

**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 reasonably 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: Amendment to Town of Cornwall Zoning Code at Section 158-21.X relating to Planned Adult Community (PAC)		
Project Location (describe, and attach a general location map): US Route 9W, Town of Cornwall, Orange County		
Brief Description of Proposed Action (include purpose or need): Cornwall Commons, LLC is requesting an amendment to the Town of Cornwall Zoning Code to permit a Planned Adult Community to include up to 65% non-age-restricted dwelling units (the "Proposed Action"). The amendment would permit Cornwall Commons, LLC to modify the unit mix in the Cornwall Commons project to include 168 age-restricted units and 312 non-age restricted units. The Proposed Action would only affect the age-restriction aspect of the unit mix for the Cornwall Commons project. The subdivision plat and site plan would remain the same. The proposed amendments to the Zoning Code are consistent with the goals and policies of the Town of Cornwall Comprehensive Plan, adopted March 13, 2012, as well as the recommendations of the Orange County Department of Planning to the Town.		
Name of Applicant/Sponsor: Cornwall Commons, LLC	Telephone: 845-928-9121	E-Mail:
Address: 615 Route 32, PO Box 503		
City/PO: Highland Mills	State: New York	Zip Code: 10930
Project Contact (if not same as sponsor; give name and title/role): Joseph A. Amato, Managing Member	Telephone:	E-Mail:
Address:		
City/PO:	State:	Zip Code:
Property Owner (if not same as sponsor):	Telephone:	E-Mail:
Address:		
City/PO:	State:	Zip Code:

**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 <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Zoning Amendment	
b. City, Town or Village Planning Board or Commission <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Final Subdivision and Site Plan approvals	
c. City Council, Town or Village Zoning Board of Appeals <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
d. Other local agencies <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
e. County agencies <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Orange County Department of Planning Referral	
f. Regional agencies <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
g. State agencies <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	NYS DOT site access and highway improvements NYS DEC SPDES, NYS DEC Ext, Sewer System	Approved 9/9/11, Approved 3/3/11, Approved 3/23/11
h. Federal agencies <input type="checkbox"/> Yes <input type="checkbox"/> No		
i. Coastal Resources.		
i. Is the project site within a Coastal Area, or the waterfront area of a Designated Inland Waterway?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
ii. Is the project site located in a community with an approved Local Waterfront Revitalization Program?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
iii. Is the project site within a Coastal Erosion Hazard Area?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

**C. Planning and Zoning**

<b>C.1. Planning and zoning actions.</b>	
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? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
<ul style="list-style-type: none"> <li>• If Yes, complete sections C, F and G.</li> <li>• If No, proceed to question C.2 and complete all remaining sections and questions in Part 1</li> </ul>	
<b>C.2. Adopted land use plans.</b>	
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? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
If Yes, does the comprehensive plan include specific recommendations for the site where the proposed action would be located? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> 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?) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
If Yes, identify the plan(s): Remediation Sites:336028 _____ _____	
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? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
If Yes, identify the plan(s): Orange County Open Space Plan (2004) and Orange County Agricultural Economic Development Strategy (2004) _____ _____	

**C.3. Zoning**

a. Is the site of the proposed action located in a municipality with an adopted zoning law or ordinance.  Yes  No  
 If Yes, what is the zoning classification(s) including any applicable overlay district?  
 Planned Residential Development (PRD)

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?  Yes  No  
 If Yes,  
 i. What is the proposed new zoning for the site? Amendments to the Zoning Code would allow non-age-restricted housing units in a PAC.

**C.4. Existing community services.**

a. In what school district is the project site located? Cornwall Central School District

b. What police or other public protection forces serve the project site?  
 Town of Cornwall Police Department, Orange County Sheriff, New York State Police Troop F

c. Which fire protection and emergency medical services serve the project site?  
 Canterbury Fire District, Vails Gate Fire District, and Cornwall Ambulance Corps.

d. What parks serve the project site?  
 Town of Cornwall Town Parks

**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 and commercial

b. a. Total acreage of the site of the proposed action? \_\_\_\_\_ acres  
 b. Total acreage to be physically disturbed? \_\_\_\_\_ acres  
 c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 197.716 acres

c. Is the proposed action an expansion of an existing project or use?  Yes  No  
 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: \_\_\_\_\_

d. Is the proposed action a subdivision, or does it include a subdivision?  Yes  No  
 If Yes,  
 i. Purpose or type of subdivision? (e.g., residential, industrial, commercial; if mixed, specify types)  
 \_\_\_\_\_  
 ii. Is a cluster/conservation layout proposed?  Yes  No  
 iii. Number of lots proposed? \_\_\_\_\_  
 iv. Minimum and maximum proposed lot sizes? Minimum \_\_\_\_\_ Maximum 158.994

e. Will proposed action be constructed in multiple phases?  Yes  No  
 i. If No, anticipated period of construction: \_\_\_\_\_ months  
 ii. If Yes:  
 • Total number of phases anticipated \_\_\_\_\_  
 • Anticipated commencement date of phase 1 (including demolition) \_\_\_\_\_ 9 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: \_\_\_\_\_

Lots 1-9 are commercial uses and Lot 10 is residential. The proposed public loop road would serve both the residential lot and the commercial lots. The utility systems and drainage area would also serve Lots 1 through 10.

f. Does the project include new residential uses?  Yes  No  
 If Yes, show numbers of units proposed.

	<u>One Family</u>	<u>Two Family</u>	<u>Three Family</u>	<u>Multiple Family (four or more)</u>
Initial Phase	25-50	0	0	50-75
At completion of all phases	304	0	0	176

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

- i. Total number of structures TBD
- ii. Dimensions (in feet) of largest proposed structure: TBD height; TBD width; and TBD 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: Stormwater management
  - 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):  
Earthen structures

**D.2. Project Operations**

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

- If Yes:
- i. What is the purpose of the excavation or dredging? Filling and grading associated with site development
  - ii. How much material (including rock, earth, sediments, etc.) is proposed to be removed from the site?
    - Volume (specify tons or cubic yards): 23,500 CY excess cut to be stored on-site for future phases
    - Over what duration of time? 7 to 10 years
  - iii. Describe nature and characteristics of materials to be excavated or dredged, and plans to use, manage or dispose of them.  
The development of Lot 10 would result in a net surplus of approximately 23,500 cubic yards of material. While grading plans have not been developed for Lots 1-9, adequate area exists on the site to provide temporary stockpile areas pending its removal or re-use elsewhere within the overall site.
  - iv. Will there be onsite dewatering or processing of excavated materials?  Yes  No  
 If yes, describe. Due to a high water table, shallow perched water seepage could be encountered seasonally, and therefore de-watering operations may need to be carried out during construction.
  - 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 waterbody 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: 0.014 acres of temporary disturbance for the excavation and installation of stormwater management system and utilities; and 0.004 acres of permanent disturbance for the construction of an access road to proposed stormwater management area C.

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: 0.018 acres
- expected acreage of aquatic vegetation remaining after project completion: \_\_\_\_\_
- purpose of proposed removal (e.g. beach clearing, invasive species control, boat access): Installation of stormwater management system and access road.
- proposed method of plant removal: \_\_\_\_\_
- if chemical/herbicide treatment will be used, specify product(s): \_\_\_\_\_

v. Describe any proposed reclamation/mitigation following disturbance: \_\_\_\_\_  
Area will be restored with native plantings.

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: \_\_\_\_\_ 157,250 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: Village of Cornwall-on-Hudson serving Town of Cornwall 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: \_\_\_\_\_  
Installation of main will be down Second Street to Academy Avenue then to Mailler, then Halverson across NYS Route 9W to Project Site.
- Source(s) of supply for the district: New York City Catskill Aqueduct and the Moodna Creek Wells

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: \_\_\_\_\_ 157,250 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: Cornwall 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: \_\_\_\_\_

Installation of on-site collection system conveys to on-site pump station from which it is conveyed to a gravity system on Academy Avenue.

- 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?

\_\_\_\_\_ Square feet or \_\_\_\_\_ acres (impervious surface)

\_\_\_\_\_ Square feet or \_\_\_\_\_ acres (parcel size)

- ii. Describe types of new point sources. Roads, sidewalks, buildings, driveways

\_\_\_\_\_

- 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)?

Stormwater will be treated in on-site stormwater management facilities and structures, the controlled release to natural drainage channels.

- If to surface waters, identify receiving water bodies or wetlands: \_\_\_\_\_  
On-site wetlands A, B, C, D, E

- 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 named 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?  Yes  No

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)  Yes  No

- ii. In addition to emissions as calculated in the application, the project will generate:

- \_\_\_\_\_ Tons/year (short tons) of Carbon Dioxide (CO<sub>2</sub>)
- \_\_\_\_\_ Tons/year (short tons) of Nitrous Oxide (N<sub>2</sub>O)
- \_\_\_\_\_ Tons/year (short tons) of Perfluorocarbons (PFCs)
- \_\_\_\_\_ Tons/year (short tons) of Sulfur Hexafluoride (SF<sub>6</sub>)
- \_\_\_\_\_ Tons/year (short tons) of Carbon Dioxide equivalent of Hydrofluorocarbons (HFCs)
- \_\_\_\_\_ Tons/year (short tons) of Hazardous Air Pollutants (HAPs)

h. Will the proposed action generate or emit methane (including, but not limited to, sewage treatment plants, landfills, composting facilities)?  Yes  No

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): \_\_\_\_\_

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i. Will the proposed action result in the release of air pollutants from open-air operations or processes, such as quarry or landfill operations?  Yes  No

If Yes: Describe operations and nature of emissions (e.g., diesel exhaust, rock particulates/dust): \_\_\_\_\_

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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?  Yes  No

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: \_\_\_\_\_ TBD

iii. Parking spaces: Existing 0 Proposed 1,943 Net increase/decrease \_\_\_\_\_

iv. Does the proposed action include any shared use parking?  Yes  No

v. If the proposed action includes any modification of existing roads, creation of new roads or change in existing access, describe:  
 New interior site roads are proposed with access from US Route 9W

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vi. Are public/private transportation service(s) or facilities available within ½ mile of the proposed site?  Yes  No

vii. Will the proposed action include access to public transportation or accommodations for use of hybrid, electric or other alternative fueled vehicles?  Yes  No

viii. Will the proposed action include plans for pedestrian or bicycle accommodations for connections to existing pedestrian or bicycle routes?  Yes  No

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k. Will the proposed action (for commercial or industrial projects only) generate new or additional demand for energy?  Yes  No

If Yes:

i. Estimate annual electricity demand during operation of the proposed action:  
 Relates to specific uses not yet determined for 350,000 square feet of office, retail, congregate care.

ii. Anticipated sources/suppliers of electricity for the project (e.g., on-site combustion, on-site renewable, via grid/local utility, or other):  
 Via grid/local utility - Central Hudson

iii. Will the proposed action require a new, or an upgrade to, an existing substation?  Yes  No

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

i. During Construction:

- Monday - Friday: 7-5
- Saturday: \_\_\_\_\_
- Sunday: \_\_\_\_\_
- Holidays: \_\_\_\_\_

ii. During Operations:

- Monday - Friday: \_\_\_\_\_
- Saturday: \_\_\_\_\_
- Sunday: \_\_\_\_\_
- Holidays: \_\_\_\_\_

<p>m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction, operation, or both? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span></p> <p>If yes:</p> <p>i. Provide details including sources, time of day and duration:</p> <p>_____</p> <p>_____</p>	
<p>ii. Will proposed action remove existing natural barriers that could act as a noise barrier or screen? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span></p> <p>Describe: _____</p> <p>_____</p>	
<p>n.. Will the proposed action have outdoor lighting? <span style="float: right;"><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</span></p> <p>If yes:</p> <p>i. Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures:</p> <p>Residential lighting and interior site lighting proposed (see lighting plan)</p> <p>_____</p>	
<p>ii. Will proposed action remove existing natural barriers that could act as a light barrier or screen? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span></p> <p>Describe: _____</p> <p>_____</p>	
<p>o. Does the proposed action have the potential to produce odors for more than one hour per day? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span></p> <p>If Yes, describe possible sources, potential frequency and duration of odor emissions, and proximity to nearest occupied structures: _____</p> <p>_____</p>	
<p>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? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span></p> <p>If Yes:</p> <p>i. Product(s) to be stored _____</p> <p>ii. Volume(s) _____ per unit time _____ (e.g., month, year)</p> <p>iii. Generally describe proposed storage facilities: _____</p> <p>_____</p>	
<p>q. Will the proposed action (commercial, industrial and recreational projects only) use pesticides (i.e., herbicides, insecticides) during construction or operation? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span></p> <p>If Yes:</p> <p>i. Describe proposed treatment(s):</p> <p>_____</p> <p>_____</p> <p>_____</p>	
<p>ii. Will the proposed action use Integrated Pest Management Practices? <span style="float: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span></p>	
<p>r. Will the proposed action (commercial or industrial projects only) involve or require the management or disposal of solid waste (excluding hazardous materials)? <span style="float: right;"><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</span></p> <p>If Yes:</p> <p>i. Describe any solid waste(s) to be generated during construction or operation of the facility:</p> <ul style="list-style-type: none"> <li>• Construction: _____ tons per _____ (unit of time)</li> <li>• Operation : _____ tons per _____ (unit of time)</li> </ul> <p>ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste:</p> <ul style="list-style-type: none"> <li>• Construction: None _____</li> <li>• Operation: Recycling and disposal as required by the Town of Cornwall. _____</li> </ul>	
<p>iii. Proposed disposal methods/facilities for solid waste generated on-site:</p> <ul style="list-style-type: none"> <li>• Construction: Transport to Orange County transfer station - Route 17K _____</li> <li>• Operation: Transport to Orange County transfer station - Route 17K _____</li> </ul>	

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 wastes 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 uses that occur on, adjoining and near the project site.

- Urban  Industrial  Commercial  Residential (suburban)  Rural (non-farm)  
 Forest  Agriculture  Aquatic  Other (specify): \_\_\_\_\_

ii. If mix of uses, generally describe:  
 \_\_\_\_\_  
 \_\_\_\_\_

b. Land uses and covertypes on the project site.

Land use or Covertypes	Current Acreage	Acreage After Project Completion	Change (Acres +/-)
• Roads, buildings, and other paved or impervious surfaces	0	68.2	68.2
• Forested	171	50.37	120.63
• Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural)	12.65	0	12.65
• Agricultural (includes active orchards, field, greenhouse etc.)	0	0	0
• Surface water features (lakes, ponds, streams, rivers, etc.)	0	1.84	1.84
• Wetlands (freshwater or tidal)	14.072	14.058	.014
• Non-vegetated (bare rock, earth or fill)	0	0	0
• Other Describe: Lawn/Landscaped	0	63.25	63.25

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:  
 St. Lukes -- Cornwall Hospital, NYMA  
 \_\_\_\_\_

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?  Yes  No  
 • 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:  
 \_\_\_\_\_

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): \_\_\_\_\_  
 Yes – Environmental Site Remediation database Provide DEC ID number(s): 336028  
 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): 336028  
 iv. If yes to (i), (ii) or (iii) above, describe current status of site(s):  
 DEC Site No.: 336028 (Majestic Weaving Co.) is located at 2 Mill Street, Cornwall, NY 12518. It is not on or immediately adjacent to the Project Site, and therefore has no effect on the Project Site or the Proposed Action.

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? \_\_\_\_\_ 0-10 +/- 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: Mardin gravelly silt loam \_\_\_\_\_ %  
 \_\_\_\_\_ %  
 \_\_\_\_\_ %

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

e. Drainage status of project site soils:  Well Drained: \_\_\_\_\_ % of site  
 Moderately Well Drained: 70 % of site  
 Poorly Drained 10 % of site

f. Approximate proportion of proposed action site with slopes:  0-10%: \_\_\_\_\_ % of site  
 10-15%: \_\_\_\_\_ % of site  
 15% or greater: \_\_\_\_\_ % 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.i.

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 <sup>C</sup> \_\_\_\_\_
- Lakes or Ponds: Name \_\_\_\_\_ Classification \_\_\_\_\_
- Wetlands: Name Federal Wetland \_\_\_\_\_ Approximate Size Federal Wetland:0...
- 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: Principal Aquifer

m. Identify the predominant wildlife species that occupy or use the project site: \_\_\_\_\_  
 Forest birds, mammals, and amphibians \_\_\_\_\_  
 common to northeast woodland areas \_\_\_\_\_

n. Does the project site contain a designated significant natural community?  Yes  No  
 If Yes:  
 i. Describe the habitat/community (composition, function, and basis for designation): \_\_\_\_\_  
 Brackish Intertidal Mudflats, Brackish Tidal Marsh  
 ii. Source(s) of description or evaluation: \_\_\_\_\_  
 iii. Extent of community/habitat:  
 • Currently: \_\_\_\_\_ 9.05, 23.24 acres  
 • Following completion of project as proposed: \_\_\_\_\_ acres  
 • Gain or loss (indicate + or -): \_\_\_\_\_ 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  
 See part 3.

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 Project Site**

a. Is the project site, or any portion of it, located in a designated agricultural district certified pursuant to Agriculture and Markets Law, Article 25-AA, Section 303 and 304?  Yes  No  
 If Yes, provide county plus district name/number: \_\_\_\_\_

b. Are agricultural lands consisting of highly productive soils present?  Yes  No  
 i. If Yes: acreage(s) on project site? \_\_\_\_\_  
 ii. Source(s) of soil rating(s): \_\_\_\_\_

c. Does the project site contain all or part of, or is it substantially contiguous to, a registered National Natural Landmark?  Yes  No  
 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: \_\_\_\_\_

d. Is the project site located in or does it adjoin a state listed Critical Environmental Area?  Yes  No  
 If Yes:  
 i. CEA name: \_\_\_\_\_  
 ii. Basis for designation: \_\_\_\_\_  
 iii. Designating agency and date: \_\_\_\_\_

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?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
If Yes:	
i. Nature of historic/archaeological resource: <input type="checkbox"/> Archaeological Site <input type="checkbox"/> Historic Building or District	
ii. Name: _____	
iii. Brief description of attributes on which listing is based: _____	
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?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
g. Have additional archaeological or historic site(s) or resources been identified on the project site?	
If Yes:	
i. Describe possible resource(s): _____	
ii. Basis for identification: _____	
h. Is the project site within five miles of any officially designated and publicly accessible federal, state, or local scenic or aesthetic resource?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
If Yes:	
i. Identify resource: <u>Knox Headquarters State Historic Site</u>	
ii. Nature of, or basis for, designation (e.g., established highway overlook, state or local park, state historic trail or scenic byway, etc.): <u>New York State Historic Site</u>	
iii. Distance between project and resource: _____ miles.	
i. Is the project site located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR 666?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
If Yes:	
i. Identify the name of the river and its designation: _____	
ii. Is the activity consistent with development restrictions contained in 6NYCRR Part 666?	
<input type="checkbox"/> Yes <input type="checkbox"/> No	

**F. Additional Information**

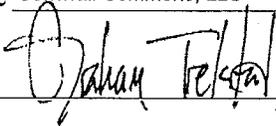
Attach any additional information which may be needed to clarify your project.

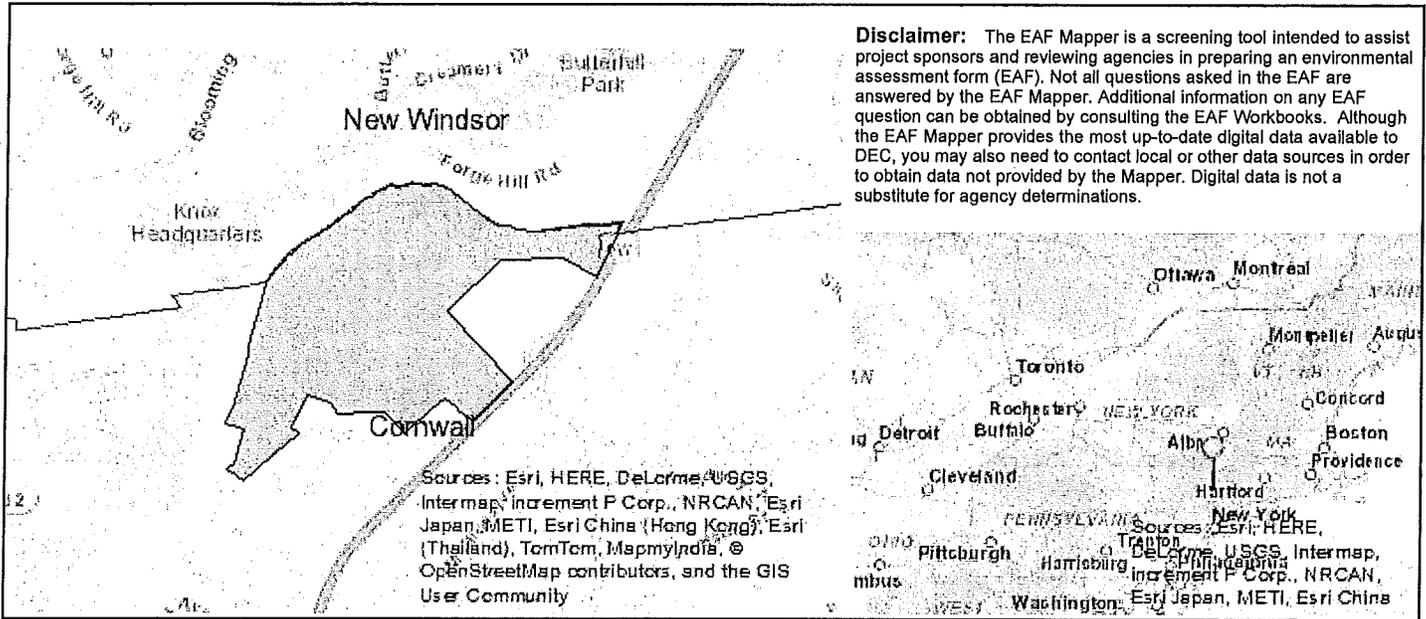
If you have identified any adverse impacts which could be associated with your proposal, please describe those impacts plus any measures which you propose to avoid or minimize them.

**G. Verification**

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

Applicant/Sponsor Name Cornwall Commons, LLC Date June 24, 2014

Signature  Title Senior Vice President, AKRF, Inc.



B.i.i [Coastal or Waterfront Area]	Yes
B.i.ii [Local Waterfront Revitalization Area]	No
C.2.b. [Special Planning District]	Yes - Digital mapping data are not available for all Special Planning Districts. Refer to EAF Workbook.
C.2.b. [Special Planning District - Name]	Remediation Sites:336028
E.1.h [DEC Spills or Remediation Site - Potential Contamination History]	Yes - Digital mapping data for Spills Incidents are not available for this location. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Listed]	Yes
E.1.h.i [DEC Spills or Remediation Site - Environmental Site Remediation Database]	Yes
E.1.h.i [DEC Spills or Remediation Site - DEC ID Number]	336028
E.1.h.iii [Within 2,000' of DEC Remediation Site]	Yes
E.1.h.iii [Within 2,000' of DEC Remediation Site - DEC ID]	336028
E.2.g [Unique Geologic Features]	No
E.2.h.i [Surface Water Features]	Yes
E.2.h.ii [Surface Water Features]	Yes
E.2.h.iii [Surface Water Features]	Yes - Digital mapping information on local and federal wetlands and waterbodies is known to be incomplete. Refer to EAF Workbook.
E.2.h.iv [Surface Water Features - Wetlands Name]	Federal Wetland
E.2.h.iv [Surface Water Features - Wetlands Size in Acres]	Federal Wetland:0.66728955, Federal Wetland:0.55402984, Federal Wetland:1.04319292, Federal Wetland:0.43426936, Federal Wetland:1.89055752
E.2.h.v [Impaired Water Bodies]	No

E.2.i. [Floodway]	No
E.2.j. [100 Year Floodplain]	No
E.2.k. [500 Year Floodplain]	No
E.2.l. [Aquifers]	Yes
E.2.l. [Aquifer Names]	Principal Aquifer
E.2.n. [Natural Communities]	Yes
E.2.n.i [Natural Communities - Name]	Brackish Intertidal Mudflats, Brackish Tidal Marsh
E.2.n.i [Natural Communities - Acres]	9.05, 23.24
E.2.o. [Endangered or Threatened Species]	Yes
E.2.p. [Rare Plants or Animals]	No
E.3.a. [Agricultural District]	No
E.3.c. [National Natural Landmark]	No
E.3.d [Critical Environmental Area]	No
E.3.e. [National Register of Historic Places]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.3.f. [Archeological Sites]	Yes
E.3.i. [Designated River Corridor]	No



Engineers  
Planners  
Surveyors  
Landscape Architects  
Environmental Scientists

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## MEMORANDUM

**To:** Joseph Amato  
**Cc:** Graham Trelstad, AICP  
**From:** Philip J. Grealy, Ph.D., P.E.   
**Date:** June 23, 2014  
**Re:** Cornwall Commons  
MC Project No. 12100024A

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### Introduction

The original GEIS for the Cornwall Commons site had considered a mix of residential and light industrial uses. The estimated trip generation for the original proposal is shown in Table No. 1. Associated with the supplemental (SEIS) Traffic Impact Study for the Cornwall Commons Development, dated March 13, 2007, the analysis had considered a portion of the proposed development as an active adult project consisting of approximately 490 senior active adult housing units. The trip generation for that proposal is shown in Table No. 1R. The traffic study found that the traffic volumes were less than those presented in the original traffic study but overall the conclusions were comparable in terms of any impacts.

### Current Plan/Trip Generation

The current plans are for a 490 unit residential component, which primarily would be a market rate development (non-age restricted), consisting of 314 single family homes, 162 apartments and 14 standalone units. Table No. 1C shows the estimated trip generation for this proposal based on the current version of the Institute of Transportation Engineers (ITE) publications Trip Generation, 9<sup>th</sup> Edition, 2012. The total new peak hour traffic generation would increase as compared the previous active adult project proposal however, would still be significantly lower than the light industrial proposal, which was evaluated in the original GEIS and can be accommodated as described in the analysis section below. It should be noted that similar to Table 1R, Table 1C includes a 15% internal trip credit applied to the Retail and Restaurant uses to account for trips attracted from residential portion of the site.



### **Consideration of Current Background Traffic Volumes**

A comparison of historical traffic volume data compiled and published by NYSDOT indicates that the background traffic projections contained in the original traffic reports have not yet materialized. In fact, as seen in the attached excerpt from the NYSDOT Traffic Volume Report, between 2007 and 2012, in the immediate vicinity of the site the traffic volumes increase from 13,822 vehicles in 2007 to 14,033 vehicles in 2012. This equates to a total increase in traffic of approximately 1.5% over the five year period. The analysis contained in the 2007 traffic study was based on the utilization of a 2% per year background growth factor as well as the inclusion of other potential background developments most of which have not yet been built. Therefore, the background traffic volume projections are still appropriate and in fact are conservatively high.

### **Analysis for Current Plan Evaluation**

Since the time of the original traffic analysis, the 2010 Highway Capacity Manual was published. A new capacity analysis was conducted using the updated procedures for the proposed site access connection to U.S. Route 9W and for the key intersection of Main Street and Route 210/Faculty Road.

Based on the proposed improvements related to the project access, it is expected that the access would still accommodate these additional volumes at good Levels of Service as indicated in the revised capacity analysis (attached). In addition, other intersections would similarly accommodate these additional vehicle trips. Note that the added site generated vehicle trips would equate to a maximum of approximately 25 added vehicles per hour at the highest location other than the project access.

The percentage for the fair-share contribution towards the potential future signalization at the intersection of NYS Route 218 and Main Street/Faculty Road would increase slightly, as noted.

### **Conclusions**

In conclusion, the background traffic projections contained in the original studies have not materialized and the original base traffic conditions and No Build traffic volumes are still appropriate and in fact are conservatively high. Also, based on the proposed change to include market rate units from a traffic impact standpoint would be accommodated by the improvements identified and included as part of the Findings for the previously approved project. The additional peak hour traffic generation would be handled at similar levels of service to those previously determined.

New York State Department of Transportation  
Traffic Volume Report

Date: 7/12/2013

County Order	EMP	Ref Marker	Section Length	End Description	LATEST COUNT		PREVIOUS COUNTS		YR	AADT	EST	YR	AADT	EST	YR	AADT	Station	CC Station
					AADT	Region	YR	AADT										
01	13.38	9W85011133	0.60	RT 304 Haverstraw	County 087	ROCKLAND	Region 08	11	16829	18621	08	05	17332	0004				
01	16.22	9W85011159	2.84	Town Of Clarkstown And Vill Of Haverstraw				09	18146	20730	06	03	21279	0825				
01	18.44	9W85011179	2.22	Village Of W Haverstraw And Town Of Stony Point				12	18303	13130	09	06	17241	0498				
01	20.90	9W85011203	2.46	CR 118a Mott Farm Rd				11	8706	10847	06	03	9705	0499				
01	26.51	9W85011265	5.61	Rocky/Orange Co Line				09	4755	6326	06	03	4410	0001				
02	0.13	9W83021001	0.13	End 9w/202 Olap Start 6/9w/202 Olap	County 071	ORANGE	Region 08	09	4755	6326	06	03	5421	0500				
02	0.14	6 83012438	0.01	End 6/9w/202 Olap Start 6/202 Olap				11	18290	19158	09	06	17638	0067				
02	2.91	9W83021028	2.77	RT 982e Over				09	18408	23656	04	01	16234	0654				
02	4.87	9W83021048	1.96	VII Highland Falls Town Highland				07	12753	12077	04	01	11667	0005				
02	5.57	9W83021056	0.70	End 9w/218 Olap				12	16588	16576	11	10	16889	0567			8383	
02	11.15	9W83021112	5.58	VII Of Cornwall-On-Hudson Town Of Cornwall				09	26123	20429	06	03	15703	0095				
02	11.58	9W83021116	0.43	CR 107 Orts Mill				11	17335	16450	08	05	18120	0655				
02	12.20	9W83021122	0.62	Acc Willow Ave				12	13716	11522	09	06	12039	0656				
02	13.08	9W83021130	0.88	RT 218 Cornwall				07	13822	15473	04	01	14874	0657				
02	14.87	9W83021143	1.79	Union Ave				11	24582	20941	10	07	23757	0658				
02	15.85	9W83021150	0.98	RT 94				11	9829	14173	07	04	10193	0659				
02	16.78	9W83021161	0.93	Washington St				11	10068	10535	07	04	11517	0660				
02	18.00		1.22	Third St				07	12034	13455	04	01	11606	0239				
02	18.09	9W83023000	0.09	Acc Rts 841 & 52				11	35734	28083	06	01	30263	0037				
02	18.15	9W83023001	0.06	End 9w/32 Olap				09	39564	35471	03	00	32745	0039				
02	20.36	9W83023023	2.21	Drive In Theater				11	19857	23017	08	05	21835	0662				
02	23.34	9W83023053	2.98	Orange/Ulster Co Line				09	17984	18460	06	00	17439	0124				
03	5.33	9W86031046	5.33	Milton Turnpike	County 111	ULSTER	Region 08	11	15974	17944	07	04	19973	0036				
03	7.51	9W86031080	2.58	Town Of Marlborough And Town Of Lloyd				11	15053	15124	08	05	16979	0040				
03	9.10	9W86031087	1.19	Start 9w/44/55 Olap				10	24168	26955	07	04	22982	0001				
03	9.35	9W86031093	0.25	-End Rts 44 & 55 Olaps				10	27427	26957	07	04	32108	0276				
03	11.17	9W86031112	1.82	RT 299				11	25960	23804	08	05	26744	0111				
03	19.37	9W86031194	8.20	Town Of Lloyd And Town Of Esopus				12	10263	10330	09	06	10398	0018				
03	23.21	9W86031332	3.84	Old Rt 9w(984d)				11	12782	11606	08	06	12515	0002				
03	24.33	9W86032006	1.12	Murray St				11	14937	15198	08	03	17636	0031				
03	25.57	9W86033000	1.24	Start 9w/32 Olap				12	15967	15704	09	06	15223	0032				
03	25.85	32 86023000	0.28	City Line				09	13449	13442	06	02	13536	0034				

**TABLE 1**

**HOURLY TRIP GENERATION RATES (HTGR) AND ANTICIPATED  
SITE GENERATED TRAFFIC VOLUMES**

DEVELOPMENT DESCRIPTION	ENTRY		EXIT	
	HTGR*	VOLUME	HTGR*	VOLUME
<b>PHASE 1</b>				
<b>SINGLE FAMILY RESIDENTIAL 60 DWELLING UNITS</b>				
PEAK AM HOUR	0.21	13	0.64	39
PEAK PM HOUR	0.72	43	0.41	24
<b>PHASE 2</b>				
<b>LIGHT INDUSTRIAL (1,000,000 S.F.)</b>				
PEAK AM HOUR	1.00	1005	0.11	112
PEAK PM HOUR	0.18	182	1.12	1115
<b>TOTAL</b>				
PEAK AM HOUR		1018		151
PEAK PM HOUR		225		1139

**NOTES:**

1)\* HTGR- HOURLY TRIP GENERATION RATE EXPRESSED IN TERMS OF TRIPS PER SQUARE FOOT FOR LAND USE CODE (110) LIGHT INDUSTRIAL AND IN TERMS OF TRIPS PER DWELLING UNIT FOR LAND USE CODE (210) SINGLE FAMILY RESIDENTIAL BASED ON THE INSTITUTE OF TRANSPORTATION ENGINEERS (ITE) PUBLICATION ENTITLED "TRIP GENERATION", 6TH EDITION, JANUARY 1997.

TABLE 1R

HOURLY TRIP GENERATION RATES (HTGR) AND ANTICIPATED  
SITE GENERATED TRAFFIC VOLUMES

CORNWALL COMMONS	ENTRY			EXIT		
	HTGR*	VOLUME	NEW TRIPS	HTGR*	VOLUME	NEW TRIPS
SENIOR ADULT HOUSING (490 DWELLING UNITS)						
PEAK AM HOUR	0.12	59	59	0.19	93	93
PEAK PM HOUR	0.19	93	93	0.12	59	59
SHOPPING CENTER (45,000 S.F.)						
PEAK AM HOUR	1.31	59	44	0.84	38	29
PEAK PM HOUR	4.11	185	139	4.11	185	139
HIGH TURNOVER RESTAURANT (15,500 S.F.)						
PEAK AM HOUR	5.99	93	70	5.53	86	65
PEAK PM HOUR	6.66	103	77	4.26	66	50
OFFICE BUILDING (50,000 S.F.)						
PEAK AM HOUR	1.90	95	95	0.26	13	13
PEAK PM HOUR	0.46	23	23	2.24	112	112
HOTEL (80 ROOMS)						
PEAK AM HOUR	0.24	19	19	0.15	12	12
PEAK PM HOUR	0.31	25	25	0.28	22	22
CONGREGATE CARE (70 BEDS)						
PEAK AM HOUR	0.09	6	6	0.09	6	6
PEAK PM HOUR	0.07	5	5	0.15	11	11
TOTAL		VOLUME			VOLUME	
PEAK AM HOUR	-	331	293	-	248	217
PEAK PM HOUR	-	434	362	-	455	392

NOTES:

- 1) THE HOURLY TRIP GENERATION RATES (HTGR) ARE BASED ON THE DATA PUBLISHED BY THE INSTITUTE OF TRANSPORTATION ENGINEERS (ITE) AS CONTAINED IN THE TRIP GENERATION HANDBOOK, 7TH EDITION, 2003. ITE LAND USE CODE - 710 GENERAL OFFICE BUILDING, LU 252 - SENIOR ADULT HOUSING, LU 820 - RETAIL, LU 932 - HIGH TURNOVER SIT-DOWN RESTAURANT, LU 310 - HOTEL AND LU - 620 NURSING HOME.

11/5/2010

JOB NO.173

**TABLE 1C**  
**HOURLY TRIP GENERATION RATES (HTGR) AND ANTICIPATED**  
**SITE GENERATED TRAFFIC VOLUMES**

CORNWALL COMMONS	ENTRY			EXIT		
	HTGR*	VOLUME	NEW TRIPS	HTGR*	VOLUME	NEW TRIPS
SINGLE FAMILY HOMES (314 DWELLING UNITS)						
PEAK AM HOUR	0.18	57	39	0.55	172	160
PEAK PM HOUR	0.59	185	155	0.35	109	81
APARTMENTS/CONDOS (176 DWELLING UNITS)						
PEAK AM HOUR	0.08	14	10	0.38	67	62
PEAK PM HOUR	0.37	64	55	0.18	32	24
SHOPPING CENTER (45,000 S.F.)						
PEAK AM HOUR	1.29	58	37	0.82	37	24
PEAK PM HOUR	3.82	172	110	3.98	179	114
HIGH TURNOVER RESTAURANT (15,500 S.F.)						
PEAK AM HOUR	5.74	89	57	4.71	73	47
PEAK PM HOUR	5.74	89	57	3.81	59	38
OFFICE BUILDING (50,000 S.F.)						
PEAK AM HOUR	1.94	97	97	0.26	13	13
PEAK PM HOUR	0.46	23	23	2.24	112	112
HOTEL (80 ROOMS)						
PEAK AM HOUR	0.31	25	25	0.21	17	17
PEAK PM HOUR	0.30	24	24	0.30	24	24
CONGREGATE CARE (70 BEDS)						
PEAK AM HOUR	0.11	8	8	0.06	4	4
PEAK PM HOUR	0.07	5	5	0.14	10	10
<b>TOTAL</b>		<b>VOLUME</b>			<b>VOLUME</b>	
PEAK AM HOUR	-	-	272	-	-	326
PEAK PM HOUR	-	-	429	-	-	402

NOTES:

- 1) THE HOURLY TRIP GENERATION RATES (HTGR) ARE BASED ON THE DATA PUBLISHED BY THE INSTITUTE OF TRANSPORTATION ENGINEERS (ITE) AS CONTAINED IN THE TRIP GENERATION HANDBOOK, 9TH EDITION, 2012. ITE LAND USE CODE - 710 GENERAL OFFICE BUILDING, LU 210 - SINGLE FAMILY HOMES, LU 230 - TOWNHOUSE, LU 820 - RETAIL, LU 932 - HIGH TURNOVER SIT-DOWN RESTAURANT, LU 310 - HOTEL AND LU - 620 NURSING HOME.
- 2) A 25% PASS-BY CREDIT HAS BEEN TAKEN FOR THE RETAIL AND RESTAURANT USE. THE NEW TRIPS ALSO INCLUDE A 15% INTERNAL TRIP CREDIT.

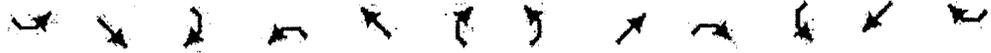
Build Traffic Volumes  
1: U.S. ROUTE 9W & Office/Site Access

Weekday Peak AM Hour  
6/20/2014

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↖	↗	↖	↗	↖	↗	↖↗	↖	↖↗	↖↗	↖
Volume (vph)	121	0	175	2	0	2	162	452	0	2	880	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			0%			-1%			0%	
Storage Length (ft)	0		0	0		0	350		0	125		250
Storage Lanes	0		1	0		0	1		0	1		1
Taper Length (ft)	25			25			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frnt			0.850		0.932							0.850
Flt Protected		0.950			0.976		0.950			0.950		
Satd. Flow (prot)	0	1770	1583	0	1694	0	1778	3557	0	1770	3539	1583
Flt Permitted		0.755			0.891		0.280			0.404		
Satd. Flow (perm)	0	1406	1583	0	1547	0	524	3557	0	753	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			190		76							76
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		260			140			614			780	
Travel Time (s)		5.9			3.2			14.0			17.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	132	0	190	2	0	2	176	491	0	2	957	71
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	132	190	0	4	0	176	491	0	2	957	71
Enter Blocked Intersection	No											
Lane Alignment	Left	Left	Right									
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.99	0.99	0.99	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	2	1	1		2	0		2	0	2
Detector Template	Left			Left								
Leading Detector (ft)	20	83	83	20	35		83	0		83	0	83
Trailing Detector (ft)	0	-5	-5	0	-5		-5	0		-5	0	-5
Detector 1 Position(ft)	0	-5	-5	0	-5		-5	-5		-5	-5	-5
Detector 1 Size(ft)	20	40	40	20	40		40	40		40	40	40
Detector 1 Type	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex		CI+Ex	CI+Ex		CI+Ex	CI+Ex	CI+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		43	43				43			43		43
Detector 2 Size(ft)		40	40				40			40		40
Detector 2 Type		CI+Ex	CI+Ex				CI+Ex			CI+Ex		CI+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0	0.0				0.0			0.0		0.0
Turn Type	Perm	NA	Perm	Perm	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases		3			3		1	6		5	2	
Permitted Phases	3		3	3			6			2		2

Build Traffic Volumes  
1: U.S. ROUTE 9W & Office/Site Access

Weekday Peak AM Hour  
6/20/2014



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Detector Phase	3	3	3	3	3		1	6		5	2	2
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	21.0	21.0	21.0	21.0	21.0		9.0	21.0		21.0	21.0	21.0
Total Split (s)	30.0	30.0	30.0	30.0	30.0		20.0	50.0		20.0	50.0	50.0
Total Split (%)	30.0%	30.0%	30.0%	30.0%	30.0%		20.0%	50.0%		20.0%	50.0%	50.0%
Maximum Green (s)	25.0	25.0	25.0	25.0	25.0		15.0	45.0		15.0	45.0	45.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0		0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	5.0
Lead/Lag							Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None	None	None	None		None	Max		Max	Max	Max
Act Effct Green (s)		13.8	13.8		13.8		53.5	45.1		64.9	51.8	51.8
Actuated g/C Ratio		0.16	0.16		0.16		0.60	0.51		0.73	0.58	0.58
v/c Ratio		0.61	0.47		0.01		0.41	0.27		0.00	0.47	0.07
Control Delay		46.9	9.0		0.0		8.1	13.7		4.5	12.6	2.9
Queue Delay		0.0	0.0		0.0		0.0	0.0		0.0	0.0	0.0
Total Delay		46.9	9.0		0.0		8.1	13.7		4.5	12.6	2.9
LOS		D	A		A		A	B		A	B	A
Approach Delay		24.6			0.0			12.2			11.9	
Approach LOS		C			A			B			B	
Queue Length 50th (ft)		70	0		0		24	78		0	147	0
Queue Length 95th (ft)		127	54		0		57	128		2	254	19
Internal Link Dist (ft)		180			60			534			700	
Turn Bay Length (ft)							350			125		250
Base Capacity (vph)		395	582		490		565	1803		721	2058	952
Starvation Cap Reductn		0	0		0		0	0		0	0	0
Spillback Cap Reductn		0	0		0		0	0		0	0	0
Storage Cap Reductn		0	0		0		0	0		0	0	0
Reduced v/c Ratio		0.33	0.33		0.01		0.31	0.27		0.00	0.47	0.07

Intersection Summary

Area Type: Other  
 Cycle Length: 100  
 Actuated Cycle Length: 89  
 Natural Cycle: 65  
 Control Type: Semi Act-Uncoord  
 Maximum v/c Ratio: 0.61  
 Intersection Signal Delay: 14.0  
 Intersection Capacity Utilization 57.6%  
 Analysis Period (min) 15  
 Intersection LOS: B  
 ICU Level of Service B

Splits and Phases: 1: U.S. ROUTE 9W & Office/Site Access

p1	p2	p3
20 s	50 s	30 s
p5	p6	
20 s	50 s	

Build Traffic Volumes  
2: Main Street/Faculty Road & NYS Route 218

Weekday Peak AM Hour  
6/20/2014

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations		↕			↕			↕			↕	
Volume (vph)	132	4	29	2	3	10	9	232	254	94	312	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-1%			0%			0%			1%	
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
Frt		0.976			0.908			0.931			0.998	
Flt Protected		0.962			0.993			0.999			0.989	
Satd. Flow (prot)	0	1758	0	0	1680	0	0	1732	0	0	1829	0
Flt Permitted		0.962			0.993			0.999			0.989	
Satd. Flow (perm)	0	1758	0	0	1680	0	0	1732	0	0	1829	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		328			333			281			405	
Travel Time (s)		7.5			7.6			6.4			9.2	
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67
Adj. Flow (vph)	197	6	43	3	4	15	13	346	379	140	466	9
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	246	0	0	22	0	0	738	0	0	615	0
Enter Blocked Intersection	No	No	No	No	No							
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	1.00	1.00	1.00	1.00	1.00	1.00	1.01	1.01	1.01
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type: Other  
 Control Type: Unsignalized  
 Intersection Capacity Utilization 76.2% ICU Level of Service D  
 Analysis Period (min) 15

Build Traffic Volumes  
2: Main Street/Faculty Road & NYS Route 218

Weekday Peak AM Hour  
6/20/2014

Intersection

Intersection Delay, s/veh 76.3

Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Vol, veh/h	132	4	29	2	3	10	9	232	254	94	312	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-1	-	-	0	-	-	0	-	-	1	-
Peak Hour Factor	67	67	67	67	67	67	67	67	67	67	67	67
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	197	6	43	3	4	15	13	346	379	140	466	9

Major/Minor	Minor1	Minor2	Major1	Major2
Conflicting Flow All	1323	1318	536	1338
Stage 1	563	563	-	751
Stage 2	760	755	-	587
Follow-up Headway	3.518	4.018	3.318	3.518
Pot Capacity-1 Maneuver	# 143	169	553	130
Stage 1	527	525	-	403
Stage 2	416	434	-	496
Time blocked-Platoon, %	-	-	-	-
Mov Capacity-1 Maneuver	# 110	129	553	95
Mov Capacity-2 Maneuver	# 110	129	-	95
Stage 1	515	513	-	394
Stage 2	313	340	-	442

Approach	NB	SB	SE	NW
HCM Control Delay, s	\$ 494	23.8	0.2	2.3
HCM LOS	F	C		

Minor Lane / Major Mvmt	NBLn1	NWL	NWT	NWR	SEL	SET	SER	SBLn1
Capacity (veh/h)	129	878	-	-	1087	-	-	214
HCM Lane V/C Ratio	1.909	0.16	-	-	0.012	-	-	0.105
HCM Control Delay (s)	\$ 494	9.878	0	-	8.353	0	-	23.8
HCM Lane LOS	F	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	19.415	0.567	-	-	0.038	-	-	0.346

Notes

~ : Volume Exceeds Capacity; \$ : Delay Exceeds 300 Seconds; Error : Computation Not Defined

Build Traffic Volumes - Signal  
 2: Main Street/Faculty Road & NYS Route 218

Weekday Peak AM Hour  
 6/20/2014

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	132	4	29	2	3	10	9	232	254	94	312	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-1%			0%			0%			1%	
Storage Length (ft)	0		25	0		0	0		0	0		0
Storage Lanes	0		1	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
Fr			0.850		0.908			0.931			0.998	
Flt Protected		0.954			0.993			0.999			0.989	
Satd. Flow (prot)	0	1786	1591	0	1680	0	0	1732	0	0	1829	0
Flt Permitted		0.716			0.957			0.988			0.734	
Satd. Flow (perm)	0	1340	1591	0	1619	0	0	1713	0	0	1358	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			38		15			127			2	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		328			333			281			405	
Travel Time (s)		7.5			7.6			6.4			9.2	
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67
Adj. Flow (vph)	197	6	43	3	4	15	13	346	379	140	466	9
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	203	43	0	22	0	0	738	0	0	615	0
Enter Blocked Intersection	No											
Lane Alignment	Left	Left	Right									
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	1.00	1.00	1.00	1.00	1.00	1.00	1.01	1.01	1.01
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2		1	2		1	2	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	83	35	20	83		20	83		20	83	
Trailing Detector (ft)	0	-5	-5	0	-5		0	-5		0	-5	
Detector 1 Position(ft)	0	-5	-5	0	-5		0	-5		0	-5	
Detector 1 Size(ft)	20	40	40	20	40		20	40		20	40	
Detector 1 Type	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex		CI+Ex	CI+Ex		CI+Ex	CI+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		43			43			43			43	
Detector 2 Size(ft)		40			40			40			40	
Detector 2 Type		CI+Ex			CI+Ex			CI+Ex			CI+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			4			8	
Permitted Phases	2		2	6			4			8		

Build Traffic Volumes - Signal  
2: Main Street/Faculty Road & NYS Route 218

Weekday Peak AM Hour  
6/20/2014



Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Detector Phase	2	2	2	6	6		4	4		8	8	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0	21.0	21.0	21.0		21.0	21.0		21.0	21.0	
Total Split (s)	25.0	25.0	25.0	25.0	25.0		35.0	35.0		35.0	35.0	
Total Split (%)	41.7%	41.7%	41.7%	41.7%	41.7%		58.3%	58.3%		58.3%	58.3%	
Maximum Green (s)	20.0	20.0	20.0	20.0	20.0		30.0	30.0		30.0	30.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0			0.0			0.0	
Total Lost Time (s)		5.0	5.0		5.0			5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None	None	Min	Min		None	None		None	None	
Walk Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0	0	0	0		0	0		0	0	
Act Effct Green (s)		13.2	13.2		13.2			29.7			29.7	
Actuated g/C Ratio		0.25	0.25		0.25			0.56			0.56	
v/c Ratio		0.61	0.10		0.05			0.73			0.81	
Control Delay		25.9	7.0		9.5			14.0			22.3	
Queue Delay		0.0	0.0		0.0			0.0			0.0	
Total Delay		25.9	7.0		9.5			14.0			22.3	
LOS		C	A		A			B			C	
Approach Delay		22.6			9.5			14.0			22.3	
Approach LOS		C			A			B			C	
Queue Length 50th (ft)		56	1		2			118			133	
Queue Length 95th (ft)		76	11		10			165			192	
Internal Link Dist (ft)		248			253			201			325	
Turn Bay Length (ft)			25									
Base Capacity (vph)		510	629		625			1033			777	
Starvation Cap Reductn		0	0		0			0			0	
Spillback Cap Reductn		0	0		0			0			0	
Storage Cap Reductn		0	0		0			0			0	
Reduced v/c Ratio		0.40	0.07		0.04			0.71			0.79	

Intersection Summary

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 53  
 Natural Cycle: 60  
 Control Type: Actuated-Uncoordinated  
 Maximum v/c Ratio: 0.81  
 Intersection Signal Delay: 18.4  
 Intersection Capacity Utilization 76.9%  
 Analysis Period (min) 15  
 Intersection LOS: B  
 ICU Level of Service D

Build Traffic Volumes - Signal  
 2: Main Street/Faculty Road & NYS Route 218

Weekday Peak AM Hour  
 6/20/2014

Splits and Phases: 2: Main Street/Faculty Road & NYS Route 218

 25 s	 35 s
 25 s	 35 s

Build Traffic Volumes  
1: U.S. ROUTE 9W & Office/Site Access

Weekday Peak PM Hour  
6/23/2014



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕	↗		↔		↖	↕↔		↖	↕↕	↗
Volume (vph)	170	0	244	2	0	2	269	977	2	2	491	108
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			0%			-1%			0%	
Storage Length (ft)	0		0	0		0	350		0	125		250
Storage Lanes	0		1	0		0	1		0	1		1
Taper Length (ft)	25			25			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.850		0.932							0.850
Flt Protected		0.950			0.976		0.950			0.950		
Satd. Flow (prot)	0	1770	1583	0	1694	0	1778	3557	0	1770	3539	1583
Flt Permitted		0.755			0.925		0.354			0.244		
Satd. Flow (perm)	0	1406	1583	0	1606	0	663	3557	0	455	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			265		76							117
Link Speed (mph)		30			30			30				30
Link Distance (ft)		260			140			614				780
Travel Time (s)		5.9			3.2			14.0				17.7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	185	0	265	2	0	2	292	1062	2	2	534	117
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	185	265	0	4	0	292	1064	0	2	534	117
Enter Blocked Intersection	No											
Lane Alignment	Left	Left	Right									
Median Width(ft)		0			0			12				12
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.99	0.99	0.99	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	2	1	1		2	0		2	0	2
Detector Template	Left			Left								
Leading Detector (ft)	20	83	83	20	35		83	0		83	0	83
Trailing Detector (ft)	0	-5	-5	0	-5		-5	0		-5	0	-5
Detector 1 Position(ft)	0	-5	-5	0	-5		-5	-5		-5	-5	-5
Detector 1 Size(ft)	20	40	40	20	40		40	40		40	40	40
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		43	43				43			43		43
Detector 2 Size(ft)		40	40				40			40		40
Detector 2 Type		Cl+Ex	Cl+Ex				Cl+Ex			Cl+Ex		Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0	0.0				0.0			0.0		0.0
Turn Type	Perm	NA	Perm	Perm	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases		3		3	3		1	6		5	2	
Permitted Phases	3		3	3			6			2		2

Build Traffic Volumes  
1: U.S. ROUTE 9W & Office/Site Access

Weekday Peak PM Hour  
6/23/2014

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Detector Phase	3	3	3	3	3		1	6		5	2	2
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	21.0	21.0	21.0	21.0	21.0		9.0	21.0		9.0	21.0	21.0
Total Split (s)	35.0	35.0	35.0	35.0	35.0		20.0	45.0		20.0	45.0	45.0
Total Split (%)	35.0%	35.0%	35.0%	35.0%	35.0%		20.0%	45.0%		20.0%	45.0%	45.0%
Maximum Green (s)	30.0	30.0	30.0	30.0	30.0		15.0	40.0		15.0	40.0	40.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0		0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	5.0
Lead/Lag							Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	Max	Max	Max	Max	Max		None	Max		None	Max	Max
Act Effct Green (s)		30.0	30.0		30.0		57.9	55.8		45.7	40.0	40.0
Actuated g/C Ratio		0.31	0.31		0.31		0.59	0.57		0.47	0.41	0.41
v/c Ratio		0.43	0.40		0.01		0.54	0.53		0.01	0.37	0.16
Control Delay		31.4	5.3		0.0		13.8	14.7		9.0	21.4	4.3
Queue Delay		0.0	0.0		0.0		0.0	0.0		0.0	0.0	0.0
Total Delay		31.4	5.3		0.0		13.8	14.7		9.0	21.4	4.3
LOS		C	A		A		B	B		A	C	A
Approach Delay		16.0			0.0			14.5			18.3	
Approach LOS		B			A			B			B	
Queue Length 50th (ft)		92	0		0		82	188		1	120	0
Queue Length 95th (ft)		160	57		0		128	314		3	167	34
Internal Link Dist (ft)		180			60			534			700	
Turn Bay Length (ft)							350			125		250
Base Capacity (vph)		430	668		545		563	2026		456	1446	716
Starvation Cap Reductn		0	0		0		0	0		0	0	0
Spillback Cap Reductn		0	0		0		0	0		0	0	0
Storage Cap Reductn		0	0		0		0	0		0	0	0
Reduced v/c Ratio		0.43	0.40		0.01		0.52	0.53		0.00	0.37	0.16

Intersection Summary

Area Type: Other  
 Cycle Length: 100  
 Actuated Cycle Length: 97.9  
 Natural Cycle: 55  
 Control Type: Semi Act-Uncoord  
 Maximum v/c Ratio: 0.54  
 Intersection Signal Delay: 15.8  
 Intersection Capacity Utilization 59.0%  
 Analysis Period (min) 15

Intersection LOS: B  
 ICU Level of Service B

Splits and Phases: 1: U.S. ROUTE 9W & Office/Site Access

p1	p2	p3
20 s	45 s	35 s
p5	p6	
20 s	45 s	

Build Traffic Volumes  
2: Main Street/Faculty Road & NYS Route 218

Weekday Peak PM Hour  
6/20/2014

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	124	4	17	4	6	37	33	301	157	15	312	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-1%			0%			0%			1%	
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
Friction		0.984			0.894			0.957			0.996	
Fit Protected		0.959			0.996			0.997			0.998	
Satd. Flow (prot)	0	1767	0	0	1659	0	0	1777	0	0	1842	0
Fit Permitted		0.959			0.996			0.997			0.998	
Satd. Flow (perm)	0	1767	0	0	1659	0	0	1777	0	0	1842	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		328			333			281			405	
Travel Time (s)		7.5			7.6			6.4			9.2	
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67
Adj. Flow (vph)	185	6	25	6	9	55	49	449	234	22	466	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	216	0	0	70	0	0	732	0	0	504	0
Enter Blocked Intersection	No	No	No	No	No	No						
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	1.00	1.00	1.00	1.00	1.00	1.00	1.01	1.01	1.01
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type: Other  
 Control Type: Unsignalized  
 Intersection Capacity Utilization 59.5% ICU Level of Service B  
 Analysis Period (min) 15

Build Traffic Volumes  
2: Main Street/Faculty Road & NYS Route 218

Weekday Peak PM Hour  
6/20/2014

Intersection												
Intersection Delay, s/veh	43.4											
Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Vol, veh/h	124	4	17	4	6	37	33	301	157	15	312	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-1	-	-	0	-	-	0	-	-	1	-
Peak Hour Factor	67	67	67	67	67	67	67	67	67	67	67	67
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	185	6	25	6	9	55	49	449	234	22	466	16

Major/Minor	Minor1			Minor2			Major1			Major2		
Conflicting Flow All	1216	1192	566	1200	1301	474	482	0	0	684	0	0
Stage 1	665	665	-	519	519	-	-	-	-	-	-	-
Stage 2	551	527	-	681	782	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	# 169	200	532	162	161	590	1081	-	-	909	-	-
Stage 1	466	475	-	540	533	-	-	-	-	-	-	-
Stage 2	535	544	-	440	405	-	-	-	-	-	-	-
Time blocked-Platoon, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Capacity-1 Maneuver	# 134	179	532	138	144	590	1081	-	-	909	-	-
Mov Capacity-2 Maneuver	# 134	179	-	138	144	-	-	-	-	-	-	-
Stage 1	431	439	-	499	515	-	-	-	-	-	-	-
Stage 2	461	526	-	382	374	-	-	-	-	-	-	-

Approach	NB	SB	SE	NW
HCM Control Delay, s	297.1	17.8	0.6	0.4
HCM LOS	F	C		

Minor Lane / Major Mvmt	NBLn1	NWL	NWT	NWR	SEL	SET	SER	SBLn1
Capacity (veh/h)	148	909	-	-	1081	-	-	352
HCM Lane V/C Ratio	1.462	0.025	-	-	0.046	-	-	0.199
HCM Control Delay (s)	297.1	9.06	0	-	8.489	0	-	17.8
HCM Lane LOS	F	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	14.248	0.076	-	-	0.143	-	-	0.731

Notes  
~ : Volume Exceeds Capacity; \$ : Delay Exceeds 300 Seconds; Error ; Computation Not Defined

Build Traffic Volumes - Signal  
2: Main Street/Faculty Road & NYS Route 218

Weekday Peak PM Hour  
6/20/2014



Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations		↕	↗		↕			↕			↕	
Volume (vph)	124	4	17	4	6	37	33	301	157	15	312	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-1%			0%			0%			1%	
Storage Length (ft)	0		25	0		0	0		0	0		0
Storage Lanes	0		1	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
Frt			0.850		0.894			0.957			0.996	
Flt Protected		0.954			0.996			0.997			0.998	
Satd. Flow (prot)	0	1786	1591	0	1659	0	0	1777	0	0	1842	0
Flt Permitted		0.682			0.970			0.945			0.960	
Satd. Flow (perm)	0	1277	1591	0	1615	0	0	1685	0	0	1772	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			36		55			56			4	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		328			333			281			405	
Travel Time (s)		7.5			7.6			6.4			9.2	
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67
Adj. Flow (vph)	185	6	25	6	9	55	49	449	234	22	466	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	191	25	0	70	0	0	732	0	0	504	0
Enter Blocked Intersection	No											
Lane Alignment	Left	Left	Right									
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	1.00	1.00	1.00	1.00	1.00	1.00	1.01	1.01	1.01
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2		1	2		1	2	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	83	35	20	83		20	83		20	83	
Trailing Detector (ft)	0	-5	-5	0	-5		0	-5		0	-5	
Detector 1 Position(ft)	0	-5	-5	0	-5		0	-5		0	-5	
Detector 1 Size(ft)	20	40	40	20	40		20	40		20	40	
Detector 1 Type	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex		CI+Ex	CI+Ex		CI+Ex	CI+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		43			43			43			43	
Detector 2 Size(ft)		40			40			40			40	
Detector 2 Type		CI+Ex			CI+Ex			CI+Ex			CI+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			4			8	
Permitted Phases	2		2	6			4			8		

Build Traffic Volumes - Signal  
 2: Main Street/Faculty Road & NYS Route 218

Weekday Peak PM Hour  
 6/20/2014

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Detector Phase	2	2	2	6	6		4	4		8	8	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0		20.0	20.0		20.0	20.0	
Total Split (s)	25.0	25.0	25.0	25.0	25.0		35.0	35.0		35.0	35.0	
Total Split (%)	41.7%	41.7%	41.7%	41.7%	41.7%		58.3%	58.3%		58.3%	58.3%	
Maximum Green (s)	20.0	20.0	20.0	20.0	20.0		30.0	30.0		30.0	30.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0			0.0			0.0	
Total Lost Time (s)		5.0	5.0		5.0			5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Min	Min	Min	Min	Min		None	None		None	None	
Act Effct Green (s)		12.8	12.8		12.8			24.3			24.3	
Actuated g/C Ratio		0.27	0.27		0.27			0.51			0.51	
v/c Ratio		0.56	0.06		0.15			0.83			0.56	
Control Delay		23.2	4.9		7.2			20.2			11.3	
Queue Delay		0.0	0.0		0.0			0.0			0.0	
Total Delay		23.2	4.9		7.2			20.2			11.3	
LOS		C	A		A			C			B	
Approach Delay		21.0			7.2			20.2			11.3	
Approach LOS		C			A			C			B	
Queue Length 50th (ft)		50	0		3			138			82	
Queue Length 95th (ft)		72	6		16			191			125	
Internal Link Dist (ft)		248			253			201			325	
Turn Bay Length (ft)			25									
Base Capacity (vph)		567	727		748			1142			1183	
Starvation Cap Reductn		0	0		0			0			0	
Spillback Cap Reductn		0	0		0			0			0	
Storage Cap Reductn		0	0		0			0			0	
Reduced v/c Ratio		0.34	0.03		0.09			0.64			0.43	

Intersection Summary:

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 47.7  
 Natural Cycle: 60  
 Control Type: Actuated-Uncoordinated  
 Maximum v/c Ratio: 0.83  
 Intersection Signal Delay: 16.8  
 Intersection Capacity Utilization 60.1%  
 Analysis Period (min) 15  
 Intersection LOS: B  
 ICU Level of Service B

Splits and Phases: 2: Main Street/Faculty Road & NYS Route 218

↑ p2	↘ p4
25 s	35 s
↓ p6	↙ p8
25 s	35 s

