NY 10550

Site Code:
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OSSINING, NY
Latitude: 0' 0.0000 Undefined

NB

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
09/22/15	0	0	0	1	0	1	4	0	0	0	0	0	0	0	6	36-45	5
01:00	0	0	0	0	1	2	1	0	0	0	0	0	0	0	4	30-39	3
02:00	1	0	0	0	1	4	0	0	1	0	**1**	0	0	0	8	31-40	5
03:00	0	0	0	2	3	4	5	0	0	0	0	0	0	0	14	35-44	9
04:00	0	0	0	0	1	2	1	2	1	0	0	0	0	0	7	46-55	3
05:00	0	0	0	1	4	3	2	1	1	0	0	0	0	0	12	31-40	7
06:00	**4**	0	0	5	18	22	29	3	**2**	0	0	0	0	0	83	36-45	51
07:00	3	0	0	**12**	**36**	**48**	**36**	11	2	0	0	0	0	0	**148**	36-45	84
08:00	0	**1**	1	8	19	27	19	**14**	2	0	0	0	0	0	91	31-40	46
09:00	1	0	**3**	5	20	24	13	5	0	0	0	0	0	0	71	31-40	44
10:00	2	1	2	6	14	18	15	4	0	0	0	0	0	0	62	36-45	33
11:00	3	0	2	5	13	14	7	5	1	0	0	0	0	0	50	31-40	27
12 PM	0	0	0	6	16	22	7	4	0	0	0	0	0	0	55	31-40	38
13:00	**4**	0	0	3	16	20	22	7	**3**	0	0	0	0	0	75	36-45	42
14:00	3	0	**1**	**13**	19	25	12	8	0	0	0	0	0	0	81	31-40	44
15:00	0	0	1	8	**23**	20	22	8	0	0	0	0	0	0	82	31-40	43
16:00	0	0	0	5	14	30	**30**	**11**	0	0	0	0	0	0	90	36-45	60
17:00	1	0	1	3	21	**36**	28	3	1	0	0	0	0	0	**94**	36-45	64
18:00	0	0	0	1	20	31	26	7	1	0	0	0	0	0	86	36-45	57
19:00	2	0	1	4	20	26	14	5	0	0	0	0	0	0	72	31-40	46
20:00	3	0	0	3	17	14	7	1	1	0	0	0	0	0	46	31-40	31
21:00	0	0	1	0	10	15	7	1	0	**1**	0	0	0	0	35	31-40	25
22:00	0	0	0	5	10	10	7	2	1	1	0	0	0	0	36	31-40	20
23:00	1	0	0	3	3	5	4	0	0	0	0	0	0	0	16	36-45	9
Total	28	2	13	99	319	423	318	102	17	2	1	0	0	0	1324		
Percent	2.1%	0.2%	1.0%	7.5%	24.1%	31.9%	24.0%	7.7%	1.3%	0.2%	0.1%	0.0%	0.0%	0.0%			
AM Peak	06:00	08:00	09:00	07:00	07:00	07:00	07:00	08:00	06:00		02:00				07:00		
Vol.	4	1	3	12	36	48	36	14	2		1				148		
PM Peak	13:00		14:00	14:00	15:00	17:00	16:00	16:00	13:00	21:00					17:00		
Vol.	4		1	13	23	36	30	11	3	1					94		

Traffic Databank

716 S Sixth Ave
Mount Vernon, NY 10550

Site Code:
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Latitude: 0' 0.0000 Undefined

NB

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
09/23/15	1	0	0	0	1	2	2	0	0	0	0	0	0	0	6	34-43	4
01:00	0	0	0	0	2	1	1	1	0	0	0	0	0	0	5	31-40	3
02:00	0	0	0	0	1	2	0	0	0	0	0	0	**1**	0	4	30-39	3
03:00	0	0	0	1	4	6	2	1	0	0	0	0	0	0	14	31-40	10
04:00	0	0	0	0	1	2	1	1	0	0	0	0	0	0	5	36-45	3
05:00	0	**1**	0	1	1	4	2	0	1	0	0	0	0	0	10	36-45	6
06:00	2	0	**1**	3	15	27	20	8	1	**1**	0	0	0	0	78	36-45	47
07:00	**3**	0	0	5	**36**	**56**	**28**	**16**	1	1	0	0	0	0	**146**	31-40	92
08:00	2	1	1	**9**	15	31	27	4	**2**	1	0	0	0	0	93	36-45	58
09:00	2	0	0	6	17	32	20	4	2	0	0	0	0	0	83	36-45	52
10:00	0	0	0	4	13	18	16	7	0	0	0	0	0	0	58	36-45	34
11:00	1	0	1	4	12	30	18	4	2	1	0	0	0	0	73	36-45	48
12 PM	**3**	0	2	3	16	15	21	9	1	0	0	0	0	0	70	36-45	36
13:00	1	0	0	**7**	18	23	21	3	0	**1**	0	0	0	0	74	36-45	44
14:00	0	0	0	5	13	32	10	3	0	1	0	0	0	0	64	31-40	45
15:00	2	0	0	5	13	21	20	**13**	0	0	0	0	0	0	74	36-45	41
16:00	1	0	1	4	12	36	**34**	12	2	0	0	0	0	0	102	36-45	70
17:00	3	0	0	4	**24**	**42**	17	9	**3**	1	0	0	0	0	**103**	31-40	66
18:00	0	0	1	5	14	33	15	8	1	0	0	0	0	0	77	36-45	48
19:00	0	0	**3**	6	13	15	7	5	1	0	0	0	0	0	50	31-40	28
20:00	0	0	0	3	18	9	6	3	0	1	0	0	0	0	40	31-40	27
21:00	0	0	0	2	8	10	4	3	0	0	0	0	0	0	27	31-40	18
22:00	1	0	0	5	8	8	11	4	0	0	0	0	0	0	37	36-45	19
23:00	0	0	0	1	3	4	2	2	0	1	0	**1**	0	0	14	31-40	7
Total	22	2	10	83	278	459	305	120	17	9	0	1	1	0	1307		
Percent	1.7%	0.2%	0.8%	6.4%	21.3%	35.1%	23.3%	9.2%	1.3%	0.7%	0.0%	0.1%	0.1%	0.0%			
AM Peak	07:00	05:00	06:00	08:00	07:00	07:00	07:00	07:00	08:00	06:00			02:00		07:00		
Vol.	3	1	1	9	36	56	28	16	2	1			1		146		
PM Peak	12:00		19:00	13:00	17:00	17:00	16:00	15:00	17:00	13:00		23:00			17:00		
Vol.	3		3	7	24	42	34	13	3	1		1			103		

Traffic Databank

716 S Sixth Ave
Mount Vernon, NY 10550

Site Code:
Station ID:
CROTON DAM RD
OSSINING, NY
Latitude: 0' 0.0000 Undefined

NB

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
09/24/15	0	0	0	1	2	2	2	0	0	0	0	0	0	0	7	29-38	4
01:00	0	0	0	0	0	2	1	1	0	0	0	0	0	0	4	34-43	3
02:00	0	0	0	0	1	6	0	1	0	0	0	0	0	0	8	31-40	7
03:00	0	0	0	0	1	3	2	1	0	**1**	0	0	0	0	8	36-45	5
04:00	0	0	0	3	1	0	0	0	1	1	0	0	0	0	6	26-35	4
05:00	0	0	0	0	4	4	3	1	1	0	0	0	0	0	13	31-40	8
06:00	2	0	0	2	19	37	18	10	2	0	0	0	0	0	90	31-40	56
07:00	2	0	**2**	**11**	**33**	**50**	**38**	**13**	**3**	0	0	0	0	0	**152**	36-45	88
08:00	**3**	0	1	1	21	42	31	5	2	0	0	0	0	0	106	36-45	73
09:00	0	0	1	2	20	26	22	4	1	1	0	0	0	0	77	36-45	48
10:00	1	0	0	3	19	19	16	4	1	0	0	0	0	0	63	31-40	38
11:00	1	0	0	4	12	21	13	7	3	0	0	**1**	0	0	62	34-43	34
12 PM	**7**	0	**1**	7	4	24	13	3	2	0	0	0	0	0	61	36-45	37
13:00	1	0	0	3	10	26	12	4	1	0	0	0	0	0	57	35-44	38
14:00	1	0	0	6	12	25	20	5	0	0	0	0	0	0	69	36-45	45
15:00	1	0	0	10	22	29	20	**14**	1	0	0	0	0	0	97	31-40	51
16:00	3	0	1	1	23	27	18	8	1	0	0	0	0	0	82	31-40	50
17:00	3	0	0	4	17	**37**	**24**	10	3	0	**1**	0	0	0	**99**	36-45	61
18:00	3	0	0	1	17	36	24	5	**4**	0	0	0	0	0	90	36-45	60
19:00	0	0	0	3	**25**	26	24	3	0	0	0	0	0	0	81	31-40	51
20:00	2	0	0	3	22	22	11	1	0	0	0	0	0	0	61	31-40	44
21:00	0	**1**	0	**11**	15	12	5	3	0	0	0	0	0	0	47	29-38	27
22:00	0	0	0	1	3	10	3	4	2	0	0	0	0	0	23	36-45	13
23:00	0	0	0	0	4	4	1	1	0	0	0	0	0	0	10	31-40	8
Total	30	1	6	77	307	490	321	108	28	3	1	1	0	0	1373		
Percent	2.2%	0.1%	0.4%	5.6%	22.4%	35.7%	23.4%	7.9%	2.0%	0.2%	0.1%	0.1%	0.0%	0.0%			
AM Peak	08:00		07:00	07:00	07:00	07:00	07:00	07:00	07:00	03:00		11:00			07:00		
Vol.	3		2	11	33	50	38	13	3	1		1			152		
PM Peak	12:00	21:00	12:00	21:00	19:00	17:00	17:00	15:00	18:00		17:00				17:00		
Vol.	7	1	1	11	25	37	24	14	4		1				99		

Traffic Databank
716 S Sixth Ave
Mount Vernon, NY 10550

Site Code:
Station ID:
CROTON DAM RD
OSSINING, NY
Latitude: 0' 0.0000 Undefined

NB

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
09/25/15	0	0	0	1	3	6	4	1	0	0	0	0	0	0	15	36-45	10
01:00	0	0	0	3	1	1	0	0	0	0	0	0	0	0	5	26-35	4
02:00	0	0	0	0	3	2	1	1	0	0	0	0	0	0	7	31-40	5
03:00	0	0	0	1	1	5	2	0	0	0	0	0	0	0	9	36-45	7
04:00	0	0	0	0	0	5	3	1	1	1	0	0	0	0	11	36-45	8
05:00	0	0	0	3	4	9	3	1	0	**2**	0	0	0	0	22	31-40	13
06:00	1	0	0	2	19	29	14	7	**4**	0	0	0	0	0	76	31-40	48
07:00	**4**	0	1	**9**	**40**	**60**	**28**	**8**	1	0	0	0	0	0	**151**	31-40	100
08:00	3	0	**3**	9	23	30	18	5	2	0	**1**	0	0	0	94	31-40	53
09:00	0	0	1	3	20	23	9	6	2	0	0	0	0	0	64	31-40	43
10:00	1	**2**	1	6	19	25	13	4	0	0	0	0	0	0	71	31-40	44
11:00	2	0	1	2	12	22	22	6	4	0	0	0	0	0	71	36-45	44
12 PM	**2**	0	1	4	19	32	9	5	**2**	0	0	0	0	0	74	31-40	51
13:00	0	0	0	2	17	27	13	9	0	0	0	0	0	0	68	31-40	44
14:00	0	0	0	4	13	25	13	**16**	2	0	**1**	0	0	0	74	36-45	38
15:00	1	0	0	1	**29**	34	25	9	0	**1**	1	0	0	0	101	31-40	63
16:00	0	0	1	2	28	36	29	9	1	0	0	0	0	0	106	34-43	65
17:00	2	0	0	**8**	11	**45**	**31**	12	2	1	0	0	0	0	**112**	36-45	76
18:00	2	0	1	7	14	40	19	5	2	0	0	0	0	0	90	36-45	59
19:00	2	0	**2**	7	24	25	16	1	0	1	0	0	0	0	78	31-40	49
20:00	0	0	0	5	17	10	10	3	0	0	0	0	0	0	45	31-40	27
21:00	1	0	1	6	16	22	11	2	0	0	0	0	0	0	59	31-40	38
22:00	0	0	1	4	19	13	10	0	0	0	0	0	0	0	47	31-40	32
23:00	0	0	0	4	0	5	6	1	1	0	0	0	0	0	17	36-45	11
Total	21	2	14	93	352	531	309	112	24	6	3	0	0	0	1467		
Percent	1.4%	0.1%	1.0%	6.3%	24.0%	36.2%	21.1%	7.6%	1.6%	0.4%	0.2%	0.0%	0.0%	0.0%			
AM Peak	07:00	10:00	08:00	07:00	07:00	07:00	07:00	07:00	06:00	05:00	08:00				07:00		
Vol.	4	2	3	9	40	60	28	8	4	2	1				151		
PM Peak	12:00		19:00	17:00	15:00	17:00	17:00	14:00	12:00	15:00	14:00				17:00		
Vol.	2		2	8	29	45	31	16	2	1	1				112		

Traffic Databank
716 S Sixth Ave
Mount Vernon, NY 10550

Site Code:
Station ID:
CROTON DAM RD
OSSINING, NY
Latitude: 0' 0.0000 Undefined

NB

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
09/26/15	0	0	0	0	5	4	6	1	0	0	0	0	0	0	16	36-45	10
01:00	0	0	0	1	3	1	1	1	0	0	0	0	0	0	7	31-40	4
02:00	0	0	0	0	4	5	6	1	0	0	0	0	0	0	16	36-45	11
03:00	0	0	1	1	3	6	2	0	0	0	0	0	0	0	13	31-40	9
04:00	0	0	0	3	1	2	2	0	0	0	**2**	0	0	0	10	36-45	4
05:00	0	0	1	0	1	5	1	1	0	0	0	0	0	0	9	34-43	6
06:00	0	0	**2**	3	13	8	9	4	0	0	0	0	0	0	39	31-40	21
07:00	**2**	0	1	6	22	36	16	6	**2**	0	0	0	0	0	91	31-40	58
08:00	2	0	2	2	17	27	**22**	4	2	0	0	0	0	0	78	36-45	49
09:00	2	0	1	4	23	34	19	9	0	0	0	0	0	0	92	31-40	57
10:00	2	0	1	5	**28**	**39**	15	**11**	0	0	0	0	0	0	101	31-40	67
11:00	2	0	0	**9**	26	37	19	11	2	**1**	0	0	0	0	**107**	31-40	63
12 PM	0	0	1	4	18	35	25	1	**4**	0	0	0	0	0	88	36-45	60
13:00	3	0	1	3	19	32	20	**12**	2	**1**	0	0	0	0	93	34-43	52
14:00	**7**	0	1	0	9	**37**	15	7	2	1	0	0	0	0	79	36-45	52
15:00	1	**1**	2	2	**25**	28	**30**	5	0	0	0	0	0	0	**94**	36-45	58
16:00	1	0	0	**6**	17	29	15	4	0	0	0	0	0	0	72	31-40	46
17:00	0	0	2	5	24	35	19	3	1	0	0	0	0	0	89	31-40	59
18:00	1	0	0	1	16	22	13	2	2	1	0	0	0	0	58	31-40	38
19:00	0	0	1	4	21	12	10	1	0	0	0	0	0	0	49	31-40	33
20:00	2	0	0	3	11	6	6	2	0	0	0	0	0	0	30	31-40	17
21:00	0	0	1	0	7	11	5	0	1	0	0	0	0	0	25	31-40	18
22:00	0	0	0	1	8	8	4	3	0	1	**1**	0	0	0	26	31-40	16
23:00	0	0	**3**	2	6	6	2	1	0	0	0	0	0	0	20	31-40	12
Total	25	1	21	65	327	465	282	90	18	5	3	0	0	0	1302		
Percent	1.9%	0.1%	1.6%	5.0%	25.1%	35.7%	21.7%	6.9%	1.4%	0.4%	0.2%	0.0%	0.0%	0.0%			
AM Peak	07:00		06:00	11:00	10:00	10:00	08:00	10:00	07:00	11:00	04:00				11:00		
Vol.	2		2	9	28	39	22	11	2	1	2				107		
PM Peak	14:00	15:00	23:00	16:00	15:00	14:00	15:00	13:00	12:00	13:00	22:00				15:00		
Vol.	7	1	3	6	25	37	30	12	4	1	1				94		

Traffic Databank
716 S Sixth Ave
Mount Vernon, NY 10550

Site Code:
Station ID:
CROTON DAM RD
OSSINING, NY
Latitude: 0' 0.0000 Undefined

NB

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
09/27/15	1	0	0	4	2	4	3	0	0	0	0	0	0	0	14	34-43	7
01:00	0	0	0	2	4	1	0	1	0	0	0	0	0	0	8	26-35	6
02:00	0	**1**	0	1	2	3	1	0	0	0	0	0	0	0	8	31-40	5
03:00	0	0	0	1	3	2	2	1	0	0	0	0	0	0	9	31-40	5
04:00	0	0	0	0	2	2	2	2	0	0	0	0	0	0	8	30-39	4
05:00	0	1	0	1	3	2	0	0	0	0	0	0	0	0	7	29-38	5
06:00	0	0	0	2	6	8	2	5	0	0	0	0	0	0	23	31-40	14
07:00	0	0	**1**	3	5	12	13	5	1	0	0	0	0	0	40	36-45	25
08:00	**3**	0	1	3	3	13	14	**8**	0	0	0	**1**	0	0	46	36-45	27
09:00	1	0	1	5	19	**33**	17	8	1	0	0	0	0	0	**85**	31-40	52
10:00	0	0	0	**6**	**20**	23	**19**	7	**3**	0	0	0	0	0	78	31-40	43
11:00	2	0	0	3	19	31	15	6	2	0	0	0	0	0	78	31-40	50
12 PM	1	0	**1**	**7**	**19**	28	16	6	**3**	0	0	0	0	0	81	31-40	47
13:00	2	0	1	2	17	35	**36**	**8**	0	0	0	0	0	0	**101**	36-45	71
14:00	2	**1**	1	3	19	**43**	15	3	2	0	0	0	0	0	89	31-40	62
15:00	**3**	0	0	0	16	31	14	5	2	0	0	0	0	0	71	31-40	47
16:00	1	0	0	6	10	30	15	6	0	0	**1**	0	0	0	69	36-45	45
17:00	1	0	0	2	9	23	21	5	2	0	0	0	0	0	63	36-45	44
18:00	0	0	0	2	13	18	14	2	0	**1**	0	0	0	0	50	34-43	32
19:00	0	0	0	1	15	24	3	0	0	0	0	0	0	0	43	31-40	39
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	17	3	6	54	206	366	222	78	16	1	1	1	0	0	971		
Percent	1.8%	0.3%	0.6%	5.6%	21.2%	37.7%	22.9%	8.0%	1.6%	0.1%	0.1%	0.1%	0.0%	0.0%			
AM Peak	08:00	02:00	07:00	10:00	10:00	09:00	10:00	08:00	10:00			08:00			09:00		
Vol.	3	1	1	6	20	33	19	8	3			1			85		
PM Peak	15:00	14:00	12:00	12:00	12:00	14:00	13:00	13:00	12:00	18:00	16:00				13:00		
Vol.	3	1	1	7	19	43	36	8	3	1	1				101		
Total	243	16	123	748	2862	4314	2738	942	194	44	14	3	2	0	12243		
Percent	2.0%	0.1%	1.0%	6.1%	23.4%	35.2%	22.4%	7.7%	1.6%	0.4%	0.1%	0.0%	0.0%	0.0%			

	15th Percentile :	31 MPH
	50th Percentile :	37 MPH
	85th Percentile :	43 MPH
	95th Percentile :	48 MPH
Stats	10 MPH Pace Speed :	31-40 MPH
	Number in Pace :	7176
	Percent in Pace :	58.6%
	Number of Vehicles > 35 MPH :	8251
	Percent of Vehicles > 35 MPH :	67.4%
	Mean Speed(Average) :	38 MPH

DATE:	9/17/2015	JOB NO:	15064
PERIOD:	7-9 AM & 4-6 PM	NAME:	PD
LOCATION:	Dale Avenue (NYS Route 134) & Pine Avenue	INT #:	1

ENTER COUNT DATA ON THIS PAGE

TIME	CLASS	VEHICLE MOVEMENT												TOTAL VEHICLES	PEDESTRIAN MOVEMENT				TOTAL PEDS	INT. PHF
		1	2	3	4	5	6	7	8	9	10	11	12		A	B	C	D		
7:00 - 7:15 AM	TOTAL				9	10	17				14									
	TRUCK										1									
7:15 - 7:30 AM	TOTAL				23	27	35				35									
	TRUCK										1									
7:30 - 7:45 AM	TOTAL				41	39	49				53							1		
	TRUCK																			
7:45 - 8:00 AM	TOTAL				54	52	64				74							2		
	TRUCK										1									
8:00 - 8:15 AM	TOTAL				62	64	70				91									
	TRUCK																			
8:15 - 8:30 AM	TOTAL				71	70	72				108							1		
	TRUCK										1									
8:30 - 8:45 AM	TOTAL				80	84	82				114							2		
	TRUCK					2														
8:45 - 9:00 AM	TOTAL				89	93	92				121							1		
	TRUCK																			
4:00 - 4:15 PM	TOTAL				6	8	10				12							1		
	TRUCK																			
4:15 - 4:30 PM	TOTAL				12	16	23				19									
	TRUCK																			
4:30 - 4:45 PM	TOTAL				22	28	45				34							1		
	TRUCK																			
4:45 - 5:00 PM	TOTAL				33	43	58				42									
	TRUCK																			
5:00 - 5:15 PM	TOTAL				45	56	72				55							1		
	TRUCK																			
5:15 - 5:30 PM	TOTAL				55	68	79				69									
	TRUCK																			
5:30 - 5:45 PM	TOTAL				62	83	88				77							3		
	TRUCK																			
5:45 - 6:00 PM	TOTAL				71	95	101				86							1		
	TRUCK																			

DATE:	9/17/2015
PERIOD:	7-9 AM & 4-6 PM

CALCULATIONS - DO NOT EDIT THIS SHEET

JOB NO:	15064
NAME:	PD

LOCATION:	Dale Avenue (NYS Route 134) & Pine Avenue	INT #:	1

TIME	CLASS	VEHICLE MOVEMENT												TOTAL VEHICLES	PEDESTRIAN MOVEMENT				TOTAL PEDS	INT. PHF
		1	2	3	4	5	6	7	8	9	10	11	12		A	B	C	D		
7:00 - 7:15 AM	TOTAL	0	0	0	9	10	17	0	0	0	14	0	0	50	0	0	0	0	0	
	TRUCK	0	0	0	0	0	0	0	0	0	1	0	0							
7:15 - 7:30 AM	TOTAL	0	0	0	14	17	18	0	0	0	21	0	0	70	0	0	0	0	0	
	TRUCK	0	0	0	0	0	0	0	0	0	1	0	0							
7:30 - 7:45 AM	TOTAL	0	0	0	18	12	14	0	0	0	18	0	0	62	0	0	0	1	1	
	TRUCK	0	0	0	0	0	0	0	0	0	0	0	0							
7:45 - 8:00 AM	TOTAL	0	0	0	13	13	15	0	0	0	21	0	0	62	0	0	0	2	2	
	TRUCK	0	0	0	0	0	0	0	0	0	1	0	0							
8:00 - 8:15 AM	TOTAL	0	0	0	8	12	6	0	0	0	17	0	0	43	0	0	0	0	0	
	TRUCK	0	0	0	0	0	0	0	0	0	0	0	0							
8:15 - 8:30 AM	TOTAL	0	0	0	9	6	2	0	0	0	17	0	0	34	0	0	0	1	1	
	TRUCK	0	0	0	0	0	0	0	0	0	1	0	0							
8:30 - 8:45 AM	TOTAL	0	0	0	9	14	10	0	0	0	6	0	0	39	0	0	0	2	2	
	TRUCK	0	0	0	0	2	0	0	0	0	0	0	0							
8:45 - 9:00 AM	TOTAL	0	0	0	9	9	10	0	0	0	7	0	0	35	0	0	0	1	1	
	TRUCK	0	0	0	0	0	0	0	0	0	0	0	0							
4:00 - 4:15 PM	TOTAL	0	0	0	6	8	10	0	0	0	12	0	0	36	0	0	0	1	1	
	TRUCK	0	0	0	0	0	0	0	0	0	0	0	0							
4:15 - 4:30 PM	TOTAL	0	0	0	6	8	13	0	0	0	7	0	0	34	0	0	0	0	0	
	TRUCK	0	0	0	0	0	0	0	0	0	0	0	0							
4:30 - 4:45 PM	TOTAL	0	0	0	10	12	22	0	0	0	15	0	0	59	0	0	0	1	1	
	TRUCK	0	0	0	0	0	0	0	0	0	0	0	0							
4:45 - 5:00 PM	TOTAL	0	0	0	11	15	13	0	0	0	8	0	0	47	0	0	0	0	0	
	TRUCK	0	0	0	0	0	0	0	0	0	0	0	0							
5:00 - 5:15 PM	TOTAL	0	0	0	12	13	14	0	0	0	13	0	0	52	0	0	0	1	1	
	TRUCK	0	0	0	0	0	0	0	0	0	0	0	0							
5:15 - 5:30 PM	TOTAL	0	0	0	10	12	7	0	0	0	14	0	0	43	0	0	0	0	0	
	TRUCK	0	0	0	0	0	0	0	0	0	0	0	0							
5:30 - 5:45 PM	TOTAL	0	0	0	7	15	9	0	0	0	8	0	0	39	0	0	0	3	3	
	TRUCK	0	0	0	0	0	0	0	0	0	0	0	0							
5:45 - 6:00 PM	TOTAL	0	0	0	9	12	13	0	0	0	9	0	0	43	0	0	0	1	1	
	TRUCK	0	0	0	0	0	0	0	0	0	0	0	0							

DATE:	9/17/2015
PERIOD:	7-9 AM & 4-6 PM

PEAK HOUR MOVEMENTS & % HEAVY VEHICLES - DO NOT EDIT THIS SHEET

JOB NO:	15064
NAME:	PD

LOCATION:	Dale Avenue (NYS Route 134) & Pine Avenue	INT #:	1

TIME	CLASS	VEHICLE MOVEMENT												TOTAL VEHICLES	PEDESTRIAN MOVEMENT				TOTAL PEDS	INT. PHF
		1	2	3	4	5	6	7	8	9	10	11	12		A	B	C	D		
7:00 - 8:00 AM	TOTAL	0	0	0	54	52	64	0	0	0	74	0	0	244						
	TRUCK	#####	#####	#####	0%	0%	0%	#####	#####	#####	4%	#####	#####		0	0	0	3	3	0.87
7:15 - 8:15 AM	TOTAL	0	0	0	53	54	53	0	0	0	77	0	0	237						
	TRUCK	#####	#####	#####	0%	0%	0%	#####	#####	#####	3%	#####	#####		0	0	0	3	3	0.84
7:30 - 8:30 AM	TOTAL	0	0	0	48	43	37	0	0	0	73	0	0	201						
	TRUCK	#####	#####	#####	0%	0%	0%	#####	#####	#####	3%	#####	#####		0	0	0	4	4	0.81
7:45 - 8:45 AM	TOTAL	0	0	0	39	45	33	0	0	0	61	0	0	178						
	TRUCK	#####	#####	#####	0%	4%	0%	#####	#####	#####	3%	#####	#####		0	0	0	5	5	0.72
8:00 - 9:00 AM	TOTAL	0	0	0	35	41	28	0	0	0	47	0	0	151						
	TRUCK	#####	#####	#####	0%	5%	0%	#####	#####	#####	2%	#####	#####		0	0	0	4	4	0.87
4:00 - 5:00 PM	TOTAL	0	0	0	33	43	58	0	0	0	42	0	0	176						
	TRUCK	#####	#####	#####	0%	0%	0%	#####	#####	#####	0%	#####	#####		0	0	0	2	2	0.83
4:15 - 5:15 PM	TOTAL	0	0	0	39	48	62	0	0	0	43	0	0	192						
	TRUCK	#####	#####	#####	0%	0%	0%	#####	#####	#####	0%	#####	#####		0	0	0	2	2	0.87
4:30 - 5:30 PM	TOTAL	0	0	0	43	52	56	0	0	0	50	0	0	201						
	TRUCK	#####	#####	#####	0%	0%	0%	#####	#####	#####	0%	#####	#####		0	0	0	2	2	0.94
4:45 - 5:45 PM	TOTAL	0	0	0	40	55	43	0	0	0	43	0	0	181						
	TRUCK	#####	#####	#####	0%	0%	0%	#####	#####	#####	0%	#####	#####		0	0	0	4	4	0.91
5:00 - 6:00 PM	TOTAL	0	0	0	38	52	43	0	0	0	44	0	0	177						
	TRUCK	#####	#####	#####	0%	0%	0%	#####	#####	#####	0%	#####	#####		0	0	0	5	5	0.90

1:
2:
3:
4: Rt 134 SB - Left
5: Pine WB - Right
6: Pine WB - Left

7:
8:
9:
10: Rt 134 NB - Right
11:
12:

A:
B:
C:
D: Cross Pine East Side of Int

DATE:	9/17/2015	JOB NO:	15064
PERIOD:	7-9 AM & 4-6 PM	NAME:	PD
LOCATION:	Croton Dam Road & Hawkles Avenue (NYS Route 134)	INT #:	2

ENTER COUNT DATA ON THIS PAGE

TIME	CLASS	VEHICLE MOVEMENT												TOTAL VEHICLES	PEDESTRIAN MOVEMENT				TOTAL PEDS	INT. PHF
		1	2	3	4	5	6	7	8	9	10	11	12		A	B	C	D		
7:00 - 7:15 AM	TOTAL	35	2	0				23	16	24							1			
	TRUCK																			
7:15 - 7:30 AM	TOTAL	74	2	2				45	39	71						1				
	TRUCK																			
7:30 - 7:45 AM	TOTAL	101	4	4				68	60	113							1			
	TRUCK																			
7:45 - 8:00 AM	TOTAL	135	8	6				82	92	144										
	TRUCK								1											
8:00 - 8:15 AM	TOTAL	160	9	6				103	108	167										
	TRUCK																			
8:15 - 8:30 AM	TOTAL	182	9	8				112	121	181										
	TRUCK								1											
8:30 - 8:45 AM	TOTAL	208	10	8				130	135	201										
	TRUCK								1	1										
8:45 - 9:00 AM	TOTAL	229	11	8				152	152	221										
	TRUCK																			
4:00 - 4:15 PM	TOTAL	19	1	1				26	21	24							1			
	TRUCK																			
4:15 - 4:30 PM	TOTAL	29	1	2				43	35	43										
	TRUCK	1																		
4:30 - 4:45 PM	TOTAL	43	1	3				71	65	68										
	TRUCK	1																		
4:45 - 5:00 PM	TOTAL	61	4	4				97	98	89										
	TRUCK																			
5:00 - 5:15 PM	TOTAL	84	4	4				113	131	124										
	TRUCK																			
5:15 - 5:30 PM	TOTAL	108	4	5				130	159	150										
	TRUCK																			
5:30 - 5:45 PM	TOTAL	124	4	5				167	183	173										
	TRUCK																			
5:45 - 6:00 PM	TOTAL	139	5	7				195	212	196							1			
	TRUCK																			

DATE:	9/17/2015
PERIOD:	7-9 AM & 4-6 PM
LOCATION:	Croton Dam Road & Hawkles Avenue (NYS Route 134)

CALCULATIONS - DO NOT EDIT THIS SHEET

JOB NO:	15064
NAME:	PD
INT #:	2

TIME	CLASS	VEHICLE MOVEMENT 1	2	3	4	5	6	7	8	9	10	11	12	TOTAL VEHICLES	PEDESTRIAN MOVEMENT A	B	C	D	TOTAL PEDS	INT. PHF
7:00 - 7:15 AM	TOTAL	35	2	0	0	0	0	23	16	24	0	0	0	100	0	0	1	0	1	
	TRUCK	0	0	0	0	0	0	0	0	0	0	0	0							
7:15 - 7:30 AM	TOTAL	39	0	2	0	0	0	22	23	47	0	0	0	133	0	1	0	0	1	
	TRUCK	0	0	0	0	0	0	0	0	0	0	0	0							
7:30 - 7:45 AM	TOTAL	27	2	2	0	0	0	23	21	42	0	0	0	117	0	0	1	0	1	
	TRUCK	0	0	0	0	0	0	0	0	0	0	0	0							
7:45 - 8:00 AM	TOTAL	34	4	2	0	0	0	14	32	31	0	0	0	117	0	0	0	0	0	
	TRUCK	0	0	0	0	0	0	0	1	0	0	0	0							
8:00 - 8:15 AM	TOTAL	25	1	0	0	0	0	21	16	23	0	0	0	86	0	0	0	0	0	
	TRUCK	0	0	0	0	0	0	0	0	0	0	0	0							
8:15 - 8:30 AM	TOTAL	22	0	2	0	0	0	9	13	14	0	0	0	60	0	0	0	0	0	
	TRUCK	0	0	0	0	0	0	0	1	0	0	0	0							
8:30 - 8:45 AM	TOTAL	26	1	0	0	0	0	18	14	20	0	0	0	79	0	0	0	0	0	
	TRUCK	0	0	0	0	0	0	0	1	1	0	0	0							
8:45 - 9:00 AM	TOTAL	21	1	0	0	0	0	22	17	20	0	0	0	81	0	0	0	0	0	
	TRUCK	0	0	0	0	0	0	0	0	0	0	0	0							
4:00 - 4:15 PM	TOTAL	19	1	1	0	0	0	26	21	24	0	0	0	92	0	0	1	0	1	
	TRUCK	0	0	0	0	0	0	0	0	0	0	0	0							
4:15 - 4:30 PM	TOTAL	10	0	1	0	0	0	17	14	19	0	0	0	61	0	0	0	0	0	
	TRUCK	1	0	0	0	0	0	0	0	0	0	0	0							
4:30 - 4:45 PM	TOTAL	14	0	1	0	0	0	28	30	25	0	0	0	98	0	0	0	0	0	
	TRUCK	1	0	0	0	0	0	0	0	0	0	0	0							
4:45 - 5:00 PM	TOTAL	18	3	1	0	0	0	26	33	21	0	0	0	102	0	0	0	0	0	
	TRUCK	0	0	0	0	0	0	0	0	0	0	0	0							
5:00 - 5:15 PM	TOTAL	23	0	0	0	0	0	16	33	35	0	0	0	107	0	0	0	0	0	
	TRUCK	0	0	0	0	0	0	0	0	0	0	0	0							
5:15 - 5:30 PM	TOTAL	24	0	1	0	0	0	17	28	26	0	0	0	96	0	0	0	0	0	
	TRUCK	0	0	0	0	0	0	0	0	0	0	0	0							
5:30 - 5:45 PM	TOTAL	16	0	0	0	0	0	37	24	23	0	0	0	100	0	0	0	0	0	
	TRUCK	0	0	0	0	0	0	0	0	0	0	0	0							
5:45 - 6:00 PM	TOTAL	15	1	2	0	0	0	28	29	23	0	0	0	98	0	0	1	0	1	
	TRUCK	0	0	0	0	0	0	0	0	0	0	0	0							

DATE:	9/17/2015
PERIOD:	7-9 AM & 4-6 PM
LOCATION:	Croton Dam Road & Hawkles Avenue (NYS Route 134)

PEAK HOUR MOVEMENTS & % HEAVY VEHICLES - DO NOT EDIT THIS SHEET

JOB NO:	15064
NAME:	PD
INT #:	2

TIME	CLASS	VEHICLE MOVEMENT												TOTAL VEHICLES	PEDESTRIAN MOVEMENT				TOTAL PEDS	INT. PHF
		1	2	3	4	5	6	7	8	9	10	11	12		A	B	C	D		
7:00 - 8:00 AM	TOTAL	135	8	6	0	0	0	82	92	144	0	0	0	467	0	1	2	0	3	0.88
	TRUCK	0%	0%	0%	#####	#####	#####	0%	1%	0%	#####	#####	#####							
7:15 - 8:15 AM	TOTAL	125	7	6	0	0	0	80	92	143	0	0	0	453	0	1	1	0	2	0.85
	TRUCK	0%	0%	0%	#####	#####	#####	0%	1%	0%	#####	#####	#####							
7:30 - 8:30 AM	TOTAL	108	7	6	0	0	0	67	82	110	0	0	0	380	0	0	1	0	1	0.81
	TRUCK	0%	0%	0%	#####	#####	#####	0%	2%	0%	#####	#####	#####							
7:45 - 8:45 AM	TOTAL	107	6	4	0	0	0	62	75	88	0	0	0	342	0	0	0	0	0	0.73
	TRUCK	0%	0%	0%	#####	#####	#####	0%	4%	1%	#####	#####	#####							
8:00 - 9:00 AM	TOTAL	94	3	2	0	0	0	70	60	77	0	0	0	306	0	0	0	0	0	0.89
	TRUCK	0%	0%	0%	#####	#####	#####	0%	3%	1%	#####	#####	#####							
4:00 - 5:00 PM	TOTAL	61	4	4	0	0	0	97	98	89	0	0	0	353	0	0	1	0	1	0.87
	TRUCK	3%	0%	0%	#####	#####	#####	0%	0%	0%	#####	#####	#####							
4:15 - 5:15 PM	TOTAL	65	3	3	0	0	0	87	110	100	0	0	0	368	0	0	0	0	0	0.86
	TRUCK	3%	0%	0%	#####	#####	#####	0%	0%	0%	#####	#####	#####							
4:30 - 5:30 PM	TOTAL	79	3	3	0	0	0	87	124	107	0	0	0	403	0	0	0	0	0	0.94
	TRUCK	1%	0%	0%	#####	#####	#####	0%	0%	0%	#####	#####	#####							
4:45 - 5:45 PM	TOTAL	81	3	2	0	0	0	96	118	105	0	0	0	405	0	0	0	0	0	0.95
	TRUCK	0%	0%	0%	#####	#####	#####	0%	0%	0%	#####	#####	#####							
5:00 - 6:00 PM	TOTAL	78	1	3	0	0	0	98	114	107	0	0	0	401	0	0	1	0	1	0.94
	TRUCK	0%	0%	0%	#####	#####	#####	0%	0%	0%	#####	#####	#####							

1: Rt 134 SB - Thru
2: Rt 134 SB - Left
3: Croton WB - Right
4:
5:
6:

7: Croton WB - Left
8: Rt 134 NB - Thru
9: Rt 134 NB - Right
10:
11:
12:

A: Cross Rt 134 North Side of Int
B: Cross Croton East Side of Int
C: Cross Rt 134 South Side of Int
D:

DATE:	9/17/2015
PERIOD:	7-9 AM & 4-6 PM

ENTER COUNT DATA ON THIS PAGE

JOB NO:	15064
NAME:	AL

LOCATION:	Croton Dam Road & Pershing Avenue/Cherry Hill Circle	INT #:	3

TIME	CLASS	VEHICLE MOVEMENT												TOTAL VEHICLES	PEDESTRIAN MOVEMENT				TOTAL PEDS	INT. PHF
		1	2	3	4	5	6	7	8	9	10	11	12		A	B	C	D		
7:00 - 7:15 AM	TOTAL	0	0	1	4	30	0	1	20	0	1	1	0			1				
	TRUCK				1			1	1											
7:15 - 7:30 AM	TOTAL	4	0	5	6	79	0	1	38	0	1	2	2			2				
	TRUCK					1			1											
7:30 - 7:45 AM	TOTAL	4	1	6	10	130	1	1	57	0	1	3	4							
	TRUCK		1						1			1								
7:45 - 8:00 AM	TOTAL	5	1	9	11	163	3	2	73	0	1	4	4		1					
	TRUCK					4			1											
8:00 - 8:15 AM	TOTAL	9	1	11	18	191	3	3	92	0	1	5	4							
	TRUCK				1	1														
8:15 - 8:30 AM	TOTAL	12	1	12	20	208	4	4	105	0	2	5	4							
	TRUCK					1			1											
8:30 - 8:45 AM	TOTAL	13	1	13	20	234	4	6	126	0	3	5	4							
	TRUCK					1														
8:45 - 9:00 AM	TOTAL	14	1	15	20	253	5	7	149	1	3	5	4							
	TRUCK					1		1	2	1										
4:00 - 4:15 PM	TOTAL	1	1	2	2	16	1	1	23	0	1	0	1							
	TRUCK					1														
4:15 - 4:30 PM	TOTAL	2	1	3	4	39	2	2	43	0	1	0	1							
	TRUCK								2											
4:30 - 4:45 PM	TOTAL	3	2	3	8	64	2	5	77	1	1	0	2				1			
	TRUCK					1			1											
4:45 - 5:00 PM	TOTAL	5	3	6	11	85	2	5	107	2	1	1	3							
	TRUCK	1			1				1											
5:00 - 5:15 PM	TOTAL	5	5	11	12	118	4	10	136	3	2	2	3			1				
	TRUCK							1												
5:15 - 5:30 PM	TOTAL	5	5	12	14	145	4	13	156	3	2	2	3		1					
	TRUCK								1											
5:30 - 5:45 PM	TOTAL	7	5	17	16	173	5	19	201	3	2	2	4							
	TRUCK																			
5:45 - 6:00 PM	TOTAL	8	5	20	18	196	5	22	229	3	2	3	4							
	TRUCK								1											

DATE:	9/17/2015
PERIOD:	7-9 AM & 4-6 PM

CALCULATIONS - DO NOT EDIT THIS SHEET

JOB NO:	15064
NAME:	AL

LOCATION:	Croton Dam Road & Pershing Avenue/Cherry Hill Circle	INT #:	3

TIME	CLASS	VEHICLE MOVEMENT												TOTAL VEHICLES	PEDESTRIAN MOVEMENT				TOTAL PEDS	INT. PHF
		1	2	3	4	5	6	7	8	9	10	11	12		A	B	C	D		
7:00 - 7:15 AM	TOTAL	0	0	1	4	30	0	1	20	0	1	1	0	58	0	1	0	0	1	
	TRUCK	0	0	0	1	0	0	1	1	0	0	0	0							
7:15 - 7:30 AM	TOTAL	4	0	4	2	49	0	0	18	0	0	1	2	80	0	2	0	0	2	
	TRUCK	0	0	0	0	1	0	0	1	0	0	0	0							
7:30 - 7:45 AM	TOTAL	0	1	1	4	51	1	0	19	0	0	1	2	80	0	0	0	0	0	
	TRUCK	0	1	0	0	0	0	0	1	0	0	1	0							
7:45 - 8:00 AM	TOTAL	1	0	3	1	33	2	1	16	0	0	1	0	58	1	0	0	0	1	
	TRUCK	0	0	0	0	4	0	0	1	0	0	0	0							
8:00 - 8:15 AM	TOTAL	4	0	2	7	28	0	1	19	0	0	1	0	62	0	0	0	0	0	
	TRUCK	0	0	0	1	1	0	0	0	0	0	0	0							
8:15 - 8:30 AM	TOTAL	3	0	1	2	17	1	1	13	0	1	0	0	39	0	0	0	0	0	
	TRUCK	0	0	0	0	1	0	0	1	0	0	0	0							
8:30 - 8:45 AM	TOTAL	1	0	1	0	26	0	2	21	0	1	0	0	52	0	0	0	0	0	
	TRUCK	0	0	0	0	1	0	0	0	0	0	0	0							
8:45 - 9:00 AM	TOTAL	1	0	2	0	19	1	1	23	1	0	0	0	48	0	0	0	0	0	
	TRUCK	0	0	0	0	1	0	1	2	1	0	0	0							
4:00 - 4:15 PM	TOTAL	1	1	2	2	16	1	1	23	0	1	0	1	49	0	0	0	0	0	
	TRUCK	0	0	0	0	1	0	0	0	0	0	0	0							
4:15 - 4:30 PM	TOTAL	1	0	1	2	23	1	1	20	0	0	0	0	49	0	0	0	0	0	
	TRUCK	0	0	0	0	0	0	0	2	0	0	0	0							
4:30 - 4:45 PM	TOTAL	1	1	0	4	25	0	3	34	1	0	0	1	70	0	0	1	0	1	
	TRUCK	0	0	0	0	1	0	0	1	0	0	0	0							
4:45 - 5:00 PM	TOTAL	2	1	3	3	21	0	0	30	1	0	1	1	63	0	0	0	0	0	
	TRUCK	1	0	0	1	0	0	0	1	0	0	0	0							
5:00 - 5:15 PM	TOTAL	0	2	5	1	33	2	5	29	1	1	1	0	80	0	1	0	0	1	
	TRUCK	0	0	0	0	0	0	1	0	0	0	0	0							
5:15 - 5:30 PM	TOTAL	0	0	1	2	27	0	3	20	0	0	0	0	53	1	0	0	0	1	
	TRUCK	0	0	0	0	0	0	0	1	0	0	0	0							
5:30 - 5:45 PM	TOTAL	2	0	5	2	28	1	6	45	0	0	0	1	90	0	0	0	0	0	
	TRUCK	0	0	0	0	0	0	0	0	0	0	0	0							
5:45 - 6:00 PM	TOTAL	1	0	3	2	23	0	3	28	0	0	1	0	61	0	0	0	0	0	
	TRUCK	0	0	0	0	0	0	0	1	0	0	0	0							

DATE:	9/17/2015
PERIOD:	7-9 AM & 4-6 PM

PEAK HOUR MOVEMENTS & % HEAVY VEHICLES - DO NOT EDIT THIS SHEET

JOB NO:	15064
NAME:	AL

LOCATION:	Croton Dam Road & Pershing Avenue/Cherry Hill Circle	INT #:	3

TIME	CLASS	VEHICLE MOVEMENT												TOTAL VEHICLES	PEDESTRIAN MOVEMENT				TOTAL PEDS	INT. PHF
		1	2	3	4	5	6	7	8	9	10	11	12		A	B	C	D		
7:00 - 8:00 AM	TOTAL	5	1	9	11	163	3	2	73	0	1	4	4	276						
	TRUCK	0%	100%	0%	9%	3%	0%	50%	5%	#####	0%	25%	0%		1	3	0	0	4	0.86
7:15 - 8:15 AM	TOTAL	9	1	10	14	161	3	2	72	0	0	4	4	280						
	TRUCK	0%	100%	0%	7%	4%	0%	0%	4%	#####	#####	25%	0%		1	2	0	0	3	0.88
7:30 - 8:30 AM	TOTAL	8	1	7	14	129	4	3	67	0	1	3	2	239						
	TRUCK	0%	100%	0%	7%	5%	0%	0%	4%	#####	0%	33%	0%		1	0	0	0	1	0.75
7:45 - 8:45 AM	TOTAL	9	0	7	10	104	3	5	69	0	2	2	0	211						
	TRUCK	0%	#####	0%	10%	7%	0%	0%	3%	#####	0%	0%	#####		1	0	0	0	1	0.85
8:00 - 9:00 AM	TOTAL	9	0	6	9	90	2	5	76	1	2	1	0	201						
	TRUCK	0%	#####	0%	11%	4%	0%	20%	4%	100%	0%	0%	#####		0	0	0	0	0	0.81
4:00 - 5:00 PM	TOTAL	5	3	6	11	85	2	5	107	2	1	1	3	231						
	TRUCK	20%	0%	0%	9%	2%	0%	0%	4%	0%	0%	0%	0%		0	0	1	0	1	0.83
4:15 - 5:15 PM	TOTAL	4	4	9	10	102	3	9	113	3	1	2	2	262						
	TRUCK	25%	0%	0%	10%	1%	0%	11%	4%	0%	0%	0%	0%		0	1	1	0	2	0.82
4:30 - 5:30 PM	TOTAL	3	4	9	10	106	2	11	113	3	1	2	2	266						
	TRUCK	33%	0%	0%	10%	1%	0%	9%	3%	0%	0%	0%	0%		1	1	1	0	3	0.83
4:45 - 5:45 PM	TOTAL	4	3	14	8	109	3	14	124	2	1	2	2	286						
	TRUCK	25%	0%	0%	13%	0%	0%	7%	2%	0%	0%	0%	0%		1	1	0	0	2	0.79
5:00 - 6:00 PM	TOTAL	3	2	14	7	111	3	17	122	1	1	2	1	284						
	TRUCK	0%	0%	0%	0%	0%	0%	6%	2%	0%	0%	0%	0%		1	1	0	0	2	0.79

1: Pershing WB - Right
2: Pershing WB - Thru
3: Pershing WB - Left
4: Croton NB - Right
5: Croton NB - Thru
6: Croton NB - Left

7: Croton SB - Left
8: Croton SB - Thru
9: Croton SB - Right
10: Cherry Hill EB - Left
11: Cherry Hill EB - Thru
12: Cherry Hill EB - Right

A: Cross Pershing East Side of Int
B: Cross Croton South Side of Int
C: Cross Cherry Hill West Side of Int
D: Cross Croton North Side of Int

DATE:	9/17/2015	JOB NO:	15064
PERIOD:	7-9 AM & 4-6 PM	NAME:	BD
LOCATION:	Croton Dam Road & Kitchawan State Road	INT #:	5

ENTER COUNT DATA ON THIS PAGE

TIME	CLASS	VEHICLE MOVEMENT												TOTAL VEHICLES	PEDESTRIAN MOVEMENT				TOTAL PEDS	INT. PHF
		1	2	3	4	5	6	7	8	9	10	11	12		A	B	C	D		
7:00 - 7:15 AM	TOTAL					45	5		34	17	18		3							
	TRUCK					1														
7:15 - 7:30 AM	TOTAL					100	11		69	39	37		12							
	TRUCK						1			1										
7:30 - 7:45 AM	TOTAL					176	19		99	47	50		23					1		
	TRUCK					1			2				1							
7:45 - 8:00 AM	TOTAL					222	26		133	54	68		34							
	TRUCK					2			2		2		2							
8:00 - 8:15 AM	TOTAL					260	28		169	68	88		44				1			
	TRUCK					1			1	3										
8:15 - 8:30 AM	TOTAL					290	33		202	74	115		59							
	TRUCK					2			5	1	1									
8:30 - 8:45 AM	TOTAL					322	36		236	85	134		64							
	TRUCK								2	1	2									
8:45 - 9:00 AM	TOTAL					370	40		282	99	155		69							
	TRUCK					1			3	1	1									
4:00 - 4:15 PM	TOTAL					36	8		42	18	19		3							
	TRUCK					3														
4:15 - 4:30 PM	TOTAL					70	15		79	31	31		4							
	TRUCK					1			1											
4:30 - 4:45 PM	TOTAL					111	20		141	49	40		6							
	TRUCK					3				2										
4:45 - 5:00 PM	TOTAL					141	27		190	63	50		10							
	TRUCK								1	1										
5:00 - 5:15 PM	TOTAL					178	33		239	89	64		12							
	TRUCK					1			1											
5:15 - 5:30 PM	TOTAL					224	40		285	110	85		16							
	TRUCK									1										
5:30 - 5:45 PM	TOTAL					264	44		339	122	95		18							
	TRUCK									2	1									
5:45 - 6:00 PM	TOTAL					305	53		394	136	107		21							
	TRUCK					3			1											

DATE:	9/17/2015
PERIOD:	7-9 AM & 4-6 PM
LOCATION:	Croton Dam Road & Kitchawan State Road

CALCULATIONS - DO NOT EDIT THIS SHEET

JOB NO:	15064
NAME:	BD
INT #:	5

TIME	CLASS	VEHICLE MOVEMENT												TOTAL VEHICLES	PEDESTRIAN MOVEMENT				TOTAL PEDS	INT. PHF
		1	2	3	4	5	6	7	8	9	10	11	12		A	B	C	D		
7:00 - 7:15 AM	TOTAL	0	0	0	0	45	5	0	34	17	18	0	3	122	0	0	0	0	0	
	TRUCK	0	0	0	0	1	0	0	0	0	0	0	0							
7:15 - 7:30 AM	TOTAL	0	0	0	0	55	6	0	35	22	19	0	9	146	0	0	0	0	0	
	TRUCK	0	0	0	0	0	1	0	0	1	0	0	0							
7:30 - 7:45 AM	TOTAL	0	0	0	0	76	8	0	30	8	13	0	11	146	0	0	0	1	1	
	TRUCK	0	0	0	0	1	0	0	2	0	0	0	1							
7:45 - 8:00 AM	TOTAL	0	0	0	0	46	7	0	34	7	18	0	11	123	0	0	0	0	0	
	TRUCK	0	0	0	0	2	0	0	2	0	2	0	2							
8:00 - 8:15 AM	TOTAL	0	0	0	0	38	2	0	36	14	20	0	10	120	0	0	1	0	1	
	TRUCK	0	0	0	0	1	0	0	1	3	0	0	0							
8:15 - 8:30 AM	TOTAL	0	0	0	0	30	5	0	33	6	27	0	15	116	0	0	0	0	0	
	TRUCK	0	0	0	0	2	0	0	5	1	1	0	0							
8:30 - 8:45 AM	TOTAL	0	0	0	0	32	3	0	34	11	19	0	5	104	0	0	0	0	0	
	TRUCK	0	0	0	0	0	0	0	2	1	2	0	0							
8:45 - 9:00 AM	TOTAL	0	0	0	0	48	4	0	46	14	21	0	5	138	0	0	0	0	0	
	TRUCK	0	0	0	0	1	0	0	3	1	1	0	0							
4:00 - 4:15 PM	TOTAL	0	0	0	0	36	8	0	42	18	19	0	3	126	0	0	0	0	0	
	TRUCK	0	0	0	0	3	0	0	0	0	0	0	0							
4:15 - 4:30 PM	TOTAL	0	0	0	0	34	7	0	37	13	12	0	1	104	0	0	0	0	0	
	TRUCK	0	0	0	0	1	0	0	1	0	0	0	0							
4:30 - 4:45 PM	TOTAL	0	0	0	0	41	5	0	62	18	9	0	2	137	0	0	0	0	0	
	TRUCK	0	0	0	0	3	0	0	0	2	0	0	0							
4:45 - 5:00 PM	TOTAL	0	0	0	0	30	7	0	49	14	10	0	4	114	0	0	0	0	0	
	TRUCK	0	0	0	0	0	0	0	1	1	0	0	0							
5:00 - 5:15 PM	TOTAL	0	0	0	0	37	6	0	49	26	14	0	2	134	0	0	0	0	0	
	TRUCK	0	0	0	0	1	0	0	1	0	0	0	0							
5:15 - 5:30 PM	TOTAL	0	0	0	0	46	7	0	46	21	21	0	4	145	0	0	0	0	0	
	TRUCK	0	0	0	0	0	0	0	0	1	0	0	0							
5:30 - 5:45 PM	TOTAL	0	0	0	0	40	4	0	54	12	10	0	2	122	0	0	0	0	0	
	TRUCK	0	0	0	0	0	0	0	0	2	1	0	0							
5:45 - 6:00 PM	TOTAL	0	0	0	0	41	9	0	55	14	12	0	3	134	0	0	0	0	0	
	TRUCK	0	0	0	0	3	0	0	1	0	0	0	0							

DATE:	9/17/2015	JOB NO:	15064
PERIOD:	7-9 AM & 4-6 PM	NAME:	BD
LOCATION:	Croton Dam Road & Kitchawan State Road	INT #:	5

PEAK HOUR MOVEMENTS & % HEAVY VEHICLES - DO NOT EDIT THIS SHEET

TIME	CLASS	VEHICLE MOVEMENT 1	2	3	4	5	6	7	8	9	10	11	12	TOTAL VEHICLES	PEDESTRIAN MOVEMENT A	B	C	D	TOTAL PEDS	INT. PHF
7:00 - 8:00 AM	TOTAL	0	0	0	0	222	26	0	133	54	68	0	34	537	0	0	0	1	1	0.92
	TRUCK	#####	#####	#####	#####	2%	4%	#####	3%	2%	3%	#####	9%							
7:15 - 8:15 AM	TOTAL	0	0	0	0	215	23	0	135	51	70	0	41	535	0	0	1	1	2	0.92
	TRUCK	#####	#####	#####	#####	2%	4%	#####	4%	8%	3%	#####	7%							
7:30 - 8:30 AM	TOTAL	0	0	0	0	190	22	0	133	35	78	0	47	505	0	0	1	1	2	0.86
	TRUCK	#####	#####	#####	#####	3%	0%	#####	8%	11%	4%	#####	6%							
7:45 - 8:45 AM	TOTAL	0	0	0	0	146	17	0	137	38	84	0	41	463	0	0	1	0	1	0.94
	TRUCK	#####	#####	#####	#####	3%	0%	#####	7%	13%	6%	#####	5%							
8:00 - 9:00 AM	TOTAL	0	0	0	0	148	14	0	149	45	87	0	35	478	0	0	1	0	1	0.87
	TRUCK	#####	#####	#####	#####	3%	0%	#####	7%	13%	5%	#####	0%							
4:00 - 5:00 PM	TOTAL	0	0	0	0	141	27	0	190	63	50	0	10	481	0	0	0	0	0	0.88
	TRUCK	#####	#####	#####	#####	5%	0%	#####	1%	5%	0%	#####	0%							
4:15 - 5:15 PM	TOTAL	0	0	0	0	142	25	0	197	71	45	0	9	489	0	0	0	0	0	0.89
	TRUCK	#####	#####	#####	#####	4%	0%	#####	2%	4%	0%	#####	0%							
4:30 - 5:30 PM	TOTAL	0	0	0	0	154	25	0	206	79	54	0	12	530	0	0	0	0	0	0.91
	TRUCK	#####	#####	#####	#####	3%	0%	#####	1%	5%	0%	#####	0%							
4:45 - 5:45 PM	TOTAL	0	0	0	0	153	24	0	198	73	55	0	12	515	0	0	0	0	0	0.89
	TRUCK	#####	#####	#####	#####	1%	0%	#####	1%	5%	2%	#####	0%							
5:00 - 6:00 PM	TOTAL	0	0	0	0	164	26	0	204	73	57	0	11	535	0	0	0	0	0	0.92
	TRUCK	#####	#####	#####	#####	2%	0%	#####	1%	4%	2%	#####	0%							

1:
2:
3:
4:
5: Croton NB - Thru
6: Croton NB - Left

7:
8: Croton SB - Thru
9: Croton SB - Right
10: Kitchawan EB - Left
11:
12: Kitchawan EB - Right

A:
B: Cross Croton South Side of Int
C: Cross Kitchawan West Side of Int
D: Cross Croton North Side of Int

DATE:	9/17/2015	JOB NO:	15064
PERIOD:	7-9 AM & 4-6 PM	NAME:	KRM
LOCATION:	Croton Dam Road (NYS Route 134) & NYS Route 9A	INT #:	6A

ENTER COUNT DATA ON THIS PAGE

TIME	CLASS	VEHICLE MOVEMENT												TOTAL VEHICLES	PEDESTRIAN MOVEMENT				TOTAL PEDS	INT. PHF
		1	2	3	4	5	6	7	8	9	10	11	12		A	B	C	D		
7:00 - 7:15 AM	TOTAL	35	29	12	2	182	2	21	487	18	10	22	26							
	TRUCK				1	15			13	2		1								
7:15 - 7:30 AM	TOTAL	72	65	20	4	372	3	43	964	37	14	75	48							
	TRUCK	3			1	11		1	25	1										
7:30 - 7:45 AM	TOTAL	110	81	30	4	607	6	75	1,479	60	22	137	62							
	TRUCK	2				19		4	22	2		1								
7:45 - 8:00 AM	TOTAL	147	99	38	5	819	11	107	1,972	80	34	170	76					1		
	TRUCK	1				16	1	6	21	2		3	1							
8:00 - 8:15 AM	TOTAL	191	127	43	9	1,037	13	151	2,414	96	40	205	102							
	TRUCK		1		2	17		7	18	1		1								
8:15 - 8:30 AM	TOTAL	224	147	56	12	1,231	22	187	2,920	116	46	226	128							
	TRUCK	1	2		1	14	1	3	20	3		2								
8:30 - 8:45 AM	TOTAL	260	179	71	13	1,399	24	220	3,422	129	52	254	148							
	TRUCK	1	2			21		4	19	1		1	1							
8:45 - 9:00 AM	TOTAL	294	208	79	14	1,617	37	248	3,907	151	68	280	171							
	TRUCK	2	2			16	1	2	21	2		2								
4:00 - 4:15 PM	TOTAL	38	20	12	5	410	7	49	281	32	14	23	16							
	TRUCK	3		1		13		1	11			1	2							
4:15 - 4:30 PM	TOTAL	79	44	16	9	890	18	79	534	54	26	46	24							
	TRUCK	4	1	2		16		2	12			1								
4:30 - 4:45 PM	TOTAL	120	71	19	13	1,404	26	120	775	90	36	66	32							
	TRUCK	5	1			19			15	1	2	1								
4:45 - 5:00 PM	TOTAL	162	106	23	16	1,882	33	142	1,011	121	51	88	43							
	TRUCK	4		1		15			7	2										
5:00 - 5:15 PM	TOTAL	211	136	28	24	2,353	46	192	1,308	160	65	124	55							
	TRUCK	2			1	10	1		10		1									
5:15 - 5:30 PM	TOTAL	236	156	34	27	2,867	52	220	1,522	186	80	149	67							
	TRUCK					18	1		9	1	1									
5:30 - 5:45 PM	TOTAL	275	194	40	33	3,335	60	261	1,748	220	95	177	83							
	TRUCK	2		2		9			7	2			1							
5:45 - 6:00 PM	TOTAL	315	218	45	36	3,865	76	289	1,971	261	116	205	85							
	TRUCK	1	1			8			2		2		1							

DATE:	9/17/2015
PERIOD:	7-9 AM & 4-6 PM

CALCULATIONS - DO NOT EDIT THIS SHEET

JOB NO:	15064
NAME:	KRM

LOCATION:	Croton Dam Road (NYS Route 134) & NYS Route 9A	INT #:	6A

TIME	CLASS	VEHICLE MOVEMENT												TOTAL VEHICLES	PEDESTRIAN MOVEMENT				TOTAL PEDS	INT. PHF
		1	2	3	4	5	6	7	8	9	10	11	12		A	B	C	D		
7:00 - 7:15 AM	TOTAL	35	29	12	2	182	2	21	487	18	10	22	26	846	0	0	0	0	0	
	TRUCK	0	0	0	1	15	0	0	13	2	0	1	0							
7:15 - 7:30 AM	TOTAL	37	36	8	2	190	1	22	477	19	4	53	22	871	0	0	0	0	0	
	TRUCK	3	0	0	1	11	0	1	25	1	0	0	0							
7:30 - 7:45 AM	TOTAL	38	16	10	0	235	3	32	515	23	8	62	14	956	0	0	0	0	0	
	TRUCK	2	0	0	0	19	0	4	22	2	0	1	0							
7:45 - 8:00 AM	TOTAL	37	18	8	1	212	5	32	493	20	12	33	14	885	0	0	0	1	1	
	TRUCK	1	0	0	0	16	1	6	21	2	0	3	1							
8:00 - 8:15 AM	TOTAL	44	28	5	4	218	2	44	442	16	6	35	26	870	0	0	0	0	0	
	TRUCK	0	1	0	2	17	0	7	18	1	0	1	0							
8:15 - 8:30 AM	TOTAL	33	20	13	3	194	9	36	506	20	6	21	26	887	0	0	0	0	0	
	TRUCK	1	2	0	1	14	1	3	20	3	0	2	0							
8:30 - 8:45 AM	TOTAL	36	32	15	1	168	2	33	502	13	6	28	20	856	0	0	0	0	0	
	TRUCK	1	2	0	0	21	0	4	19	1	0	1	1							
8:45 - 9:00 AM	TOTAL	34	29	8	1	218	13	28	485	22	16	26	23	903	0	0	0	0	0	
	TRUCK	2	2	0	0	16	1	2	21	2	0	2	0							
4:00 - 4:15 PM	TOTAL	38	20	12	5	410	7	49	281	32	14	23	16	907	0	0	0	0	0	
	TRUCK	3	0	1	0	13	0	1	11	0	0	1	2							
4:15 - 4:30 PM	TOTAL	41	24	4	4	480	11	30	253	22	12	23	8	912	0	0	0	0	0	
	TRUCK	4	1	2	0	16	0	2	12	0	0	1	0							
4:30 - 4:45 PM	TOTAL	41	27	3	4	514	8	41	241	36	10	20	8	953	0	0	0	0	0	
	TRUCK	5	1	0	0	19	0	0	15	1	2	1	0							
4:45 - 5:00 PM	TOTAL	42	35	4	3	478	7	22	236	31	15	22	11	906	0	0	0	0	0	
	TRUCK	4	0	1	0	15	0	0	7	2	0	0	0							
5:00 - 5:15 PM	TOTAL	49	30	5	8	471	13	50	297	39	14	36	12	1,024	0	0	0	0	0	
	TRUCK	2	0	0	1	10	1	0	10	0	1	0	0							
5:15 - 5:30 PM	TOTAL	25	20	6	3	514	6	28	214	26	15	25	12	894	0	0	0	0	0	
	TRUCK	0	0	0	0	18	1	0	9	1	1	0	0							
5:30 - 5:45 PM	TOTAL	39	38	6	6	468	8	41	226	34	15	28	16	925	0	0	0	0	0	
	TRUCK	2	0	2	0	9	0	0	7	2	0	0	1							
5:45 - 6:00 PM	TOTAL	40	24	5	3	530	16	28	223	41	21	28	2	961	0	0	0	0	0	
	TRUCK	1	1	0	0	8	0	0	2	0	2	0	1							

DATE:	9/17/2015
PERIOD:	7-9 AM & 4-6 PM

PEAK HOUR MOVEMENTS & % HEAVY VEHICLES - DO NOT EDIT THIS SHEET

JOB NO:	15064
NAME:	KRM

LOCATION:	Croton Dam Road (NYS Route 134) & NYS Route 9A	INT #:	6A

TIME	CLASS	VEHICLE MOVEMENT												TOTAL VEHICLES	PEDESTRIAN MOVEMENT				TOTAL PEDS	INT. PHF
		1	2	3	4	5	6	7	8	9	10	11	12		A	B	C	D		
7:00 - 8:00 AM	TOTAL	147	99	38	5	819	11	107	1,972	80	34	170	76	3,558						
	TRUCK	4%	0%	0%	40%	7%	9%	10%	4%	9%	0%	3%	1%		0	0	0	1	1	0.93
7:15 - 8:15 AM	TOTAL	156	98	31	7	855	11	130	1,927	78	30	183	76	3,582						
	TRUCK	4%	1%	0%	43%	7%	9%	14%	4%	8%	0%	3%	1%		0	0	0	1	1	0.94
7:30 - 8:30 AM	TOTAL	152	82	36	8	859	19	144	1,956	79	32	151	80	3,598						
	TRUCK	3%	4%	0%	38%	8%	11%	14%	4%	10%	0%	5%	1%		0	0	0	1	1	0.94
7:45 - 8:45 AM	TOTAL	150	98	41	9	792	18	145	1,943	69	30	117	86	3,498						
	TRUCK	2%	5%	0%	33%	9%	11%	14%	4%	10%	0%	6%	2%		0	0	0	1	1	0.99
8:00 - 9:00 AM	TOTAL	147	109	41	9	798	26	141	1,935	71	34	110	95	3,516						
	TRUCK	3%	6%	0%	33%	9%	8%	11%	4%	10%	0%	5%	1%		0	0	0	0	0	0.97
4:00 - 5:00 PM	TOTAL	162	106	23	16	1,882	33	142	1,011	121	51	88	43	3,678						
	TRUCK	10%	2%	17%	0%	3%	0%	2%	4%	2%	4%	3%	5%		0	0	0	0	0	0.96
4:15 - 5:15 PM	TOTAL	173	116	16	19	1,943	39	143	1,027	128	51	101	39	3,795						
	TRUCK	9%	2%	19%	5%	3%	3%	1%	4%	2%	6%	2%	0%		0	0	0	0	0	0.93
4:30 - 5:30 PM	TOTAL	157	112	18	18	1,977	34	141	988	132	54	103	43	3,777						
	TRUCK	7%	1%	6%	6%	3%	6%	0%	4%	3%	7%	1%	0%		0	0	0	0	0	0.92
4:45 - 5:45 PM	TOTAL	155	123	21	20	1,931	34	141	973	130	59	111	51	3,749						
	TRUCK	5%	0%	14%	5%	3%	6%	0%	3%	4%	3%	0%	2%		0	0	0	0	0	0.92
5:00 - 6:00 PM	TOTAL	153	112	22	20	1,983	43	147	960	140	65	117	42	3,804						
	TRUCK	3%	1%	9%	5%	2%	5%	0%	3%	2%	6%	0%	5%		0	0	0	0	0	0.93

1: Rt 134 SB - Right
2: Rt 134 SB - Thru
3: Rt 134 SB - Left
4: Rt 9A WB - Left
5: Rt 9A WB - Thru
6: Rt 9A WB - Right

7: Rt 9A EB - Left
8: Rt 9A EB - Thru
9: Rt 9A EB - Right
10: Rt 134 NB - Left
11: Rt 134 NB - Thru
12: Rt 134 NB - Right

A: Cross Rt 134 North Side of Int
B: Cross Rt 9A East Side of Int
C: Cross Rt 134 South Side of Int
D: Cross Rt 9A West Side of Int

DATE:	9/17/2015
PERIOD:	7-9 AM & 4-6 PM

ENTER COUNT DATA ON THIS PAGE

JOB NO:	15064
NAME:	KRM

LOCATION:	Croton Dam Road (NYS Route 134) & NYS Route 9A	INT #:	6B

TIME	CLASS	VEHICLE MOVEMENT												TOTAL VEHICLES	PEDESTRIAN MOVEMENT				TOTAL PEDS	INT. PHF
		13	14	-	-	-	-	-	-	-	-	-	-		-	-	-	-		
7:00 - 7:15 AM	TOTAL	2	0																	
	TRUCK																			
7:15 - 7:30 AM	TOTAL	2	0																	
	TRUCK																			
7:30 - 7:45 AM	TOTAL	4	0																	
	TRUCK																			
7:45 - 8:00 AM	TOTAL	5	1																	
	TRUCK		1																	
8:00 - 8:15 AM	TOTAL	5	1																	
	TRUCK																			
8:15 - 8:30 AM	TOTAL	5	1																	
	TRUCK																			
8:30 - 8:45 AM	TOTAL	6	1																	
	TRUCK																			
8:45 - 9:00 AM	TOTAL	9	1																	
	TRUCK																			
4:00 - 4:15 PM	TOTAL	0	1																	
	TRUCK																			
4:15 - 4:30 PM	TOTAL	0	2																	
	TRUCK																			
4:30 - 4:45 PM	TOTAL	1	3																	
	TRUCK																			
4:45 - 5:00 PM	TOTAL	2	3																	
	TRUCK																			
5:00 - 5:15 PM	TOTAL	3	3																	
	TRUCK																			
5:15 - 5:30 PM	TOTAL	3	3																	
	TRUCK																			
5:30 - 5:45 PM	TOTAL	3	4																	
	TRUCK																			
5:45 - 6:00 PM	TOTAL	4	4																	
	TRUCK																			

DATE:	9/17/2015
PERIOD:	7-9 AM & 4-6 PM

CALCULATIONS - DO NOT EDIT THIS SHEET

JOB NO:	15064
NAME:	KRM

LOCATION:	Croton Dam Road (NYS Route 134) & NYS Route 9A	INT #:	6B

TIME	CLASS	VEHICLE MOVEMENT												TOTAL VEHICLES	PEDESTRIAN MOVEMENT				TOTAL PEDS	INT. PHF
		13	14	-	-	-	-	-	-	-	-	-	-		-	-	-	-		
7:00 - 7:15 AM	TOTAL	2	0	0	0	0	0	0	0	0	0	0	0	2						
	TRUCK	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	
7:15 - 7:30 AM	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0						
	TRUCK	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	
7:30 - 7:45 AM	TOTAL	2	0	0	0	0	0	0	0	0	0	0	0	2						
	TRUCK	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	
7:45 - 8:00 AM	TOTAL	1	1	0	0	0	0	0	0	0	0	0	0	2						
	TRUCK	0	1	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	
8:00 - 8:15 AM	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0						
	TRUCK	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	
8:15 - 8:30 AM	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0						
	TRUCK	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	
8:30 - 8:45 AM	TOTAL	1	0	0	0	0	0	0	0	0	0	0	0	1						
	TRUCK	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	
8:45 - 9:00 AM	TOTAL	3	0	0	0	0	0	0	0	0	0	0	0	3						
	TRUCK	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	
4:00 - 4:15 PM	TOTAL	0	1	0	0	0	0	0	0	0	0	0	0	1						
	TRUCK	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	
4:15 - 4:30 PM	TOTAL	0	1	0	0	0	0	0	0	0	0	0	0	1						
	TRUCK	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	
4:30 - 4:45 PM	TOTAL	1	1	0	0	0	0	0	0	0	0	0	0	2						
	TRUCK	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	
4:45 - 5:00 PM	TOTAL	1	0	0	0	0	0	0	0	0	0	0	0	1						
	TRUCK	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	
5:00 - 5:15 PM	TOTAL	1	0	0	0	0	0	0	0	0	0	0	0	1						
	TRUCK	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	
5:15 - 5:30 PM	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0						
	TRUCK	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	
5:30 - 5:45 PM	TOTAL	0	1	0	0	0	0	0	0	0	0	0	0	1						
	TRUCK	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	
5:45 - 6:00 PM	TOTAL	1	0	0	0	0	0	0	0	0	0	0	0	1						
	TRUCK	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	

DATE:	9/17/2015
PERIOD:	7-9 AM & 4-6 PM

PEAK HOUR MOVEMENTS & % HEAVY VEHICLES - DO NOT EDIT THIS SHEET

JOB NO:	15064
NAME:	KRM

LOCATION:	Croton Dam Road (NYS Route 134) & NYS Route 9A	INT #:	6B

TIME	CLASS	VEHICLE MOVEMENT												TOTAL VEHICLES	PEDESTRIAN MOVEMENT				TOTAL PEDS	INT. PHF
		13	14	-	-	-	-	-	-	-	-	-	-		-	-	-	-		
7:00 - 8:00 AM	TOTAL	5	1	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	-
	TRUCK	0%	100%	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####							
7:15 - 8:15 AM	TOTAL	3	1	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	-
	TRUCK	0%	100%	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####							
7:30 - 8:30 AM	TOTAL	3	1	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	-
	TRUCK	0%	100%	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####							
7:45 - 8:45 AM	TOTAL	2	1	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	-
	TRUCK	0%	100%	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####							
8:00 - 9:00 AM	TOTAL	4	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	-
	TRUCK	0%	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####							
4:00 - 5:00 PM	TOTAL	2	3	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	-
	TRUCK	0%	0%	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####							
4:15 - 5:15 PM	TOTAL	3	2	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	-
	TRUCK	0%	0%	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####							
4:30 - 5:30 PM	TOTAL	3	1	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	-
	TRUCK	0%	0%	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####							
4:45 - 5:45 PM	TOTAL	2	1	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	-
	TRUCK	0%	0%	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####							
5:00 - 6:00 PM	TOTAL	2	1	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	-
	TRUCK	0%	0%	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####							

1: Rt 9A WB - U-Turn
2: Rt 9A EB - U-Turn

DATE:	9/17/2015
PERIOD:	7-9 AM & 4-6 PM

PEAK HOUR CALCULATIONS - DO NOT EDIT THIS SHEET

JOB NO:	15064
NAME:	JMC

TIME	CLASS	TOTAL INT. 1	TOTAL INT. 2	TOTAL INT. 3	TOTAL INT. 4	TOTAL INT. 5	TOTAL INT. 6A	TOTAL INT. 6B	TOTAL INT.	TOTAL
7:00 - 8:00 AM	TOTAL	244	467	276	0	537	3,558	6	0	5,088
	TRUCK									
7:15 - 8:15 AM	TOTAL	237	453	280	0	535	3,582	4	0	5,091
	TRUCK									
7:30 - 8:30 AM	TOTAL	201	380	239	0	505	3,598	4	0	4,927
	TRUCK									
7:45 - 8:45 AM	TOTAL	178	342	211	0	463	3,498	3	0	4,695
	TRUCK									
8:00 - 9:00 AM	TOTAL	151	306	201	0	478	3,516	4	0	4,656
	TRUCK									
4:00 - 5:00 PM	TOTAL	176	353	231	0	481	3,678	5	0	4,924
	TRUCK									
4:15 - 5:15 PM	TOTAL	192	368	262	0	489	3,795	5	0	5,111
	TRUCK									
4:30 - 5:30 PM	TOTAL	201	403	266	0	530	3,777	4	0	5,181
	TRUCK									
4:45 - 5:45 PM	TOTAL	181	405	286	0	515	3,749	3	0	5,139
	TRUCK									
5:00 - 6:00 PM	TOTAL	177	401	284	0	535	3,804	3	0	5,204
	TRUCK									

Appendix D: Stormwater Prevention Plan Narrative

River Knoll

40 Croton Dam Road

Town of Ossining, NY

Stormwater Pollution Prevention Plan Narrative

October 28, 2015

This Stormwater Pollution Prevention Plan (SWPPP) narrative has been prepared for the proposed River Knoll residential development located at 40 Croton Dam Road in the Town of Ossining, New York. The site is bounded by Croton Dam Road to the west and residential properties to the north, south and east.

The site has been analyzed as three drainage areas under existing conditions. See drawing DA-1 "Existing Drainage Area Map" (attached). Existing Drainage Area 1 consists of the western portion of the site. Existing Drainage Area 1A (EDA-1A) is 2.63 acres and consists of asphalt parking areas, an asphalt basketball court, an asphalt drive, woods and grass. Runoff from EDA-1A flows north overland to a depression in the northern corner of the property.

Existing Drainage Area 1B (EDA-1B) is 2.34 acres and consist of a portion of the main building, an asphalt parking area, asphalt drives, woods and grass. Runoff from EA-1B flows overland to a depression to the north of the site driveway. The runoff is collected by a drain inlet in the depression and conveyed in a 12" corrugated metal pipe (CMP) to EDA-1C.

Existing Drainage Area 1C (EDA-1C) is 2.88 acres and consists of a portion of the main building, a 2 story frame building, asphalt drives, a gravel parking area, a few utility buildings, woods and grass. Runoff from EDA-1C flows overland to a depression at the southeast corner of the site.

Existing Drainage Area 2 consists of the eastern portion of the site. Existing Drainage Area 2A (EDA-2A) is 2.98 acres and consists of a garage and recreation building, a portion of the North Lodge, asphalt parking areas, asphalt drives, woods and grass. Runoff from EDA-2 flows overland to a wetland in the Village of Ossining.

Existing Drainage Area 2B (EDA-2B) is 5.79 acres and consists of a portion of the North Lodge, the East Lodge, the West Lodge, the South Cottage, the Administration Building, a garage, a 1 ½ story frame building, asphalt walks and drives, woods and grass. Runoff from EDA-2B flows overland to a swale along the rear property line.

Existing Drainage Area 3 is 0.64 acres and consists of a play area, an asphalt drive, woods and grass. Runoff from EDA-3 flows overland out to Croton Dam Road.

Preliminary existing peak rates of runoff to the design points from the drainage areas for the 10 and 100 year storms are shown in the table below:

Table 1
Preliminary Peak Rates of Runoff in Existing Conditions
(Cubic Feet per Second)

Storm Recurrence Interval	DP-1	DP-2	DP-3
10 year	11.11	15.33	1.89
100 year	23.20	42.12	4.19

The impacts of the proposed redevelopment will be mitigated with the construction of stormwater management areas. The total disturbance required to complete this construction is approximately 9.0 acres. The site improvements will result in an increase in impervious surfaces of approximately 1.1 acres from existing conditions.

The proposed SWPPP will be in compliance with the requirements of NYSDEC SPDES General Permit No. GP-0-15-002 for Stormwater Discharges from Construction Activity and Chapter 168 “Stormwater Management and Erosion and Sediment Control” of the Code of the Town of Ossining. These improvements will provide runoff reduction, water quality treatment for the 90% rainfall event, stream channel protection and attenuate peak rates of runoff for the 10 and 100-year storms as required by NYSDEC SPDES General Permit No. GP-0-15-002. The Stormwater Pollution Prevention Plan will provide erosion and sediment controls in accordance with NYSDEC SPDES General Permit No. GP-0-15-002 for Stormwater Discharges from Construction Activity. In addition, the sediment and erosion control measures will be designed in accordance with the New York Standards and Specifications for Erosion and Sediment Control, dated August 2005.

The site has been analyzed as two drainage areas under proposed conditions. See Drawing DA-2 “Proposed Drainage Area Map.” Proposed Drainage Area 1 is the western portion of the site.

Proposed Drainage Area 1A (PDA-1A) is 2.85 acres and consists of Proposed Building A, the pool area, a portion of the emergency access roads, woods and grass. Runoff from the building roof and pool area will be collected by roof drain leaders and drain inlets and conveyed in pipes to a proposed infiltration basin to be constructed in the location of the existing depression. The outflow from the infiltration basin will be conveyed to PDA-1B.

Proposed Drainage Area 2B (PDA-1B) is 5.10 acres and consists of portions of Proposed Buildings B-2 and B-3, three detached garages, asphalt parking areas, asphalt drives, a portion of the emergency access road, landscaping, woods and grass. Runoff from PDA-1B will be collected by roof drain leaders and drain inlets and conveyed in pipes to a proposed infiltration basin to be constructed in the location of the existing depression to the north of the site driveway. The outflow from the infiltration basin will be conveyed to PDA-1C.

Proposed Drainage Area 1C (PDA-1C) is 1.71 acres and consists of woods and grass. Runoff from PDA-1C flows overland to the existing depression.

Proposed Drainage Area 2 is the eastern portion of the site. Proposed Drainage Area 2A is 1.64 acres and consists of woods and grass. Runoff from PDA-2A flows overland to the wetland as under existing conditions.

Proposed Drainage Area 2B (PDA-2B) consists of Proposed Building B-1, portions of Proposed Buildings B-2 and B-3, three detached garages, asphalt parking areas, asphalt drives, concrete sidewalks, landscaping, woods and grass. Runoff from PDA-2B will be collected by roof drain leaders and drain inlets and conveyed in pipes to a proposed infiltration basin in the southern corner of the site. The outflow from the infiltration basin will be discharged to the existing storm drain system.

Preliminary peak rates of runoff to the design points from the drainage areas under proposed conditions for the 10 and 100 year storms are shown in the table below:

Table 2
Preliminary Proposed Peak Rates of Runoff in Proposed Conditions
(Cubic Feet per Second)

Storm Recurrence Interval	DP-1	DP-2
10 year	10.37	15.32
100 year	23.17	31.66

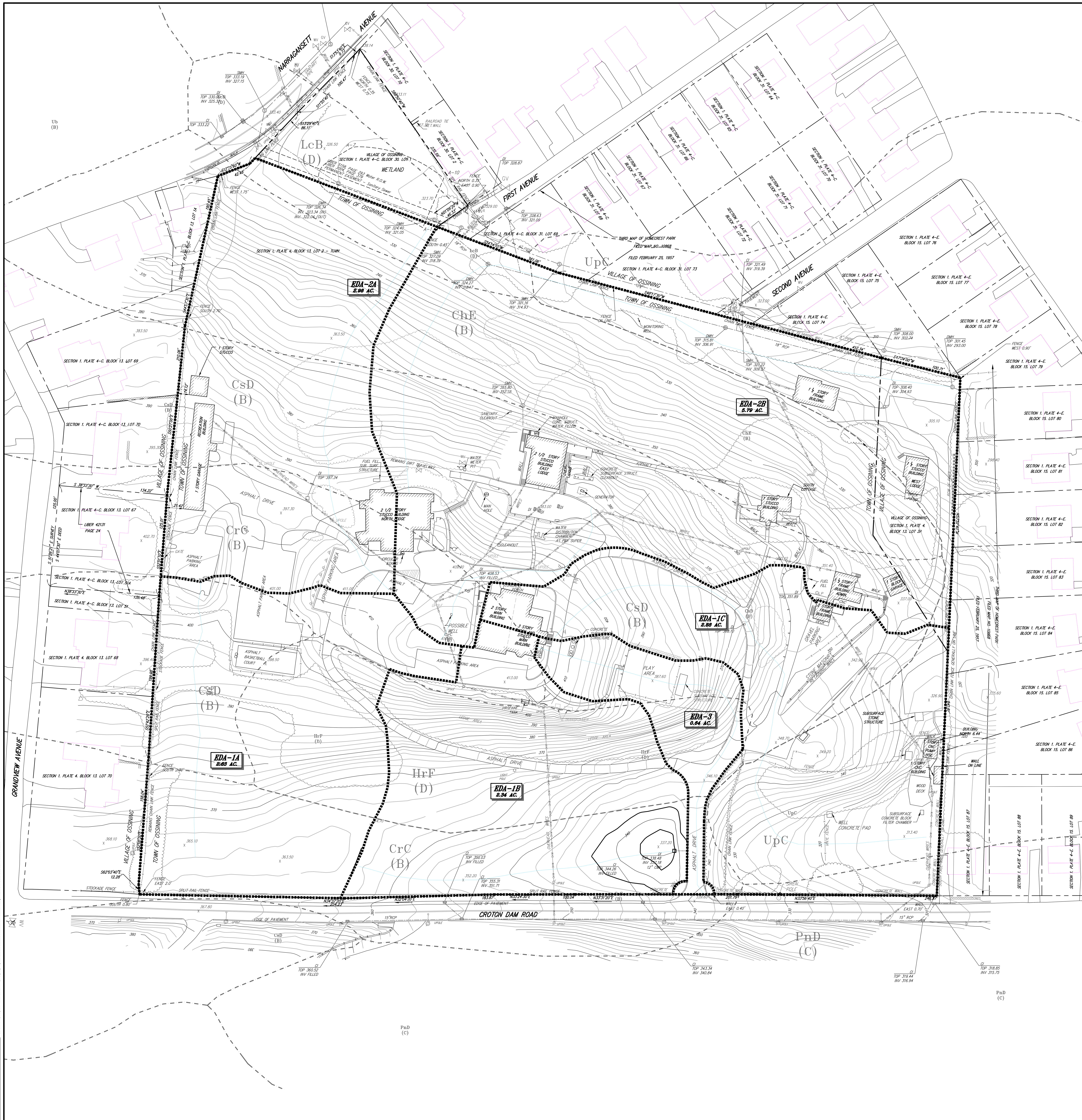
The reductions in preliminary peak rates of runoff from proposed to existing conditions are shown on the table below:

Table 3
Percent Reductions in Peak Rates of Runoff (Existing vs. Proposed Conditions)
(Cubic Feet per Second)

Design Point	Storm Recurrence Frequency (Years)	Existing Peak Runoff Rate (cfs)	Proposed Peak Runoff Rate (cfs)	Percent Reduction (%)
1	10 year	11.11	10.37	6.7
	100 year	23.20	23.17	0.1
2	10 year	15.33	15.32	0.1
	100 year	42.12	31.66	24.8
3	10 year	1.89	0.00	100
	100 year	4.19	0.00	100

Test pits and infiltration tests will be performed in the locations of the proposed infiltration basins to confirm adequate separation from bedrock and groundwater and adequate infiltration rates. An operation and maintenance plan for the infiltration basins will be provided in the SWPPP.

F:\2015\15064\Stormwater Narrative 10-22-2015.doc



EXISTING DRAINAGE LEGEND

- EXISTING GRADE
- FLAGGED WETLANDS WITH FLAG NUMBERS
- EXISTING STONE WALL
- WATERSHED BOUNDARY LINE
- BOUNDARY OF COVER TYPE LINE
- LIMIT OF SOIL GROUPS LINE
- FLOW PATH LINE
- HYDROLOGIC SOIL GROUP 'C'
- HYDROLOGIC SOIL GROUP 'B'

NOTES:

1. EXISTING CONDITIONS DEPICTED ON THIS PLAN HAVE BEEN TAKEN FROM SURVEY TITLED, "TOPOGRAPHY OF PROPERTY PREPARED FOR HOVNANIAN ENTERPRICES, INC.," PREPARED BY THOMAS C. MERRITTS LAND SURVEYORS, P.C., DATED 02/27/2006.

GIS GEOGRAPHIC INFORMATION SYSTEMS

THE 2-FOOT CONTOURS DEPICTED ON THIS PLAN ARE INTENDED TO BE USED FOR PLANNING & PRELIMINARY ENGINEERING APPLICATIONS. THEY ARE NOT INTENDED TO BE USED IN ENGINEERING DESIGN AND DO NOT NEGATE THE NEED FOR A FIELD SURVEY. THE WESTCHESTER COUNTY GIS DATASET CONTAINS CONTOUR LINES MODELED AT A TWO FOOT INTERVAL. THE SOURCE INFORMATION USED IN THE COLLECTION OF THE DATASET WAS PART OF THE NEW YORK STATE DIGITAL ORTHOIMAGERY PROGRAM; PHOTOS TAKEN IN APRIL 2004. VERTICAL DATUM IS NAVD88.
THE COUNTY OF WESTCHESTER MAKES NO WARRANTY, EXPRESS OR IMPLIED, CONCERNING THE COMPLETENESS OR ACCURACY OF THE DATA AND ASSUMES NO LIABILITY WHATSOEVER FOR ANY PRODUCT OR ANALYSIS DERIVED FROM OR BASED ON THE DATA.

GLENCO
9 RIDGE ROAD
BRONXVILLE, NY 10708

MINNO WASKO
80 LAMBERT LANE
LAMBERTVILLE, NEW JERSEY 08530

JMC Planning, Engineering, Landscape Architecture & Land Surveying, PLLC
JMC Site Development Consultants, LLC
John Meyer Consulting, Inc.
120 BEDFORD ROAD • ARMONK, NY 10504
voice 914.273.5225 • fax 914.273.2102
www.jmcpllc.com

JMC SITE DEVELOPMENT CONSULTANTS

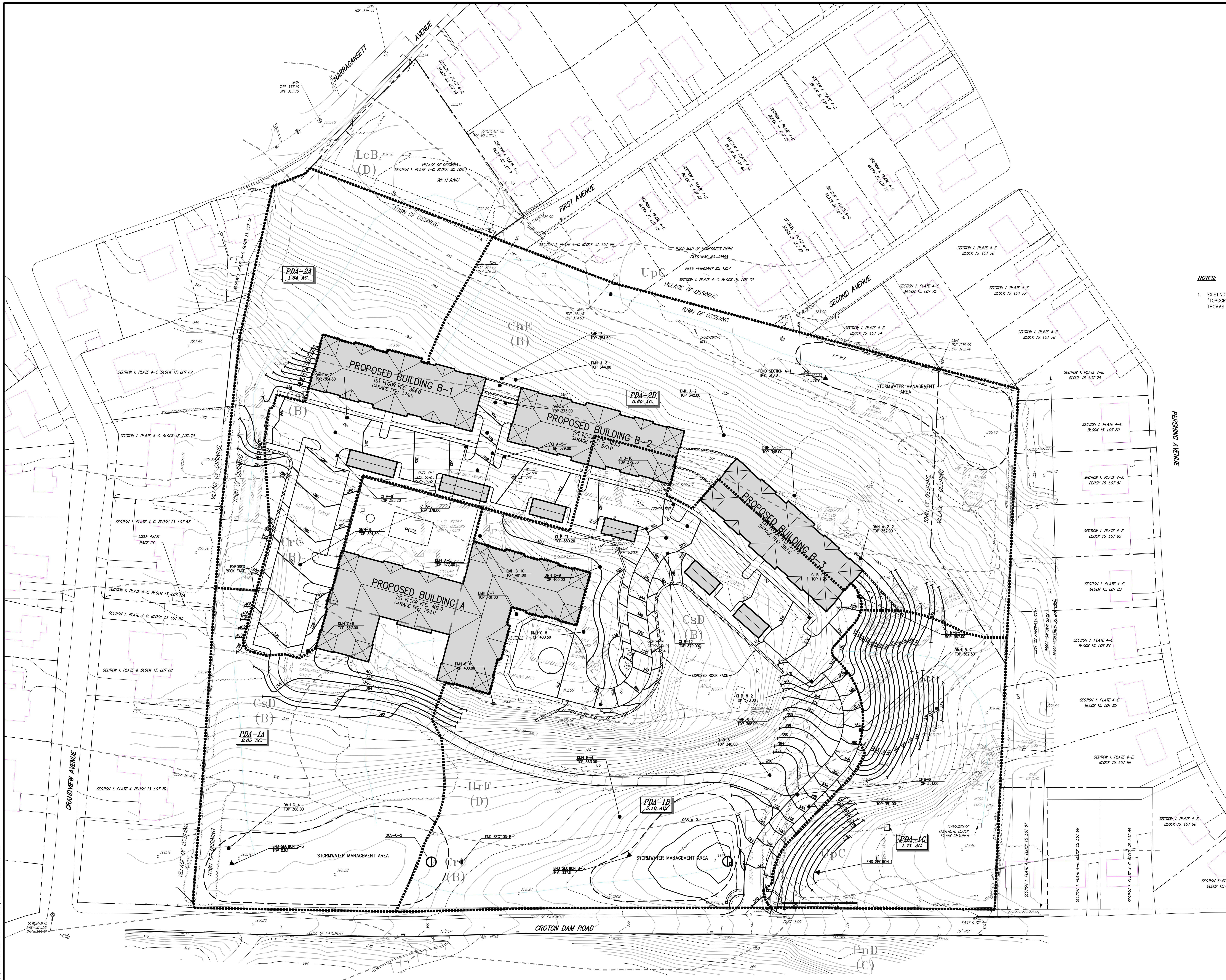
EXISTING DRAINAGE AREA MAP

RIVER KNOLL
40 CROTON DAM ROAD
TOWN OF OSSINING, NEW YORK

ANY ALTERATION OF PLANS, SPECIFICATIONS, PLATS AND REPORTS BEARING THE SEAL OF A LICENSED PROFESSIONAL ENGINEER OR LICENSED LAND SURVEYOR IS A VIOLATION OF SECTION 7209 OF THE NEW YORK STATE EDUCATION LAW, EXCEPT AS PROVIDED FOR BY SECTION 7209, SUBSECTION 2.

Drawn: JSJ	Approved: AG
Scale: 1" = 40'	
Date: 10/02/2015	
Project No: 15064	
Drawing No: DA-1	

NOT FOR CONSTRUCTION



PROPOSED DRAINAGE LEGEND

- EXISTING GRADE
- PROPOSED FINISHED GRADE
- FLAGGED WETLANDS WITH FLAG NUMBERS
- PROPOSED DITCH OR SWALE
- EXISTING STONE WALL
- WATERSHED BOUNDARY LINE
- SUBAREA BOUNDARY LINE
- GOOD CONDITION BOUNDARY COVER TYPE LINE
- FAIR CONDITION BOUNDARY COVER TYPE LINE
- LIMIT OF SOIL GROUPS LINE
- FLOW PATH LINE
- HYDROLOGIC SOIL GROUP 'C'
- HYDROLOGIC SOIL GROUP 'B'
- PROPOSED BUILDING LINE
- PROPOSED CONCRETE CURB
- MH PROPOSED MANHOLE (MH)
- EXISTING DRAIN INLET
- YI PROPOSED YARD INLET (YI)
- DI PROPOSED DRAIN INLET (DI)
- DDI PROPOSED DOUBLE DRAIN INLET (DDI)
- CI PROPOSED COMBINATION INLET (CI)
- ES PROPOSED END SECTION (ES)
- PROPOSED WATER QUALITY STRUCTURE
- RIP RAP ENERGY DISSIPATOR

NOTES:

1. EXISTING CONDITIONS DEPICTED ON THIS PLAN HAVE BEEN TAKEN FROM SURVEY TITLED, "TOPOGRAPHY OF PROPERTY PREPARED FOR HOVNANIAN ENTERPRICES, INC.," PREPARED BY THOMAS C. MERRITTS LAND SURVEYORS, P.C., DATED 02/27/2006.

No.	Revision	Date	By

APPLICANT/OWNER:
GLENCO
9 RIDGE ROAD
BRONXVILLE, NY 10708

ARCHITECT:
MINNO WASKO
80 LAMBERT LANE
LAMBERTVILLE, NEW JERSEY 08530

JMC
SITE DEVELOPMENT CONSULTANTS
www.jmcpllc.com

JMC Planning, Engineering, Landscape Architecture & Land Surveying, PLLC
JMC Site Development Consultants, LLC
John Meyer Consulting, Inc.
120 BEDFORD ROAD • ARMONK, NY 10504
voice 914.273.5225 • fax 914.273.2102

PROPOSED DRAINAGE AREA MAP

RIVER KNOLL
40 CROTON DAM ROAD
TOWN OF OSSINING, NEW YORK

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GIS GEOGRAPHIC INFORMATION SYSTEMS

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Drawn: JSJ	Approved: AG	
Scale: 1" = XX'		
Date: 10/02/2015		
Project No: 15064		
15064-DRAINAGE	PDA	--
Drawing No: DA-2		

NOT FOR CONSTRUCTION

Appendix E: Phase 1 Environmental Site Assessment

SCHOOR DEPALMA
Engineers and Consultants

060075501

ENVIRONMENTAL SITE ASSESSMENT

Of:

Stony Lodge Hospital
40 Croton Dam Road
Block 13, Lot 2
Town of Ossining
Westchester County, New York

18 acres
MF
239 du's
~200

For:

K. Hovnanian Companies Northeast, Inc.
110 Fieldcrest Avenue
Edison, NJ 08818

Prepared By:

SCHOOR DEPALMA
Justin Corporate Center
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March 2006

Neil Jiorle
Vice President

Steven Maravelias

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1.0 Introduction

Schoor DePalma Inc. (SD) has performed a Phase I Environmental Site Assessment (ESA) of Stony Lodge Hospital in the Town of Ossining, Westchester County, New York (herein referred to as the "subject property" or "property"). SD prepared this ESA for the exclusive benefit and use of K. Hovnanian Companies Northeast, Inc. Section 5.0 contains a summary of the findings and conclusions of this ESA.

SD derived the findings presented within this ESA report from the following sources: records review of reasonably ascertainable and practically reviewable sources, site reconnaissance (a visit to the property), and interviews with knowledgeable parties. Any exceptions to (or deletions from) this practice are described in Sections 1.2, 1.3, and 6.0 of this report.

1.1 Purpose

SD conducted this ESA at the request of K. Hovnanain Companies Northeast, Inc. The purpose of this ESA is to identify, to the extent feasible pursuant to this process, recognized environmental conditions (RECs) in connection with the subject property.

RECs are defined by the ASTM International (ASTM) as "... the presence or likely presence of any hazardous substances or petroleum products on the property under conditions that indicate an existing release, a past release, or a material threat of release of any hazardous substances or petroleum products into the structures on the property or into the ground, groundwater, or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include de minimis conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies."

1.2 Methodology Used and Limiting Conditions

SD performed this ESA pursuant to the guidelines specified in the Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process E 1527-00, published by the ASTM.

1.3 Limitations and Exceptions of this Assessment

The RECs identified in this ESA report are limited to those SD identified in the records reviews, site reconnaissance, and interviews that are documented within. This ESA did not include an inspection of subsurface conditions, or any intrusive testing or sampling (e.g., air, water, soil and building materials).

2.0 Subject Area Description

2.1 Location and Legal Description

The subject property lies along 40 Croton Dam Road in the Town of Ossining, Westchester County, New York. The property is designated as Block 13, Lot 2 by the Town of Ossining for tax purposes. Figure 1 (Appendix A) displays the approximate location of the property on a portion of the USGS 7.5 minute Quadrangle. Figure 2 (Appendix A) displays the boundaries of the property on the Town of Ossining Tax Map. Figure 3 (Appendix A) displays the Aerial Location Map of the subject property.

2.2 Subject Property and Vicinity Characteristics

The subject property is approximately 16.20 acres in size and consists of Stony Lodge Hospital and several associated buildings.

The majority of the surrounding subject area consists of residential and commercial development, with scattered undeveloped woodlands. Residential structures occupy adjacent properties.

2.3 Current and Past Uses of the Subject Property

The subject property currently and historically consisted of a psychiatric hospital and several associated buildings. See Section 4 for details pertaining to subject property characteristics and current use.

3.0 Records Review

3.1 Standard Environmental Record Sources

The ASTM Phase I ESA process includes the review of select Federal and State environmental record sources in order to evaluate the potential existence of RECs either on the subject property or within specified distances from the property. ASTM has established search radii for each of these standard environmental record sources. Table 1 is a list of the Federal and State environmental record sources that SD reviewed as part of this ESA. Also included in Table 1 are the approximate minimum search distances for each record source.

Table 1 – Standard Environmental Record Sources

Source	Approximate Minimum Search Distance
USEPA National Priorities List (NPL) Agency Data Release Date: 7/01/05	1.00 miles
USEPA Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) List Agency Data Release Date: 9/19/05	0.5 miles
USEPA CERCLIS No Further Remedial Action Planned List Agency Data Release Date: 8/22/05	Subject Property and Adjoining Properties
USEPA Resource Conservation and Recovery Information System (RCRIS) CORRACTS Treatment, Storage, and Disposal (TSD) Facilities (i.e. TSD Facilities under corrective action by RCRA) List Agency Data Release Date: 10/13/05	1.00 miles
USEPA non-CORRACTS RCRIS TSD List Agency Data Release Date: 10/14/05	0.50 miles
USEPA RCRIS Large and Small Generators List Agency Data Release Date: 10/14/05	0.25 mile
USEPA Emergency Response Notification System (ERNS) Agency Data Release Date: 12/31/04	Subject Property and Adjoining Properties
Inactive Hazardous Waste Disposal Sites in New York State (SHWS) database Agency Data Release Date: 8/22/05	1.00 miles
Petroleum Bulk Storage (PBS) Database Agency Data Release Date: 1/01/02	Subject Property and Adjoining Properties
Spills Information Database (LTANKS) database Agency Data Release Date: 10/06/05	0.50 miles
Listing of Leaking Storage Tanks (HIST LTANKS) Agency Data Release Date: 1/01/02	0.50 miles

SD performed this records review utilizing a computer database search report (Appendix B) prepared by Environmental Data Resources, Inc. (EDR). The star on the Topographic Map, Overview Map, and Detail Map of the database report marks the approximate location of the subject property. This report keys the surrounding sites on the ASTM-specified databases to the inclusive Overview Map and Detail Map. SD notes that some of the sites may be listed in more than one (1) database. Further, EDR may have been unable to plot certain sites due to incomplete information, resulting in a list of "unplottable" sites.

The subject property was identified in the EDR database search report.

1. Stony Lodge Hospital, Inc.
Croton Dam Road
Ossining, New York

The EDR report states that this site is listed in the Aboveground Storage Tank (AST) and Underground Storage Tank (UST) databases. According to the information provided by EDR the site was issued Petroleum Bulk Storage# 3-507024. Three (3) 275 gallon ASTs containing #2 fuel oil were administratively closed in 2001. One (1) 275 gallon diesel AST was administratively closed in 2001. Additionally, three (3) 275 gallon ASTs remain in service. No leaks or spills were reported. In addition, the subject property is listed in the UST database. According to the information provided by EDR, One (1) 1,500, one (1) 3,000, and one (1) 2,000 gallon #2 fuel oil USTs were closed in place. Two (2) 550 gallon and one (1) 1,000 gallon USTs were administratively closed in 2001. Additionally, two (2) 550 gallon, three (3) 1,800 gallon and one (1) 1,000 gallon #2 fuel oil USTs remain in service.

The EDR report lists nineteen (19) separate sites within ASTM search distances; several of these sites were reported in one or more databases. All nineteen (19) sites have been eliminated from consideration as potential environmental threats to the subject property based on their topographic position relative to the subject property, and/or the status of the associated listing. According to information provided in the EDR report, there are no surrounding sites located at equal or higher elevation or adjacent to the subject property.

The EDR report listed thirty nine (39) "unplottable" or "orphan" sites, which, due to insufficient location information, could not be mapped. SD was unable to determine the location of the orphan sites with respect to the subject property based on the information provided in the EDR report. SD did not observe any of the orphan sites adjacent to the subject property during our site reconnaissance.

3.2 Additional Environmental Record Sources

Pursuant to the Freedom of Information Act (FOIA) and the Open Public Records Act (OPRA), SD submitted information requests for the subject property to the following agencies on March 9, 2006:

- Unites States Environmental Protection Agency (USEPA);
- New York State Department of Environmental Conservation (NYSDEC) Office of the Records Custodian;
- County of Westchester
- Town of Ossining

Copies of all information requests and any pertinent information obtained as a result of each request are included in Appendix C.

SD received a letter from the USEPA dated March 16, 2006 indicating receipt of the request. SD had not received any information from the USEPA at the time this report was prepared. In the event that USEPA transmits any information of environmental significance it will be forwarded to the client upon receipt.

SD received a letter from the NYSDEC indicating that no information was available regarding the subject property.

SD had not received any information from the County of Westchester at the time this report was prepared. In the event that The County of Westchester transmits any information of environmental significance it will be forwarded to the client upon receipt.

SD had not received any information from the Town of Ossining at the time this report was prepared. In the event that The Town of Ossining transmits any information of environmental significance it will be forwarded to the client upon receipt.

3.3 Standard Historical Sources

ASTM E 1527 provides eight (8) standard sources from which the history of the subject property/area may be established. These sources include the following:

1. Aerial Photographs;
2. Fire Insurance Maps;
3. Property Tax Files;
4. Recorded Land Title Records;
5. USGS 7.5 Minute Topographic Maps;
6. Local Street Directories;
7. Building/Engineering Department Records; and
8. Zoning/Land Use Records

The following subsections document SD's research of these Standard Historical Sources.

3.3.1 Aerial Photographs

SD reviewed a series of historical aerial photographs provided by EDR depicting site conditions in 1953, 1964, 1974, 1989 and 1994. Copies of historical aerial photographs obtained from EDR are provided in Appendix D. In addition, SD prepared a site map utilizing "New York State Interactive Mapping Gateway" Color Infrared Digital Imagery depicting site conditions in 2002 (http://www.nysgis.state.ny.us/gateway/mg/) (Figure 3, Appendix A). The following bulleted items provide SD's interpretation of key highlights presented on these aerial photographs.

- 1953 (Black and White, 1"= 750') – The subject property is observed along Croton Dam Road. Improved roadways are located on the subject property. Approximately seven buildings seem apparent on the subject property. Residential developments are located in the vicinity of the subject property. A pool is located in the southwest portion of the subject property. The northwest and eastern portions of the site are vacant land.

- 1964 (Black and White, 1"= 750') – The subject property is observed along Croton Dam Road. Improved roadways are located on the subject property. Approximately seven buildings seem apparent on the subject property. Additional residential developments are located in the vicinity of the subject property. A pool is located in the southwest portion of the subject property. The northwest and eastern portions of the site are vacant land.

- 1974 (Black and White, 1"=750') – No significant changes are observed to the subject from the previous aerial photograph. A majority of the vicinity appears wooded.

- 1989 (Black and White, 1"= 833') – Assessment of this aerial is not possible due to poor photographic quality.

- 1994 (Black and White, 1"= 833') – Assessment of this aerial is not possible due to poor photographic quality.

- 2002 (Color, 1"=400') – The subject property is observed along Croton Dam Road. Stony Brook Hospital and several other associated buildings are located on the subject property. It appears as though eight (8) buildings are located on the subject property, with some smaller storage sheds located in the southwest corner of the subject property. Residential developments are located in the vicinity of the subject property. A baseball field is located to the northeast of the subject property.

3.3.2 Fire Insurance Maps

SD researched the availability of Sanborn Fire Insurance Maps (Sanborn Maps) for the subject area with EDR. Sanborn Map coverage was available for the subject area in 1931, 1942, 1949, and 1971. Appendix E contains a copy of the Sanborn Map search confirmation. The following bulleted items provide SD's interpretation of key highlights presented on these Sanborn Maps.

- 1931 (Black and White, 1"=120') – The subject property is observed north of Pershing Avenue. The majority subject property is observed as vacant land. Several residential properties are observed surrounding the subject property to the south and east.

- 1942 (Black and White, 1"=120') – The subject property is observed along Croton Dam Road (Dale Avenue). The subject property is owned by Berdam Realty Company Inc. Stony Lodge is located on the subject property with a circular roadway around the structure. Several unidentified structures are located within the subject property.

- 1949 (Black and White, 1"=120') – This Sanborn does not show a detailed view of the property. Additional residential development is observed surrounding the subject property.

- 1971 (Black and White, 1"=120') – This Sanborn does not show a detailed view of the property. Additional residential development is observed surrounding the subject property.

3.3.3 Property Tax Files

Review of property records provided by Real Quest indicates that the subject property is comprised of lot 2.

The following tables provide a summary of ownership history provided by Real Quest for parcels that comprised the subject property. Copies of property records are provided in Appendix C.

Table 2 – Property Ownership Information –Lot 2		
Grantor	Grantee	Date
SMA Realty Corp	Stony Lodge Hospital	May 1989

3.3.4 Recorded Land Title Records

See Section 3.4.3 for information pertaining to subject property ownership history.

3.3.5 USGS 7.5 Minute Topographic Map(s)

SD obtained four (4) historical topographic maps of the subject property from EDR. Copies of the historical topographic maps are included in Appendix F. Table 4 provides a summary of these topographic maps.

Table 4 – Summary of Topographic Maps			
Date	Quad Map	Scale	Series
1902	Tarrytown	1:62,500	15 Minute
1943	Ossining	1:31,680	7.5 Minute
1967	Ossining	1:24,000	7.5 Minute
1967-1979*	Ossining	1:24,000	7.5 Minute
* Photo Revised			

The following bulleted items provide SD's interpretation of key highlights presented on these historical topographic maps.

- 1902 – The subject property is observed east of the Hudson River. One (1) structure is observed on the subject property. A small creek is observed running on the subject property along the southeastern border. Several structures are observed in the vicinity of the subject property. The Central and Hudson River Railroad is located to the east of the subject property.

- 1947– A small improved circular road is located on the subject property. A total of four structures are apparent on the subject property. Significant development is observed to the south and west of the subject property. Saint Augustine Cemetery is observed to the west of the property.

- 1967- A small improved circular road is located on the subject property. A total of six structures are now apparent on the subject property. Croton Dam Road is located to the west of the subject property. Significant development is observed to the south and west of the subject property. Saint Augustine Cemetery is observed to the west of the property. Veterans Memorial Park is located to the east.

- 1967-1979- A small improved circular road is located on the subject property. A total of seven structures are now apparent on the subject property. Croton Dam Road is located to the west of the subject property. Saint Augustine Cemetery is observed to the west of the property. Veterans Memorial Park is located to the east.

3.3.6 Local Street Directories/MacRae's Industrial Directories

SD requested a search of City Directory files from EDR for the address of 40 Croton Dam Road on March 9, 2006. The City Directory Search Report indicated that the subject property address was not listed within the City Directories database. 22, 24 Croton Dam Road was listed as residences in 1970, 1975, 1980, 1985, 1990, 1995, 2000, and 2005. Additionally, VS Construction Corp. was listed in the City Directory at 37 Croton Dam Road. Conte Landscaping is listed at 45 Croton Dam Road, while Megabrokers realty is listed at 49 Croton Dam Road. SD did not obtain a MacRae's Industrial Directory Report for the subject property because none of the other historic record sources indicated development for an industrial use, and it is unlikely that such a search report would provide any pertinent information with respect to the subject property. Copies of the City Directory Search Report are provided in Appendix G.

3.3.7 Other Historical Sources

Stony Lodge Hospital, Inc. provided Documents

Stony Lodge Hospital provided several documents regarding the onsite monitoring well, and quarterly sampling results for the well. These documents are included in Appendix C of this report.

The NYSDEC document signed by John O'Mara indicates that one well was to be placed downgradient from the USTs that were closed in place. Three different sampling events were performed in February, July and November of 1993. February and November results were non-detect (N/D) for all parameters, while July results indicated an elevated concentration of toluene [40.3 parts per billion (ppb)], benzene (2.8 ppb), and xylene (1.8 ppb).

4.0 Site Inspection

SD conducted the site inspection for this ESA on March 14, 2006. John Parykasz, the building superintendent for Stony Lodge Hospital, accompanied SD for the majority of the site inspection. The following subsections provide a summary of the on site conditions that are pertinent to this ESA. Site inspection photographs are included in Appendix H of this report.

4.1 Improvements and Other Features

The subject property was accessed from Croton Dam Road in the western portion of the site. Eight (8) buildings a garage and several small storage sheds are located on the subject property. No natural gas is used anywhere on the property. Several storm sewer catch basins are located throughout the property along the improved driveways. The buildings are serviced by sanitary sewer and do not utilize a septic system. The following paragraphs detail the feature of the buildings:

Administration Building

This two-story building contains a pharmacy and office space. The building is located in the southern portion of the subject property. One (1) 550 gallon UST containing #2 heating oil is located in the vicinity of the building, which fuels the furnace located in the boiler room.

Maintenance Building

This building is located in the southeastern portion of the subject property contains maintenance supplies and an upstairs sleeping area for the workers. Two (2)-275 gallon ASTs are located in the vicinity of the building. One of the ASTs is staged over soil and contains #2 heating oil which is used to fuel the furnace, while the other is staged on concrete and contains diesel fuel used to fuel machines and lawn care equipment. Several cabinets were located on the ground floor of this building that stored paints, supplies, and various maintenance equipment. Several empty propane cylinders were also located in the vicinity of this building.

West Lodge

This two story building contains office space and is utilized for the storage of office supplies. The master MSDS book is located in this building. The building is located in the southern portion of the subject property. One (1) 550 gallon UST, containing #2 heating oil is located in the vicinity of the building, which is used to fuel the furnace located in the boiler room. Propane is used for hot water.

Garage

This one story building contains lawn care machinery and a small tractor. The building is located in the southern portion of the subject property. The garage has a concrete floor which was observed to be of sound integrity. The garage is serviced by electric.

South Cottage

This two story building contains office space. The building is located in the southern portion of the subject property. One (1) 1,000 gallon UST, containing #2 heating oil is located in the vicinity of the building. Propane is used for hot water.

East Lodge

This building has the capacity to hold sixteen (16) patients. A propane tank is used for this building's emergency generator, while a 2,000 gallon UST, containing #2 heating oil is used to fuel the furnace. One approximately 2,000 gallon #2 heating oil UST was abandoned in place near this building.

North Lodge

This building has the capacity to hold twenty-four (24) patients and eight adult units, which are not currently in use. A propane tank is used for this buildings generator, while a 2,000 gallon UST containing #2 heating oil is used to fuel the furnace. One (1) approximately 2,000 gallon #2 heating oil UST was abandoned in place near this building.

Main Building

This building has the capacity to hold thirteen (13) patients. A propane tank is used for this buildings generator, while a 2,000 gallon UST containing #2 heating oil is used to fuel the furnace. One (1) approximately 2,000 gallon #2 heating oil UST was abandoned in place near this building.

Recreation Building

This building contains a laundry room, an art room, some offices, and one small storage room. The boiler room contains one (1)-275 gallon #2 heating oil AST. This building also has 8 propane tanks associated with it, which are located behind the building.

Sheds

Several small sheds and old pool storage structures are located in the southwestern portion of the property. The sheds were locked and SD was unable to gain access to these structures. Mr. Parykasz indicated that these structures were used historically as pool storage sheds, but were also used to store files after the pool was removed.

4.2 Hazardous Substances and Petroleum Products

The heating fuel source for the buildings is typically propane and #2 fuel heating oil contained in an either ASTs or USTs. SD observed the ASTs to be in relatively good condition. No indication of release was observed in any of the boiler rooms.

4.3 Aboveground Storage Tanks (AST)

Three (3) active 275 gallon ASTs were observed on the subject property during the site reconnaissance. The ASTs appeared to be in good condition and no evidence of staining was observed near the ASTs. See Section 4.1 for a more detailed description of these ASTs.

4.4 Underground Storage Tanks (UST)

Six (6) active USTs and three (3) inactive USTs that have been abandoned in place are present on the subject property. See Section 4.1 for a detailed description of the USTs.

4.5 Indications of Polychlorinated Biphenyls

Transformers and other types of electrical equipment have historically utilized dielectric fluid containing polychlorinated biphenyl compounds (PCBs). SD observed one (1) pad mounted transformer near the main building on the subject property during the March 14, 2006 site inspection. The transformer appeared to be well maintained and in good condition. There was no evidence of stressed vegetation or staining visible on the ground surface in vicinity of the transformers that would be indicative of a past release of PCBs.

4.6 Indications of Solid Waste Disposal

One (1) area of solid waste disposal was observed on the subject property during the March 14, 2006 site reconnaissance. This area was north of East Lodge and west of North Lodge. SD observed a large pile of mostly vegetative debris on the side of the hill. The pile was rather deep and appeared to be only vegetative debris. John Parykasz and Kevin Czipo, Executive Director, indicated that to their knowledge only vegetative debris had been dumped at this location, however if any other dumping had occurred on the property this would be the location.

4.7 Boiler Rooms

Boiler/furnace rooms were located in each building described in section 4.1, except for the garage and small storage sheds. The boiler rooms contained furnaces and hot water heaters. The furnaces were fueled by #2 heating oil while the hot water heaters were typically fueled with either propane or #2 heating oil. In each building, the boiler room floors were made of concrete and were of sound integrity with no indication of staining observed.

5.0 Findings and Conclusions

SD has performed an ESA in conformance with the scope and limitations of ASTM Practice E 1527-00 for the subject property designated as Block 13m, Lot 2 in the Town of Ossining, Westchester County, New York. Any exceptions to or deletions from this practice are described in Sections 1.2, 1.3, and 6.0 of this report. The subject property was identified in environmental database report lists. This assessment has revealed no evidence of RECs in connection with the subject property, except for the following.

- **Underground Storage Tanks (REC-1)** – USTs have existed and currently exist at the subject property. Six (6) active USTs and three (3) USTs that have been abandoned in place are present on the subject property. Additional investigation is warranted.

- **Waste Piles (REC-2)**- One (1) area of solid waste disposal was observed on the subject property during the March 14, 2006 site reconnaissance. This area was north of East Lodge and west of North Lodge. SD observed a large pile of mostly vegetative debris on the side of the hill. The pile was rather deep and appeared to be only vegetative debris. John Parykasz and Kevin Czipo, Executive Director, indicated that to their knowledge only vegetative debris had been dumped at this location, but if any other dumping had occurred on the property this would be the location. Additional investigation is warranted.

6.0 General Limitations

The Environmental Assessment activities and the preparation of this Report were conducted in accordance with practices and procedures generally accepted in the consulting engineering field. The information contained in this Report is further qualified as follows:

1. SD assumes no responsibility for matters of a legal nature affecting the subject property inspected or the title thereto.

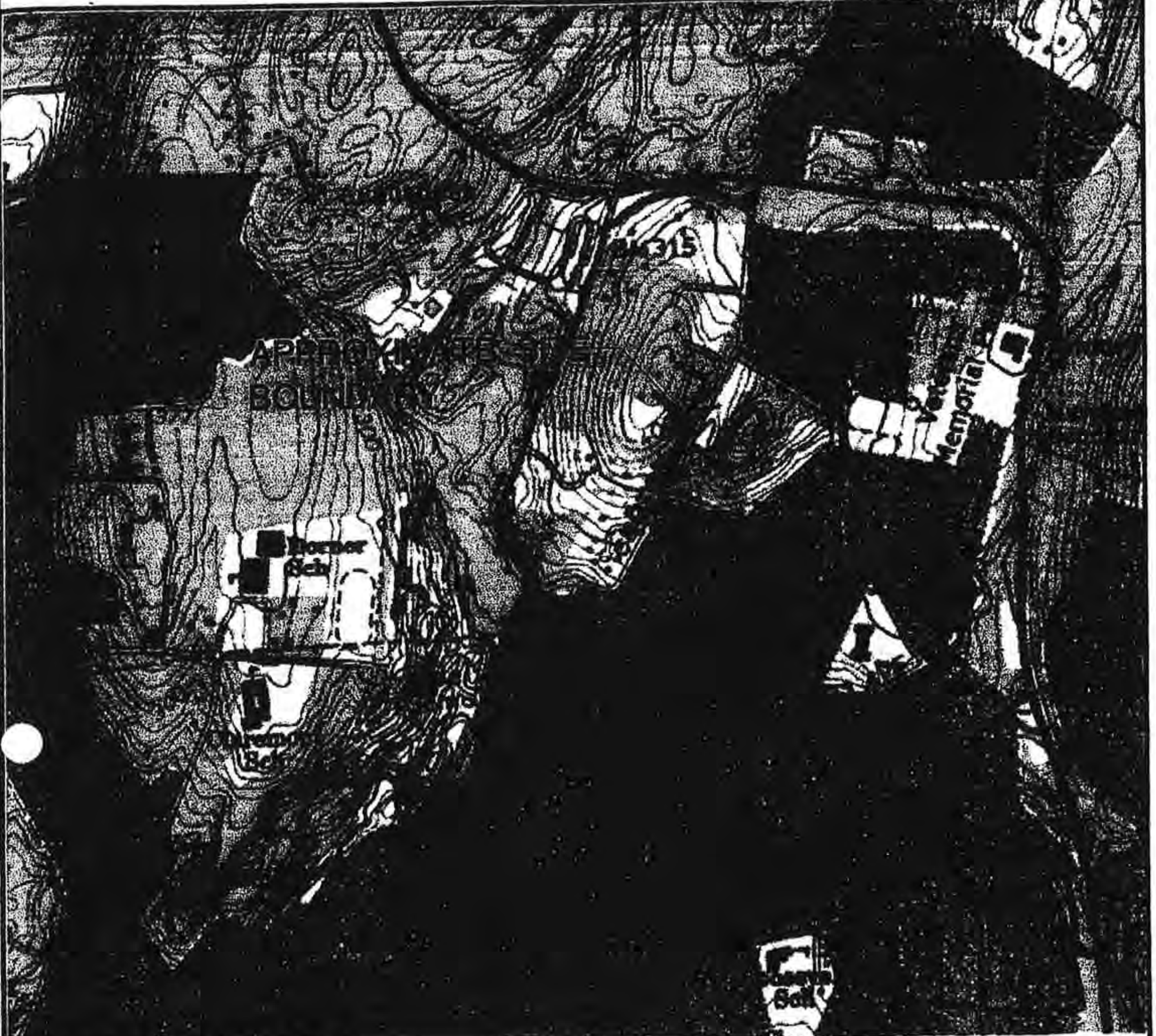
2. Any sketch appearing in or attached to the inspection Report, or any statement of dimensions, capacities, quantities or distances, are approximate and are included to assist the reader in visualizing the subject property. SD made no survey of the subject property.

3. Employees of SD are not required to give testimony or appear in court because of having made the inspection with reference to the subject property in question, unless arrangements have been previously made therefore.

4. This Report is not intended to have any direct effect on the value of the subject property inspected but simply to provide a visual Environmental Assessment solely for the benefit of the Principal Parties.

5. Information, estimates and opinions furnished to SD and contained in the report, were obtained from sources considered reliable and believed to be true and correct. However, SD has made no independent investigation as to such matters and undertakes no responsibility for the accuracy of such items. No other warranty is given or implied by this Report.

6. The Report is solely for the benefit and personal use of the Principal Parties, and is subject to and issued in connection with the Proposal and the Terms and Conditions attached thereto. The data reported and findings, observations, and conclusions expressed in the Report are limited by the Scope of Work.



NO PROPERTY CORNERS SET BY CONTRACTUAL AGREEMENT

THIS SURVEY MAKES NO REPRESENTATION AS TO THE EXISTENCE OR NON-EXISTENCE OF FRESH WATER INLAND WETLANDS.

FIGURE 1
STONY LODGE
BLOCK 13, LOT 2
40 CROTON DAM ROAD
TOWN OF OSSINING, WESTCHESTER COUNTY, NY

U.S.G.S. TOPOGRAPHIC MAP

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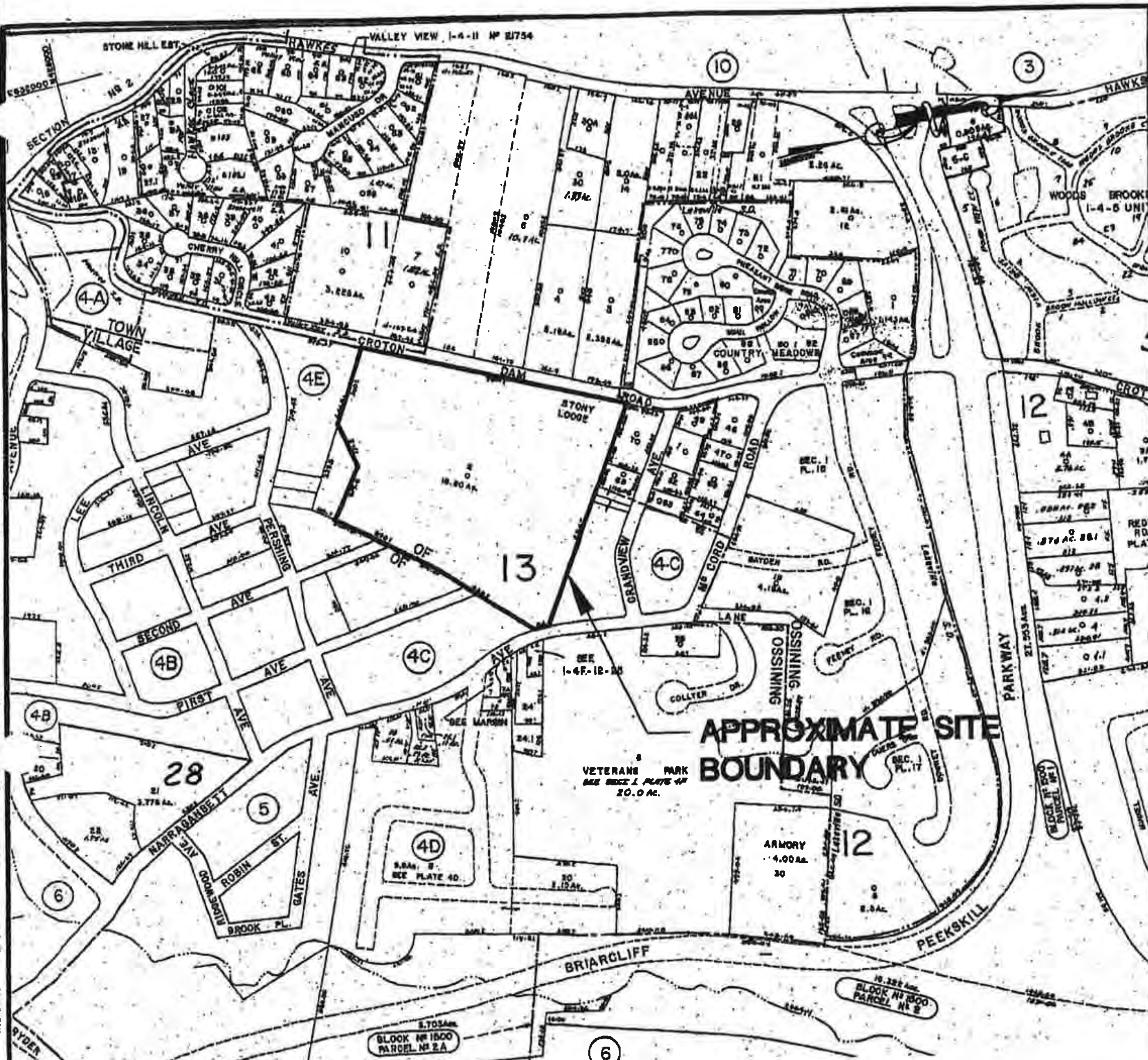
SCALE	DATE	DRAWN BY	DES. BY	FILE NO.	CHECKED BY
N.T.S	03/10/06	SVJ	SM	060075501	NJ

DATE	REVISIONS	ORDER NO.



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THIS SURVEY MAKES NO REPRESENTATION AS TO THE EXISTENCE OR NON-EXISTENCE OF FRESH WATER INLAND WETLANDS.

FIGURE 2
STONY LODGE
BLOCK 13, LOT 2
40 CROTON DAM ROAD
TOWN OF OSSINING, WESTCHESTER COUNTY, NY

TAX MAP

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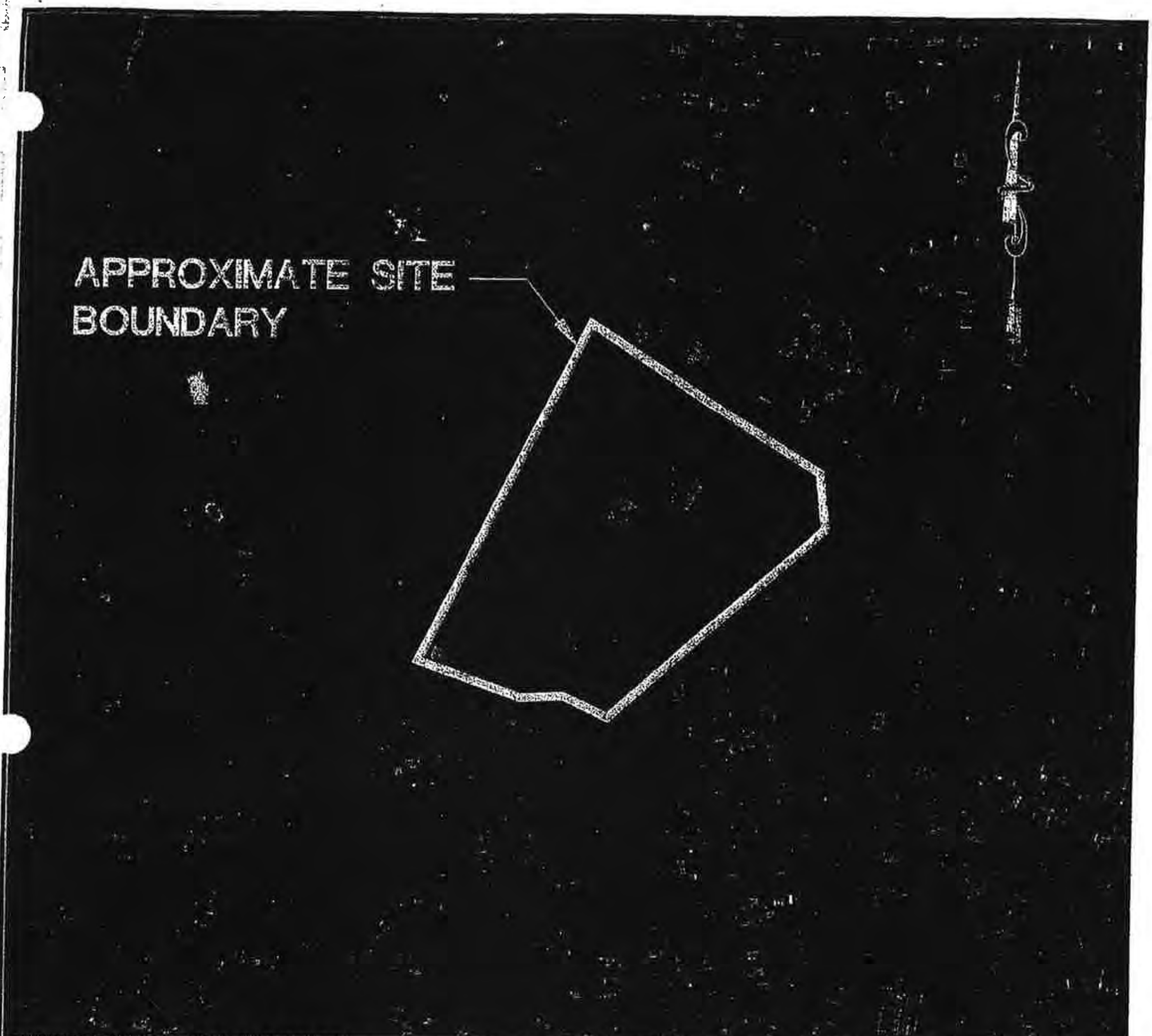

NO PROPERTY CORNERS SET BY CONTRACTUAL AGREEMENT

THIS SURVEY MAKES NO REPRESENTATION AS TO THE EXISTENCE OR NON-EXISTENCE OF FRESH WATER INLAND WETLANDS.

FIGURE 3

STONY LODGE
BLOCK 13, LOT 2
40 CROTON DAM ROAD
TOWN OF OSSINING, WESTCHESTER COUNTY, NY

AERIAL LOCATION MAP

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