

**KENNETH SCHMITT**  
*Town Supervisor*

**TOWN OF CARMEL**  
**TOWN HALL**

**ANN SPOFFORD**  
*Town Clerk*

**FRANK D. LOMBARDI**  
*Town Councilman*  
*Deputy Supervisor*

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**KATHLEEN KRAUS**  
*Receiver of Taxes*

**JOHN D. LUPINACCI**  
*Town Councilman*  
**SUZANNE MC DONOUGH**  
*Town Councilwoman*  
**JONATHAN SCHNEIDER**  
*Town Councilman*

**MICHAEL SIMONE**  
*Superintendent of Highways*  
Tel. (845) 628-7474

**TOWN BOARD WORK SESSION**  
**Wednesday, October 26, 2016 7:00pm**

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**Pledge of Allegiance – Moment of Silence**

**6:30PM Executive Session:**

1. Victor Cornelius- Endeavor Municipal Development, Inc., Contractual

**Town Board Work Session:**

- Review of Town Board Minutes – October 19, 2016
- 1. Jeff Contelmo, PE, Insite Engineering – Review of Full EAF – Proposed Community Center, Sycamore Park
- 2. Consider Additions to the Active List of the Mahopac Volunteer Fire Department
- 3. Michael Carnazza, Building and Codes Enforcer – Consider Request to Attend Annual Training Seminar 11/2 through 11/4/2016 at the Best Western Plus – Kingston, NY (\$325)
- 4. Consider Amendment to Lease Agreement (NICE) for Recorder in the Town of Carmel Police Department
- 5. Consider Accepting Commitment Letter from Local Initiatives Support Corporation Program Action #47377-000 (\$169,700.00) Zombie Home Remediation Grant
- 6. Councilman John Lupinacci – Discussion on a Proposed Local Law Regarding Ice Retardant Systems
- 7. Councilman Frank Lombardi – Discussion of Proposed Local Law Regarding Alarm Devices and Systems
- **Public Comment (Three (3) Minutes on Agenda Items Only)**
- **Town Board Member Comments**

**Open Forum:**

- **Public Comments on New Town Related Business (Three (3) Minutes Maximum per Speaker for Town Residents, Property Owners & Business Owners Only)**
- **Town Board Member Comments**
- **Adjournment**

**Executive Session:**

1. Michael Carnazza, Building & Codes Enforcer – Personnel Budget Y/E 2017
2. Glenn Droese, Town Assessor – Personnel Budget Y/E 2017



October 20, 2016

Town of Carmel  
Town Board  
Town Hall, 60 McAlpin Avenue  
Mahopac, New York 10541

RE: Sycamore Park  
Community Recreation Center

Dear Supervisor Schmitt and Members of the Board:

Our office has advanced the site plans and the analysis of the project within Parts 1, 2 and 3 of the Environmental Assessment Form (EAF).

Enclosed please find six (6) copies of the Full Environmental Assessment Form (EAF) and Supplemental Reports prepared for the project. This information is submitted for your Board's use as Lead Agency for SEQRA review of the project. It is our opinion that the submitted information is adequate for the Board to make a determination of significance under SEQRA. This is an important next step to advance the project and related permitting.


Please place the project on the Board's October 26, 2016 meeting agenda.

Should you have any questions or comments regarding this information, please feel free to contact our office.

Very truly yours,

INSITE ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.

By:

  
Jeffrey J. Contelmo, PE  
Senior Principal Engineer

JJC/amh

Enclosures

cc: Richard Franzetti, P.E. w/enclosure  
Jim Gilchrist w/enclosure

Insite File No. 14112.100



**FULL ENVIRONMENTAL ASSESSMENT FORM  
&  
SUPPLEMENTAL REPORTS**

**For  
Community Recreation Center  
at Sycamore Park  
790 Long Pond Road  
Town of Carmel**

**October 19, 2016**

**Owner / Applicant:**

Town of Carmel  
60 McAlpin Avenue  
Mahopac, NY 10541  
c/o Jim Gilchrist  
845-628-7888  
jrg@ci.carmel.ny.us

**Engineer, Surveyor and Landscape Architect:**

Insite Engineering, Surveying & Landscape Architecture, P.C.  
3 Garrett Place  
Carmel, New York 10512  
845-225-9690

Prepared by:  
Insite Engineering, Surveying & Landscape Architecture, P.C.  
3 Garrett Place  
Carmel, New York 10512

## CONTENTS

**FULL ENVIRONMENTAL ASSESSMENT FORM PART 1**

**FULL ENVIRONMENTAL ASSESSMENT FORM PART 2**

**FULL ENVIRONMENTAL ASSESSMENT FORM PART 3**

**APPENDIX A** Stormwater Pollution Prevention Plan Narrative dated October 14, 2016  
**APPENDIX B** Wastewater and Water Facilities Engineer's Report dated September 2, 2016  
**APPENDIX C** NYSDEC New York Natural Heritage Program Letter dated September 10, 2015  
**APPENDIX D** New York Parks, Recreation, and Historic Preservation Letter dated August 22, 2016

### **DRAWINGS**

*(11 X 17 not to scale copies of the following drawings have been included for informational purposes.)*

- Site Plan Drawing Set (5 sheets)
- Architectural Drawings (2 sheets)

## **FULL ENVIRONMENTAL ASSESSMENT FORM 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 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: Community Recreation Center at Sycamore Park		
Project Location (describe, and attach a general location map): 790 Long Pond Road (County Rd # 32), Putnam County, Town of Carmel		
Brief Description of Proposed Action (include purpose or need): Town of Carmel is planning the development of a Community Recreation Center and related site improvements at Sycamore Park, in Mahopac. The project site is on the 40 acre property located on Long Pond Road (County Route 32). The site is currently developed as a Town Park that includes natural turf multipurpose athletic fields, park support buildings, children's playground, picnic area, parking areas, entrance drives, accessible paths to facilities and other park amenities. The Town seeks to take the next step in implementing the Sycamore Park Site Master Plan. This plan includes the following improvements: <ul style="list-style-type: none"> <li>• Relocation/realignment of the west park entrance drive at its intersection with Long Pond Road (County Route 32).</li> <li>• Construction of a new maintenance drive connection at the west side of the park.</li> <li>• Construction of a new 18,000 sf Community Recreation Center building and supporting water supply system, wastewater disposal system, and stormwater management system.</li> <li>• Construction of new and expanded parking areas to support the new Community Recreation Center building (approximately 91 parking spaces) and supporting stormwater management system.</li> <li>• Demolition and removal of existing small maintenance buildings and siting of future 3,000 sf maintenance building.</li> </ul>		
Name of Applicant/Sponsor: Town of Carmel		Telephone: 845-628-7888 (Jim Gilchrist) E-Mail: jrg@ci.carmel.ny.us
Address: 60 McAlpin Avenue		
City/PO: Mahopac	State: New York	Zip Code: 10541
Project Contact (if not same as sponsor; give name and title/role): Jeffrey J. Contelmo, P.E. / Insite Engineering, Surveying & Landscape Architecture, PC		Telephone: 845-225-9690 E-Mail: jcontelmo@insite-eng.com
Address: 3 Garrett Place		
City/PO: Carmel	State: New York	Zip Code: 10512
Property Owner (if not same as sponsor): Town of Carmel		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, <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No or Village Board of Trustees	Project Funding	
b. City, Town or Village Planning Board or Commission <input type="checkbox"/> Yes <input type="checkbox"/> No		
c. City Council, Town or Village Zoning Board of Appeals <input type="checkbox"/> Yes <input type="checkbox"/> No		
d. Other local agencies <input type="checkbox"/> Yes <input type="checkbox"/> No		
e. County agencies <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	PCDOH - water and sewer PCH&F - County Rd Work Permit	
f. Regional agencies <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	NYCDEP - SPPPP; Sewer	
g. State agencies <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	NYSDEC - GP-0-15-002 Coverage, Freshwater Wetlands Permit, & Sewer SPDES for Wastewater	
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 type="checkbox"/> Yes <input checked="" 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

### 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):

NYC Watershed Boundary

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):

Town of Carmel Recreation and Parks Master Plan

### 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?

site is located in both the Residential Zone and the Recreation / Trailway Zone

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? \_\_\_\_\_

### C.4. Existing community services.

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

b. What police or other public protection forces serve the project site?

Carmel Police Department

c. Which fire protection and emergency medical services serve the project site?

Mahopac Volunteer Fire Department

d. What parks serve the project site?

Subject site is a 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)? Recreational

b. a. Total acreage of the site of the proposed action? 40.9 ± acres

b. Total acreage to be physically disturbed? 5.4 ± acres

c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 40.9 ± 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)? % 0 - Action is within existing developed area Units: 21,000 sf building and 91 parking spaces

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 \_\_\_\_\_

e. Will proposed action be constructed in multiple phases? ☐ Yes ☒ No

i. If No, anticipated period of construction: 16 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

## One Family

## Two Family

### Three Family

Multiple Family (four or more)

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☒ Yes ☐ No

i. Total number of structures \_\_\_\_\_ 2

iii. Approximate extent of building space to be heated or cooled: 21,000 sf square feet

☒ Yes ☐ No

i. Purpose of the impoundment: Temporary impoundment of stormwater runoff

□

Ground water

□ Surface

☒ Other specify:

## Stormwater runoff

(1) 0.10 (2) 0.04 (3) 0.02

(1) 0.11 ac (2) 0.09 ac (3) 0.05 ac

Volume:

Max 5' height

190 length

## Earthen Berm

a. Does the proposed action include any excavation, mining, or dredging, during construction, operations, or both?

☒ Yes ☐ No

If Yes:

i. What is the purpose of the excavation or dredging? Site preparation

- Volume (specify tons or cubic yards): 20,000 cy

- Over what duration of time? 3 months

☒ Yes ☐ No

If yes, describe. Temporary dewatering and processing of rock for onsite use.

5.4± acres

5.0 acres

18± feet

☒ Yes ☐ No

Process rock for subbase, crushed stone and rip rap for onsite use. Excess to be trucked off site.

☒ Yes ☐ No

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

description): 100' Town regulated watercourse buffer and 100' adjacent area of NYSDEC FWW LC-22. No disturbance to wetland or watercourse.

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:  
Site grading, but no wetland disturbance.

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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: \_\_\_\_\_

Reclamation will be with paved surfaces and landscaping as depicted on the site plans

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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: \_\_\_\_\_ Approximately 1,000 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: \_\_\_\_\_
- 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: New well

vi. If water supply will be from wells (public or private), maximum pumping capacity: 10 gallons/minute.

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d. Will the proposed action generate liquid wastes? ☒ Yes ☐ No  
 If Yes:

i. Total anticipated liquid waste generation per day: \_\_\_\_\_ 1,000 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

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iii. Will the proposed action use any existing public wastewater treatment facilities? ☐ Yes ☒ No  
 If Yes:

- Name of wastewater treatment plant to be used: \_\_\_\_\_
- 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: \_\_\_\_\_

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):

New subsurface sewage treatment system discharging to groundwater.

vi. Describe any plans or designs to capture, recycle or reuse liquid waste: None

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 1.0± acres (impervious surface)

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

ii. Describe types of new point sources. New recreation building and parking area; new maintenance building and driveway improvements.

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 stormwater management facilities / structures.

- If to surface waters, identify receiving water bodies or wetlands: Long Pond, NYSDEC WL #LC-22

- 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)

Heavy equipment during construction.

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

Crushers during construction.

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

Boiler for recreation center.

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)

<p>h. Will the proposed action generate or emit methane (including, but not limited to, sewage treatment plants, landfills, composting facilities)? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span></p> <p>If Yes:</p> <p>i. Estimate methane generation in tons/year (metric): _____</p> <p>ii. Describe any methane capture, control or elimination measures included in project design (e.g., combustion to generate heat or electricity, flaring): _____</p>			
<p>i. Will the proposed action result in the release of air pollutants from open-air operations or processes, such as quarry or landfill operations? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span></p> <p>If Yes: Describe operations and nature of emissions (e.g., diesel exhaust, rock particulates/dust): _____</p>			
<p>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? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span></p> <p>If Yes:</p> <p>i. When is the peak traffic expected (Check all that apply): <input type="checkbox"/> Morning <input type="checkbox"/> Evening <input type="checkbox"/> Weekend  <input type="checkbox"/> Randomly between hours of _____ to _____.</p> <p>ii. For commercial activities only, projected number of semi-trailer truck trips/day: _____ N/A</p> <p>iii. Parking spaces: Existing <u>135</u> Proposed <u>91 new</u> Net increase/decrease <u>84</u></p> <p>iv. Does the proposed action include any shared use parking? <span style="float: right;"><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</span></p> <p>v. If the proposed action includes any modification of existing roads, creation of new roads or change in existing access, describe:  <u>Western entry drive will be widened to accommodate 2 way traffic. Eastern entrance will be changed to right turn only. Western entrance will be simplified by the elimination of separate maintenance entrance.</u></p> <p>vi. Are public/private transportation service(s) or facilities available within ½ mile of the proposed site? <span style="float: right;"><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</span></p> <p>vii. Will the proposed action include access to public transportation or accommodations for use of hybrid, electric or other alternative fueled vehicles? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span></p> <p>viii. Will the proposed action include plans for pedestrian or bicycle accommodations for connections to existing pedestrian or bicycle routes? <span style="float: right;"><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</span></p>			
<p>k. Will the proposed action (for commercial or industrial projects only) generate new or additional demand for energy? <span style="float: right;"><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</span></p> <p>If Yes:</p> <p>i. Estimate annual electricity demand during operation of the proposed action: <u>TBD</u></p> <p>ii. Anticipated sources/suppliers of electricity for the project (e.g., on-site combustion, on-site renewable, via grid/local utility, or other):  <u>Local utility</u></p> <p>iii. Will the proposed action require a new, or an upgrade to, an existing substation? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span></p>			
<p>l. Hours of operation. Answer all items which apply.</p> <table style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <p>i. During Construction:</p> <ul style="list-style-type: none"> <li>• Monday - Friday: <u>7 am to 6 pm</u></li> <li>• Saturday: <u>8 am to 5 pm</u></li> <li>• Sunday: <u>0</u></li> <li>• Holidays: <u>0</u></li> </ul> </td> <td style="width: 50%; vertical-align: top;"> <p>ii. During Operations:</p> <ul style="list-style-type: none"> <li>• Monday - Friday: <u>8 am to 10 pm</u></li> <li>• Saturday: <u>8 am to 10 pm</u></li> <li>• Sunday: <u>8 am to 10 pm</u></li> <li>• Holidays: <u>8 am to 10 pm</u></li> </ul> </td> </tr> </table>		<p>i. During Construction:</p> <ul style="list-style-type: none"> <li>• Monday - Friday: <u>7 am to 6 pm</u></li> <li>• Saturday: <u>8 am to 5 pm</u></li> <li>• Sunday: <u>0</u></li> <li>• Holidays: <u>0</u></li> </ul>	<p>ii. During Operations:</p> <ul style="list-style-type: none"> <li>• Monday - Friday: <u>8 am to 10 pm</u></li> <li>• Saturday: <u>8 am to 10 pm</u></li> <li>• Sunday: <u>8 am to 10 pm</u></li> <li>• Holidays: <u>8 am to 10 pm</u></li> </ul>
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<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 checked="" type="checkbox"/> Yes <input type="checkbox"/> No</span></p> <p>If yes:</p> <p>i. Provide details including sources, time of day and duration:  <u>During construction only for construction equipment during noted construction hours.</u></p>	
<p>ii. Will proposed action remove existing natural barriers that could act as a noise barrier or screen? <span style="float: right;"><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</span></p> <p>Describe: <u>Perimeter vegetation will be retained to greatest extent practicable. Earthen barriers will be removed.</u></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:  <u>Building mounted and pole lighting, full cut off LED fixtures. Nearest residence 100 feet ± to closest lighting.</u></p>	
<p>ii. Will proposed action remove existing natural barriers that could act as a light barrier or screen? <span style="float: right;"><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</span></p> <p>Describe: <u>Perimeter vegetation will be retained to greatest extent practicable. Earthen barriers will be removed.</u></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. 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>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 checked="" type="checkbox"/> Yes <input type="checkbox"/> No</span></p> <p>If Yes:</p> <p>i. Describe proposed treatment(s):  <u>In accordance with Town standards pesticides used only when needed.</u></p>	
<p>ii. Will the proposed action use Integrated Pest Management Practices? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" 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 type="checkbox"/> Yes <input type="checkbox"/> No</span></p> <p style="text-align: right;">N/A - Recreation Project</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: _____</li> <li>• Operation: _____</li> </ul> <p>iii. Proposed disposal methods/facilities for solid waste generated on-site:</p> <ul style="list-style-type: none"> <li>• Construction: _____</li> <li>• Operation: _____</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

<b>E.1. Land uses on and surrounding the project site</b>			
a. Existing land uses.			
i. Check all uses that occur on, adjoining and near the project site.			
<input type="checkbox"/> Urban	<input type="checkbox"/> Industrial	<input type="checkbox"/> Commercial	<input checked="" type="checkbox"/> Residential (suburban) <input type="checkbox"/> Rural (non-farm)
<input type="checkbox"/> Forest	<input type="checkbox"/> Agriculture	<input type="checkbox"/> Aquatic	<input checked="" type="checkbox"/> Other (specify): <u>recreational</u>
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	3.0	4.0	±1.0
• Forested	5.3	4.5	-0.8
• Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural)	1.0	1.0	----
• Agricultural (includes active orchards, field, greenhouse etc.)	0	0	----
• Surface water features (lakes, ponds, streams, rivers, etc.)	0.1	0.1	----
• Wetlands (freshwater or tidal)	20.9	20.9	----
• Non-vegetated (bare rock, earth or fill)	0.8	0.8	----
• Other			
Describe: <u>Gravel</u>	0.7	0.6	-0.1
<u>Lawn</u>	9.1	9.0	-0.1
	40.9		

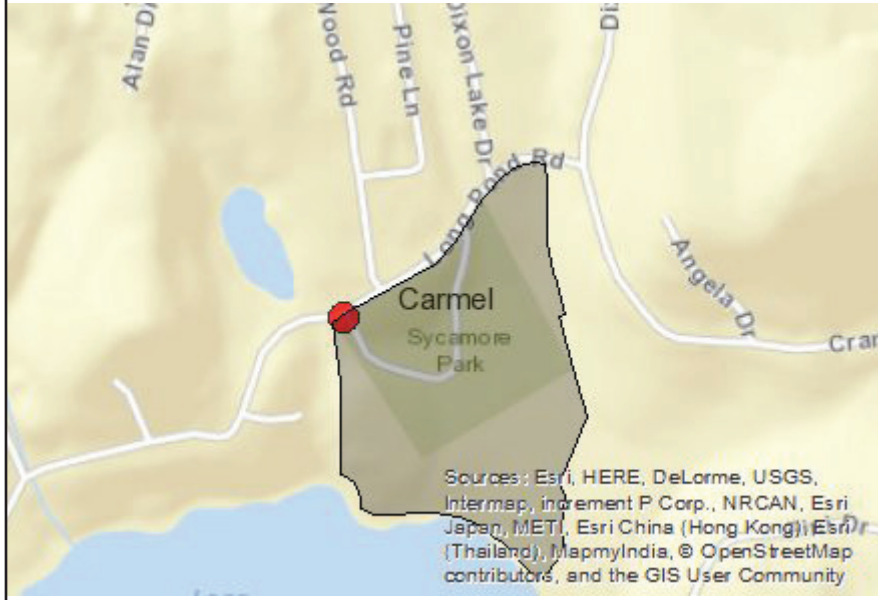
c. Is the project site presently used by members of the community for public recreation? <i>i.</i> If Yes: explain:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<hr/>	
d. Are there any facilities serving children, the elderly, people with disabilities (e.g., schools, hospitals, licensed day care centers, or group homes) within 1500 feet of the project site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
If Yes,	
<i>i.</i> Identify Facilities: McDonough Park (Town Park) Rock Hill Program Center (Girl Scout Facility)	
<hr/>	
e. Does the project site contain an existing dam?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
If Yes:	
<i>i.</i> Dimensions of the dam and impoundment:	
• Dam height: _____	feet
• Dam length: _____	feet
• Surface area: _____	acres
• Volume impounded: _____	gallons OR acre-feet
<i>ii.</i> Dam's existing hazard classification: _____	
<i>iii.</i> Provide date and summarize results of last inspection: _____ _____ _____	
<hr/>	
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?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
If Yes:	
<i>i.</i> Has the facility been formally closed? <span style="float:right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span>	
• If yes, cite sources/documentation: _____	
<i>ii.</i> Describe the location of the project site relative to the boundaries of the solid waste management facility: _____ _____	
<i>iii.</i> Describe any development constraints due to the prior solid waste activities: _____ _____	
<hr/>	
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?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
If Yes:	
<i>i.</i> Describe waste(s) handled and waste management activities, including approximate time when activities occurred: _____ _____	
<hr/>	
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?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
If Yes:	
<i>i.</i> Is any portion of the site listed on the NYSDEC Spills Incidents database or Environmental Site Remediation database? Check all that apply: <span style="float:right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span>	
<input type="checkbox"/> Yes – Spills Incidents database	Provide DEC ID number(s): _____
<input type="checkbox"/> Yes – Environmental Site Remediation database	Provide DEC ID number(s): _____
<input type="checkbox"/> Neither database	
<i>ii.</i> If site has been subject of RCRA corrective activities, describe control measures: _____ _____ _____	
<i>iii.</i> Is the project within 2000 feet of any site in the NYSDEC Environmental Site Remediation database? <span style="float:right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span>	
If yes, provide DEC ID number(s): _____	
<i>iv.</i> If yes to (i), (ii) or (iii) above, describe current status of site(s): _____ _____	

v. Is the project site subject to an institutional control limiting property uses? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span>													
<ul style="list-style-type: none"> <li>• If yes, DEC site ID number: _____</li> <li>• Describe the type of institutional control (e.g., deed restriction or easement): _____</li> <li>• Describe any use limitations: _____</li> <li>• Describe any engineering controls: _____</li> <li>• Will the project affect the institutional or engineering controls in place? <span style="float: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No</span></li> <li>• Explain: _____</li> </ul>													
<b>E.2. Natural Resources On or Near Project Site</b>													
a. What is the average depth to bedrock on the project site? <span style="float: right;">Surface to 10'+ feet</span>													
b. Are there bedrock outcroppings on the project site? <span style="float: right;"><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</span> If Yes, what proportion of the site is comprised of bedrock outcroppings? <span style="float: right;">5 %</span>													
c. Predominant soil type(s) present on project site: <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;"></td> <td style="width: 30%;">Charlton-Chatfield (CrC)</td> <td style="width: 10%; text-align: right;">17 %</td> </tr> <tr> <td>Leicester Loam</td> <td>5%</td> <td>Charlton-Hollis Rock (CtC)</td> </tr> <tr> <td>Charlton Loam</td> <td>5%</td> <td>Udorthents (Uc)</td> </tr> <tr> <td>Fluvaquents-Udifuvents (Ff)</td> <td>5%</td> <td></td> </tr> </table>			Charlton-Chatfield (CrC)	17 %	Leicester Loam	5%	Charlton-Hollis Rock (CtC)	Charlton Loam	5%	Udorthents (Uc)	Fluvaquents-Udifuvents (Ff)	5%	
	Charlton-Chatfield (CrC)	17 %											
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Charlton Loam	5%	Udorthents (Uc)											
Fluvaquents-Udifuvents (Ff)	5%												
d. What is the average depth to the water table on the project site? Average: <span style="float: right;">10'+ feet</span>													
e. Drainage status of project site soils: <table style="width: 100%; border-collapse: collapse;"> <tr> <td><input checked="" type="checkbox"/> Well Drained:</td> <td style="text-align: right;">52 % of site</td> </tr> <tr> <td><input type="checkbox"/> Moderately Well Drained:</td> <td style="text-align: right;">% of site</td> </tr> <tr> <td><input checked="" type="checkbox"/> Poorly Drained</td> <td style="text-align: right;">48 % of site</td> </tr> </table>		<input checked="" type="checkbox"/> Well Drained:	52 % of site	<input type="checkbox"/> Moderately Well Drained:	% of site	<input checked="" type="checkbox"/> Poorly Drained	48 % of site						
<input checked="" type="checkbox"/> Well Drained:	52 % of site												
<input type="checkbox"/> Moderately Well Drained:	% of site												
<input checked="" type="checkbox"/> Poorly Drained	48 % of site												
f. Approximate proportion of proposed action site with slopes: <table style="width: 100%; border-collapse: collapse;"> <tr> <td><input type="checkbox"/> 0-10%:</td> <td style="text-align: right;">82.8 % of site</td> </tr> <tr> <td><input type="checkbox"/> 10-15%:</td> <td style="text-align: right;">6.5 % of site</td> </tr> <tr> <td><input type="checkbox"/> 15% or greater:</td> <td style="text-align: right;">10.7 % of site</td> </tr> </table>		<input type="checkbox"/> 0-10%:	82.8 % of site	<input type="checkbox"/> 10-15%:	6.5 % of site	<input type="checkbox"/> 15% or greater:	10.7 % of site						
<input type="checkbox"/> 0-10%:	82.8 % of site												
<input type="checkbox"/> 10-15%:	6.5 % of site												
<input type="checkbox"/> 15% or greater:	10.7 % of site												
g. Are there any unique geologic features on the project site? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span> 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)? <span style="float: right;"><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</span>													
ii. Do any wetlands or other waterbodies adjoin the project site? <span style="float: right;"><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</span>													
If Yes to either <i>i</i> or <i>ii</i> , 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? <span style="float: right;"><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</span>													
iv. For each identified regulated wetland and waterbody on the project site, provide the following information: <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%;">• Streams:</td> <td style="width: 40%;">Name <u>864-227</u></td> <td style="width: 50%;">Classification <u>C</u></td> </tr> <tr> <td>• Lakes or Ponds:</td> <td>Name <u>Long Pond</u></td> <td>Classification _____</td> </tr> <tr> <td>• Wetlands:</td> <td>Name <u>Federal Waters, Federal Waters, Federal Waters,...</u></td> <td>Approximate Size <u>NYS Wetland (in a...</u></td> </tr> <tr> <td>• Wetland No. (if regulated by DEC)</td> <td colspan="2"><u>LC-22</u></td> </tr> </table>		• Streams:	Name <u>864-227</u>	Classification <u>C</u>	• Lakes or Ponds:	Name <u>Long Pond</u>	Classification _____	• Wetlands:	Name <u>Federal Waters, Federal Waters, Federal Waters,...</u>	Approximate Size <u>NYS Wetland (in a...</u>	• Wetland No. (if regulated by DEC)	<u>LC-22</u>	
• Streams:	Name <u>864-227</u>	Classification <u>C</u>											
• Lakes or Ponds:	Name <u>Long Pond</u>	Classification _____											
• Wetlands:	Name <u>Federal Waters, Federal Waters, Federal Waters,...</u>	Approximate Size <u>NYS Wetland (in a...</u>											
• Wetland No. (if regulated by DEC)	<u>LC-22</u>												
v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired waterbodies? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span> If yes, name of impaired water body/bodies and basis for listing as impaired: _____													
i. Is the project site in a designated Floodway? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span>													
j. Is the project site in the 100 year Floodplain? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span>													
k. Is the project site in the 500 year Floodplain? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span>													
l. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer? <span style="float: right;"><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</span> If Yes:													
i. Name of aquifer: <u>Principal Aquifer</u>													



m. Identify the predominant wildlife species that occupy or use the project site: _____ <div style="display: flex; justify-content: space-between;"> <div>           White-tailed deer _____            Grey Squirrel _____            American Crow _____         </div> <div>           Racoon _____            Eastern Chipmunk _____            Black-capped chickadee _____         </div> </div>	
n. Does the project site contain a designated significant natural community? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span> If Yes: i. Describe the habitat/community (composition, function, and basis for designation): _____ ii. Source(s) of description or evaluation: _____ iii. Extent of community/habitat: _____ • Currently: _____ 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? <span style="float: right;"><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</span> Per correspondence with NYSDEC New York Natural Heritage Program, the bog turtle has been documented generally within 0.5 miles and the Northern Longeared Bat has been documented within 5 miles of the project site. See attached correspondence.	
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? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span>	
q. Is the project site or adjoining area currently used for hunting, trapping, fishing or shell fishing? <span style="float: right;"><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</span> If yes, give a brief description of how the proposed action may affect that use: <u>Proposed project will not impact fishing opportunities. There are fishing opportunities for residents on Long Pond but, fishing is not permitting at Sycamore Park.</u>	
<b>E.3. Designated Public Resources On or Near Project Site</b>	
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? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span> If Yes, provide county plus district name/number: _____	
b. Are agricultural lands consisting of highly productive soils present? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span> 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? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span> If Yes: i. Nature of the natural landmark: <input type="checkbox"/> Biological Community <input type="checkbox"/> 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? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span> If Yes: i. CEA name: _____ ii. Basis for designation: _____ iii. Designating agency and date: _____	





**Disclaimer:** The EAF Mapper is a screening tool intended to assist project sponsors and reviewing agencies in preparing an environmental assessment form (EAF). Not all questions asked in the EAF are answered by the EAF Mapper. Additional information on any EAF question can be obtained by consulting the EAF Workbooks. Although the EAF Mapper provides the most up-to-date digital data available to DEC, you may also need to contact local or other data sources in order to obtain data not provided by the Mapper. Digital data is not a substitute for agency determinations.



B.i.i [Coastal or Waterfront Area]	No
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]	NYC Watershed Boundary
E.1.h [DEC Spills or Remediation Site - Potential Contamination History]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Listed]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Environmental Site Remediation Database]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.iii [Within 2,000' of DEC Remediation Site]	No
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 - Stream Name]	864-227
E.2.h.iv [Surface Water Features - Stream Classification]	C
E.2.h.iv [Surface Water Features - Wetlands Name]	Federal Waters, NYS Wetland
E.2.h.iv [Surface Water Features - Wetlands Size]	NYS Wetland (in acres):75.3
E.2.h.iv [Surface Water Features - DEC Wetlands Number]	LC-22

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]	No
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]	No
E.3.i. [Designated River Corridor]	No

## **FULL ENVIRONMENTAL ASSESSMENT FORM PART 2**

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

Agency Use Only [If applicable]

Project : \_\_\_\_\_

Date : \_\_\_\_\_

**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.

<b>1. Impact on Land</b> Proposed action may involve construction on, or physical alteration of, the land surface of the proposed site. (See Part 1. D.1) <i>If “Yes”, answer questions a - j. If “No”, move on to Section 2.</i> <div style="text-align: right;"> <input type="checkbox"/> NO      <input checked="" type="checkbox"/> YES         </div>			
	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	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. The proposed action may involve construction on slopes of 15% or greater.	E2f	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. The proposed action may involve construction on land where bedrock is exposed, or generally within 5 feet of existing ground surface.	E2a	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. The proposed action may involve the excavation and removal of more than 1,000 tons of natural material.	D2a	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. The proposed action may involve construction that continues for more than one year or in multiple phases.	D1e	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. The proposed action may result in increased erosion, whether from physical disturbance or vegetation removal (including from treatment by herbicides).	D2e, D2q	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g. The proposed action is, or may be, located within a Coastal Erosion hazard area.	B1i	<input checked="" type="checkbox"/>	<input type="checkbox"/>
h. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>

<b>2. Impact on Geological Features</b> 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) <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES <i>If "Yes", answer questions a - c. If "No", move on to Section 3.</i>			
	<b>Relevant Part I Question(s)</b>	<b>No, or small impact may occur</b>	<b>Moderate to large impact may occur</b>
a. Identify the specific land form(s) attached: _____	E2g	<input type="checkbox"/>	<input type="checkbox"/>
b. The proposed action may affect or is adjacent to a geological feature listed as a registered National Natural Landmark. Specific feature: _____	E3c	<input type="checkbox"/>	<input type="checkbox"/>
c. Other impacts: _____		<input type="checkbox"/>	<input type="checkbox"/>

<b>3. Impacts on Surface Water</b> 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) <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES <i>If "Yes", answer questions a - l. If "No", move on to Section 4.</i>			
	<b>Relevant Part I Question(s)</b>	<b>No, or small impact may occur</b>	<b>Moderate to large impact may occur</b>
a. The proposed action may create a new water body.	D2b, D1h	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. The proposed action may involve dredging more than 100 cubic yards of material from a wetland or water body.	D2a	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. The proposed action may create turbidity in a waterbody, either from upland erosion, runoff or by disturbing bottom sediments.	D2a, D2h	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. The proposed action may include construction of one or more intake(s) for withdrawal of water from surface water.	D2c	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g. The proposed action may include construction of one or more outfall(s) for discharge of wastewater to surface water(s).	D2d	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i. The proposed action may affect the water quality of any water bodies within or downstream of the site of the proposed action.	E2h	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j. The proposed action may involve the application of pesticides or herbicides in or around any water body.	D2q, E2h	<input type="checkbox"/>	<input checked="" type="checkbox"/>
k. The proposed action may require the construction of new, or expansion of existing, wastewater treatment facilities.	D1a, D2d	<input type="checkbox"/>	<input checked="" type="checkbox"/>

l. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>
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<b>4. Impact on groundwater</b> 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. (See Part 1. D.2.a, D.2.c, D.2.d, D.2.p, D.2.q, D.2.t) <i>If "Yes", answer questions a - h. If "No", move on to Section 5.</i>			
		<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
	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	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. The proposed action may allow or result in residential uses in areas without water and sewer services.	D1a, D2c	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. The proposed action may include or require wastewater discharged to groundwater.	D2d, E2l	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f. The proposed action may require the bulk storage of petroleum or chemical products over ground water or an aquifer.	D2p, E2l	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>

<b>5. Impact on Flooding</b> The proposed action may result in development on lands subject to flooding. (See Part 1. E.2) <i>If "Yes", answer questions a - g. If "No", move on to Section 6.</i>			
		<input type="checkbox"/> NO	<input checked="" type="checkbox"/> 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 development in a designated floodway.	E2i	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. The proposed action may result in development within a 100 year floodplain.	E2j	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. The proposed action may result in development within a 500 year floodplain.	E2k	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. The proposed action may result in, or require, modification of existing drainage patterns.	D2b, D2e	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. The proposed action may change flood water flows that contribute to flooding.	D2b, E2i, E2j, E2k	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f. If there is a dam located on the site of the proposed action, is the dam in need of repair, or upgrade?	E1e	<input checked="" type="checkbox"/>	<input type="checkbox"/>



g. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>
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<b>6. Impacts on Air</b> The proposed action may include a state regulated air emission source. (See Part 1. D.2.f., D.2.h, D.2.g) <i>If "Yes", answer questions a - f. If "No", move on to Section 7.</i>			
		<input checked="" type="checkbox"/> NO	<input type="checkbox"/> YES
	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 <sub>2</sub> )	D2g	<input type="checkbox"/>	<input type="checkbox"/>
ii. More than 3.5 tons/year of nitrous oxide (N <sub>2</sub> O)	D2g	<input type="checkbox"/>	<input type="checkbox"/>
iii. More than 1000 tons/year of carbon equivalent of perfluorocarbons (PFCs)	D2g	<input type="checkbox"/>	<input type="checkbox"/>
iv. More than .045 tons/year of sulfur hexafluoride (SF <sub>6</sub> )	D2g	<input type="checkbox"/>	<input type="checkbox"/>
v. More than 1000 tons/year of carbon dioxide equivalent of hydrochloroflourocarbons (HFCs) emissions	D2g	<input type="checkbox"/>	<input type="checkbox"/>
vi. 43 tons/year or more of methane	D2h	<input type="checkbox"/>	<input type="checkbox"/>
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	<input type="checkbox"/>	<input type="checkbox"/>
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	<input type="checkbox"/>	<input type="checkbox"/>
d. The proposed action may reach 50% of any of the thresholds in "a" through "c", above.	D2g	<input type="checkbox"/>	<input type="checkbox"/>
e. The proposed action may result in the combustion or thermal treatment of more than 1 ton of refuse per hour.	D2s	<input type="checkbox"/>	<input type="checkbox"/>
f. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>

<b>7. Impact on Plants and Animals</b> The proposed action may result in a loss of flora or fauna. (See Part 1. E.2. m.-q.) <i>If "Yes", answer questions a - j. If "No", move on to Section 8.</i>			
		<input type="checkbox"/> NO	<input type="checkbox"/> YES
	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	<input type="checkbox"/>	<input type="checkbox"/>
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	<input type="checkbox"/>	<input type="checkbox"/>
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	<input type="checkbox"/>	<input type="checkbox"/>
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	<input type="checkbox"/>	<input type="checkbox"/>

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	<input type="checkbox"/>	<input type="checkbox"/>
f. The proposed action may result in the removal of, or ground disturbance in, any portion of a designated significant natural community. Source: _____	E2n	<input type="checkbox"/>	<input type="checkbox"/>
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	<input type="checkbox"/>	<input type="checkbox"/>
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	<input type="checkbox"/>	<input type="checkbox"/>
i. Proposed action (commercial, industrial or recreational projects, only) involves use of herbicides or pesticides.	D2q	<input type="checkbox"/>	<input type="checkbox"/>
j. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>

<b>8. Impact on Agricultural Resources</b> The proposed action may impact agricultural resources. (See Part 1. E.3.a. and b.) <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES <i>If "Yes", answer questions a - h. If "No", move on to Section 9.</i>			
	<b>Relevant Part I Question(s)</b>	<b>No, or small impact may occur</b>	<b>Moderate to large impact may occur</b>
a. The proposed action may impact soil classified within soil group 1 through 4 of the NYS Land Classification System.	E2c, E3b	<input type="checkbox"/>	<input type="checkbox"/>
b. The proposed action may sever, cross or otherwise limit access to agricultural land (includes cropland, hayfields, pasture, vineyard, orchard, etc).	E1a, E1b	<input type="checkbox"/>	<input type="checkbox"/>
c. The proposed action may result in the excavation or compaction of the soil profile of active agricultural land.	E3b	<input type="checkbox"/>	<input type="checkbox"/>
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	<input type="checkbox"/>	<input type="checkbox"/>
e. The proposed action may disrupt or prevent installation of an agricultural land management system.	E1 a, E1b	<input type="checkbox"/>	<input type="checkbox"/>
f. The proposed action may result, directly or indirectly, in increased development potential or pressure on farmland.	C2c, C3, D2c, D2d	<input type="checkbox"/>	<input type="checkbox"/>
g. The proposed project is not consistent with the adopted municipal Farmland Protection Plan.	C2c	<input type="checkbox"/>	<input type="checkbox"/>
h. Other impacts: _____		<input type="checkbox"/>	<input type="checkbox"/>

<b>9. Impact on Aesthetic Resources</b> 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.) <i>If "Yes", answer questions a - g. If "No", go to Section 10.</i>			
		<input type="checkbox"/> NO	<input checked="" type="checkbox"/> 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	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. The proposed action may result in the obstruction, elimination or significant screening of one or more officially designated scenic views.	E3h, C2b	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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	<input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
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	<input checked="" type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input checked="" type="checkbox"/>
e. The proposed action may cause a diminishment of the public enjoyment and appreciation of the designated aesthetic resource.	E3h	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. There are similar projects visible within the following distance of the proposed project: 0-1/2 mile 1/2 -3 mile 3-5 mile 5+ mile	D1a, E1a, D1f, D1g	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>

<b>10. Impact on Historic and Archeological Resources</b> The proposed action may occur in or adjacent to a historic or archaeological resource. (Part 1. E.3.e, f. and g.) <i>If "Yes", answer questions a - e. If "No", go to Section 11.</i>			
		<input checked="" type="checkbox"/> NO	<input type="checkbox"/> 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	<input type="checkbox"/>	<input type="checkbox"/>
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	<input type="checkbox"/>	<input type="checkbox"/>
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	<input type="checkbox"/>	<input type="checkbox"/>

d. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>
e. If any of the above (a-d) are answered “Moderate to large impact may occur”, 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	<input type="checkbox"/>	<input type="checkbox"/>
ii. The proposed action may result in the alteration of the property’s setting or integrity.	E3e, E3f, E3g, E1a, E1b	<input type="checkbox"/>	<input type="checkbox"/>
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	<input type="checkbox"/>	<input type="checkbox"/>

<b>11. Impact on Open Space and Recreation</b> 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.) <i>If “Yes”, answer questions a - e. If “No”, go to Section 12.</i>			
		<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES
	<b>Relevant Part I Question(s)</b>	<b>No, or small impact may occur</b>	<b>Moderate to large impact may occur</b>
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	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. The proposed action may result in the loss of a current or future recreational resource.	C2a, E1c, C2c, E2q	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. The proposed action may eliminate open space or recreational resource in an area with few such resources.	C2a, C2c E1c, E2q	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. The proposed action may result in loss of an area now used informally by the community as an open space resource.	C2c, E1c	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>

<b>12. Impact on Critical Environmental Areas</b> The proposed action may be located within or adjacent to a critical environmental area (CEA). (See Part 1. E.3.d) <i>If “Yes”, answer questions a - c. If “No”, go to Section 13.</i>			
		<input checked="" type="checkbox"/> NO	<input type="checkbox"/> YES
	<b>Relevant Part I Question(s)</b>	<b>No, or small impact may occur</b>	<b>Moderate to large impact may occur</b>
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	<input type="checkbox"/>	<input type="checkbox"/>
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	<input type="checkbox"/>	<input type="checkbox"/>
c. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>

**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 - f. 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	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. The proposed action may result in the construction of paved parking area for 500 or more vehicles.	D2j	<input type="checkbox"/>	<input type="checkbox"/>
c. The proposed action will degrade existing transit access.	D2j	<input type="checkbox"/>	<input type="checkbox"/>
d. The proposed action will degrade existing pedestrian or bicycle accommodations.	D2j	<input type="checkbox"/>	<input type="checkbox"/>
e. The proposed action may alter the present pattern of movement of people or goods.	D2j	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Other impacts: _____		<input type="checkbox"/>	<input type="checkbox"/>

**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	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. The proposed action may utilize more than 2,500 MWhrs per year of electricity.	D2k	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. The proposed action may involve heating and/or cooling of more than 100,000 square feet of building area when completed.	D1g	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Other Impacts: _____		<input type="checkbox"/>	<input checked="" type="checkbox"/>

**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	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. The proposed action may result in routine odors for more than one hour per day.	D2o	<input checked="" type="checkbox"/>	<input type="checkbox"/>

d. The proposed action may result in light shining onto adjoining properties.	D2n	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. The proposed action may result in lighting creating sky-glow brighter than existing area conditions.	D2n, E1a	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>

#### 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 occur	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	<input type="checkbox"/>	<input type="checkbox"/>
b. The site of the proposed action is currently undergoing remediation.	E1g, E1h	<input type="checkbox"/>	<input type="checkbox"/>
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	<input type="checkbox"/>	<input type="checkbox"/>
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	<input type="checkbox"/>	<input type="checkbox"/>
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	<input type="checkbox"/>	<input type="checkbox"/>
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	<input type="checkbox"/>	<input type="checkbox"/>
g. The proposed action involves construction or modification of a solid waste management facility.	D2q, E1f	<input type="checkbox"/>	<input type="checkbox"/>
h. The proposed action may result in the unearthing of solid or hazardous waste.	D2q, E1f	<input type="checkbox"/>	<input type="checkbox"/>
i. The proposed action may result in an increase in the rate of disposal, or processing, of solid waste.	D2r, D2s	<input type="checkbox"/>	<input type="checkbox"/>
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	<input type="checkbox"/>	<input type="checkbox"/>
k. The proposed action may result in the migration of explosive gases from a landfill site to adjacent off site structures.	E1f, E1g	<input type="checkbox"/>	<input type="checkbox"/>
l. The proposed action may result in the release of contaminated leachate from the project site.	D2s, E1f, D2r	<input type="checkbox"/>	<input type="checkbox"/>
m. Other impacts: _____ _____			

**17. Consistency with Community Plans**

The proposed action is not consistent with adopted land use plans.  
(See Part 1. C.1, C.2. and C.3.)

☒ NO☐ YES

*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	<input type="checkbox"/>	<input type="checkbox"/>
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	<input type="checkbox"/>	<input type="checkbox"/>
c. The proposed action is inconsistent with local land use plans or zoning regulations.	C2, C2, C3	<input type="checkbox"/>	<input type="checkbox"/>
d. The proposed action is inconsistent with any County plans, or other regional land use plans.	C2, C2	<input type="checkbox"/>	<input type="checkbox"/>
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, E1b	<input type="checkbox"/>	<input type="checkbox"/>
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	<input type="checkbox"/>	<input type="checkbox"/>
g. The proposed action may induce secondary development impacts (e.g., residential or commercial development not included in the proposed action)	C2a	<input type="checkbox"/>	<input type="checkbox"/>
h. Other: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>

**18. Consistency with Community Character**

The proposed project is inconsistent with the existing community character.  
(See Part 1. C.2, C.3, D.2, E.3)

☐ NO☒ YES

*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	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. The proposed action may create a demand for additional community services (e.g. schools, police and fire)	C4	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. The proposed action may interfere with the use or enjoyment of officially recognized or designated public resources.	C2, E3	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. The proposed action is inconsistent with the predominant architectural scale and character.	C2, C3	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Proposed action is inconsistent with the character of the existing natural landscape.	C2, C3 E1a, E1b E2g, E2h	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>

## **FULL ENVIRONMENTAL ASSESSMENT FORM PART 3**





## **FULL ENVIRONMENTAL ASSESSMENT FORM PART 3**

### **EVALUATION OF THE IMPORTANCE OF IMPACTS**

#### **COMMUNITY RECREATION CENTER AT SYCAMORE PARK 790 LONG POND ROAD TOWN OF CARMEL, NEW YORK**

**October 12, 2016**

#### **1. IMPACT ON LAND**

***Proposed action may involve construction on, or physical alteration of, the land surface of the proposed site.***

***b. The proposed action may involve construction on slopes of 15% or greater.***

Portions of construction fall within existing slopes of 15% or greater, which includes the grading for the new access driveway, the maintenance access driveway relocation and for the new recreation building. The project has been designed to the greatest extent practical within areas of previous development in order to minimize site disturbance, to preserve potentially sensitive areas and to minimize impacts to on-going park operations. An erosion and sediment control plan has been prepared to assure proper management of exposed soils and to minimize erosion, as detailed below.

During construction activity, to mitigate the impact of construction on slopes of 15% or greater, all erosion and sediment control measures will be implemented in accordance with the design drawings and the Stormwater Pollution Prevention Plan (SWPPP - plans and report) which will follow guidelines set forth by the Town of Carmel and NYSDEC.

These measures include diverting clean water away from construction areas; containing sediment through the use of stabilized construction entrances, silt fence and temporary sediment basins; minimizing the areas of disturbance; and timely stabilization of final graded areas. In addition, all proposed slopes greater than 3H:1V will be supplemented with erosion control blankets.

The impacts associated with construction on slopes greater than 15% is not considered significant due to the design of the site to minimize disturbance of these areas and the immediate temporary and permanent mitigation measures proposed as part of the erosion and sediment control plan.

***c. The proposed action may involve construction on land where bedrock is exposed, or generally within 5 feet of existing ground surface.***

Bedrock outcrops are more prevalent in the area of the proposed community recreation building and parking lot. The building and parking lot were set at an elevation as high as possible in an effort to minimize rock removal, while taking into consideration the grades of the proposed access driveways and the existing grades at the administration building. It is anticipated that bedrock will be encountered and rock removal will be necessary. When small amounts of rock removal is required during construction, mechanical means (i.e. ripping, chipping) would be employed. In areas of larger

rock removal, where mechanical means are not effective, blasting and rock hammering will be employed.

Blasting at the site will be in compliance with Town Code requirements for blasting operations (Chapter 53. Blasting) which requires the blasting contractor to hold a blaster's license issued by the State of New York and such contractor to obtain a permit for the proposed work from the Building Inspector of the Town of Carmel. The Blasting Permit would include, but not be limited to the following:

- Determination of a radius of sensitive receptors to the blasting site.
- Notification of property owners within the radius of sensitive receptors. This notification would provide warning that blasting will occur and the dates it is planned to start and finish.
- Conducting pre-blasting inspections for buildings within the radius of sensitive receptors. This will be completed by the Blasting Contractor.
- Conducting post-blasting inspections of the buildings within the specified radius.

Any necessary blasting would only be carried out in conformance with an approved Blasting Plan, specific to this project, developed between the blasting contractor and the Town. The Blasting Plan would be developed in full conformance with the Town of Carmel's Building Code and in accordance with New York State blasting law.

The Blasting Plan would include (as deemed necessary by the Building Inspector), but not be limited to the following:

- A performance specification outlining the spacing, diameter and depth of drill holes; number of drill holes to be loaded during any blast; caps, delays, charge weight and sequence per blast; peak particle velocity computations; vibration monitoring program; removal methods; safety measures to protect vehicles and pedestrians; and impacts and mitigation proposed to neighboring properties due to noise, dust, traffic and blasts.
- The design of exposed rock faces based on factual representation of bedrock stability as determined by a geotechnical consultant. The design should include profiles of existing and proposed conditions; location of varying stability of bedrock; improvements to control drainage and groundwater; and details of walls, cribbing, rock pinning or other methods proposed to stabilize the face.

Blasting would only be conducted during specified hours in conformance with the Town of Carmel Building Code (9:00 AM to 3:00 PM, with blasting prohibited on holidays, Saturday or Sunday, except with the approval of the Building Inspector).

The contractor's blasting contract would be based on site specific blasting requirements, and would be submitted to the Town for approval in advance of any site work activity. In accordance with the Town Building Code, the Building Inspector shall not issue a permit for blasting unless the contractor has filed with the Building Inspector a certificate of insurance evidencing comprehensive general liability insurance.

*d. The proposed action may involve the excavation and removal of more than 1,000 tons of natural material.*

An earthwork analysis was conducted to determine the mass balance (cut/fill volumes for the project). It is anticipated that the project will generate an excess of approximately 20,000 c.y. of soil cut. The earthwork analysis included the cuts and fills of soil from mass earthwork, and also included adjustments for foundation excavations, road and parking cross sections.

The earthwork analysis determines that there will be an excess of materials from the site work, requiring an export of materials from the site. To minimize the impact, the project includes processing of excavated rock for reuse on-site as base material for roads, parking area and foundation of buildings, reducing the need for truck trips to haul this material onto the site, and for hauling excess material from the site.

In addition, the project drawings contain an erosion and sediment control (E&SC) plan developed to mitigate impacts associated with performing the site excavation. The E&SC plan has been developed to mitigate the potential for erosion and construction site runoff to ensure downstream properties / environmental features are not impacted. The E&SC plan has been developed in accordance with the *New York State Standards and Specifications for Erosion and Sediment Control*. Specific items cited in the erosion and sediment control plan that will mitigate impacts associated with excavation are: provision of silt fence, providing stabilized construction entrances at the site entrance, minimizing the amount of time areas can be disturbed before temporary stabilization must be provided, providing erosion control blankets on steep slopes, provision of diversion swales, and providing temporary sediment traps.

The anticipated construction traffic will be less than the proposed peak traffic generated by the project. Therefore, the truck traffic is not anticipated to create any impacts beyond those already contemplated and evaluated for the project.

Based upon the mitigation discussed above the potentially moderate to large impact has been mitigated, and will not result in a significant adverse environmental impact.

*e. The proposed action may involve construction that continues for more than one year or in multiple phases.*

It is envisioned that the project will be constructed in multiple phases. The phases of construction have been established to minimize impacts to everyday park operations, while taking into consideration the requirements of construction (such as mobilization of the site including access, staging, erosion and sediment control), the plan of development for the site (infrastructure, operating), the area of land disturbance, and the earthwork required to accomplish each phase. A phasing plan has been developed which provides details of the sequence of construction.

In addition, construction has been shown to be constructed in multiple phases, in order to limit the amount of disturbance to 5 acres or less per phase and comply with the requirements of the *NYSDEC SPDES General Permit for Stormwater Discharges from Construction Activity, General Permit GP-0-15-002* (GP-0-15-002). This permit allows phases to exceed 5 acres of disturbance with written permission of the local MS4 and heightened inspection requirements. The majority of the disturbance is contained in one isolated portion of the site. The mass earthwork for the site is anticipated to be completed within a six-month period. At that point construction of the community recreation center building will commence. Once building construction commences site work activities are expected to be minimal. As such this project is similar to a single phase project, and site work activity will initially be continuous, but then intermittent as the project transitions to building construction. As such this project is similar to a single phase project and *no, or small impact may occur* was selected.

As stated in Response 1.f., removal of vegetation and physical disturbance of the site will be limited to within the current phase of construction. Existing vegetation in development areas will be retained as long as possible and all exposed soil within each phase must be stabilized in accordance with the Erosion and Sediment Control Notes and the construction sequence before work may be commenced in the next phase of construction.

In addition, winter stabilization notes for temporary project shutdown during construction have been provided on the site plans depicting requirements to temporarily stabilize the site.

Proceeding with the construction schedule on a timely basis, conducting construction and stabilization of the site in phases, utilizing the erosion and sediment control devices set forth in the

plans and report will provide a reduction in potential impacts due to construction continuing for more than one year and being conducted in multiple phases.

- f. *The proposed action may result in increased erosion, whether from physical disturbance or vegetation removal (including from treatment by herbicides).*

As noted in Response 1.b., the project has been designed to concentrate development to the greatest extent practical in areas of previous disturbance, to minimize disturbance and to retain existing natural vegetation to the greatest extent practicable.

The proposed improvements will remove vegetation and expose soil by way of site grading during construction of the proposed access road, buildings, parking, the installation of the site infrastructure and the construction of the stormwater management facilities. The project will be constructed in phases. Therefore, removal of vegetation and physical disturbance of the site will be limited to the current phase of construction. Existing vegetation in development areas will be retained as long as possible. All exposed soil within each phase must be stabilized in accordance with the Erosion and Sediment Control Notes before work may be commenced in the next phase of construction.

All disturbed areas will be protected during construction with approved sediment and erosion control techniques in accordance with the *New York State Standards and Specifications for Erosion and Sediment Control*. Erosion and sediment control should be accomplished by four basic principles: diversion of clean water, containment of sediment, treatment of dirty water, and stabilization of disturbed areas. Diversion of clean water will be accomplished with swales. This diverted water will be safely conveyed around the construction area as necessary and discharged downstream of the disturbed areas. Sediment will be contained with the use of silt fence at the toe of disturbed slopes and excavation of the temporary sediment basin. Disturbed areas should be permanently stabilized within 7 days of final grading to limit the required length of time that the temporary facilities must be utilized.

Permanent erosion and sediment control will be accomplished by diverting stormwater runoff from steep slopes, controlling/reducing stormwater runoff velocities and volumes, and vegetative and structural surface stabilization. The temporary sediment trap shall be cleaned of all sediment and debris, excavated to its final elevations and dimensions, and stabilized with the vegetation as indicated on the plans. Rip rap aprons will be used at the discharge end of all piped drainage systems. Runoff velocities will be reduced to levels that are non-erosive to the receiving waterbodies through use of these aprons. Other than the building and paved surfaces, disturbed surfaces will be stabilized with vegetation. The vegetation will control stormwater runoff by preventing soil erosion, reducing runoff volume and velocities, and providing a filter medium.

With proper design and implementation of erosion control and drainage improvements, the temporary stabilization measures required during construction and the permanent stabilization of disturbed areas and exposed soils within 7 days of final grading, and construction of the site in phases, it is expected that there will be an insignificant impact to the site and surroundings as a result of erosion from physical disturbance or vegetation removal.

### 3. IMPACTS ON SURFACE WATER

***Proposed action will affect one or more wetlands or other surface water bodies (e.g. streams, rivers, ponds or lakes).***

- d. *The proposed action may involve construction within or adjoining a freshwater or tidal wetland, or in the bed or banks of any other waterbody.*

The project does not propose disturbance to the onsite wetlands or waterbodies. The eastern half of the property is comprised of a New York State Department of Environmental Conservation (NYSDEC) wetland identified as LC-22, and the western half of the site contains the existing park facilities, with Long Pond, a NYSDEC regulated waterbody, along its southern boundary. A small portion of NYSDEC LC-22 is located on-site along the southwestern property line. A portion of NYSDEC LC-22 is located on the northerly side of Long Pond Road across from the westerly

entrance to the park. A finger of LC-22 is located on-site just south of the westerly park entrance on the east side of the existing park access driveway. Disturbance to the wetlands adjacent areas are proposed, therefore a NYSDEC Freshwater Wetland Permit is required. No disturbance is proposed to the bed or banks of Long Pond. The applicant seeks a wetland permit for site grading associated with the project, proposed on-site stormwater management facilities, removal of a portion of the existing maintenance driveway, proposed drainage improvements at the existing westerly park entrance, and widening of the westerly park access driveway to accommodate 2-way traffic, including relocation of the entrance to the maintenance access driveway, within the NYSDEC regulated 100' wetland adjacent area of NYSDEC LC-22.

All site work for the project is proposed to occur within previously developed / disturbed areas of the site, outside of the wetlands and watercourses. It is anticipated that approximately 33,500 s.f. of disturbance will occur within the NYSDEC regulated 100' wetland adjacent area, including approximately 13,300 s.f. of disturbance and a net decrease of approx. 500 s.f. of impervious cover for proposed driveway improvements, drainage and stormwater management at the westerly park entrance, and approx. 20,200 s.f. of disturbance, with no net increase in impervious cover, in the south westerly corner of the site for site grading, drainage improvements and stormwater management.

**How the Site Design for the Project Avoids/Minimizes Impacts to the Wetland Area:**

1. All proposed disturbance within the 100' NYSDEC wetland Adjacent Area (AA) is within areas of previous disturbance / development. The site plan was prepared such that no proposed land disturbance is located within the limits of NYSDEC wetland LC-22 and disturbance within 100' adjacent area has been minimized to only what is necessary for site access and Stormwater management. In an effort to minimize proposed impervious surfaces at the site, several curbed planted islands are proposed within the parking areas and plantings are proposed adjacent to the proposed buildings. In addition, the existing access / maintenance drives will be maintained and utilized where practical to provide access throughout the park in the post development condition, further reducing the creation of proposed impervious surfaces.
2. In addition, no disturbance is proposed to Long Pond.
3. A complete Stormwater Pollution Prevention Plan (SWPPP) designed in accordance with requirements of the Town of Carmel, NYSDEC and the New York City Department of Environment Protection (NYCDEP) has been prepared for the project as depicted on the site plans and in the SWPPP report for the project. The SWPPP outlines Better Site Design techniques evaluated and incorporated into the design of the project to avoid/minimize impacts to the wetland, including: preservation of undisturbed areas, preservation of buffers, reduction of clearing and grading, locating sites in less sensitive areas, and infiltration. Refer to the SWPPP for detailed information.

**How the Site Design for the Project Mitigates Impacts to the Wetland Area:**

1. The erosion and sediment control plan has been prepared for the project in accordance with the New York State Standards and Specifications for Erosion and Sediment Control to protect existing water bodies and drainage features during construction activities. Temporary measures include a stabilized construction entrance / anti-tracking pad, silt fence between the area of disturbance and the wetland, phasing of construction to reduce exposed areas to no more than 5 acres at one time, prescribed inspection protocol and timing, and other measures and practices. Refer to the Erosion & Sediment Control Plan and the SWPPP for detailed information.
2. Disturbed areas within the wetland buffers will be topsoiled and revegetated with a lawn seed mix in the areas along the driveways, at the park entrance and around the Community Center

building and parking area and with a Native Steep Slope or meadow Seed Mix in the stormwater basins and more naturalized areas.

3. Stormwater runoff from the proposed site improvements will be captured and treated in two infiltration basins and one surface sand filter sized in accordance to meet both the RRv and Water Quality Volume (WQv) requirements. It should be noted that stormwater treatment will be provided for the portion of the existing park access drive to remain where none previously existed.
4. A complete SWPPP was prepared to address the local, regional, and state regulatory requirements for the subject project. Chapter 3 of the *New York State Stormwater Management Design Manual* (Design Manual) specifies a five-step site planning and stormwater management practice selection process, which must be addressed. The five steps are as follows:
  1. Site planning to preserve natural features and reduce impervious cover.
  2. Calculation of the Water Quality Volume (WQv) for the site.
  3. Incorporation of runoff reduction techniques and standard SMP's with Runoff Reduction Volume (RRv) Capacity.
  4. Use of Standard SMP's, where applicable, to treat the portion of water quality volume not addressed by runoff reduction techniques and standard SMP's with RRv capacity.
  5. Design of volume and peak rate control practices where required.
- e. *The proposed action may create turbidity in a waterbody, either from upland erosion, runoff or by disturbing bottom sediments.*

With proper implementation of the project plans, it is not anticipated that the proposed action will create turbidity in a waterbody, either from upland erosion, runoff or by disturbing bottom sediments.

No disturbance is proposed in an onsite water body, therefore there will be no direct disturbance of bottom sediments that could potentially create turbidity.

The SWPPP for the project has been designed to prevent upland erosion both during construction and once construction has been completed, and to protect receiving waters with temporary and permanent erosion and sediment control practices should upland erosion occur. In addition, the SWPPP has been designed to maintain existing drainage patterns and to avoid the concentration of stormwater runoff which may cause erosion. Responses to Items 1.b. and 1.f. above describe the measures proposed to prevent upland erosion and concentrated runoff which would have the potential to create turbidity in receiving water bodies.

Based upon detailed SWPPP and inspection protocols required by the various agencies, the potentially moderate to large impact has been mitigated, and will not result in a significant adverse environmental impact.

- 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.*

The proposed improvements will remove vegetation and expose soil by way of site grading during construction of the proposed buildings, parking and modifications to the existing access driveways, the installation of the site infrastructure and the construction of the stormwater management facilities. All disturbed areas will be protected during construction with approved sediment and erosion control techniques in accordance with the *New York State Standards and Specifications for Erosion and Sediment Control*. Erosion and sediment control should be accomplished by four basic principles: diversion of clean water, containment of sediment, treatment of dirty water, and stabilization of disturbed areas. Diversion of clean water will be accomplished with swales. This diverted water will be safely conveyed around the construction area as necessary and discharged downstream of the disturbed

areas. Sediment will be contained with the use of silt fence at the toe of disturbed slopes and excavation of the temporary sediment basin. Disturbed areas should be permanently stabilized within 7 days of final grading to limit the required length of time that the temporary facilities must be utilized.

Permanent erosion and sediment control will be accomplished by diverting stormwater runoff from steep slopes, controlling/reducing stormwater runoff velocities and volumes, and vegetative and structural surface stabilization. The temporary sediment trap shall be cleaned of all sediment and debris, excavated to its final elevations and dimensions, and stabilized with the vegetation as indicated on the plans. Rip rap aprons will be used at the discharge end of all piped drainage systems. Runoff velocities will be reduced to levels that are non-erosive to the receiving waterbodies through use of these aprons. Other than the buildings and paved surfaces, disturbed surfaces will be stabilized with vegetation. The vegetation will control stormwater runoff by preventing soil erosion, reducing runoff volume and velocities, and providing a filter medium.

With proper design and implementation of erosion control and drainage improvements, which include the avoidance of concentrated surface runoff and the provision of adequate stabilization of construction activity areas and regular inspections, the proposed action is not anticipated to have impacts from soil erosion or otherwise create a source of stormwater discharge that may lead to siltation or other degradation of receiving water bodies.

- i. The proposed action may affect the water quality of any water bodies within or downstream of the site of the proposed action.*

Potential impacts to water quality of water bodies onsite and / or downstream of the site would include increased erosion from physical disturbance or vegetation removal; construction within or adjoining a freshwater wetland or in the beds or banks of Long Pond; creation of turbidity in a waterbody, either from upland erosion, runoff or by disturbing bottom sediments; construction of an outfall for discharge of wastewater to surface water; and / or soil erosion or the creation of a source of stormwater discharge that may lead to siltation or other degradation of receiving waters.

As stated in responses 1.f., 3.d., 3.e., and 3.h. above, it is not anticipated that the proposed action will affect the water quality of any water bodies within or downstream of the site of the proposed action due to the potential impacts listed.

- j. The proposed action may involve the application of pesticides or herbicides in or around any water body.*

Neither pesticides nor herbicides will be utilized during construction of the project. In addition, neither pesticides nor herbicides will be used by the Town of Carmel Recreation Department at the Park. The Recreation Department has a turf management program (TMP) which it utilizes at all Town recreation facilities. The TMP utilizes best management practices to maintain healthy turf, including appropriate mowing techniques, timing and mowing heights; annual soil testing for pH and general nutrient levels; applications of lime and/or fertilizer based on results of soil testing; aerification; overseeding; and regular monitoring of general health/condition of fields.

Based on past practices at this site and experience at other Town park sites, it is not anticipated that the proposed action will affect the water quality of any water bodies within or downstream of the site of the proposed action due to the potential impacts of pesticide application at the site.

- k. The proposed action may require the construction of new, or expansion of existing, wastewater treatment facilities.*

The subject project will require the construction of a new subsurface sewage treatment system (SSTS) to provide wastewater treatment for the proposed community center building. The proposed SSTS is subject to review and approval by Putnam County Department of Health and NYCDEP. The groundwater discharge from the proposed SSTS will require a SPDES permit approval from the

NYSDEC. Soil testing and design of the system indicates all regulatory requirements can be met. No significant impacts will be created by the new wastewater treatment facility.

**4. IMPACT ON GROUNDWATER**

***The proposed action may result in a new or additional use of ground water, or may have the potential to introduce contaminants to ground water or an aquifer.***

- a. The proposed action may require new water supply wells, or create additional demand on supplies from existing water supply wells.*

There is one existing well on the site which currently services the existing administration / community room building. Based upon preliminary estimates, the existing well yields in excess of 5 gpm. The existing well will remain to service the existing administration building, and a new well will be drilled on the north side of the proposed community center building.

The proposed community center will require an estimated water demand of approximately 1,200 gallons per day (gpd) based on hydraulic loading rates specified in the NYSDEC publication New York State Standards for Intermediate Sized Wastewater Treatment Systems, dated March 5, 2014 (DEC 2014). (see project Engineer's Report – Wastewater and Water Facilities). In accordance with NYSDOH requirements, the proposed well will be designed as a public water supply well, as it is anticipated that the well will serve 25 individuals at least 60 days out of the year. The public water supply well will require a disinfection system in accordance with NYSDOH requirements and is subject to PCDOH review and approval. The details of the water supply disinfection system will be developed throughout the permitting process.

It should be noted that the use of subsurface wastewater disposal would return approximately 85 percent of the withdrawn water back to the groundwater. This would reduce the consumptive water use by the community center to approximately 180 gpd.

Based upon the anticipated demand and contributing recharge estimates, the water supply demand from the proposed community center is not expected to exceed the safe and sustainable withdrawal capacity rate of the local aquifer.

As described above, the relatively low average water withdrawal for the community center indicates a low likelihood of significant mutual interference between on-site wells and existing off-site neighboring wells. The drilling and pump testing of the proposed water supply well will provide definitive information regarding groundwater availability.

- d. The proposed action may include or require wastewater discharged to groundwater.*

As noted previously, the proposed community center building will require the construction of a new on-site SSTS. The SSTS is designed per NYSDOH and PCDOH standards and will discharge the wastewater generated by the proposed community center to the groundwater. The system is subject to review and approval by Putnam County Department of Health and NYCDEP and the discharge is permitted by the NYSDEC. Therefore, with the installation of an appropriately designed, approved and constructed SSTS for the project, no impact is anticipated from the discharge of wastewater to groundwater as part of the proposed action.

As previously noted, wastewater design flow for the proposed community center is based on hydraulic loading rates specified in DEC 2014 and is estimated at 1,200 gallons per day (gpd). Soil testing for the SSTS area has been completed by the project engineer and witnessed by representatives of the PCDOH and NYCDEP. Suitable soils for the SSTS areas were observed. No portion of the proposed SSTS will impact wetlands or wetland buffer. The site constraints and soil testing indicate that the on-site soils in the proposed SSTS area can accommodate a SSTS to support a wastewater design flow of up to 1,200 gpd. Application has been made to the PCDOH and NYCDEP for a SSTS construction permit approval. The application is currently under review and approval is pending.



- f. *The proposed action may require the bulk storage of petroleum or chemical products over ground water or an aquifer.*

The proposed community recreation building will be heated with propane and therefore the proposed action will not involve the bulk storage of petroleum such as fuel oil. The storage of the propane will meet all state and local regulations and not have any significant impact on the environment.

- g. *The proposed action may involve the commercial application of pesticides within 100 feet of potable drinking water or irrigation sources.*

The proposed action will not involve the commercial application of pesticides within 100 feet of potable drinking water or irrigation sources. Refer to Response 3.j. for additional information.

## **5. IMPACT ON FLOODING**

***The proposed action may result in development on lands subject to flooding.***

- d. *The proposed action may result in, or require, modification of existing drainage patterns.*

A comprehensive Stormwater Pollution Prevention Plan (SWPPP) designed in accordance with requirements of the Town of Carmel, NYSDEC and the New York City Department of Environment Protection (NYCDEP) has been prepared for the project as depicted on the site plans and in the SWPPP report for the project. Designed in accordance with the Design Manual, the project SWPPP has replicated the pre-development hydrology to the maximum extent practicable. Therefore, no impacts to downstream hydrology are anticipated as a result of the proposed project. Refer to the Response 3.d. above and the SWPPP for detailed information.

## **7. IMPACTS ON PLANTS AND ANIMALS**

***The proposed action may result in a loss of flora or fauna.***

- 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.*

Per correspondence with the New York Natural Heritage Program dated September 10, 2015, the following species, habitats and / or communities are considered rare, threatened or endangered species, as listed by New York State or the Federal government:

- Bog Turtle (*Glyptemys muhlenbergii*) - listed by NYS as an Endangered species and by the Federal government as a Threatened species. NYNHP records state that this species has been documented within 0.5 mile of the project site. There are no records that this species has been documented on-site.

No development or disturbance is proposed in the wetland. As stated in responses 1.f., 3.d., 3.e. and 3.h. above, the water quality of any water bodies within or downstream of the site of the proposed action will be protected during and post-construction by the measures proposed in the SWPPP, as required by NYSDEC.

- Northern Long-eared Bat (*Myotis septentrionalis*) - listed by NYS and by the Federal government as a Threatened species. NYNHP records state that this species has been documented within 5 miles of the project site. The potential to harm this bat species occurs when forest is cleared outside of the hibernation period when the species are using the forest. To avoid impacts to the bat species, clearing will be restricted to between October 1 and March 31. In addition, as recommended by the US Fish and Wildlife Service that orange construction fencing and or silt fence will be placed between the areas to be cleared and the areas that will be left undisturbed. A note has been added to

to the site plans stating that all tree clearing for the project shall be conducted during the period between October 1<sup>st</sup> and March 31<sup>st</sup> to prevent harm to this specie.

Therefore, it is anticipated that the proposed action will not cause a significant reduction in population, or loss of individuals, of this NYS and Federally listed Threatened / Endangered species.

- 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.*

Per correspondence with the NYNHP dated September 10, 2015, the following species, habitats and / or communities are considered rare, threatened or endangered species, as listed by New York State or the Federal government:

- Bog Turtle (*Glyptemys muhlenbergii*) - listed by NYS as an Endangered species and by the Federal government as a Threatened species. NYNHP records state that this species has been documented within 0.5 mile of the project site, with none documented at the site.  
In addition, no development or disturbance is proposed in the wet meadow or within 150' of the wet meadow for the project. As stated responses 1.f., 3.d., 3.e. and 3.h. above, the water quality of any water bodies within or downstream of the site of the proposed action (this includes the on-site and off-site wetlands) will be protected during and post-construction by the measures proposed in the SWPPP, as required by NYSDEC.
- Northern Long-eared Bat (*Myotis septentrionalis*) - listed by NYS and by the Federal government as a Threatened species. NYNHP records state that this species has been documented within 5 miles of the project site. The potential to harm this bat species occurs when forest is cleared outside of the hibernation period when the species are using the forest. To avoid impacts to the bat specie, clearing will be restricted to between October 1 and March 31. In addition, as recommended by the US Fish and Wildlife Service that orange construction fencing and or silt fence will be placed between the areas to be cleared and the areas that will be left undisturbed. As previously noted, areas of proposed development have been concentrated in areas previous development at the park to the greatest extend practical, with limited removal of existing forest. The majority of the forest at the park is outside of the area of proposed development and will remain undisturbed, thus retaining significant habitat at the site.

Therefore, it is anticipated that the proposed action will not result in a significant reduction or degradation of any habitat used by this NYS and federally listed Threatened / Endangered species.

- i. *Proposed action (commercial, industrial or recreational projects, only) involves use of herbicides or pesticides.*

Neither pesticides nor heibicides will be utilized during construction of the project. In addition, neither pesticides nor herbicides will be used by the Town of Carmel Recreation Department at the Park during site operation. The proposed action will not result in impacts to threatened or endangered species or their habitat because the proposed action does not involve the use of pesticides or herbicides. Refer to Response 3.j. for additional information.

## **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.***

- c. *The proposed action may be visible from publicly accessible vantage points:*

*Seasonally (e.g., screened by summer foliage, but visible during other seasons).*

The proposed action includes the construction of a new 18,000 s.f. community recreation building in a location at the existing park that is currently open space with smaller maintenance buildings at the park. The new building and parking area will be seasonally visible from other areas of the park and from the lake, which could be considered publically accessible vantage points. Existing vegetation around the new building is proposed to be retained to the greatest extent possible and additional landscaping is proposed within the parking area and around the new building, consistent with the existing character of the park. In addition, because the new building is being constructed within the existing park as part of the Town's Recreation Master Plan, the land use of the proposed action is consistent with the current land use patterns at the site, even when viewed seasonally from publicly accessible vantage points.

*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*

As stated in Response 9.c. above, the proposed action includes the construction of a new 18,000 s.f. community recreation building in a location at the existing park. Based on topography and existing vegetation to remain as part of the project, it is unlikely that the new building will be visible to residents travelling on Long Pond Road during routine travel. In the event that the new building is visible seasonally to residents, a significant impact is unlikely because the proposed land use is consistent with the current park land use patterns at the site, with the new building being constructed within the existing park as part of the Town's Recreation Master Plan.

*ii. Recreational or tourism based activities.*

As stated in Response 9.c and d. above, the proposed action includes the construction of a new 18,000 s.f. community recreation building in a location at the existing park that is currently open space with smaller maintenance buildings at the park. The new building and parking area will be visible from other areas of recreational activities at the park. Because the new building is being constructed as a place for community members to engage in recreational activities within the existing park as part of the Town's Recreation Master Plan, the land use of the proposed action is consistent with the current land use patterns at the site, therefore, it is not anticipated that the proposed action will have a significant visual impact to viewers of the proposed action while engaged in recreational based activities.

*e. The proposed action may cause a diminishment of the public enjoyment and appreciation of the designated aesthetic resource.*

The proposed action is further development of an existing park / recreation facility to provide better, safer access and improvements to existing facilities, with the new building constructed as a place for community members to engage in recreational activities within the existing park as part of the Town's Recreation Master Plan. As previously stated, the land use of the proposed action is consistent with the current land use patterns at the site, therefore, it is not anticipated that the proposed action will cause a diminishment of the public enjoyment and appreciation of a designated aesthetic resource.

#### **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***

*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, and wildlife habitat.*

The proposed action includes the construction of a new 18,000 s.f. community recreation building in a location at the existing park that is currently open lawn area. The project also includes the removal of some wooded areas for the construction of the building and the proposed stormwater management areas. Most of the proposed improvements are to be within areas of previous development at the park, including the lawn area to be removed, the driveways to be widened / relocated and the stormwater management areas. No activities are proposed within the wetlands and limited project improvements are proposed within the wetland buffer areas. In addition, large undeveloped areas of the site are not impacted by the proposed action. Therefore, it is not anticipated that the project will result in impairment of natural functions or ecosystem services provided by an undeveloped area, since the proposed action is to be located within previously developed areas of the park to the greatest extent practical.

*b. The proposed action may result in the loss of current or future recreational resource.*

The proposed action includes the construction of a new 18,000 s.f. community recreation building in a location at the existing park that is currently open lawn area with some smaller maintenance buildings at the perimeter. The new building is being constructed to provide better facilities for existing park recreation activities and valuable space for new recreational / community activities at the park as part of the Town's Recreation Master Plan. An area of open space at the park is being removed, but additional areas of open space at the park shall remain. Therefore, the proposed action will not result in the loss of recreational opportunities or a reduction of an open space resource.

*d. The proposed action may result in loss of an area now used informally by the community as an open space resource.*

It is not anticipated that the proposed action will result a significant impact due to the loss of an area now used informally by the community as an open space resource. The proposed action includes the construction of a new 18,000 s.f. community recreation building in a location at the existing park that is currently open lawn area with some smaller maintenance buildings at the perimeter. The new building is being constructed to provide better facilities for existing park recreation activities and valuable space for new recreational / community activities at the park as part of the Town's Recreation Master Plan. In addition, other areas at the park will still be available to be used informally by the community as open space resources.

### **13. IMPACT OF TRANSPORTATION**

***The proposed action may result in a change to existing transportation systems.***

*a. The proposed action may alter the present pattern of movement of people and goods.*

As part of the park improvement project, the park access driveways and entrances from Long Pond Road (County Route 32) are being revised to provide improved safety and access to the site. Proposed revisions to site circulation include:

- The widening of the existing westerly park access road and conversion to two-way traffic.
- The demolition of the existing maintenance entrance and access drive adjacent to the westerly park entrance, and the construction of a new maintenance drive to connect to the existing park access road onsite.
- The addition of traffic controls at the existing easterly park exit road to convert to a east-bound only exit. Proposed traffic controls to include signage and striping.

Although the proposed action includes changes to the existing park entrance and exit roads which will alter the present pattern of movement of people and goods, the proposed improvements are expected to provide better site circulation and improved safety and access to the site.

**14. IMPACT ON ENERGY**

***The proposed action may cause an increase in the use of any form of energy.***

- e. *The proposed recreation building and site lighting will result in additional demands for energy.*

The proposed community recreation building and parking area are proposed to be located in the center of the existing park and will replace some existing buildings and recreation facilities at the site. The building and site lighting for the parking area will be designed to meet or exceed New York State energy code standards. The proposed site lighting will be designed to meet the site's required light levels for safety and security, while utilizing energy efficient fixtures and features including power controls such as photocells, and dimmers, as practical.

**15. IMPACT ON NOISE, ODOR, AND LIGHT**

***The proposed action may result in an increase in noise, odors, or outdoor lighting.***

- a. *The proposed action may produce sound above noise levels established by local regulation.*

Ambient daytime noise levels will increase in the immediate vicinity of the site during project construction. The closest residential properties to the site are the single family residences across Long Pond Road from the park entrances and the residence on the adjoining property to the west of the park. The nearest residence to on-site grading is approximately 120 feet from the proposed community recreation building.

The level of impacts of these noise sources depends on the type and number of pieces of construction equipment being operated, as well as the distance from the construction site. The noisiest period of construction will occur during site clearing and grading activities and during blasting operations when sections of the site are prepared for internal roads, paved areas, and building pads and during the initial stages of the construction of the recreation building.

Noise levels due to construction activities will vary widely, depending on the phase of construction activities, including clearing and grading, delivery of materials, and actual construction of the on-site building. The Town of Carmel Code (Chapter 104 – Noise / Article II. Noise Control) has no specific limits on construction noise levels within the Recreation / Trailway Zoning District where the park is located, but does restrict construction noise levels for projects within the surrounding residential-zoned district. During the hours of 8:00 am to 6:00 pm, noise levels from a construction site shall not exceed an L10 of 70 db(A)'s when measured at a distance of 400 feet from the construction site; during the hours of 6:00 pm to 8:00 pm, noise levels shall not exceed an L10 of 55 db(A)'s when measured at a distance of 400 feet from the construction site.

It is anticipated that existing residences on the north side of Long Pond Road will experience temporary elevated noise levels at occasional points during the construction of the changes to the westerly driveway entrances and stormwater basin, with most noise resulting from site preparation, such as tree removal and grading activities, and occasional noise from construction traffic entering and exiting the site over the duration of the construction of the recreation building and parking area. The residence on the adjoining property to the west will experience temporary elevated noise levels during construction of the recreation building, the maintenance building and the associated parking area, with most noise resulting from site preparation, such as tree removal, existing building removal and grading activities, and anticipated blasting and rock removal during the portion of the project to establish the pad for the building and parking area. Once earthwork has been completed and construction of the building has commenced, elevated noise levels may be experienced temporarily at occasional points from building construction activities, construction traffic and deliveries, and construction equipment during completion of site work and paving.

- b. *The proposed action may result in blasting within 1,500 feet of any residence, hospital, school, licensed day care center, or nursing home.*

Refer to Responses 1.c and 15.a. above.

- e. *The proposed action may result in lighting creating sky-glow brighter than existing area conditions.*

Site lighting will be provided for the new community recreation center and the associated parking area. The new site lighting will be dark sky compliant lighting and designed to provide the appropriate amount of lighting for safety during night-time activities, then will provide reduced levels of lighting after-hours for security. The carefully designed site lighting is not anticipated to result in lighting creating sky-glow brighter than existing area conditions at the park.

**18. CONSISTENCY WITH COMMUNITY CHARACTER**

***The proposed project is inconsistent with the existing community character.***

- b. *The proposed action may create a demand for additional community service (e.g., schools, police, and fire)*

The proposed action consists of improvements to the existing park, consistent with the Town's recreation master plan. The proposed action provides better circulation and better accommodations for the current park activities, without providing a higher intensity of peak use, just more instances. Therefore, the proposed action will not create a demand for additional community services.

- f. *The proposed action is inconsistent with the predominant architectural scale and character.*

The proposed action includes the construction of a new 18,000 s.f. community recreation building in a location at the existing park that is currently open space with smaller maintenance buildings at the park. The architectural scale of this building is potentially inconsistent with the architectural scale and character of the existing park. Because the new building is being constructed at this location as part of the Town's Recreation Master Plan, it is not anticipated that there will be an impact to the existing community character of the park or the neighborhood.

**APPENDIX A**

**STORMWATER POLLUTION PREVENTION PLAN NARRATIVE**



## **STORMWATER POLLUTION PREVENTION PLAN**

**For**

**Sycamore Park Community Center and Site Improvements**

**790 Long Pond Road**

**Town of Carmel, New York**

**October 14, 2016**

### **Applicant Information:**

Town of Carmel  
60 McAlpin Avenue  
Mahopac, New York 10541

**Note: This report in conjunction with the project plans make up the complete Stormwater Pollution Prevention Plan.**

Prepared by:  
Insite Engineering, Surveying & Landscape Architecture, P.C.  
3 Garrett Place  
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## **1.0 INTRODUCTION**

### **1.1 Project Description:**

The Town of Carmel is planning the development of a Community Recreation Center and related site improvements at Sycamore Park, in Mahopac. The project site is located at 790 Long Pond Road (County Route 32), and is currently developed as a Town Park. The park consists of natural turf multipurpose athletic fields, park support buildings, children's playground, picnic area, parking areas, entrance drives, accessible paths to facilities and other park amenities. It should be noted that the limits of disturbance total is in excess of 5 acres, project phasing plans will be included with the final project SWPPP. The Town of Carmel is seeking to take the next step in implementing the Sycamore Park Site Master Plan which includes the following improvements:

- Widening of the existing park access road from Long Pond Road (County Route 32).
- Demolition of the existing maintenance entrance and access drive from Long Pond Road, and the construction of a new maintenance drive to connect to the existing park access road onsite.
- Construction of a new 18,000 sf Community Recreation Center building and supporting water supply system, wastewater disposal system, and stormwater management system.
- Construction of new and expanded parking areas to support the new Community Recreation Center building (approximately 91 parking spaces) and supporting stormwater management system.
- Demolition and removal of existing small maintenance buildings and siting of future 3,000 sf maintenance building.

Stormwater runoff from the areas of proposed development will be captured via an onsite stormwater collection and conveyance system consisting of catch basins, drain inlets, drainage manholes and HDPE pipe. The stormwater collection and conveyance system will convey the stormwater runoff to stormwater management practices (SMP's) for treatment. All components of the stormwater collection, conveyance, and treatment system have been designed to meet the following requirements:

- *NYSDEC SPDES General Permit for Stormwater Discharges from Construction Activities, General Permit GP-0-15-002 (GP-0-15-002).*
- *NYCDEP Rules and Regulations for the Protection from Contamination, Degradation, and Pollution of the New York City Water Supply and its Sources (Rules and Regulations).*
- *Town of Carmel Town Code, Section 156-81 – Stormwater Pollution Prevention Plans*

The following permits are required for the subject project:

**Route 6 Retail and PCSB Mahopac Branch**

Agency	Approval Required	Status
New York City Department of Environmental Protection (NYCDEP)	Stormwater Pollution Prevention Plan (SPPP) Approval	Pending
	Subsurface Sewage Treatment System Approval	Not Yet Submitted
Putnam County Department of Health	Subsurface Sewage Treatment System and Well Approval	Not Yet Submitted
New York State Department of Conservation (NYSDEC)	Freshwater Wetland Permit Coverage Under General Permit GP-0-15-002 SPDES Permit for Groundwater Discharge of Treated Sanitary Sewage	Not Yet Submitted
Putnam County Highway & Facilities	Road Work Permit	Not Yet Submitted

There are no known enforcement actions, including lawsuits or administrative proceedings, commenced against the applicant, or any principle affiliate of the applicant, for any alleged violations of law related to the applicant of the site, in the five years preceding this application.

## 1.2 Existing Site Conditions

The project site is currently developed as a public park, it consists of approximately 31.6 acres and is located at 790 Long Pond Road (County Route 32) in the Town of Carmel, NY. The Long Pond Road Right of Way forms the northern property boundary, and the shoreline of Long Pond forms the southern property boundary. The eastern half of the property is comprised of a NYSDEC wetland identified as LC-22, and the western half of the site contains the existing park facilities. The wetland flows from north to south through an existing watercourse within the wetland limits which discharges to Long Pond. The majority of the property is wooded. Land cover in the vicinity of the park facilities consists of a mix of lawn, wooded, and impervious areas.

Slopes within the project area vary from gentle to steep and generally slope from northwest to southeast towards NYSDEC LC-22 and Long Pond. A NYCDEP regulated watercourse is located in the northwestern portion of the site, flows through the park and ultimately discharges into the NYSDEC wetland. Stormwater runoff generated by the northern portion of the site discharges into the NYSDEC wetland and ultimately into Long Pond. Stormwater runoff generated by the southern portion of the site discharges directly into Long Pond.

The National Resource Conservation Service *Soil Survey of Westchester and Putnam Counties* has identified onsite soils as Charlton Loam (ChC), Charlton-Chatfield Complex (CrC), Chatfield-Hollis Rock outcrop complex (CtC), Fluvaquents (Ff), Leicester Loam (LcB), Catden Muck (Ce), and Udorthents (Uc). All Charlton and Chatfield soil types are classified as hydrologic soil group "B", all remaining soil types are classified as hydrologic soil group "D".

### 1.3 Proposed Site Conditions

As noted above, the Town of Carmel is seeking to move forward with the next step in the Sycamore Park Master Plan, which consists of the demolition of the existing maintenance access drive, and several existing buildings and sport courts as well as the construction of a new 18,000 sf± Community Center and associated site infrastructure improvements. The site infrastructure improvements as described in previous sections of this report include the reconfiguration of the existing site entrance and widening of the existing access road from Long Pond Road as well as the construction of a new parking area, maintenance access drive, and associated Stormwater Management System. Stormwater runoff from the proposed site improvements will be captured and treated in two (2) infiltration basins and one (1) surface sand filter sized in accordance to meet both the  $RR_v$  and Water Quality Volume ( $WQ_v$ ) requirements. It should be noted that stormwater treatment will be provided for the impervious surface (0.2 ac.±) associated with the portion of the existing park maintenance access drive to remain where none previously existed.

It should also be noted that runoff generated by approximately 0.2 acres of proposed impervious surface will be directed to the existing porous pavers and Stormwater Filtering practices located in the parking areas to the south of the baseball field. The existing porous pavers and Stormwater filtering practices currently receive runoff from portions of the existing park access road, as well as the existing adjacent building and asphalt play courts to be removed. The proposed impervious surface area tributary to the existing stormwater management practices in the post development condition is approximately equivalent to the area of existing impervious surface to be removed. Therefore, there will be no additional contributing impervious surface to the existing Stormwater management practices. As such there are no adverse impacts anticipated to the existing Stormwater treatment system as a result of the proposed development.

This SWPPP was prepared to address the local, regional, and state regulatory requirements for the subject project. Chapter 3 of the *New York State Stormwater Management Design Manual* (Design Manual) specifies a five-step site planning and stormwater management practice selection process, which must be addressed. The five steps are as follows:

1. Site planning to preserve natural features and reduce impervious cover.
2. Calculation of the Water Quality Volume ( $WQ_v$ ) for the site.
3. Incorporation of runoff reduction techniques and standard SMP's with Runoff Reduction Volume ( $RR_v$ ) Capacity.
4. Use of Standard SMP's, where applicable, to treat the portion of water quality volume not addressed by runoff reduction techniques and standard SMP's with  $RR_v$  capacity.
5. Design of volume and peak rate control practices where required.

To address step 1 and for the purpose of preserving existing natural site features and on site critical environmental resources. The site plan was prepared such that no proposed land disturbance is located within the limits of NYSDEC wetland LC-22 and disturbance within 100' adjacent area has been minimized to only what is necessary for site access and Stormwater management. In an effort to minimize proposed impervious surfaces at the site, several curbed planted islands are proposed within the parking areas and plantings are proposed adjacent to the proposed buildings. In addition, the existing access / maintenance drives will be maintained and utilized where practical to provide access throughout the park in the post development condition, further reducing the creation of proposed impervious surfaces.

To address step 2 Water Quality Volume ( $WQ_v$ ) calculations were completed for the project site and are included in appendix A, information regarding  $WQ_v$  treatment requirements is provided in later sections of this report.

To address step 3 Runoff Reduction Volume ( $RR_v$ ) techniques are implemented at the project site in the form of infiltration basins. The proposed infiltration basins are classified in the Design Manual as standard SMP's with runoff reduction capacity and have been designed to treat the entire  $WQ_v$  generated by the contributing area to each practice. As a result of infiltrating the entire contributing  $RR_v$  to each

infiltration basin the  $RR_v$  minimum requirements have been satisfied at the design point and design line analyzed in this report.

To address step 4 a Surface Sand Filter is proposed to capture and treat the  $WQ_v/RR_v$  generated by the portion of the parking area and new access drive, which is not conveyed to the proposed infiltration basins. It was determined that this area was not suitable for an infiltration practice as a result of the shallow depth to bedrock observed during soil testing performed by Insite Engineering and witnessed by representatives of the NYCDEP.

To address step 5 peak rate control practices in addition to the proposed infiltration basins and sand filters are not required. As a result of infiltrating the entire 1-year runoff volume generated tributary to each infiltration basin and providing a controlled outlet from the proposed sand filter peak flows from the larger storm events are reduced. Thus satisfying the Stream Channel Protection Volume ( $CP_v$ ), Overbank Flood Control ( $Q_p$ ), and Extreme Storm Control ( $Q_t$ ) specified in the Design Manual and discussed in later sections of this report.

As addressed in step 3 and discussed above, the project SWPPP addresses and satisfies the  $RR_v$  requirements of the Design Manual. These requirements are intended to replicate pre-development hydrology through the implementation of green infrastructure practices. In order to replicate pre-development hydrology to the maximum extent practicable, the project SWPPP has minimized the creation of impervious surfaces, and utilized infiltration to the maximum extent practicable to satisfy the  $RR_v$  minimum requirements. The NYCDEP Rules and Regulations encourage the use of infiltration practices "to minimize loss of annual recharge to groundwater by maximizing the use of stormwater infiltration practices where suitable soil conditions exist." Consistent with the Rules and Regulations, the use of infiltration practices has been maximized at the project site where suitable soils exist. Soil testing witnessed by the NYCDEP confirmed the presence of suitable soils to support infiltration in the areas of the proposed infiltration basins, however as noted above a portion of the proposed impervious surfaces will be directed to a surface sand filter for treatment as a result of the shallow bedrock observed in this area during testing. As the project SWPPP is consistent with the requirements of  $RR_v$  per the Design Manual, and maximized the use of infiltration, the project SWPPP has replicated the pre-development hydrology to the maximum extent practicable. Therefore, no impacts to downstream hydrology are anticipated as a result of the proposed project.

## **2.0 STORMWATER MANAGEMENT**

The proposed stormwater management system for the Sycamore Park Community Center and Site Improvements project has been designed to meet the requirements of local, regional, and state stormwater ordinances and guidelines, including but not limited to those of the Town of Carmel, the NYSDEC, and the NYCDEP.

Since the subject project proposes the disturbance of more than 1 acre, coverage under the New York State Department of Environmental Conservation (NYSDEC) SPDES General Permit for Stormwater Discharges from Construction Activities (GP-0-15-002) is required. It should be noted that there are no existing Stormwater discharges associated with industrial activities or any other activities other than construction.

In order to meet the requirements set forth by GP-0-15-002, and the latest edition of the NYSDEC *New York State Stormwater Management Design Manual* (Design Manual), including the requirements listed in Chapter 10: *Enhanced Phosphorus Removal Standards* (Chapter 10). The Design Manual specifies five design criteria that are discussed in detail below. They are Runoff Reduction Volume ( $RR_v$ ), Water Quality Volume ( $WQ_v$ ), Stream Channel Protection Volume ( $CP_v$ ), Overbank Flood Control ( $Q_t$ ), and Extreme Storm Control ( $Q_p$ ). The first two requirements relate to treating water quality, while the later pertain to stormwater quantity (peak flow) attenuation.

With regard to NYCDEP requirements, Section 18-39 of the Rules and Regulations requires a SWPPP Approval for this project. For further discussion on NYCDEP requirements, refer to Section 2.5 below. To meet

the above referenced requirements, the following post construction stormwater management practices are proposed for the project:

**Table 2.0.1 – Proposed SMP Design Criteria Summary Table**

Proposed/Existing SMP ID	DESIGN MANUAL Ch. 6 Design Designation	NYSDEC Uniform Stormwater Sizing Criteria Satisfied	NYCDEP Quality/Quantity Requirement Satisfied
1.1P	Proposed Infiltration Basin (I-2)	RR <sub>v</sub> / WQ <sub>v</sub>	RR <sub>v</sub> / WQ <sub>v</sub> (Since an infiltration practice is proposed, two practices in series are not required)
1.2P	Proposed Dry Swale (O-1)	RR <sub>v</sub>	RR <sub>v</sub> / WQ <sub>v</sub> (Since the contributing drainage area is less than 20% impervious, two practices in series are not required)
	Proposed Surface Sand Filter System (F-1)	WQ <sub>v</sub>	
2.2P	Proposed Infiltration Basin (I-2)	RR <sub>v</sub> / WQ <sub>v</sub>	RR <sub>v</sub> / WQ <sub>v</sub> (Since an infiltration practice is proposed, two practices in series are not required)

To address stormwater quantity requirements of both the NYSDEC and NYCDEP, the “HydroCAD” Stormwater Modeling System,” by HydroCAD Software Solutions LLC in Tamworth, New Hampshire, was used to model and assess the peak stormwater flows for the subject project. HydroCAD is a computer aided design program for modeling the hydrology and hydraulics of stormwater runoff. It is based primarily on hydrology techniques developed by the United States Department of Agriculture, Soil Conservation Service (USDA, SCS) TR-20 method combined with standard hydraulic calculations. For details on the input data for the subcatchments and design storms, refer to Appendices A through C:

The input requirements for the HydroCAD computer program are as follows:

Subcatchments (contributing watershed/sub-watersheds)

- Design storm rainfall in inches
- CN (runoff curve number) values which are based on soil type and land use/ground cover
- Tc (time of concentration) flow path information

Flow Splitters / Subsurface Infiltration System

- Surface area at appropriate elevations
- Flood elevation
- Outlet structure information

The following is a general description of the input data used to calculate the pre- and post-development stormwater runoff values. For detailed information for each subcatchment and pond, see Appendices B&C. The precipitation values for the 1-Year, 10-Year, 100-Year 24 hour design storm events and rainfall distribution curves utilized for this report were obtained from the information provided by Northeast Regional Climate Center(NRCC) and the Natural Resources Conservation Service(NRCS) which is available online at [www.precip.eas.cornell.edu](http://www.precip.eas.cornell.edu). The values provided for all design storms analyzed are listed below.

Design Storm	24-Hour Rainfall
1-Year	2.74"
10-Year	4.92"
100-Year	8.75"

The CN (runoff curve number) values utilized in this report were referenced from the USDA, SCS publication *Urban Hydrology for Small Watersheds*.

## 2.1 Chapter 10: Enhanced Phosphorus Removal Standards (Chapter 10)

As noted above, the New York City East of Hudson Watershed has been identified in the SPDES General Permit GP-0-15-002 as a watershed requiring compliance with the Enhanced Phosphorus Removal Standards when post-construction stormwater management practices are proposed. Chapter 10 establishes four goals to meet sizing performance standards:

- Goal 1: Reducing Runoff Volumes
- Goal 2: Effective Bypass Treatment
- Goal 3: Achieving Effluent Concentrations for Particulate Phosphorus
- Goal 4: Achieving Effluent Concentrations for Dissolved Phosphorus

In order to achieve the first goal, the site design shall," assess the feasibility of hydrological source controls and reduce the total water quality volume by source control, implementation of green infrastructure, or standard SMP's with RR<sub>v</sub> capacity, according to the process defined in Chapters 3 and 4 of the Design Manual. Each plan must include a rationale for acceptance and rejection of the various controls." A discussion on RR<sub>v</sub> can be found in section 2.2 below. Based upon the results of onsite soil testing, the soils onsite in select areas are suitable for infiltration. Therefore, the use of infiltration practices (classified as Standard SMP's with RR<sub>v</sub> capacity) maximized, and infiltration basins were utilized in the select areas identified where suitable soils exist to treat runoff from portions of the proposed impervious surfaces and satisfy RR<sub>v</sub> minimum requirements. As such, Goal 1 has been achieved in this SWPPP.

Goal 2 cites that proposed stormwater management practices should achieve less than 15% effective treatment bypass of the long-term runoff volume. Chapter 10 further notes this goal is satisfied by capturing and treating the 1-year 24-hour design storm. The NYSDEC stormwater quality treatment practices proposed for this have been designed in accordance with Chapter 10 by utilizing the 1-yr, 24-hour design storm to generate the WQ<sub>v</sub> / RR<sub>v</sub>. As such, Goal 2 has been achieved in this SWPPP.

Achieving effluent concentrations for particulate phosphorus, Goal 3, is satisfied by achieving an 80% net removal of particulate phosphorus for a median influent concentration of 0.5mg/l. Chapter 10 states that through designing proposed SMP's in accordance with Section 10.4 this goal will be achieved. The proposed infiltration systems have been designed in accordance with Section 10.4.4 of Chapter 10 thus satisfying the requirements of this goal.

Goal 4, achieving effluent concentration for dissolved phosphorus, is achieved by obtaining a 60% net removal of dissolved phosphorus given a median influent concentration of 0.15mg/l. As with Goal 3, Goal 4 is achieved by designing the proposed SMP's in accordance with Section 10.4 of Chapter 10. As noted above the proposed infiltration systems have been designed in accordance with section 10.4.4 of Chapter 10 thus satisfying the requirements of this goal.

## 2.2 Runoff Reduction Volume (RR<sub>v</sub>) and Water Quality Volume (WQ<sub>v</sub>)

The Runoff Reduction Volume (RR<sub>v</sub>) criterion is intended to replicate pre-development hydrology by maintaining preconstruction infiltration, peak flow runoff, discharge volume, as well as minimizing concentrated stormwater flow. As stated in Chapter 4 of the Design Manual, RR<sub>v</sub> may be treated with standard SMP's with runoff reduction capacity sized in accordance with the Chapter 4/6 requirements, or with green infrastructure practices (GIP's) sized in accordance with the requirements set forth for each GIP in Chapter 5. Runoff reduction is achieved when runoff from a site is captured, directed to a SMP or a GIP, infiltrated to the ground, reused, or removed by evapotranspiration, so it does not contribute to the stormwater discharge from the site. The goal for each site is to reduce the entire WQ<sub>v</sub> (100%) through the implementation of GIP's and standard SMP's with runoff reduction capacity. However, if 100% of the WQ<sub>v</sub> cannot be reduced by applying a combination of green infrastructure techniques and standard SMP's with RR<sub>v</sub> capacity, "they must, at a minimum, reduce runoff from a percentage of the impervious area constructed as part of the project using the green infrastructure techniques and standard SMPs with RR<sub>v</sub> capacity. In addition, the designer must provide justification in the SWPPP that evaluates each of the green infrastructure techniques listed in Table 3.2 and identify the specific site limitations that make application of the technique(s) infeasible.

The RR<sub>v</sub> Calculations are provided in Appendix A and are summarized as follows:

Initial WQ <sub>v</sub> (0.428 acre-feet)	=	17,380 c.f.
RR <sub>v</sub> Minimum	=	8,126 c.f.
RR <sub>v</sub> Provided	=	16,466 c.f.
Remaining WQ <sub>v</sub> to be treated	=	914 c.f.

The project SWPPP provides treatment for 96% of the WQ<sub>v</sub> through the implementation of one(1) Dry Swale (O-1) and two(2) infiltration basins(I-2). The dry swale and infiltration basins are classified as standard SMP's with RR<sub>v</sub> capacity, and as summarized above provide approximately 202% of the required RR<sub>v</sub> minimum. The infiltration basins have been sized to capture and infiltrate 100% of the RR<sub>v</sub> / WQ<sub>v</sub> generated by their contributing areas by providing storage for 100% of the contributing RR<sub>v</sub> / WQ<sub>v</sub> to each infiltration basin below the secondary outlet in each flowsplitter. The HydroCAD routing contained in Appendix C accounts for infiltration out the bottom of each proposed infiltration basin (identified as exfiltration in the HydroCAD output). The exfiltration rate utilized in the HydroCAD modeling contained in Appendix C of this report is calculated by converting the measured infiltration rate at each proposed SMP location (as observed by this office and a representative of the NYCDEP during previously completed infiltration testing) to a rate measured in feet / second. Then multiplying this value by the bottom area of each subsurface infiltration system. This ensures only the bottom area is accounted for in the exfiltration modeling. Pretreatment for each infiltration basin and s will be provided through the use of hydrodynamic separators sized based on the WQ<sub>v</sub> peak flow, and a permanent stone check dam will provide the required pretreatment for the proposed dry swale.

For a calculation of the Initial WQ<sub>v</sub> / RR<sub>v</sub>, the RR<sub>v</sub> minimum, the RR<sub>v</sub> / WQ<sub>v</sub> required and the RR<sub>v</sub> provided, refer to Appendix A. In calculating the RR<sub>v</sub> minimum, all soils within the proposed limits of disturbance belong to the Hydrologic Soil Group B. The table below summarizes the RR<sub>v</sub> requirements for the site, as calculated in Appendix A.



**Table 2.2.1 Summary of WQ<sub>v</sub>/RR<sub>v</sub>**

<b>Design Line / Design Point</b>	<b>Initial WQ<sub>v</sub> / RR<sub>v</sub> (c.f.)</b>	<b>RR<sub>v</sub> Minimum <sup>2</sup> (c.f.)</b>	<b>RR<sub>v</sub> provided through GIP with Area Reduction (c.f.)</b>	<b>WQ<sub>v</sub> / RR<sub>v</sub> Required (Project WQ<sub>v</sub> / RR<sub>v</sub> minus RR<sub>v</sub> provided through GIP with Area Reduction) (c.f.)<sup>1</sup></b>	<b>RR<sub>v</sub> Provided (c.f.)</b>	<b>Percentage of RR<sub>v</sub> Minimum Provided.</b>
Sucatchment 1.1S	4,443 c.f.	2,268 c.f.	0 c.f.	4,443.f.	4,443 c.f.	196%
Subcatchment 1.2S	1,525 c.f.	567 c.f.	0 c.f.	1,525 c.f.	610 c.f.	108%
Subcatchment 2.1S	11,413 c.f.	5,291 c.f.	0 c.f.	11,413 c.f.	11,413	216%

<sup>1</sup> In accordance with the sizing requirements specified in the Enhanced Phosphorus Removal Standards provided in chapter 10 of the Design Manual the initial WQ<sub>v</sub> is equivalent to the runoff volume generated by the 1 year 24 hour storm event by the contributing area to the stormwater management practice. The initial required WQ<sub>v</sub> provided in the table above is obtained from the Post Development HydroCAD output contained in appendix C of the enclosed SWPPP.

<sup>2</sup> RR<sub>v</sub> minimum calculations are provided in Appendix A of the enclosed SWPPP. In accordance the latest version of the Design Manual (January 2015) the Method described in chapter 4 of the Design Manual was utilized to calculate the RR<sub>v</sub> Minimum.

As noted in the table above the project has provided Stormwater treatment in excess of the RR<sub>v</sub> minimum through the implementation of standard Stormwater management practices with RR<sub>v</sub> capacity, and has maximized the use of infiltration where suitable soils exist thus satisfying the NYSDEC Runoff Reduction Volume requirements.

As noted previously two (2) infiltration basins, one (1) dry swale, one (1) surface sand filter are proposed to provide the required RR<sub>v</sub>/WQ<sub>v</sub> treatment required by the Design Manual. The following tables summarize the dry swale and sand filter sizing requirements:

**Table 2.2.3 Dry Swale Water Quality Volume Summary**

<b>Subcatchment</b>	<b>WQ<sub>v</sub> (cf)</b>	<b>NYSDEC Practice Designation</b>	<b>Required Detention Time (min.)</b>	<b>Provided Detention Time (min.)</b>	<b>% WQ<sub>v</sub> Storage Provided in Swale</b>
1.1S	2,614	O-1	30 min.	338 min	100%+

The Sand Filter has been sized to hold 75% of the Required  $WQ_v$  /  $RR_v$ , and provide the filter bed area as required by Section 6.4.4 of the Design Manual. A hydrodynamic separator is proposed for pretreatment, and a flow splitter is provided upstream, placing the sand filter offline. The flow splitter and sand filter routings are contained in the HydroCAD output in Appendix C. The following tables summarizes the Sand Filter sizing:

**Table 2.2.2 Sand Filter Volume Sizing Summary**

Sub-catchment	Contributing $WQ_v$ (c.f.)	Pre-Treatment <sup>1</sup>	Minimum % $WQ_v$ Storage Required In Sand Filter	Minimum Storage Volume Required (c.f.)	Storage Provided in Sand Filter <sup>2</sup> (c.f.)
1.2S	1,525	hydrodynamic separator	75%	1,144	3,284

<sup>1</sup> Pretreatment will be provided through the use of a hydrodynamic separator based on the 1-year storm peak flow.

<sup>2</sup> The storage volume is calculated as the volume between the bottom of practice to the overflow weir elevation on the outlet structure. Refer to the Stage-Area-Storage Tables contained in Appendix C.

**Table 2.2.2 Sand Filter Area Calculations**

$$A_f = (WQ_v)(d_f) / [(k)(h_f + d_f)(t_f)]$$

Subcatchment	Contributing $WQ_v$ (c.f.)	$D_f$ (depth of filter, feet)	K (Permeability in feet / day)	$h_f$ (Avg height of water above filter bed, feet)	$t_f$ (Design filter bed drain time, days)	Required $A_f$ (Area of filter, s.f.)	Provided $A_f$ (Area of filter, s.f.)
1.2S	1,525	1.5	3.5	2	1.67	112	500

### 2.3 NYSDEC Stream Channel Protection Volume, $CP_v$

The Stream Channel Protection ( $CP_v$ ) criterion is intended to protect stream channels from erosion and is accomplished providing 24-hours Center-of-Mass or Plug Flow Detention Time for the runoff volume generated by the 1-Year, 24-hour storm event, or infiltration of the entire runoff volume generated by the 1-year 24-hour storm event. For this project, the  $CP_v$  requirements are satisfied by infiltrating the entire 1 Year Storm Runoff Volume tributary to each infiltration basin, and providing a combined 1,768 minutes of Center of Mass detention time in the proposed dry swale and surface sand filter. This can be verified in the HydroCAD model in Appendix C.

### 2.4 NYSDEC Overbank Flood Control, $Q_p$ , and Extreme Storm Control, $Q_f$

The Overbank Flood Control ( $Q_p$ ) requirement is intended to prevent an increase in the frequency and magnitude of out-of-bank flooding events generated by urban development. Overbank control requires storage to attenuate the post-development 10-year, 24-hour peak discharge to pre-development rates. The Extreme Storm Control ( $Q_p$ ) requirement is intended to prevent the increased risk of flood damage from large storm events, maintain the boundaries of the pre-development 100-year flood plain, and protect the physical integrity of SMP's. Extreme Storm Control requires storage to attenuate the post-development 100-year, 24-hour peak discharge to pre-development rates.

The pre versus post-development analysis is contained in Appendix B and C. As a result of infiltrating the entire runoff volume generated by the 1-year design storm peak flows from the larger storm events are reduced. A summary of the pre-development versus post-development peak flows for the site specific analysis contained herein are provided in the Table below:

**Table 2.5.1 Pre and Post-Development Peak Flows at Design Line 1**

<b>24-HOUR DESIGN STORM PEAK FLOWS (c.f.s.)</b>				
	10-YEAR (Overbank Flood Control)		100-YEAR (Extreme Flood Control)	
	Pre	Post	Pre	Post
Design Point 1	11.7	10.6	29.6	29.0
Design Line 2	17.5	15.9	41.9	38.1

## 2.5 NYCDEP Requirements

The subject project is located within the NYC East of Hudson Watershed and a NYCDEP SWPPP approval is required as it meets or exceeds the following thresholds listed in the Rules and Regulations described below.

**§18-39(b)(3)(iii): Construction of a new industrial, institutional, municipal, commercial, or multi-family residential project that will result in the creation of an impervious surface totaling over 40,000 square feet in size.**

As described in previous sections of this report the subject project proposed several improvements the existing park facility, which consist of the demolition of several existing buildings, parking areas, and play courts as well as the construction of a new 18,000 sf community center, associated parking area and access roads. The proposed site improvements will result in the creation of approximately 76,000 sf of new impervious surface thus exceeding the threshold specified in §18-39(b)(3)(iii) of the Rules and Regulations.

**§18-39(b)(3)(iv): A land clearing or land grading project, involving two (2) or more acres, located at least in part within the limiting distance of 100 feet of a watercourse or wetland, or within the limiting distance of 300 feet of a reservoir, reservoir stem or controlled lake or on a slope exceeding 15 percent.**

The proposed site improvements will result in a total of 5.4 acres of land disturbance, which will include land clearing and land grading within the limiting distance of 100 feet to a NYCDEP perennial watercourse, as well as on slopes exceeding 15% thus exceeding the threshold specified in §18-39(b)(3)(iv) of the Rules and Regulations.

It should be noted that as a part of the site improvements it is proposed to widen the existing park access road, which is currently located within the limiting distance of 100' to a NYCDEP perennial watercourse. As specified in §18-39(a)(4)(i) and §18-39(a)(6)(iv) of the Rules and Regulations the widening of an existing road located within the limiting distance of 100' to a perennial stream is not prohibited. Provided that the road widening be performed on the side of the existing road which is furthest from the watercourse, as is the case for the subject project.

In addition to the proposed road widening, a new maintenance access drive will be constructed as a part of the site improvements. A portion of the proposed maintenance access drive will be located within the limiting distance of 100' to the perennial watercourse, therefore it is proposed to install pervious Turf Stone Pavers over all parts of the proposed maintenance access road located within limiting distances.

The NYCDEP Rules and Regulations parallel the requirements of the NYSDEC and the Town of Carmel, with two (2) exceptions. The first exception being that two different NYSDEC standard SMP's are required in series when the drainage area to a SMP is greater than 20% impervious or an infiltration practice is not provided. Infiltration basins have been utilized for treatment of runoff from all subcatchments in excess of 20% impervious. The contributing area to the proposed dry swale and sand filter contains less than 20% percent impervious therefore only one treatment practice is required for Stormwater runoff generated by their contributing area.

The second exception being due to the fact that the site is located in the West Branch Reservoir Basin which is considered a terminal reservoir, a total coliform analysis is required for the pre and post development conditions at the project site. The Coliform analysis prepared for the project and a summary of its subsequent results are provided in section 2.6 of this report.

The NYCDEP requires that the stormwater treatment volume used shall be the greater of the runoff volume from the 1-year, 24-hour storm event or the volume generated by the 90% storm. Runoff volumes for each of the subcatchments for the 1-year 24-hour design storm are found in Appendix C. The following equation, per Chapter 4, was used to determine the water quality volume for the 90% storm for each of the post-construction subcatchment areas discharging to a stormwater treatment practice:

$$\text{The water quality volume shall be } WQ_v = \frac{(P)(R_v)(A)}{12}$$

Where,

$WQ_{v90}$  = water quality volume (in acre-feet)

P = 90% Rainfall Event Number

$R_v$  =  $0.05 + 0.009(I)$ , where I is percent impervious cover

A = site area in acres

**Table 2.5.1 - Water Quality Volume Calculation Summary 90% Storm vs. 1-Year Storm Comparison**

Subcatchments	P (in.)	$R_v$	A <sup>1</sup> (ac.)	$WQ_{v90}$ (ac-ft)	$WQ_v$ <sup>2</sup> 1-year (ac-ft)
1.1S	1.5	0.60	1.10	0.083	0.102
1.2S		0.21	0.85	0.022	0.035
2.1S		0.75	1.80	0.169	0.262

<sup>1</sup> Information regarding contributing areas for the 1-year 24-hour storm event is shown in Appendix C.

<sup>2</sup> Refer to Appendix C for 1-year 24-hour water quality volume calculation.

As shown in table 2.5.1 above, the volume produced by the 1-year, 24-hour design storm for each of the subcatchments is larger than the volume produced by the 90% storm, therefore the 1-year, 24-hour design storm volumes shall be used for the  $WQ_v$  sizing for all of the proposed stormwater management practices.

Since infiltration is being provided for subcatchments 1.1S, and 2.1S and subcatchment 1.2S is less than 20% impervious surface no secondary practice is required per the Rules and Regulations.

## 2.6 NYCDEP Coliform Analysis

As required by section 18-39 (c)(1) of the Rules and Regulations an analysis of the coliform in the pre and post development condition must be included in the project SWPPP as the subject project is located in the West Branch Reservoir Basin, a terminal reservoir. The pollutant loading coefficient method was utilized to calculate the annual export of coliform (FC) for the proposed project area. The publication *Fundamentals of Urban Runoff Management: Technical and Institutional Issues* produced by the Terrene Institute was referenced to determine the appropriate loading rates FC.

The appropriate loading rates were then utilized to calculate the annual pollutant export values. Variables involved with this calculation include land use/ground cover characteristics. Further details for each subcatchment and the pollutant removal efficiency for each practice may be found in Appendix J.

**Table 2.6.1 Summary of Pollutant Loading Rates (#/ha/yr)**

Land Use/Ground Cover	FC
Pavement / Impervious	1.8E+08
Grass	1.6E+10
Forest	4.0E+09

The following table summarizes the estimated pre-development and post-development annual pollutant loads (calculated in Appendix E) for the subject project.

**Table 2.6.2 Annual Pollutant Summary**

	Annual FC Loads (#/ha/yr)
Existing Condition Pollutant Loads	6.30E+10
Final Condition Pollutant Loads	4.80E+10 to 5.01E+10

As seen by the above summary, the post-development pollutant loading for coliform are approximately equal to or less than the pre-development loads as required by the NYCDEP regulations.

### 3.0 STORMWATER CONVEYANCE SYSTEM

The stormwater collection and conveyance systems for the project will consist of catch basins and HDPE pipe. As required by the Town of Carmel and NYCDEP the pipe system will be sized to collect and convey at minimum the 10-year, 1-hour design storm using the Rational Method. The Rational Method is a standard method used by engineers to develop flow rates for sizing collection systems. The Rational Method calculates flows based on a one-hour design storm. Sizing calculations for all proposed conveyance systems will be provided in the final project SWPPP.

### 4.0 EROSION AND SEDIMENT CONTROL

Erosion and sediment control should be accomplished by four basic principles: diversion of clean water, containment of sediment, treatment of dirty water, and stabilization of disturbed areas. Diversion of clean water should be accomplished with swales. This diverted water should be safely conveyed around the construction area as necessary and discharged downstream of the disturbed areas. Sediment should be contained with the use of silt fence at the toe of disturbed slopes. Disturbed areas should be permanently stabilized within 7 days of final grading to limit the required length of time that the temporary facilities must be utilized. The owner will be responsible for the maintenance of the temporary erosion control facilities. Refer to the Project Drawings for further information implementation of the Erosion Control Plan and Construction Sequence.

#### 4.1 Temporary Erosion and Sediment Control Facilities

Temporary erosion and sediment control facilities should be installed and maintained as required to reduce the impacts to off-site properties. The owner will be required to provide maintenance for the

temporary erosion and sediment control facilities. In general, the following temporary methods and materials should be used to control erosion and sedimentation from the project site:

- Stabilized Construction Entrance
- Silt Fence Barriers
- Storm Drain Inlet Protection
- Temporary Soil Stabilization

All temporary erosion control measures shall be maintained in accordance with the Erosion & Sediment Control Maintenance Schedule contained on the Project Drawings, and as discussed below.

A stabilized construction entrance should be installed at the site entrance as shown on the project plans. The design drawings will include details to guide the contractor in the construction of this entrance. The intent of the stabilized construction entrance is to prevent the "tracking" of soil from the site. Dust control should be accomplished with water sprinkling trucks if required. During dry periods, sprinkler trucks should wet all exposed earth surfaces as required to prevent the transport of air-borne particles to adjoining areas.

Siltation barriers constructed of geosynthetic filter cloth should be installed at the toe of all disturbed slopes. The intent of these barriers is to contain silt and sediment at the source and inhibit its transport by stormwater runoff. The siltation barriers will also help reduce the rate of runoff by creating filters through which the stormwater must pass. During construction, the siltation barriers shall be inspected weekly and after a rainfall event and shall be cleaned/replaced when needed.

Storm drain inlet protection in the form of stone drop inlet protection will be installed around all proposed inlets. The stone drop inlet protection will serve to filter stormwater runoff before it enters the collection system. Throughout construction the concrete drainage structures, associated piping and inlet protections shall be inspected weekly and after a rainfall event. These items shall be cleaned, repaired and/or replaced when needed.

When land is exposed during development, the exposure shall be kept to the shortest practical period, but in no case more than 7 days. Temporary grass seed and mulch shall be applied to any construction area idle for two weeks. The temporary seeding and mulching shall be performed in accordance with the seeding notes illustrated on the project drawings. Disturbance shall be minimized in the areas required to perform construction. Upon completion of final grading topsoil, permanent seeding and mulch shall be applied in accordance with the project drawings.

The stormwater runoff will be managed by the temporary erosion and sediment control facilities during construction. As discussed in the construction sequences provided the project plans the stabilized construction entrance shall be installed at the site entrance and silt fence shall be installed along the down hill perimeter of where soil disturbing activities will occur containing sediment laden stormwater runoff on-site.

#### 4.2 Permanent Erosion and Sediment Control Facilities

Permanent erosion and sediment control will be accomplished by diverting stormwater runoff from steep slopes, controlling/reducing stormwater runoff velocities and volumes, and vegetative and structural surface stabilization. All of the permanent facilities are relatively maintenance free and only require periodic inspections. The owner will provide maintenance for all the permanent erosion and sediment control facilities.

Rock outlet protection will be provided at the discharge end of all piped drainage systems, and will be sized in accordance with the Blue Book. The purpose of the rock outlet protection is to reduce the depth, velocity, and energy of water, such that the flow will not erode the receiving downstream reach. The rock outlet protection shall be inspected for evidence of scour beneath the riprap and/or for any dislodged stones. Inspections of the rock outlet protection shall be performed during the inspections of the post-construction SMP's for the project.

Other than the buildings and paved surfaces, disturbed surfaces will be stabilized with vegetation within 10 days of final grading. Permanent seed mix and mulch shall be applied to idle areas to minimize the amount of exposed soil. Permanent seed mixtures are proposed for the project and illustrated on project drawings. Application rates for the seed and mulch are provided on the project drawings. The vegetation will control stormwater runoff by preventing soil erosion, reducing runoff volume and velocities, and providing a filter medium. Permanent seeding should optimally be undertaken in the spring from March 21<sup>st</sup> through May 20<sup>th</sup> and in late summer from August 15<sup>th</sup> to October 15<sup>th</sup>.

## **5.0 IMPLEMENTATION, MAINTENANCE & GENERAL HOUSEKEEPING**

### **5.1 Construction Phase**

Details associated with the implementation and maintenance of the proposed stormwater facilities and erosion control measures during construction are shown on the project drawings. Soil disturbance for both the subject project shall not exceed five acres at any given time. The erosion control plan will include associated details and notes to aid the contractor in implementing the plan. Construction is anticipated to begin in the summer of 2017 and anticipated to be completed by the summer of 2018.

During construction, a Site Log Book, Appendix E, is required to be kept per NYSDEC SPDES General Permit GP-0-15-002. Erosion and sediment control inspections are required to be conducted as necessary under coverage of the permit (minimum once a week) and an updated logbook and a copy of the SWPPP is required to be kept on site for the duration of the construction activities. The Construction Site Log Book is an appendix taken from the *New York Standards and Specifications for Erosion and Sediment Control* (Blue Book).

In addition to the proposed erosion and sediment control facilities, the following good housekeeping best management practices shall be implemented to mitigate potential pollution during the construction phase of the project. The general contractor overseeing the day-to-day site operation shall be responsible for the good housekeeping best management practices included in the following general categories:

- Material Handling and Waste Management
- Establishment of Building Material Staging Areas
- Establishment of Washout Areas
- Proper Equipment Fueling and Maintenance Practices
- Spill Prevention and Control Plan

All construction waste materials shall be collected and removed from the site regularly by the general contractor. The general contractor shall supply waste barrels for proper disposal of waste materials. All personnel working on the site shall be instructed of the proper procedures for construction waste disposal.

Although it is not anticipated any hazardous waste materials will be utilized during construction, any hazardous waste materials shall be disposed of in accordance with federal, state, and local regulations. No hazardous waste shall be disposed of on-site. Hazardous waste materials shall be stored in appropriate and clearly marked containers and segregated from the other non-waste materials. All hazardous waste shall be stored in a structurally sound and sealed shipping containers located in the staging areas. Material safety data sheets, material inventory, and emergency contact numbers will be maintained in the office trailer. All personnel working on the site shall be instructed of the proper procedures for hazardous waste disposal.

Temporary sanitary facilities (portable toilets) shall be provided on site during the entire length of construction. The sanitary facilities shall be located in the project staging area, or in an alternate area away from the construction activities on the site. The portable toilets shall be inspected weekly for evidence of leaking holding tanks.

All recyclables, including wood pallets, cardboard boxes, and all other recyclable construction scraps shall be disposed of in a designated recycling barrel provided by the contractor and removed from the site regularly. All personnel working on the site shall be instructed of the proper procedures for construction waste recycling.

All construction equipment and maintenance materials shall be stored in a construction staging area. Silt fence shall be installed down gradient of the construction staging area. Shipping containers shall be utilized to store hand tools, small parts, and other construction materials, not taken off site daily. Construction waste barrels, recycling barrels and if necessary hazardous waste containers shall be located within the limits of the construction staging area.

Throughout the construction of the project, several types of vehicles and equipment will be used on-site. Fueling of the equipment shall occur within the limits of the construction staging area. Fuel will be delivered to the site as needed, by the general contractor, or a party chosen by the general contractor. Only minor vehicle equipment maintenance shall occur on-site, all major maintenance shall be performed off-site. All equipment fluids generated from minor maintenance activities shall be disposed of into designated drums and stored in accordance with the hazardous waste storage as previously discussed.

Vehicles and equipment shall be inspected on each day of use. Any leak discovered shall be repaired immediately. All leaking equipment unable to be repaired shall be removed from the site. Ample supplies of absorbent, spill-cleanup materials, and spill kits shall be located in the construction staging area. All spills shall be cleaned up immediately upon discovery. Spent absorbent materials and rags shall be hauled off-site immediately after the spill is cleaned for disposal at a local landfill. All personnel working on the site shall be instructed of the proper procedures for spill prevention and control. Any spill large enough to discharge to surface water will be immediately reported to the local fire / police departments, NYCDEP, and the National Response Center 1-800-424-8802.

Vegetation should be inspected every 30 days and after every major storm event until established, after which inspections should take place on a quarterly basis and after every large storm event. Damaged areas should be immediately re-seeded and re-mulched.

## 5.2 Soil Restoration

Soil Restoration is required to be applied across areas of the development site where soils have been disturbed and will be vegetated. The purpose is to recover the original properties and porosity of the soil compacted during construction activity. Soil Restoration is applied in the cleanup, restoration, and landscaping phase of construction followed by the permanent establishment of an appropriate, deep-rooted groundcover to help maintain the restored soil structure. Soil restoration includes mechanical decompaction and compost amendment. The table below describes various soil disturbance activities related to land development, soil types and the requirements for soil restoration for each activity as identified in the Design Manual. Restoration is applied across areas of a development site where soils have been compacted and will be vegetated according to the criteria defined in the table below:



Soil Restoration Requirements <sup>1,2,4</sup>			
(Onsite soils within the limit of disturbance belong to Hydrologic Soil Groups (HSG) B)			
Type of Soil Disturbance	Soil Restoration Requirement		Comments/Examples
No soil disturbance	Restoration not permitted		Preservation of Natural Features
Minimal soil disturbance	Restoration not required		Clearing and grubbing
Areas where topsoil is stripped only - no change in grade	HSG A & B	HSG C&D	Protect area from any ongoing construction activities.
	Apply 6 inches of topsoil	Aerate <sup>3</sup> and apply 6 inches of topsoil	
Areas of cut or fill	HSG A &B	HSG C&D	
	Aerate <sup>1</sup> and apply 6 inches of topsoil	Apply full Soil Restoration <sup>2</sup>	
Heavy traffic areas on site (especially in a zone 5-25 feet around buildings but not within a 5 foot perimeter around foundation walls)	Apply full Soil Restoration (decompaction and compost Enhancement <sup>6</sup> )		
Areas where Runoff Reduction and/or Infiltration practices are applied	Restoration not required, but may be applied to enhance the reduction specified for appropriate practices.		Keep construction equipment from crossing these areas. To protect newly installed practice from any ongoing construction activities construct a single phase operation fence area
Redevelopment projects	Soil Restoration is required on redevelopment projects in areas where existing impervious area will be converted to pervious area.		

1. Aeration includes the use of machines such as tractor-drawn implements with coulters making a narrow slit in the soil, a roller with many spikes making indentations in the soil, or prongs, which function like a mini-subsoiler.
2. Per "Deep Ripping and De-compaction, DEC 2008".
3. Aeration includes the use of machines such as tractor-drawn implements with coulters making a narrow slit in the soil, a roller with many spikes making indentations in the soil, or prongs that functions like a mini-subsoiler.
4. During periods of relatively low to moderate subsoil moisture, the disturbed soils are returned to rough grade and the following Soil Restoration steps applied:
  - 5.1. Apply 3 inches of compost over subsoil.
  - 5.2. Till compost into subsoil to a depth of at least 12 inches using a cat-mounted ripper, tractor-mounted disc, or tiller, mixing, and circulating air and compost into subsoils.
  - 5.3. Rock-pick until uplifted stone/rock materials of four inches and larger size area cleaned off the site.
  - 5.4. Apply topsoil to a depth of 6 inches.
  - 5.5. Vegetate as required by seeding notes located on the project drawings.
  - 5.6. Tilling should not be performed within the drip line of any existing trees or over any utility installations that are within 24 inches of the surface.
6. Compost shall be aged, from plant derived materials, free of viable weed seeds, have no visible free water or dust produced when handling, pass through a half inch screen and have a pH suitable to grow desired plants.

After soil restoration is completed, an inspector should be able to push a 3/8" metal bar twelve inches into the soil with just body weight. Following decompaction/soil restoration activities, the following maintenance is anticipated during the first year:

- Initial inspections for the first six months (once after each storm greater than a half-inch).
- Reseeding to repair bare or eroding areas to assure grass stabilization.

- Water once every three days for first month, and then provide a half inch of water per week during first year. Irrigation plan may be adjusted according to the rain event.
- Fertilization may be needed in the fall after the first growing season to increase plant vigor.

In order to ensure the soil remains decompacted the following ongoing maintenance is recommended:

- Planting the appropriate ground cover with deep roots to maintain the soil structure.
- Keeping the site free of vehicular and foot traffic or other weight loads. Consider pedestrian footpaths (sometimes it may be necessary to de-thatch the turf every few years).

### 5.3 Long Term Maintenance Plan

The owner will be responsible for the maintenance of the permanent erosion control and stormwater facilities. Each spring the paved areas should be cleaned to remove the winter's accumulation of traction sand. After this is completed, all catch basin sumps and pipes should be checked for debris and blockages and cleaned as required. During the cleaning process, the catch basins and pipes should be inspected for structural integrity and overall condition; repairs and/or replacement will be made as required.

Once the desired vegetative cover is established, only limited maintenance is required. The infiltration system should be inspected after major storm events and semi-annually. During the inspections, the following should be checked:

- Evidence of clogging in the outlet structures / flow splitters.
- Drain down times exceeding 48 hours in the infiltration basins
- Adequacy of upstream/downstream channel erosion control measures.
- Sources of erosion in the contributory drainage, which should be stabilized

In addition to guidelines discussed above all maintenance requirements outlined in the Design Manual shall be followed.

## **APPENDIX B**

### **WASTEWATER AND WATER FACILITIES ENGINEER'S REPORT**



## **ENGINEER'S REPORT**

### **Wastewater and Water Facilities**

Prepared for

#### **Sycamore Park Community Center**

790 Long Pond Road,  
Town of Carmel, New York

September 2, 2016

### **INTRODUCTION**

The Town of Carmel is planning the development of a Community Recreation Center and related site improvements at Sycamore Park, in Mahopac. The project site is located at 790 Long Pond Road (County Route 32), and is currently developed as a Town Park. The park consists of natural turf multipurpose athletic fields, park support buildings, children's playground, picnic area, parking areas, entrance drives, accessible paths to facilities and other park amenities.

The Town of Carmel is seeking to take the next step in implementing the Sycamore Park Site Master Plan which includes the following improvements:

- Widening of the existing park access road from Long Pond Road (County Route 32).
- Demolition of the existing maintenance entrance and access drive from Long Pond Road, and the construction of a new maintenance drive to connect to the existing park access road onsite.
- Construction of a new 18,000 sf Community Recreation Center building and supporting water supply system, wastewater disposal system, and stormwater management system.
- Construction of new and expanded parking areas to support the new Community Recreation Center building (approximately 91 parking spaces) and supporting stormwater management system.
- Demolition and removal of existing small maintenance buildings and siting of future 3,000 sf maintenance building.

### **SEWAGE DISPOSAL**

As described above the subject property consists of an active public town park. The existing park administration building / community center is served by an existing SSTS which is located approximately 75 feet to the south of the proposed SSTS area serving the proposed community center building. The existing SSTS consists of approximately 800 linear feet of absorption trench and will remain to serve the existing administration building. It should be noted that the existing SSTS has no known issues relative to its absorptive capacity and historically has adequately functioned without any observed signs of problems.

It is proposed to construct a new SSTS for the proposed community center, which will be separate from the existing administration building SSTS. Hydraulic loading rates discussed in later sections of this report and utilized for the SSTS design described herein are what is anticipated for the new community center building only. The wastewater treatment capacity provided by the proposed SSTS will be in addition to what is currently existing for the park, and the existing administration building SSTS will remain as it is currently to serve the existing administration building.

## TESTING

Percolation and deep test holes were conducted to determine the soil characteristics in the proposed SSTS area. The test locations and descriptions are shown on the enclosed construction drawings.

### Percolation Tests

Acceptable percolation tests were performed and witnessed by representatives of the Putnam County Department of Health (PCDOH) on June 21, 2016 (results enclosed). The tests yielded stabilized percolation rates of 3, 4 and 5 min./in. As such, a design percolation rate of 1-7 min./in. was utilized for the proposed SSTS.

### Deep Hole Tests

Acceptable deep test holes were completed in the proposed SSTS area and witnessed by representatives of the PCDOH and New York City Department of Environmental Protection (NYCDEP) on June 21, 2016 (results enclosed). The soil profile generally consists of 12" of topsoil, moderately compacted yellow brown fine sandy loam to depths ranging from 66" to 78". No groundwater or mottling was encountered in any of the test pits. Rock was encountered at 66" in two (2) of the test pits.

### Design Flow

The daily design flow for the proposed community center is based on the hydraulic loading rates listed in documents referenced in the New York State Department of Environmental Conservation's (NYSDEC) publication *New York State Design Standards for Intermediate Sized Wastewater Treatment Systems, dated March 5, 2014 (DEC 2014)*. The following table lists the associated hydraulic loading rates, and the design flow rates (gallons per day or gpd) for the proposed community center. The NYSDEC publication allows for a 20% decrease in hydraulic loading rates for premises equipped with water saving plumbing fixtures. Since current standards dictate, that water saving devices be used in all new construction, this 20% reduction is reflected in the table below. Flow rates for the anticipated uses at the proposed park and the design flow for the proposed SSTS are listed in the tables below.

It should be noted that the proposed community center is anticipated to experience variable use as the site will be primarily used as a town park for the majority of the year. Below are three (3) scenarios outlining the anticipated community center use and their subsequent hydraulic loading:

After school / nighttime activities are anticipated to consist of organized recreational sports or other recreational activities. The participants and associated staff/organizers are expected to use the facility for only a portion of the evening. As such a typical public park hydraulic loading rate of 4 gpd/person as specified in DEC 2014 was utilized for this scenario.

<b>Scenario 1 - After School / Nighttime Recreational Activities</b>			
Proposed Use	# of Units	Flow Rate (gpd/unit)	Design Flow (gpd)
Public Park	75 people	4	300
<b>Total</b>			<b>300</b>

It is expected that the town may elect to use the community center for special events such as town meetings, work sessions, program sign ups, etc. As noted below, event participants are expected to use the building for only a portion of the evening. As such a typical public park hydraulic loading rate of 4 gpd/person as specified in DEC 2014 was utilized for this scenario.

<b>Scenario 2 - Special Functions / Events</b>			
Proposed Use	# of Units	Flow Rate (gpd/unit)	Design Flow (gpd)
Public Park	150 people	4	600
<b>Total</b>			<b>600</b>

The Town of Carmel operates a day camp at the park during the summer months. It is expected that during these months the proposed community center will experience the most frequent use, as such the hydraulic loading rates listed below are representative of the anticipated peak daily water usage for the proposed building; it should be noted that wastewater for the existing administration building will be treated in the existing SSTS described in previous sections of this report.

<b>Scenario 3 - Town Day Camp</b>			
Proposed Use	# of Units	Flow Rate (gpd/unit)	Design Flow (gpd)
Camp Attendees and Staff	100 people	12	1,200
<b>Total</b>			<b>1,200</b>

#### Absorption Trenches

As noted above the absorption system has been sized to accommodate a maximum daily design flow of 1,200 gpd. Utilizing a design percolation rate of 1-7 min./in. 600 l.f. of 2-foot wide absorption trench is required. A total of 608 l.f. of absorption trench is provided. Sufficient area for 100% expansion absorption trenches is also provided (608 l.f.) as shown on the enclosed SSTS Construction Drawings.

#### Septic Tank

A new 2,000-gallon precast concrete septic tank, H-20 load rated, with cast-iron frame and cover is proposed to service the community center. The septic tank has been sized for a volume in excess of 1.5 times the design flow of 1,200 gpd.

#### Dosing Tank

A dosing tank is provided and has been sized to provide the required dose volume to the proposed SSTS with a 13" drawdown (refer to the sizing calculations provided on the enclosed construction drawings). In addition, an audio / visual high level alarm is proposed within the building. The alarm will be set halfway between the high watermark and the overflow elevation in the dosing tank per NYCDEP requirements.

## **WATER SUPPLY**

Water supply for the proposed community center building will be provided by a drilled well. The proposed well will be classified as a Transient Non-Community Public water supply well.

As per the NYSDOH requirements a public water supply is defined as either a community, non-community, or non transient non-community water supply which serves 25 individuals daily at least 60 days out of the year. Well yield and water quality testing will be provided in a future application for a public water supply.

In addition, a 5/8" Sensus SR II water meter is proposed to be installed on the supply line from the proposed well, and daily water meter readings will be provided to the Putnam County Department of Health at the end of each month.

## **APPENDIX C**

### **NYSDEC NEW YORK NATURAL HERITAGE PROGRAM LETTER**



**NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION**  
**Division of Fish, Wildlife and Marine Resources**  
**New York Natural Heritage Program**  
**625 Broadway, 5th Floor, Albany, New York 12233-4757**  
**Phone: (518) 402-8935 • Fax: (518) 402-8925**  
**Website: [www.dec.ny.gov](http://www.dec.ny.gov)**



September 10, 2015

Theresa Ryan  
Insite Engineering, Surveying, and Landscape Architecture, P.C.  
3 Garrett Place  
Carmel, NY 10512

Re: Improvements to Sycamore Park, 790 Long Pond Road, Mahopac  
Town/City: Carmel. County: Putnam.

Dear Theresa Ryan:

In response to your recent request, we have reviewed the New York Natural Heritage Program database with respect to the above project.

Enclosed is a report of rare or state-listed animals and plants, and significant natural communities that our database indicates occur, or may occur, on your site or in the immediate vicinity of your site.

For most sites, comprehensive field surveys have not been conducted; the enclosed report only includes records from our database. We cannot provide a definitive statement as to the presence or absence of all rare or state-listed species or significant natural communities. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other sources may be required to fully assess impacts on biological resources.

Our database is continually growing as records are added and updated. If this proposed project is still under development one year from now, we recommend that you contact us again so that we may update this response with the most current information.

The presence of the plants and animals identified in the enclosed report may result in this project requiring additional review or permit conditions. For further guidance, and for information regarding other permits that may be required under state law for regulated areas or activities (e.g., regulated wetlands), please contact the appropriate NYS DEC Regional Office, Division of Environmental Permits, as listed at [www.dec.ny.gov/about/39381.html](http://www.dec.ny.gov/about/39381.html).

Sincerely,

A handwritten signature in dark ink, reading "Andrea Chaloux". The signature is written in a cursive, flowing style.

Andrea Chaloux  
Environmental Review Specialist  
New York Natural Heritage Program



**The following state-listed animals have been documented  
in the vicinity of your project site.**

The following list includes animals that are listed by NYS as Endangered, Threatened, or Special Concern; and/or that are federally listed or are candidates for federal listing.

**For information about potential impacts of your project on these populations, how to avoid, minimize, or mitigate any impacts, and any permit considerations, contact the Wildlife Manager or the Fisheries Manager at the NYSDEC Regional Office for the region where the project is located. A listing of Regional Offices is at <http://www.dec.ny.gov/about/558.html>.**

**The following species have been documented near the project site, generally within 0.5 mile. Potential onsite and offsite impacts from the project may need to be addressed.**

COMMON NAME	SCIENTIFIC NAME	NY STATE LISTING	FEDERAL LISTING	
<b>Reptiles</b>				
<b>Bog Turtle</b>	<i>Glyptemys muhlenbergii</i>	Endangered	Threatened	1180

**The following species have been documented within 5 mi of the project site. Individual animals may travel 5 mi from documented locations.**

COMMON NAME	SCIENTIFIC NAME	NY STATE LISTING	FEDERAL LISTING	
<b>Mammals</b>				
<b>Northern Long-eared Bat</b> <i>Hibernaculum</i>	<i>Myotis septentrionalis</i>	Threatened	Threatened	14144

This report only includes records from the NY Natural Heritage database. For most sites, comprehensive field surveys have not been conducted, and we cannot provide a definitive statement as to the presence or absence of all rare or state-listed species. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other sources may be required to fully assess impacts on biological resources.

If any rare plants or animals are documented during site visits, we request that information on the observations be provided to the New York Natural Heritage Program so that we may update our database.

Information about many of the listed animals in New York, including habitat, biology, identification, conservation, and management, are available online in Natural Heritage's Conservation Guides at [www.guides.nynhp.org](http://www.guides.nynhp.org), and from NYSDEC at [www.dec.ny.gov/animals/7494.html](http://www.dec.ny.gov/animals/7494.html).

## **APPENDIX D**

### **NEW YORK PARKS, RECREATION, AND HISTORIC PRESERVATION LETTER**



## Parks, Recreation, and Historic Preservation

ANDREW M. CUOMO  
Governor

ROSE HARVEY  
Commissioner

August 22, 2016

Ms. Dawn McKenzie  
Project Landscape Architect  
Insite Engineering, Surveying & Landscape Architecture PC  
3 Garrett Place  
Carmel, NY 10512

Re: DEC  
Sycamore Park Community Recreation Center  
790 Long Pond Road, Carmel, NY 10512  
16PR04053

Dear Ms. McKenzie:

Thank you for requesting the comments of the Office of Parks, Recreation and Historic Preservation (OPRHP). We have reviewed the project in accordance with the New York State Historic Preservation Act of 1980 (Section 14.09 of the New York Parks, Recreation and Historic Preservation Law). These comments are those of the OPRHP and relate only to Historic/Cultural resources. They do not include potential environmental impacts to New York State Parkland that may be involved in or near your project. Such impacts must be considered as part of the environmental review of the project pursuant to the State Environmental Quality Review Act (New York Environmental Conservation Law Article 8) and its implementing regulations (6 NYCRR Part 617).

Based upon this review, it is the New York State Office of Parks, Recreation and Historic Preservation's opinion that your project will have no impact on archaeological and/or historic resources listed in or eligible for the New York State and National Registers of Historic Places.

If further correspondence is required regarding this project, please be sure to refer to the OPRHP Project Review (PR) number noted above.

Sincerely,

Ruth L. Pierpont

Deputy Commissioner for Historic Preservation

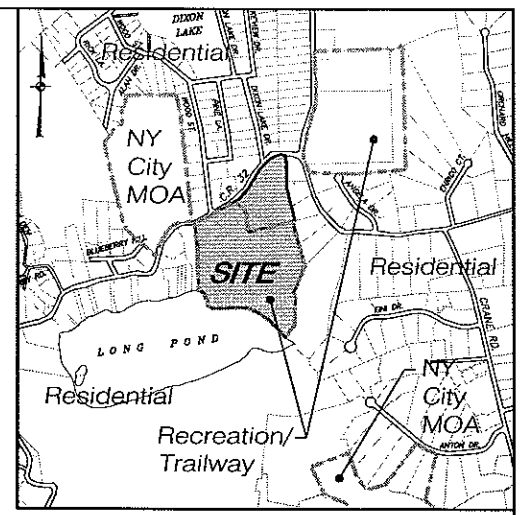
## **DRAWINGS**

OWNER/APPLICANT:

TOWN OF CARMEL  
60 MUALPIN AVENUE  
MAHOPAC, NY 10541

SITE DATA:

Zone: Residential  
Acreage: 8.98 AC  
Tax Map No.: 54.9-1-39  
Zone: Recreation/Trailway  
Acreage: 11.96 AC  
Tax Map No.: 54.9-1-40



SCALE: 1" = 1,000'

GENERAL NOTES:

1. PROPERTY LINE AND TOPOGRAPHIC INFORMATION TAKEN FROM SURVEY PREPARED BY KAYLER GEOSCENCE AND LAND SURVEYING, PLLC DATED JULY 20, 2006.
2. EXISTING CONDITIONS BASED ON SURVEY PREPARED BY KAYLER GEOSCENCE AND LAND SURVEYING, PLLC DATED JULY 20, 2006, WITH AS-BUILT INFORMATION EASTERN PARKING AREAS BASED ON AS-BUILT SITE PLAN PREPARED BY MORRIS ASSOCIATES, PLLC, DATED FEB. 22, 2008.
3. WETLAND INFORMATION SHOWN AS DELINEATED BY KAYLER GEOSCENCE AND LAND SURVEYING, PLLC ON JULY 11, 2006, VALIDATED BY BRIAN DRUMM OF NYSDC ON OCTOBER 27, 2007, BASED ON SURVEY PREPARED BY KAYLER GEOSCENCE AND LAND SURVEYING, PLLC DATED JULY 20, 2006.
4. ADDITIONAL WETLAND INFORMATION ACROSS LONG POND ROAD FROM WEST PARK ENTRANCE AS DELINEATED BY KELLY MCKEAN OF NYSDC ON APRIL 29, 2016 AND VALIDATED ON MAY 20, 2016 BY KELLY MCKEAN OF NYSDC.

LEGEND

- Existing Property Line
- Existing Tree Line
- Existing Brush Line
- Existing Stone Wall
- Existing Fence
- Existing Edge of Water
- Existing NYSDC Wetland LC-22 Limit Line with Flags
- 100' NYSDC Adjacent Area
- 100' NYSDC Watercourse Buffer
- Existing Sign
- Existing Edge of Pavement
- Existing Pavement Marking
- Existing Paved Maintenance Access Road
- Proposed Edge of Pavement
- Proposed Curb
- Proposed Retaining Wall
- Proposed Culvert
- Proposed Wall

\*The NYSDC Freshwater Wetland Boundary (as shown on this drawing) is based on a survey prepared by Kayler Geoscience dated July 20, 2006, and validation block (shown below) is as shown on As-Built Site Plan prepared by Morris Associates, PLLC, dated February 22, 2008.

**NYSDC FRESHWATER WETLAND BOUNDARY VALIDATION**

The freshwater wetland boundary as represented on these plans accurately depicts the limits of Freshwater Wetland LC-22 as delineated by KAYLER GEOSCENCE and LAND SURVEYING, PLLC on July 11, 2006.

DEC Stamp: *[Signature]* Surveyor/Engineer: KAYLER GEOSCENCE and LAND SURVEYING, PLLC  
Date: 10/21/2007  
Note: 100-foot Adjacent Area not shown.

Wetland boundary delineations as validated by the New York State Department of Environmental Conservation remain valid for 10 years unless existing exempt activities, area hydrology, or land use practices change (e.g., agricultural to residential). After 10 years the boundary must be revalidated by DEC staff. Revalidation may include a new delineation and survey of the wetland boundary.

Any proposed construction, grading, filling, excavating, clearing or other regulated activity in the freshwater wetland or within 100 feet of the wetland boundary as depicted on this plan requires a permit from the NY State Department of Environmental Conservation under Article 24 of the Environmental Conservation Law (Freshwater Wetlands Act) prior to commencement of work.

\*The NYSDC Freshwater Wetland Boundary (as shown on this drawing) and validation block (shown below) is as shown on figure W-1, "Partial NYSDC Wetland Validation Map", prepared by Insite Engineering, Surveying, & Landscape Architecture, P.C., dated May 3, 2016.

**NYSDC FRESHWATER WETLAND BOUNDARY VALIDATION**

The freshwater wetland boundary as represented on these plans accurately depicts the limits of Freshwater Wetland LC-22 as delineated by Kelly McKean on April 29, 2016.

DEC Stamp: *[Signature]* Surveyor/Engineer: INSITE ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.  
Date Valid: 5/20/16, Expiration Date: 5/20/21  
Seal: *[Professional Engineer Seal]*

Wetland boundary delineations as validated by the New York State Department of Environmental Conservation remain valid for five (5) years unless existing exempt activities, area hydrology, or land use practices change (e.g., agricultural to residential). After five (5) years the boundary must be revalidated by DEC staff. Revalidation may include a new delineation and survey of the wetland boundary.

Any proposed construction, grading, filling, excavating, clearing or other regulated activity in the freshwater wetland or adjacent 100 feet as depicted on this plan requires a permit from the New York State Department of Environmental Conservation under Article 24 of the Environmental Conservation Law (Freshwater Wetlands Act) prior to commencement of work.

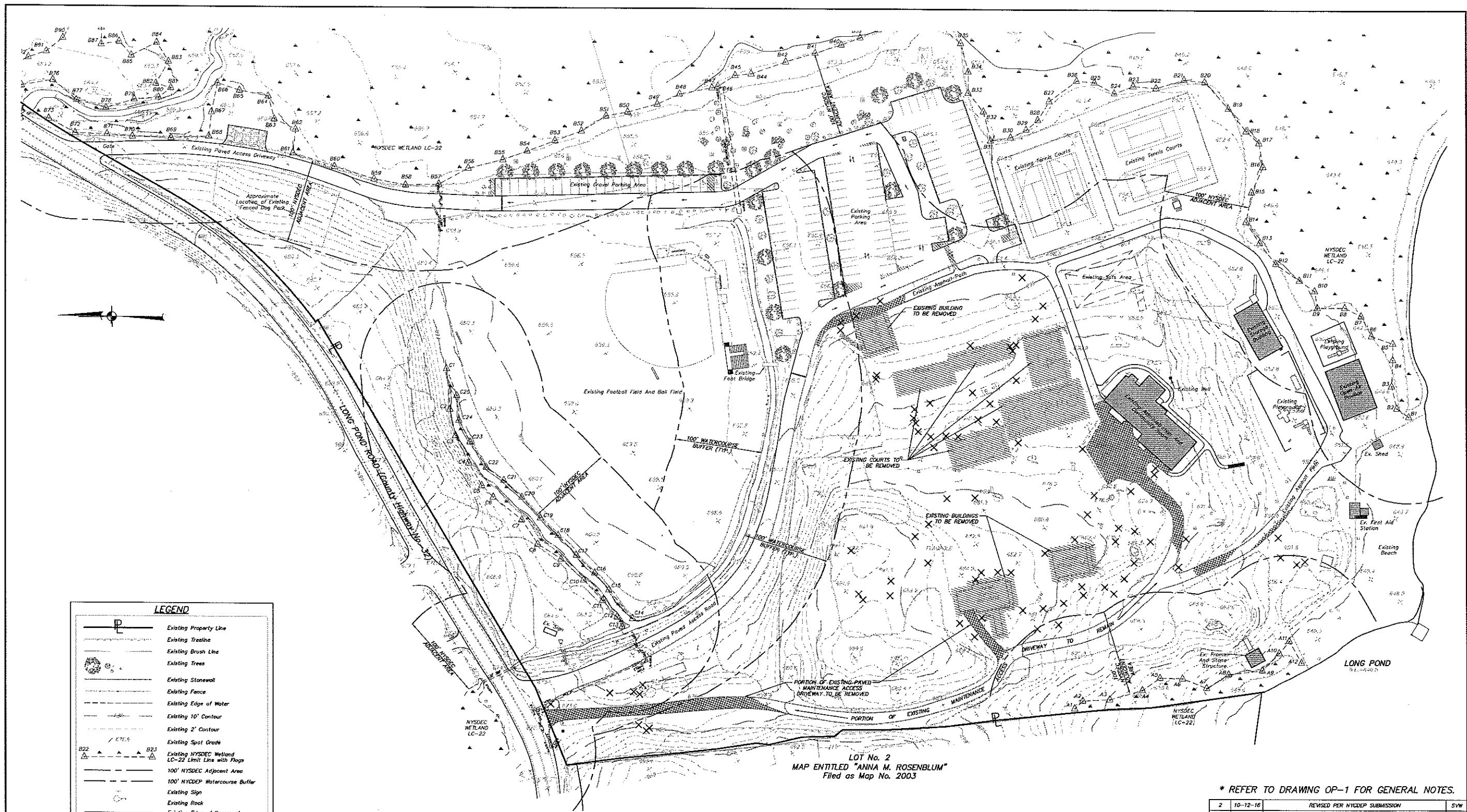
OVERALL PLAN  
SCALE: 1" = 80'

LOT No. 2  
MAP ENTITLED  
"ANNA M. ROSENBLUM"  
Filed as Map No. 2003



2	10-12-16	REVISED PER NYSDC COMMENTS	SYW
1	8-22-16	NYSDC SUBMISSION	MEU
NO.	DATE	REVISION	BY
<b>INSITE</b> ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C. 3 Garrett Place Carmel, NY 10512 (845) 225-9550 (845) 225-3717 fax www.insite-eng.com			
PROJECT: <b>COMMUNITY RECREATION CENTER AT SYCAMORE PARK</b> 290 LONG POND ROAD, TOWN OF CARMEL, PUTNAM COUNTY, NEW YORK			
DRAWING: <b>OVERALL PLAN</b>			
PROJECT NUMBER	14112.100	PROJECT MANAGER	J.J.C.
DATE	8-4-16	DRAWN BY	M.E.U.
SCALE	1" = 80'	CHECKED BY	D.L.M.
			DRAWING NO. SHEET OP-1 / 9

REDUCED SCALE PLAN



**LEGEND**

- Existing Property Line
- Existing Tiesline
- Existing Brush Line
- Existing Trees
- Existing Stonewall
- Existing Fence
- Existing Edge of Water
- Existing 10' Contour
- Existing 2' Contour
- Existing Spot Grade
- Existing NYSDEC Wetland LC-22 Limit Line with Flags
- 100' NYSDEC Adjacent Area
- 100' NYDEC Watercourse Buffer
- Existing Sign
- Existing Rock
- Existing Edge of Pavement
- Existing Pavement Marking
- Existing Drainage Pipe
- Existing Drainage Structure
- Existing Building/Structure to be Removed
- Existing Paved Maintenance Access Road to be Removed
- Existing Tree to be Removed

**EXISTING CONDITIONS PLAN**  
SCALE: 1" = 50'

LOT No. 2  
MAP ENTITLED "ANNA M. ROSENBLUM"  
Filed as Map No. 2003

\* REFER TO DRAWING OP-1 FOR GENERAL NOTES.

2	10-12-16	REVISED PER NYDEC SUBMISSION	SVW
1	8-22-16	NYSDEC SUBMISSION	MEU
NO.	DATE	REVISION	BY

**INSITE**  
ENGINEERING, SURVEYING &  
LANDSCAPE ARCHITECTURE, P.C.

3 Garrett Place  
Carmel, NY 10512  
(845) 225-9690  
(845) 225-9717 fax  
www.insite-eng.com

PROJECT:  
**COMMUNITY RECREATION CENTER  
AT SYCAMORE PARK**  
790 LONG POND ROAD, TOWN OF CARMEL, PUTNAM COUNTY, NEW YORK

DRAWING:  
**EXISTING CONDITIONS &  
REMOVALS PLAN**

PROJECT NUMBER	14112.100	PROJECT MANAGER	J.J.C.	DRAWING NO.	SHEET
DATE	8-4-16	DRAWN BY	M.E.U.	EX-1	2
SCALE	1" = 50'	CHECKED BY	D.L.M.		9

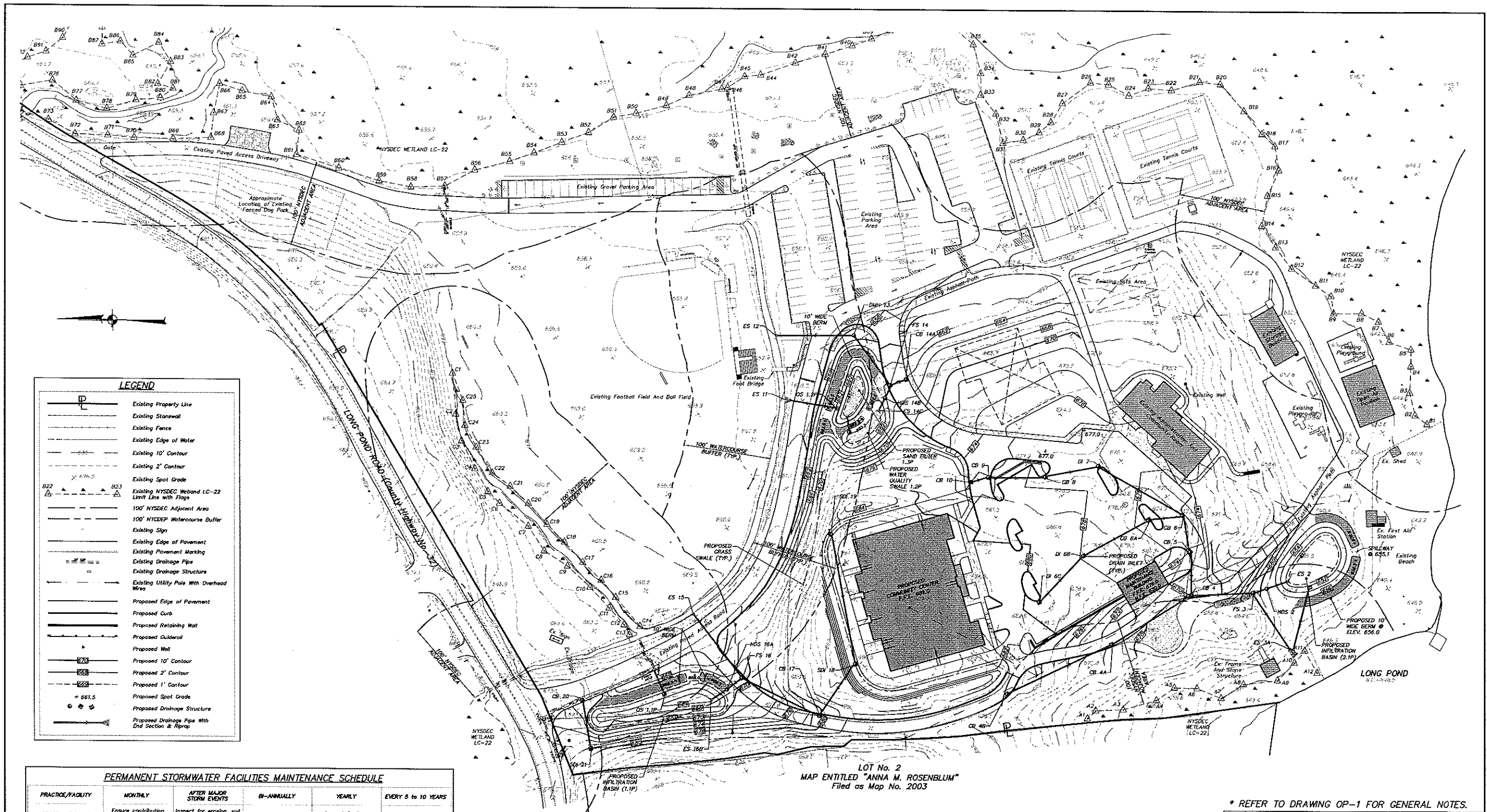


ALTERATION OF THIS DOCUMENT, UNLESS UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, IS A VIOLATION OF SECTION 2209 OF ARTICLE 140 OF THE EDUCATION LAW.

**REDUCED SCALE PLAN**







LEGEND	
	Existing Property Line
	Existing Stonewall
	Existing Fence
	Existing Edge of Water
	Existing 10' Contour
	Existing 2' Contour
	Existing Spot Grade
	Existing NYSDEC Wetland LC-22 Limit Line with Flags
	100' NYSDEC Adjacent Area
	100' NYSDEC Watercourse Buffer
	Existing Sign
	Existing Edge of Pavement
	Existing Pavement Marking
	Existing Drainage Pipe
	Existing Drainage Structure
	Existing Utility Pole with Overhead Wires
	Proposed Edge of Pavement
	Proposed Curb
	Proposed Retaining Wall
	Proposed Culvert
	Proposed Well
	Proposed 10' Contour
	Proposed 2' Contour
	Proposed 1' Contour
	Proposed Spot Grade
	Proposed Drainage Structure
	Proposed Drainage Pipe with End Section & Rorop

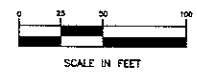
PERMANENT STORMWATER FACILITIES MAINTENANCE SCHEDULE					
PRACICE/FACILITY	MONTHLY	AFTER MAJOR STORM EVENTS	BI-ANNUALLY	YEARLY	EVERY 5 TO 10 YEARS
GRASS & RIP RAP SWALES	Ensure contributing areas clear of debris, no evidence of erosion, & mowing performed.	Inspect for erosion, soil permeability & evidence of flow going around structures.	-	Inspect & clean accumulated sediment.	-
SUBSURFACE STORMWATER COLLECTION SYSTEMS	-	-	Inspect & clean	Inspect, clean, repair and/or replace structures. Remove debris.	-
INFILTRATION BASINS, SEDIMENTATION BASIN, SAND FILTER	Inspect first few months after construction for eroding soils & sumpage & repair immediately	Inspect orifices, inlets & outlets for clogging, eroding soils at the basin basin & embankments, & sources of erosion, & stabilize and/or repair immediately	Mow berms and exterior embankments. Remove debris & litter from basins & outlet structures. Remove accumulated sediment greater than on 1"	-	Inspect for & remove accumulated sediment

Note: The party responsible for implementation of the maintenance schedule during and after construction is:

TOWN OF CARMEL  
60 M-ALPIN AVENUE  
MAHOPAC, NY 10541

ALTERATION OF THIS DOCUMENT, UNLESS UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, IS A VIOLATION OF SECTION 7209 OF ARTICLE 145 OF THE EDUCATION LAW.

GRADING & DRAINAGE PLAN  
SCALE: 1" = 50'



\* REFER TO DRAWING OP-1 FOR GENERAL NOTES.

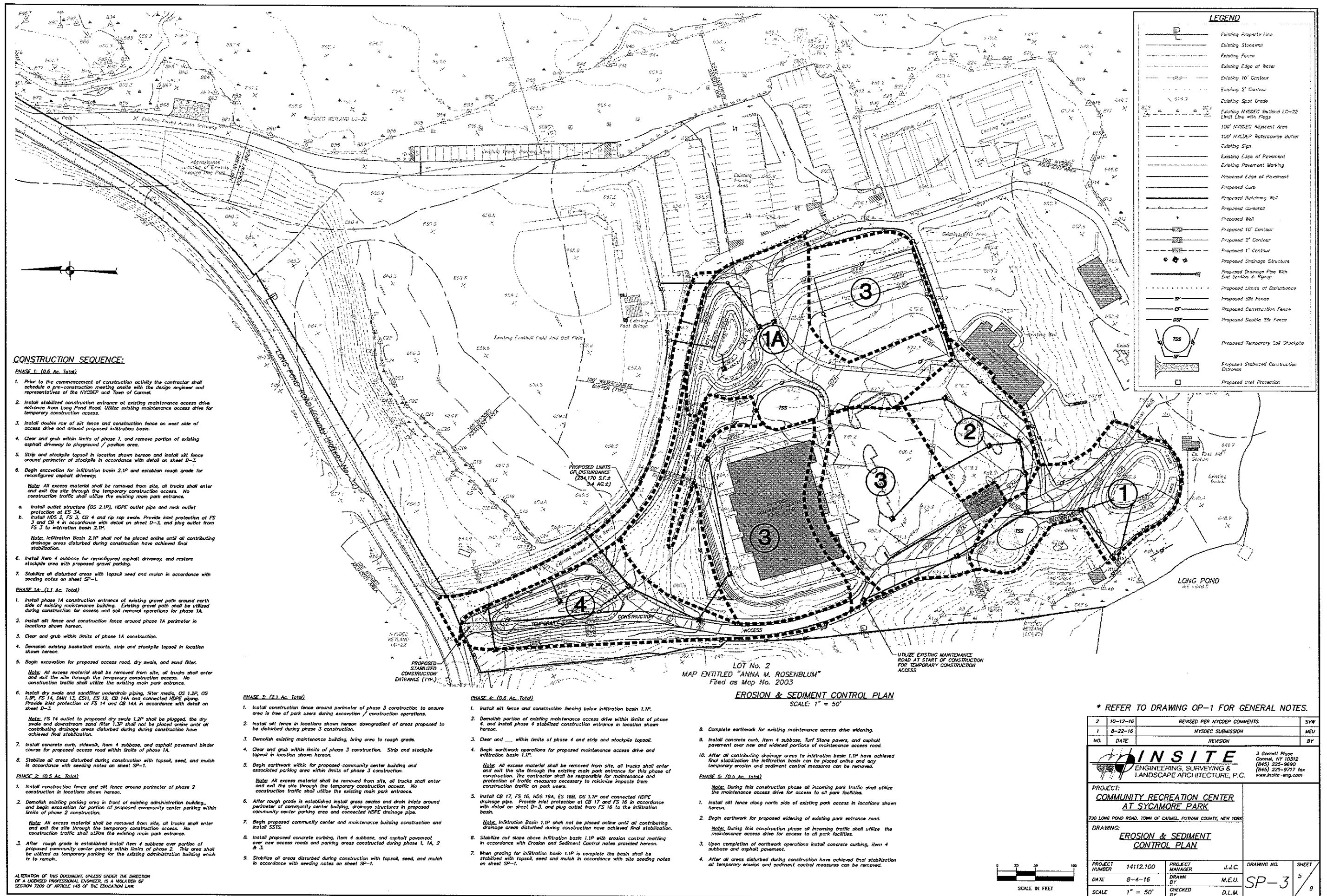
2	10-12-16	REVISED PER NYSDEC COMMENTS	SVW
1	8-22-16	NYSDEC SUBMISSION	MEU
NO.	DATE	REVISION	BY

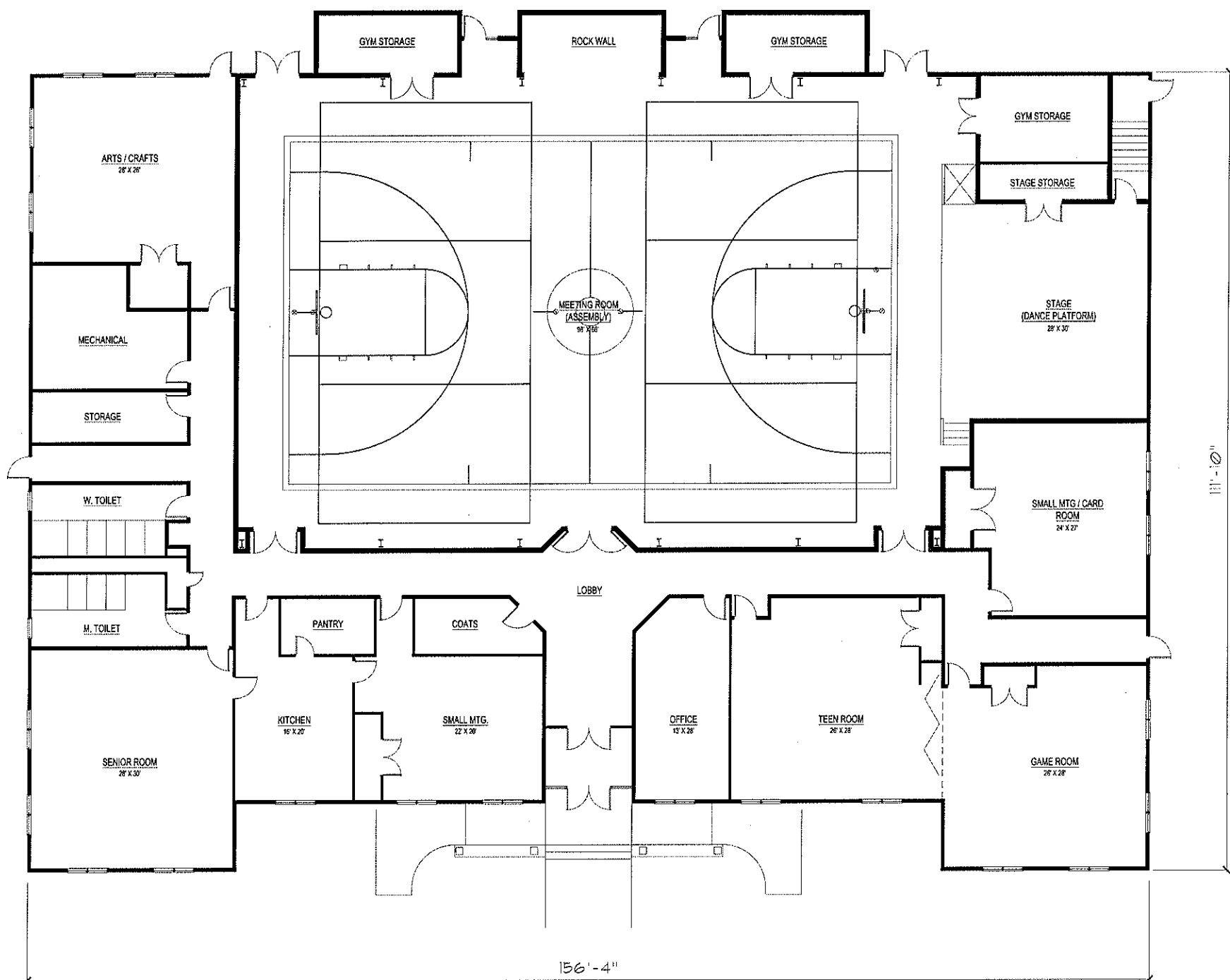
**INSITE**  
ENGINEERING, SURVEYING &  
LANDSCAPE ARCHITECTURE, P.C.

3 Corbett Place  
Carmel, NY 10512  
(845) 225-9690  
(845) 225-9717 fax  
www.insite-nyc.com

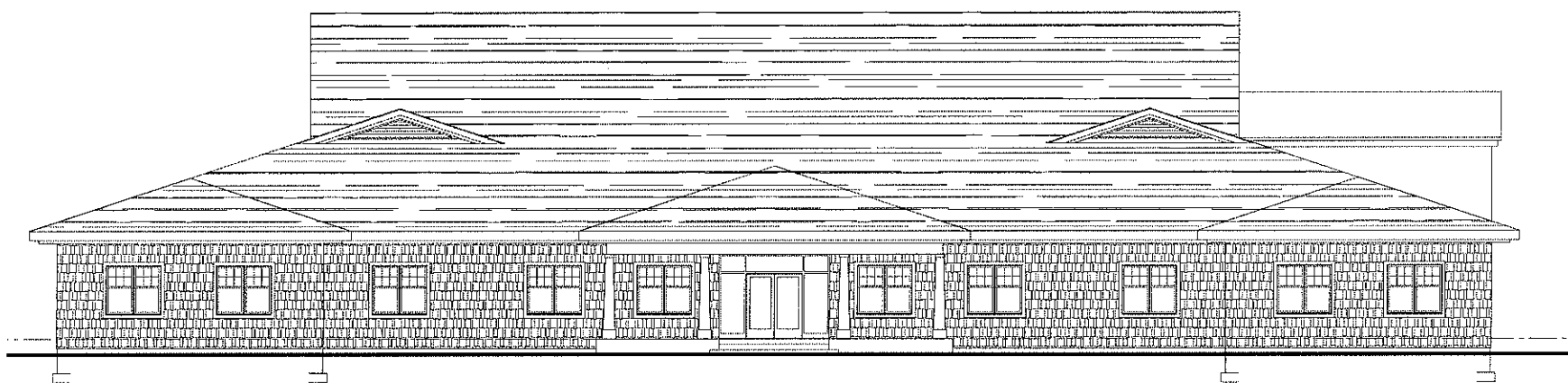
PROJECT: <b>COMMUNITY RECREATION CENTER AT SYCAMORE PARK</b>	
790 LONG POND ROAD, TOWN OF CARMEL, PUTNAM COUNTY, NEW YORK	
DRAWING: <b>GRADING &amp; DRAINAGE PLAN</b>	
PROJECT NUMBER 14112.100	PROJECT MANAGER J.J.C.
DATE 8-4-16	DRAWN BY M.E.U.
SCALE 1" = 50'	CHECKED BY D.L.M.
DRAWING NO. <b>SP-2</b>	SHEET 4/9

REDUCED SCALE PLAN

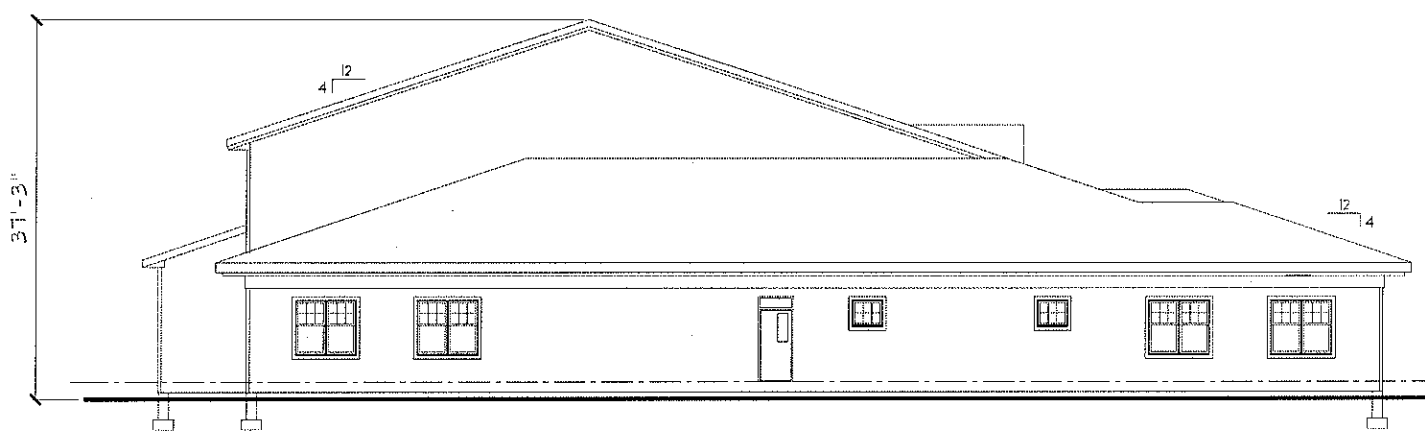




1 FLOOR PLAN - OPTION A 18,000 SF  
SCALE: 1/8" = 1'-0"



2 FRONT ELEVATION - OPTION A  
SCALE: 1/8" = 1'-0"



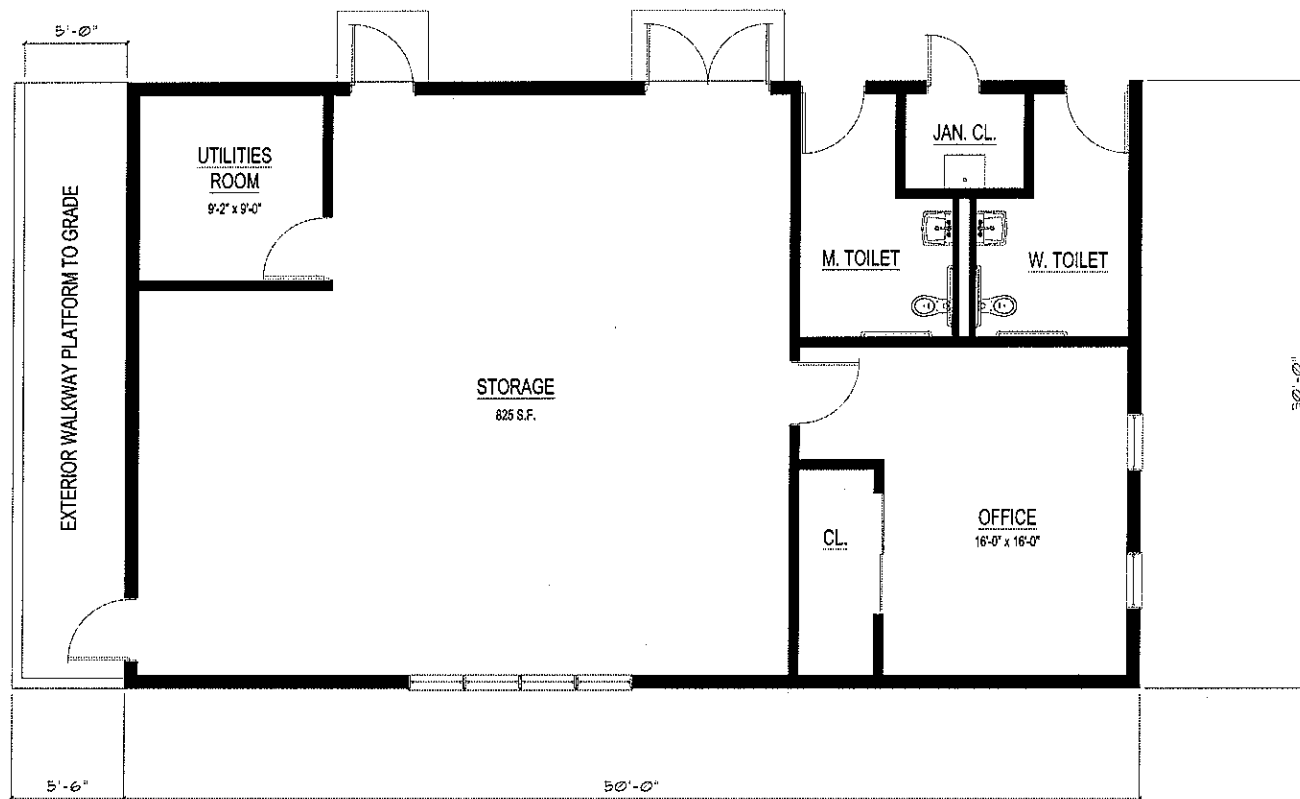
3 SIDE ELEVATION - OPTION A  
SCALE: 1/8" = 1'-0"

# SYCAMORE PARK RECREATION CENTER - DESIGN OPTION A

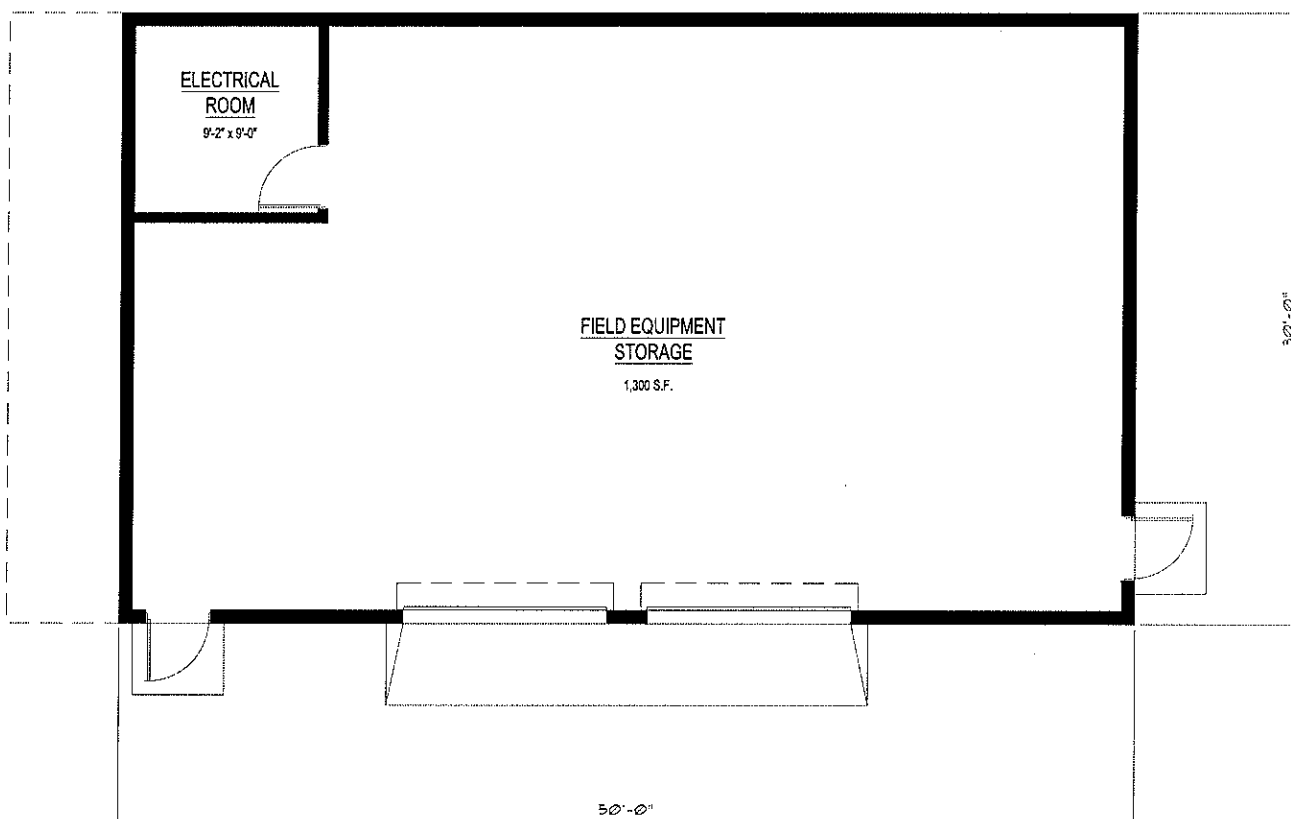
EXHIBIT - 1  
MARCH 16, 2015



REDUCED SCALE PLAN



1 UPPER FLOOR PLAN - 1500 SF  
SCALE: 1/2" = 1'-0"



2 LOWER FLOOR PLAN - 1500 SF  
SCALE: 1/2" = 1'-0"

# SYCAMORE PARK RECREATION CENTER - MAINTENANCE BUILDING

EXHIBIT - 3  
MARCH 26, 2015



REDUCED SCALE PLAN



**MAHOPAC VOLUNTEER FIRE  
DEPARTMENT**  
Office of the President

CC: Legal Counsel  
Supervisor ✓  
Assessor

**WORK SESSION #2**

President  
Frank Egelsen Jr

Vice President  
Matthew R. Bondi

Post Office Box 267  
Mahopac, NY 10541

Fire Headquarters  
(845) 628-3160  
Fax: (845) 628-2174

October 7, 2016

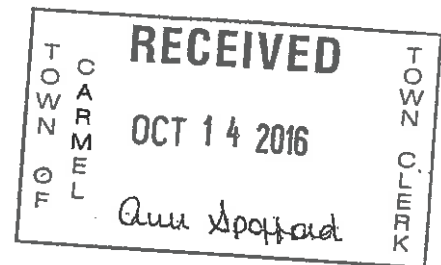
Ann Spofford, Town Clerk  
Town of Carmel  
60 McAlpin Ave.  
Mahopac, New York 10541

Dear Mrs. Spofford:

The following 3 people have been added to the Roles of the Mahopac Volunteer Fire Department.

Timothy Stasiak  
~~XXXXXXXXXXXXXXXXXX~~  
~~104 Chestnut Ridge Rd~~  
Mahopac, NY 10541  
~~XXXXXXXXXXXXXXXXXX~~  
~~D.O.B. 09/07/1999~~

Gerard Supple III  
~~XXXXXXXXXXXXXXXXXX~~  
Mahopac, NY 10541  
~~XXXXXXXXXXXXXXXXXX~~



"Continued on next page"

Page 1 of 2





**MAHOPAC VOLUNTEER FIRE  
DEPARTMENT**  
Office of the President

President  
Frank Egelsen Jr

Vice President  
Matthew R. Bondi

Post Office Box 267  
Mahopac, NY 10541

Fire Headquarters  
(845) 628-3160  
Fax: (845) 628-2174

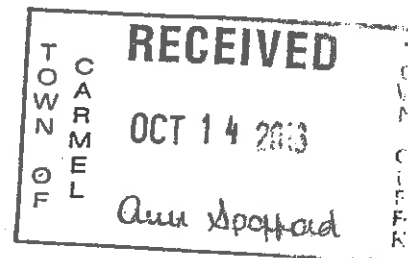
October 7, 2016

Russell Argila Jr.  
~~XXXXXXXXXX~~  
~~68 Palmon Rd.~~  
Mahopac, NY 10541  
~~XXXXXXXXXX~~

Respectfully Submitted

Farah Fieldale,  
Corresponding Secretary

Page 2 of 2



## WORK SESSION #3

**From:** [Carnazza, Mike](#)  
**To:** [Schmitt, Kenneth](#); [Lombardi, Frank](#); [Lupinacci, John](#); [Schneider, Jonathan](#); [McDonough, Suzanne](#)  
**Cc:** [Pasquerello, Anne](#)  
**Subject:** Training.  
**Date:** Monday, October 17, 2016 3:37:33 PM  
**Attachments:** [20161017152428371.pdf](#)

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All,

I need to attend my annual training for 2016. I found a three day (18 credit hour) training seminar on November 2 through November 4 in Kingston for \$325.00 (Copy Attached).

Would it be ok if I attend the course and get board approval after.

Thank you,

Michael Carnazza  
Director of Code Enforcement  
Building Inspector  
Town of Carmel  
60 McAlpin Ave.  
Mahopac, N.Y. 10541  
(845) 628-1500 ext 170



## **10<sup>th</sup> Annual Last Chance for Hours Conference**

### **18 Hours In-Service Training Classes**

Wednesday, November 2, 2016 thru Friday, November 4, 2016

### **Best Western Plus Kingston Hotel and Conference Center**

503 Washington Avenue, Kingston, NY 12401

Before October 15, 2016 the cost is \$325.00 per person

After October 15, 2016 the cost is \$375.00 per person

*Sign Up Early!*

\*\*\*\*Best West Plus Kingston Hotel and Conference Center, Kingston has rooms available \*\*\*\*

Use Group Name: NYSBOC

Call 845-338-0400 or visit [www.hikingston.com](http://www.hikingston.com)





## ***Pre-registration and payment is required***

To register complete the information below and return it with a voucher, purchase order or check via mail as soon as possible.

### **3 Day Conference – November 2<sup>nd</sup> thru 4<sup>th</sup>, 2016 Offering 18 hours of continuing education**

Name: Michael Carnazza

Mailing Address: 60 McAlpin Ave

City, St, Zip: Mahopac NY 10541

Municipality: Town of Carmel

Business / Firm: \_\_\_\_\_

E-Mail: MGC @ C1. Carmel. NY US

(Primary source of contact is email - Please provide one)

Phone: 845 628 1500 x170 (Daytime phone #)

Fax: 845 628 7085 (2nd Communication)

FD ID #: 40802 NYS DBSC #: NY000 7310

***No refunds for cancellations received after October 14, 2016***

Return form and voucher, purchase order or check to:

**NYSBOC-Tri County Chapter**

**c/o BJ Gettel**

**PO Box 222**

**Kauneonga Lake, NY 12749**

**845-583-4350 X22 845-583-4710 (fax)**

**845-807-2273 (c)**

**Email: [info@tricountynysboc.org](mailto:info@tricountynysboc.org)**

Classes are subject to change without notice!

**From:** [Tenefrancia,Michelle](#)  
**To:** [Pasquerello,Ane](#)  
**Cc:** [Cazzari, Mike](#); [Dearman,John](#)  
**Subject:** FW: FW: Lease payment schedule  
**Date:** Tuesday, October 18, 2016 12:35:18 PM  
**Attachments:** [Town of Carmel - Revised Payment Schedule.pdf](#)  
[Interaction Insight.pdf](#)

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Hi Anne,

I have attached the information we received for the Police Recorder.

- The \$6,776 invoice from Interaction Insight is to upgrade the recorder so it will be able to accommodate the voice recordings off the new PRI line
- The 'revised payment schedule' shows the updated figures for Fleetwood Leasing. We are looking at \$6,645.60 to get out of the lease and purchase the recorder. The vendor's name is not on this payment schedule, please let me know if it needs to be in order to get the resolution passed. The email below is from Fleetwood if that can count as backup too. We will request an actual invoice before any payment is made.
- Once the recorder is ours we will pay \$1,894 annually for maintenance/support (starting 2017 – 2016 has been paid)

Thanks,

*~ Michelle ~*

**From:** Scott Miller [mailto:smiller@fleetwoodonline.com]  
**Sent:** Tuesday, October 18, 2016 11:32 AM  
**To:** Cazzari, Mike  
**Cc:** Tenefrancia,Michelle; Dearman,John; Joe O'Sullivan; Robert Sponheimer  
**Subject:** Re: FW: Lease payment schedule

Mike,

Per our conversation a few moments ago, I have attached a revised payment schedule showing an updated payoff amount of \$6,645.60. As you know, this would take care of Fleetwood's portion and you would pay the annual maintenance directly to the vendor moving forward.

Thanks again and enjoy your day!

Sincerely,

Scott M. Miller  
Senior Account Executive  
Fleetwood Leasing, L.L.C.  
382 Springfield Avenue, Suite 409  
Summit, NJ 07901  
Toll Free: (800) 828-6222 Ext. 220  
Tel: (908) 522-6622 Ext. 220  
Fax: (908) 522-6620



## NICE PRICING QUOTATION



(800) 285-2950

[www.interactionic.com](http://www.interactionic.com)

For:	Carmel Police
Name:	Lieutenant John Dearman
Project:	Add 12 E1 channels to existing analog recording system
From:	Richard Geremia
Description:	Expansion of existing NICE INFORM recording system, with 12 channels of digital PRI recording installed within existing Windows 7 Pro machine. (SEE ADDITIONAL NOTES BELOW)

Date:	14-Oct-16
Version:	Carmel PD_10-14-16
Validity:	90 days

USD

Part#	Description	Unit	Qty	Total Unit	Discount	Total Price
<b>NICE Products</b>						
PS-NR-TRUNK-SHORT	Single E1/T1/PCM30 trunk board for up to 30 E1/PCM30 / 24 T1 channels (short length PCI-E slot required)	1,250	1	1,250	20%	1,000
PS-INFRM-ESNT-1CH	1 Channel Audio Recording license, inc Inform Essential application support (excludes CTD, telephony CDR, CTI and ANI/ALI support).	425	12	5,100	20%	4,080
PS-NR-CABLE-3-RJ45-2-5	Cable 3 x RJ45 to telco 2,5m	130	1	130	0%	130
PS-NR-PP-E1	1U Patch Panel 8 E1(S) input/output/loopback	240	1	240	0%	240
<b>Total Price - System</b>				<b>6,720</b>		<b>5,450</b>
<b>Services (Installation/Training/Support/Travel/Shipping)</b>						
C36530A	Installation by CT Engineer, per day (normal working hours M-F, 8am - 7pm)	500	1	500	0%	500
NA50200	Basic Support First Year - Remote Service Agreement Including Enhanced HW Warranty & SMA, during Regular Business Hours REQUIRED		13%	6,350	0%	826
<b>Total Price - Services</b>						<b>1,326</b>
<b>Total Investment (incl. 1st year support)</b>						<b>6,776</b>

Notes: **Highly recommending the relocation of the call recording server to the telecommunications equipment closet**

Delivery of the system is up to 4 weeks from receipt of official purchase order.

# Fleetwood Leasing, LLC.

INVOICE#M1007438000

Buy-out Invoice

Town of Carmel  
60 Mcalpin Avenue  
Mahopac, NY 10541  
Attention: Accounts Payable

***Please remit to:***  
Fleetwood Leasing, LLC.  
382 Springfield Avenue  
Suite 409  
Summit, NJ 07901

DESCRIPTION

CONTRACT PAYMENT

SALES/USE TAX

TOTAL DUE

Lease # 20-1007438-000

Equipment Desc: Nice Infrom  
Essential

Payment Due: 11/01/2016

\$6,645.60

\$6,645.60

**TOTAL DUE: \$6,645.60**

*Phone  
audio  
recording*

**AMENDMENT TO STATE AND LOCAL GOVERNMENT  
LEASE-PURCHASE AGREEMENT NO. 7438-000 BETWEEN  
FLEETWOOD LEASING, L.L.C. AS LESSOR AND TOWN OF  
CARMEL AS LESSEE, DATED FEBRUARY 26, 2015.**

The lease payments for years 2 through 5 of the Lease-Purchase Agreement are hereby changed from \$3,120.00 per year to \$3,414.42 per year.

The Exhibit "A" (Schedule of Equipment) is hereby revised to include the following:

- |   |                   |   |
|---|-------------------|---|
| 2 | PS-INFRM-ESNT-1CH | Audio Recording license, including Inform Essential application support, per channel                                    |
| 1 | C36530            | Hour of labor (normal working hours M-F, 8am - 7pm)   |
| 1 | NA50200           | Basic Support First Year - Remote Service Agreement Including Enhanced HW Warranty & SMA, during Regular Business Hours |

All other terms and conditions of State and Local Government Lease-Purchase Agreement # 7438-000 dated February 26, 2015 will remain the same.

TOWN OF CARMEL

By: x: *M. Lazzan*

Date: *1/19/16*

FLEETWOOD LEASING, L.L.C.

By: x: *[Signature]*

Date: *01/18/2016*

## FLEETWOOD LEASING, L.L.C.

## STATE AND LOCAL GOVERNMENT LEASE-PURCHASE AGREEMENT

PHONE: (800) 828-6222

FACSIMILE: (808) 522-6620

LESSEE	Full Legal Name Town of Carmel		Phone Number 845-628-1300	
	DBA Name (if any)		Purchase Order Requisition Number	
EQUIPMENT INFORMATION	Billing Address 60 McAlpin Avenue	City Mahopac	State NY	Zip 10541
	Send Invoice to Attention of: Virginia Baird			
EQUIPMENT INFORMATION	Equipment Make	Model No.	Serial Number	Description (Attach Separate Schedule if Necessary)
	See exhibit "A"			
EQUIPMENT INFORMATION	Equipment Location (if not same as above) Carmel Police Department, 60 McAlpin Avenue		City Mahopac	State NY
			Zip 10541	
PAYMENT INFORMATION	Number of Lease Payments:  FIVE (5)	Lease Payments: \$3,120.00 (plus applicable tax)		
	Full Lease Term (in Months):  SIXTY (60)	Payment Frequency: <input type="checkbox"/> Monthly <input type="checkbox"/> Quarterly <input type="checkbox"/> Semiannually <input checked="" type="checkbox"/> Annually <input type="checkbox"/> Other _____ End of Lease Option: \$1		
BANK QUALIFICATION	By checking the box below, YOU hereby designate this Lease as a "qualified tax-exempt obligation" as defined in Section 268(b)(3)(B) of the Internal Revenue Code and represent that the aggregate face amount of all tax-exempt obligations (excluding private activity bonds other than qualified 501(c)(3) bonds) issued or to be issued by YOU and YOUR subordinate entities during the calendar year in which WE fund this Lease is not reasonably expected to exceed \$10,000,000.00			
	<input type="checkbox"/> Bank Qualification Elected			

## TERMS AND CONDITIONS

Please read YOUR copy of this State and Local Government Lease-Purchase Agreement ("Lease") carefully and feel free to ask US any questions YOU may have about it. Words "YOU" and "YOUR" refer to the Lessee and the words "WE," "US" and "OUR" refer to Fleetwood Leasing, L.L.C., its successors and assigns, as the Lessor of the Equipment.

1. LEASE: WE agree to lease to YOU and YOU agree to lease from US, the equipment listed above (and on any attached schedule) including all replacement parts, repairs, additions and accessories ("Equipment") on the terms and conditions of this Lease and on any attached schedule.

2. TERM: This Lease is effective on the date that it is accepted and signed by US (the "Commencement Date") and continues thereafter for an original term ("Original Term") ending at the end of YOUR budget year in effect on the Commencement Date and may be continued by YOU for additional one-year renewal terms ("Renewal Terms") coinciding with YOUR budget year up to the total number of months indicated above as the Full Lease Term; provided, however, that at the end of the Original Term and at the end of each Renewal Term until the Full Lease Term has been completed, YOU shall be deemed to have continued this Lease for the next Renewal Term unless YOU shall have terminated this Lease pursuant to Section 5 or Section 17. Lease Payments will be due upon Commencement Date until the balance of the Lease Payments and any additional Lease Payments or expenses chargeable to YOU under this Lease are paid in full. As set forth in the Lease Payment Schedule, a portion of each Lease Payment is paid as, and represents payment of, interest. YOUR obligation to pay the Lease Payments and YOUR other Lease obligations are absolute and unconditional and are not subject to cancellation, reduction, setoff or counterclaim except as provided in Section 5. THIS LEASE IS NON-CANCELABLE EXCEPT AS PROVIDED IN SECTION 5.

3. LATE CHARGES: If a Lease Payment is not made on the date when due, YOU will pay US a late charge at the rate of 18% per annum or the maximum amount permitted by law, whichever is less, from such date.

4. CONTINUATION OF LEASE TERM: YOU currently intend, subject to Section 5, to continue this Lease through the Full Lease Term and to pay the Lease Payments hereunder. YOU reasonably believe that legally available funds in an amount sufficient to make all Lease Payments during the Full Lease Term can be obtained. YOUR responsible financial officer shall do all things lawfully within his or her power to obtain and maintain funds from which the Lease Payments may be made, including making provision for the Lease Payments to the extent necessary in each proposed annual budget submitted for approval in accordance with YOUR applicable procedures and to exhaust all available reviews and appeals if that portion of the budget is not approved. Notwithstanding the foregoing, the decision whether to budget or appropriate funds and to extend this Lease for any Renewal Term is solely within the discretion of YOUR governing body.

5. NONAPPROPRIATION: YOU are obligated only to pay such Lease Payments under this Lease as may lawfully be made from funds budgeted and appropriated for that purpose during YOUR then current budget year. If YOU fail to appropriate or otherwise make available funds to pay the Lease Payments required to be paid in the next occurring Renewal Term, this Lease shall be deemed terminated at the end of the then current Original Term or Renewal Term. YOU agree to deliver written notice to US of such termination at least 90 days prior to the end of the then current Original Term or Renewal Term, but failure to give such notice shall not extend the term of this Lease beyond the then current Original Term or Renewal Term. If this Lease is terminated in accordance with this Section, YOU agree, at YOUR cost and expense, to peacefully deliver the Equipment to US at the location or locations specified by US.

6. WARRANTIES: WE are leasing the Equipment to YOU "AS-IS" and WE MAKE NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY, OR FITNESS FOR A PARTICULAR PURPOSE. WE transfer to YOU, without recourse, for the term of this Lease all warranties, if any, made by the manufacturer. YOU ALSO ACKNOWLEDGE THAT NO ONE IS AUTHORIZED TO WAIVE OR CHANGE ANY TERM, PROVISION OR CONDITION OF THIS LEASE AND, EXCEPT FOR THE MANUFACTURER WARRANTIES, MAKE ANY REPRESENTATION OR WARRANTY ABOUT THIS LEASE OR THE EQUIPMENT. WE SHALL NOT BE LIABLE FOR SPECIAL, RESULTING OR CONSEQUENTIAL DAMAGES OR LOSS OF PROFIT OCCASIONED BY ANY BREACH OF WARRANTY OR REPRESENTATION OR RESULTING FROM THE USE OR PERFORMANCE OF THE EQUIPMENT. YOUR OBLIGATION TO PAY IN FULL ANY AMOUNT DUE UNDER THE LEASE WILL NOT BE AFFECTED BY ANY DISPUTE, CLAIM, COUNTERCLAIM, DEFENSE OR OTHER RIGHT WHICH YOU MAY HAVE OR ASSERT AGAINST THE SUPPLIER OR THE EQUIPMENT MANUFACTURER.

7. DELIVERY AND ACCEPTANCE: YOU ARE RESPONSIBLE, AT YOUR OWN COST, TO ARRANGE FOR THE DELIVERY AND INSTALLATION OF THE EQUIPMENT (UNLESS THOSE COSTS ARE INCLUDED IN THE COSTS OF THE EQUIPMENT TO US). IF REQUESTED, YOU WILL SIGN A SEPARATE EQUIPMENT DELIVERY AND ACCEPTANCE CERTIFICATE. WE MAY AT OUR DISCRETION CONFIRM BY TELEPHONE THAT YOU HAVE ACCEPTED THE EQUIPMENT AND THAT TELEPHONE VERIFICATION OF YOUR ACCEPTANCE OF THE EQUIPMENT SHALL HAVE THE SAME EFFECT AS A SIGNED DELIVERY AND ACCEPTANCE CERTIFICATE.

(Terms and Conditions continued on the reverse side of this Lease.)

LESSEE SIGNATURE	YOU agree to all of the Terms and Conditions contained in both sides of this Lease, and in any attachments to same (all of which are included by reference) and become part of this Lease. YOU acknowledge to have read and agreed to all the Terms and Conditions.	
	You acknowledge that the leased equipment is: <input checked="" type="checkbox"/> NEW <input type="checkbox"/> USED	
LESSEE SIGNATURE	Signature Michael Cazzari	Date 2/26/15
	Print Name Michael Cazzari	Title Chief
LESSEE SIGNATURE	FOR: Legal Name of Lessee TOWN OF CARMEL (LEASE MUST BE SIGNED BY AUTHORIZED OFFICIAL OF LESSEE)	

LESSOR SIGNATURE	Signature Joseph F. A. O'Sullivan	Date 2/26/15
	Print Name Joseph F. A. O'Sullivan	Title Member
LESSOR SIGNATURE	FOR: FLEETWOOD LEASING, L.L.C.	
	Lease Number 7438-000	Lease Commencement Date 5/12/15
LESSOR SIGNATURE	Vendor I.D. Number	

8. **TITLE, PERSONAL PROPERTY, LOCATION, INSPECTION, NO MODIFICATIONS OR ALTERATIONS.** YOU have title to the Equipment; provided that title to the Equipment will immediately and without any action by YOU vest in US, and YOU shall immediately surrender possession of the Equipment to US, (a) upon any termination of this Lease other than termination pursuant to Section 17 or (b) if YOU are in default of this Lease. It is the intent of the parties hereto that any transfer of title to US pursuant to this Section shall occur automatically without the necessity of any bill of sale, certificate of title or other instrument of conveyance. YOU shall, nevertheless, execute and deliver any such instruments as WE may request to evidence such transfer. As security for YOUR obligations hereunder, WE retain a security interest in the Equipment and all proceeds thereof. YOU have the right to use the Equipment during the term of this Lease, except as otherwise expressly set forth in this Lease. Although the Equipment may become attached to real estate, it remains personal property. YOU agree not to alter or modify the Equipment or permit a lien to be placed upon the Equipment or to remove the Equipment without OUR prior written consent. If WE feel it is necessary, YOU agree to provide US with waivers of interest or liens from anyone claiming any interest in the real estate on which any items of Equipment is located. WE also have the right, at reasonable times, to inspect the Equipment.

9. **MAINTENANCE.** YOU are required, at YOUR own cost and expense, to keep the Equipment in good repair, condition and working order, except for ordinary wear and tear, and YOU will supply all parts and servicing required. All replacement parts used or installed and repairs made to the Equipment will become OUR property.

YOU ACKNOWLEDGE THAT WE ARE NOT RESPONSIBLE FOR PROVIDING ANY REQUIRED MAINTENANCE AND/OR SERVICE FOR THE EQUIPMENT. YOU WILL MAKE ALL CLAIMS FOR SERVICE AND/OR MAINTENANCE SOLELY TO THE SUPPLIER AND/OR MANUFACTURER AND SUCH CLAIMS WILL NOT AFFECT YOUR OBLIGATION TO MAKE ALL REQUIRED LEASE PAYMENTS.

10. **ASSIGNMENT.** YOU AGREE NOT TO TRANSFER, SELL, SUBLEASE, ASSIGN, PLEDGE OR ENCUMBER EITHER THE EQUIPMENT OR ANY RIGHTS UNDER THIS LEASE WITHOUT OUR PRIOR WRITTEN CONSENT. YOU agree that WE may sell, assign or transfer this Lease and, if WE do, the new owner will have the same rights and benefits that WE now have and will not have to perform any of OUR obligations and the rights of the new owner will not be subject to any claims, defenses or set-offs that YOU may have against US. During the term of this Lease, you shall keep, or cause to be kept, a complete and accurate record of any and all assignments in form necessary to comply with section 149 of the Internal Revenue Code of 1986, as amended (the "Code"). YOU agree to acknowledge each such assignment in writing with the name and address of the assignee after request in form as provided by us.

11. **LOSS OR DAMAGE.** YOU are responsible for the risk of loss or destruction of, or damage to the Equipment. No such loss or damage relieves YOU from any obligation under this Lease. If any of the Equipment is damaged by fire or other casualty or title to, or the temporary use of, any of the Equipment is taken under the exercise of the power of eminent domain, the net proceeds ("Net Proceeds") of any Insurance claim or condemnation award will be applied to the prompt replacement, repair, restoration, modification or improvement of that Equipment, unless YOU have exercised YOUR option to purchase the Equipment pursuant to Section 17. Any balance of the Net Proceeds remaining after such work has been completed shall be paid to YOU.

12. **INDEMNITY.** WE are not responsible for any losses or injuries caused by the manufacture, acquisition, delivery, installation, ownership, use, lease, possession, maintenance, operation or rejection of the Equipment or defects in the Equipment. To the extent permitted by law, YOU agree to reimburse US for and to defend US against any claim for losses or injuries relating to the Equipment. This indemnity will continue even after the termination of this Lease.

13. **TAXES.** YOU agree to pay all applicable license and registration fees, sale and use taxes, personal property taxes and all other taxes and charges, relating to the ownership, leasing, rental, sale, purchase, possession or use of the Equipment (except those based on OUR net income). YOU agree that if WE pay any taxes or charges, YOU will reimburse US for all such payments and will pay US interest and a late charge (as calculated in Section 3) on such payments with the next Lease Payment, plus a fee for OUR collecting and administering any taxes, assessments or fees and remitting them to the appropriate authorities.

14. **INSURANCE.** During the term of this Lease, YOU will keep the Equipment insured against all risks of loss or damage in an amount not less than the replacement cost of the Equipment, without deductible and without co-insurance. YOU will also obtain and maintain for the term of this Lease, comprehensive public liability insurance covering both personal injury and property damage of at least \$100,000 per person and \$300,000 per occurrence or bodily injury and \$50,000 for property damage. WE will be the sole named loss payee on the property insurance and named as an additional insured on the public liability insurance. YOU will pay all premiums for such insurance and must deliver proof of insurance coverage satisfactory to US. If YOU do not provide such insurance, YOU agree that WE have the right, but not the obligation, to obtain such insurance and add an insurance fee to the amount due from you, on which we make a profit.

15. **DEFAULT.** Subject to Section 5, YOU are in default of this Lease if any of the following occurs: (a) YOU fail to pay any Lease Payment or other sum when due; (b) YOU breach any warranty or other obligation under this Lease, or any other agreement with US, (c) YOU become insolvent or unable to pay YOUR debts when due, YOU make an assignment for the benefit of creditors or YOU undergo a substantial deterioration in YOUR financial condition, or (d) YOU file or have filed against YOU a petition for liquidation, reorganization, adjustment of debt or similar relief under the Federal Bankruptcy Code or any other present or future federal or state bankruptcy or insolvency law, or a trustee, receiver or liquidator is appointed for YOU or a substantial part of YOUR assets.

16. **REMEDIES.** We have the following remedies if YOU are in default of this Lease: WE may declare the entire balance of the unpaid Lease Payments for the then current Original Term or Renewal Term immediately due and payable; sue for and receive all Lease Payments and any other payments then accrued or accelerated under this Lease; charge YOU interest on all monies due US at the rate of eighteen percent (18%) per year from the date of default until paid, but in no event more than the maximum rate permitted by law; charge YOU a return-check or non-sufficient

(funds charge ("NSF Charge") of \$25.00 for a check that is returned for any reason; and require that YOU return the Equipment to US and, if YOU fail to return the Equipment, enter upon the premises peaceably with or without legal process where the Equipment is located and repossess the Equipment. Such return or repossession of the Equipment will not constitute a termination of this Lease unless WE expressly notify YOU in writing. If the Equipment is returned or repossessed by US and unless WE have terminated this Lease, WE will sell or re-rent the Equipment to any persons with any terms WE determine, at one or more public or private sales, with or without notice to YOU, and apply the net proceeds after deducting the costs and expenses of such sale or re-rent, to YOUR obligations with YOU remaining liable for any deficiency and with any excess over the amounts described in this Section plus the then applicable Purchase Price to be paid to YOU.

YOU are also required to pay (i) all expenses incurred by US in connection with the enforcement of any remedies, including all expenses of repossessing, storing, shipping, repairing and selling the Equipment, and (ii) reasonable attorneys' fees.

17. **PURCHASE OPTION.** Provided YOU are not in default, YOU shall have the option to purchase all but not less than all of the Equipment (a) on the date the last Lease Payment is due (assuming this Lease is renewed at the end of the Original Term and each Renewal Term), if this Lease is still in effect on that day, upon payment in full of Lease Payments and all other amounts then due and the payment of One Dollar to US; (b) on the last day of the Original Term or any Renewal Term then in effect, upon at least 60 days' prior written notice to US and payment in full to US of the Lease Payments and all other amounts then due plus the then applicable Purchase Price set forth on the Lease Payment Schedule; or (c) if substantial damage to or destruction or condemnation of substantially all of the Equipment has occurred, on the day specified in YOUR written notice to US of YOUR exercise of the purchase option upon at least 60 days' prior notice to US and payment in full to US of the Lease Payments and all other amounts then due plus the then applicable Purchase Price set forth on the Lease Payment Schedule.

18. **REPRESENTATIONS AND WARRANTIES.** YOU warrant and represent as follows: (a) YOU are a public body corporate and public duty organized and existing under the constitution and laws of YOUR State with full power and authority to enter into this Lease and the transactions contemplated hereby and to perform all of YOUR obligations hereunder; (b) YOU have duly authorized the execution and delivery of this Lease by proper action by YOUR governing body at a meeting duly called, regularly convened and attended throughout by the requisite majority of the members thereof, or by other appropriate official approval, and all requirements have been met and procedures have occurred in order to ensure the validity and enforceability of this Lease; (c) YOU have complied with such public bidding requirements as may be applicable to this Lease and the acquisition by YOU of the Equipment; (d) all authorizations, consents and approvals of governmental bodies or agencies required in connection with the execution and delivery by YOU of this Lease or in connection with the carrying out by YOU of YOUR obligations hereunder have been obtained; (e) this Lease constitutes the legal, valid and binding obligation of YOU enforceable in accordance with its terms, except to the extent limited by applicable bankruptcy, insolvency, reorganization or other laws affecting creditors' rights generally; (f) YOU have, in accordance with the requirements of law, fully budgeted and appropriated sufficient funds for the current budget year to make the Lease Payments scheduled to come due during the current budget year and to meet YOUR other obligations under this Lease for the current budget year, and those funds have not been expended for other purposes; (g) the Equipment is essential to YOUR functions or to the services YOU provide to YOUR citizens, YOU have an immediate need for the Equipment and expect to make immediate use of the Equipment, YOUR need for the Equipment is not temporary and YOU do not expect the need for any item of the Equipment to diminish in the foreseeable future, including the Full Lease Term, and the Equipment will be used by YOU only for the purpose of performing one or more of YOUR governmental or proprietary functions consistent with the permissible scope of YOUR authority and will not be used in the trade or business of any other entity or person; and (h) YOU have never failed to appropriate or otherwise make available funds sufficient to pay rental or other payments coming due under any lease purchase, installment sale or other similar agreement.

19. **UCC FILINGS AND FINANCIAL STATEMENTS.** YOU authorize US to file a financing statement with respect to the Equipment. If WE feel it is necessary, YOU agree to submit financial statements (audited if available) on a quarterly basis.

20. **UCC - ARTICLE 2A PROVISIONS.** YOU agree that this Lease is a Finance Lease as that term is defined in Article 2A of the Uniform Commercial Code ("UCC"). YOU acknowledge that WE have given YOU the name of the Supplier of the Equipment. WE hereby notify YOU that YOU may have rights under the contract with the Supplier and YOU may contact the Supplier for a description of any rights or warranties that YOU may have under this supply contract. YOU also waive any and all rights and remedies granted YOU under Sections 2A-606 through 2A-622 of the UCC.

21. **TAX EXEMPTION.** YOU will comply with all applicable provisions of the Internal Revenue Code of 1986, as amended, including without limitation Sections 103 and 146 thereof, and the applicable regulations thereunder to maintain the exclusion of the interest portion of the Lease Payments from gross income for purposes of federal income taxation.

22. **BANK QUALIFICATION.** If YOU checked the "Bank Qualification Elected" box on the front page of this Lease YOU and all YOUR subordinate entities will not issue in excess of \$10,000,000.00 of qualified tax-exempt obligations (including this Lease but excluding private activity bonds other than qualified 501(c)(3) bonds) during the calendar year in which WE fund this Lease without first obtaining an opinion of nationally recognized counsel in the area of tax-exempt municipal obligations acceptable to US that the designation of this Lease as a "qualified tax-exempt obligation" will not be adversely affected.

23. **CHOICE OF LAW; JURY TRIAL WAIVER.** This Lease shall be governed and construed in accordance with the laws of the state where YOU are located. To the extent permitted by law, YOU agree to waive YOUR rights to a trial by jury.

24. **ENTIRE AGREEMENT; SEVERABILITY; WAIVERS.** This Lease contains the entire agreement and understanding. No agreements or understandings are binding on the parties unless set forth in writing and signed by the parties. Any provision of this Lease which for any reason may be held unenforceable in any jurisdiction shall, as to such jurisdiction, be ineffective without invalidating the remaining provisions of this Lease. THIS LEASE IS NOT INTENDED FOR TRANSACTIONS WITH AN EQUIPMENT COST OF LESS THAN \$1,000.

25. **FACSIMILE DOCUMENTATION.** YOU agree that a facsimile copy of this Lease with facsimile signatures may be treated as an original and will be admissible as evidence of this Lease.

Initials X

(MC)



**CERTIFICATE OF CLERK OR SECRETARY**

- The undersigned, Ann Spofford, do certify that the following named person(s) has been designated and appointed to the office(s) indicated below, that said person(s) continues to hold the office at this time and that the signature(s) below are genuine.

<u>NAME</u>	<u>SIGNATURE</u>	<u>TITLE</u>
<u>Michael Cazzari</u> (The person signing the Lease)	<u>M. Cazzari</u>	<u>chief</u>

- The person(s) designated to serve in the above-entitled capacity and executed the State and Local Government Lease-Purchase Agreement # 7438-000, ("the Lease") by and between Fleetwood Leasing, L.L.C. ("Lessor") and Town of Carmel ("Lessee") on behalf of Lessee and whose genuine signature appears thereon, is a duly qualified and acting officer of the Lessee as stated beneath his/her signature and has been authorized to execute the Lease.

By: X Ann Spofford  
(SIGNATURE OF SECRETARY OR OTHER CORP. OFFICER)  
(IF AUTHORIZED SIGNED OF DOCUMENTS IS SECRETARY  
OR CLERK, PLEASE HAVE THIS SECTION EXECUTED BY A  
DIFFERENT BOARD MEMBER)

Ann Spofford, Carmel Town Clerk  
(NAME & TITLE -- Printed or Typed)

Date: February 26 2015



# LEASE PAYMENT SCHEDULE

Date of First Payment: AT CLOSING

Original Balance: \$8,861.58

Total Number of Payments: FIVE (5)

Number of Payments per Year: ONE (1)

Payment Number	Payment Due date	Total Payment	Maintenance Payment	Rental Payment	Applied to Interest	Applied to Principal	Purchase Option Price*
1	5/12/15	3,120.00	1,065.00	2,055.00	0.00	2,055.00	7,638.64
2	5/12/16	3,120.00	1,065.00	2,055.00	544.45	1,510.55	5,812.80
3	5/12/17	3,120.00	1,065.00	2,055.00	423.63	1,631.37	3,932.18
4	5/12/18	3,120.00	1,065.00	2,055.00	293.13	1,761.87	1,995.15
5	5/12/19	3,120.00	1,065.00	2,055.00	152.21	1,902.79	0.00
Grand Totals		15,600.00	5,325.00	10,275.00	1,413.42	8,861.58	

TOWN OF CARMEL

x: M. Cazzari  
Signature

Michael Cazzari / Chief  
Typed Name and Title

\* Purchase Option Price assumes all payments due to date are made and does not include maintenance.

ESSENTIAL USE/SOURCE OF FUNDS LETTER

RE: State and Local Government Lease-Purchase Agreement ("Lease") dated 2/26/15 by and between  
FLEETWOOD LEASING, L.L.C. ("Lessor") and TOWN OF CARMEL ("Lessee")

Ladies and Gentlemen:

This confirms and affirms that the Equipment described in the Lease is essential to the function of the undersigned or to the service we provide to our citizens.

Further, we have an immediate need for, and expect to make immediate use of, substantially all such Equipment, which need is not temporary or expected to diminish in the foreseeable future. Such Equipment will be used by us only for the purpose of performing one or more of our governmental or proprietary functions consistent with the permissible scope or our authority. Specifically, such Equipment was selected by us to be used as follows: record audio  
at police department.

The estimated useful life of such Equipment based upon manufacturer's representations and our projected needs is

5 years.

Our source of funds for payments of the rent due under the Lease for the current fiscal year is equipment line of police budget We expect and anticipate adequate funds to be available for all future payments of rent due after the current fiscal year for the following reasons: police budgeting for payment.

LESSEE:

TOWN OF CARMEL

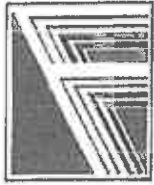
By: X

M. Cazzari  
(Authorized Signature)

Michael Cazzari / Chief  
(Name and Title - printed or typed)

Date:

2/26/15



Fleetwood  
Leasing, L.L.C.

## EXHIBIT "A" (SCHEDULE OF EQUIPMENT)

Forming a part of the lease agreement between TOWN OF CARMEL  
\_\_\_\_\_, Lessee, and FLEETWOOD LEASING, L.L.C., Lessor  
Lease Number 7438-000 Lease Dated 2/26/15  
Leased equipment shall be located at Carmel Police Department  
60 McAlpin Avenue, Mahopac, NY 10541

DESCRIPTION OF EQUIPMENT. (Describe fully, giving Manufacturer, Equipment, Model and Serial Numbers)  
Lessee authorizes Lessor to reflect any reconfiguration of the Equipment by altering the Description of Equipment as described herein:

1	PS-INFRM-ESNT-SITE	Inform Essential Site license including NICE Inform Essential, one recording system interface and one concurrent Reconstruction user license.
7	PS-INFRM-ESNT-1CH	Audio Recording license, including Inform Essential application support, per channel
2	PS-INFRM-ESNT-VER-1CC	NICE Inform Essential Verify concurrent user license
1	PS-NR-ANALOG-LONG	Analogue board (w/o BT) for up to 24 channels, 10m cable (full length PCI-E slot required)
1	HP420Z	HP 420Z Windows 7 Professional 64 bit Intel® Xeon® E5-1603 (2.8 GHz, 10 MB cache, 4 cores) Chipset: Intel® C602 4 GB 1866 MHz DDR3 ECC Unbuffered RAM (1 X 4 GB) 2 x 500 GB 7200 rpm SATA
1	C36530A	Installation, per day (normal working hours M-F, 8am - 7pm)
1	C36522	User Training, Unlimited
1	NA50200	Basic Support First Year - Remote Service Agreement including Enhanced HW Warranty & SMA, during Regular Business Hours
4	NA50200A	Bronze Support - Remote Service Agreement including Enhanced HW Warranty & SMA, during Regular Business Hours (Already Included in Quote)

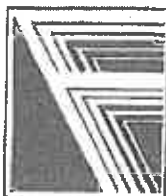
(MAINTENANCE, 5 YEARS TOTAL)

TOWN OF CARMEL  
(LESSEE)

BY: X M Gazzan Chief  
(TITLE)

FLEETWOOD LEASING, L.L.C.  
(LESSOR)

BY: X [Signature] Member  
(TITLE)



Fleetwood  
Leasing, L.L.C.

2/20/15

(DATE)

Gentlemen:

This is to advise you that S. Pain Agency NYMIR  
INSURANCE AGENT INSURANCE COMPANY  
625 Route 6 Mahopac NY 10541  
ADDRESS CITY STATE ZIP  
845-628-4500 is my authorized insurance agent.  
TELEPHONE NO. (Area Code)

The above agent will provide a binder or Certificate of Insurance, followed by the original policy showing the coverage provided, the expiration date, policy number and the equipment covered. We understand your insurance requirements are as follows:

LIABILITY INSURANCE

Fleetwood Leasing, L.L.C. and its assigns as their interests  
may appear MUST BE NAMED AS ADDITIONAL INSURED AS  
ITS INTEREST APPEAR:

Bodily Injury  
Property Damage

PHYSICAL DAMAGE INSURANCE

Fleetwood Leasing, L.L.C. and its assigns as their  
interests may appear NAMED AS LOSS PAYEE:

Fire and extended coverage, including theft, vandalism, malicious mischief, etc. This insurance is required in an amount equal to your equipment cost.

DESCRIPTION OF EQUIPMENT COVERED

- MUST BE INSERTED IN POLICY  
AND CERTIFICATE

(attach copy of Schedule A,  
if applicable).

NOTICE OF CANCELLATION

Fleetwood Leasing, L.L.C. must be notified  
thirty (30) days prior to cancellation of  
the policy.

Our insurance agent has been contacted and will provide the above coverage and evidence of same will be forwarded to you immediately.

TOWN OF CARMEL

NAME OF LESSEE

By: M. Cazzan Chief  
Title

25 DeForest Ave, Ste 305

Summit

N.J. 07901 (908) 522-6622



October 11, 2016

Kenneth Schmitt, Supervisor  
Town of Carmel  
60 McAlpin Avenue  
Mahopac, New York 10541  
[ks@ci.carmel.ny.us](mailto:ks@ci.carmel.ny.us)

Re: LISC Program Action Number: 47377-0001

Dear Supervisor Schmitt:

**Grant Amount; Purpose of the Grant:**

I am pleased to inform you that Local Initiatives Support Corporation ("LISC") hereby agrees to provide a grant in the amount of \$169,700.00 (the "Grant") to the Town of Carmel (the "Grantee"), for the purposes, and on the terms, set forth below. This Grant is a result of the February 11, 2016 Settlement Agreement between Morgan Stanley and the New York Attorney General. This Grant is being made as part of the activities of the New York State Housing Stabilization Fund, a LISC program that is funding the work of Municipalities or their housing or finance agencies to support Housing Quality Improvement and Enforcement Programs, among other activities.

The Grantee acknowledges that in accepting this Grant, Grantee will use the proceeds of the Grant solely to support Housing Quality Improvement and Enforcement Programs in accordance with a final budget and scope of work which LISC will finalize with you in the coming weeks. Accepting the Grant proceeds will be further acknowledgement of Grantee's agreement to the terms and conditions of this letter.


**Grant Commitment:**

This commitment of Grant funds shall be effective upon the receipt by LISC of a copy of this Grant Agreement signed by a representative of the Grantee, returned by email to [grants\\_contracts@lisc.org](mailto:grants_contracts@lisc.org), with a copy to [HCaloir@lisc.org](mailto:HCaloir@lisc.org). Ms. Caloir is your primary program contact at LISC regarding the Grant. Please send a hard copy of the signed Grant Agreement to LISC to the attention of Ms. Caloir. Please contact Ms. Caloir if you have any questions about the Grant. Please note - under Sections 501 and 4945 of the Internal

Revenue Code, the Grant may not be used to carry on propaganda, to attempt to influence legislation, or to participate in, intervene in, or attempt to influence the outcome of, political campaigns or elections. By countersigning this Grant Agreement and returning it to LISC, the Grantee agrees to not use the Grant for purposes prohibited by the preceding two sentences. In its use of Grant funds provided by LISC, the Grantee shall fully comply with all applicable federal, state, local (and any other governmental) laws, executive orders, rules, and regulations, including without limitation anti-discrimination laws, executive orders, rules, and regulations.

**Please note - this Grant Agreement must be signed and returned to LISC within thirty (30) days after the date of this Grant Agreement. If such deadline passes, LISC reserves the right to withdraw this Grant Agreement and reprogram the funds.**

**LOCAL INITIATIVES SUPPORT CORPORATION**

Signature:  \_\_\_\_\_

Name: Patrick Maher  
Vice President &  
Deputy General Counsel

Title: \_\_\_\_\_

Date: October 11, 2016

**TERMS OF GRANT ACCEPTED AND AGREED TO:**

**TOWN OF CARMEL**

Authorized Signature: \_\_\_\_\_

Name: Kenneth Schmitt

Title: Town Supervisor

Date: October \_\_\_, 2016

**LOCAL INITIATIVES SUPPORT CORPORATION**  
501 Seventh Avenue, 7<sup>th</sup> Floor • New York, NY 10018 • Phone: 212-455-9800 • Fax: 212-687-1396

This is one "Ice Retardant System" law I found. It is in New Jersey but I think it can be manipulated to work for the Town of Carmel.

### § 137-1 Purpose.

It is the intent of this chapter to regulate the installation and use of ice-retardant systems on all waterfront properties within the Borough of Hopatcong for the protection of persons and property and to provide for the public health, safety and welfare of the Borough of Hopatcong and its inhabitants.

### § 137-2 Definitions.

As used in this chapter, the following terms shall have the meanings indicated:

#### AFFECTED AREA OF ICE

The area of the water body or ice surface disturbed by the operation of an ice-retardant system. Said disturbed or affected area includes open water, weakened ice (excessively cracked), thin ice (less than four inches in depth) and area where adjacent ice is covered by a film of water.

#### BULKHEAD LINE

The high-water mark of 10.30 feet above the dam as recorded at Lake Hopatcong State Park or the line established by the Bureau of Navigation, State Department of Environmental Protection, defining the lake's permanent shoreline.

#### ICE-RETARDANT SYSTEM

A mechanical device(s) or a series of mechanical devices designed to retard or prevent the formation of ice in or around lakefront structures. Said devices utilize as their mode of operation one or more of the following mechanisms: pumped air, artificial water turbulence or the addition of heat to the water body.

#### NORMAL OPERATING CONDITIONS

The average winter conditions to be utilized in the design or operation of an ice-retardant system and to be utilized in gauging compliance with the terms of this chapter. Said "normal operating conditions" is defined as an average of four or more inches of ice on the applicable water body. Such term excludes any time period characterized by unseasonably warm temperature (average daily temperature above 40° F. for three or more consecutive days) or rainfall (greater than 1/2 inch of rainfall per day) and the three dates immediately thereafter. In any enforcement action under the terms of this chapter, the burden is on the operator of the ice-retardant system to establish that normal operating conditions were not existent on the date of the alleged violation.

#### OWNER or OPERATOR

The owner of record of a tract of land according to the tax rolls of the Borough of Hopatcong or any person occupying said premises or utilizing the property.

## **PERSON**

Any individual, association of individuals, corporation or partnership.

## **PIERHEAD LINE**

A line running parallel to the bulkhead line and extending not more than 50 feet from said bulkhead line, as approved by the Natural Resources Council and Bureau of Navigation, State Department of Environmental Protection, beyond which no dock, pier or marina or other structure, permanent or temporary, floating or affixed to shore or lake bottom, may be located.

## **PROTECTED STRUCTURE**

Any lakefront or within-lake structure which the ice-retardant system is designed to protect. Such protected structures include but are not limited to docks, piers, bulkheads, catwalks, seawalls and boathouses.

§ 137-3 Authorization for use; compliance required.

A. Utilization of ice-retardant systems is hereby authorized within the municipal limits of the Borough of Hopatcong from December 1 of each year through April 1 of the following year.

B. No person shall operate an ice-retardant system within the municipal limits of the Borough of Hopatcong unless said operation is in conformance with this chapter.

§ 137-4 Operation requirements.

A. All ice-retardant systems shall be marked with an appropriate sign placed along the shore or on the protected structure specifying "Danger, Thin Ice." Such sign shall be a minimum of two feet by three feet in size and shall feature letters of a minimum height of three inches and colors in such a way as to be clearly visible on the ice from a distance of 100 feet. Where the ice-retardant system will disturb a distance measured horizontally along the shoreline of more than 25 feet, an additional sign shall be required for each 25 feet of shoreline or fraction thereof.

B. Under normal operation conditions, the affected area of ice created by the ice-retardant system shall not extend more than 25 feet beyond the protected structure.

C. Under normal operation conditions, the affected area of ice created by the ice-retardant system shall not extend more than 25 feet, measured along the shoreline, from the protected structure.

D. Irrespective of the standard appearing in Subsections B and C above, the affected area of ice, under normal operating conditions, should not extend to within 10 feet of a side property line. Said requirement may be waived if the owner and/or operator of the ice-retardant system obtains written permission from the adjacent property owner.



E. Unless the ice-retardant system has been designed and approved in accordance with § 137-6 of this chapter, no system shall be designed or operated in such a way as to prevent ingress or egress to any portion of the water body or to foreclose the formation of ice across a channel.

#### § 137-5 Waiver of requirements.

The Mayor and Council may, by resolution, waive the requirements of this chapter in situations of hardship or exceptional public necessity. "Exceptional public necessity" shall include but not limited to a necessity to maintain an open channel of water for ferry service or access to island lakefront homes. In considering such an application, the Mayor and Council may refer the application to the Lake Hopatcong Regional Planning Board for comment. In adopting the resolution, the Mayor and Council shall specify requirements as to markings and lighting. Such requirements can include but are not limited to requiring buoys to be placed in the frozen water body to clearly mark the approach, requiring nighttime illumination or flashing light to indicate that open water is present, limiting the size of the affected ice area to the minimal necessary for the use and/or publishing public notice of the condition to specify minimal levels of insurance requirements.

#### § 137-6 Enforcement; violations and penalties.

A. The Construction Official is hereby designated as the enforcement officer under the terms of this chapter. All complaints received by any municipal agency concerning the operation of ice-retardant systems shall be referred to the Construction Official. Upon receipt of a complaint, the Construction Official shall investigate within five days and, if the complaint is found justified, notify the owner and operator of the terms of this chapter and require compliance within an additional 10 days. The Construction Official may reduce the time period for compliance when the interest of public safety so requires. If the owner or operator of the system fails to undertake the corrections within the specified time frame, the Construction Official may cause a summons to be issued in the Municipal Court of the Borough of Hopatcong to enforce the requirements of this chapter.

B. A violation of the terms of this chapter, including the operational requirements, shall be punishable by a fine not to exceed \$50 for the first offense, \$100 for the second offense and \$250 for the third and subsequent offenses. Each day that a violation of this chapter continues may be deemed to be a separate offense.

#### § 137-7 Liability.

Compliance and/or noncompliance with the requirements of this chapter shall not preclude any civil action for damages arising from injuries incurred through the operation of an ice-retardant system.

#### § 137-8 Construal of provisions.

Nothing in this chapter shall be construed as repealing any provision of any other municipal ordinance. In the event that any regulation provided above shall vary from the same or a similar regulation of any other municipal ordinance, the more restrictive provision of such ordinance shall be deemed to control.

# LAKE MAHOPAC PARK DISTRICT ADVISORY BOARD

Edward Barnett, Chairman  
Jay Crawford, Vice Chairman  
Jim Maxwell

60 Mc Alpin Avenue  
Mahopac, NY 10541

Martin Greenberg  
Charles Langlitz

Advisors: Bill Frumkin, William Spain Jr., John Maxwell, Sheila Margolis, Mark Robertson, Joe Massaro

August 17, 2015

Re: Deicing/Winter/Lake Mahopac



There are two types of deicing equipment:

1. Ice eaters are units with propellers.
2. Bubblers consist of perforated tubing and an air compressor.

Both types bring warmer water to the surface.

\*Ice Eaters, if not properly placed, can open up larger open water areas than necessary.

\*Unit sizing is critical for ice eaters: ½ hp opens approximately a 50 foot area  
¾ hp “ “ “ 75 foot area  
1 hp “ “ “ 100 foot area

\*A vertically mounted ice eater/deicer opens up a circular area further out in the lake, which may not be desirable.

\*A horizontally mounted ice eater can be better focused on an area to be kept ice-free.

Bubblers open up narrow areas generally above the length of the perforated tubes, such as around docks, and other structures. Bubblers are more expensive to purchase but use much less electricity.

**Generally, Municipal Regulations consist of the following:**

1. Signage indicating: “Caution: Open Water” or “Danger: Thin Ice.” (Approximately 2 feet by 3 feet.)
2. A white light on at dusk and off at dawn to show open water at night. This should not be a problem, as these systems require an electrical connection.
3. Permission from adjacent neighbors, if their property is affected.
4. Generally, a 25 foot limit of open water from the shoreline.
5. Some municipalities issue permits, others don’t.

### **Horizontal vs. Vertical Deicer positioning:**

1. Vertically positioned deicers create a circular ice-free area. This can open up areas that do need to be ice-free, by extending it further out in the lake, where it is not necessary.
2. Horizontally positioned deicers, whether on floats or mounted on a dock provides for a more focused ice-free area.
3. Horizontally positioned deicers on a float can be focused/aimed at areas to be kept ice-free by means of two tag lines affixed to stationary objects. **See Photos.**

Two popular deicers made by Kasco and Taylor sell floats to support the device. Taylor, at this time, does not make a float for horizontal positioning, only vertical. Kasco makes a float for horizontal positioning that better allows for a more directed flow. **See Photos**

### **References:**

[www.taylormadeproducts.com/](http://www.taylormadeproducts.com/)  
[www.kascomarine.com/applications/de-icing/](http://www.kascomarine.com/applications/de-icing/)  
[Ice Eaters Regulations for Lake Hopatcong](#)  
[www.lakegeorgeassociation.org/](http://www.lakegeorgeassociation.org/)  
etc.

## De-icing 101

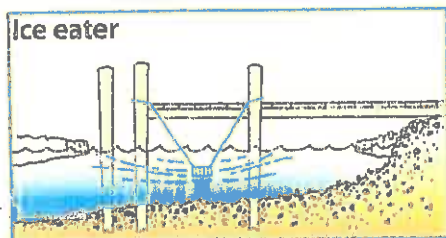
### What is a de-icing device?

A de-icing device agitates or warms water to prevent ice from forming and often can also melt existing ice.

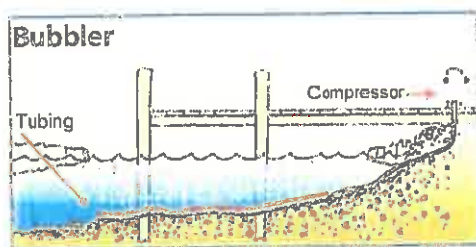
The two most common kinds of de-icers are 1) submersible motors with propellers, often called ice eaters, and 2) bubbler systems.

### How does it work?

Ice eaters work by propelling warmer water from the bottom up to the surface, which along with agitation, keeps ice from forming. Ice eaters are commonly hung off of a dock with a rope or other mounting system.



Bubblers consist of an air compressor that forces air through tubing or piping placed on the lake bottom around a dock. The tubing has holes all along it that release tiny air bubbles. The constant water movement caused by the bubbles prevents ice from forming.



*The LGA does not necessarily endorse any of the manufacturers of de-icing devices mentioned in this brochure.*

**Did You Know?**  
Ice Eater is actually a brand name, but just like Kleenex or Xerox, it is often used to refer to a general product. Pyramid Tech's "D-icers" are oil free, so there is no danger of oil leaking and polluting the water.  
The old Adirondack signal for open water in the winter was putting an evergreen tree near the hole.  
There are over 3800 docks on Lake George.

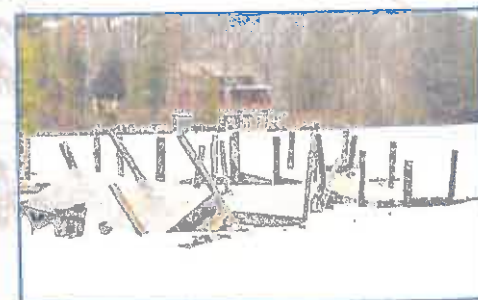


Lake George Association  
P.O. Box 408  
Lake George, NY 12845

[www.lakegeorgeassociation.org](http://www.lakegeorgeassociation.org)

# Don't be Eaten Alive!

Tips for effective and safe use of ice eaters





## The De-icing Debate

### The Issue:

The **overuse** of ice eaters to protect docks can actually cause dock damage and creates access and safety concerns for lake users in the winter.

### The Players:

- property owners trying to protect their docks and other shoreline structures
- winter recreationists using the frozen lake
- manufacturers and retailers of de-icing devices
- property managers installing de-icing devices

### The Solution:

**Safe and effective use of ice eaters.** When used properly, ice eaters can protect docks and property from ice damage and not cause unnecessary safety and access concerns for winter lake users.

### Always use caution around open water

Even when following guidelines for safe and effective use of ice eaters, safety is still important since an open area of water is still being created. You might want to consider the use of a sign that says "Danger: Thin Ice" or "Caution: Open Water" as a general precaution if you are concerned about safety or live close to a public access location.

**Overuse of ice eaters to protect docks can actually cause dock damage!**



**For effective and safe ice eater use, follow these simple steps:**

**Your dock will thank you**

### 1. One size doesn't fit all.

Ice-eaters come in different sizes. On average an ice-eater with a...

... ½ hp motor opens a 50' diameter area

... ¾ hp motor opens a 75' diameter area

... 1 hp motor opens a 90' diameter area

These numbers can vary with temperature and water depth. But don't just get the 1 hp model when the ½ hp would do. Bigger isn't better – it's **more dangerous for lake users since it opens up larger areas of water.**

### 2. Save electricity and money.

Limit the time that your ice-eater runs by using a **timer and a thermostat**. It doesn't need to run all day - 4 hours per day is plenty - even on the coldest days we get on Lake George. There is also no need to have it run when temperatures are above freezing and ice can't form.



*This is a timer and thermostat made by Kasco (model #C-20).*

**By only running an ice eater 4 hrs/day you reduce your electrical usage and cost by about 85%**

### 3. Keep it to yourself.

Place your ice eater in the water pointing vertically. You should not point it out towards the middle of the lake or in towards the shoreline unless it is absolutely necessary for dock protection (and in most cases it is not). Angling your ice-eater allows it to open up elongated areas of water which can **create dangerous areas of thin ice** around the open water that cannot be seen from the surface.

*These are only suggestions based on the combined experience of dozens of dock owners. We do not guarantee the success of any dock-protective measure.*

### 4. Timing is everything.

Before the ice starts to melt turn off your ice-eater (**the first week of March is usually good**). This allows a thin sheet of ice to connect your dock with the rest of the ice on the lake. Don't worry - the ice is too thin to do any damage and the connection helps keep your dock safe. Open water acts as a runway for thick ice sheets to be blown across and crash into your dock. Having your dock connected to the ice-matrix protects it from moving ice sheets in open water areas. **If you keep your ice eater going as the ice melts and breaks up, your dock will be a sitting duck.**

### 5. Use only as directed.

Ice-eaters are designed to protect shoreline structures and docks. They are not designed to impede public access to the lake. The misuse of ice-eaters along shorelines where there are no structures to protect creates hazardous conditions for people accessing the lake from nearby locations. If you are concerned about trespassing, using an ice-eater is not the answer.

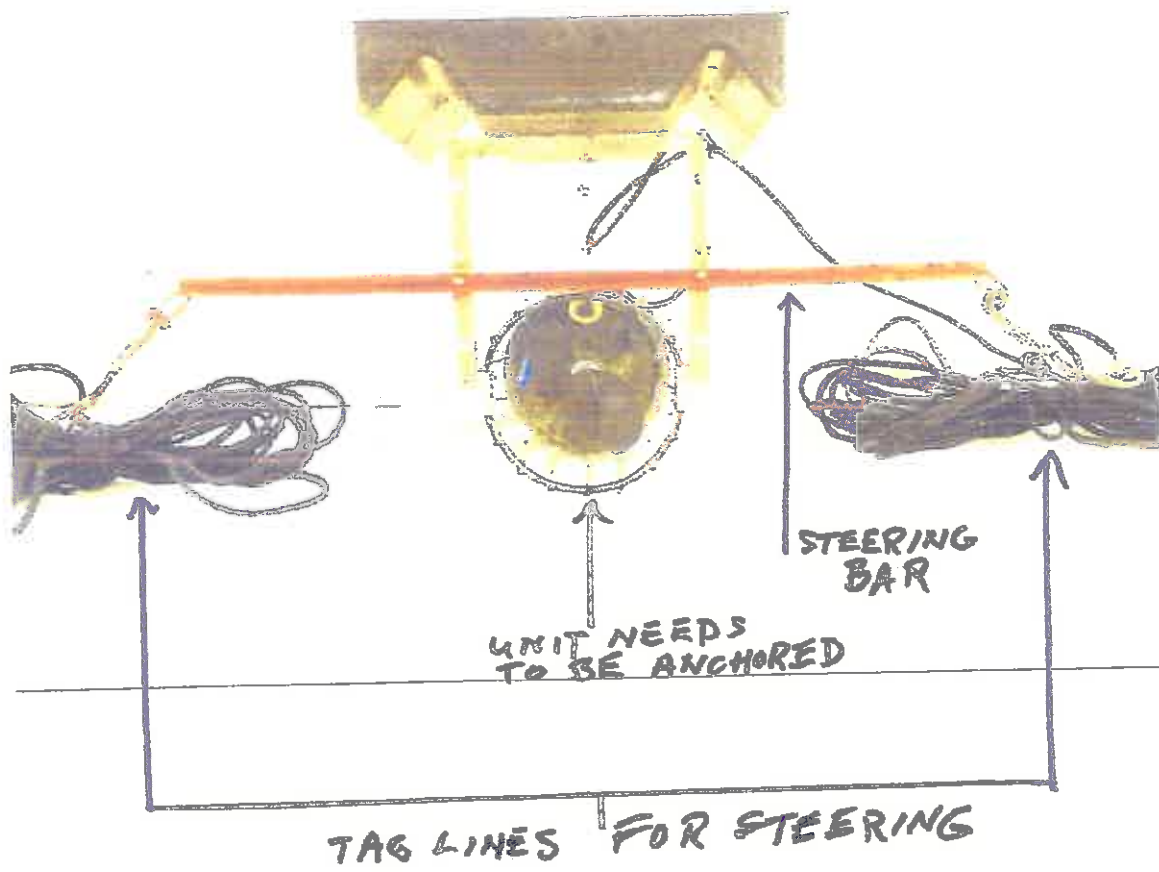
### Ice Eaters vs. Bubblers

Ice eaters cost less initially and need less labor to install and maintain. However they cost more to run, use more energy, and are capable of opening up much larger expanses of water (can create safety concerns and dock damage).

Bubblers cost more to purchase and are more labor intensive to install and maintain, but they use less energy, cost less to run, and keep smaller areas of water open (don't create safety concerns and dock damage like ice eaters do).



KASCO HORIZONTAL FLOAT  
AND DEICER





From: edwardbarnett <steady991@verizon.net>  
Subject: Fwd: Driver  
Date: August 18, 2015 1:52:52 PM EDT  
1 Attachment, 3.7 MB

Begin forwarded message:



Sent from my iPhone

TAYLOR DE-ICER  
w/ VERTICAL FLOAT  
( CIRCULAR DE-ICING  
PATTERN )

**From:** edwardbarnett <steady991@verizon.net>  
**Subject:** **Fwd: Deicer Bubblers**  
**Date:** September 20, 2015 12:18:31 PM EDT  
**To:** Kenneth Schmitt <ks@ci.carmel.ny.us>, Frank Lombardi <suzi5mcdonough@gmail.com>, Anne Pasquerello <amp2@ci.carmel.ny.us>, John Lupinacci <jdlup@icloud.com>, susi5mcdonough@gmail.com  
**Cc:** ponybumps@aol.com, jojimax@comcast.net, joemassaro27@gmail.com, john.maxwell@pavarini.com, bertmelchner@gmail.com, Sheila <s.marg@comcast.net>, Jay Crawford <pac.man1@comcast.net>, Charlie Langlitz <charlie@langlitz.org>, Martin Greenberg <marting@dominionrisk.com>, wspain@spainandspain.com, wfrumkin@verizon.net  
**Ecc:** Michael Barnett <mbarnett@lieberassociates.com>, rmapnusa@aol.com  
**Message-Id:** <7B606B43-7F41-4E6F-8180-7A7B48C35FDA@verizon.net>  
**Content-Type:** multipart/alternative; boundary=Apple-Mail-1-602243559  
**X-Smtp-Server:** smtp.verizon.net:steady991@verizon.net  
**Mime-Version:** 1.0 (Apple Message framework v936)  
**References:** <D2444EBB2334D5438AF86CA29E3D2C0C304292@TH-4.TOCARMEL.Iocal>

Ken,

The only thing I came across re: Deicers and the NYSDEC, is that they caution people about the presence of Deicers.

I will send what the NYSDEC has on their website on a separate email.

It appears that NYSDEC does not have specific regulations concerning deicers.

The engineering department of the town showed me an aerial photo, taken in winter of Lake Mahopac, that shows the extent of ice free areas. This should be helpful in any deliberations.

Ed Barnett

Begin forwarded message:

**From:** "Schmitt, Kenneth" <ks@ci.carmel.ny.us>  
**Date:** September 17, 2015 3:36:27 PM EDT  
**To:** "Flaherty, Michael J (DEC)" <michael.flaherty@dec.ny.gov>  
**Subject:** **Deicer Bubblers**



**Return-Path:** <[ks@ci.carmel.ny.us](mailto:ks@ci.carmel.ny.us)>

**Received:** from smtp.ci.carmel.ny.us ([96.232.176.42]) by vms172071.mailsvcs.net (Oracle Communications Messaging Server 7.0.5.34.0 64bit (built Oct 14 2014)) with ESMTPS id <0NUU007H86GSEC91@vms172071.mailsvcs.net> for [steady991@verizon.net](mailto:steady991@verizon.net); Thu, 17 Sep 2015 14:36:34 -0500 (CDT)

**Received:** from TH-4.TOCARMEL.local ([fe80::9d6b:6756:2960:cdcc]) by TH-4.TOCARMEL.local ([fe80::9d6b:6756:2960:cdcc%12]) with mapi id 14.03.0235.001; Thu, 17 Sep 2015 15:36:28 -0400

**X-Originating-Ip:** [96.232.176.42]

**X-Originating-Ip:** [192.168.1.134]

**Message-Id:** <[D2444EBB2334D5438AF86CA29E3D2C0C304292@TH-4.TOCARMEL.local](mailto:D2444EBB2334D5438AF86CA29E3D2C0C304292@TH-4.TOCARMEL.local)>

**Mime-Version:** 1.0

**Content-Type:** multipart/alternative;  
boundary="Boundary\_(ID\_oDZzodHIWEGyJDAsjr6m5g)"

**Content-Language:** en-US

**Accept-Language:** en-US

**Thread-Topic:** Deicer Bubblers

**Thread-Index:** AdDxfSx+nMmb2/p6Rm2VOyx2yE2DGg==

**X-Cmae-Score:** 0

**X-Cmae-Analysis:** v=2.1 cv=VMwg5I7X c=1 sm=1 tr=0

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a=gKO2Hq4RSVka:10 a=UiCQ7L4-1S4A:10 a=hTZCeC7Yk6K0A:10 a=frz4AuCg-hUA:10

**Original-Recipient:** rfc822;[steady991@verizon.net](mailto:steady991@verizon.net)

Hello Mike,

Hope that all is well with you, Does the NYSDEC regulate the use of Deicer Bubblers in NYS ?

These are the devices that are used to protect docks, boats and boat houses from ice damage during the winter months.

We are receiving complaints/safety concerns from residents and recreational users of frozen bodies of water ( Lake Mahopac ) that these deicer bubblers are opening up and or preventing large areas of water from freezing, in some cases the water is open hundreds of feet out into the lake from the dock/boathouse that the property owner seeks to protect from ice damage.

Is there a State Agency that regulates these deicers ? they seem to be getting larger and larger with greater HP.

The safety concern is that people using frozen lakes for recreational activities will accidentally fall into the open water created by these deicer bubblers.

Thank you for any feedback on this topic that you can provide.

Regards, Kenny

*Kenneth Schmitt,*

Town of Carmel Supervisor  
60 McAlpin Avenue  
Carmel, NY 10541  
phone 845.628-1500  
fax 845.628.6837

# Fertilizer Ordinances

- [Jefferson](#)
- [Mt. Arlington](#)
- [Hopatcong](#)
- [Roxbury](#)

# Docks, Piers and Boathouses

- [Jefferson](#)
- [Mt. Arlington](#)
- [Hopatcong](#)
- [Roxbury](#)

# Ice-Retardant Systems

- [Township of Jefferson](#)

## Chapter 294: ICE-RETARDANT SYSTEMS

[HISTORY: Adopted by the Township Council of the Township of Jefferson 11-6-2002 by Ord. No. 28-02 (Ch. 52 of the 1967 Code). Amendments noted where applicable.]

### ◆ 294-1. Purpose.

It is the intent of this chapter to regulate the installation and use of ice-retardant systems on waterfront properties within the Township of Jefferson for the protection of persons and property and to provide for the public health, safety and welfare of the Township of Jefferson and its inhabitants.

### ◆ 294-2. Definitions.

As used in this chapter, the following terms shall have the meanings indicated:

**AFFECTED AREA OF ICE** ◆ The area of the water body or ice surface disturbed by the operation of an ice-retardant system. Said disturbed or affected area includes open water, weakened ice (excessively cracked), thin ice (less than four inches in depth) and areas where adjacent ice is covered by a film of water.

**BULKHEAD LINE** ◆ The high-water mark of 10.30 feet above the dam as recorded at Lake Hopatcong State Park or the line established by the Bureau of Navigation, State Department of Environmental Protection, defining the lake's permanent shoreline.

**ICE-RETARDANT SYSTEM** ◆ A mechanical device(s) or a series of mechanical devices designed to retard or prevent the formation of ice in or around lakefront structures. Said devices utilize as their mode of operation one or more of the following mechanisms: pumped air, artificial water turbulence or the addition of heat to the water body.

**NORMAL OPERATING CONDITIONS** ◆ The average winter conditions to be utilized in the design or operation of an ice-retardant system and to be utilized in gauging compliance with the terms of this chapter. Said "normal operating conditions" are defined as an average of four or more inches of ice on the

applicable water body. Such term excludes any time period characterized by unseasonably warm temperature (average daily temperature above 40°F. for three or more consecutive days) or rainfall (greater than 1/2 inch of rainfall per day) and the three days immediately thereafter. In any enforcement action under the terms of this chapter, the burden is on the operator of the ice-retardant system to establish that normal operating conditions were not existent on the date of the alleged violation.

**OWNER or OPERATOR** ♦ The owner of record of a tract of land according to the tax rolls of the Township of Jefferson or any person occupying said premises or utilizing the property.

**PERSON** ♦ Any individual, association of individuals, corporation or partnership.

**PROTECTED STRUCTURE** ♦ Any lakefront or within lake structure which the ice-retardant system is designed to protect. Such protected structures include but are not limited to docks, piers, bulkheads, catwalks, seawalls and boathouses.

#### ♦ 294-3. Authorization for use; compliance required.

- A. No person shall operate an ice-retardant system within the municipal limits of the Township of Jefferson unless said operation is in conformance with this chapter.
- B. The provisions of this chapter shall only be effective for the operation of an ice-retardant system from December 1 of each year through April 1 of the following year. Nothing herein shall prevent the operation of an ice-retardant system at other times during the year.

#### ♦ 294-4. Operation requirements.

- A. All ice-retardant systems shall be marked with an appropriate sign placed along the shore or on the protected structure specifying "Danger, Thin Ice." Such sign shall be a minimum of two feet by three feet in size and shall feature letters of a minimum height of three inches and colors in such a way as to be clearly visible on the ice from a distance of 100 feet. Where the ice-retardant system will disturb a distance measured horizontally along the shoreline of more than 25 feet, an additional sign shall be required for each 25 feet of shoreline or fraction thereof.
- B. Under normal operating conditions, the affected area of ice created by the ice-retardant system shall not extend more than 25 feet beyond the protected structure.
- C. Under normal operating conditions, the affected area of ice should not extend more than 25 feet, measured along the shoreline, from the protected structure.
- D. Irrespective of the standard appearing in Subsections B and C above, the affected area of ice, under normal operating conditions, should not extend beyond the side property lines of the property for which the ice-retardant system is being used, as if said property lines were extended into the lake. Said requirement may be waived if the owner and/or operator of the ice-retardant system obtains written permission from the adjacent property owner.
- E. Unless the ice-retardant system has been designed and approved in accordance with ♦ 294-5 of this chapter, no system shall be designed or operated in such a way as to prevent ingress or egress to any portion of the water body or to foreclose the formation of ice across a channel.

#### ♦ 294-5. Waiver of requirements.

The Township Council may, by resolution, waive the requirements of this chapter in situations of hardship or exceptional public necessity. Exceptional public necessity shall include but is not limited to a necessity to maintain an open channel of water for ferry service or access to island lakefront homes. In considering such

an application, the Township Council may refer the application to the Lake Hopatcong Commission for comment. In adopting the resolution, Council shall specify requirements as to markings and lighting. Such requirements can include but are not limited to requiring buoys to be placed in the frozen water body to clearly mark the approach, requiring nighttime illumination or flashing lights to indicate that open water is present, limiting the size of the affected ice area to the minimal necessary for the use and/or publishing public notice of the condition to specify minimal levels of insurance requirements.

#### ◆ 294-6. Enforcement; violations and penalties.

- A. The Construction Official is hereby designated as the enforcement officer under the terms of this chapter. All complaints received by any municipal agency concerning the operation of ice-retardant systems shall be referred to the Construction Official. Upon receipt of a complaint, the Construction Official shall investigate within five days and, if the complaint is found justified, notify the owner and operator of the terms of this chapter and require compliance within an additional 10 days. The Construction Official may reduce the time period for compliance when the interest of public safety so requires. If the owner or operator of the system fails to undertake the corrections within the specified time frame, the Construction Official may cause a summons to be issued in the Municipal Court of the Township of Jefferson to enforce the requirements of this chapter. [Amended 2-16-2005 by Ord. No. 4-05]
- B. A violation of the terms of this chapter, including the operational requirements, shall be punishable by a fine not to exceed \$50 for the first offense, \$100 for the second offense and \$250 for the third and subsequent offenses. Each day that a violation of this chapter continues may be deemed to be a separate offense.

#### ◆ 294-7. Liability.

Compliance and/or noncompliance with the requirements of this chapter shall not preclude any civil action for damages arising from injuries incurred through the operation of an ice-retardant system.

#### ◆ 294-8. Construal of provisions.

Nothing in this chapter shall be construed as repealing any provision of any other municipal ordinance. In the event that any regulation provided above shall vary from the same or a similar regulation of any other municipal ordinance, the more restrictive provision of such ordinance shall be deemed to control.

#### • [Borough of Hopatcong](#)

◆ [137-3. Authorization for use; compliance ...](#) [CHAPTER 137. ICE-RETARDANT SYSTEMS](#) ◆ [137-5. Waiver of requirements.](#)

*This electronic version is provided for informational purposes only. For the official version please contact the municipality.*

#### ◆ [137-4. Operation requirements.](#)

- A. All ice-retardant systems shall be marked with an appropriate sign placed along the shore or on the protected structure specifying "Danger, Thin Ice." Such sign shall be a minimum of two feet by three feet in size and shall feature letters of a minimum height of three inches and colors in such a way as to be clearly visible on the ice from a distance of 100 feet. Where the ice-retardant system will disturb a distance measured horizontally along the shoreline of more than 25 feet, an additional sign shall be required for each 25 feet of shoreline or fraction thereof.
- B. Under normal operation conditions, the affected area of ice created by the ice-retardant system shall not extend more than 25 feet beyond the protected structure.

C. Under normal operation conditions, the affected area of ice created by the ice-retardant system shall not extend more than 25 feet, measured along the shoreline, from the protected structure.

D. Irrespective of the standard appearing in Subsections [B](#) and [C](#) above, the affected area of ice, under normal operating conditions, should not extend to within 10 feet of a side property line. Said requirement may be waived if the owner and/or operator of the ice-retardant system obtains written permission from the adjacent property owner.

E. Unless the ice-retardant system has been designed and approved in accordance with [137-6](#) of this chapter, no system shall be designed or operated in such a way as to prevent ingress or egress to any portion of the water body or to foreclose the formation of ice across a channel.

- [Borough of Mount Arlington](#)

#08 10

## COUNTY OF MORRIS

### BOROUGH OF MOUNT ARLINGTON

#### AN ORDINANCE AMENDING CHAPTER 70 OF THE CODE OF THE BOROUGH OF MOUNT ARLINGTON ENTITLED [DOCKS PIERS AND BULKHEADS](#) REGULATING ICE RETARDANT SYSTEMS

**WHEREAS**, the Borough Council of the Borough of Mount Arlington in the County of Morris and State of New Jersey desires to regulate ice retardant systems on all waterfront properties.

**NOW, THEREFORE, BE IT ORDAINED** by the Governing Body of the Borough of Mount Arlington as follows:

#### SECTION ONE

Chapter 70 of the code of the Borough of Mount Arlington entitled [Docks Piers and Bulkheads](#) is hereby amended to include a new section 10 entitled [Ice Retardant Systems](#) which shall provide as follows:

#### ICE RETARDANT SYSTEMS

##### [70-10.1.](#) Purpose

It is the intent of this chapter to regulate the installation and use of ice-retardant systems on all waterfront properties within the Borough of Mount Arlington for the protection of persons and property and to provide for the public health, safety and welfare of the Borough of Mount Arlington and its inhabitants.

##### [70-10.2.](#) Definitions:

As used in this subchapter, the following terms shall have the meanings indicated:

#### AFFECTED AREA OF ICE

The area of the water body or ice surface disturbed by the operation of an ice-retardant system. Said disturbed or affected area includes open water, weakened ice (excessively cracked), thin ice (less than four inches in depth) and area where adjacent ice is covered by a film of water.



## **BULKHEAD LINE**

The high-water mark of 10.30 feet above the dam as recorded at Lake Hopatcong State Park or the line established by the Bureau of Navigation, State Department of Environmental Protection, defining the lake's permanent shoreline.

## **ICE-RETARDANT SYSTEM**

A mechanical device(s) or a series of mechanical devices designed to retard or prevent the formation of ice in or around lakefront structures. Said devices utilize as their mode of operation one or more of the following mechanisms: pumped air, artificial water turbulence or the addition of heat to the water body.

## **NORMAL OPERATING CONDITIONS**

The average winter conditions to be utilized in the design or operation of an ice-retardant system and to be utilized in gauging compliance with the terms of this chapter. Said "normal operating conditions" is defined as an average of four or more inches of ice on the applicable water body. Such term excludes any time period characterized by unseasonably warm temperature (average daily temperature above 40°F. for three or more consecutive days) or rainfall (greater than 1/2 inch of rainfall per day) and the three days immediately thereafter. In any enforcement action under the terms of this chapter, the burden is on the operator of the ice-retardant system to establish that normal operating conditions were not existent on the date of the alleged violation.

## **OWNER or OPERATOR**

The owner of record of a tract of land according to the tax rolls of the Borough of Mount Arlington or any person occupying said premises or utilizing the property.

## **PERSON**

Any individual, association of individuals, corporation or partnership.

## **PIER HEAD LINE**

A line running parallel to the bulkhead line and extending not more than 50 feet from said bulkhead line, as approved by the Natural Resources Council and Bureau of Navigation, State Department of Environmental Protection, beyond which no dock, pier or marina or other structure, permanent or temporary, floating or affixed to shore or lake bottom, may be located.

## **PROTECTED STRUCTURE**

Any lakefront or within-lake structure which the ice-retardant system is designed to protect. Such protected structures include but are not limited to docks, piers, bulkheads, catwalks, seawalls and boathouses.

### **◆70-10.3. Authorized Use; compliance required**

**A.** Utilization of ice-retardant systems is hereby authorized within the municipal limits of the Borough of Mount Arlington from December 1 of each year through April 1 of the following year.

**B.** No person shall operate an ice-retardant system within the municipal limits of the Borough of Mount

Arlington unless said operation is in conformance with this chapter.

#### **70-10.4. Operational requirements**

A. All ice-retardant systems shall be marked with an appropriate sign placed along the shore or on the protected structure specifying "Danger, Thin Ice." Such sign shall be a minimum of two feet by three feet in size and shall feature letters of a minimum height of three inches and colors in such a way as to be clearly visible on the ice from a distance of 100 feet.

B. Under normal operation conditions, the affected area of ice created by the ice-retardant system shall not extend outward more than 25 feet from the shoreline, or to the outer edge of the protected structure, whichever is less.

C. Under normal operation conditions, the affected area of ice created by the ice-retardant system shall not extend horizontally more than 25 feet or to the owner's property line, whichever is less, measured along the shoreline, from the protected structure.

D. Unless the ice-retardant system has been designed and approved in accordance with 70-10.6 of this chapter, no system shall be designed or operated in such a way as to prevent ingress or egress to any portion of the water body or to foreclose the formation of ice across a channel.

#### **70-10.5. Waiver of requirements**

The Mayor and Council may, by resolution, waive the requirements of this chapter in situations of hardship or exceptional public necessity. "Exceptional public necessity" shall include but not limited to a necessity to maintain an open channel of water for ferry service or access to island lakefront homes. In considering such an application, the Mayor and Council may refer the application to the Lake Hopatcong Regional Planning Board for comment. In adopting the resolution, the Mayor and Council shall specify requirements as to markings and lighting. Such requirements can include but are not limited to requiring buoys to be placed in the frozen water body to clearly mark the approach, requiring nighttime illumination or flashing light to indicate that open water is present, limiting the size of the affected ice area to the minimal necessary for the use and/or publishing public notice of the condition to specify minimal levels of insurance requirements.

#### **70-10.6. Enforcement; violations & penalties**

A. The Construction Official is hereby designated as the enforcement officer under the terms of this chapter. All complaints received by any municipal agency concerning the operation of ice-retardant systems shall be referred to the Construction Official. Upon receipt of a complaint, the Construction Official shall investigate within five days and, if the complaint is found justified, notify the owner and operator of the terms of this chapter and require compliance within an additional 5 days. The Construction Official may reduce the time period for compliance when the interest of public safety so requires. If the owner or operator of the system fails to undertake the corrections within the specified time frame, the Construction Official may cause a summons to be issued in the Joint Municipal Court of Dover to enforce the requirements of this chapter.

B. A violation of the terms of this chapter, including the operational requirements, shall be punishable by a fine not to exceed \$100 for the first offense, \$200 for the second offense and \$400 for the third and subsequent offenses. Each day that a violation of this chapter continues may be deemed to be a separate offense.

#### **70-10.7. Liability**



Compliance and/or noncompliance with the requirements of this chapter shall not preclude any civil action for damages arising from injuries incurred through the operation of an ice-retardant system.

#### **70-10.8.      Construal of provisions**

Nothing in this chapter shall be construed as repealing any provision of any other municipal ordinance. In the event that any regulation provided above shall vary from the same or a similar regulation of any other municipal ordinance, the more restrictive provision of such ordinance shall be deemed to control.

### **SECTION TWO -REPEALER**

All Ordinances or parts of Ordinances inconsistent herewith are hereby repealed to the extent of such inconsistency.

### **SECTION THREE -SEVERABILITY**

Should any section, clause, sentence, phrase provision or application of this Ordinance be declared unconstitutional or invalid by a court of competent jurisdiction, such a decision shall not affect the remaining portions of this Ordinance.

### **SECTION FOUR -EFFECTIVE DATE.**

This Ordinance shall take effect immediately upon its final passage and publication as provided by law.

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# Ice Eaters Regulations for Lake Hopatcong

Since the winter of 2010 when Lake Hopatcong did not freeze over despite having a very cold winter, there has been much concern about the use of ice eaters on the lake and the unsafe ice conditions they can potentially create if not operated properly. Here on the lake, we use the term ice eaters, but an ice eater is only one type of ice retardant system in use. The use of all types of ice retardant systems are regulated through [municipal ordinances in the Boroughs of Hopatcong and Mount Arlington and the Township of Jefferson.](#)

The Lake Hopatcong Commission is working with all four municipalities on the lake to promote the safe and effective use of ice retardant systems. Promoting the proper use of these systems will help prevent winter accidents from occurring on the lake while still being able to protect docks and property from ice damage. Although the majority of the lake was ice-covered by mid to late December in 2009, throughout the remainder of the winter in 2010, large areas of Lake Hopatcong remained open water and did not freeze over. A possible cause for the large areas of open water was the improper use of ice retardant systems exacerbated by windy conditions. Let's work together to prevent ice retardant systems from keeping Lake Hopatcong frozen over during cold winter months which is what happened in 2010.

Lake George located in the Adirondacks Region in upstate New York has been dealing with unsafe ice conditions because of improper use of ice eaters. The [Lake George Association \(LGA\)](#) brochure, "[Don't Be Eaten Alive! Tips for effective and safe use of ice eaters](#)" is a valuable guide of simple steps to follow. The LGA News, has a SPECIAL ISSUE on [Winter Safety Tips to Live By](#). Download, read, and pass these on to friends, family and neighbors that use ice eaters and go out on the lake in the winter.

To operate your ice retardant system properly so it does not cause a safety hazard for people and animals on the ice, connect it to a thermostat and timer, don't operate it for more than four hours a day, have it pointed upwards in vertical position and stop using it before the spring ice melt. Systems with a timer and thermostat to limit the hours of use daily will protect your property while saving money on the electrical costs. During freezing temperature, this will allow the lake to stay frozen in areas of the lake away from your property and will protect the public's safety.

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## Q&As About Ice Retardant Systems

1. [What is an ice-retardant system?](#)
  2. [Who regulates the use of ice retardant systems on Lake Hopatcong?](#)
  3. [How does improper or excessive use of ice retardant systems impact Lake Hopatcong?](#)
  4. [What are the proper operating instructions for ice retardant systems?](#)
- 

### What is an ice retardant system?

An ice-retardant system is a mechanical device or a series of mechanical devices designed to retard or prevent the formation of ice in or around lake front structures. These devices utilize as their mode of operation, one or more of the following mechanisms: pumped air, artificial water turbulence, the addition of

heat to the water body, or other mechanism which impedes or prevents the formation of ice on the lake surface. Around Lake Hopatcong, these devices are commonly referred to as an "ice eater" which refers to a dock de-icer that uses an electric motor and prop to pull warmer water from the depth and direct it towards the surface. Actually, ice eater is a brand name for an ice eater product line produce by The Powerhouse in the United States. Ice eater is the term often used generically to refer to this type of de-icer as one refers to Kleenex to describe facial tissues or Xerox copy to describe a photocopy.

Ice eaters and bubblers are two different types of systems, but ice eaters can open up much larger areas of water which creates public safety concerns and may cause dock damage. Bubblers use less energy and cost less to operate, but are more expensive initially to purchase and more work is involved to install and maintain. Most importantly, bubblers create only a small area of open water.

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## **Who regulates the use of ice retardant systems on Lake Hopatcong?**

The Lake Hopatcong Commission does not have regulatory or enforcement authority on Lake Hopatcong. However, three of Lake Hopatcong's local municipalities, Mount Arlington, Hopatcong and Jefferson, all have an [ordinance](#) in place which regulates the use of ice retardant systems. Roxbury Township is considering adopting a similar ordinance. The current municipal ordinances have the following in common for ice retardant systems operating under normal conditions:

- the affected area of ice created by the ice-retardant system shall not extend more than 25 feet beyond the protected structure or more than 25 feet, measured along the shoreline, from the protected structure.
- no system shall be designed or operated in such a way as to prevent ingress or egress to any portion of the water body or to foreclose the formation of ice across a channel.

Additionally, the ordinances indicate:

- all ice-retardant systems shall be marked with an appropriate sign placed along the shore or on the protected structure specifying "Danger, Thin Ice."
- the municipal construction official is responsible for enforcement of the ordinance.

For complete details on the municipal ice retardant system ordinances, [click here](#) or visit your town codebook on your local municipality's webpage. If an ice eater is creating an area of open water larger than 25', if possible, make the property owner aware of the potential dangers this can cause. As these ordinances indicate, it can be reported to the construction official in Hopatcong, Jefferson or Mount Arlington.

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## **How does improper or excessive use of ice retardant systems impact Lake Hopatcong?**

Beside the public safety issue of falling through thin ice due to improper or excessive use of ice-eaters, there is another benefit to having snow covered ice on the lake. Large areas of open water in the winter can promote faster weed growth as the warmer season approaches. Snow-covered ice on the lake does not allow the sun to penetrate and warm the water which may promote early season weed growth. Keeping the lake frozen over in the winter may cut down on weed growth.



Very large  
area of  
open water  
on Lake  
Hopatcong  
during  
Winter  
2010.

PHOTO  
CREDIT:  
Art Clark,  
Hopatcong  
resident

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## **What are the proper operating instructions for ice retardant systems?**

Determine system size needed. A 1/2 hp motors opens 50' diameter area and 1 hp opens 90' diameter area. A motor that is too big will open up an area in excess of the 25' allowable area designated in local municipal ordinances.

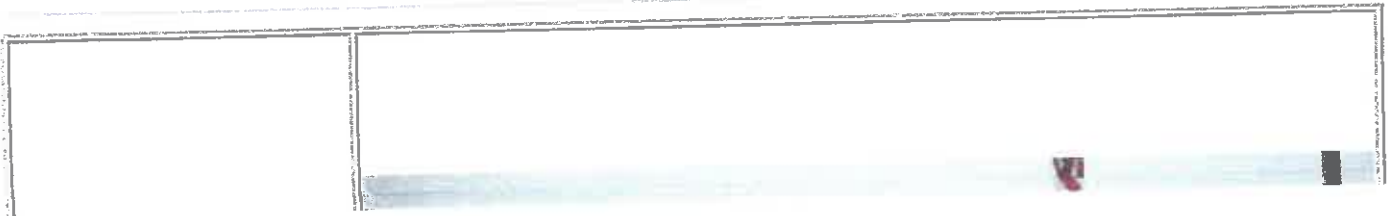
Go green and save. Get a timer and a thermostat for your system. Save energy and money. Remember 4 hours of operating daily should be sufficient to keep the area by your property from freezing over.

Follow system directions. These systems are not designed to impede public access to lake.

Place the system in the correct direction. In most cases, the device should be positioned vertically and not pointing out to the middle or the lake or in towards the shoreline.

Stop using your system when the ice starts to melt. Watch the ice and when it starts to melt, usually in late February/March, turn your system off. A thin sheet of ice needs to connect to your dock. This should prevent blowing sheets of thicker ice from other areas from crashing into your dock.

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More open water during  
winter 2010 looking  
towards Halsey Islands  
from Main Lake  
Market.

PHOTO CREDIT: Art  
Clark, Hopatcong  
resident



Revised: 01/04/12.

## Chapter 37

### ALARM DEVICES AND SYSTEMS

#### § 37-1. Definitions.

For the purpose of this chapter, the following words and phrases shall have the meanings respectively ascribed to them by this section:

ADMINISTRATIVE AUTHORITY — The Town Comptroller's office of the Town of Carmel.[Added 1-19-1994 by L.L. No. 1-1994]

ALARM PERMIT — The written authorization of the permitting authority granted to any person, business, firm, corporation or other entity to install or maintain in a residence or place of business any police and/or fire alarm device, devices or system of police and/or fire alarm devices.

ALARM PERMIT YEAR — The period from January 1 until the next succeeding December 31, except for the first year during which an alarm permit is issued, which year shall commence on the date of permit issuance and shall end on the next succeeding December 31.

CENTRAL ALARM STATION — Any facility operated by a private person, firm or entity which facility receives, records or validates alarm signals and notifies the Police Department and/or Fire Department when appropriate.

FALSE ALARM — Any signal actuated by a police and/or fire alarm device, devices or system of police or fire alarm devices which is not the result of natural disaster, act of God, a criminal act, fire or other emergency requiring police or fire response. The term "false alarm" shall include human error and equipment malfunction causing the alarm to be activated and which results in police and/or fire response.

PERMITTING AUTHORITY — The Building Department of the Town of Carmel.[Amended 1-19-1994 by L.L. No. 1-1994]

POLICE AND/OR FIRE ALARM DEVICE — Any device which, when activated by fire or other emergency, transmits a prerecorded message or other signal by telephone, radio, central alarm station, audible signal and/or visible signal designed to cause notification of the Police Department and/or Fire Department for a response.

#### § 37-2. Alarm permits required.

It shall be a violation of this chapter for any person, business, firm, corporation or other entity to install or maintain in a residence or place of business any police and/or fire alarm device, devices or system of police and/or fire alarm devices without having obtained an alarm permit from the permitting authority.

#### § 37-3. Applications for alarm permits. [Amended 1-19-1994 by L.L. No. 1-1994]

All applications for alarm permits shall be submitted to the administrative authority on a form to be supplied by the administrative authority. Said application shall include a description of the police and/or fire alarm device, devices or system of police and/or fire alarm devices installed or maintained or to be installed and such other information as shall be required by the administrative authority.



**§ 37-4. Alarm permit fees.**

The fees for alarm permits shall be established annually by resolution of the Town Board of the Town of Carmel and shall be on file in the office of the Town Clerk.

**§ 37-5. Direct connections prohibited.**

It shall be a violation of this chapter for any police and/or fire alarm device, devices or system of police and/or fire alarm devices to be connected to the Police Department. Any such police and/or fire alarm device, devices or system of police and/or fire alarm devices must be connected to a central alarm station or other answering service.

**§ 37-6. Automatic telephone devices.**

It shall be a violation of this chapter for any automatic telephone-dialing device to be connected to the telephone lines of the Police Department. Any such automatic telephone-dialing device must be connected to a central alarm station or other answering service.

**§ 37-7. Requirement for automatic cutoff system.**

No person, business, firm, corporation or other entity shall install, cause to be installed or maintain in a structure, building or establishment in the Town of Carmel a police and/or fire alarm device, devices or system of police and/or fire alarm devices with an external audible and/or visible alarm unless said police and/or fire alarm device, devices or system of police and/or fire alarm devices has an automatic cutoff system or feature which terminates the audible and/or visible alarm within 15 minutes after it has been activated.

**§ 37-8. False alarms. [Amended 1-19-1994 by L.L. No. 1-1994; 5-15-1996 by L.L. No. 2-1996]**

- A. The Police Chief of the Town of Carmel shall cause to be kept an up-to-date and accurate log of all false alarms occurring in the Town and shall transmit a report of such false alarms to the permitting authority and the Town Board on a monthly basis or, in the Police Chief's discretion, on a more frequent basis. Any person, business, firm, corporation or other entity who has installed or maintains a police and/or fire alarm device, devices or system of police and/or fire alarm devices in a structure, building or establishment in the Town of Carmel shall pay to the permitting authority, upon demand, a fine for each and every false alarm originating from their structure, building or establishment in any alarm permit year in accordance with a schedule of fines which shall be established annually by resolution of the Town Board of the Town of Carmel and shall be on file in the office of the Town Clerk.
- B. Any person, business, firm, corporation or other entity who wishes to appeal the fines imposed pursuant to Subsection A of this section may do so in writing to the Alarms Appeal Board within 30 days of the notification of the imposition of said fines. The Alarms Appeal Board shall consist of three members appointed by the Town Board to serve at its pleasure. One member shall be an active member of one of the Fire Departments which service the Town and the other two members shall be representatives of the general public. The Alarms Appeals Board, upon appeal, shall have the authority to affirm, amend, modify or waive the fines imposed by the permitting authority. All Board decisions shall be in writing and shall be filed with the Town Clerk. **[Amended 8-12-1998 by L.L. No. 7-1998]**

- C. Any failure by such person, business, firm, corporation or other entity to pay the aforementioned fines within 30 days of the demand therefore, provided an appeal to the Alarms Appeal Board has not been filed, shall be deemed a violation of this chapter and shall be punishable in accordance with the provisions of § 37-14 of this chapter. If an appeal has been filed with the Alarms Appeal Board, then the 30 days shall commence upon filing of the decision of the Board with the Town Clerk.

**§ 37-9. Powers of permitting authority.**

The permitting authority is hereby authorized to grant alarm permits pursuant to the provisions of this chapter.

**§ 37-10. Collection and disposition of fees and charges.**

All permit fees and false alarm charges shall be collected by the permitting authority.

**§ 37-11. Duties of the permitting authority.**

It shall be the duty of the permitting authority to maintain a record of all alarm permits issued and to make a monthly report of same to the Town Board and Police Chief.

**§ 37-12. Implementation.**

In order to provide for the orderly institution of the requirements of this chapter, any person, business, firm, corporation or other entity which has a police and/or fire alarm device, devices or system of police and/or fire alarm devices in use on the effective date of this chapter shall obtain an alarm permit no later than 60 days from the effective date of this chapter. Any police and/or fire alarm device, devices or system of police and/or fire alarm devices currently in use which would be prohibited under the provisions of this chapter must be removed no later than 60 days from the effective date of this chapter.

**§ 37-13. Exceptions.**

None of the provisions of this chapter shall apply to a police and/or fire alarm device, devices or system of police and/or fire alarm devices installed in any Town-owned building, Fire Department-owned building or Volunteer Ambulance Corps-owned building. None of the provisions of this chapter apply to public or private school buildings.

**§ 37-14. Penalties for offenses.**

Any person, business, firm, corporation or other entity who does not pay any fee or charge established in this chapter or who violates any provisions of this chapter shall be subject to a fine not to exceed \$250 for each offense. Each week of continuing violation shall constitute a separate additional violation.