GENESEE COUNTY PLANNING BOARD REFERRALS
NOTICE OF FINAL ACTION

GCDP Referral ID	**T-01-BYR-11-22**
Review Date	**11/10/2022**
Municipality	**BYRON, T.**
Board Name	**PLANNING BOARD**
Applicant's Name	**Green Street Power Partners, LLC**
Referral Type	**Special Use Permit**
Variance(s)	
Description:	**Special Use Permit and Site Plan Review for a 35 acre, 5 MW ground mounted commercial solar energy system.**
Location	**6975 Townline Rd. (NYS Rt. 262), Byron**
Zoning District	**Agricultural Residential (A-R) District**

PLANNING BOARD RECOMMENDS:

APPROVAL WITH MODIFICATION(S)

EXPLANATION:

The required modifications are as follows: 1) Per Town of Byron Solar Law Section 2.12.12(g)ii, the applicant adhere to New York State Department of Agriculture and Markets Guidelines for Solar Energy Projects-Construction Mitigation for Agricultural Lands; 2) Given that the project parcel is enrolled in Agricultural District No. 4 and that the project will receive public funding, the applicant comply with NYS Agriculture and Markets Law Section 305 (Notice of Intent provision); and 3) the applicant amend the decommissioning plan to include decompaction of the footprint of the access road/equipment pads where they occur in currently farmed areas of the field to a minimum of 24 inches beneath the bottom of the former stone layer and post-decommissioning monitoring for a minimum of three growing seasons. With these required modifications, the proposed solar energy system should pose no significant county-wide or intercommunity impact. It is recommended that the applicant submits the enclosed application for 9-1-1 Address Verification to the Genesee County Sheriff's Office to ensure that the address of the proposed solar system meets Enhanced 9-1-1 standards.

Felipe A. [illegible]

Director

November 10, 2022

Date

If the County Planning Board disapproved the proposal, or recommends modifications, the referring agency shall NOT act contrary to the recommendations except by a vote of a majority plus one of all the members and after the adoption of a resolution setting forth the reasons for such contrary action. Within 30 days after the final action the referring agency shall file a report of final action with the County Planning Board. An action taken form is provided for this purpose and may be obtained from the Genesee County Planning Department.

SEND OR DELIVER TO:
GENESEE COUNTY DEPARTMENT OF PLANNING
3837 West Main Street Road
Batavia, NY 14020-9404
Phone: (585) 815-7901

Clear Form

DEPARTMENT USE ONLY:
GCDP Referral # T-01-BYR-11-22

* GENESEE COUNTY * PLANNING BOARD REFERRAL

RECEIVED
Genesee County
Dept. of Planning
10/24/2022

Required According to:
GENERAL MUNICIPAL LAW ARTICLE 12B, SECTION 239 L, M, N
(Please answer ALL questions as fully as possible)

1. REFERRING BOARD(S) INFORMATION

Board(s) Town of Byron Planning Board
Address PO Box 9 7028 Byron Holley Rd.
City, State, Zip Byron, NY 14422
Phone (585) 548 - 7123 Ext. 15

2. APPLICANT INFORMATION

Name Green Street Power Partners, LLC
Address 1 Landmark Sq. Suite 320
City, State, Zip Stamford, CT 06901
Phone (518) 371 - 0799 Ext.
Email dlynch@mjels.com

MUNICIPALITY: ☐ City ☒ Town ☐ Village of _____

3. TYPE OF REFERRAL: (Check all applicable items)

- ☐ Area Variance
- ☐ Use Variance
- ☒ Special Use Permit
- ☐ Site Plan Review
- ☐ Zoning Map Change
- ☐ Zoning Text Amendments
- ☐ Comprehensive Plan/Update
- ☐ Other: _____

Subdivision Proposal
- ☐ Preliminary
- ☐ Final

4. LOCATION OF THE REAL PROPERTY PERTAINING TO THIS REFERRAL:

A. Full Address n/a
B. Nearest intersecting road Hessenthaler
C. Tax Map Parcel Number 11.-2-67
D. Total area of the property 85 acres Area of property to be disturbed 35 acres
E. Present zoning district(s) AR

5. REFERRAL CASE INFORMATION:

A. Has this referral been previously reviewed by the Genesee County Planning Board?

☒ NO ☐ YES If yes, give date and action taken _____

B. Special Use Permit and/or Variances refer to the following section(s) of the present zoning ordinance and/or law

11.15

C. Please describe the nature of this request Installation of solar ground mounted panels, over head and underground ele link fencing.

6. ENCLOSURES – Please enclose copy(s) of all appropriate items in regard to this referral

- ☒ Local application
- ☒ Site plan
- ☐ Subdivision plot plans
- ☒ SEQR forms
- ☐ Zoning text/map amendments
- ☒ Location map or tax maps
- ☐ Elevation drawings
- ☒ Agricultural data statement
- ☐ New or updated comprehensive plan
- ☐ Photos
- ☒ Other: Decommissioning Plan, SWPPP

7. CONTACT INFORMATION of the person representing the community in filling out this form (required information)

Name Melissa Ierlan Title CEO/ZEO Phone (585) 402 - 0148 Ext.
Address, City, State, Zip _____ Email townofbyrocodes@gmail.com

TOWN VILLAGE CITY OF Byron Application # PBA 2022-053
(circle one)

Agricultural Data Statement

Date 08/31/2022

Instructions: This form must be completed for any application for a special use permit, site plan approval, use variance or a subdivision approval requiring municipal review that would occur on property within 500 feet of a farm operation located in a NYS Dept. of Ag & Markets certified Agricultural District.

Applicant	Owner if Different from Applicant
Name: Green Street Power Partners, LLC Address: 1 Landmark Sq. Suite 230 Stamford, CT 06901	Name: Jay & Deborah Miller Address: 94 West Dryden Rd. Freeville, NY 13068

1. Type of Application: ☑Special Use Permit; ☐Site Plan Approval ; ☐Use Variance;
   (circle one or more) ☐Subdivision Approval

2. Description of proposed project: Installation of solar ground mounted panels, over head and under ground electric
7ft perimeter fencing (chain link)

3. Location of project: Address: _____
   Tax Map Number (TMP) 11.-2-67

4. Is this parcel within an Agricultural District? ☐NO ☑YES (Check with your local assessor if
5. If YES, Agricultural District Number 4 you do not know)
6. Is this parcel actively farmed? ☐NO ☑YES
7. List all farm operations within 500 feet of your parcel. Attach additional sheets if necessary.

Name: 11.-2-44.13 Address: _____ Is this parcel actively farmed? ☐NO ☑YES	Name: 11.-2-42 Address: _____ Is this parcel actively farmed? ☐NO ☑YES
Name: 10.-2-41.1 Address: _____ Is this parcel actively farmed? ☐NO ☑YES	Name: 10.-1-4.11 Steve Hohn Address: 7310 Cockram Rd. Is this parcel actively farmed? ☐NO ☑YES

_____ _____
Signature of Applicant Signature of Owner (if other than applicant)

Reviewed by: _____ _____
Signature of Municipal Official Date

NOTE TO REFERRAL AGENCY: County Planning Board review is required. A copy of the Agricultural Data Statement must be submitted along with the referral to the County Planning Department.

TOWN OF BYRON
APPLICATION TO THE PLANNING BOARD
Special Use Permit

Special Use Number : _____

Date : _____

OWNER

Name : Jay and Deborah Miller
Address : 94 W Dryden Road
Freeville, NY 13068
Telephone # : 607-319-1050

APPLICANT (If other than owner)

Name : GSPP Route 262, LLC
Address : 1 Landmark Square, Suite 320
Stamford CT, 06901
Telephone # : 646 766-1443

1. Request to the Planning Board to overturn the Zoning Enforcement Officer's decision to DENY [ ] GRANT [ ] an application for a Zoning Permit Application Number _____ Dated _____ .

2. APPLICATION FOR : Special Use Permit [X]

Other [ ] _____ Please Specify

3. Address of Project Site : 6975 NYS Route 262/County Route 13
Tax Map Number : 11.00-2-67 Zoning District : Agricultural-Residential

4. Has a previous appeal been filed pertaining to this parcel ? No [X]
Yes [ ] If yes, list Appeal No. _____ Date _____ Purpose of Request :

5. Justification for Request : General Response The proposed project is classified as Tier 4 solar installation, which are permitted in the Agricultural – Residential Zoning District and require a Special Use Permit and Site Plan approval from the Town Planning Board

A more SPECIFIC RESPONSE should accompany this application on separate sheet(s) of paper. Address each of the statements listed on the back of the PINK sheet which pertain to your specific appeal.

The Applicant shall submit with this request, appropriate supporting materials including, but not limited to, site plans, elevations, traffic circulation diagrams, neighborhood land use maps and any other material that will assist the Board in making a determination regarding this request.

CERTIFICATION : *I hereby certify that I have read and examined this application and supporting attachments and know the same to be true and correct. All provisions of laws and ordinances covering this type of work or use will be complied with whether specified herein or not. The granting of an appeal does not presume to give authority to violate or cancel the provisions of any other state or local ordinance or law regulating construction or performance of construction and/or use.*

Applicant's Signature — 8/25/2022 Date:

Jay P. Miller Deborah S. Miller — 26 August 22. Owner's Signature (If other than applicant) Date:

PROVISIONS of ZONING LAW for SPECIAL USE:

1. [ ] Article _____ Section _____ Subsection _____ Paragraph _____ state reason; _____

2. [ ] Table I or II - state reason; _____

FEE COLLECTED : Check # _____

Special Use Fee $ _____

Public Hearing Fee $ _____

TOTAL FEE $ _____

Signature - Zoning Enforcement Officer

Date

OFFICE USE ONLY

COPY DISTRIBUTION : White - Z.E.O. Yellow - PLANNING BOARD Pink - APPLICANT

GREEN STREET
POWER PARTNERS

March 15, 2022

Via Certified Mail

Felipe Z. Oltramari AICP CNUa
Director, Genesee County Planning Dept.
County Building 2,
3837 West Main Street Road
Batavia, NY 14020

Dear Mr. Oltramari

This letter is to notify you that GSPP Route 262, LLC as lessee of property located at 6975 Route 262, Byron, NY 14422 in the Town of Byron (Tax Parcel 11.-2-67), Byron-Bergen Central School District and County of Genesee, intends to construct a solar energy system of approximately 5 Megawatts AC in size on the above referenced property. This notice is required under Section 9 of NY RPTL 487. If we do not receive a response from you within sixty days in writing with your intent to require a contract for payments in lieu of taxes, this project shall not be obligated to make such payments.

Kind Regards,

GSPP ROUTE 262, LLC
BY: GSPP HOLDCO, LLC, its Manager

BY: _____
Name: SCOTT KERNER
Title: Manager

Member

GSPP HOLDCO, LLC

BY: _____
Name: SCOTT KERNER
Title: Manager

Engineering and Land Surveying, P.C.

1533 Crescent Road
Clifton Park, NY 12065
Phone: 518.371.0799
Fax: 518.371.0822
mjelspc@mjels.com
mjels.com

Project Narrative

6975 NYS Route 262 Solar

October 14, 2022

Project 6975 NYS Route 262/County Route 13
Byron NY
Tax Map ID: 11.00-2-67

Applicant Green Street Power Partners LLC
1 Landmark Square, Suite 320
Stamford, CT 06901,

Landowner Jay and Deborah Miller
94 West Dryden Road
Freeville, NY 13068

General Project Overview

Green Street Power Partners, LLC is proposing to develop a ground-mounted solar installation, named GSPP Route 262, LLC, on a parcel of land within the Town of Byron, Genesee County, New York, identified as Tax ID 11.00-2-67. The parcel is approximately 88 acres in size and has road frontage along NYS Route 262 / County Route 13. Based upon a review of the Town of Byron's Zoning Map, the parcel is located within the Agricultural-Residential Zoning District. Pursuant to Local Law 3 of 2020 that amended the Town's Zoning Regulations, the proposed project would be classified as Tier 4 solar installation, which is permitted in the Agricultural–Residential Zoning District and requires a Special Use Permit and Site Plan approval from the Town Planning Board. The project will consist of one module that will occupy approximately 35 acres of the northern portion of the parcel, with site access and system interconnection planned to extend from the array towards NYS Route 262 / County Route 13 at the southern parcel boundary.

The general work associated with the construction of the arrays is as follows:

- Minor removal of trees and clearing of brush,
- Minor land grading where solar panels are being installed to provide a ground slope no greater than 10%,
- Installation of a pervious haul road for access,
- Installation of ground-mounted solar arrays,
- Installation of overhead and underground electric to the point of connection to the existing power grid.
- Installation of a 7-foot high perimeter chain link fence for security.
- Topsoil, seeding, and mulching of minor site grading activities as well as former agriculture fields that are primarily exposed soil or have poor ground cover.
- Screening will be provided with input from the Town.

Infrastructure

Roadways and Site Access

The existing parcel is provided access to a public right-of-way (NYS Route 262) via an existing access point that directly enters the existing lot along the south side of the parcel. A gravel drive will be constructed to access the site. The only traffic generated from the development of the site will be construction vehicles for a short duration, then periodic site visits (anticipated to be once a month) by operational personnel.

Potable Water

The project has no demand for water.

Sewage Disposal

The project has no demands for sanitary sewer.

Stormwater Management

The area being occupied by the solar array is approximately 35 acres. The ground disturbance associated with construction is estimated to be approximately 2 acres. This includes disturbances for tree/shrub removal, installation of the haul road, electrical systems, fence, solar panels (driven posts foundations), and minor land grading.

During the construction phase, appropriate erosion and sediment control measures will be installed to prevent illicit discharges from leaving the site areas. This SWPPP provides discussions, plans, and calculations for the project site's water quality and quantity control measures and erosion and sediment controls.

STATE ENVIRONMENTAL QUALITY REVIEW ACT (SEQRA)

Based upon the proposed project's scope, it is believed to be a “Type I” SEQRA action. It is believed that over the course of the project’s review, adequate information will be provided to potentially support the issuance of a negative declaration by the Lead Agency under SEQRA.

Soils and Groundwater

A review of the National Resources Conservation Service (NRCS) Soil Survey Data indicates the project area is predominately comprised of Ontario Loam, of Hydrological Soil Group (HSG) Type B/C and Hilton Loam, of Hydrological Soil Group Type C/D.

Listed, Endangered, or Threatened Species

According to the NYSDEC online Environmental Resource Mapper, Bald Eagle, Bog Turtle, and Eastern Massasuge are endangered or threatened animals in the proposed project area.

Project documents were submitted to the NYSDEC Region 8 for the Department has reviewed the project plan and determined that the proposed project is far enough away from documented locations of the state-listed species and, therefore, a Part 182 Incidental Take permit will not be required for the project as presented.

Cultural and Historic Resources

According to the New York State’s Office of Parks, Recreation, and Historic Preservation Office (NYSOPRHP) Cultural Resource Information System (CRIS), the project site is (1) not within 100 feet of a mapped archeological sensitive area, and (2) not within 100 feet of an eligible or listed culturally significant property or building.

PERMITS / APPROVALS

Based upon the conceptual plan developed, it is believed that the regulatory approvals that would be necessary are as follows:

- Town of Byron Planning Board: Site Plan and Special Use Permit approval.
- Genesee County Planning Board: 239m/n referral
- Genesee County Department of Public Works (DWP): Highway Work Permit
- NYS DOT: Highway Work Permit
- NYS DEC: General Permit GP0-20-01

Other agencies having jurisdiction may be identified over the course of the project's review

State Environmental Quality Review Act (SEQRA)

Part 1 of the Full Environmental Assessment Form

October 14th, 2022

Name of Action:

GSPP Route 262, LLC
Ground Mounted Solar Array

Address of Action:

6975 NYS Route 262/County Route 13
Tax ID 11.00-2-67
Town of Bryon, New York
Genesee County

SEQRA Action Type:

Type I Action

SEQRA Lead Agency:

Town of Bryon Planning Board
P.O Box 9 Bryon Holey Road
Bryon, New York 14422
585-548-7123

Prepared for

Green Street Power Partnership, LLC
1 Landmark Square, Suite 320
Stamford, CT 06901
Contact: Amanda Zurlo
646-766-1443

Prepared by:

M.J. Engineering and Land Surveying, P.C.
1533 Crescent Road
Clifton Park, New York 12065
(518-371-0799
Contact: Joel Bianchi, PE
518-371-0799

Table of Contents

Part 1 – Project and Setting

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 applicant or project sponsor to verify that the information contained in Part 1is accurate and complete.

A. Project and Applicant/Sponsor Information.

Name of Action or Project: 6975 Route 262 Solar		
Project Location (describe, and attach a general location map): 6975 NYS Route 262/County Route 13, Tax ID 11.0-2-67		
Brief Description of Proposed Action (include purpose or need): Green Street Power Partners, LLC is proposing to develop a ground-mounted solar installation on a parcel of land within the Town of Byron, Genesee County, New York, identified as Tax ID 11.00-2-67. The parcel is approximately 88 acres in size and has road frontage along NYS Route 262 / County Route 13. Based upon a review of the Town of Byron's Zoning Map, the parcel is located within the Agricultural - Residential Zoning District. Pursuant to Local Law 3 of 2020 that amended the Town's Zoning Regulations, the proposed project would be classified as Tier 4 solar installation, which are permitted in the Agricultural – Residential Zoning District and require a Special Use Permit and Site Plan approval from the Town Planning Board. The project will consist of one module that will occupy approximately 35 acres of the northern portion of the parcel with site access and system interconnection planned to extend from the array towards NYS Route 262 / County Route 13 at the southern parcel boundary.		
Name of Applicant/Sponsor: Green Street Power Partners, LLC	Telephone: E-Mail:	
Address: 1 Landmark Square, Suite 320		
City/PO: Stamford	State: CT	Zip Code: 06901
Project Contact (if not same as sponsor; give name and title/role): Amanda Zurlo - Chief Development Officer	Telephone: 646 766-1443 E-Mail: azurla@gspp.com	
Address: 1 Landmark Square, Suite 320		
City/PO: Stamford	State: CT	Zip Code: 06901
Property Owner (if not same as sponsor): Jay and Deborah Miller	Telephone: E-Mail:	
Address: 94 West Dryden Road		
City/PO: Freeville	State: NY	Zip Code: 13068

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 Counsel, Town Board, or Village Board of Trustees ☐Yes ☑No		
b. City, Town or Village Planning Board or Commission ☑Yes ☐No	Site Plan Approval Special Use Permit	8.25.2022
c. City, Town or Village Zoning Board of Appeals ☐Yes ☑No		
d. Other local agencies ☐Yes ☐No		
e. County agencies ☑Yes ☐No	Genesee County Highway Dept. Genesee County Planning GML	9.24.2022
f. Regional agencies ☐Yes ☐No		
g. State agencies ☑Yes ☐No	NYSDEC General Permit GP-0-20-01	Pending
h. Federal agencies ☐Yes ☑No		

i. Coastal Resources.

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

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

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

C. Planning and Zoning

C.1. Planning and zoning actions.

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

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

C.2. Adopted land use plans.

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

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

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

If Yes, identify the plan(s):

_____

_____

_____

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

If Yes, identify the plan(s):

_____

_____

_____

C.3. Zoning

a. Is the site of the proposed action located in a municipality with an adopted zoning law or ordinance. ☑ Yes ☐ No
If Yes, what is the zoning classification(s) including any applicable overlay district?
Agricultural – Residential Zoning District

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? Byron-Bergen Central School District

b. What police or other public protection forces serve the project site?
Genesee County Sheriff's Office

c. Which fire protection and emergency medical services serve the project site?
Byron Fire Department #1, Inc

d. What parks serve the project site?
None

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)? Ground Mounted Solar array and support Equipment

b. a. Total acreage of the site of the proposed action? 87.958 acres
b. Total acreage to be physically disturbed? 8.33 acres
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 87.958 acres

c. Is the proposed action an expansion of an existing project or use? ☐ Yes ☑ No
i. If Yes, what is the approximate percentage of the proposed expansion and identify the units (e.g., acres, miles, housing units, square feet)? % _____ Units: _____

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

e. Will the proposed action be constructed in multiple phases? ☐ Yes ☑ No
i. If No, anticipated period of construction: 18 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: _____

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

If Yes, show numbers of units proposed.

	One Family	Two Family	Three Family	Multiple Family (four or more)
Initial Phase	_____	_____	_____	_____
At completion of all phases	_____	_____	_____	_____

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

If Yes,

i. Total number of structures _____

ii. Dimensions (in feet) of largest proposed structure: _____height; _____width; and _____ length

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

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

If Yes,

i. Purpose of the impoundment: _____

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

_____

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

_____

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

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

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

_____

D.2. Project Operations

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

If Yes:

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

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

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

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

_____

_____

i*v.* Will there be onsite dewatering or processing of excavated materials? ☐Yes ☐No

If yes, describe. _____

_____

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

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

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

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

ix. Summarize site reclamation goals and plan: _____

_____

_____

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

If Yes:

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

_____

ii. Describe how the proposed action would affect that 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:

_____

_____

_____

_____

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

If Yes, describe: _____

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

If Yes:

- acres of aquatic vegetation proposed to be removed: _____
- expected acreage of aquatic vegetation remaining after project completion: _____
- purpose of proposed removal (e.g. beach clearing, invasive species control, boat access): _____

_____

- proposed method of plant removal: _____
- if chemical/herbicide treatment will be used, specify product(s): _____

v. Describe any proposed reclamation/mitigation following disturbance: _____

_____

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

If Yes:

i. Total anticipated water usage/demand per day: _____ 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: _____

_____

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

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

If Yes:

i. Total anticipated liquid waste generation per day: _____ 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): _____

_____

_____

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 a 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):

_____

_____

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

_____

_____

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

If Yes:

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

680 Square feet or _____ acres (impervious surface)

_____ Square feet or 87.95 acres (parcel size)

ii. Describe types of new point sources. Electrical Pads

_____

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 Facility/structures

_____

_____

- If to surface waters, identify receiving water bodies or wetlands: _____

_____

_____

- Will stormwater runoff flow to adjacent properties? ☐Yes ☑No

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

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

If Yes, identify:

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

_____

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

_____

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

_____

g. Will any air emission sources named in D.2.f (above), require a NY State Air Registration, Air Facility Permit, or Federal Clean Air Act Title IV or Title V Permit? ☐Yes ☑No

If Yes:

i. Is the project site located in an Air quality non-attainment area? (Area routinely or periodically fails to meet ambient air quality standards for all or some parts of the year) ☐Yes ☐No

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

- _____Tons/year (short tons) of Carbon Dioxide (CO_2)
- _____Tons/year (short tons) of Nitrous Oxide (N_2O)
- _____Tons/year (short tons) of Perfluorocarbons (PFCs)
- _____Tons/year (short tons) of Sulfur Hexafluoride (SF_6)
- _____Tons/year (short tons) of Carbon Dioxide equivalent of Hydroflourocarbons (HFCs)
- _____Tons/year (short tons) of Hazardous Air Pollutants (HAPs)

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

If Yes:

i. Estimate methane generation in tons/year (metric): _____

ii. Describe any methane capture, control or elimination measures included in project design (e.g., combustion to generate heat or electricity, flaring): _____

_____

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

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

_____

_____

j. Will the proposed action result in a substantial increase in traffic above present levels or generate substantial new demand for transportation facilities or services? ☐Yes ☑No

If Yes:

i. When is the peak traffic expected (Check all that apply): ☐ Morning ☐ Evening ☐Weekend ☐ Randomly between hours of _____ to _____.

ii. For commercial activities only, projected number of truck trips/day and type (e.g., semi trailers and dump trucks): _____

_____

iii. Parking spaces: Existing _____ Proposed _____ Net increase/decrease _____

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

v. If the proposed action includes any modification of existing roads, creation of new roads or change in existing access, describe:

_____

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

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

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

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

If Yes:

i. Estimate annual electricity demand during operation of the proposed action: _____

_____

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

_____

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

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

i. During Construction:

- Monday - Friday: 7 am- 6pm
- Saturday: none
- Sunday: none
- Holidays: none

ii. During Operations:

- Monday - Friday: 24 hours- unmanned operantions
- Saturday: 24 hours- unmanned operantions
- Sunday: 24 hours- unmanned operantions
- Holidays: 24 hours- unmanned operantions

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

If yes:

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

Noise level maybe exceed the existing ambient noise levels during construction however this will be temporary. During normal operation will noise level s will not exceed existing ambient noise level,

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

Describe: _____

_____

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

If yes:

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

_____

_____

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

Describe: _____

_____

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

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

_____

_____

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

If Yes:

i. Product(s) to be stored _____

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

iii. Generally, describe the proposed storage facilities:_____

_____

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

If Yes:

i. Describe proposed treatment(s):

_____

_____

_____

_____

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

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

If Yes:

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

- Construction: _____ tons per _____ (unit of time)
- Operation : _____ tons per _____ (unit of time)

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

- Construction: _____

  _____
- Operation: _____

  _____

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

- Construction: _____

  _____
- Operation: _____

  _____

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

If Yes:

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

_____

_____

ii. Generally describe processes or activities involving hazardous wastes or constituents: _____

_____

_____

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

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

_____

_____

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

If Yes: provide name and location of facility: _____

_____

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

_____

_____

E. Site and Setting of Proposed Action

E.1. Land uses on and surrounding the project site

a. Existing land uses.

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

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

ii. If mix of uses, generally describe:

_____

_____

b. Land uses and covertypes on the project site.

Land use or Covertype	Current Acreage	Acreage After Project Completion	Change (Acres +/-)
• Roads, buildings, and other paved or impervious surfaces	0.0	0.01	+0.01
• Forested	10.4	9.6	-0.74
• Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural)	0.0	0.0	0
• Agricultural (includes active orchards, field, greenhouse etc.)	77.55	43.55	-33.98
• Surface water features (lakes, ponds, streams, rivers, etc.)	0.0	0.0	0.0
• Wetlands (freshwater or tidal)	0.0	0.0	0.0
• Non-vegetated (bare rock, earth or fill)	0.0	0.0	0.0
• Other Describe: ground mounted solar array	0.0	33.99	+33.99

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

i. If Yes: explain: _____

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

If Yes,

i. Identify Facilities:

_____

_____

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

If Yes:

i. Dimensions of the dam and impoundment:

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

ii. Dam's existing hazard classification: _____

iii. Provide date and summarize results of last inspection:

_____

_____

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

If Yes:

i. Has the facility been formally closed? ☐ Yes ☐ No

- If yes, cite sources/documentation: _____

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

_____

_____

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

_____

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

If Yes:

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

_____

_____

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

If Yes:

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

☐ Yes – Spills Incidents database Provide DEC ID number(s): _____

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

☐ Neither database

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

_____

_____

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

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

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

_____

_____

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

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

E.2. Natural Resources On or Near Project Site

a. What is the average depth to bedrock on the project site? 4-50 feet

b. Are there bedrock outcroppings on the project site? ☐ Yes ☑ No
If Yes, what proportion of the site is comprised of bedrock outcroppings? 0 %

c. Predominant soil type(s) present on project site:

(OnB) Ontario Loam	67 %
(OnC) Ontario Loam	19 %
(HIA) Hilton Loam	13 %

d. What is the average depth to the water table on the project site? Average: 1.5-3+ feet

e. Drainage status of project site soils:

☑ Well Drained:	86 % of site
☑ Moderately Well Drained:	13 % of site
☐ Poorly Drained	_____% of site

f. Approximate proportion of proposed action site with slopes:

☑ 0-10%:	89 % of site
☑ 10-15%:	11 % of site
☐ 15% or greater:	_____% of site

g. Are there any unique geologic features on the project site? ☐ Yes ☑ No
If Yes, describe: _____

h. Surface water features.

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

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

If Yes to either *i* or *ii*, continue. If No, skip to E.2.i.

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

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

- Streams: Name _____ Classification _____
- Lakes or Ponds: Name _____ Classification _____
- Wetlands: Name _____ Approximate Size _____
- Wetland No. (if regulated by DEC) _____

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

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

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

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

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

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

i. Name of aquifer: _____

m. Identify the predominant wildlife species that occupy or use the project site:
Deer Turkey rabbits

n. Does the project site contain a designated significant natural community? ☑ Yes ☐ No
If Yes:
i. Describe the habitat/community (composition, function, and basis for designation): Northern White Cedar Swamp
ii. Source(s) of description or evaluation: refer to Wetland Delineation Report as prepared by Shumaker Consulting dated May 9, 2022
iii. Extent of community/habitat:
- Currently: 1112.0 acres
- Following completion of project as proposed: 1112 acres
- Gain or loss (indicate + or -): 0 acres

o. Does project site contain any species of plant or animal that is listed by the federal government or NYS as endangered or threatened, or does it contain any areas identified as habitat for an endangered or threatened species? ☑ Yes ☐ No
If Yes:
i. Species and listing (endangered or threatened): Bald Eagle, Bog Turtle, Eastern Massasauga
refer to the Letter of No Permit Jurisdiction from NYSDEC dated September 2, (Attachment 4b)

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

q. Is the project site or adjoining area currently used for hunting, trapping, fishing or shell fishing? ☐ Yes ☑ No
If yes, give a brief description of how the proposed action may affect that use:

E.3. Designated Public Resources On or Near Project Site

a. Is the project site, or any portion of it, located in a designated agricultural district certified pursuant to Agriculture and Markets Law, Article 25-AA, Section 303 and 304? ☑ Yes ☐ No
If Yes, provide county plus district name/number: GENE004

b. Are agricultural lands consisting of highly productive soils present? ☑ Yes ☐ No
i. If Yes: acreage(s) on project site? 58
ii. Source(s) of soil rating(s): 2022 NEW YORK AGRICULTURAL LAND CLASSIFICATION - ALBANY - JANUARY 1, 2022

c. Does the project site contain all or part of, or is it substantially contiguous to, a registered National Natural Landmark? ☐ Yes ☑ No
If Yes:
i. Nature of the natural landmark: ☐ Biological Community ☐ Geological Feature
ii. Provide brief description of landmark, including values behind designation and approximate size/extent:

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

e. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places? ☐ Yes ☑ No

If Yes:

i. Nature of historic/archaeological resource: ☐ Archaeological Site ☐ Historic Building or District

ii. Name: _____

iii. Brief description of attributes on which listing is based:

_____

f. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory? ☐ Yes ☑ No

g. Have additional archaeological or historic site(s) or resources been identified on the project site? ☐ Yes ☑ No

If Yes:

i. Describe possible resource(s): _____

ii. Basis for identification: _____

h. Is the project site within fives miles of any officially designated and publicly accessible federal, state, or local scenic or aesthetic resource? ☐ Yes ☑ No

If Yes:

i. Identify resource: _____

ii. Nature of, or basis for, designation (e.g., established highway overlook, state or local park, state historic trail or scenic byway, etc.): _____

iii. Distance between project and resource: _____ miles.

i. Is the project site located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR 666? ☐ Yes ☑ No

If Yes:

i. Identify the name of the river and its designation: _____

ii. Is the activity consistent with development restrictions contained in 6NYCRR Part 666? ☐ Yes ☐ No

F. Additional Information

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

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

G. Verification

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

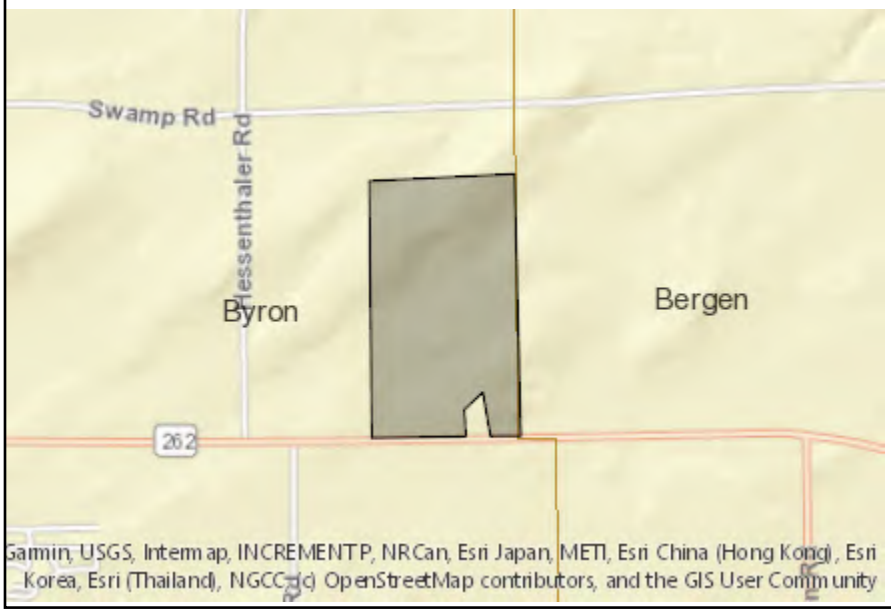
Applicant/Sponsor Name Dennis Lynch Date 10/14/2022

Signature  Title Project Manager

PRINT FORM

EAF Mapper Summary Report

Tuesday, June 7, 2022 2:54 PM

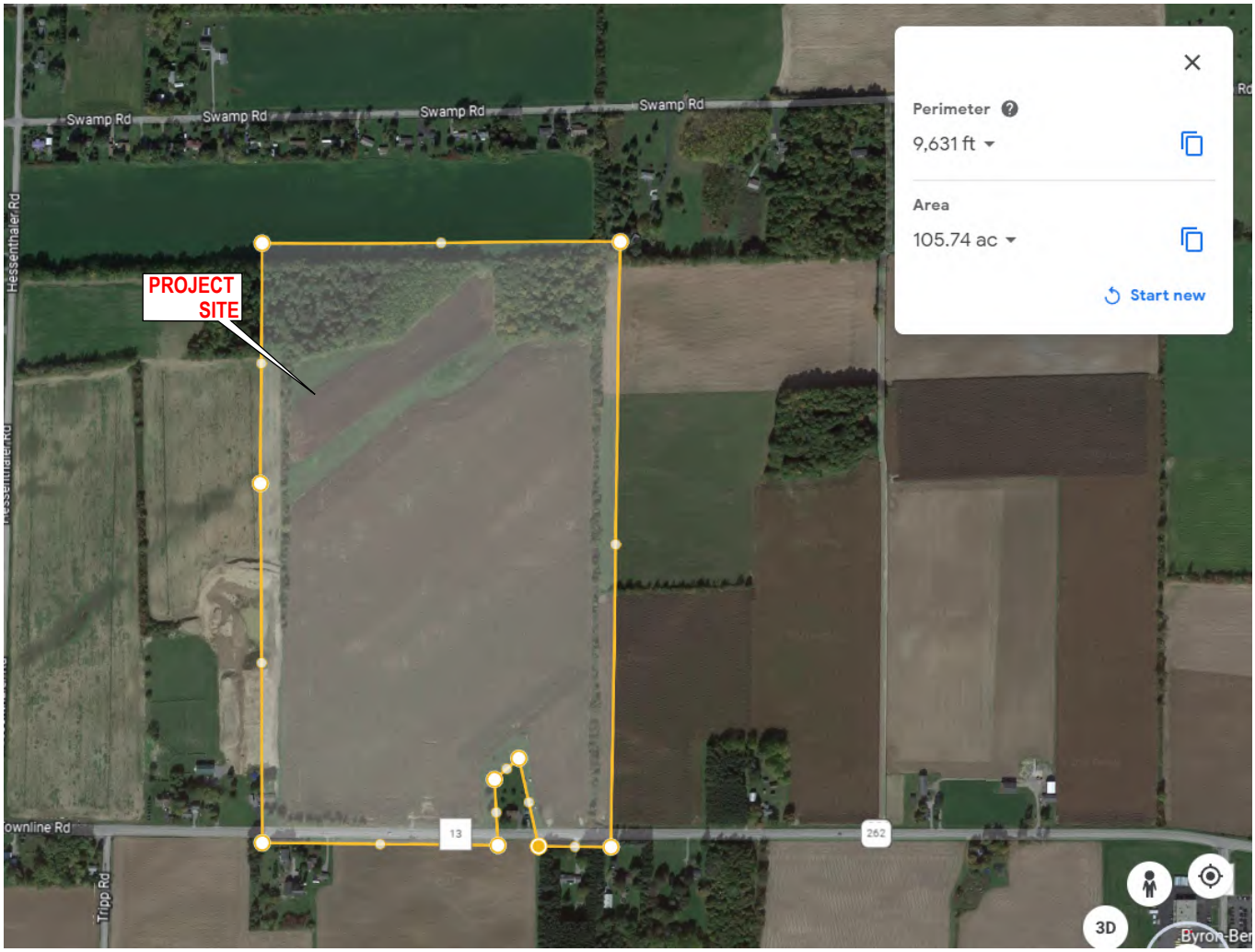


Disclaimer: The EAF Mapper is a screening tool intended to assist project sponsors and reviewing agencies in preparing an environmental assessment form (EAF). Not all questions asked in the EAF are answered by the EAF Mapper. Additional information on any EAF question can be obtained by consulting the 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]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
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]	No
E.2.h.ii [Surface Water Features]	No
E.2.h.iii [Surface Water Features]	No
E.2.h.v [Impaired Water Bodies]	No
E.2.i. [Floodway]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.2.j. [100 Year Floodplain]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.2.k. [500 Year Floodplain]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.2.l. [Aquifers]	No
E.2.n. [Natural Communities]	Yes
E.2.n.i [Natural Communities - Name]	Northern White Cedar Swamp

E.2.n.i [Natural Communities - Acres]	1112.0
E.2.o. [Endangered or Threatened Species]	Yes
E.2.o. [Endangered or Threatened Species - Name]	Bald Eagle, Bog Turtle, Eastern Massasauga
E.2.p. [Rare Plants or Animals]	No
E.3.a. [Agricultural District]	Yes
E.3.a. [Agricultural District]	GENE004
E.3.c. [National Natural Landmark]	No
E.3.d [Critical Environmental Area]	No
E.3.e. [National or State Register of Historic Places or State Eligible Sites]	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

Attachment 1
Project Location Map



Engineering and Land Surveying, P.C.
1533 Crescent Road
Clifton Park, New York 12065
(518) 371-0799

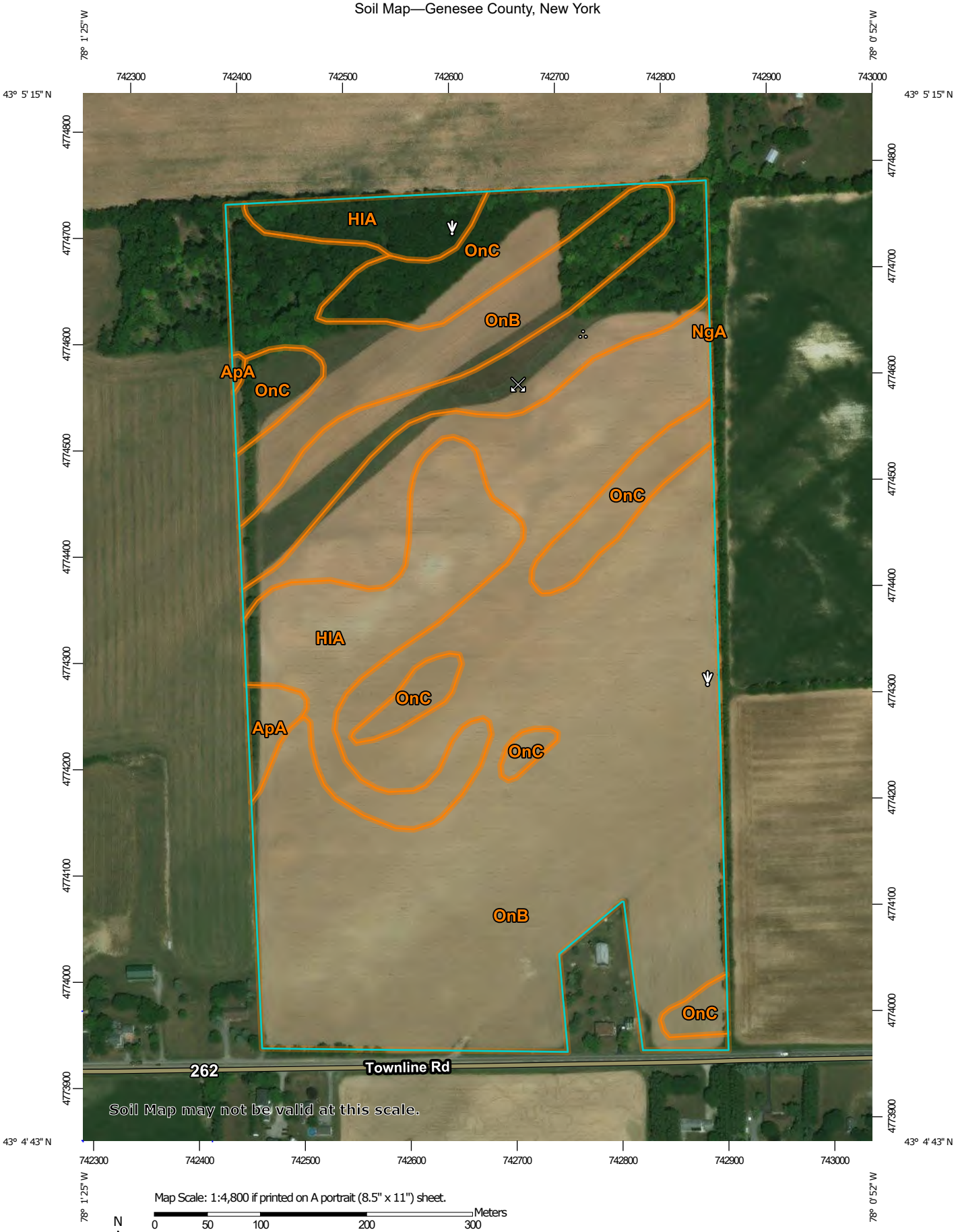
GSPP ROUTE 262, LLC
GROUND MOUNTED SOLAR ARRAY

6975 NYS ROUTE
TAX ID 11.00-2-67
TOWN OF BYRON, GENESEE COUNTY, NY

SITE LOCATION MAP

Not to Scale

Attachment 2
USDA Soil Survey



Map Scale: 1:4,800 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 50 100 200 300

Feet
0 200 400 800 1200

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features

- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Genesee County, New York
Survey Area Data: Version 22, Aug 29, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Dec 31, 2009—Oct 11, 2016

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
ApA	Appleton silt loam, 0 to 3 percent slopes	0.9	1.0%
HlA	Hilton loam, 0 to 3 percent slopes	11.0	12.6%
NgA	Niagara silt loam, 0 to 2 percent slopes	0.0	0.0%
OnB	Ontario loam, 3 to 8 percent slopes	59.3	67.7%
OnC	Ontario loam, 8 to 15 percent slopes	16.3	18.6%
Totals for Area of Interest		**87.6**	**100.0%**

Attachment 3
New York State Office of Parks Recreation and Historic Preservation Historic, Archeological and Cultural Resource Map

NEW YORK STATE OF OPPORTUNITY. | Parks, Recreation, and Historic Preservation

KATHY HOCHUL
Governor

ERIK KULLESEID
Commissioner

June 30, 2022

Dennis Lynch
Project Manager
MJ Engineering
831 Route 52, Suite 2C
Fishkill, NY 12524

Re: SEQRA
Green Street Power Partners Solar Facility/5 MW/35 Acres
6975 State Route 262, Byron, NY 14416
22PR04375

Dear Dennis Lynch:

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 opinion of OPRHP that no properties, including archaeological and/or historic resources, listed in or eligible for the New York State and National Registers of Historic Places will be impacted by this project.

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

Sincerely,

R. Daniel Mackay

Deputy Commissioner for Historic Preservation
Division for Historic Preservation

Attachment 4
NYSDEC New York Natural Heritage Program Correspondence

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Fish and Wildlife, New York Natural Heritage Program
625 Broadway, Fifth Floor, Albany, NY 12233-4757
P: (518) 402-8935 | F: (518) 402-8925
www.dec.ny.gov

August 16, 2022

Dennis Lynch
MJ Engineering and Land Surveying, P.C.
831 Route 52, Suite 2C
Fishkill, NY 12524

Re: Green Street Power Partners - Town of Byron
County: Genesee Town/City: Byron

Dear Dennis Lynch:

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 in the vicinity of the project 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.

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 NYS DEC Region 8 Office, Division of Environmental Permits, at dep.r8@dec.ny.gov.

Sincerely,

Heidi Krahling
Environmental Review Specialist
New York Natural Heritage Program

577

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

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

For information about any permit considerations for your project, please contact the Permits staff at the NYSDEC Region 8 Office at dep.r8@dec.ny.gov, (585) 226-5400.

The following species has been documented within 1/2 mile of the project site.

COMMON NAME	*SCIENTIFIC NAME*	*NY STATE LISTING*	*FEDERAL LISTING*	
Reptiles				
Eastern Massasauga	*Sistrurus catenatus*	Endangered	Threatened	3384

The following species has been documented within 2/3 mile of the project site.

COMMON NAME	*SCIENTIFIC NAME*	*NY STATE LISTING*	*FEDERAL LISTING*	
Birds				
Bald Eagle *Breeding*	*Haliaeetus leucocephalus*	Threatened		15092

The following species has been documented within 3/4 mile of the project site. Individual animals may travel 1 mile from documented locations.

Reptiles				
Bog Turtle	*Glyptemys muhlenbergii*	Endangered	Threatened	2951

This report only includes records from the NY Natural Heritage 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, and from NYSDEC at www.dec.ny.gov/animals/7494.html.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Permits, Region 8
6274 East Avon-Lima Road, Avon, NY 14414-9516
P: (585) 226-5400 | F: (585) 226-2830
www.dec.ny.gov

September 2, 2022 Sent by Email

Dennis Lynch, P.E.
MJ Engineering & Land Surveying, P.C.
1533 Crescent Rd,
Clifton Park, NY 12065

RE: Letter of No Permit Jurisdiction
NYS Route 262 Solar Project
Permit Application (DEC#8-1830-00057/00002)
6975 NYS Route 262/County Route 13
Byron (T), Genesee (C)

Mr. Ayers:

The New York State Department of Environmental Conservation (DEC) has reviewed your project proposal, received on 8/16/22, to develop a ground-mounted solar installation on a parcel of land within the Town of Byron.

As indicated in your email, the NYS Natural Heritage Program indicated the presence of the bald eagle (State-listed threatened species), Eastern Massasauga (State-listed endangered species), and the bog turtle (State listed Endangered species) within the vicinity of the project. The Department has reviewed the project plan and determined that the proposed project is far enough away from documented locations of the state listed species and therefore a Part 182 Incidental Take permit will not be required for the project as presented.

State regulations applicable to this determination are occasionally revised and you should verify the need for permits if the project is delayed or postponed. This determination regarding the need for DEC permits will remain effective for one year unless you are otherwise notified. Please note that this letter does not relieve you of the responsibility of obtaining any necessary permits or approvals from other agencies or local municipalities. If you have any questions about the content of this letter or your obligations, please feel free to call Logan Stratton at 585-226-5399.

Sincerely,

Robert Call
Deputy Regional Permit Administrator

Attached: Site Plans and map

ec: Town of Byron

Attachment 5
US Dept of Interior Fish and Wildlife Service Threatened and Endangered Species Database

IPaC **U.S. Fish & Wildlife Service**

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Genesee County, New York

Local office

New York Ecological Services Field Office

(607) 753-9334
(607) 753-9699
fw5es_nyfo@fws.gov

3817 Luker Road
Cortland, NY 13045-9385

https://www.fws.gov/northeast/NYFO/

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

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1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Reptiles

NAME	STATUS
Eastern Massasauga (=rattlesnake) Sistrurus catenatus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/2202	Threatened

Insects

NAME	STATUS
Monarch Butterfly Danaus plexippus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743	Candidate

Flowering Plants

NAME	STATUS
Houghton's Goldenrod Solidago houghtonii Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/5219	Threatened

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern https://www.fws.gov/program/migratory-birds/species
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH

IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)

American Golden-plover Pluvialis dominica This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Bald Eagle Haliaeetus leucocephalus This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Dec 1 to Aug 31
Belted Kingfisher Megaceryle alcyon This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Mar 15 to Jul 25
Black-billed Cuckoo Coccyzus erythropthalmus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9399	Breeds May 15 to Oct 10
Blue-winged Warbler Vermivora pinus This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds May 1 to Jun 30
Bobolink Dolichonyx oryzivorus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Jul 31
Canada Warbler Cardellina canadensis This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Aug 10

Cerulean Warbler Dendroica cerulea — Breeds Apr 20 to Jul 20
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/2974

Chimney Swift Chaetura pelagica — Breeds Mar 15 to Aug 25
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Eastern Whip-poor-will Antrostomus vociferus — Breeds May 1 to Aug 20
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Lesser Yellowlegs Tringa flavipes — Breeds elsewhere
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9679

Wood Thrush Hylocichla mustelina — Breeds May 10 to Aug 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted

Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

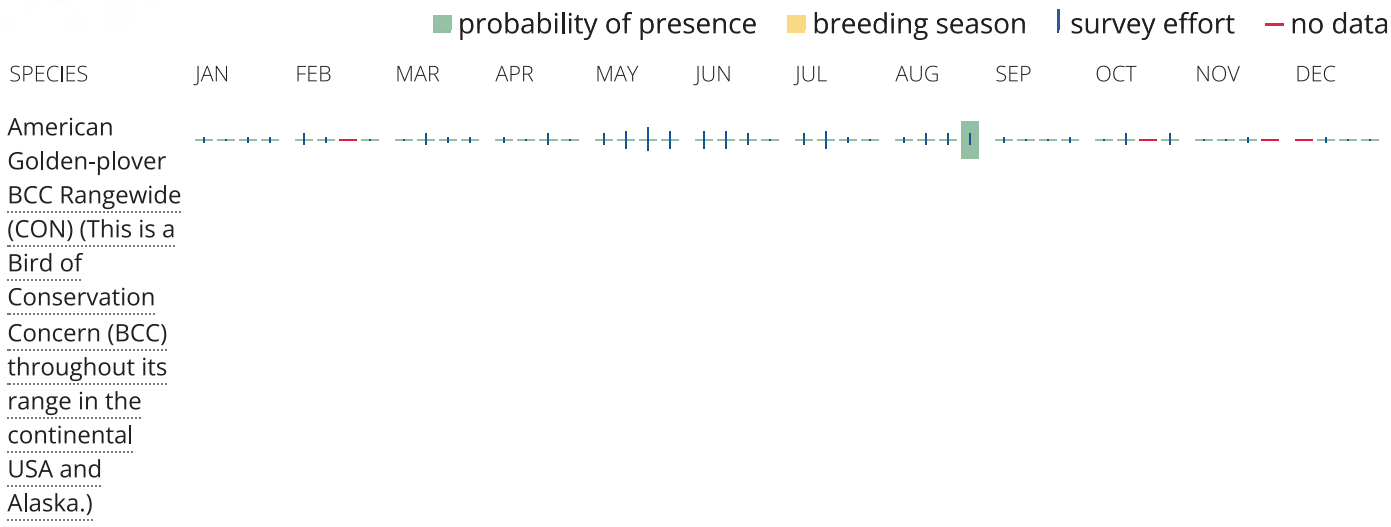
Breeding Season (▮)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

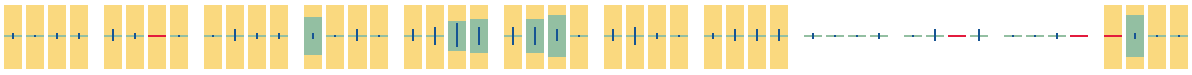
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

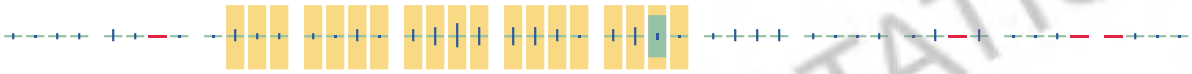
Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



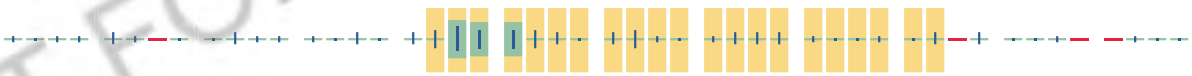
Bald Eagle Non-BCC Vulnerable (This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.)



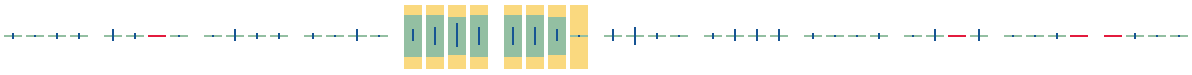
Belted Kingfisher BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)



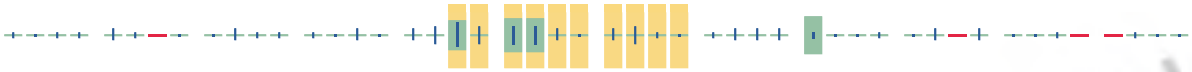
Black-billed Cuckoo BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



Blue-winged Warbler BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)

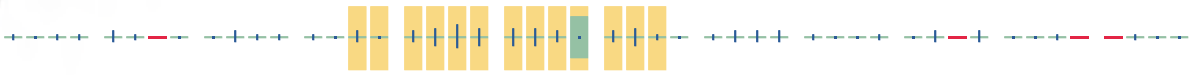


Bobolink BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



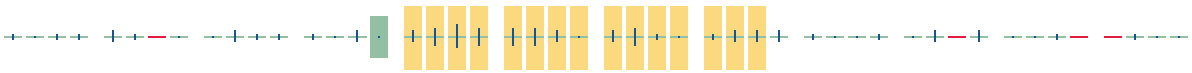
Canada Warbler BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Cerulean Warbler BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



Chimney Swift BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Eastern Whip-poor-will BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



Lesser Yellowlegs BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Wood Thrush BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the

locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets.

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the RAIL Tool and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and

3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Coastal Barrier Resources System

Projects within the John H. Chafee Coastal Barrier Resources System (CBRS) may be subject to the restrictions on federal expenditures and financial assistance and the consultation requirements of the Coastal Barrier Resources Act (CBRA) (16 U.S.C. 3501 et seq.). For more information, please contact the local Ecological Services Field Office or visit the CBRA Consultations website. The CBRA website provides tools such as a flow chart to help determine whether consultation is required and a template to facilitate the consultation process.

THERE ARE NO KNOWN COASTAL BARRIERS AT THIS LOCATION.

Data limitations

The CBRS boundaries used in IPaC are representations of the controlling boundaries, which are depicted on the official CBRS maps. The boundaries depicted in this layer are not to be considered authoritative for in/out determinations close to a CBRS boundary (i.e., within the "CBRS Buffer Zone" that appears as a hatched area on either side of the boundary). For projects that are very close to a CBRS boundary but do not clearly intersect a unit, you may contact the Service for an official determination by following the instructions here: https://www.fws.gov/service/coastal-barrier-resources-system-property-documentation

Data exclusions

CBRS units extend seaward out to either the 20- or 30-foot bathymetric contour (depending on the location of the unit). The true seaward extent of the units is not shown in the CBRS data, therefore projects in the offshore areas of units (e.g., dredging, breakwaters, offshore wind energy or oil and gas projects) may be subject to CBRA even if they do not intersect the CBRS data. For additional information, please contact CBRA@fws.gov.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

WETLAND INFORMATION IS NOT AVAILABLE AT THIS TIME

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the NWI map to view wetlands at this location.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

Attachment 6
Wetland Delineation Report

SHUMAKER
Consulting Engineering & Land Surveying, D.P.C.

May 9, 2022 SCE #22071.01

Mr. Joel Bianchi, PE
Director of Civil Engineering
MJ Engineering & Land Surveying, P.C.
1533 Crescent Road
Clifton Park, NY 12065
jbianchi@mjels.com

Re: Wetland Delineation Report
Rt 262 Byron
MJ Engineering Solar
Genessee County, NY

Dear Mr. Bianchi,

In accordance with our Scope of Services, Shumaker Consulting Engineering & Land Surveying, D.P.C. (SCE) performed a wetland investigation at Rt 262 Byron at 6975 Townline Rd in the Town of Byron, Genesee County, NY. This investigation and delineation were completed on behalf of MJ Engineering Solar on May 3, 2022 and May 4, 2022. The intent of these visits was to identify and delineate the boundaries of wetlands and waters of the US.

Site Resource Review

The surveyed project area consists of of approximately 88 acres along Townline Road and is herein referred to as the Site. The Site is accessed from the south side of the property site, along Townline Road. The Site includes an old agricultural field and a small, forested portion on the north section of the property. There were no wetlands and no streams mapped as a result of this delineation.

The site in Byron is adjoined by Townline Road to the south, and agricultural and residential property to the north, west, and east. The NWI mapper does not indicate the presence of any wetlands on the site. The ERM mapper does not indicate the presence of wetlands or any NYSDEC classified streams onsite.

Prior to the field survey effort, several sources were consulted to obtain background information including:

- New York State Department of Environmental Conservation (NYSDEC) Environmental Resource Mapper (ERM)
- National Wetlands Inventory (NWI) Map published by the United States Fish and Wildlife Service (USFWS)
- Genesee County Soil Survey Map
- Federal Emergency Management Agency (FEMA) floodplain mapping
- Aerial photography, and contour mapping.

The county soil survey shows that the site contains the following mapped soils: Appleton silt loam (ApA), Hilton loam (HIA), Niagara silt loam (NgA), Ontario loam (OnB), and Ontario loam (Onc).

Delineation Findings

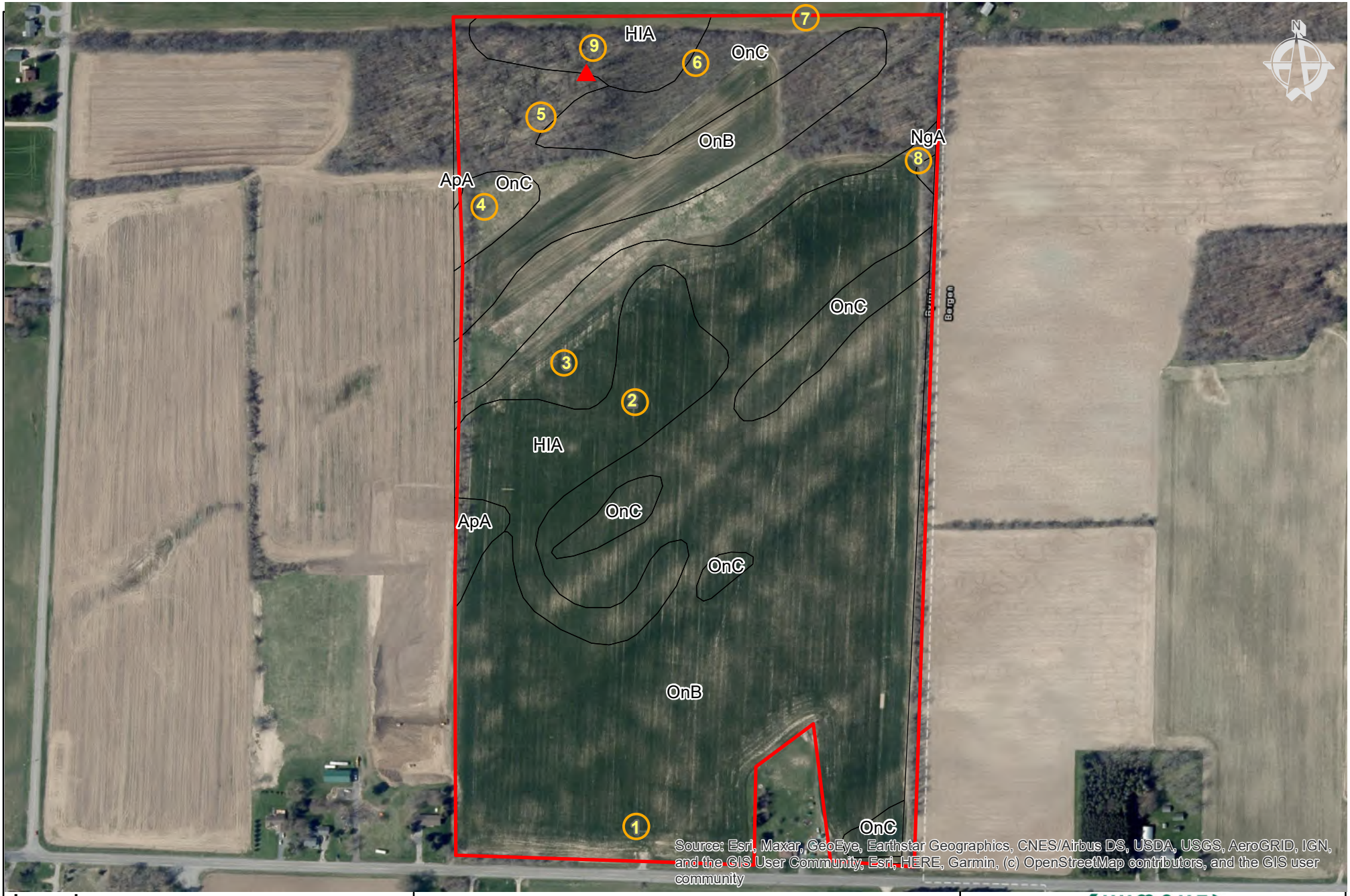
This wetland delineation effort resulted in the identification of no wetlands and no streams. The site boundary is identified per the attached Figure 1. Wetland boundaries were not determined to be present based on the lack of hydric soil indicators, hydrophytic vegetation, and wetland hydrology indicators. It is noted that a sedge was identified on property, however it was identified to be eastern woodland sedge (*Carex blanda*) which has a wetland indicator status at facultative, however the vegetation does not meet the requirements of the rapid test, dominance test, or prevalence test. (See attachments).

If you have any questions or require additional information, please do not hesitate to contact Justin Williams in our Binghamton Office or at jwilliams@shuamkerengineering.com.

Very truly yours,
SHUMAKER CONSULTING ENGINEERING
& LAND SURVEYING, D.P.C.

Jessica E. Dubman
Environmental Scientist I

Enclosures
- Site Location Map
- Project Site Photo Sheet
- Data Sheets



Legend

- Test Site
- Site Boundary
- NYSDEC Wetlands
- NWI Wetlands
- 1 Photograph Location
- OnB Soil Map Unit Symbol

FIGURE 1
Site Boundary

Byron, NY
Genesee County

SHUMAKER
Consulting Engineering & Land Surveying, D.P.C.

0 135 270 540 810 1,080 Feet
1 inch = 410 feet
1:4,915

County Coverage: Genesee

May 2022

NYSCC -Western Region

Path: E:\2022\22071 MJ Engineering Solar\22071.01 6975 Rt 262 Byron\Graphics\project boundary.mxd

PHOTOGRAPHS

Project Name & Job Number: **Rt 262 SCE# Byron 22071.01**
Project Address(es): **6975 Townline Rd, Byron, NY 14422**

Photo Number: **1**
Photo Date: **05/03/2022**
Photo Location: **6975 Townline Rd, Byron, NY 14422**
Direction Facing: **North**
Photo Description: **Typical agricultural field conditions.**

Photo Number: 2
Photo Date: 05/03/2022
Photo Location: 6975 Townline Rd, Byron, NY 14422
Direction Facing: South
Photo Description: Typical agricultural field conditions.

Photo Number: 3
Photo Date: 05/03/2022
Photo Location: 6975 Townline Rd, Byron, NY 14422
Direction Facing: East
Photo Description: Strip of grass at the north end of the field.

Photo Number: **4**
Photo Date: **05/03/2022**
Photo Location: **6975 Townline Rd, Byron, NY 14422**
Direction Facing: **South**
Photo Description: **Western property boundary.**

Photo Number: **5**
Photo Date: **05/03/2022**
Photo Location: **6975 Townline Rd, Byron, NY 14422**
Direction Facing: **East**
Photo Description: **Forest floor at north end of property, Virginia waterleaf (FAC) on ground cover.**

Photo Number: **6**
Photo Date: **05/03/2022**
Photo Location: **6975 Townline Rd, Byron, NY 14422**
Direction Facing: **East**
Photo Description: **Tree stand in forest at north end of property, green ash and wild onion pictured.**

Photo Number: **7**
Photo Date: **05/03/2022**
Photo Location: **6975 Townline Rd, Byron, NY 14422**
Direction Facing: **West**
Photo Description: **Rock wall along north border of property.**

Photo Number: **8**
Photo Date: **05/03/2022**
Photo Location: **6975 Townline Rd, Byron, NY 14422**
Direction Facing: **South**
Photo Description: **Eastern property boundary.**

Photo Number: **9**
Photo Date: **05/03/2022**
Photo Location: **6975 Townline Rd, Byron, NY 14422**
Direction Facing: **South**
Photo Description: **Eastern woodland sedge (FAC) pictured along forest floor.**

Map Scale: 1:4,850 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 50 100 200 300

Feet
0 200 400 800 1200

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features

- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Genesee County, New York
Survey Area Data: Version 22, Aug 29, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Dec 31, 2009—Oct 11, 2016

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
ApA	Appleton silt loam, 0 to 3 percent slopes	0.7	0.8%
HlA	Hilton loam, 0 to 3 percent slopes	11.5	13.0%
NgA	Niagara silt loam, 0 to 2 percent slopes	0.1	0.1%
OnB	Ontario loam, 3 to 8 percent slopes	59.2	66.9%
OnC	Ontario loam, 8 to 15 percent slopes	17.0	19.2%
Totals for Area of Interest		**88.5**	**100.0%**

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Rt 262 Byron 22071.01 City/County: Byron/Genesee Sampling Date: 05/04/2022

Applicant/Owner: MJ Engineering Solar State: NY Sampling Point: TS-1 UPL

Investigator(s): Jessica Dubman Section, Township, Range:

Landform (hillside, terrace, etc.): Field Local relief (concave, convex, none): slight slope to center Slope %:

Subregion (LRR or MLRA): LRR K, MLRA 57 Lat: Long: Datum:

Soil Map Unit Name: NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ___ No ___ (If no, explain in Remarks.)

Are Vegetation x , Soil x , or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes x No ___

Are Vegetation x , Soil x , or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	No x	**Is the Sampled Area**
Hydric Soil Present?	Yes ___	No x	**within a Wetland?** **Yes** ___ **No** x
Wetland Hydrology Present?	Yes ___	No x	If yes, optional Wetland Site ID:

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No x	Depth (inches): ___
Water Table Present?	Yes ___	No x	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes x	No ___	Depth (inches): 4

Wetland Hydrology Present? **Yes** ___ **No** x

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: TS-1 UPL

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Fraxinus excelsior*	10	Yes	UPL
2. *Acer rubrum*	5	Yes	FAC
3.			
4.			
5.			
6.			
7.			
	15	=Total Cover	
Sapling/Shrub Stratum (Plot size:)			
1. *Sambucus racemosa*	5	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
	5	=Total Cover	
Herb Stratum (Plot size:)			
1. *Carex blanda*	40	Yes	FAC
2. *Erythronium americanum*	20	Yes	FACU
3. *Galium aparine*	10	No	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	70	=Total Cover	
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 40.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	45	x 3 =	135
FACU species	35	x 4 =	140
UPL species	10	x 5 =	50
Column Totals:	90 (A)		325 (B)

Prevalence Index = B/A = 3.61

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ___ **No** x

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point TS-1 UPL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	7.5yr 4/3	100					Loamy/Clayey	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ____ **No** x

Remarks:

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

Engineering and Land Surveying, P.C.

1533 Crescent Road
Clifton Park, NY 12065
Phone: 518.371.0799
mjelspc@mjels.com
mjels.com

October 2022

Glare Analysis
GSSP Route 262, LLC
Solar Ground Mounted Solar Array
6975 NYS Route 262/County Route 13
Tax Parcel 11.00-2-67
Town of Byron, Genesee County, New York
MJ Project No.: 1660.01

Purpose of Glare Analysis

Glare from solar arrays can be hazardous to pilots, motorists, and other observers. Further, regulators such as land use boards often require such an analysis to address concerns raised by residents during a project's review.

Technical Analysis Software

This glare analysis was conducted utilizing ForgeSolar. This tool determines when and where solar glare can occur throughout the year from a user-specified photovoltaic (PV) array as viewed from user-prescribed observation points. The potential ocular impact from the observed glare is also determined, along with a prediction of the annual energy production. ForgeSolar tools are used throughout the world by industry, academia, and military to evaluate PV glare. ForgeSolar accommodates Federal Aviation Administration (FAA), zoning, and other regulatory requirements. ForgeSolar meets FAA glare analysis requirements as defined under 78 FR 63276.

The following is taken from ForgeSolar regarding the software:

> *With growing numbers of solar energy installations throughout the United States, glare from photovoltaic (PV) arrays has received increased attention as a real hazard for pilots, air-traffic control personnel, motorists, and others. The ForgeSolar suite of tools provide a quantified assessment of:*
>
> 1. *when and where glare will occur throughout the year for a prescribed solar installation*
> 2. *potential effects on the human eye at locations where glare occurs, and*
> 3. *annual energy production from the PV system so that alternative designs can be compared to maximize energy production while mitigating the impacts of glare.*
>
> *ForgeSolar employs an interactive Google map where the user can quickly locate a site, draw an outline of the proposed PV array(s), and specify observer locations or paths. Latitude, longitude, and elevation are automatically queried from Google, providing necessary information for sun position and vector calculations. Additional information regarding the orientation and tilt of the PV panels, reflectance, environment, and ocular factors are entered by the user.*
>
> *If glare is found, the tool calculates the retinal irradiance and subtended angle (size/distance) of the glare source to predict potential ocular hazards ranging from temporary after-image to retinal burn. The results are presented in a simple, easy-to-interpret plot that specifies when glare will occur throughout the year, with color codes indicating the potential ocular hazard. The tool can also predict relative energy production while evaluating alternative designs, layouts, and locations to identify configurations that maximize energy production while mitigating the impacts of glare.*

About Glare (source ForgeSolar)

Glare is generally associated with stationary shiny objects, which, due to the slow relative movement of the sun, reflect sunlight for a longer duration. The difference between glint and glare is duration. Industry-standard glare analysis tools evaluate the occurrence of glare on a minute-by-minute basis; accordingly, they generally refer to solar hazards as 'glare'.

The ocular impact of solar glare is quantified into three categories (Ho, 2011):

- Green - low potential to cause after-image (flash blindness)
- Yellow - potential to cause temporary after-image
- Red - potential to cause retinal burn (permanent eye damage)

These categories assume a typical blink response in the observer. Note that retinal burn is typically not possible for PV glare since PV modules do not focus reflected sunlight.

The ocular impact of glare is visualized with the Glare Hazard Plot. This chart displays the ocular impact as a function of glare subtended source angle and retinal irradiance. Each minute of glare is displayed on the chart as a small circle in its respective hazard zone. For convenience, a reference point is provided that illustrates the hazard from viewing the sun without filtering, i.e., staring at the sun. Each plot includes predicted glare for one PV array and one receptor.

About Reflectivity (source ForgeSolar)

Reflections from PV panels may impair observers. Studies have found that 7 W/m^2 is enough to cause an after-image lasting 4 to 12 seconds (Ho, 2009). This represents a reflection of only 1-2% of typical solar irradiance (incoming sunlight) for a given location, which typically ranges between 800-1000 W/m^2.

A key factor of reflectance is the position of PV modules relative to the sun. A panel that absorbs 90% of direct sunlight may reflect up to 60% when not directly facing the sun. This situation is common for low-tilt panels during sunset and sunrise (Yellowhair, 2015). The oft-repeated claim that PV panels reflect less than 5% of sunlight only holds true when the panels directly face the sun. For fixed-mount panels, this claim only applies during a few minutes of the day, at most.

General Model Inputs

PV Arrays Component Data: The component data for the PV arrays includes the following project specific inputs:

1. Axis tracking, fixed-mount or utilize single- or dual-axis tracking
2. Module orientation/azimuth relative to north, with arrays facing north being orientated at 0° and arrays facing south being orientated at 180°
3. Module Tilt angle
4. Panel material with or without anti-reflective materials.
5. Horizontal location which are determined via Google Earth interface.
    a. Latitude: North-south measurement of location relative to the equator, with range of [-90° to 90°]. Latitude is measured in decimal degrees and assumes the WGS84 datum.
    b. Longitude: Measurement of east-west position relative to Prime Meridian, with range of [-180°, 180°]. Longitude is measured in decimal degrees and assumes the WGS84 datum.

6. Elevation above mean sea level at specified location. ForgeSolar automatically queries the Google Elevation services for an approximate value.
7. Module Height above ground is user-specified height above ground of point. A ground-mount system would have a height measured to the PV panel centroid.

2-Mile Flight Path Receptor Data: The 2-Mile Flight Path receptor simulates an aircraft following a straight-line approach path toward a runway, by default, including a restricted field-of-view to filter unrealistic glare. The component data for the 2-mile flight path receptor includes the following project specific inputs:

1. Direction or Azimuthal angle of approach of aircraft which defines the straight path toward the runway. Measured clockwise from true north.
2. Glide slope that is the angle of descent of aircraft toward runway which is typically 3°.
3. Threshold crossing height which measures the height above ground of aircraft when it crosses the runway threshold, typically 50-ft.
4. Visibility from cockpit that checks to display viewing angle parameters with typical visibility constraints of 50° azimuthal, 30° downward.
5. Max downward viewing angle which is the vertical field-of-view of the pilot, measured positive downward from the XY plane (i.e., flat). A default value of 30° assumes glare appearing beyond that FOV is not visible to the pilot and is acceptable to FAA. A value of 90° assumes the pilot can see glare appearing directly underneath the aircraft.
6. Azimuthal viewing angle which is the left and right field-of-view of the pilot during approach. A view angle of 180° implies the pilot can see glare emanating from behind the plane. A view angle of 50° (default) implies the pilot has a field-of-view of 50° to their left and right during approach, i.e., a total FOV of 100°. This default is based on FAA research which determined that the impact of glare that appears beyond 50° is mitigated.

Observation Point Receptor Component Data: The Observation Point receptor simulates an observer at a single, discrete location, defined by a latitude, longitude, elevation, and height above ground. The component data for the observation point receptor includes the following project specific inputs:

1. Horizontal location which are determined via Google Earth interface.
    a. Latitude: North-south measurement of location relative to the equator, with range of [-90° to 90°]. Latitude is measured in decimal degrees and assumes the WGS84 datum.
    b. Longitude: Measurement of east-west position relative to Prime Meridian, with range of [-180°, 180°]. Longitude is measured in decimal degrees and assumes the WGS84 datum.
2. Elevation above mean sea level at specified location. ForgeSolar automatically queries the Google Elevation services for an approximate value.
3. Height above ground of observer receptor.

Route Receptor Component Data: The Route receptor is a multi-line representation which can simulate observers traveling along continuous paths such as roads, railways, helicopter paths, and multi-segment flight tracks. The component data for the route receptor includes the following project specific inputs:

1. Direction and length of route. The direction can be either one way or two ways.
2. View angle of receptor which is the field of view of the observer looking left and right of the direction of travel with a standard of 50° used. Studies have determined that glare outside of the 50° field of view has no impact on receptor.

Site Specific Model Simulations and Inputs

In preparing the ForgeSolar model, the following inputs have been utilized.

PV Array

1. Axis tracking: Dual axis
2. Module orientation/azimuth: N/A
3. Module tilt angle: N/A
4. Panel material: deeply textured glass
5. Module height above ground: 3-ft

Four (4) simulations were selected with the following inputs.

1. 2-Mile Flight Path Receptor (FPR):

    a. Rochester International Airport, north-south (FPR 2)
        I. Direction or Azimuthal: 31 °
        II. Glide slope: 3°.
        III. Threshold crossing height: 50-ft.
        IV. Visibility from cockpit: 50° azimuthal, 30° downward.
        V. Max downward viewing angle: 30°
        VI. Azimuthal viewing angle: 50°

    b. Genesee County Airport/Ledgedale Airpark, both the west-east (FPR 1) runway and east-west (FPR 3) runway, with the closest runway (west-east) located approximately 7.8 miles southwest of the closest solar array,
        I. Direction or Azimuthal: 271 °
        II. Glide slope: 3°.
        III. Threshold crossing height: 50-ft.
        IV. Visibility from cockpit: 50° azimuthal, 30° downward.
        V. Max downward viewing angle: 30°
        VI. Azimuthal viewing angle: 50°

2. Observation Point Receptor (OPR):

    a. OPR 1: At the intersection of Townline Road and Hessenthaler.
        i. Height above ground of observer receptor: 5-ft

3. Route Receptor (RR):

    a. RR 1: Townline Road located along the South boundary of the site for vehicles traveling in both the west and east directions.
        i. Height: 3.5-ft which is someone seating in a vehicle
        ii. View angle of receptor: 50°

Site Specific Model Results

Model result for each of simulation are included in Appendix A with a summary as follows:

1. 2-Mile Flight Path Receptor (FP 1, 2 &3):

    a. Rochester International Airport, Genesee County Airport, Ledgedale Airpark: There is no glare occurring along the 2-mile flight path route at any time during the year for FP 1, FP 2, and FP 3.

2. Observation Point Receptor:

    a. OPR 1 Along Townline Road, at the gravel road entrance to the National Grid Easement approximate 500 feet south of the intersection of Bolt Road: The model indicates no glare will occur any time during the year.

3. Route Receptor

    a. Townline Road located along the southern boundary of the site for vehicles traveling in both the west and east directions: The model indicates no glare will occur any time during the year.

Appendix A
ForgeSolar Model Outputs

FORGESOLAR GLARE ANALYSIS

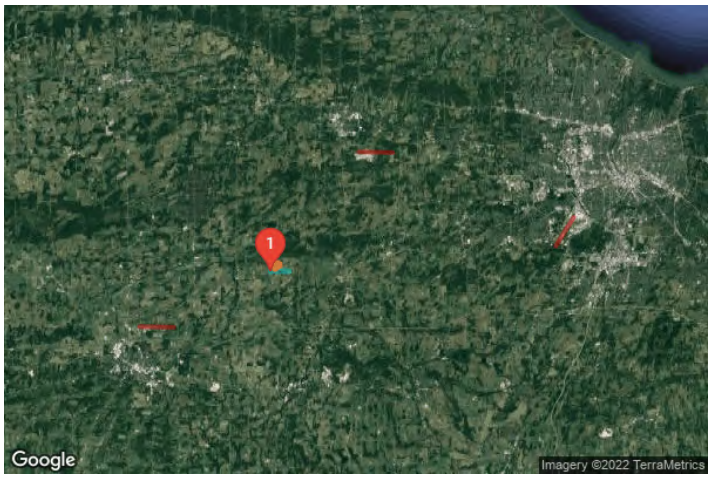
Project: **GSPP, LLC Byron**

Site configuration: **GSPP, LLC Byron**

Client: Green Street Power partner , LLC

Site description: Solar Array

Created 12 Oct, 2022
Updated 13 Oct, 2022
Time-step 1 minute
Timezone offset UTC-5
Site ID 77463.13717
Category 5 MW to 10 MW
DNI peaks at 1,000.0 W/m^2
Ocular transmission coefficient 0.5
Pupil diameter 0.002 m
Eye focal length 0.017 m
Sun subtended angle 9.3 mrad
Methodology V2



Summary of Results No glare predicted

PV Array	Tilt	Orient	Annual Green Glare		Annual Yellow Glare		Energy
	°	°	min	hr	min	hr	kWh
Solar Array	DA tracking	DA tracking	0	0.0	0	0.0	-

Total annual glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Townline Road	0	0.0	0	0.0
FPR1 -Genesee County Airport	0	0.0	0	0.0
FPR2-Rochester International Airport	0	0.0	0	0.0
FPR3-Ledgedale Airpark	0	0.0	0	0.0
OP 1	0	0.0	0	0.0

Component Data

PV Arrays

Name: Solar Array
Axis tracking: Dual-axis
Rated power: -
Panel material: Deeply textured glass
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	43.081310	-78.021636	666.35	3.00	669.35
2	43.083841	-78.016271	679.74	3.00	682.74
3	43.085737	-78.016303	660.51	3.00	663.51
4	43.085628	-78.018106	686.93	3.00	689.93
5	43.086638	-78.018159	690.56	3.00	693.56
6	43.084742	-78.021732	687.35	3.00	690.35

Route Receptors

Name: Townline Road
Path type: Two-way
Observer view angle: 50.0°

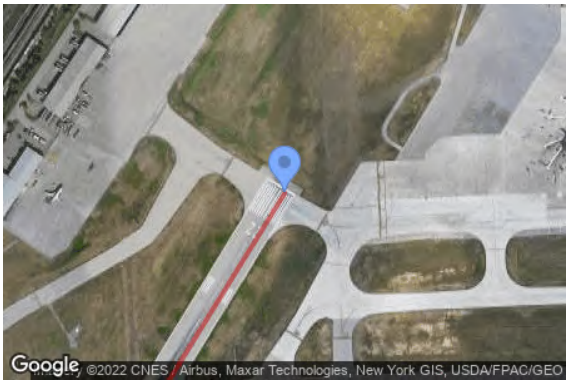
Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	43.079235	-78.026616	681.08	3.50	684.58
2	43.079514	-78.006189	676.55	3.50	680.05
3	43.079423	-78.005078	677.69	3.50	681.19

Flight Path Receptors

Name: FPR1 -Genesee County Airport
Description:
Threshold height: 50 ft
Direction: 271.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°

Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	43.031967	-78.179855	905.08	50.00	955.08
Two-mile	43.031458	-78.140261	888.28	620.23	1508.51

Name: FPR2-Rochester International Airport
Description:
Threshold height: 50 ft
Direction: 31.7°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	43.125491	-77.671950	556.37	50.00	606.37
Two-mile	43.100903	-77.692814	517.34	642.46	1159.80

Name: FPR3-Ledgedale Airpark
Description:
Threshold height: 50 ft
Direction: 271.0°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°

Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	43.181306	-77.923396	656.11	50.00	706.11
Two-mile	43.180802	-77.883705	639.89	619.65	1259.54

Discrete Observation Point Receptors

Name	ID	Latitude (°)	Longitude (°)	Elevation (ft)	Height (ft)
OP 1	1	43.079271	-78.026619	680.83	5.00

Obstruction Components

Name: Obstruction 1
Top height: 32.8 ft

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	43.081255	-78.021686	667.11
2	43.084757	-78.021760	687.19
3	43.086675	-78.018141	688.80
4	43.085649	-78.018077	687.45
5	43.085762	-78.016280	660.24
6	43.083809	-78.016237	679.37
7	43.081267	-78.021644	667.03

Glare Analysis Results

Summary of Results No glare predicted

PV Array	Tilt	Orient	Annual Green Glare		Annual Yellow Glare		Energy
	°	°	min	hr	min	hr	kWh
Solar Array	DA tracking	DA tracking	0	0.0	0	0.0	-

Total annual glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Townline Road	0	0.0	0	0.0
FPR1 -Genesee County Airport	0	0.0	0	0.0
FPR2-Rochester International Airport	0	0.0	0	0.0
FPR3-Ledgedale Airpark	0	0.0	0	0.0
OP 1	0	0.0	0	0.0

PV: Solar Array no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Townline Road	0	0.0	0	0.0
FPR1 -Genesee County Airport	0	0.0	0	0.0
FPR2-Rochester International Airport	0	0.0	0	0.0
FPR3-Ledgedale Airpark	0	0.0	0	0.0
OP 1	0	0.0	0	0.0

Solar Array and Townline Road

Receptor type: Route
No glare found

Solar Array and FPR1 - Genesee County Airport

Receptor type: 2-mile Flight Path
No glare found

Solar Array and FPR2- Rochester International Airport

Receptor type: 2-mile Flight Path
No glare found

Solar Array and FPR3- Ledgedale Airpark

Receptor type: 2-mile Flight Path
No glare found

Solar Array and OP 1

Receptor type: Observation Point
No glare found

Assumptions

"Green" glare is glare with low potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.
"Yellow" glare is glare with potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.
Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.
The algorithm does not rigorously represent the detailed geometry of a system; detailed features such as gaps between modules, variable height of the PV array, and support structures may impact actual glare results. However, we have validated our models against several systems, including a PV array causing glare to the air-traffic control tower at Manchester-Boston Regional Airport and several sites in Albuquerque, and the tool accurately predicted the occurrence and intensity of glare at different times and days of the year.
Several V1 calculations utilize the PV array centroid, rather than the actual glare spot location, due to algorithm limitations. This may affect results for large PV footprints. Additional analyses of array sub-sections can provide additional information on expected glare. This primarily affects V1 analyses of path receptors.
Random number computations are utilized by various steps of the annual hazard analysis algorithm. Predicted minutes of glare can vary between runs as a result. This limitation primarily affects analyses of Observation Point receptors, including ATCTs. Note that the SGHAT/ ForgeSolar methodology has always relied on an analytical, qualitative approach to accurately determine the overall hazard (i.e. green vs. yellow) of expected glare on an annual basis.
The analysis does not automatically consider obstacles (either man-made or natural) between the observation points and the prescribed solar installation that may obstruct observed glare, such as trees, hills, buildings, etc.
The subtended source angle (glare spot size) is constrained by the PV array footprint size. Partitioning large arrays into smaller sections will reduce the maximum potential subtended angle, potentially impacting results if actual glare spots are larger than the sub-array size. Additional analyses of the combined area of adjacent sub-arrays can provide more information on potential glare hazards. (See previous point on related limitations.)
The variable direct normal irradiance (DNI) feature (if selected) scales the user-prescribed peak DNI using a typical clear-day irradiance profile. This profile has a lower DNI in the mornings and evenings and a maximum at solar noon. The scaling uses a clear-day irradiance profile based on a normalized time relative to sunrise, solar noon, and sunset, which are prescribed by a sun-position algorithm and the latitude and longitude obtained from Google maps. The actual DNI on any given day can be affected by cloud cover, atmospheric attenuation, and other environmental factors.
The ocular hazard predicted by the tool depends on a number of environmental, optical, and human factors, which can be uncertain. We provide input fields and typical ranges of values for these factors so that the user can vary these parameters to see if they have an impact on the results. The speed of SGHAT allows expedited sensitivity and parametric analyses.
The system output calculation is a DNI-based approximation that assumes clear, sunny skies year-round. It should not be used in place of more rigorous modeling methods.
Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid based on aggregated research data. Actual ocular impact outcomes encompass a continuous, not discrete, spectrum.
Glare locations displayed on receptor plots are approximate. Actual glare-spot locations may differ.
Refer to the Help page at **www.forgesolar.com/help/** for assumptions and limitations not listed here.

Default glare analysis parameters and observer eye characteristics (for reference only):

- Analysis time interval: 1 minute
- Ocular transmission coefficient: 0.5
- Pupil diameter: 0.002 meters
- Eye focal length: 0.017 meters
- Sun subtended angle: 9.3 milliradians

Decommissioning Plan
for
Green Street Power Partner, LLC
Ground Mounted
Solar Array Module

6975 NYS Route 262/County Route 13
Tax ID 11.00-2-67
Town of Byron, Genesee County, NY

MJ Project No.: 1660.01

October 2022

Prepared For:

Green Street Power Partner, LLC
c/o Amanda Zurlo
1 Landmark Square, Suite 320.
Stamford, CT 06901

Prepared By:

Engineering and
Land Surveying, P.C.
1533 Crescent Road, Clifton Park, NY 12065

TABLE OF CONTENTS

1.0 INTRODUCTION

This project involves the development of a ground-mounted solar array. The parcel is located at 6975 NYS Route 262/County Route 13 within the Town of Byron and is identified as Tax Parcel 11.00-2-67. The parcel is owned by Jay and Deborah Miller. The developer, Green Street Power Partner, LLC, is under contract to lease a portion of the property upon securing all local land use approval.

This Decommissioning Plan ("**Plan**") provides an overview of activities that will occur during the decommissioning phase of the Solar Facility, including activities related to the restoration of land, the management of materials and waste, projected costs, and a decommissioning fund agreement overview.

The Solar Facility will have a thirty-five (35) year maturity date. The Plan assumes the Solar Facility will be dismantled and the Facility Site restored to a state similar to its pre-construction condition at the 35-year maturity date. The Plan also covers the case of the abandonment of a Solar Facility, for any reason, prior to the 35-year maturity date.

Decommissioning of the Solar Facility will include the disconnection of the Solar Facility from the electrical grid and the removal of all Solar Facility components, including:

- Photovoltaic (PV) modules, panel racking, and supports;
- Inverter units, transformers, and other electrical equipment;
- "Internal" Access roads, wiring cables, perimeter fence; and
- Concrete slabs.

This decommissioning Plan is based on current best management practices and procedures. This Plan may be subject to revision based on new standards and emergent best management practices at the time of decommissioning. Permits will be obtained as required, and notification will be given to stakeholders prior to decommissioning.

The project is located at 6975 NYS Route 262/ County Route 13, Town of Byron, Genesee County, New York, and is identified as Tax Parcel 11.00-2-67.

Figure 1-1
Project Location Map

2.0 THE PROPONENT

The Project Owner will manage and coordinate the approvals process. The Project Owner will obtain all necessary regulatory approvals depending on the jurisdiction, project capacity, and site location. The Project Owner will build a long-term relationship with the community hosting a Solar Facility and will be committed to the townships' safety, health, and welfare.

Contact information for the proponent is as follows:

1. Sponsor/Operator: Green Street Power Partner, LLC
   c/o Amanda Zurlo
   1 Landmark Square, Suite 320.
   Stamford, CT 06901

2. Land Owner: Jay and Deborah Miller
   94 West Dryden Road
   Freeville, NY 13068

- The Sponsor/Operator is under contract to lease a portion of the parcel upon receipt of all local land use approvals.

3.0 DECOMMISSIONING

At the time of decommissioning, the installed components will be removed, reused, disposed of, and recycled, where possible. The Facility Site will be restored to a state similar to its pre-construction condition. All removal of equipment will be done in accordance with any applicable regulations and manufacturer recommendations. All applicable permits will be acquired.

3.1 Equipment Dismantling and Removal

Generally, a Solar Facility's decommission proceeds in the reverse order of the installation.

1. The Solar Facility shall be disconnected from the utility power grid.

2. PV modules shall be disconnected, collected, and disposed of at an approved solar module recycler or reused/resold on the market. Although the PV modules will not be cutting-edge technology at the time of decommissioning, they are estimated to still produce 80% of the original electricity output at year 35 and add value for many years.

3. All above-ground and underground electrical interconnection and distribution cables shall be removed and disposed of off-site by an approved facility.

4. Galvanized steel PV module support and racking system support posts shall be removed and disposed of off-site by an approved facility.

5. Electrical and electronic devices, including transformers and inverters, shall be removed and disposed of off-site by an approved facility.

6. Concrete slabs shall be removed and disposed of off-site by an approved facility.

7. Internal Gravel Access Road materials will be removed and disposed of off-site by an approved facility.

8. Fencing shall be removed and disposed of off-site by an approved facility.

3.2 Environmental Effects

Decommissioning activities, particularly the removal of project components, could result in environmental effects similar to those of the construction phase. For example, there is the potential for disturbance (erosion/sedimentation/fuel spills) to adjacent watercourses or significant natural features. Mitigation measures similar to those employed during the construction phase of the Solar Facility (such as silt fencing) will be implemented. These will remain in place until the site is stabilized in order to mitigate erosion and silt/sediment

runoff and any impacts on the significant natural features or water bodies located adjacent to the Facility Site.

It is anticipated that the equipment used to remove the solar panels, racks, rack posts, and fence posts will be a tracked vehicle – as a result, the ground disturbance will be reduced to the area of the posts themselves. The use of this equipment will significantly reduce the amount of ground disturbance and re-seeding anticipated for these efforts.

Road traffic will temporarily increase due to the decommissioning crews and equipment movement. During the decommissioning phase, there may be an increase in particulate matter (dust) in adjacent areas. Decommissioning activities may lead to temporarily elevated noise levels from heavy machinery and an increase in trips to the project location. Work will be undertaken during daylight hours and conform to any applicable restrictions.

3.3 Site Restoration

Through the decommissioning phase, the Facility Site will be restored to a state similar to its pre-construction condition.

All project components (discussed in Table 3.4-1) will be removed. Rehabilitated lands may be seeded with noninvasive and native species to help stabilize soil conditions, enhance soil structure, and increase soil fertility.

3.4 Managing Materials and Waste

Various excess materials and wastes (listed in Table 3.4-1) will be generated during the decommissioning phase. Most of the materials used in a Solar Facility are reusable or recyclable, and some equipment may have manufacturer take-back and recycling requirements. Any remaining materials will be removed and disposed of off-site at an appropriate facility. The Project Sponsor/Operator will establish policies and procedures to maximize recycling and reuse and will work with manufacturers, local subcontractors, and waste firms to segregate material to be disposed of, recycled, or reused.

The Project Sponsor/Operator will be responsible for the logistics of collecting and recycling the PV modules and to minimize the potential for modules to be discarded in the municipal waste stream. Currently, some manufacturers and new companies are looking for ways to recycle and/or reuse solar modules when they have reached the end of their lifespan. Due to a recent increase in the use of solar energy technology, a large number of panels from various projects will be nearing the end of their lifespan in 15 - 25 years. It is anticipated that there will be more recycling options available for solar modules at that time. The Project Sponsor/Operator proposes to determine the best way of disposing of the solar modules using best management practices at the time of decommissioning.

Table 3.4-1
Management of Excess Material and Waste

Material / Waste	Means of Managing Excess Materials and Waste
PV panels	If there is no possibility for reuse, the panels will either be returned to the manufacturer for appropriate disposal or transported to a recycling facility where the glass, metal, and semiconductor materials will be separated and recycled.
Metal array mounting racks and steel supports	These materials will be disposed of off-site at an approved facility or brought to a recycling facility.
Transformers and substation components	The small amount of oil from the transformers will be removed on-site to reduce the potential for spills and transported to an approved facility for disposal. The substation transformer and step-up transformers in the inverter units will be transported off-site to be returned to the manufacturer, recycled, reused, or safely disposed of off-site in accordance with current standards and best practices.
Inverters, fans, fixtures	The metal components of the inverters, fans, and fixtures will be disposed of or recycled, where possible. The remaining components will be disposed of in accordance with the standards of the day.
Concrete inverter / transformer slabs	Concrete slabs will be broken down and transported by a certified and licensed contractor to a recycling or approved disposal facility.
Cables and wiring	The electrical line that connects the substation to the point of common coupling will be disconnected and disposed of at an approved facility. Support poles, if made of untreated wood, will be chipped for reuse. Associated electronic equipment (isolation switches, fuses, metering) will be transported off-site to be returned to the manufacturer, recycled, reused, or safely disposed of off-site in accordance with current standards and best practices.
Fencing	Fencing will be removed and recycled at a metal recycling facility.
Debris	Any remaining debris on the site will be separated into recyclables/residual wastes, transported from the site, and managed as appropriate.

3.5 Decommissioning During Construction or Abandonment Before Maturity

In case of the Solar Facility abandonment during construction or before its 35-year maturity, the same decommissioning procedures as for decommissioning after ceasing operation will be undertaken, and the same decommissioning and restoration program will be honored, as far as construction proceeded before abandonment. The Solar Facility will be dismantled, materials removed and disposed of.

3.6 Decommissioning Notification

Decommissioning activities may require the notification of stakeholders, given the nature of the works at the Facility Site. The local municipality will be notified prior to the commencement of any decommissioning activities. Six months prior to decommissioning, The Project Sponsor/Operator will update their list of stakeholders and notify appropriate municipalities of decommissioning activities. Federal, county, and local authorities will be notified as needed to discuss the potential approvals required to engage in decommissioning activities.

3.7 Approvals

Well-planned and well-managed renewable energy facilities are not expected to pose environmental risks at the time of decommissioning. Decommissioning of a Solar Facility will follow standards of the day. The Project Sponsor/Operator will ensure that any required permits are obtained prior to decommissioning.

This Decommissioning Report will be updated as necessary in the future to ensure that changes in available technology and site restoration methods are taken into consideration.

4.0 COST OF DECOMMISSIONING

4.1 Estimated Costs

The costs below are the current estimated costs to decommission for the solar arrays that constitute the Green Street Power Partner, LLC Solar Array Project, based on guidance from NYSERDA and estimates from the Massachusetts solar market, a mature solar market with experience in decommissioning projects.

Many of the solar farm's materials, such as aluminum, steel, copper, etc., can be recycled. Even though these materials can be salvaged, no salvage values are included in this estimate.

Please refer to the estimate worksheet provided in Appendix A of this report for a detailed breakdown of the costs used to determine the figures below.

The present value total estimate for the Decommissioning Costs of the Solar Farm is $194,086.11. The future value in 35 years for the same Decommissioning Costs is $460,607.74.

4.2 Decommissioning Funds

In accordance with Section 270-24.1.D of the Town's Zoning Code, Active will provide a surety in the form of a bond or letter of credit for the first year, which will then be renewed annually for the term of the installation. At each renewal period, the bond amount will be increased based upon construction cost escalation established by the R.S. Means (or other recognized standards).

Appendix A
Decommissioning Estimate

Appendix A: Decommissioning Estimate

SYSTEM SPECIFICATIONS:

Items	Unit	Quantity
Number of Modules		12,246
Number of Racks		510
Number of Inverters		40
Number of Transformers		2
Length of U.G. Electrical Wiring	ft.	1,524
Number of Foundation Posts		2,040
Length of Perimeter Chain Link Fence	ft.	7,250
Number of Power Poles		6
Access Road Material Volume	cyd	2,100
Total Distrubed Area (for seeding)	sf	99,070
Total Length of Silt Fence	ft.	6,200
Total Fence Weight*	lbs.	78,663
Total Racking Weight **	lbs.	333,030
Total Rack Column Weight ***	lbs.	69,870

* 7' H Chain Link Fence, Galvanized 1" diamond = 10.85 lbs/ft
** Assume 653lbs / rack for 14 solar panels
*** Assume 137lbs/ft x each one 10-ft long

EQUIPMENT AND MATERIAL REMOVAL RATES:		
Module Removal Rate	min/mod	0.5
Rack Wiring Removal Rate	min/mod	0.15
Rack Dismantling Rate	min/rack	20
Inverter Removal Rate	hr/unit	5
Transformer Removal Rate	hr/unit	1
Rack Loading Rate	min/rack	5
Electrical Wiring & Conduit Removal Rate	min/ft	1
Rack Foundation Post Removal Rate	posts/day	1000
Fence Removal Rate	min/ft	0.25
Days Required to Break up Concrete Pads	days	0.75
Days Required with Rough Grader	days	2
Days Required with Fine Grader	days	5
Total Truckloads Required		210
Round Trip Distance to Transfer Station	miles	14
Round-Trip Time to Transfer Station	hr.	0.5
Silt Fence - Install and Removal Rate	$/ft	1.25

LABOR AND EQUIPMENT COSTS:		
Labor Rate	$/hr	55.99
Operator Rate	$/hr	71.21
Bobcat Cost	$/hr	97
Front End Loader Cost	$/Day	805.1
Excavator Cost	$/Day	1299.8
Trucking Cost	$/hr	121.25
Backhoe Cost	$/hr	97
Power Pole Removal Cost	$/pole	1500
Grader Cost	$/day	1261
Gravel Export Cost	$/cyd	8
Loam Import Cost	$/cyd	20
Seeding Cost	$/sf	0.1
Fuel Cost	$/mi	0.5

Labor, Equipment, and Material Costs

1 Remove Modules
Unfasten and remove modules from rack system.

= (((# of Modules) * (Module Removal Rate))/60) * (Labor Rate)
Costs for Removal of Modules = $ 5,713.78

2 Remove Rack Wiring
Unplug Modules from Rack Wiring System and Remove Rack Wiring from Rack Tray.

= (((# of Modules) * (Rack Wiring Removal Rate))/60) * (Labor Rate)
Costs for Removal of Rack Wiring = $ 1,714.13

3 Dismantle Rack Systems
Unfasten rack system from foundation posts and stack for removal purposes.

= (((# of Racks) * (Rack Dismantling Rate))/60) * (Labor Rate)
Costs for Dismantling Racks = $ 9,518.30

4 Remove and Load Electrical Equipment
Remove and Load Transformers and Inverters

= {[((# of Transformers) * (Transformer Removal Rate)) + ((# of Inverters) * (Inverter Removal Rate))]
* (Opersator Rate + Bobcat Rate)}
Costs for Removal of Electrical Equipment = $ 33,978.42

5 Break-up Concrete Pads
Break-up Concrete Pads using Excavator and Jackhammer

= ((# of Demolition Days) * (Excavator Cost + (Operator Rate * 8))
Costs for Removal of Concrete Pads = $ 1,402.11

6 Load Racks
Load stacked Racks onto trucks for removal from site. The trucking cost assoicated with this line item represents the additional time a truck will be needed on-site during loading. See Item #13 for additional trucking costs.

= (((# of Racks) * (Rack Loading Rate))/60) * (Operator Cost + Front End Loader Cost + Trucking Cost)
Costs for Rack Removals = $ 12,456.64

7 Remove Electrical Wiring
Remove electircal wiring from all underground conduits.

= (((Length of Cable) * (Cable Removal Rate))/60) * (Operator Cost + Backhoe Cost)
Costs for Electric Wiring Removals = $ 4,272.53

8 Remove Rack Foundation Posts

Rack Support Posts will be removed from the ground and loaded onto a truck to be removed from site.

= (((# of Posts) * (Post Removal Rate)) * ((Operator Rate * 8) + Excavator Cost)

Costs for Removal of Rack Foundation Posts = $ 3,813.74

9 Remove Fencing

Fencing Posts, Fabric, and Foundations will be loaded onto a truck and removed from the site. Trucking costs included in this line item are for the time associated with loading the fencing onto the truck. Trucking to a recycling facility/ Transfer Station is included in intem #13.

= (((Length of Fence) * (Fence Removal Rate))/60) * (Operator Rate + Bobcat Cost + Trucking Cost)

Costs for Removal of Fencing = $ 8,744.10 34002.5

10 Remove Power Poles

Remove power poles and ship off site.

= ((# of Power Poles) * (Pole Removal Cost))

Costs for Removal of Power Poles = $ 9,000.00

11 Reclamation of Gravel Road

Reclamation of the gravel access road includes removing the gravel material and geogrid layer, exporting it off-site, and then backfilled with loam and graded.

= {[((# of Days with Rough Grader)+(# of Days with Fine Grader))
* (Grader Cost per day)] + [(Roadway Material Volume)*(Gravel Export Cost + Loam Import Cost)]}

Costs for Reclamation of Gravel Access Roads = $ 71,614.76

12 Seed Disturbed Areas

Seeding costs include labor and amterials for reseeding all distrubed areas including the recalimed gravel access road area, former electrical areas, former concrete pad areas, and areas disturbed by the removal of rack foundation posts.

= (((Distrubed Area) * (Seeding Cost)

Sub-Total for seeding all disturbed areas = $ 9,907.00

13 Trucking to Transfer Station

All materials will be trucked to the nearest Transfer Station that accepts construction materials. The nearest Transfer Station is the Amsterdam Transfer Station.

= { [(Total Truckloads) * (Roundtrip Distance) * (Fuel Costs)] + [(Total Truckloads)
* (Roundtrip Time) * (Trucking Cost)] }

Costs for Trucking to Transfeer Station = $ 14,201.25

14 Install and Remove Silt Fence for use during Decommissioning Process

Install silt fence for use during Decommissioning process and then remove it at completion of project.

= [(Total Length of Silt Fence) * (Silt Fence Rate)]

Costs for silt fence installation and removal = $ 7,750.00

Present Value Total = $ 194,086.77

Maturity Date of Solar Farm = 35 Years
Inflation Rate = 2.50%

Future Value of Decommissioning Costs for Sunnyside Module 1 = (Present Value) * [(1+Inflation Rate)^(# of years)]

Future Value in 35-yrs of Decommissioning Costs For Sunnyside Module 1 = $ 460,607.74

SITE PLANS FOR

GSPP ROUTE 262, LLC.
GROUND MOUNTED SOLAR ARRAY
6,612.84 KWdc, 5,000 KWac

MODULE COUNT: 12,246

MODULE TYPE: zNsHINE ZXM7-SHLDD144 540w

INVERTER COUNT: 40

INVERTER TYPE: CPS SCH125KTL-DO/US-600

APPLICABLE CODES AND STANDARDS

1. 2017 NATIONAL ELECTRICAL CODE
2. 2018 INTERNATIONAL BUILDING CODE
3. 2020 BUILDING CODE OF NEW YORK STATE
4. 2017 NEW YORK STATE UNIFORM CODE SUPPLEMENT
5. UL–1703 – SOLAR MODULES
6. UL–1741 – INVERTERS, COMBINER BOXES
7. UL–2703 – RACKING MOUNTING SYSTEMS AND CLAMPING DEVICES FOR PV MODULES

NYS ROUTE 262
TAX PARCEL 11.00-2-67
TOWN OF BYRON, GENESEE COUNTY, NEW YORK 14422

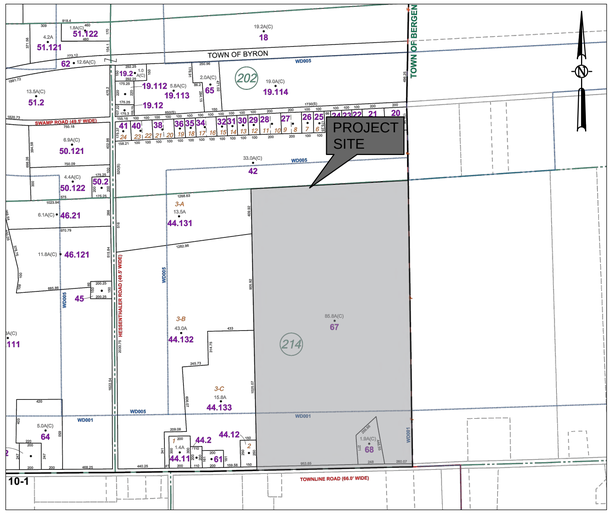
PREPARED FOR

GREEN STREET POWER PARTNERS,LLC
1 LANDMARK SQUARE,SUITE 320
STAMFORD, CT 06901

GREEN STREET POWER PARTNERS

DRAWING INDEX:

TOWN OF BYRON ZONING MAP
NOT TO SCALE



SITE LOCATION MAP
NOT TO SCALE

SUBMITTAL / REVISIONS

No.	DATE	DESCRIPTION	BY	REVIEWED BY:	DATE
1	10/14/2022	PLANNING BOARD SUBMISSION	BP	JMB	10/14/22

PROJ. MANAGER:	JMB
CHIEF DESIGNER:	DL
DESIGNED BY:	BP
DRAWN BY:	BP
CHECKED BY:	JMB

Engineering and Land Surveying, P.C.
1533 Crescent Road - Clifton Park, NY 12065

GSPP ROUTE 262,LLC.

COVER AND DRAWING INDEX

NYS ROUTE 262, TAX PARCEL 11.00-2-67
TOWN OF BYRON, GENESEE COUNTY NY

SCALE: N/A
CONTRACT No.: N/A
MJ PROJ. No.: 1660.01
DATE: 08/18/2022

C-001

File Name: \\ALGOL\cadd\MJ1660\1660.01 C-001 Cover and Index.dwg (Layout: C-001)
Date: Thu, Oct 13, 2022 - 2:44 PM (Name: bpersaud)

SURVEY MAP NOTES:

1. THE VERTICAL DATUM IS THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)
2. THE HORIZONTAL DATUM IS ON NORTH AMERICAN DATUM OF 1983 (NAD83/2011), NEW YORK STATE PLANE WEST ZONE.
3. INFORMATION SHOWN HEREON IS FROM A FIELD SURVEY CONDUCTED BY M.J. ENGINEERING AND LAND SURVEYING, P.C. ON MAY 12,2022..
4. UNDERGROUND UTILITIES SHOWN HEREON ARE BASED ON SURFACE EVIDENCE, RECORD DATA AND INFORMATION RECORDED DURING CONVENTIONAL SURVEY METHODS. THIS MAPPING DOES NOT PURPORT TO SHOW ALL UNDERGROUND UTILITIES ON SITE AND IS SUBJECT TO FIELD VERIFICATION.
5. CONTOUR INTERVAL = 1'.
6. CONTOURS GENERATED FROM 2019 NYS ITS AERIAL LIDAR AND GROUND PROOFED WITH TRADITIONAL SURVEY METHODS.
7. NORTH IS ORIENTED TO GRID NORTH FROM GPS OBSERVATION.

8.SURVEY WAS PREPARED WITHOUT THE BENEFIT OF AN ABSTRACT OF TITLE. SURVEY IS SUBJECT TO ANY INFORMATION THAT AN UP TO DATE TITLE REPORT MAY DISCLOSE.

9. SUBJECT TO ANY RIGHTS, EASEMENTS, COVENANTS, OR RESTRICTIONS OF RECORD.
10. UNAUTHORIZED ALTERATION OR ADDITION TO A SURVEY MAP BEARING A LICENSED LAND SURVEYOR'S SEAL IS A VIOLATION OF SECTION 7209, SUB-DIVISION 2, OF THE NEW YORK STATE EDUCATION LAW. COPIES OF THIS SURVEY MAP NOT BEARING THE LAND SURVEYORS SEAL AND SIGNED WITH INK SHALL NOT BE CONSIDERED TO BE VALID COPIES.

DIG SAFELY NEW YORK: CALL 811 BEFORE YOU DIG:

1. CALL BEFORE YOU DIG: IF YOU PLAN TO DIG OR DO ANY TYPE OF EXCAVATION WORK, NEW YORK STATE LAW REQUIRES YOU CALL DIG SAFELY NEW YORK PRIOR TO DOING SO.
2. WAIT THE REQUIRED TIME: YOU NEED TO PROVIDE TWO FULL WORKING DAYS NOTICE PRIOR TO STARTING YOUR WORK, NOT COUNTING THE DAY OF YOUR CALL, WEEKENDS OR HOLIDAYS. THIS PROVIDES TIME FOR THE UTILITIES TO LOCATE YOUR PROPOSED DIG SITE.
3. CONFIRM UTILITY RESPONSE: DIG SAFELY NEW YORK WILL NOTIFY ALL MEMBER UTILITIES OF THE PENDING EXCAVATION SO THAT THAT THEY CAN COME OUT AND MARK THE LOCATION OF THEIR UNDERGROUND LINES. BEFORE DIGGING ON YOUR STATED COMMENCEMENT DATE CONFIRM THAT ALL UTILITIES HAVE RESPONDED TO YOU INDICATING THEY HAVE MARKED YOUR PROPERTY OR THEY HAVE NO FACILITIES PRESENT.
4. RESPECT THE MARKS: BEFORE YOU BEGIN YOUR EXCAVATION, WALK THROUGH THE SITE TO FAMILIARIZE YOURSELF WITH THE MARKINGS AND THE LOCATIONS OF BURIED FACILITIES.
5. DIG WITH CARE: IT IS IMPORTANT EXCAVATORS TAKE A PROACTIVE APPROACH TO SAFETY NOT ONLY FOR THEMSELVES BUT FOR THE PUBLIC BY INITIATING THE ONE CALL PROCESS AND ADHERING TO THE FIVE STEPS OF A SAFE EXCAVATION.

REMOVAL NOTES:

1. CONFORM TO APPLICABLE CODE FOR DEMOLITION OF STRUCTURES, SAFETY OF ADJACENT STRUCTURES, DUST CONTROL, RUNOFF CONTROL, AND HAULING, DISPOSAL AND STORAGE OF DEBRIS.
2. PROVIDE, ERECT, AND MAINTAIN TEMPORARY BARRIERS AND SECURITY DEVICES.
3. MAINTAIN EXISTING UTILITIES TO REMAIN IN SERVICE AND PROTECT THEM AGAINST DAMAGE DURING SELECTIVE DEMOLITION OPERATIONS. DO NOT INTERRUPT EXISTING UTILITIES SERVING OPERATING FACILITIES, EXCEPT WHEN AUTHORIZED IN WRITING BY OWNER'S REPRESENTATIVE.
4. PREVENT MOVEMENT OR SETTLEMENT OF ADJACENT STRUCTURES. PROVIDE BRACING AND SHORING.
5. LOCATE AND IDENTIFY ALL EXISTING UTILITIES WITHIN THE CONSTRUCTION AREA AS REQUIRED BY SPECIFICATION SECTION 023313. DISCONNECT AND SEAL OR CAP OFF UTILITY SERVICES THAT WILL BE AFFECTED BY THIS PROJECT. NOTIFY OWNER'S REPRESENTATIVE AT A MINIMUM OF 72 HOURS BEFORE STARTING WORK AND WITH THEIR REQUIREMENTS. VERIFY THAT UTILITIES HAVE BEEN DISCONNECTED AND CAPPED.
6. REMOVE COMPONENTS IN AN ORDERLY AND CAREFUL MANNER.
7. PROTECT EXISTING FEATURES THAT ARE NOT TO BE REMOVED.
8. CONDUCT OPERATIONS WITH MINIMUM INTERFERENCE TO PUBLIC OR PRIVATE ACCESSES.
9. MAINTAIN EGRESS AND ACCESS AT ALL TIMES. DO NOT CLOSE OR OBSTRUCT ROADWAYS, OR SIDEWALKS WITHOUT OWNER'S REPRESENTATIVE'S PERMISSION.
10. CEASE OPERATIONS IMMEDIATELY IF ADJACENT STRUCTURES APPEAR TO BE IN DANGER.
11. ROUGH GRADE AND COMPACT AREAS AFFECTED BY DEMOLITION TO MAINTAIN SITE GRADES AND CONTOURS.
12. FIELD VERIFY EXISTING CONDITIONS AND CORRELATE WITH REQUIREMENTS INDICATED ON DEMOLITION PLAN TO DETERMINE EXTENT OF SELECTIVE DEMOLITION REQUIRED.
13. CONDUCT DEMOLITION OPERATIONS AND REMOVE DEBRIS TO ENSURE MINIMUM INTERFERENCE WITH SELECTIVE DEMOLITION OPERATIONS.
14. CONDUCT DEMOLITION OPERATIONS TO PREVENT INJURY TO PEOPLE AND DAMAGE TO ADJACENT BUILDINGS AND FACILITIES TO REMAIN. ENSURE SAFE PASSAGE OF PEOPLE AROUND SELECTIVE DEMOLITION AREA.
15. REMOVE AND TRANSPORT DEBRIS IN A MANNER THAT WILL PREVENT SPILLAGE ON ADJACENT SURFACES AND AREAS. ALL EXCESS MATERIALS SHALL BE TRANSPORTED OFF SITE AND LEGALLY DISPOSED OF.
16. CLEAN ADJACENT STRUCTURES AND IMPROVEMENTS OF DUST, DIRT AND DEBRIS CAUSED BY SELECTIVE DEMOLITION OPERATIONS. RETURN ADJACENT AREAS TO CONDITION EXISTING BEFORE START OF SELECTIVE DEMOLITION.
17. LEGALLY DISPOSE OF DEMOLISHED MATERIALS. ALL DEBRIS RESULTING FROM DEMOLITION ACTIVITIES SHALL BE DISPOSED OF OFF-SITE AT A FACILITY LEGALLY APPROVED TO RECEIVE THE DEBRIS. DO NOT ALLOW DEMOLISHED MATERIALS TO ACCUMULATE ON-SITE. DO NOT BURN DEMOLISHED MATERIALS ON-SITE.

LAYOUT NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL FIELD LAYOUT. THE CONTRACTOR SHALL TAKE TIES TO ALL UTILITY CONNECTIONS AND PROVIDE MARKED-UP AS BUILT PLANS FOR ALL UTILITIES SHOWING TIES TO CONNECTIONS, BENDS, VALVES, LENGTHS OF LINES AND INVERTS. AS-BUILT PLANS SHALL BE REVIEWED BY THE OWNER AND THE ENGINEER AND THE CONTRACTOR SHALL PROVIDE ANY CORRECTION OR ADDITIONS TO THE SATISFACTION OF THE OWNER AND THE ENGINEER BEFORE UTILITIES WILL BE ACCEPTED.

SWPPP NOTES:

1. CONSTRUCTION PHASING PLAN

THIS PROJECT WILL BE CONSTRUCTED AS A SINGLE PHASE.

2. EROSION AND SEDIMENT CONTROL PRACTICES

REFER TO DRAWING AND THE DETAILS AND THE PROJECT MANUAL FOR LOCATION, SIZES AND SPECIFICATIONS OF EROSION AND SEDIMENT CONTROL DEVICES.

A. TEMPORARY SEDIMENT CONTROL – SILT FENCE
SILT FENCE REDUCES RUNOFF VELOCITY AND CAUSES SETTLING OF SEDIMENT. INSTALL SILT FENCE WHERE SHOWN. INSTALL AROUND ANY STOCKPILED SOIL MATERIALS.

B. WETLAND PROTECTION FENCE (IF REQUIRED)
ORANGE CONSTRUCTION FENCE POSTED WITH "SENSITIVE AREA, STAY OUT" PROTECTS THE ON-SITE WETLANDS FROM UNAUTHORIZED DISTURBANCE.

C. TEMPORARY SEEDING
TEMPORARY SEEDING REDUCES EROSION AND SEDIMENT LOSS FROM BARE GROUND. PROVIDE TEMPORARY SEEDING TO PROVIDE TEMPORARY COVER FOR DISTURBED EARTH OR SOIL STOCKPILES. PROVIDE TEMPORARY SEEDING PER THE DRAWINGS OR AT A MINIMUM ON DISTURBED AREAS OR SOIL STOCKPILES HELD FOR LONGER THAN 7 DAYS, TEMPORARY SHUT DOWN OF CONSTRUCTION OR WAITING FOR OPTIMAL PLANTING TIME. IN SPRING, SUMMER OR EARLY FALL APPLY RYE GRASS AT AT A RATE OF 1 LB/ 1000 SQ. FT. IN LATE FALL OR EARLY SPRING, APPLY CERTIFIED AROOSTOOK RYE AT 2.5 LBS. / 1000 SQ. FT. APPLY STRAW AT 2 BALES / 1000 SQ. FT OR WOOD FIBER HYDROMULCH AT MANUFACTURER'S RECOMMENDED RATE. STRAW SHALL BE ANCHORED.

D. CONCRETE WASHOUT
CONCRETE WASHOUT SHALL BE DONE OFF SITE OR THE CONTRACTOR SHALL MAINTAIN A PREFABRICATED WASHOUT CONTAINER EQUAL TO THE LOW PROFILE RAMPED CONTAINER MANUFACTURED BY CONCRETE WASHOUT SYSTEMS, WWW.CONCRETEWASHOUT.COM. ALL WASTE WATER AND SEDIMENT FROM THE UNIT SHALL BE DISPOSED OF OFF-SITE IN ACCORDANCE WITH STATE, LOCAL AND FEDERAL REQUIREMENTS. LOCATION OF THE UNIT SHALL BE AS DIRECTED BY THE OWNER'S REPRESENTATIVE.

E. DUST CONTROL
DUST CONTROLS PREVENT SURFACE AND AIR MOVEMENT OF DUST FROM DISTURBED AREAS THAT MAY CAUSE OFF SITE DAMAGE, HEALTH HAZARDS AND TRAFFIC SAFETY PROBLEMS. PROVIDE DUST CONTROL THRU SUCH MEASURES AS SPRINKLING, CHEMICAL SOIL TREATMENTS AND TEMPORARY AND PERMANENT STABILIZATION MEASURES, SUCH AS SEEDING, MULCHING AND INSTALLING EROSION CONTROL BLANKETS. THESE MEASURES WILL PREVENT DUST FROM BLOWING OFF SITE. INSTALL TEMPORARY AND PERMANENT STABILIZATION MEASURES PER THE DRAWINGS, AS SOON AS FINAL GRADES ARE REACHED AND ON SOIL STOCKPILES AND DISTURBED AREAS TO BE LEFT FOR LONGER THAN 7 DAYS. USE SPRINKLING, CHEMICAL SOIL TREATMENTS AND OTHER METHODS AS REQUIRED TO PREVENT BLOWING DUST.

F. PERMANENT SEEDING
PERMANENT SEEDING PREVENTS SOIL EROSION FROM BARE SOIL. ONCE FINAL GRADING OF AN AREA HAS BEEN COMPLETED, PROVIDE PERMANENT SEEDING AND MULCHING PER SPECIFICATION SECTION 329219.

3. POLLUTION PREVENTION MEASURES

IN ADDITION TO THE EROSION AND SEDIMENT CONTROL MEASURES IMPLEMENTED AT THE SITE, THE CONTRACTOR SHALL IMPLEMENT THE FOLLOWING MEASURES TO PREVENT LITTER, CHEMICALS AND DEBRIS FROM ENTERING THE STORM DRAINS AND DISCHARGES FROM THE SITE OR INTO SENSITIVE AREAS.

A. PROPERLY INSTALL AND MAINTAIN EROSION AND SEDIMENT CONTROL DEVICES AS OUTLINED IN THE PROJECT DOCUMENTS AND IN COMPLIANCE WITH THE LATEST EDITION OF THE NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL.

B. PROPERLY CONTAIN AND DISPOSE OF ALL MATERIALS USED ON SITE.

C. CLEAN UP SPILLS IMMEDIATELY TO MINIMIZE SAFETY HAZARD AND PREVENT SPREADING.

D. ROUTINELY INSPECT AND CLEAN OUT STORM CATCH BASINS AND CONVEYANCES.

E. CONTROL LITTER BY SWEEPING AND PICKING IT UP DAILY.

F. IF POSSIBLE, DO NOT STORE FUEL OR PETROLEUM PRODUCTS ON-SITE. IF FUEL/PROTROLEUM PRODUCTS ARE STORED ON SITE:

4. USE SECONDARY CONTAINMENT MEASURES.
5. HAVE EQUIPMENT AND MATERIALS ON SITE TO CONTAIN AND CLEAN UP SPILLS IN FUEL STORAGE AREAS OR ON BOARD MAINTENANCE AND FUELING VEHICLES.
6. CONTAIN AND CLEAN UP SPILLS IMMEDIATELY.
7. PRACTICE PREVENTIVE MAINTENANCE FOR ON-SITE EQUIPMENT.
8. OVERSEE ALL FILLING OPERATIONS.

G. PRACTICE GOOD HOUSEKEEPING AND EDUCATE EMPLOYEES ON POLLUTION PREVENTION MEASURES.

1. STORE ON SITE MATERIALS AND CHEMICALS IN A NEAT AND ORDERLY MANNER AND IN AREAS DESIGNATED FOR SUCH STORAGE.
2. DISPOSE OF GARBAGE, RUBBISH, CONSTRUCTION AND SANITARY WASTE ROUTINELY.
3. IMMEDIATELY CLEAN UP ANY SPILLS.
4. IMMEDIATELY CLEAN UP ANY SEDIMENTS OR WASTE TRACKED ONTO PUBLIC HIGHWAYS OR TRANSPORTED ONTO ADJACENT PROPERTIES.
5. USE DUST CONTROL METHODS.

H. FOR CONSTRUCTION WASTE:

1. DESIGNATE A WASTE COLLECTION AREA.
2. PROVIDE AN ADEQUATE NUMBER OF CONTAINERS WITH LIDS OR COVERS THAT CAN BE PLACED OVER CONTAINERS PRIOR TO RAINFALL.
3. ARRANGE FOR WASTE COLLECTION ON A ROUTINE BASIS AND PRIOR TO CONTAINER OVERFLOW.
4. IF A CONTAINER DOES SPILL, CLEAN UP IMMEDIATELY.
5. CONSTRUCTION WASTE SHALL BE COLLECTED, REMOVED AND DISPOSED OF IN APPROVED DISPOSAL AREAS.
6. DISPOSAL METHODS SHALL MEET THE REQUIREMENTS OF FEDERAL, STATE AND LOCAL REQUIREMENTS.

THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING AND MAINTAINING TEMPORARY SANITARY FACILITIES. DOMESTIC WASTE HAULERS SHALL BE CONTRACTED TO REGULARLY REMOVE THE SANITARY WASTE AND TO MAINTAIN THE FACILITIES IN GOOD WORKING ORDER.

I. IF FERTILIZERS ARE USED ON SITE:

1. LIMIT THE APPLICATION OF FERTILIZERS TO THE MINIMUM AREA REQUIRED AND USE THE MINIMUM RECOMMENDED AMOUNTS.
2. REDUCE THE EXPOSURE OF FERTILIZERS TO STORM WATER RUN OFF BY WORKING THE FERTILIZER INTO THE SOIL.
3. APPLY FERTILIZER MORE FREQUENTLY BUT AT A LOWER APPLICATION RATE.

4. EROSION AND SEDIMENT CONTROL PRACTICES, IMPLEMENTATION SCHEDULE

PRACTICE	INITIAL PLACEMENT	DURATION
SILT FENCE	PRIOR TO EARTH DISTURBANCE IMMEDIATELY UPON STOCKPILING OF SOIL STOCKPILES	UNTIL SITE STABILIZATION & UNTIL REMOVAL OF STOCK PILE
DUST CONTROL	UPON COMMENCEMENT OF SITE DISTURBANCE	UNTIL SITE STABILIZATION
VEHICLE WASHING	UPON COMMENCEMENT OF SITE DISTURBANCE	UNTIL SITE STABILIZATION
STABILIZED CONSTRUCTION	PRIOR TO SITE DISTURBANCE	UNTIL SITE STABILIZATION
INLET PROTECTION	PRIOR TO SITE DISTURBANCE	UNTIL SITE STABILIZATION
CONCRETE WASHOUT	UPON COMMENCEMENT OF CONCRETE ACTIVITIES	COMPLETION OF CONCRETE ACTIVITIES

5. EROSION AND SEDIMENT CONTROL INSPECTION AND MAINTENANCE SCHEDULE

A. THE CONTRACTOR SHALL INSPECT THE SILT FENCE AND CONSTRUCTION FENCE SURROUNDING SENSITIVE AREAS (WETLANDS) ON A NIGHTLY BASIS DURING CONSTRUCTION. MAINTENANCE, REPAIR OR REPLACEMENT OF THE FENCING SHALL BE DONE IMMEDIATELY.

B. THE CONTRACTOR SHALL INSPECT ALL REMAINING EROSION AND SEDIMENT CONTROL DEVICES AFTER EACH RAIN EVENT AND ON A WEEKLY BASIS. MAINTENANCE, REPAIR OR REPLACEMENT SHALL BE DONE IMMEDIATELY. MAINTENANCE, REPAIR AND REPLACEMENT SHALL ALSO OCCUR AS DIRECTED BY THE OWNER'S REPRESENTATIVE.

1. SILT FENCE: SHALL BE INSPECTED FOR TEARS, BULGING AND FOR AREAS WHERE IT HAS FALLEN DOWN. REPAIR OR REPLACE AS NECESSARY.
2. EROSION CONTROL BLANKETS: SHALL BE CHECKED FOR PROPER/MISSING ANCHORING, PLACEMENT DENSITY, DAMAGE DUE TO VANDALISM OR CONSTRUCTION ACTIVITIES. REPAIR OR REPLACE AS NECESSARY.
3. STABILIZED CONSTRUCTION ENTRANCE: SHALL BE MAINTAINED SO THAT TRACKING OF SEDIMENT ONTO PUBLIC HIGHWAYS DOES NOT OCCUR. TOP DRESS AS REQUIRED.
4. FABRIC INLET PROTECTION: CHECK FOR DAMAGED MATERIALS AND SEDIMENT ACCUMULATION. REPAIR OR REPLACE ANY DAMAGED FABRIC. REMOVE ACCUMULATED SEDIMENT.
   5. STONE AND BLOCK INLET PROTECTION: CHECK FOR DAMAGED MATERIALS AND ACCUMULATED SEDIMENT. REPAIR OR REPLACE MATERIALS OF CONSTRUCTION AS NEEDED. REMOVE ANY ACCUMULATED SEDIMENT.
6. FOREBAYS: SIDE SLOPES SHALL BE CHECKED FOR SCOUR, DAMAGE FROM RODENTS AND SEEPAGE. THE FOREBAYS AND DETENTION PONDS SHALL BE CONTINUOUSLY MONITORED FOR SEDIMENT ACCUMULATION. ONCE SEDIMENT ACCUMULATION HAS REACHED 12" IN DEPTH, IT SHALL BE REMOVED AND DISPOSED OF OFF SITE. THE OUTLETS SHALL BE CHECKED FOR SIGNS OF SCOUR AND OBSTRUCTIONS. REPAIRS SHALL BE MADE AS NECESSARY.
7. RIP RAP OUTLETS: SHALL BE CHECKED FOR OBSTRUCTIONS AND SCOUR. REMOVE OBSTRUCTIONS AND REPAIR AS NECESSARY.
8. CATCH BASINS AND PIPING: SHALL BE CHECKED FOR OBSTRUCTIONS AND SEDIMENT ACCUMULATION. CLEAN AS NECESSARY.

6. SWPPP IMPLEMENTATION

THE CONTRACTOR AND SUB CONTRACTOR(S) ARE RESPONSIBLE FOR COMPLYING WITH AND IMPLEMENTING THE SWPPP. REFER TO SPECIFICATION "REGULATORY REQUIREMENTS" AND THE CONTRACTOR'S CERTIFICATION STATEMENT IN THE SWPPP.

THE ENGINEER OF RECORD IS RESPONSIBLE FOR PERFORMING AND DOCUMENTING THE INITIAL SITE ASSESSMENT AND PERFORMING THE WEEKLY SITE INSPECTING AS REQUIRED BY THE SPDES PERMIT.

7. CONSTRUCTION COMPLETION

UPON CONSTRUCTION COMPLETION:

A. INSPECT THE CATCH BASINS, STORM WATER MANHOLES AND STORM WATER CONVEYANCE SYSTEM FOR OBSTRUCTIONS OR SEDIMENT. REMOVE OBSTRUCTIONS AND CLEAN STRUCTURES AND PIPING AS NECESSARY.

B. FOREBAYS: INSPECT WEIRS FOR STRUCTURAL INTEGRITY AND OBSTRUCTIONS. CHECK EMBANKMENTS FOR SCOUR, SEEPAGE, DAMAGE FROM RODENTS OR UNWANTED PLANT GROWTH. MAKE REPAIRS AS NECESSARY. CHECK OUTLET PROTECTION FOR OBSTRUCTIONS AND SCOURING. MAKE ANY REPAIRS. SURVEY FOREBAYS, REMOVE ALL ACCUMULATED SEDIMENT, RETURN TO GRADES SHOWN ON THE GRADING PLAN.

UPON SITE STABILIZATION:

C. REMOVE ANY REMAINING TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES. STABILIZE AREA.

8. WINTER OPERATIONS/WINTER SHUT DOWN

A. FOR WINTER OPERATIONS

1. SNOW SHALL BE PLOWED AND PILED ON PAVED AREAS. SNOW SHALL NOT BE PLOWED ONTO GRASSED AREAS OR INTO WETLAND AREAS.
2. DRAINAGE STRUCTURES SHALL BE CHECKED WEEKLY AND AFTER SNOW EVENTS FOR CLOGGING OR FREEZING. STRUCTURES SHALL BE ABLE TO DRAIN FREELY.
3. INSTALLATION AND MAINTENANCE OF EROSION AND SEDIMENT CONTROL DEVICES SHALL CONTINUE PER THE DRAWINGS.
4. FOR WINTER SHUTDOWN
5. ALL BARE SOILS MUST BE STABILIZED BY ESTABLISHED VEGETATION, STRAW, MATTING, ROCK OR EROSION CONTROL PRODUCTS.
6. EROSION AND SEDIMENT CONTROL DEVICES SHALL BE IN PLACE AT ALL SENSITIVE AREAS AND ALONG THE PERIMETER. THIS INCLUDES BUT IS NOT LIMITED TO SILT FENCE, STORM DRAIN INLET PROTECTION, CHECK DAMS AND PIPE OUTLET PROTECTION.
7. SOIL STOCKPILES MUST BE PROTECTED WITH SILT FENCE PROTECTION AROUND THE PERIMETER AND STABILIZED WITH ESTABLISHED VEGETATION, STRAW, ROLLED EROSION CONTROL PRODUCT OR DURABLE COVERING.
8. THE CONSTRUCTION ENTRANCE SHALL BE MAINTAINED DURING WINTER SHUTDOWN.
9. SNOW SHALL BE PLOWED TO ALLOW FOR ENTRANCE TO THE SITE ON A MONTHLY BASIS. SNOW SHALL BE PLOWED AND STOCKPILED ONTO PAVED SURFACES. SNOW PLOWING AND STOCKPILING ONTO GRASSED OR INTO SENSITIVE AREAS WILL NOT BE ALLOWED.
10. STABILIZATION MEASURES MUST BE IN PLACE, INCLUDING STABILIZED VEGETATION, WITHIN SEVEN (7) DAYS FROM THE DATE SOIL DISTURBING ACTIVITIES CEASE.

LANDSCAPING NOTES:

1. THE LANDSCAPE CONTRACTOR SHALL CAREFULLY COORDINATE CONSTRUCTION ACTIVITIES WITH THAT OF THE EARTHWORK CONTRACTOR AND OTHER SITE DEVELOPMENT.
2. QUALITY ASSURANCE:
   A. NOMENCLATURE: PLANT NAMES SHALL CONFORM TO THE LATEST EDITION OF "STANDARDIZED PLANT NAMES" AS ADOPTED BY THE AMERICAN JOINT COMMITTEE ON HORTICULTURAL NOMENCLATURE.
   B. SIZE AND GRADING: PLANT SIZES AND GRADING SHALL CONFORM TO THE LATEST EDITION OF "AMERICAN STANDARD FOR NURSERY STOCK" AS SPONSORED BY THE AMERICAN ASSOCIATION OF NURSERYMEN, INC (AAN), UNLESS OTHERWISE SPECIFIED.
   C. NURSERY SOURCE: OBTAIN FRESHLY DUG, HEALTHY, VIGOROUS PLANTS NURSERY GROWN UNDER CLIMACTIC CONDITIONS SIMILAR TO THOSE IN THE LOCALITY OF THE PROJECT FOR A MINIMUM OF 2 YEARS. PLANTS SHALL HAVE BEEN LINED OUT IN ROWS, ANNUALLY CULTIVATED, SPRAYED, PRUNED AND FERTILIZED IN ACCORDANCE WITH GOOD HORTICULTURAL PRACTICE. ALL PLANTS SHALL HAVE BEEN TRANSPLANTED OR ROOT PRUNED AT LEAST ONCE IN THE PAST 3 YEARS. BALLED AND BURLAPPED PLANTS MUST COME FROM SOIL WHICH WILL HOLD A FIRM ROOT BALL. HEELED IN PLANTS AND PLANTS FROM COLD STORAGE ARE NOT ACCEPTABLE.
   D. SUBSTITUTIONS: DO NOT MAKE SUBSTITUTIONS OF TREES AND/OR SHRUB MATERIALS.
3. SEEDING & PLANTING SEASONS AND TIMING CONDITIONS:
   A. UNLESS OTHERWISE DIRECTED IN WRITING, SEED LAWNS FROM MARCH 15 TO JUNE 15, AND FROM AUGUST 15 TO OCTOBER 15.
   B. UNLESS OTHERWISE DIRECTED IN WRITING PLANT TREES AND SHRUBS FROM MARCH 15 TO JUNE 1, AND FROM AUGUST 15 TO OCTOBER 30.
4. PRODUCTS:
   A. IMPORTED TOPSOIL: PROVIDE TOPSOIL CONFORMING TO THE FOLLOWING:
      i. LOAM TOPSOIL, WELL DRAINED HOMOGENEOUS TEXTURE AND OF UNIFORM GRADE, WITHOUT THE ADMIXTURE OF SUBSOIL MATERIAL AND FREE OF DENSE MATERIAL, HARDPAN, CLAY, STONES, SOD OR OTHER OBJECTIONABLE MATERIAL.
      ii. CONTAINING NOT LESS THAN 5% NOR MORE THAN 20% ORGANIC MATTER IN THAT PORTION OF A SAMPLING PASSING A 1/4" SIEVE WHEN DETERMINED BY THE WET COMBUSTION METHOD ON A SAMPLE DRIED AT 105°C.
      iii. CONTAINING A PH VALUE WITHIN THE RANGE OF 6.5 TO 7.5 ON THAT PORTION OF THE SAMPLE WHICH PASSES A 1/4" SIEVE.
      iv. CONTAINING THE FOLLOWING WASHED GRADATIONS:

SIEVE DESIGNATION	% PASSING
1"	100
1/4"	97-100
NO 200	20-60

MEADOW SEEDING NOTES:

1. SITE TO BE CLEARED WITHIN THE LIMITS OF DISTURBANCE. ALL EXISTING TREES, INCLUDING WOODY AND SHRUB VEGETATION, SHALL BE REMOVED. MEADOW SEED MIX "A" (SPECIFIED BELOW) WILL BE USED TO STABILIZE THE DISTRUBED AREA WITHIN THE LIMITS OF DISTURBANCE.
2. SITE PERMANENT VEGETATIVE COVER (MEADOW MIX A) ERNST SEED MIX ERNMX-186 (ERNST SOLAR FARM SEED MIX":

35% FUSTUCA RUBRA	CREEPING RED FESCUE
35% FUSTUCA RUBRA SS., COMMUTATA	CHEWINGS FESCUE
10% FESTUCA BREVIPILA, "BEACON"	ARD FESCUE, "BEACON"
10% FESTUCA OVINA VAR. DURIUSCULA, "JETTY"	HARD FESCUE, "JETTY"
5% POA PRATENSIS, "BLUE ANGEL"	KENTUCKY BLUEGRASS, "BLUE ANGEL"
5% POA PRATENSIS, "VOLT"	KENTUCKY BLUEGRASS, "BLUE VOLT"

MEADOW MIX "A" ESTABLISHMENT WATERING AND MAINTENANCE SCHEDULE

THE FOLLOWING WATERING SCHEDULE COVERS ROUGHLY 8 WEEKS TO ESTABLISH A HEALTHY STAND OF GRASS FROM SEED. THE CONTRACTOR SHALL BE OBLIGATED TO ENSURE A HEALTHY STAND OF GRASS AT THE END OF THE MAINTENANCE/BOND PERIOD. ANY BARE OR DEAD AREAS IN THE LAWN SHALL BE PREPARED, RE-SEEDED AND RE-ESTABLISHED PRIOR TO THE END OF THE MAINTENANCE/BOND PERIOD AND TO THE SATISFACTION OF THE PROJECT LANDSCAPE ARCHITECT AND THE OWNER.

IMPORTANT ASPECTS TO ATTAINING AND SUSTAINGING A HEALTHY STAND OF GRASS ARE THE INSTALLATION OF TOPSOIL, SEED BED PREPARATION, ATTAINING OPTIMAL pH FOR THE INTENDED PLANT SPECIES, FERTILIZING, MULCH COVERING, AND SUFFICIENT WATERING PER THESE NOTES AND/OR PROJECT SPECIFICATIONS.

1. ELIMINATE UNWANTED VEGETATION PRIOR TO SEEDING USING A BROAD-SPECTRUM NON-SELECTIVE HERBICIDE PER MANUFACTURER'S SPECIFICATIONS.
2. SEEDING SHALL BE DONE PREFERABLY IN THE FALL BETWEEN SEPTEMBER 1 TO OCTOBER 1, OTHERWISE SEED IN THE SPRING BETWEEN APRIL 1 AND JUNE 1.
3. IT IS RECOMMENDED THAT CONTRACTOR INSTALL SEED MIXTURE USING A NO-TILL TRUAX-TYPE DRILL WHERE APPLICABLE.
4. AFTER THE SEEDBED IS PREPARED, SEED IS INSTALLED, AND MULCH IS APPLIED. WATER LIGHTLY TO KEEP THE TOP 2 INCHES OF SOIL CONSISTENTLY MOIST, NOT SATURATED. AT NO TIME SHOULD WATER BE APPLIED TO THE POINT OF RUNOFF OR THE DISPLACEMENT OF SEED.
5. DEPENDING ON SOIL TEMPERATURES, IT MAY TAKE SEVERAL WEEKS FOR GERMINATION TO OCCUR. DIFFERENT SPECIES WITHIN THE MIX GERMINATE AT DIFFERENT TIMES AND THEREFORE CONTRACTOR SHOULD CONTINUE THE LIGHT WATERING, AS DESCRIBED ABOVE, UNTIL THERE IS AT LEAST 2 INCHES OF GROWTH THROUGHOUT.
6. AT THIS POINT, WATERING FREQUENCY MAY BE REDUCED TO EVERY 3 TO 5 DAYS. WATER SHALL BE APPLIED TO WET A 6 INCH MINIMUM SOIL DEPTH TO PROMOTE HEALTHY DEEP ROOTS.
7. MOW TO A HEIGHT OF NO LESS THAN 4 INCHES AFTER THE FESCUE SEED HEADS DEVELOP IN MID-SUMMER, IF A MORE MANICURED LOOK IS DESIRED. OTHERWISE, THE SEED HEADS SHOULD LAY DOWN BY LATE SUMMER. CONTINUE TO WATER TO A 6 INCH MINIMUM SOIL DEPTH AS NECESSARY PER WEATHER CONDITIONS, AND EMPLOY SOIL MOISTURE SENSORS IF APPLICABLE.
8. DURING THE FIRST 2-4 YEARS OF ESTABLISHMENT, AND AFTER ESTABLISHMENT DEPENDING ON THE LOOK DESIRED, ADDITIONAL MOWING TO NO LESS THAN 4 INCHES MAY BE REQUIRED, AS WELL AS SELECTIVE WEEDING WITH A BROADLEAF WEED-CONTROL HERBICIDE, OVER-SEEDING BARE SPOTS AND WATERING TO PROMOTE A THICK, UNIFORM DROUGHT-TOLERANT STAND OF GRASS.
9. AFTER YEARS OF ESTABLISHMENT, A LAYER OF THATCH (DEAD GRASS) MAY BUILD UP AT THE SOIL SURFACE. A THATCH LAYER MAY MOTHER NEW GRASS FROM DEVELOPING, CAUSING DEAD AND BARE SPOTS. REMOVE THATCH FROM FESCUE LAWN WHEN A THATCH LAYER BECOMES VISIBLE UPON INSPECTION. DO NOT DE-THATCH TO A DEPTH THAT WILL DIG UP SOIL. RAKE AND REMOVE THATCH. ANY BARE OR THIN SPOTS SHOULD BE OVER-SEEDED AND WATERED PER THE NOTES HEREIN. DE-THATCH ONLY IN MID-SPRING AFTER THE GRASS HAS BEEN "GREENED UP" AND STARTED ACTIVE GROWTH. DE-THATCHING IN EARLY SPRING BEFORE THE GRASS BEGINS TO GROW AGAIN WILL ONLY ENCOURAGE WEEDS.
10. FERTILIZERS ARE NOT GENERALLY NEEDED OR RECOMMENDED FOR FESCUE LAWNS UNLESS SOIL TEST RESULTS SHOW A SIGNIFICANT LACK OF NUTRIENTS. USE ONLY SLOW-RELEASE FERTILIZERS WITH LITTLE TO NO NITROGEN IN APRIL OR SEPTEMBER.

LEGEND:

EXISTING

- PROPERTY LINE
- BENCHMARK
- CONTROL BASELINE
- MONUMENT POINT
- CAPPED IRON ROD
- IRON PIPE
- CHAIN LINK FENCE
- WOOD FENCE
- WIRE FENCE
- STONE FENCE
- BUILDING LINE
- X 120.2 — SPOT ELEVATION
- 120 — MAJOR CONTOUR
- SINGLE POST SIGN
- DOUBLE POST SIGN
- DELINEATORS
- WOOD POST
- BOLLARD
- GUIDE POST
- MAILBOX
- WETLAND BOUNDARY
- WOODS LINE
- DECIDUOUS TREE
- CONIFEROUS TREE
- DECIDUOUS SHRUB
- CONIFEROUS SHRUB
- WATER WELL
- STORM LINE
- CB — CATCH BASIN
- OVERHEAD POWER LINE
- ELECTRIC LINE
- OVERHEAD WIRES
- LIGHT POLE
- UTILITY POLE
- GUY WIRE
- UTILITY POLE WITH LIGHT
- GAS LINE

PROPOSED

- CLEAR AND GRUB TREES/SHRUBS
- N: 50,102.20 E: 80,102.20 — COORDINATE POINT
- POWER POLE
- E — UNDERGROUND ELECTRIC
- OH — OVERHEAD ELECTRIC
- x — FENCE (ENVIRONMENTAL)
- FENCE (CHAIN LINK)
- 345 — CONTOUR LINE
- SF — SILT FENCE
- GRAVEL SURFACE
- TREE LINE / CLEARING LIMITS
- CONIFEROUS TREE
- MAINTAINED LAWN SURFACE

ABBREVIATIONS

OH	OVERHEAD
DIP	DUCTILE IRON PIPE
PVC	POLYVINYL CHLORIDE PIPE
CPE	CORRUGATED POLYETHYLENE PIPE
(PERF)	PERFORATED PIPE
HDPE	HIGH DENSITY POLYETHYLENE
CLL	CONTRACT LIMIT LINE
IPS	IRON PIPE SIZE
DIP	DUCTILE IRON PIPE SIZE
ST	STORM SEWER
ME	MATCH ELEVATION

SUBMITTAL / REVISIONS

No.	DATE	DESCRIPTION	BY	REVIEWED BY:	DATE
1	10/14/2022	PLANNING BOARD SUBMISSION	BP	JMB	10/14/22

PROJ. MANAGER:	JMB
CHIEF DESIGNER:	DL
DESIGNED BY:	BP
DRAWN BY:	BP
CHECKED BY:	JMB

Engineering and Land Surveying, P.C.
1533 Crescent Road - Clifton Park, NY 12065

GSPP ROUTE 262,LLC.

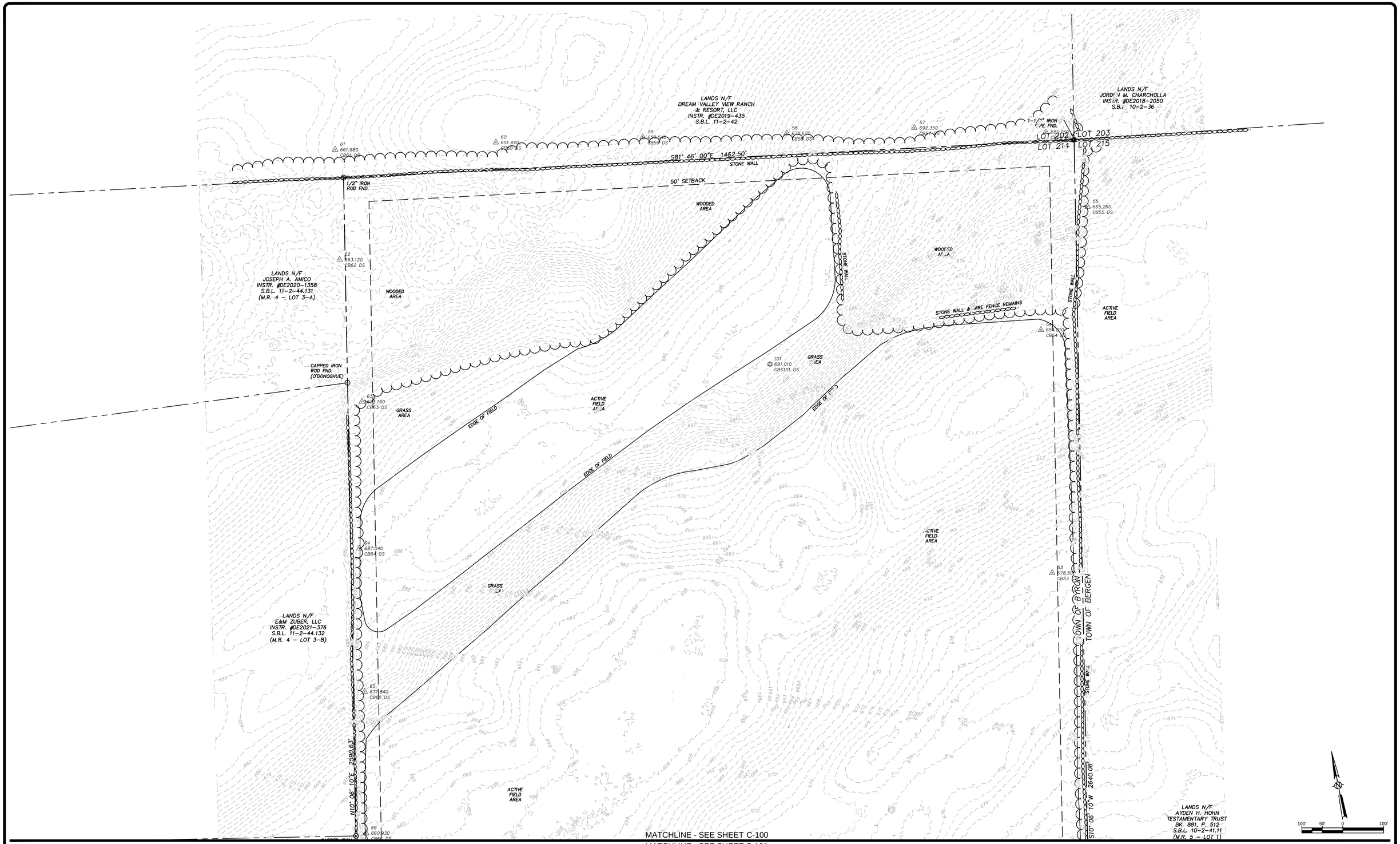
GENERAL NOTES

NYS ROUTE 262, TAX PARCEL 11.00-2-67
TOWN OF BYRON, GENESEE COUNTY NY

SCALE: N/A
CONTRACT No.: N/A
MJ PROJ. No.: 1660.01
DATE: 08/18/2022

C-002

File Name: \\ALGOL\cadd\MJ1660\1660.01 C-002 General Notes.dwg (Layout: C-002)
Date: Thu, Oct 13, 2022 - 2:44 PM (Name: bpersaud)



SUBMITTAL / REVISIONS					
No.	DATE	DESCRIPTION	BY	REVIEWED BY:	DATE
1	10/14/2022	PLANNING BOARD SUBMISSION	BP	JMB	10/14/22

PROJ. MANAGER:	JMB
CHIEF DESIGNER:	DL
DESIGNED BY:	BP
DRAWN BY:	BP
CHECKED BY:	JMB

Engineering and Land Surveying, P.C.
1533 Crescent Road - Clifton Park, NY 12065

GSPP ROUTE 262,LLC.

EXISTING CONDITIONS PLAN

NYS ROUTE 262, TAX PARCEL 11.00-2-67

TOWN OF BYRON, GENESEE COUNTY NY

SCALE: 1" = 100'
CONTRACT No.: N/A
MJ PROJ. No.: 1660.01
DATE: 08/18/2022

C-100

File Name: \\ALGOL\cadd\MJ1660\1660.01 C-100 Existng.dwg (Layout: C-100)
Date: Thu, Oct 13, 2022 - 2:45 PM (Name: bpersaud)

SUBMITTAL / REVISIONS					
No.	DATE	DESCRIPTION	BY	REVIEWED BY:	DATE
1	10/14/2022	PLANNING BOARD SUBMISSION	BP	JMB	10/14/22

PROJ. MANAGER:	JMB
CHIEF DESIGNER:	DL
DESIGNED BY:	BP
DRAWN BY:	BP
CHECKED BY:	JMB

Engineering and Land Surveying, P.C.
1533 Crescent Road - Clifton Park, NY 12065

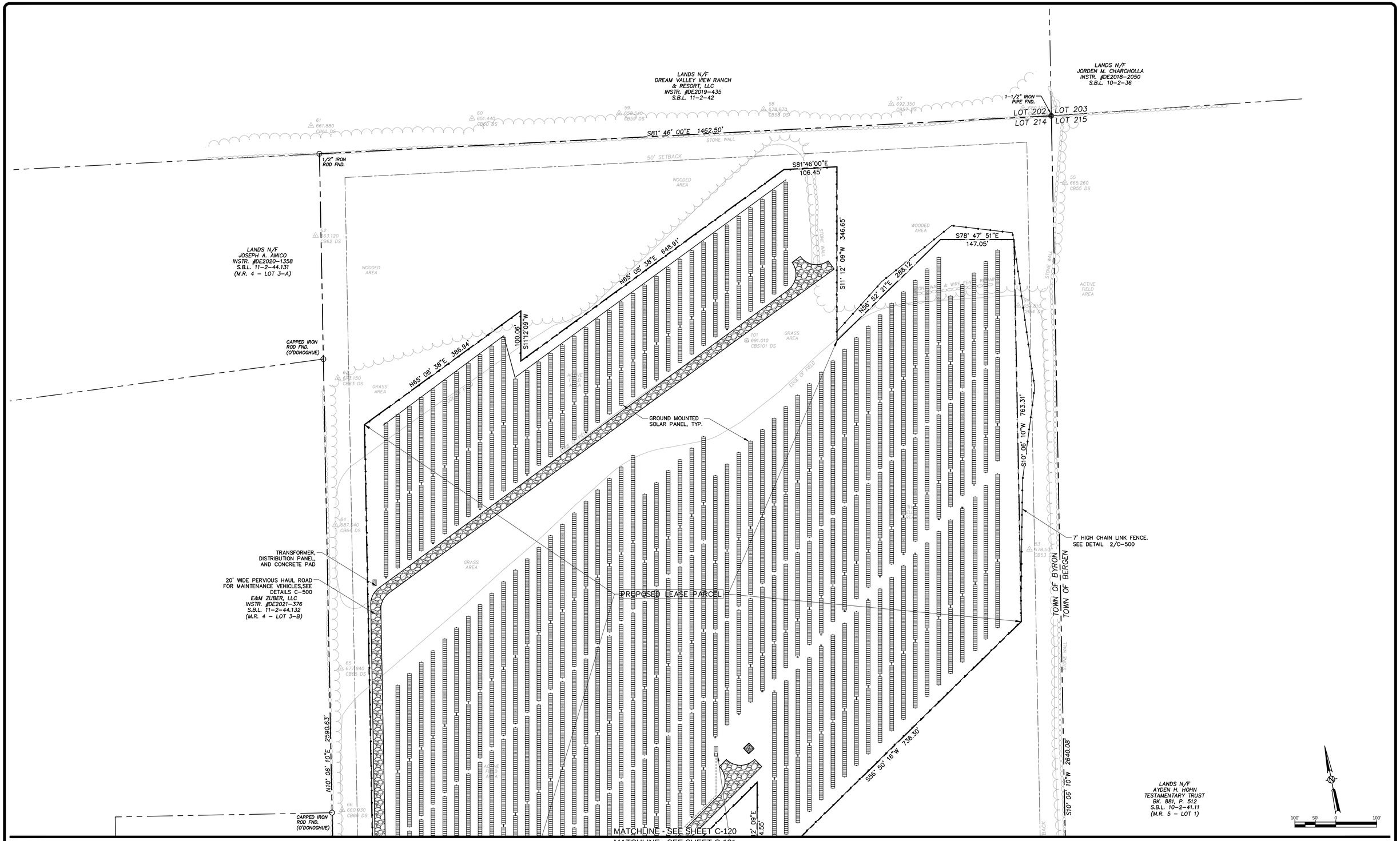
GSPP ROUTE 262,LLC.

EXISTING CONDITIONS PLAN

NYS ROUTE 262, TAX PARCEL 11.00-2-67
TOWN OF BYRON, GENESEE COUNTY NY

SCALE: 1" = 100'
CONTRACT No.: N/A
MJ PROJ. No.: 1660.01
DATE: 08/18/2022

C-101



SUBMITTAL / REVISIONS

No.	DATE	DESCRIPTION	BY	REVIEWED BY:	DATE
1	10/14/2022	PLANNING BOARD SUBMISSION	BP	JMB	10/14/22

PROJ. MANAGER:	JMB
CHIEF DESIGNER:	DL
DESIGNED BY:	BP
DRAWN BY:	BP
CHECKED BY:	JMB

Engineering and Land Surveying, P.C.
1533 Crescent Road - Clifton Park, NY 12065

GSPP ROUTE 262,LLC.

LAYOUT AND MATERIALS PLAN

NYS ROUTE 262, TAX PARCEL 11.00-2-67
TOWN OF BYRON, GENESEE COUNTY NY

SCALE: 1" = 100'
CONTRACT No.: N/A
MJ PROJ. No.: 1660.01
DATE: 08/18/2022

C-120

File Name: \\ALGOL\cadd\MJ1660\1660.01 C-120 Layout.dwg (Layout: C-120)
Date: Thu, Oct 13, 2022 - 2:46 PM (Name: bpersaud)

MATCHLINE - SEE SHEET C-120

MATCHLINE - SEE SHEET C-121

TRANSFORMER, DISTRIBUTION PANEL, AND CONCRETE PAD

N10° 06' 10"E 2028.59'

S56° 12' 09"W 800.80'

7' HIGH CHAIN LINK FENCE. SEE DETAIL 2/C-500

UNDER-GROUND ELECTRIC WIRING TO CONNECT SOLAR ARRAY TO TRANSFORMERS, TYP.

20' WIDE PERVIOUS HAUL ROAD FOR MAINTENANCE VEHICLES,SEE DETAILS 1/C-500

S48°34'27"W 6.50'

S40° 56' 44"W 279.44'

TRANSFORMER, DISTRIBUTION PANEL, AND CONCRETE PAD

S25°31'25"W 13.15'

ACCESS DRIVE

S10° 06' 10"W 505.59'

KNOX BOX INSTALLED ON 6"X6" WOOD POST (COORDINATE WITH FIRE DEPARTMENT)

RISER POLE WITH CUSTOMER DISCONNECT

RISER POLE METER

UTILITY OWNER DISCONNECT

UTILITY RECLOSER POLE

TRANSITION POLE W/ SOLID SWITCH

POINT OF INTERCONNECTION WITH UTILITY

N79° 49' 44"W 121.01'

N79° 49' 44"W 952.22'

P.O.B. LEASE PARCEL

N86°04'56"E 81.44'

LANDS N/F JOSEPH A. AMICO INSTR. #DE2020-1358 S.B.L. 11-2-44.133 (M.R. 4 - LOT 3-C)

LANDS N/F JAY P. MILLER & DEBORAH S. MILLER BK. 899, P. 374 S.B.L. 11-2-67 (M.R. 1)

LANDS N/F AMBER L. SANTOS INSTR. #DE2020-991 S.B.L. 11-2-44.12 (M.R. 3 & 4)

LANDS N/F AARON S. WEAVER & LINDSEY A. WEAVER BK. 899, P. 379 S.B.L. 11-2-68 (M.R. 2)

1" IRON PIPE FND.

1/2" IRON ROD FND.

S56° 34' 35"W 256.66'

N01° 12' 00"E 446.55'

S07° 36' 40"W 270.97'

2" IRON PIPE FND. (BENT)

CAPPED IRON ROD FND. (O'DONOGHUE)

N79° 49' 44"W 260.03'

BENCHMARK 1: "X" CUT @ NHOA ELEV.=684.71'

TOWNLINE ROAD (EBB ROAD) COUNTY ROAD 13 - ROUTE 262 (66' RIGHT OF WAY)

50' SETBACK

EDGE OF FIELD

ACTIVE FIELD AREA

LOT 214

LOT 215

STONE WALL

SILT FENCE

4' CHAINLINK FENCE

PROPANE TANK

1 STY WOOD FRAME HOUSE

2 STY WOOD FRAME HOUSE

GARAGE

SHED

GRASS AREA

LANDSCAPE AREA

MAILBOX

GRAVEL DRIVE

ASPHALT DRIVE

PAVED DRIVE

WELCOME TO BYRON

12" WATER MAIN (RECORD)

DEED LINE

WHITE LINE

BRUSH ROW

POLE NG7027

POLE NG7028 NYT59

POLE NG7040 NYT60

POLE NG7052 NYT61

POLE NG7064 NYT62

POLE NG6990 NYT56

POLE NG6978 NYT55

POLE NG7002 NYT57

POLE NG7016 NYT58

0 100' 50' 0 100'

SUBMITTAL / REVISIONS					
No.	DATE	DESCRIPTION	BY	REVIEWED BY:	DATE
1	10/14/2022	PLANNING BOARD SUBMISSION	BP	JMB	10/14/22

PROJ. MANAGER:	JMB
CHIEF DESIGNER:	DL
DESIGNED BY:	BP
DRAWN BY:	BP
CHECKED BY:	JMB

Engineering and Land Surveying, P.C.
1533 Crescent Road - Clifton Park, NY 12065

GSPP ROUTE 262,LLC.

LAYOUT AND MATERIALS PLAN

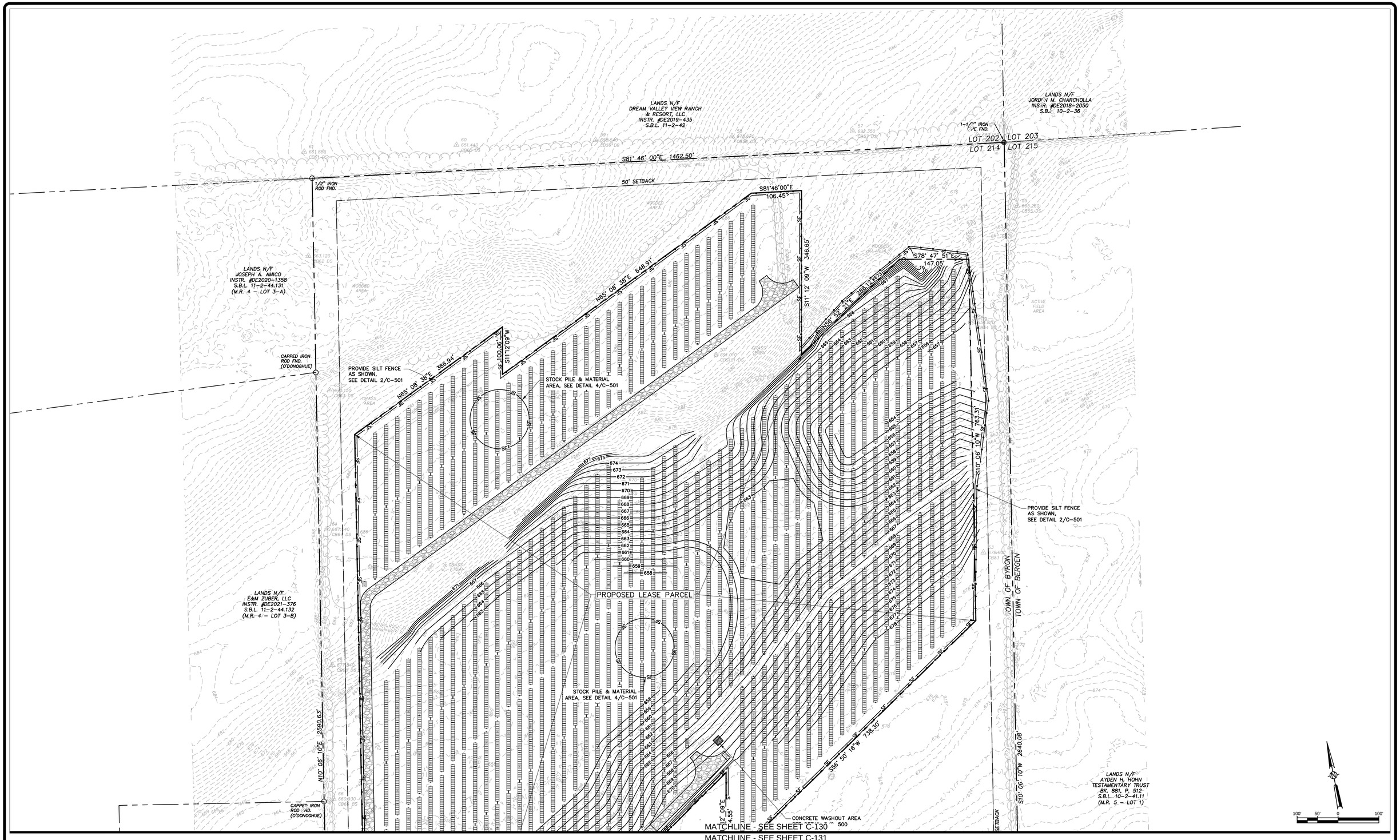
NYS ROUTE 262, TAX PARCEL 11.00-2-67

TOWN OF BYRON, GENESEE COUNTY NY

SCALE: 1" = 100'
CONTRACT No.: N/A
MJ PROJ. No.: 1660.01
DATE: 08/18/2022

C-121

File Name: \\ALGOL\cadd\MJ1660\1660.01 C-120 Layout.dwg (Layout: C-121)
Date: Thu, Oct 13, 2022 - 2:47 PM (Name: bpersaud)



SUBMITTAL / REVISIONS

No.	DATE	DESCRIPTION	BY	REVIEWED BY:	DATE
1	10/14/2022	PLANNING BOARD SUBMISSION	BP	JMB	10/14/22

PROJ. MANAGER:	JMB
CHIEF DESIGNER:	DL
DESIGNED BY:	BP
DRAWN BY:	BP
CHECKED BY:	JMB

Engineering and Land Surveying, P.C.
1533 Crescent Road - Clifton Park, NY 12065

GSPP ROUTE 262,LLC.
GRADING AND EROSION CONTROL PLAN

NYS ROUTE 262, TAX PARCEL 11.00-2-67
TOWN OF BYRON, GENESEE COUNTY NY

SCALE:	1" = 100'
CONTRACT No.:	N/A
MJ PROJ. No.:	1660.01
DATE:	08/18/2022

C-130

File Name: \\ALGOL\cadd\MJ1660\1660.01 C-130 Grading and Erosion Control Plan.dwg (Layout: C-130)
Date: Thu, Oct 13, 2022 - 3:17 PM (Name: bpersaud)

MATCHLINE - SEE SHEET C-130

MATCHLINE - SEE SHEET C-131

CAPPED IRON ROD FND. (O'DONOGHUE)

N10° 06' 10"E 2028.59'

50' SETBACK

LANDS N/F
JOSEPH A. AMICO
INSTR. #DE2020-1358
S.B.L. 11-2-44.133
(M.R. 4 – LOT 3-C)

S40° 56' 44"W 279.44'

S25°31'25"W
13.15'

S10° 06' 10"W 505.59'

S36° 12' 09"W 800.80'

PROVIDE SILT FENCE
AS SHOWN,
SEE DETAIL 2/C-501

S48°34'27"W
6.50'

LANDS N/F
JAY P. MILLER &
DEBORAH S. MILLER
BK. 899, P. 374
S.B.L. 11-2-67
(M.R. 1)

N11° 12' 00"E
194.55'

CONCRETE WASHOUT AREA
SEE DETAIL 3/C-500

50' SETBACK

LOT 214
LOT 215

(M.R. 5 – LOT 1)

ACTIVE FIELD AREA

1" IRON PIPE FND.

50' SETBACK

S58° 34' 35"W 256.66'

1" IRON PIPE FND.

1/2" IRON ROD FND.

LANDS N/F
AARON S. WEAVER &
LINDSEY A. WEAVER
BK. 899, P. 379
S.B.L. 11-2-68
(M.R. 2)

S07° 36' 40"W 270.91'

N01° 12' 00"E 446.55'

CAPPED IRON ROD FND. (O'DONOGHUE)

CAPPED IRON ROD FND. (O'DONOGHUE)

4' CHAINLINK FENCE

LANDS N/F
AMBER L. SANTOS
INSTR. #DE2020-991
S.B.L. 11-2-44.12
(M.R. 3 & 4)

PROPANE TANK

1 STY WOOD FRAME HOUSE

N86°04'56"E
81.44'

CAPPED IRON ROD FND. (O'DONOGHUE)

CAPPED IRON ROD FND. (O'DONOGHUE)

BENCHMARK
"X" CUT @ NHOA
ELEV.=684.71'

1" IRON PIPE FND.

PROVIDE STABILIZED
CONSTRUCTION ENTRANCE
SEE DETAIL 1/C-501

50' SETBACK

N79° 49' 44"W 952.22'

N79° 49' 44"W 121.01'

P.O.B. LEASE PARCEL

DEED LINE

2" IRON PIPE FND. (BENT)

CAPPED IRON ROD FND. (O'DONOGHUE)

N79° 49' 44"W 260.03'

CAPPED IRON ROD FND. (O'DONOGHUE)

CAPPED IRON ROD FND. (O'DONOGHUE)

TOWNLINE ROAD (EBB ROAD) COUNTY ROAD 13 - ROUTE 262
(66' RIGHT OF WAY)

100' 50' 0 100'

SUBMITTAL / REVISIONS					
No.	DATE	DESCRIPTION	BY	REVIEWED BY:	DATE
1	10/14/2022	PLANNING BOARD SUBMISSION	BP	JMB	10/14/22

PROJ. MANAGER:	JMB
CHIEF DESIGNER:	DL
DESIGNED BY:	BP
DRAWN BY:	BP
CHECKED BY:	JMB

Engineering and Land Surveying, P.C.
1533 Crescent Road - Clifton Park, NY 12065

GSPP ROUTE 262,LLC.

GRADING AND EROSION CONTROL PLAN

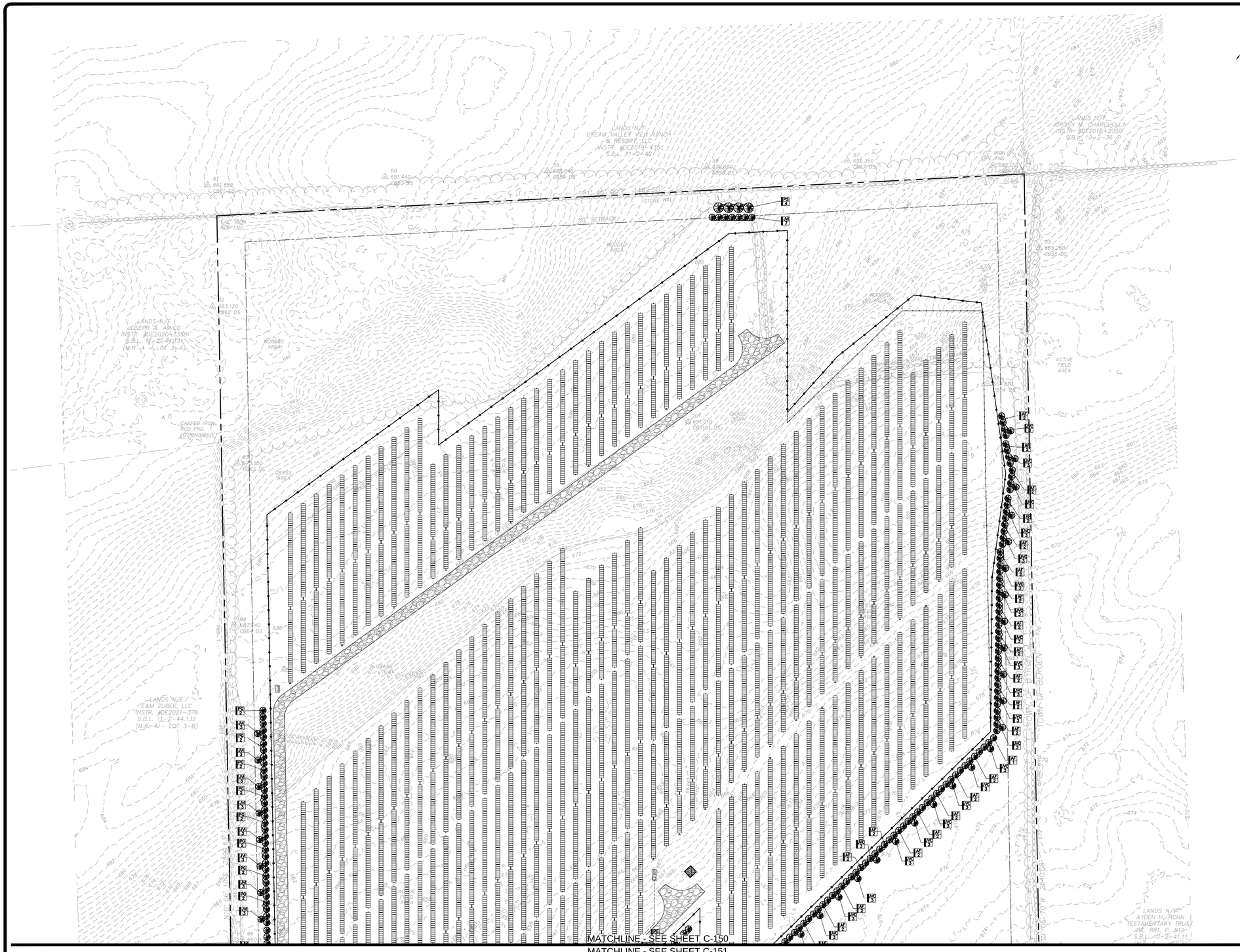
NYS ROUTE 262, TAX PARCEL 11.00-2-67

TOWN OF BYRON, GENESEE COUNTY NY

SCALE: 1" = 100'
CONTRACT No.: N/A
MJ PROJ. No.: 1660.01
DATE: 08/18/2022

C-131

File Name: \\ALGOL\cadd\MJ1660\1660.01 C-130 Grading and Erosion Control Plan.dwg (Layout: C-131)
Date: Thu, Oct 13, 2022 - 3:18 PM (Name: bpersaud)



LANDSCAPING LEGEND:

PLANT TYPE NUMBER OF PLANTS — LANDSCAPING TAG

GRASS MEADOW SEED MIX

EVERGREEN TREE

DECIDUOUS TREE

PLANTING SCHEDULE						
Type	**Abbrv.**	***Scientific Name***	**Common Name**	**Qty.**	**Size/Form**	**Spacing**
Trees:						
	AF	*Abies fraseri*	Fraser Fir	51	B&B, 6-8' Ht.	12' o.c.
	AR	*Acer rubrum'October Glory'*	October Glory Red Maple	2	B&B, 6-8' Ht., >1.5" Cal.	30' o.c.
	JVC	*Juniperus virginiana 'Canaertii'*	Canaertii Red Cedar	69	B&B, 6-8' Ht.	12' o.c.
	JVI	*Juniperus virginiana 'Idyllwild'*	Idyllwild Red Cedar	179	B&B, 6-8' Ht.	12' o.c.
	PA	*Picea abies*	Norway Spruce	15	B&B, 6-8' Ht.	18' o.c.
	PG	*Picea glauca*	White Spruce	98	B&B, 6-8' Ht.	12' o.c.
	PS	*Pinus strobus*	White Pine	4	B&B, 6-8' Ht.	18' o.c.
			Total	418		

PLANTING SCHEDULE NOTES:

1. PLANT QUANTITIES ARE FOR ALL LANDSCAPE SHEETS.
2. PLANT SUBSTITUTES MUST BE APPROVED BY LANDSCAPE ARCHITECT.
3. IN CASE OF DISCREPANCY BETWEEN PLANT QUANTITIES SHOWN ON DRAWING VERSUS IN THE PLANT SCHEDULE, THE QUANTITY SHOWN ON THE SCHEDULE SHALL BE USED.

LANDSCAPING NOTES:

1. ALL PLANTING AREAS TO RECEIVE TOPSOIL AND 3" OF HARDWOOD MULCH.
2. ALL DISTURBED GRASSED AREAS TO RECEIVE TOPSOIL, SEED AND STRAW MULCH, TO LIMITS OF PROJECT AREA.
3. SEED MIX: COMBINE ERNMX-129 "CONSERVATION SHADE MIX" SUPPLIED BY ERNST CONSERVATION SEEDS WITH REBEL, CHEWINGS AND/OR HARD FESCUE, SUPPLIED BY SEEDLAND.COM, AT AN OVERALL APPLICATION RATE OF 5 LBS./1,000 S.F. ADD DUTCH WHITE CLOVER AT A RATE OF 1 LB./5,000 S.F. APPLY AS ONE MIX THROUGHOUT SOLAR FIELD.

100' 50' 0 100'

SUBMITTAL / REVISIONS

No.	DATE	DESCRIPTION	BY	REVIEWED BY:	DATE
1	10/14/2022	PLANNING BOARD SUBMISSION	BP	JMB	10/14/22

PROJ. MANAGER:	JMB
CHIEF DESIGNER:	DL
DESIGNED BY:	BP
DRAWN BY:	BP
CHECKED BY:	JMB

Engineering and Land Surveying, P.C.
1533 Crescent Road - Clifton Park, NY 12065

GSPP ROUTE 262,LLC.

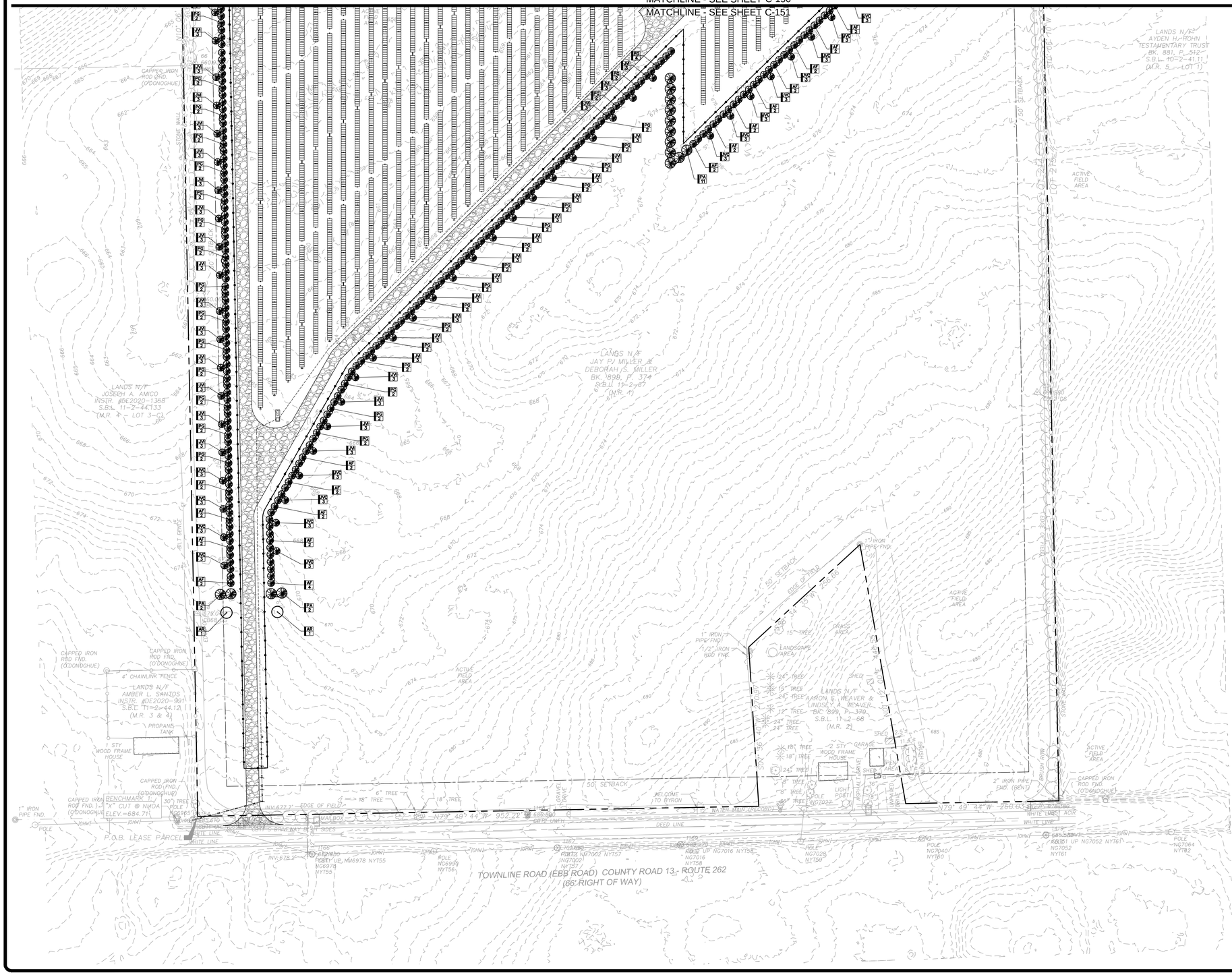
LANDSCAPE PLAN

NYS ROUTE 262, TAX PARCEL 11.00-2-67
TOWN OF BYRON, GENESEE COUNTY NY

SCALE: 1" = 100'
CONTRACT No.: N/A
MJ PROJ. No.: 1660.01
DATE: 08/18/2022

C-150

File Name: \\ALGOL\cadd\MJ1660\1660.01 C-150 Landscape.dwg (Layout: C-150)
Date: Thu, Oct 13, 2022 - 2:55 PM (Name: bpersaud)



LANDSCAPING LEGEND:

PLANT TYPE / NUMBER OF PLANTS — LANDSCAPING TAG

GRASS MEADOW SEED MIX

EVERGREEN TREE

DECIDUOUS TREE

PLANTING SCHEDULE

Type	Abbrv.	*Scientific Name*	Common Name	Qty.	Size/Form	Spacing
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	JVI	*Juniperus virginiana 'Idyllwild'*	Idyllwild Red Cedar	179	B&B, 6-8' Ht.	12' o.c.
	PA	*Picea abies*	Norway Spruce	15	B&B, 6-8' Ht.	18' o.c.
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3. IN CASE OF DISCREPANCY BETWEEN PLANT QUANTITIES SHOWN ON DRAWING VERSUS IN THE PLANT SCHEDULE, THE QUANTITY SHOWN ON THE SCHEDULE SHALL BE USED.

LANDSCAPING NOTES:

1. ALL PLANTING AREAS TO RECEIVE TOPSOIL AND 3" OF HARDWOOD MULCH.
2. ALL DISTURBED GRASSED AREAS TO RECEIVE TOPSOIL, SEED AND STRAW MULCH, TO LIMITS OF PROJECT AREA.
3. SEED MIX: COMBINE ERNMX-129 "CONSERVATION SHADE MIX" SUPPLIED BY ERNST CONSERVATION SEEDS WITH REBEL CHEWINGS AND/OR HARD FESCUE, SUPPLIED BY SEEDLAND.COM, AT AN OVERALL APPLICATION RATE OF 5 LBS./1,000 S.F. ADD DUTCH WHITE CLOVER AT A RATE OF 1 LB./5,000 S.F. APPLY AS ONE MIX THROUGHOUT SOLAR FIELD.

100' 50' 0 100'

SUBMITTAL / REVISIONS

No.	DATE	DESCRIPTION	BY	REVIEWED BY:	DATE
1	10/14/2022	PLANNING BOARD SUBMISSION	BP	JMB	10/14/22

PROJ. MANAGER:	JMB
CHIEF DESIGNER:	DL
DESIGNED BY:	BP
DRAWN BY:	BP
CHECKED BY:	JMB

Engineering and Land Surveying, P.C.
1533 Crescent Road - Clifton Park, NY 12065

GSPP ROUTE 262,LLC.

LANDSCAPING PLAN

NYS ROUTE 262, TAX PARCEL 11.00-2-67
TOWN OF BYRON, GENESEE COUNTY NY

SCALE: 1" = 100'
CONTRACT No.: N/A
MJ PROJ. No.: 1660.01
DATE: 08/18/2022

C-151

File Name: \\ALGOL\cadd\MJ1660\1660.01 C-150 Landscape.dwg (Layout: C-151)
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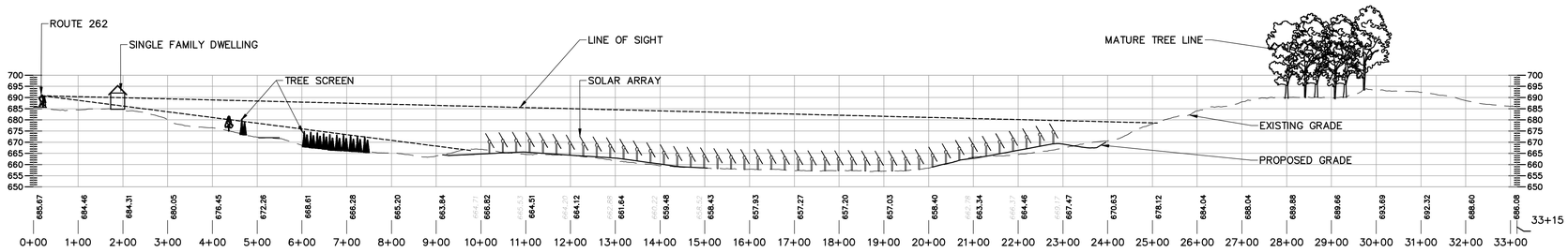
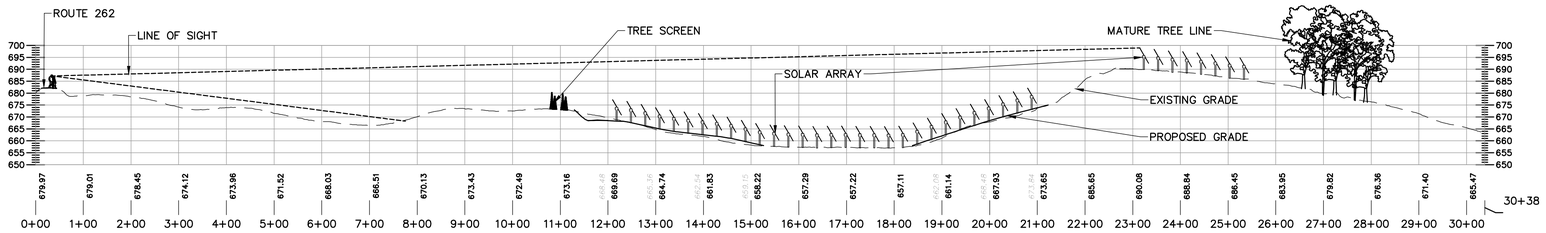
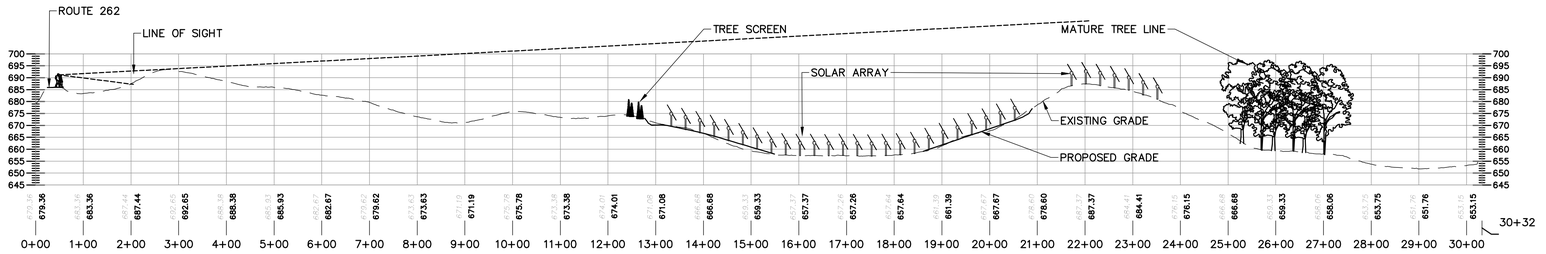


1 Section 1-1: "Southwest to Northeast View 1" (From Route 262 to Solar Array)
SCALE(HOR): 1" = 150'
SCALE(VERT): 1" = 30'



2 Section 2-2: "Southwest to Northeast View 2" (From Route 262 to Solar Array)
SCALE(HOR): 1" = 150'
SCALE(VERT): 1" = 30'



3 Section 3-3: "South to North View" (From Route 262 to Solar Array)
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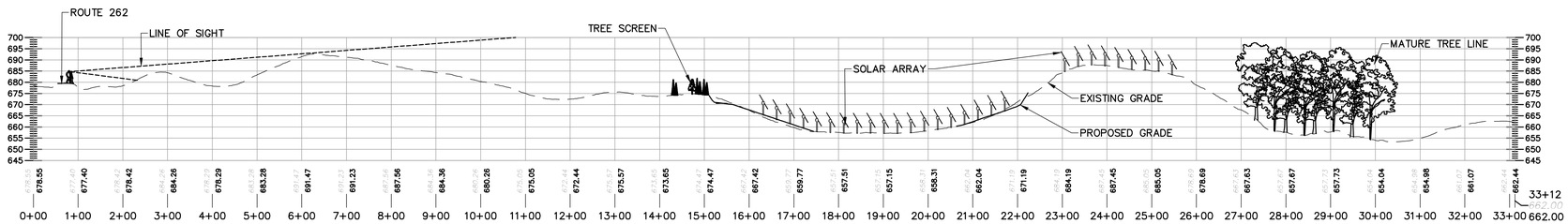
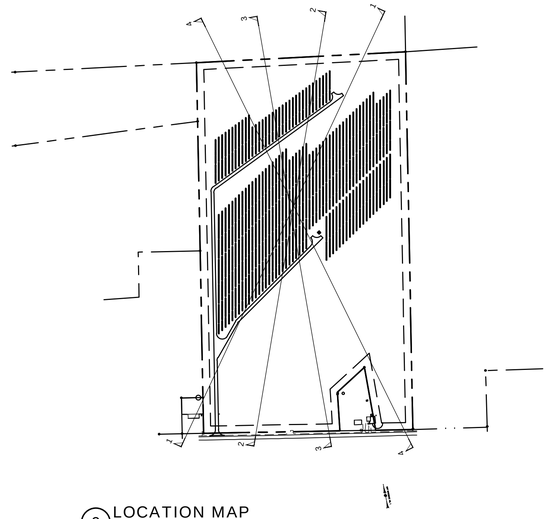
SCALE(VERT): 1" = 30'



4 Section 4-4: "Southeast to Northwest View" (From Route 262 to Solar Array)
SCALE(HOR): 1" = 150'
SCALE(VERT): 1" = 30'



0 LOCATION MAP
SCALE: 1" = 500'

SUBMITTAL / REVISIONS

No.	DATE	DESCRIPTION	BY	REVIEWED BY:	DATE

PROJ. MANAGER:	JMB
CHIEF DESIGNER:	DL
DESIGNED BY:	BP
DRAWN BY:	BP
CHECKED BY:	JMB

Engineering and Land Surveying, P.C.
1533 Crescent Road - Clifton Park, NY 12065

GSPP ROUTE 262,LLC.

VISUAL IMPACT STUDY

NYS ROUTE 262, TAX PARCEL 11.00-2-67
TOWN OF BYRON, GENESEE COUNTY NY

SCALE:	AS SHOWN
CONTRACT No.:	N/A
MJ PROJ. No.:	1660.01
DATE:	08/18/2022

C-200

File Name: \\ALGOL\cadd\MJ1660\1660.01 C-200 Visual Impact Study.dwg (Layout: C-200)
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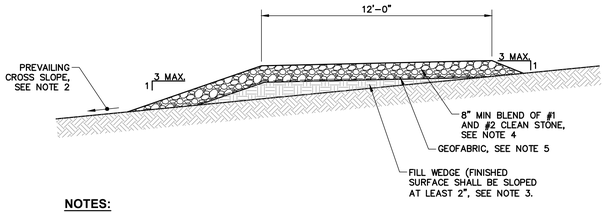
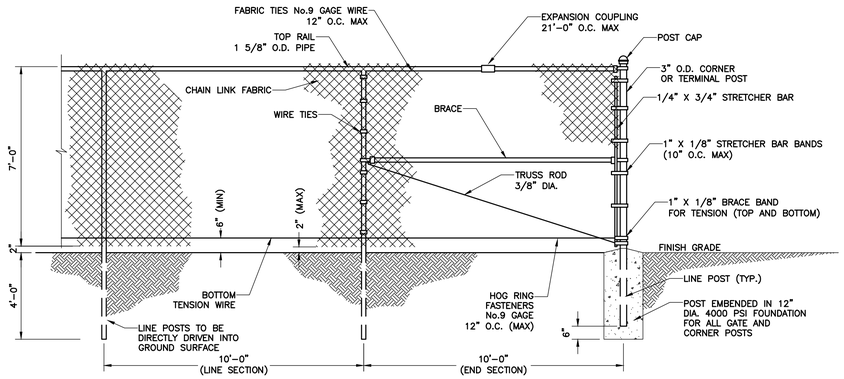


NOTES:

1. THIS HAUL ROAD DETAIL IS LIMITED TO CONSTRUCTION AND OCCASIONAL MAINTENANCE TRAFFIC FOR RENEWABLE ENERGY PROJECTS IN NEW YORK STATE. EMERGENCY VEHICLES CAN ACCESS THE SITE VIA HAUL ROAD ON AN AS NEEDED BASIS.
2. DESIGN LIMITATIONS
   - 2.1. ESAL – 10,000 LBS
   - 2.2. CLEAN STONE SHALL BE A MINIMUM OF 8" THICK
   - 2.3. CROSS SLOPE SHALL NOT EXCEED 5% RUNNING SLOPE AND RUNNING SLOPE SHALL NOT EXCEED 10%
3. CONSTRUCTION SPECIFICATIONS:
   - 3.1. IN AREAS OF NO EARTHWORK, THE ROAD SHALL BE INSTALLED ON UNCOMPACTED SURFACE GRADE. ALIGNMENT MAY BE MOWED BUT NOT GRUBBED. WHERE REQUIRED, A NATIVE SOIL FILL WEDGE, COMPACTED 80% MDD, MAY BE INSTALLED. FILL WEDGE SHALL BE SLOPED AT 2" MINIMUM TO SHED WATER.
   - 3.2. IN AREAS WITH BULK EARTHWORK, THE ROAD SHALL BE INSTALLED ON FINAL GRADE.
   - 3.3. THE HAUL ROAD SHALL NOT BE CONSTRUCTED ON NYSDOT SUBBASE MATERIAL.
4. THE HAUL ROAD SHALL BE CONSTRUCTED OF BLEND OF #1 AND #2 (2-1/2") CLEAN STONE. STONE MAY BE DEPOSITED AND SPREAD BY A TRACKED VEHICLE.
5. GEOFABRIC SHALL BE MIRAFI TENCATE RS 280I OR APPROVED EQUAL
6. CONSTRUCTION AND MAINTENANCE LIMITATIONS:
   - 6.1. THE #2 CLEAN STONE SHALL NOT BE COMPACTED WITH A VIBRATORY ROLLER, PLATE COMPACTOR OR OTHER MEANS.
   - 6.2. TOP DRESS ONLY WITH #2 CLEAN STONE.
   - 6.3. DO NOT OIL OR WATER BIND, SEAL COAT OR CHOCK STONE.
   - 6.4. DO NOT OVERLAY WITH CONCRETE, SEAL COAT, OR CHOCK STONE.
   - 6.5. DO NOT OVERLAY WITH CONCRETE, ASPHALT PAVEMENT, OR ANY MATERIAL THAT WILL CREATE AN IMPERVIOUS SURFACE.
7. REFER TO STORMWATER POLLUTION PREVENTION PLAN FOR ADDITIONAL INFORMATION.

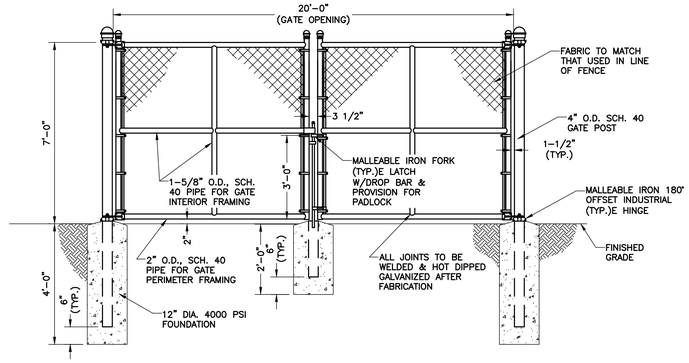
1 PERVIOUS HAUL ROAD DETAIL
SCALE: N.T.S.



NOTES:

1. PROVIDE BRACE & TRUSS RODS AT ALL CORNERS AND FENCE SECTIONS ADJACENT TO GATES.

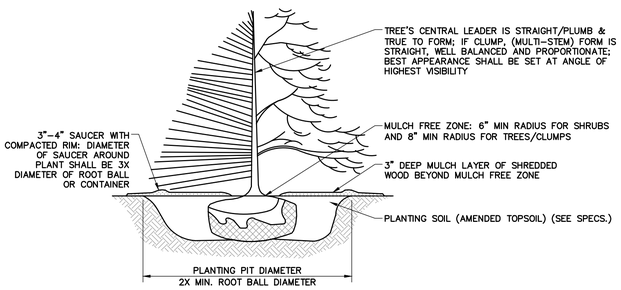
2 CHAIN LINK FENCE
SCALE: N.T.S.



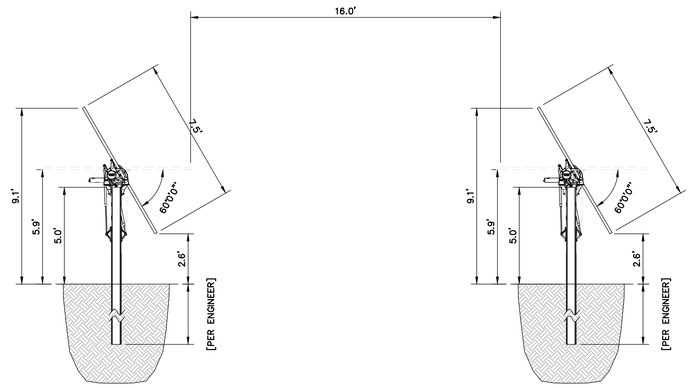
NOTES:

1. MISCELLANEOUS HARDWARE SIMILAR TO THAT USED IN LINE OF FENCE.
2. PROVIDE MECHANICAL KEEPER AT FULL OPEN POSITION FOR EACH LEAF OF 10' GATE.
3. SUBMIT SHOP DRAWINGS FOR APPROVAL.

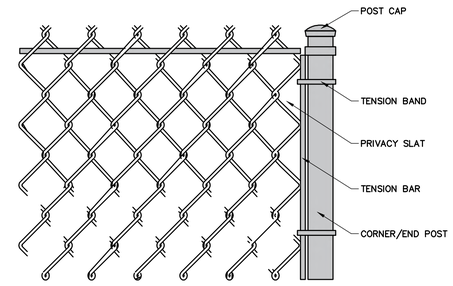
3 CHAIN LINK FENCE GATE
SCALE: N.T.S.



4 TREE PLANTING DETAIL
SCALE: NTS



5 TYPICAL TRACKING SOLAR PANEL
SCALE: N.T.S.



FRONT ELEVATION

NOTE:

1. FENCE PRIVACY SCREENING SHALL BE FENCESCREEN COMMERCIAL OPEN 600 SERIES, OR APPROVED EQUAL.

6 CHAIN LINK FENCE WITH PRIVACY SLATS
SCALE: N.T.S.

SUBMITTAL / REVISIONS

No.	DATE	DESCRIPTION	BY	REVIEWED BY:	DATE
1	10/14/2022	PLANNING BOARD SUBMISSION	BP	JMB	10/14/22

PROJ. MANAGER:	JMB
CHIEF DESIGNER:	DL
DESIGNED BY:	BP
DRAWN BY:	BP
CHECKED BY:	JMB

Engineering and Land Surveying, P.C.
1533 Crescent Road - Clifton Park, NY 12065

GSPP ROUTE 262,LLC.

CONSTRUCTION DETAILS

NYS ROUTE 262, TAX PARCEL 11.00-2-67
TOWN OF BYRON, GENESEE COUNTY NY

SCALE: AS SHOWN
CONTRACT No.: N/A
MJ PROJ. No.: 1660.01
DATE: 08/18/2022

C-500

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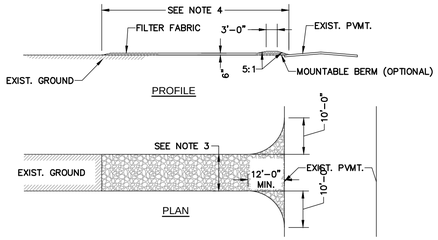
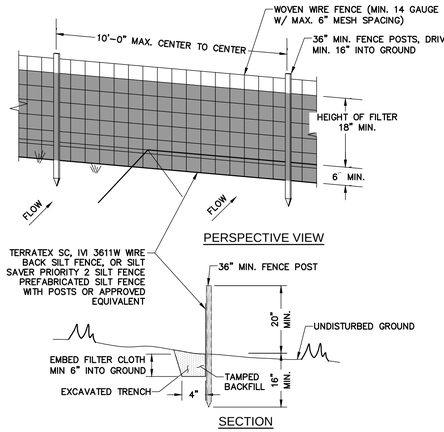
Date: Thu, Oct 13, 2022 - 2:48 PM (Name: bpersaud)



CONSTRUCTION ENTRANCE SPECIFICATIONS:

1. STONE SIZE – USE MIN 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. THICKNESS – NOT LESS THAN SIX (6) INCHES.
3. WIDTH – TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY FOUR (24) FEET IF SINGLE ENTRANCE TO SITE.
4. LENGTH – NOT LESS THAN FIFTY (50) FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A THIRTY (30) FOOT MINIMUM LENGTH WOULD APPLY).
5. FILTER FABRIC – WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER – ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE – THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WASHING – WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

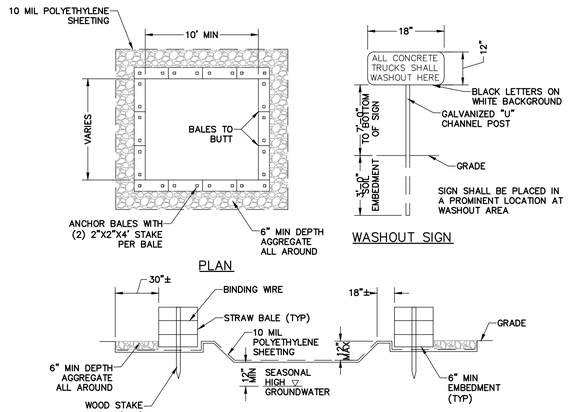
1 STABILIZED CONSTRUCTION ENTRANCE
SCALE: NTS



NOTES:

1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. POSTS SHALL BE STEEL "T" OR "U" TYPE OR HARDWOOD.
2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION. FENCE SHALL BE WOVEN WIRE, 6" MAX. MESH OPENING.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY 6" AND FOLDED.
4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIALS REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.
5. MAXIMUM DRAINAGE AREA FOR OVERLAND FLOW TO A SILT FENCE SHALL NOT EXCEED 1/4 ACRE PER 100 FEET OF FENCE.
6. SILT FENCE SHALL BE USED WHERE EROSION COULD OCCUR IN THE FORM OF SHEET EROSION.
7. SILT FENCE SHALL NOT BE USED WHEN A CONCENTRATION OF WATER IS FLOWING TO THE BARRIER.

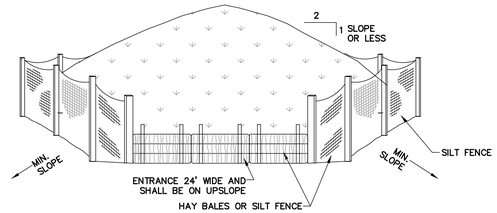
2 SILT FENCE INSTALLATION
SCALE: NTS



NOTES:

1. CONTAINMENT MUST BE STRUCTURALLY SOUND, LEAK FREE AND CONTAIN ALL LIQUID WASTES.
2. CONTAINMENT DEVICES MUST BE OF SUFFICIENT QUANTITY OR VOLUME TO COMPLETELY CONTAIN THE LIQUID WASTE GENERATED.
3. WASHOUT MUST BE CLEANED OR NEW FACILITIES CONSTRUCTED AND READY TO USE ONCE WASHOUT IS 75% FULL.
4. WASHOUT AREA(S) SHALL BE INSTALLED IN A LOCATION EASILY ACCESSIBLE BY CONCRETE TRUCKS.
5. ONE OR MORE AREAS MAY BE INSTALLED ON THE CONSTRUCTION SITE AND MAY BE RELOCATED AS CONSTRUCTION PROGRESSES.
6. AT LEAST WEEKLY REMOVE ACCUMULATION OF SAND AND AGGREGATE AND DISPOSE OF PROPERLY.

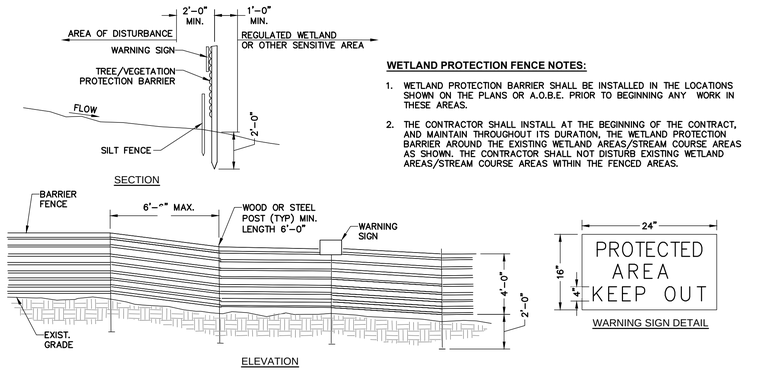
3 CONCRETE WASHOUT AREA
SCALE: NTS



NOTES:

1. AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
2. MAXIMUM SLOPE OF STOCKPILE SHALL BE 2 HORIZ ON 1 VERT.
3. UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE SURROUNDED WITH EITHER SILT FENCING OR HAY BALES, THEN STABILIZED WITH VEGETATION OR COVERED.

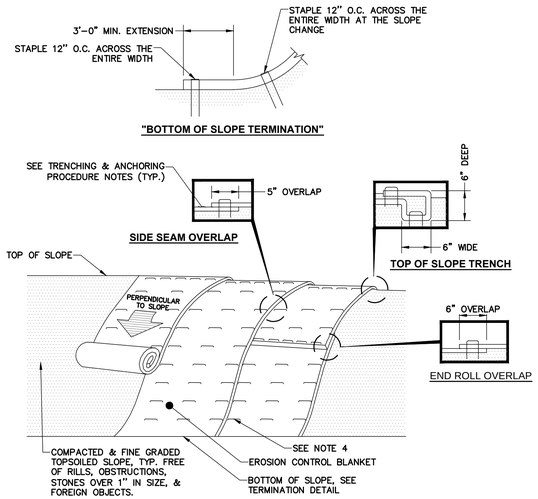
4 TEMPORARY SOIL STOCKPILE
SCALE: NTS



WETLAND PROTECTION FENCE NOTES:

1. WETLAND PROTECTION BARRIER SHALL BE INSTALLED IN THE LOCATIONS SHOWN ON THE PLANS OR A.O.B.E. PRIOR TO BEGINNING ANY WORK IN THESE AREAS.
2. THE CONTRACTOR SHALL INSTALL AT THE BEGINNING OF THE CONTRACT, AND MAINTAIN THROUGHOUT ITS DURATION, THE WETLAND PROTECTION BARRIER AROUND THE EXISTING WETLAND AREAS/STREAM COURSE AREAS AS SHOWN. THE CONTRACTOR SHALL NOT DISTURB EXISTING WETLAND AREAS/STREAM COURSE AREAS WITHIN THE FENCED AREAS.

5 ENVIRONMENTALLY SENSITIVE AREA PROTECTION FENCE
SCALE: NTS



GENERAL NOTES:

1. PREPARE THE TOPSOIL (SEEDBED) FIRST BY RAKING, SHAPING, FINE GRADING, COMPACTING, SEEDING & FERTILIZING THE SLOPES.
2. USE THE TRENCHING & ANCHORING PROCEDURES DETAILED HEREIN TO SECURE ANY EXPOSED MATERIAL ENDS. SECURE ALL PRODUCT OVERLAPS. OVERLAP IN THE DIRECTION OF WATER FLOW, PERPENDICULAR TO THE SLOPE.
3. KEEP EROSION CONTROL BLANKET IN SOLID CONTACT WITH THE TOPSOIL.
4. USE THE REQUIRED NUMBER OF STAPLES/STAKES TO SECURELY FASTEN THE EROSION CONTROL BLANKET TO THE SLOPE. IN LOOSE SOIL CONDITIONS, THE USE OF STAPLES/STAKES LENGTHS GREATER THAN 6" MAYBE NECESSARY FOR PROPER SECURING. STAPLE PATTERNS & OVERLAPS ARE DEPENDENT ON SITE CONDITIONS & MANUFACTURER'S REQUIREMENTS. CONTRACTOR SHALL CONSULT WITH MANUFACTURER FOR ACTUAL SITE SPECIFIC REQUIREMENTS.

TRENCHING & ANCHORING PROCEDURE NOTES:

SIDE SEAM OVERLAP: THE EDGES OF PARALLEL BLANKETS SHALL BE STAPLED WITH A 5" OVERLAP.

TOP OF SLOPE TRENCH: BEGIN AT THE TOP OF SLOPE BY ANCHORING THE EROSION CONTROL BLANKET IN A 6"D x 6"W TRENCH WITH A 12" OVERLAP EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR WITH A ROW OF STAPLES/STAKES 12" O.C. IN THE BOTTOM OF THE TRENCH. BACKFILL & COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO THE COMPACTED SOIL & FOLD THE REMAINING 12" PORTION OF THE EROSION CONTROL BLANKET BACK OVER THE SEED & COMPACTED SOIL. SECURE THE EROSION CONTROL BLANKET OVER THE COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED 12" O.C. ACROSS THE ENTIRE WIDTH.

END ROLL OVERLAP: CONSECUTIVE BLANKETS SPLICED DOWN THE SLOPE SHALL BE PLACED END OVER END (SHINGLE-STYLE) WITH A 6" OVERLAP. STAPLE THRU OVERLAPPED AREAS, 12" APART ACROSS THE ENTIRE WIDTH.

6 EROSION CONTROL BLANKET INSTALLATION
SCALE: NTS

SUBMITTAL / REVISIONS

No.	DATE	DESCRIPTION	BY	REVIEWED BY:	DATE
1	10/14/2022	PLANNING BOARD SUBMISSION	BP	JMB	10/14/22

PROJ. MANAGER:	JMB
CHIEF DESIGNER:	DL
DESIGNED BY:	BP
DRAWN BY:	BP
CHECKED BY:	JMB

Engineering and Land Surveying, P.C.
1533 Crescent Road - Clifton Park, NY 12065

GSPP ROUTE 262,LLC.

CONSTRUCTION DETAILS

NYS ROUTE 262, TAX PARCEL 11.00-2-67
TOWN OF BYRON, GENESEE COUNTY NY

SCALE: AS SHOWN
CONTRACT No.: N/A
MJ PROJ. No.: 1660.01
DATE: 08/18/2022

C-501

File Name: \\ALGOL\cadd\MJ1660\1660.01 C-500 Details.dwg (Layout: C-501)
Date: Thu, Oct 13, 2022 - 2:48 PM (Name: bpersaud)

T-01-BYR-11-22

03/23/2021

Storm Water Pollution Prevention Plan

for

Green Street Power
Ground Mounted Solar Array

6975 NYS Route 262/County Route 13
Tax ID 11.00-2-67
Town of Byron, NY

MJ Project No.: 1447.05

October 2022

Prepared For:

Green Street Power Partners, LLC
c/o Amanda Zurlo
1 Landmark Square, Suite 320
Stamford, CT 06901

Prepared By:

Engineering and
Land Surveying, P.C.
1533 Crescent Road, Clifton Park, NY 12065

PREPARER OF THE SWPPP

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person(s) who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that false statements made herein are punishable as a Class A misdemeanor pursuant to Section 29.45 of the Penal Law."

Signature: _____

Name[1]: Michael D. Panichelli, PE

Title: President, MJ Engineering and Land Surveying, P.C.

License No.: 074751

Date: Pending

[1] This is a signature of an officer of the corporation authorized in policy or decision-making functions of the corporation.

TABLE OF CONTENTS

TABLE OF CONTENTS (CONT'D)

APPENDICIES

1.0 EXECUTIVE SUMMARY

1.1 Storm Water Pollution Prevention Plan (SWPPP)

This Storm Water Pollution Prevention Plan (SWPPP) has been prepared for the construction of a 6.6 MW DC ground mounted solar array. The project is located at 6975 NYS Route 262/County Route 13 within the Town of Byron, Genesee County, New York.

This SWPPP has been developed in accordance with the "New York State Department of Environmental Conservation (NYSDEC) State Pollutant Discharge Elimination System (SPDES) General Permit for Storm Water Discharges from Construction Activity" General Permit Number ``GP-0-20-001, effective January 29, 2020 through January 28, 2025. This SWPPP and accompanying plans identify and detail storm water management (SWM), pollution prevention, and erosion and sediment control measures necessary during and following completion of construction.

This SWPPP and the accompanying plans (only those plans applicable to this report were included in this package) entitled "Site Plans for 6.6 MW DC Ground Mounted Solar Array" prepared by M.J. Engineering and Land Surveying, have been submitted as a set. These engineering drawings are considered an integral part of this SWPPP, therefore this SWPPP is not considered complete without them. References made herein to "the plans" or to a specific "sheet" refer to these drawings.

This report considers the impacts associated with the project for:

1. Maintaining existing drainage patterns to the maximum extent practicable, while continuing the conveyance of upland watershed runoff;
2. Controlling increases in the rate of storm water runoff resulting from the proposed development so as not to adversely alter downstream conditions; and
3. Mitigating potential storm water quality impacts and preventing soil erosion and sedimentation resulting from storm water runoff generated both during and after construction.

These objectives will be achieved by designing and implementing Best Management Practices (BMP's) to control potential pollutants in the runoff from the project site during and after construction.

1.2 Project Description

The project site is located on the northern side of NYS County Route 262 within the Town of Byron, New York (refer to Figure 1-1) and is identified as Tax Parcel 11.00-2-67. The overall parcel is 85.87 acres in size and the project area of planned development is approximately 36.52 acres in size.

The developer, GSPP Route 262, LLC is under contract to purchase the parcel upon receipt of local land use approvals to construct and operate the ground mounted solar array.

The general scope of work is to construct a 6.6 MW DC ground mounted solar array. This work will require the following general activities:

- Removal of trees and clearing of brush,
- Minor land grading where solar panels are being installed to provide a ground slope no greater than 15%,
- Installation of a pervious haul road for access,
- Installation of ground mounted solar arrays,
- Installation of both overhead and underground electric from the existing service at 6975 NYS County Route 262 into the site.
- Installation of a 7-foot high perimeter chain link fence for security.
- Topsoil, seeding and mulching of minor site grading activities.

During the construction phase, appropriate erosion and sediment control measures will be installed to prevent illicit discharges from leaving the site areas. This SWPPP provides discussions, plans, and calculations for the water quality and quantity control measures and the erosion and sediment controls for the project site.

The area of ground disturbance within the project site is estimated to be 36.52 acres. This includes disturbances for tree/shrub removal, installation of the haul road, electrical systems, fence, solar panels (driven posts foundations), new landscaping and land grading. Site disturbances will be phased and will not exceed 5-acres at any given time.

Figure 1-1
Project Location Map

The project is located entirely within the Town of Byron, on NYS Route 262, is bisected by a National Grid power line parcel, and will discharge to a Municipal Separate Storm Sewer System (MS4). Therefore, an MS4 Acceptance Form will be required.

Construction phase pollutant sources anticipated at the site may include disturbed (exposed) soil, vehicle fuels and lubricants, and chemicals/compounds associated with the facility construction. Without adequate control, there may be the potential for each type of pollutant to be transported by storm water.

Runoff from the project site is anticipated to be collected, stored, and conveyed in accordance with NYSDEC's regulations to the maximum extent practicable. Runoff from the project site will flow offsite to the south and west to adjacent properties and to a NYSDEC wetland identified as A-13. Runoff ultimately flows into the multiple freshwater ponds and rivers located within the project site.

1.3 Storm Water Pollution Controls

The proposed measures outlined in this plan have been designed to provide quality control by treating runoff prior to being discharge off site. These measures have been designed and evaluated in accordance with the following standards and guidelines:

- New York State Storm Water Management Design Manual (NYSSMDM) (January 2015);

- New York State Standards and Specifications for Erosion and Sediment Control (Blue Book) (November 2016); and,
- New York State Department of Environmental Conservation (NYSDEC) State Pollutant Discharge Elimination System (SPDES) General Permit Number GP-0-20-001, effective January 29, 2020 to January 28, 2025.

The project has been designed utilizing the criteria outlined in Chapters 4 and 6 of the New York State Storm Water Management Design Manual (NYSSMDM) and the NYSDEC Technical Memorandum dated April 5, 2018 entitled, "Solar Panel Construction Stormwater Permitting / SWPPP Guidance".

The NYSDEC considers solar panel projects design in accordance with criteria outlined in the April 5, 2018 technical memorandum to be "land clearing and grading for the purpose of creating vegetative open space" type projects as listed in Table 1, Appendix B of the NYSSMDM. The criteria that will be followed for this project include:

- Solar panels will be constructed on post or rack systems and elevated off the ground surface.
- The panels will be spaced so that rainwater can flow off the down-gradient side of the panel and continue as sheet flow across the ground surface.
- Panels that are constructed on slopes, the rows of panels will generally be installed along the contour to rainwater sheet flows down slope.
- The ground surface below the panels will consist of well-established vegetative cover.
- The construction will not alter the hydrology from pre- to post development condition as demonstrated through the hydrological assessment discussed in this report.

The design and construction of the ground mounted solar panels will meet all the above criteria but will include an access road and concrete pads for electrical equipment. The haul road will be constructed of material that the NYSDEC considered a pervious surface and therefore water quality and quantity controls are not necessary.

The runoff from the concrete transformer pads will be addressed by vegetated filter strips. These filter strips have been designed to meet the requirements provided in section 5.3.2 of the NYSDEC Stormwater Design Manual.

Pre- and post-development surface runoff rates have been evaluated for the 1, 10, and 100-year 24-hour storm event. Comparison of pre- and post-development watershed conditions demonstrates that the peak rate of runoff from the entire site will not increase when compared to the pre-development condition for all storm scenarios. Therefore, the project will not have an adverse impact on the adjacent and downstream properties or receiving water courses (refer to Table 6-5). Further discussions of the pre-development and post-development conditions are provided in Section 6 of this document.

The post-construction storm water management practice(s) will be owned by Active Solar Development II, LLC. Policies and procedures will be put in place to ensure operation and maintenance of the practice(s) in accordance the NYSSMDM and associated regulations.

1.4 Conclusion

This SWPPP has been prepared in conformance with the current NYS Standards and Specifications for Erosion and Sediment Control and NYS Stormwater Management Design Manual (NYSSMDM). As such, GP-0-20-001 coverage will be effective five (5) business days from the date the NYSDEC acknowledges the receipt of a complete electronically filed eNOI unless notified otherwise by the NYSDEC.

It is our opinion that the proposed re-development project that proposes an increase in impervious area will not adversely impact adjacent or downstream properties if the storm water management practices are implemented and maintained in accordance with the requirements outlined herein.

2.0 SWPPP RESPONSIBILITIES

To ensure compliance with the NYSDEC SPDES General Permit GP-0-20-001 conditions, a summary of the responsibilities and obligations of involved parties is outlined in the subsequent sections. For a complete listing of the definitions, responsibilities, and obligations, refer to the SPDES GP-0-20-001 as provided in Appendix A.

2.1 Owner's/Operator's Responsibilities

1. Retain the services of a "Qualified Professional" to provide the services outlined in Section 2.2 of this document, "Owner/Operator's Engineer's Responsibilities".
2. Retain the services of a "Qualified Inspector" to complete the inspection requirements as identified in Part IV.C of GP-0-20-001.
3. Obtain the MS4's Acceptance Sheet signed by the appropriate representative and upload it with the eNOI.
4. Have an authorized corporate officer complete and sign the Owner/Operator Certification form for the submission of an eNOI. A copy of the completed NOI is to be included in Appendix B.
5. Submit the eNOI online at my.ny.gov.
6. Pay the required initial and annual fees upon receipt of invoices from NYSDEC. These invoices are generally issued in the fall of each year. The initial fee is calculated as $100.00 per acre disturbed plus $600.00 per acre of net increase in impervious cover, and the annual fee is $100.00.
7. Prior to the commencement of construction activity, the Owner/Operator shall identify the contractor(s) and subcontractor(s) that will be responsible for implementing the erosion and sediment control measures and storm water management practices described in this SWPPP. Have each of these contractors and subcontractors identify at least one (1) "Trained Contractor" that will be responsible for the inspection of the erosion and sediment control practices and pollution prevention measures on a daily basis. Ensure that the Contractor has at least one (1) "Trained Contractor" on site on a daily basis when soil disturbance activities are being performed.
8. Schedule a pre-construction meeting, which shall include the Facility's representative, Owner's/Operator's Engineer, Contractor, and their sub-contractors to discuss responsibilities as they relate to the implementation of this SWPPP.
9. Require the Contractor to fully implement the SWPPP prepared for the site by the Owner/Operator's Engineer to ensure that the provisions of the SWPPP are implemented from the commencement of construction activity until areas of disturbance have achieved final stabilization and the Notice of Termination (NOT) has been submitted.
10. Forward a copy of the NOI Acknowledgement Letter received from the regulatory agency to the Owner's/Operator's Engineer for project records, and to the Contractor to maintain at the job site.
11. Maintain a copy of the General Permit (GP-0-20-001), NOI, NOI Acknowledgement Letter, SWPPP, inspection reports, Spill Prevention, Countermeasures, and Cleanup (SPCC) Plan, inspection records, and other required records on the job site so that they may be made available to the regulatory agencies.
12. Post at the site, in a publicly accessible location, a copy of the General Permit (GP-0-20-001), a signed copy of the NOI, the NOI Acknowledgement Letter, and on a monthly basis a summary of the site inspection activities.
13. Prepare a written summary of the project's status with respect to compliance with the general permit at a minimum frequency of every three (3) months during which coverage under the permit exists. The summary should address the status of achieving the overall goal of the SWPPP. The summary shall be maintained at the site in a publicly accessible location.

14. Prior to submitting a Notice of Termination (NOT), ensure post-construction storm water management practice(s) that are owned by a public or private institution (e.g. school, college, university), or government agency or authority, the Owner/Operator has policies and procedures in place that ensure operation and maintenance of the practice(s) in accordance with the operation and maintenance plan.

15. Submit a NOT form (see Appendix B) within 48 hours of receipt of the Owner's/Operator's Engineer's certification of final site stabilization to the address below and request acknowledgement of receipt from DEC.

    NOTICE OF TERMINATION
    NYS DEC, Bureau of Water Permits
    625 Broadway, 4th Floor
    Albany, New York 12233-3505

16. Request and receive SWPPP records from the Owner's/Operator's Engineer and archive those records for a minimum of five (5) years after the NOT is filed.

17. The NOI, SWPPP and inspection reports required by GP-0-20-001 are public documents that the Owner/Operator must make available for review and copying by persons within five (5) business days of the Owner/Operator receiving a written request by persons to review the NOI, SWPPP, or inspection reports. Copying of documents will be done at the requester's expense.

18. The Owner/Operator must keep the SWPPP current at all times. At a minimum, the Owner/Operator shall amend the SWPPP:

    a) Whenever the current provisions prove to be ineffective in minimizing pollutants in storm water discharges from the project site;

    b) Whenever there is a change in design, construction, or operation at the construction site that has or could have an effect on the discharge of pollutants; and

    c) To address issues or deficiencies identified during an inspection by the "qualified inspector" the NYSDEC or other Regulatory Authority.

2.2 Owner's/Operator's Engineers Responsibilities

1. Prepare the SWPPP using good engineering practices, best management practices, and in compliance with federal, state, and local regulatory requirements.

2. Prepare the Notice of Intent (NOI) form (see Appendix B) or eNOI, sign the "SWPPP Preparer Certification" section of the NOI, and forward to Owner/Operator for signature.

3. Prepare a construction Site Log Book to be used in maintaining a record of each inspection report generated throughout the duration of construction.

4. Participate in a pre-construction meeting with the Facility's MS4 representative (if applicable), Owner/Operator, Contractor, and their sub-contractors to discuss responsibilities as they relate to the implementation of this SWPPP.

5. Enter Contractor's information in Section 2.4 "SWPPP Participants" once a Contractor is selected by the Owner/Operator.

6. Identify at least one Qualified Inspector to conduct site inspections in conformance with Part IV.C of GP-0-20-001 to determine compliance with the SWPPP. Site inspections shall be completed by the Qualified Inspector and shall occur at an interval of at least once every seven (7) calendar days. A written inspection report shall be provided to the Owner/Operator and general contractor within one business day of the completion of the inspection, with deficiencies identified. A sample inspection form is provided in Appendix D.

7. Conduct an initial assessment of the site prior to the commencement of construction and certify in an inspection report that the appropriate erosion and sediment control measures described within this SWPPP have been adequately installed and implemented to ensure overall preparedness of the site.

8. Review the Contractor's SWPPP records on a periodic basis to ensure compliance with the requirements for daily reports, inspections, and maintenance logs.
9. Maintain the construction Site Log Book throughout the duration of construction.
10. The Qualified Inspector shall prepare an inspection report subsequent to each and every inspection and provide digital photographs of practices that have been identified as needing corrective actions. Inspection reports shall be signed by the Qualified Inspector.
11. The Qualified Inspector shall notify the Owner/Operator and appropriate Contractor within one (1) business day after the completion of an inspection with the corrective actions that need to be taken.
12. Update the SWPPP each time there is a significant modification to the pollution prevention measures or a change of the principal Contractor working on the project who may disturb site soil.
13. Based on the as-built conditions and material testing certifications performed by others, perform evaluations of the completed storm water management facilities to determine whether they were constructed in accordance with this SWPPP.
14. Conduct a final site assessment and prepare a certification letter to the Owner/Operator. The letter shall indicate that, upon review of the material testing and inspection reports prepared by the firm retained by the Owner/Operator, the storm water management facilities have been constructed substantially in accordance with the contract documents and should function as designed. The review shall include a topographic survey of the final site conditions and an evaluation of the completed storm water management facilities.
15. Prepare the Notice of Termination (NOT) located in Appendix B. The Qualified Inspector must sign the NOT Certifications VII (Final Stabilization) and VIII (Post-construction Storm Water Management Practices). The NOT shall be forward to the Owner/Operator for his signature on Certification IX (Owner/Operator Certification).
16. Transfer the SWPPP documents, along with NOI, permit certificates, NOT, construction Site Log Book, and written records required by the General Permit to the Owner/Operator for archiving.

2.3 Contractor's Responsibilities

1. Sign the SWPPP Contractor's Certification Form contained within Appendix C and forward to the Owner's/Operator's Engineer for inclusion in the Site Log Book.
2. Identify at least one Trained Contractor that will be responsible for implementation of this SWPPP. Ensure that at least one Trained Contractor is on site on a daily basis when soil disturbance activities are being performed. The Trained Contractor shall inspect the erosion and sediment control practices and pollution prevention measures being implemented within the active work area daily to ensure that they are being maintained in effective operating condition. If deficiencies are identified, the Contractor shall begin implementing corrective actions within one business day and shall complete the corrective actions in a reasonable time frame.
3. Provide the names and addresses of each subcontractor working on the project site. Require the subcontractors who will be involved with construction activities that will result in soil disturbance to identify at least one Trained Individual that will be on site on a daily basis when soil disturbance activities are being performed; and to sign a copy of the Contractor's Certification Form and forward to the Owner's/Operator's Engineer for inclusion into the Site Log Book. This information must be retained as part of the Site Log Book.
4. Create and maintain a Spill Prevention and Response Plan in accordance with requirements outlined in Section 5.4.4. of this SWPPP. This plan shall be provided to the Owner's/Operator's Engineer for inclusion in the Site Log Book.
5. Participate in a pre-construction meeting which shall include the Facility's representative, Owner/Operator, Owner's/Operator's Engineer, and sub-contractors to discuss responsibilities as they relate to the implementation of this SWPPP.
6. The Contractor shall submit appropriate documentation to the Owner's/Operator's Engineer if adjacent properties are to be used. Use of adjacent properties may include, but are not limited

to, material, waste, borrow, or equipment storage areas, or if Contractor plans to engage in industrial activity other than construction (such as operating asphalt and/or concrete plants) at the site, The SWPPP should be modified accordingly.

7. Implement site stabilization, erosion and sediment control measures, and other requirements of the SWPPP.

8. In accordance with the requirements in the most current version of the NYS Standards and Specifications for Erosion and Sediment Control, conduct inspections of erosion and sediment control measures installed at the site to ensure that they remain in effective operating condition. Prepare and retain written documentation of inspections as well as of repairs/maintenance activities performed. This information must be retained as part of the Site Log Book.

9. Maintain a record of the dates when major grading activities occur, when construction activities temporarily or permanently cease on a portion of the site, and when stabilization measures are initiated, until such time as the NOT is filed. A log for keeping such records is provided in Appendix E.

10. Begin implementing corrective actions within one business day of receipt of notification by the Qualified Inspector that deficiencies exist with the erosion and sedimentation control measures employed at the site. Corrective actions shall be completed within a reasonable time frame.

2.4 SWPPP Participants

1.	Owner's/Operator's Engineer:	Michael D. Panichelli, P.E., President MJ Engineering and Land Surveying 1533 Crescent Road Clifton Park, New York 12065 Phone: (518) 371-0799 Fax: (518) 371-0822
2.	Owner/Operator:	GSPP Route 262, LLC c/o Amando Zurlo 1 Landmark Square, Suite 320 Stamford, Conneticut 06901
3.	Contractor[2]:	Name and Title: _____ Company Name_____ Mailing Address:_____ Phone: _____ Fax: _____

[2] Contractor's information to be entered once the Contractor(s) have been selected.

3.0 SITE CHARACTERISTICS

3.1 Land Use and Topography

The overall parcel is 85.87 acres in size and is undeveloped with a combination of unkept fields with interspersed forested areas. The proposed development will occur on approximate 36.52 acres of the parcel which in the eastern portion of the parcel. The topography in the project site is moderately sloped to the north. Ground slopes ranging from 0 to 10% with discrete areas of steep slopes as high as 20% slopes.

3.2 Soils and Groundwater

Review of the National Resources Conservation Service (NRCS) Soil Survey Data indicates the project area is predominately comprised of Ontario Loams, of Hydrological Soil Group (HSG) Type B, Hilton silt loam, of HSG Type C/D, and Niagara silt loam, of HSG Type B/D. The soil survey for the project area is included in Appendix F. The Soil Conservation Service defines the HSGs as follows:

- Type A Soils: Soils having a high infiltration rate and low runoff potential when thoroughly wet. These soils consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a moderate rate of water transmission.

- Type B Soils: Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately course texture. These soils have a moderate rate of water transmission.

- Type C Soils: Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

- Type D Soils: Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist of chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

- Type B/D and C/D Soils: Soils assigned to a dual hydrologic soil group have soil characteristics that are represented by both classes. The first letter represents what the soils act like when they are drained and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

3.3 Watershed Designation

The project site is not located in a restricted watershed identified in Appendix C of GP-0-20-001.

3.4 Receiving Water Bodies

Storm water from the project site ultimately discharges into the Black Creek, outside the project site. Storm water is transmitted via overland flow and through existing storm water infrastructure. Mapping of the project site is included in Appendix F.

3.5 Aquifers

The project site is not located within a Primary or Principal Aquifer. Aquifer mapping for the project area is included in Appendix F.

3.6 Wetlands

3.6.1 Tidal Wetlands

Tidal wetlands are not located within or adjacent to the project area.

3.6.2 State Jurisdictional Wetlands (Article 24)

The NYSDEC Environmental Resources Mapper (ERM) was utilized to reviewed for freshwater wetlands within or adjacent to the project area. The ERM indicates that State Regulated Freshwater Wetlands or buffer zones are not located within the project site. A copy of data base mapping is included in Appendix F.

3.6.2 Federal Jurisdictional Wetlands (Article 404)

National Wetland Inventory (NWI) mapping for the project area was reviewed utilizing the online Wetlands Mapper provided by the U.S. Department of Interior, Fish and Wildlife Service. NWI jurisdictional wetlands are not located on the project site. A copy of this mapping is included in Appendix F.

3.7 Flood Plains

A review of the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) Panel 361139A, dated February 1, 1988 show the project site is not within an area of flooding. The flood zone mapping is in Appendix F.

3.8 Listed, Endangered, or Threatened Species

3.8.1 State Listing

According to the NYSDEC online Environmental Resource Mapper, there are rare plants or animals and significant natural communities within the proposed project area. The New York Natural Heritage Program (NYNHP) has no records of rare or state-listed animals or plants, or significant natural communities on or adjacent to the project site. Refer to Appendix F for additional information.

3.8.2 Federal Listing

The United States Department of the Interior Fish and Wildlife Service (USFWS) online IPaC system was used to determine the possible presence of threatened and endangered species and habitat areas. The USFWS website indicated that there are two threatened species, but no endangered species located on or near the project site.

The USFWS website indicated that there are no known critical habitats within this project area. Refer to Appendix F for additional information.

3.9 Cultural and Historic Resources

According to the New York State's Office of Parks, Recreation, and Historic Preservation Office (NYSOPRHP) Cultural Resource Information System (CRIS), the project site is not located on or adjacent to any mapped archeological sensitive areas. Refer to Appendix F for additional information.

3.10 Rainfall Data

Rainfall data utilized in the modeling and analysis was obtained from the Northeast Regional Climate Center's (NRCC) Extreme Precipitation in New York and New England interactive web tool for extreme precipitation analysis (precip.eas.cornell.edu). Rainfall data, for various 24-hour storm events, is presented in Table 3-3:

Table 3-3
Rainfall Quantity

Storm Event	24-Hour Rainfall (inches)
90% Rainfall	1.1
1-year	1.84
10-year	3.01

100-year	4.94

These values were used to evaluate the pre-development and post-development storm water runoff characteristics.

4.0 CONSTRUCTION SEQUENCE

An "Erosion and Sediment Control Plan" is included in Appendix K. It identifies the major construction activities that are subject of this SWPPP. An estimated order of major construction activities is included on the plans. This document is fluid and is subject to change in accordance with the contractor's work plan and subject to the Engineer of Record's review and approval. If the actual construction activity varies from that depicted on the plans, the contractor will be required to notify the Owner's/Operator's Engineer overseeing the implementation of the SWPPP.

The Contractor will be responsible for implementing the erosion and sediment control measures identified on the plans. The Contractor may designate these tasks to certain subcontractors as he sees fit, but the ultimate responsibility for implementing these controls and ensuring their proper function remains with the Contractor.

Accompanying plans for details and specifications regarding the construction sequencing schedule shall be provided as part of the final design.

5.0 CONSTRUCTION-PHASE POLLUTION CONTROL

The SWPPP and accompanying plans identify the temporary and permanent erosion and sediment control measures that have been incorporated into the design of this project. These measures will be implemented during construction, to minimize soil erosion and control sediment from transport off-site. During construction, the permanent measures are installed to control the quality and quantity of storm water runoff from the site.

The erosion control measures are designed to minimize soil loss and are intended to retain eroded soil and prevent it from reaching water bodies or adjoining properties. The erosion and sediment control measures have been developed in accordance with the following documents:

- NYSDEC SPDES General Permit for Storm Water Discharges from Construction Activity, Permit No. GP-0-20-001 (effective January 29, 2020 through January 28, 2025)
- New York State Standards and Specifications for Erosion and Sediment Control, NYSDEC (November 2016)

The SWPPP and accompanying plans outline the construction scheduling for implementing the erosion and sediment control measures. The SWPPP and accompanying plans also include limitations on the duration of soil exposure, criteria and specifications for placement and installation of the erosion and sediment control measures, a maintenance schedule, and specifications for the implementation of erosion and sediment control practices and procedures.

Temporary erosion and sediment control measures that shall be applied during construction generally include:

1. Minimizing soil erosion and sedimentation by stabilization of disturbed areas and by removing sediment from construction-site discharges.
2. Preservation of existing vegetation as much as practicable. Following the completion of construction activities in portion of the site, permanent vegetation shall be established on exposed soils.
3. Site preparation activities shall be planned to minimize the area and duration of soil disruption.
4. Permanent traffic corridors shall be established, and "routes of convenience" shall be avoided.

5.1 Temporary Erosion and Sediment Control Measures

The temporary erosion and sediment control measures described in the following sections will be included as part of the construction documents and are provided in Appendix K.

5.1.1 Stabilized Construction Entrance

Prior to construction activities commencing at the site, a stabilized construction entrance will be installed at the proposed vehicle traffic entrance and exit points to reduce the tracking of sediment onto the facility and public roadways.

Construction traffic must enter and exit the site at the stabilized construction entrance. The intent is to trap sediment that would otherwise be carried off-site by construction traffic.

The entrance shall be maintained in a condition which will control tracking of sediment onto the facility, public rights-of-way or streets. When necessary, the placement of additional aggregate atop the filter fabric will be done to assure the minimum thickness is maintained. Contractor shall maintain a stockpile of additional aggregate on site. Sediments and soils spilled, dropped, or washed onto the public rights-of-way must be removed immediately. Periodic inspection and needed maintenance shall be provided after each substantial rainfall event.

5.1.2 Dust Control

Water trucks shall be used as needed during construction to reduce dust generated on the site. Dust control must be provided by the Contractor to a degree that is acceptable to the Owner, and in compliance with the applicable local and state dust control requirements.

5.1.3 Temporary Soil Stockpile

Materials, such as topsoil and stone, will be temporarily stockpiled (if necessary) on the site during the construction process. Stockpiles shall be located in an area away from storm drainage, water bodies and/or courses. They will be properly protected from erosion by a surrounding silt fence barrier (or similar device) and a mulch layer (if it is a soil-based material).

5.1.4 Silt Fencing

Prior to the initiation of and during construction activities, a geotextile filter fabric, or silt fence, will be established along the areas of proposed earthwork. The provision of the silt fence will prevent/reduce sediment from migrating off the construction site and entering the drainage system. The silt fencing should be installed along the contours down slope of the proposed disturbed areas and in accordance with the NYSDEC Blue Book. The locations of silt fence installation are shown on the contract plans.

Clearing and grubbing will be performed only as necessary for the installation of the sediment control barrier. To facilitate effectiveness of the silt fencing, daily inspections and inspections immediately after significant storm events will be performed by site personnel. Maintenance of the fence will be performed as needed.

5.1.5 Temporary Seeding and Mulching

Areas undergoing clearing or grading and areas disturbed by construction activities where work has temporarily or permanently ceased shall be stabilized with temporary vegetative cover within seven (7) days from the date the soil disturbance activity ceased.

5.1.6 Winter Stabilization

For any land disturbance and exposure between November 15th and April 1st, enhanced erosion and sediment control will be completed. During winter months, a minimum 25-foot buffer will be maintained between the work zone and perimeter controls such as silt fence. The silt fence must be marked with tall stakes visible above the snow pack.

Drainage structures will be kept open and free of snow and ice dams. All debris, ice cams, or debris from plowing operations that restrict the flow of runoff will be removed.

When straw mulch alone is used for temporary stabilization, it will be applied at a minimum of 4 tons per acre (double the standard application rate).

To ensure adequate stabilization of disturbed soil in advance of a melt event, areas of disturbed soil will be stabilized at the end of each work day unless work will resume within 24-hours in the same area and no precipitation is forecast or the work is in disturbed areas that collect and retain runoff such as open utility trenches.

5.2 Permanent Erosion and Sediment Control Measures

The permanent erosion and sediment control measures described in the following sections are included as part of the construction documents.

5.2.1 Establishment of Permanent Vegetation

Disturbed areas that will be vegetated must be seeded in accordance with the contract documents. The type of seed, mulch, and maintenance measures as described in the contract documents shall also be followed. All areas at final grade must be seeded and mulched within seven (7) days after completion of the major construction activity. Seeded areas should be protected with mulch.

Final site stabilization is achieved when soil-disturbing activities at the site have been completed and a uniform, perennial vegetative cover with a density of 80 percent has been established or equivalent stabilization measures (such as the use of mulches or geotextiles) have been employed on unpaved areas and areas not covered by permanent structures.

5.2.2 Soil Restoration

Table 5-1 Soil Restoration Requirements (Table 5.3 of the NYSSMDM)			
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 ongoing construction activities
	Apply 6 inches of topsoil	Aerate* and apply 6 inches of topsoil	
Areas of cut or fill	HSG A &B	HSG C&D	
	Aerate and apply 6 inches of topsoil	Apply full soil restoration**	
Heavy traffic areas on site	Apply full soil restoration (de-compaction and compost enhancement)		
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 practices from 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.		

*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.
** Per "Deep Ripping and De-compaction, DEC 2008".

Soil restoration is a required practice applied across areas of a development site where soils have been disturbed and will be vegetated in order to recover the original properties and porosity of the soil. Healthy soil is vital to a sustainable environment and landscape. The contractor shall implement soil restoration practices in accordance with Section 5.1.6 and Table 5.3 of the NYSSMDM, shown in Table 5-1 of this Plan.

Soil restoration is a required practice applied across areas of a development site where soils have been disturbed. The area will be vegetated in order to recover the original properties and porosity of the soil. Healthy soil is vital to a sustainable environment and landscape. The contractor shall implement soil restoration practices in accordance with Section 5.1.6 and Table 5.3 of the NYSSMDM.

5.2.3 Rock Outlet Protection

Rock outlet protection should be placed at the outlet of the culverts, conduits, or channels to reduce the depth, velocity, and energy of the storm water in order to prevent erosion of the receiving downstream reach. Rock outlet protection cannot be utilized at pipe outlets at the top of cuts or on slopes steeper than 10 percent (10%).

The outlet protection may be composed of rock riprap. The rock material, size, thickness and apron size shall be determined and installed in accordance with the NYSDEC Blue Book.

5.3 Other Pollutant Controls

Control of sediments has been described previously. Other aspects of this SWPPP are listed below:

5.3.1 Solid and Liquid Waste Disposal

Solid or liquid waste materials, including building materials, shall not be discharged from the site with storm water. Solid waste, including disposable materials incidental to construction activities, must be collected and placed in containers. The containers shall be emptied periodically by a licensed waste transport service and hauled away from the site for disposal.

Substances that have the potential for polluting surface and/or groundwater must be controlled by whatever means necessary in order to ensure that they do not discharge from the site. As an example, special care must be exercised during equipment fueling and servicing operations. If a spill occurs, it must be contained and disposed of so that it will not flow from the site or enter groundwater, even if this requires removal, treatment, and disposal of soil. Spill reporting to the NYSDEC may be required per 17 New York Code, Rules and Regulations (NYCRR) 32.3 and 32.4, and the Environmental Conservation Law (ECL) 17-1743. In this regard, potentially polluting substances should be handled in a manner consistent with the impact they represent.

5.3.2 Sanitary Facilities

Temporary sanitary facilities will be provided by the Contractor throughout the construction phase. They must be utilized by construction personnel and will be serviced by a licensed commercial Contractor. These facilities must comply with state and local sanitary or septic system regulations.

5.3.3 Water Source

Non-storm water components of site discharge must be clean water. Water used for construction, which discharges from the site, must originate from a public water supply or private well approved by the Health Department. Water used for construction that does not originate from an approved public supply must not discharge from the site; such water may be retained on-site until it infiltrates and/or evaporates.

5.4 Construction Housekeeping Practices

During the construction phase, the General Contractor will implement the following measures:

5.4.1 Material Stockpiles

Material resulting from the clearing and grubbing operation or new material delivered to the site for future use will be stockpiled up slope of the grubbed areas. The stockpiles will have adequate sedimentation controls installed to prevent the migration of these sediments during rain events.

5.4.2 Equipment Cleaning and Maintenance

Equipment cleaning, maintenance, and repair is to be conducted off site as designated by the General Contractor. The General Contractor and Subcontractors will utilize those areas. The areas will be protected by a temporary perimeter berm.

5.4.3 Detergents

The use of detergents for large-scale washing is prohibited (i.e., vehicles, buildings, pavement surfaces, etc.).

5.4.4 Spill Prevention and Response

A Spill Prevention and Response Plan shall be developed for the site by the Contractor. The plan shall detail the steps needed to be followed in the event of an accidental spill and shall identify contact names and phone numbers of people and agencies that must be notified.

The plan shall include Safety Data Sheets (SDS) for materials to be stored on-site. Workers on-site will be required to be trained on safe handling and spill prevention procedures for the materials used during construction. Regular tailgate safety meetings shall be held and each worker that are expected on the site during the week shall be required to attend.

5.4.5 Concrete Wash Areas

Concrete trucks will be allowed to wash out or discharge surplus concrete or drum wash water on the site, but only in specifically designated diked and impervious washout areas. These areas will be prepared to prevent contact between the concrete wash and storm water. Waste generated from concrete wash water shall not be allowed to flow into drainage ways, inlets, receiving waters, highway right of ways, or location other than the designated Concrete Wash Areas. Proper signage designating the "Concrete Wash Areas" shall be placed near the facility. Concrete Wash Areas shall be located at minimum 100 linear feet from drainage ways, inlets and surface waters.

The hardened residue from the Concrete Wash Areas will be disposed of in the same manner as other non-hazardous construction waste materials. Maintenance of the wash area is to include removal of hardened concrete. The facility shall have sufficient volume to contain the concrete waste resulting from washout and a minimum freeboard of 12 inches. The facility shall not be filled beyond 95% capacity and shall be cleaned out once 75% full unless a new facility is constructed. The Contractor will be responsible for seeing that these procedures are followed.

Saw-cut Portland Cement Concrete (PCC) slurry shall not be allowed to enter storm drains or watercourses. Saw-cut residue should not be left on the surface of pavement or be allowed to flow over or off pavement.

The project may require the use of multiple Concrete Wash Areas. The Concrete Wash Areas will be located in an area where the likelihood of the area contributing to storm water discharges is negligible. If required, additional BMPs must be implemented to prevent concrete wastes from contributing to storm water discharges.

5.4.6 Material Storage

Construction materials shall be stored in a dedicated staging area. The staging area shall be located in an area that minimizes the impacts of the construction materials effecting storm water quality.

Chemicals, paints, solvents, fertilizers, and other toxic material must be stored in waterproof containers. Except during application, the contents must be kept in proper storage facilities. Runoff containing such material must be collected, removed from the site, treated, and disposed of at an approved solid waste or chemical disposal facility.

5.4.7 Protecting Vegetation During Construction

Protection of trees, shrubs, ground cover and other vegetation from damage by construction equipment is important to preserved existing vegetation determined to be important for soil erosion control, water quality protection, shade, screening, buffers, wildlife habitat, wetland protection and other values.

Soil placement over existing tree and shrub roots will be limited to a maximum of 3 inches. Lowering of grade will begin no closer than the dripline of the tree. For narrow-canopied trees and shrubs, the stem diameter in inches is converted to feet and doubled such that a 10-inch tree should be protected to 20 feet.

Construction of sturdy fences or barriers around valuable vegetation will be completed for protection from construction equipment.

6.0 POST-CONSTRUCTION STORMWATER CONTROLS

The goal of this Storm Water Management Plan is to analyze the peak rate of runoff under pre-development and post-development conditions, to maintain the pre-development rate of runoff to minimize impacts to adjacent or downstream properties, and to minimize the impact to the quality of runoff exiting the site.

The proposed project will require a SWPPP in which post-construction storm water management practices are necessary as the project will result in 0.014 acres of new impervious surfaces. The NYSSMDM details water quality and water quantity objectives to be met by projects requiring a SWPPP with post-construction storm water controls. These objectives will be met by applying storm water control practices to limit peak runoff rates and improve the quality of runoff leaving the developed site. The subsequent sections discuss the basis of design and regulatory requirements for the permanent storm water features associated with the proposed construction.

6.1 New Development and Redevelopment Justification

6.1.1 New Development Project Requirements

New development can result in changes to the runoff volume, flow rates, timing of runoff, and habitat destruction and degradation of receiving waterbodies. For construction projects that include new development, the stormwater management practices must be designed in accordance with Chapters 4 and 6 of the NYSSMDM, which are intended to aid in the reduction of stormwater effects from a newly developed area on downstream conditions.

The proposed ***new development*** conditions of the project result in an increase of approximately 0.014 acres of impervious coverage over the 85.87-acre parcel.

6.1.2 Redevelopment Project Definition and Requirements

The NYSSMDM defines a redevelopment activity as disturbance and reconstruction of existing impervious surfaces, including impervious surfaces that were removed within the last five (5) years. Redevelopment projects utilize alternate sizing and design criteria because of the need to connect to existing infrastructure at set elevations, surrounding land uses, underground facilities (including but not limited to utilities), previously disturbed and highly compacted soils, and contaminated soils which can dictate that standard designs would need to be modified and could escalate project costs. This leeway is provided for redevelopment projects to provide an opportunity for an applicant to reduce impervious coverage of the site, utilize existing infrastructure, resolve existing site issues, and reduce pollutant discharges into the community's storm water collection, conveyance, and treatment system.

Section 9 of the NYSSMDM recognizes that the redevelopment of previously developed sites is encouraged to protect watersheds as it often provides an opportunity to conserve natural resources in less impacted areas by targeting development to areas with existing services and infrastructure. In addition, redevelopment activities allow for correction of existing problems and reduce pollutant discharge from previously developed areas without effective storm water pollution controls.

The project has no work that would be considered redevelopment.

6.2 Storm Water Management Planning

The storm water practices listed in Section 6 of the NYSSMDM were reviewed for selection of SMPs to meet water quality treatment goals. The NYSDEC considers solar panel projects design in accordance with criteria outlined in the April 5, 2018 technical memorandum to be "land clearing and grading for the purpose of creating vegetative open space" type projects as listed in Table 1, Appendix B of the NYSSMDM. The criteria that will be followed for this project include:

- Solar panels will be constructed on post or rack systems and elevated off the ground surface.
- The panels will be spaced so that rain water can flow off the down-gradient side of the panel and continue as sheet flow across the ground surface.
- Panels that are constructed on slopes, the rows of panels will generally be installed along the contour to rainwater sheet flows down slope.
- The ground surface below the panels will consist of well-established vegetative cover.
- The construction will not alter the hydrology from pre- to post development condition as demonstrated through the hydrological assessment discussed in this report.

The design and construction of the ground mounted solar panels will meet all the above criteria but will include an access road and concrete pads for electrical equipment. The haul road will be constructed of material that the NYSDEC considered a pervious surface and therefore water quality and quantity controls are not necessary.

The proposed concrete pads associated with electrical equipment are the only impervious surfaces requiring water quality or quantity control measures.

The NYSSMDM includes a five-step process that involves site planning and SMP selection. The five (5) steps include:

- Site planning to preserve natural features and reduce impervious cover;
- Calculation of the Water Quality Volume (WQv) for the project area;
- Incorporation of runoff reduction techniques and Standard SMPs with Runoff Reduction Volume (RRv) capacity;
- Use of Standard SMPs where applicable, to treat the portion of WQv not addressed by runoff reduction techniques and Standard SMPs with RRv capacity; and
- Design of volume and peak rate control (where required).

Section 4.3 of the NYSSMDM states, "Runoff reduction shall be achieved by infiltration, groundwater recharge, reuse, recycle, evaporation/evapotranspiration of 100 percent of the post-development water quality volume to replicate pre-development hydrology by maintaining pre-construction infiltration, peak runoff flow, discharge volume, as well as minimizing concentrated flow by using runoff control techniques to provide treatment in a distributed manner before runoff reaches the collection system."

A storm water management plan must demonstrate that green infrastructure planning and design options were evaluated to meet the runoff reduction requirement. The NYSSMDM details acceptable runoff reduction techniques as follows:

Conservation of Natural Areas: Retain the pre-development hydrologic and water quality characteristics of undisturbed natural areas, stream and wetland buffers by restoring and/or permanently conserving these areas on site. This practice is not being utilized since the project area will be under a land lease and restrictive covenants can not be placed upon any portion of the project for the planned development.

Sheetflow to Riparian Buffers or Filter Strips: Undisturbed natural areas such as forested conservation areas and stream buffers or vegetated filter strips and riparian buffers can be used to treat and control storm water runoff from some areas of a development project. For the discrete impervious areas proposed which is limited to transformer equipment pads, filter strips will be implemented as an area reduction practice to achieve the necessary WQv and RRv.

Vegetated Open Swale: The natural drainage paths, or properly designed vegetated channels, can be used instead of constructing underground storm sewers or concrete open channels to increase time of concentration, reduce the peak discharge, and provide infiltration. This practice is not planned for this project.

Tree Planting/Tree Box: Plant or conserve trees to reduce storm water runoff, increase nutrient uptake, and provide bank stabilization. Trees can be used for applications such as landscaping, storm water management practice areas, conservation areas and erosion and sediment control. This practice is not planned for this project.

Disconnection of Rooftop Runoff: Rooftop runoff is collected and directed to storm water treatment systems on site. This practice is not utilized as no buildings are proposed as part of the project.

Stream Daylighting for Redevelopment Projects: Stream daylight previously-culverted/piped streams to restore natural habitats, better attenuate runoff by increasing the storage size, promoting infiltration, and help reduce pollutant loads. No previously culverted streams are present within the project limits, and therefore this practice cannot be utilized.

Rain Garden: Manage and treat small volumes of storm water runoff using a conditioned planting soil bed and planting materials to filter runoff stored within a shallow depression. This practice is not planned for this project.

Green Roof: Capture runoff by a layer of vegetation and soil installed on top of a conventional flat or sloped roof. The rooftop vegetation allows evaporation and evapotranspiration processes to reduce volume and discharge rate of runoff entering conveyance system. This practice is not utilized as no buildings are proposed as part of the project.

Storm water Planter: Small landscaped storm water treatment devices that can be designed as infiltration or filtering practices. Storm water planters use soil infiltration and biogeochemical processes to decrease storm water quantity and improve water quality. This practice is not planned for this project.

Rain Tank/Cistern: Capture and store storm water runoff to be used for irrigation systems or filtered and reused for non-contact activities. This practice is not planned for this project.

Porous Pavement: Pervious types of pavements that provide an alternative to conventional paved surfaces, designed to infiltrate rainfall through the surface, thereby reducing storm water runoff from a site and providing some pollutant uptake in the underlying soils. This practice is not planned for this project as no paved is proposed.

New development projects that cannot achieve 100% runoff reduction of the required Water Quality Volume (WQv), must at a minimum, reduce a percentage of the runoff from impervious areas to be constructed within the project area. The percent reduction is based on the HSG of the site and is determined by the Specific Reduction Factor (S). Table 6-1 lists the specific reduction factors for each HSG soil type:

Table 6-1
RRv Reduction by Soil Type

HSG Soil Type	Specific Reduction Factor (S)
A	0.55
B	0.40
C	0.30
D	0.20

6.3 Stormwater Management Practice (SMP) Selection

Storm water runoff from the project will be collected and conveyed to the storm water control system(s) described herein through a network of closed storm water conveyance systems and sheetflow. These practices were chosen to have the greatest benefit to the storm water management goals of the project considering site constraints and soil conditions.

Sheetflow to Riparian Buffers/Filter Strips (RR-2):
Undisturbed natural areas such as forested conservation areas and stream buffers or vegetated filter strips and riparian buffers can be used to treat and control storm water runoff from some areas of a development project. For the discrete impervious areas proposed which is limited to transformer equipment pads, filter strips will be implemented as an area reduction practice to achieve the necessary WQv and RRv.

6.4 Storm Water Quality Analysis

Storm water runoff from impervious surfaces is recognized as a potential significant contributor of pollution that can adversely affect the quality of receiving water bodies. Therefore, treatment of storm water runoff is important as most runoff related water quality contaminants are transported from land, particularly the impervious surfaces, during the initial stages of storm events.

6.4.1 NYSDEC Requirements - Water Quality Volume (WQv)

The NYSSMDM requires that water quality treatment be provided for the initial flush of runoff from every storm. The NYSDEC refers to the amount of runoff to be treated as the "Water Quality Volume" (WQv), which ensures that practices are sized to runoff generated from the entire 90th percentile rain event. This essentially means that a practice sized using the WQv will capture and treat 90% of all 24-hour rain events. Section 4.2 of the manual defines the Water Quality Volume for *new development* projects, which is directly related to the amount of impervious cover of a site, as follows:

$$WQv = \frac{[(P)(R_v)(A)]}{12}$$

Where:
WQv = Water quality volume (acre-feet)
P = 90% Rainfall Event (inches), obtained from Figure 4.1 in the NYSSMDM
Rv = 0.05 + 0.009 (I), where I is percent impervious cover
A = Contributing Area in Acres

The calculated WQv for the *new development* project area within the project boundary is 49 c.f. (0.00112 ac-ft).

No portions of the project site qualify as a redevelopment project.

The total WQv for the work is 49 c.f. (0.00112 ac-ft). Full calculations are included in Appendix K.

6.4.2 NYSDEC Requirements - Runoff Reduction Volume (RRv)

The equation below is used to determine the minimum RRv for *new development* projects. Although encouraged, meeting the RRv sizing criteria is not required for areas considered *redevelopment* activities.

$$RRv = \frac{[(P)(R_v *)(Ai)]}{12}$$

Where:
RRv = Minimum Runoff Reduction Volume (acre-feet)
P = 90% Rainfall Event (inches)
Rv* = 0.05 + 0.009(I), where I is 100% impervious
Ai = Impervious cover targeted for runoff reduction, and Ai = (S)(Aic)
S = Specific Runoff Reduction Factor (per HSG)
Aic = Total area of new impervious cover (acres)

The minimum RRv for the project, *with increased impervious area*, is calculated to be 10 c.f. (0.00023 ac-ft). Calculations for the minimum RRv are included in Appendix K.

6.4.3 *Project Specific WQv and RRv Approach*

The project proposes to utilize sheetflow to riparian buffers/filter strips to achieve 0.0002 ac-ft of runoff reduction (RRv). The total RRv reduces the full amount of WQv required to be treated. Table 6-2 below summarizes the required minimum WQv and RRv for the project. Refer to Table 6-4 on the following page for a summary of the RRv and WQv achieved by the stormwater management practices proposed.

Table 6-2
Calculated WQv & RRv Summary

Redevelopment WQv (ac-ft)	New Development WQv	Total Minimum WQv Required (ac-ft)	Minimum RRv Required (ac-ft)
0	**0.001 (ac-ft)** **49 (cf)**	**0.001(ac-ft)** **49 (cf)**	**0.0002 (ac-ft)** **10 (cf)**

Table 6-3 Water Quality Volume (WQv) and Runoff Reduction Volume (RRv) Summary			
Minimum WQv Required (ac-ft)	0.001	Green Street Power Partners, LLC NYS County Route 262, Byron	
Minimum RRv Required (ac-ft)	0.0002		
Provided Stormwater Management Practice (SMP) Capacities			
Area Reduction Practices	**DEC Ref. No.**	**RRv Provided (ac-ft)**	**WQv Provided (not reduced) (ac-ft)**
Conservation of Natural Areas	RR-1		
Sheetflow to Riparian Buffers/Filter Strips	RR-2	0.0002	0.001
Tree Planting/Tree Box	RR-3		
Disconnection of Rooftop Runoff	RR-4		
Green Infrastructure Runoff Reduction Techniques	**DEC Ref. No.**	**RRv Provided (ac-ft)**	**WQv Provided (not reduced) (ac-ft)**
Vegetated Swale	RR-5		
Rain Garden	RR-6		
Stormwater Planter	RR-7		
Rain Barrel/Cistern	RR-8		
Porous Pavement	RR-9		
Green Roof	RR-10		
Standard SMPs with Runoff Reduction Capacity	**DEC Ref. No.**	**RRv Provided (ac-ft)**	**WQv Provided (not reduced) (ac-ft)**
Infiltration Trench	I-1		
Infiltration Basins	I-2		
Dry Well	I-3		
Underground Infiltration System	I-5		
Bioretention & Infiltration Bioretention (total)	F-5		
Dry Swales (total)	O-2		
Standard SMPs	**DEC Ref. No.**	**RRv Provided (ac-ft)**	**WQv Provided (not reduced) (ac-ft)**
Micropool Extended Detention	P-1		
Wet Pond – The Water Hole (existing)	P-2		
Wet Extended Detention	P-3		
Multiple Pond System	P-4		
Pocket Pond	P-5		
Surface Sand Filter	F-1		
Underground Sand Filter	F-2		
Perimeter Sand Filter	F-3		
Organic Filter	F-4		
Shallow Wetland	W-1		
Extended Detention Wetland	W-2		
Pond/Wetland System	W-3		
Pocket Wetland	W-4		
Wet Swale	O-2		
Sum of SMPs		**RRv Provided (ac-ft)**	**WQv Provided (not reduced) (ac-ft)**
Total Provided		0.0002	0.001
Total Sum of RRv and WQv Provided		**0.001**	

6.4.4 Water Quality Performance Summary

Table 6-4 below summarizes the contributing area, impervious cover, runoff reduction and water quality treatment methods proposed. With the proposed water quality control and runoff reduction practices, the NYS water quality requirements have been met. The proposed project plans to reduce the WQv through RRv practices. Therefore, we conclude that the project should not have a significant adverse impact on the quality of the receiving waters.

Table 6-4
Summary of WQv Practices

Design Point	SWM Practice	NYSDEC Ref. No.	Contributing Drainage Area (ac)	Contributing Impervious Area (ac)	RRv Provided	Treated WQv (not reduced)
1	Sheetflow to Riparian Buffers/Filter Strips	RR-2	0.01 ac 600 sf	0.01 ac 600 sf	10 cf 0.0002 af	39 cf 0.0008 af
		Total Provided RRv + WQv			49 cf 0.001af	

6.5 Storm Water Quantity Analysis

This report presents the pre-development and post-development features and conditions associated with the rate of surface water runoff within the study area. For both cases, the drainage patterns, drainage structures, soil types, and ground cover types are considered in this study.

6.1.1 NYSDEC Requirements

The NYSSMDM requires that projects meet three separate stormwater quantity criteria:

5. The Channel Protection (CPv) requirement is designed to protect stream channels from erosion. This is accomplished by providing 24 hours of extended detention for the 1-year, 24-hour storm event. The NYSSMDM defines the CPv detention time as the center of mass detention time through each stormwater management practice.
6. The Overbank Flood Control (Qp) requirement is designed to prevent an increase in the frequency and magnitude of flow events that exceed the bank-full capacity of a channel, and therefore must spill over into the floodplain. This is accomplished by providing detention storage to ensure that, at each design point, the post-development 10-year 24-hour peak discharge rate does not exceed the corresponding pre-development rate.
7. The Extreme Flood Control (Qf) requirement is designed to prevent the increased risk of flood damage from large storm events, to maintain the boundaries of the pre-development 100-year floodplain, and to protect the physical integrity of stormwater management practices. This is accomplished by providing detention storage to ensure that, at each design point, the post-development 100-year 24-hour peak discharge rate does not exceed the corresponding pre-development rate.

6.1.2 Methodology

In order to demonstrate that detention storage requirements are being met, the NYSSMDM requires that a hydrologic and hydraulic analysis of the pre-development and post-development conditions be performed using the Natural Resources Conservation Service Technical Release 20 (TR-20) and Technical Release 55 (TR-55) methodologies. HydroCAD, developed by HydroCAD Software Solutions LLC of Tamworth, New Hampshire, is a Computer-Aided-Design (CAD) program for analyzing the hydrologic and hydraulic characteristics of a given watershed and associated stormwater management facilities. HydroCAD uses the TR-20 algorithms and TR-55 methods to create and route runoff hydrographs.

HydroCAD has the capability of computing hydrographs (which represent discharge rates characteristic of specified watershed conditions, precipitation, and geologic factors) combining

hydrographs and routing flows though pipes, streams and ponds. HydroCAD can also calculate the center of mass detention time for various hydraulic features. Documentation for HydroCAD can be found on their website: http://www.hydrocad.net/.

For this analysis, the watershed and drainage system was broken down into a network consisting of four (4) types of components as described below:

8. Subcatchment: A relatively homogeneous area of land, which produces a volume and rate of runoff unique to that area.
9. Reach: Uniform streams, channels, or pipes that convey stormwater from one point to another.
10. Pond: Natural or man-made impoundment, which temporarily stores stormwater runoff and empties in a manner determined by its geometry and the hydraulic structure located at its outlets. Catch basins and manholes are also modeled as a pond, but do not have associated storage volumes.
11. Link: A multi-purpose mechanism used to introduce a hydrograph from another file.

Subcatchments, reaches, ponds and links are represented by hexagons, squares, triangles, and broken boxes respectively, on the watershed routing diagrams provided with the computations included for pre-development and post-development conditions in Appendix H and Appendix I, respectively.

The analysis of hydrologic and hydraulic conditions of the pre-development and post-development of the site was performed by dividing the tributary watershed into relatively homogeneous subcatchments. The separation of the project area into subcatchments was dictated by watershed conditions, methods of collection, conveyance, points of discharge and topography. Watershed characteristics for each subcatchment were then assessed from United States Geological Service (USGS) 7.5-minute topographic maps, aerial photographs, a topographical survey, soil surveys, site investigations, and land use maps.

Proposed stormwater management facilities were designed and evaluated in accordance with the NYS Stormwater Management Design Manual and local regulatory requirements. The hydrologic and hydraulic analysis considered the SCS, Type II 24-hour storm events identified in Table 6-5.

Table 6-5
Design Storm Events

Facility	24-Hour Storm Event
Stormwater Management Practices	1-year 10-year 100-year
Flood Conditions	100-year

6.5.3 Pre-development Watershed Conditions and Design Points

The project area encompasses approximately 36.5 acres of the 85.7-acre parcel. The total disturbance associated with the project is estimated to be approximately 36.5 acres. The parcel is undeveloped and is a combination of unkept fields with interspersed forested areas. The site drains towards the northeast.

In order to compare pre-development and post-development runoff conditions as a result of the proposed work, an unclassified stream was selected and defined as the Design Point (DP). Descriptions of the selected design point is provided as follows:

Design Point 1 (DP1)

Design Point 1 is an offsite creek. The location of DP1 is identified in the maps provided in Appendices H and I.

The Pre-Development Watershed Delineation Maps have been provided in Appendix H. The results of the computer modeling used to analyze the overall watershed under pre-development conditions are presented in Appendix H. A summary of the pre-development watershed runoff rates at each design point is presented in Table 6-7.

6.5.4 Post-development Watershed Conditions

The hydrology of the post-development project site will not substantially change from the existing conditions. Site disturbances will be limited to tree clearing, discrete land grading, installation of underground utilities, solar arrays, exterior fence, miscellaneous electrical equipment / pads and haul road. Areas where tree removal and grading will be stabilized with seed mix to replicate predevelopment runoff conditions. The haul road utilized material to classified it as a pervious surface. The only increases in impervious surfaces will be associated with electrical equipment pads.

This stormwater management practice has been designed to provide quantity controls by attenuating stormwater runoff and releasing runoff that cannot be infiltrated to off-site locations at a rate equal to or less than that which existed prior to development of the site. The results of the computer modeling used to analyze the overall watershed under post-development conditions are presented in Appendix I. A summary of the post-development watershed runoff rates at the design point is presented in Table 6-7.

6.5.5 Water Quantity Performance Summary

A comparison of the pre- and post-development watershed conditions for the project was performed for the design point and storm events evaluated herein. For the total site discharge rates, this comparison demonstrates that the peak rate of runoff will not be increased. Therefore, the project should not have a significant adverse impact on the adjacent or downstream properties or receiving water courses.

The results of the computer modeling used to analyze the pre- and post-development watersheds are presented in Appendix H and Appendix I, respectively. Table 6-6 summarizes the results of this analysis.

Table 6-6
Summary of Pre-Development and Post-Development Peak Discharge Rates at Outlets (cfs)

Design Points (DP)	Description	1-year 24 Hour Event (CPv)		10-year 24 Hour Event (Qp)		100-year 24 Hour Event (Qf)	
		Pre-	Post-	Pre-	Post-	Pre-	Post-
1	Offsite Creek	34.62	32.14	72.46	67.27	135.28	125.68

7.0 INSPECTIONS, MAINTENANCE, AND REPORTING

7.1 Inspection and Maintenance Requirements

7.1.1 Pre-Construction Inspection and Certification

Prior to the commencement of construction, the Owner's/Operator's Engineer or the Qualified Inspector shall conduct an assessment of the site and certify that the appropriate erosion and sediment control measures have been adequately installed and implemented. The Contractor shall contact the Owner's/Operator's Engineer once the erosion and sediment control measures have been installed.

7.1.2 Construction Phase Inspections and Maintenance

A Qualified Inspector, as defined in Appendix A of the General Permit GP-0-20-001, shall conduct regular site inspections between the time this SWPPP is implemented and final site stabilization. Site inspections shall occur at an interval of one every seven (7) calendar days.

The purpose of site inspections is to assess performance of pollutant controls. Based on these inspections, the qualified inspector will decide whether it is necessary to modify this SWPPP, add or relocate sediment barriers, or whatever else may be needed in order to prevent pollutants from leaving the site via stormwater runoff. The general contractor has the duty to cause pollutant control measures to be repaired, modified, maintained, supplemented, or whatever else is necessary in order to achieve effective pollutant control.

Examples of particular items to evaluate during site inspections are listed below. This list is not intended to be comprehensive. During each inspection the inspector must evaluate overall pollutant control system performance as well as particular details of individual system components. Additional factors should be considered as appropriate to the circumstances.

1. Locations where vehicles enter and exit the site must be inspected for evidence of off-site sediment tracking. A stabilized construction entrance will be constructed where vehicles enter and exit. This entrance will be maintained or supplemented as necessary to prevent sediment from leaving the site on vehicles.
2. Sediment barriers must be inspected and, if necessary, they must be enlarged or cleaned in order to provide additional capacity. The material from behind sediment barriers will be stockpiled on the up slope side. Additional sediment barriers must be constructed as needed.
3. Inspections will evaluate disturbed areas and areas used for storing materials that are exposed to rainfall for evidence of, or the potential for, pollutants entering the drainage system. If necessary, the materials must be covered or original covers must be repaired or supplemented. Also, protective berms must be constructed, if needed, in order to contain runoff from material storage areas.
4. Grassed areas will be inspected to confirm that a healthy stand of grass is maintained. The site has achieved final stabilization once areas are covered with building foundation or pavement, or have a stand of grass with at least 80 percent density. The density of 80 percent or greater must be maintained to be considered as stabilized. Areas must be watered, fertilized, and reseeded as needed to achieve this goal.
5. All discharge points must be inspected to determine whether erosion control measures are effective in preventing significant impacts to receiving waters.

The inspection reports must be completed and additional remarks should be included if needed to fully describe a situation. An important aspect of the inspection report is the description of additional measures that need to be taken to enhance plan effectiveness. The inspection report must identify whether the site was in compliance with the SWPPP at the time of inspection and specifically identify incidents of non-compliance.

Within one (1) business day of the completion of an inspection, the qualified inspector shall notify the Owner/Operator and appropriate contractor (or subcontractor) of corrective actions that need to be taken. The contractor (or subcontractor) shall begin implementing corrective actions within one business day of this notification and shall complete the corrective actions in a reasonable time frame.

In addition to the inspections performed by the Qualified Inspector, the Trained Contractor, as defined in Appendix A of the General Permit GP-0-20-001, shall perform daily inspections that include a visual check of erosion and sediment practices and pollution prevention measures. Inspections and maintenance shall be performed in accordance with the inspection and maintenance schedule provided on the accompanying plans. Sediment removed from erosion and sediment control measures will be exported from the site, stockpiled for later use, or used immediately for general non-structural fill.

It is the responsibility of the general contractor to assure the adequacy of site pollutant discharge controls. Actual physical site conditions or contractor practices could make it necessary to install more structural controls than are shown on the accompanying plans. (For example, localized concentrations of runoff could make it necessary to install additional sediment barriers.) Assessing the need for additional controls and implementing them or adjusting existing controls will be a continuing aspect of this SWPPP until the site achieves final stabilization. Should the Trained Contractor or the Qualified Inspector determine that the measures provided at the site should be modified or new measures should be added, the owner or operator must promptly notify NYSDEC. Modifications to permanent stormwater facilities are not allowed during construction without the necessary Town/City, Owner, MS4, and/or NYSDEC approvals and project amendments; however, construction phase stormwater erosion and sediment controls are subject to modification if required by the responsible qualified professional. The contractor's failure to monitor or report deficiencies may result in a Notice of Violation (NOV) or formal enforcement from NYSDEC.

7.1.3 Temporary Suspension of Construction Activities

For construction sites where soil disturbance activities have been temporarily suspended (e.g. Winter Shutdown) and temporary stabilization measures have been applied to disturbed areas, the frequency of Qualified Inspector inspections can be reduced to once every 30 calendar days. Prior to reducing the frequency of inspections, the Owner/Operator shall notify the NYSDEC Region 4 stormwater contact in writing at the following address:

NYSDEC Region 4 Suboffice
1130 N Wescott Road
Schenectady, NY 12306
Phone: (518)357-2068

7.1.4 Partial Project Completion

For construction sites where soil disturbance activities have been shut down with partial project completion, areas disturbed as of the project shutdown date have achieved final stabilization, and post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational, the Qualified Inspector inspections can stop. Prior to the shutdown, the Owner/Operator shall notify the NYSDEC Region 7 stormwater contact person noted in Section 7.1.3 (above) in writing.

If soil disturbance activities have not resumed within two years from the date of shutdown, a Notice of Termination (NOT) shall be properly completed and submitted to the NYSDEC.

7.1.5 Post-Construction Inspection and Maintenance

Inspections and maintenance of post-construction stormwater management practices shall be performed in accordance with Appendix F, when disturbed areas are stabilized and stormwater management systems are in place and operable.

7.2 Reporting Requirements

7.2.1 Inspection and Maintenance Reports

Inspection/maintenance reports shall be prepared prior to and during construction in accordance with the schedule outlined herein and in the SPDES General Permit GP-0-20-001 Part IV.C.2. The reports shall be prepared to identify and document the maintenance of the erosion and sediment control measures. A sample inspection form is provided in Appendix D.

Specifically, each inspection shall record the following information:

1. Date and time of inspection.
2. Name and title of person(s) performing inspection.
3. A description of the weather and soil conditions (e.g. dry, wet, saturated) at the time of the inspection.
4. A description of the condition of the runoff at the points of discharge (including conveyance systems and overland flow) from the construction site. This shall include identification of discharges of sediment from the construction site.
5. A description of the condition of the natural surface water bodies located within, or immediately adjacent to the property boundaries of the construction site which receive runoff from disturbed areas. This shall include identification of discharges of sediment to the surface water body.
6. Identification of erosion and sediment control practices that need repair or maintenance.
7. Identification of erosion and sediment control practices that were not installed properly or are not functioning as designed and need to be reinstalled or repaired.
8. Description and sketch of areas that are disturbed at the time of the inspection and areas that have been stabilized (temporary and/or final) since the last inspection.
9. Current phase of construction of post-construction stormwater management practices and identification of construction that is not in conformance with the SWPPP and technical standards.
10. Corrective action(s) that must be taken to install, repair, replace or maintain erosion and sediment control practices; and to correct deficiencies identified with the construction of the post-construction stormwater management practice(s).
11. Digital photographs, with date and time stamp, which show the condition of practices that have been identified as needing corrective action or have undergone corrective action, must be attached to the associated inspection report.

7.2.2 Site Log Book

The Owner/Operator shall retain a copy of the SWPPP required by NYSDEC SPDES General Permit GP-0-20-001 at the construction-site from the date of initiation of construction activities to the date of final stabilization.

During construction, the Owner's/Operator's Engineer shall maintain a record of the SWPPP inspection reports at the site in the Site Log Book. The Site Log Book shall be maintained on-site and made available to the permitting authority.

7.2.3 Post Construction Records and Archiving

Following construction, the Owner/Operator shall retain copies of the SWPPP, the complete construction Site Log Book, and records of the data used to complete the NOI to be covered by this permit, for a period of at least five years from the date that the site is finally stabilized. This period may be extended by the NYSDEC, at its sole discretion, upon written notification.

Records shall be maintained for the post-construction inspections and maintenance work performed in accordance with the requirements outlined in Appendix F.

Appendix A

NYSDEC SPDES General Permit GP-0-20-001

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SPDES GENERAL PERMIT
FOR STORMWATER DISCHARGES

From

CONSTRUCTION ACTIVITY

Permit No. GP- 0-20-001

Issued Pursuant to Article 17, Titles 7, 8 and Article 70

of the Environmental Conservation Law

Effective Date: January 29, 2020

Expiration Date: January 28, 2025

John J. Ferguson

Chief Permit Administrator

1-23-20

Authorized Signature

Date

Address: NYS DEC
Division of Environmental Permits
625 Broadway, 4th Floor
Albany, N.Y. 12233-1750

PREFACE

Pursuant to Section 402 of the Clean Water Act ("CWA"), stormwater *discharges* from certain *construction activities* are unlawful unless they are authorized by a *National Pollutant Discharge Elimination System ("NPDES")* permit or by a state permit program. New York administers the approved State Pollutant Discharge Elimination System (SPDES) program with permits issued in accordance with the New York State Environmental Conservation Law (ECL) Article 17, Titles 7, 8 and Article 70.

An *owner or operator* of a *construction activity* that is eligible for coverage under this permit must obtain coverage prior to the *commencement of construction activity*. Activities that fit the definition of "*construction activity*", as defined under 40 CFR 122.26(b)(14)(x), (15)(i), and (15)(ii), constitute construction of a *point source* and therefore, pursuant to ECL section 17-0505 and 17-0701, the *owner or operator* must have coverage under a SPDES permit prior to *commencing construction activity*. The *owner or operator* cannot wait until there is an actual *discharge* from the *construction site* to obtain permit coverage.

***Note: The italicized words/phrases within this permit are defined in Appendix A.**

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
SPDES GENERAL PERMIT FOR STORMWATER DISCHARGES FROM CONSTRUCTION ACTIVITIES

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Part 1. PERMIT COVERAGE AND LIMITATIONS

A. Permit Application

This permit authorizes stormwater *discharges* to *surface waters of the State* from the following *construction activities* identified within 40 CFR Parts 122.26(b)(14)(x), 122.26(b)(15)(i) and 122.26(b)(15)(ii), provided all of the eligibility provisions of this permit are met:

1. *Construction activities* involving soil disturbances of one (1) or more acres; including disturbances of less than one acre that are part of a *larger common plan of development or sale* that will ultimately disturb one or more acres of land; excluding *routine maintenance activity* that is performed to maintain the original line and grade, hydraulic capacity or original purpose of a facility;

2. *Construction activities* involving soil disturbances of less than one (1) acre where the Department has determined that a *SPDES* permit is required for stormwater *discharges* based on the potential for contribution to a violation of a *water quality standard* or for significant contribution of *pollutants* to *surface waters of the State.*

3. *Construction activities* located in the watershed(s) identified in Appendix D that involve soil disturbances between five thousand (5,000) square feet and one (1) acre of land.

B. Effluent Limitations Applicable to Discharges from Construction Activities

*Discharge*s authorized by this permit must achieve, at a minimum, the effluent limitations in Part I.B.1. (a) – (f) of this permit. These limitations represent the degree of effluent reduction attainable by the application of best practicable technology currently available.

1. Erosion and Sediment Control Requirements - The *owner or operator* must select, design, install, implement and maintain control measures to *minimize* the *discharge* of *pollutants* and prevent a violation of the *water quality standards*. The selection, design, installation, implementation, and maintenance of these control measures must meet the non-numeric effluent limitations in Part I.B.1.(a) – (f) of this permit and be in accordance with the New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016, using sound engineering judgment. Where control measures are not designed in conformance with the design criteria included in the technical standard, the *owner or operator* must include in the *Stormwater Pollution Prevention Plan* (“SWPPP”) the reason(s) for the

deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.

a. **Erosion and Sediment Controls.** Design, install and maintain effective erosion and sediment controls to *minimize* the *discharge* of *pollutants* and prevent a violation of the *water quality standards*. At a minimum, such controls must be designed, installed and maintained to:

   (i) *Minimize* soil erosion through application of runoff control and soil stabilization control measure to *minimize pollutant discharge*s;

   (ii) Control stormwater *discharge*s, including both peak flowrates and total stormwater volume, to *minimize* channel and *streambank* erosion and scour in the immediate vicinity of the *discharge* points;

   (iii) *Minimize* the amount of soil exposed during *construction activity*;

   (iv) *Minimize* the disturbance of *steep slopes*;

   (v) *Minimize* sediment *discharge*s from the site;

   (vi) Provide and maintain *natural buffer*s around surface waters, direct stormwater to vegetated areas and maximize stormwater infiltration to reduce *pollutant discharge*s, unless *infeasible*;

   (vii) *Minimize* soil compaction. Minimizing soil compaction is not required where the intended function of a specific area of the site dictates that it be compacted;

   (viii) Unless *infeasible*, preserve a sufficient amount of topsoil to complete soil restoration and establish a uniform, dense vegetative cover; and

   (ix) *Minimize* dust. On areas of exposed soil, *minimize* dust through the appropriate application of water or other dust suppression techniques to control the generation of pollutants that could be discharged from the site.

b. **Soil Stabilization**. In areas where soil disturbance activity has temporarily or permanently ceased, the application of soil stabilization measures must be initiated by the end of the next business day and completed within fourteen (14) days from the date the current soil disturbance activity ceased. For construction sites that *directly discharge* to one of the 303(d) segments

listed in Appendix E or is located in one of the watersheds listed in Appendix C, the application of soil stabilization measures must be initiated by the end of the next business day and completed within seven (7) days from the date the current soil disturbance activity ceased. See Appendix A for definition of *Temporarily Ceased*.

c. **Dewatering**. *Discharge*s from *dewatering* activities, including *discharge*s from *dewatering* of trenches and excavations, must be managed by appropriate control measures.

d. **Pollution Prevention Measures**. Design, install, implement, and maintain effective pollution prevention measures to *minimize* the *discharge* of *pollutants* and prevent a violation of the *water quality standards*. At a minimum, such measures must be designed, installed, implemented and maintained to:

(i) *Minimize* the *discharge* of *pollutants* from equipment and vehicle washing, wheel wash water, and other wash waters. This applies to washing operations that use clean water only. Soaps, detergents and solvents cannot be used;

(ii) *Minimize* the exposure of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste, hazardous and toxic waste, and other materials present on the site to precipitation and to stormwater. Minimization of exposure is not required in cases where the exposure to precipitation and to stormwater will not result in a *discharge* of *pollutants*, or where exposure of a specific material or product poses little risk of stormwater contamination (such as final products and materials intended for outdoor use) ; and

(iii) Prevent the *discharge* of *pollutants* from spills and leaks and implement chemical spill and leak prevention and response procedures.

e. **Prohibited *Discharges*.** The following *discharge*s are prohibited:

(i) Wastewater from washout of concrete;

(ii) Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds and other construction materials;

(iii) Fuels, oils, or other *pollutants* used in vehicle and equipment operation and maintenance;

(iv) Soaps or solvents used in vehicle and equipment washing; and

(v) Toxic or hazardous substances from a spill or other release.

f. Surface Outlets. When discharging from basins and impoundments, the outlets shall be designed, constructed and maintained in such a manner that sediment does not leave the basin or impoundment and that erosion at or below the outlet does not occur.

C. Post-construction Stormwater Management Practice Requirements

1. The *owner or operator* of a *construction activity* that requires post-construction stormwater management practices pursuant to Part III.C. of this permit must select, design, install, and maintain the practices to meet the *performance criteria* in the New York State Stormwater Management Design Manual ("Design Manual"), dated January 2015, using sound engineering judgment. Where post-construction stormwater management practices ("SMPs") are not designed in conformance with the *performance criteria* in the Design Manual, the *owner or operator* must include in the SWPPP the reason(s) for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.

2. The *owner or operator* of a *construction activity* that requires post-construction stormwater management practices pursuant to Part III.C. of this permit must design the practices to meet the applicable *sizing criteria* in Part I.C.2.a., b., c. or d. of this permit.

a. Sizing Criteria for New Development

(i) Runoff Reduction Volume ("RRv"): Reduce the total Water Quality Volume ("WQv") by application of RR techniques and standard SMPs with RRv capacity. The total WQv shall be calculated in accordance with the criteria in Section 4.2 of the Design Manual.

(ii) Minimum RRv and Treatment of Remaining Total WQv: Construction activities that cannot meet the criteria in Part I.C.2.a.(i) of this permit due to site limitations shall direct runoff from all newly constructed impervious areas to a RR technique or standard SMP with RRv capacity unless infeasible. The specific site limitations that prevent the reduction of 100% of the WQv shall be documented in the SWPPP.

For each impervious area that is not directed to a RR technique or standard SMP with RRv capacity, the SWPPP must include documentation which demonstrates that all options were considered and for each option explains why it is considered infeasible.

In no case shall the runoff reduction achieved from the newly constructed impervious areas be less than the Minimum RRv as calculated using the criteria in Section 4.3 of the Design Manual. The remaining portion of the total WQv that cannot be reduced shall be treated by application of standard SMPs.

(iii) Channel Protection Volume ("Cpv"): Provide 24 hour extended detention of the post-developed 1-year, 24-hour storm event; remaining after runoff reduction. The Cpv requirement does not apply when:
(1) Reduction of the entire Cpv is achieved by application of runoff reduction techniques or infiltration systems, or
(2) The site discharges directly to tidal waters, or fifth order or larger streams.

(iv) *Overbank* Flood Control Criteria ("Qp"): Requires storage to attenuate the post-development 10-year, 24-hour peak discharge rate (Qp) to predevelopment rates. The Qp requirement does not apply when:
(1) the site discharges directly to tidal waters or fifth order or larger streams, or
(2) A downstream analysis reveals that *overbank* control is not required.

(v) Extreme Flood Control Criteria ("Qf"): Requires storage to attenuate the post-development 100-year, 24-hour peak discharge rate (Qf) to predevelopment rates. The Qf requirement does not apply when:
(1) the site discharges directly to tidal waters or fifth order or larger streams, or
(2) A downstream analysis reveals that *overbank* control is not required.

b. *Sizing Criteria* for *New Development* in Enhanced Phosphorus Removal Watershed

(i) Runoff Reduction Volume (RRv): Reduce the total Water Quality Volume (WQv) by application of RR techniques and standard SMPs with RRv capacity. The total WQv is the runoff volume from the 1-year, 24 hour design storm over the post-developed watershed and shall be

calculated in accordance with the criteria in Section 10.3 of the Design Manual.

(ii) Minimum RRv and Treatment of Remaining Total WQv: *Construction activities* that cannot meet the criteria in Part I.C.2.b.(i) of this permit due to *site limitations* shall direct runoff from all newly constructed *impervious areas* to a RR technique or standard SMP with RRv capacity unless *infeasible*. The specific *site limitations* that prevent the reduction of 100% of the WQv shall be documented in the SWPPP. For each *impervious area* that is not directed to a RR technique or standard SMP with RRv capacity, the SWPPP must include documentation which demonstrates that all options were considered and for each option explains why it is considered *infeasible.*

In no case shall the runoff reduction achieved from the newly constructed *impervious areas* be less than the Minimum RRv as calculated using the criteria in Section 10.3 of the Design Manual. The remaining portion of the total WQv that cannot be reduced shall be treated by application of standard SMPs.

(iii) Channel Protection Volume (Cpv): Provide 24 hour extended detention of the post-developed 1-year, 24-hour storm event; remaining after runoff reduction. The Cpv requirement does not apply when:
(1) Reduction of the entire Cpv is achieved by application of runoff reduction techniques or infiltration systems, or
(2) The site *discharge*s directly to tidal waters, or fifth order or larger streams.

(iv) *Overbank* Flood Control Criteria (Qp): Requires storage to attenuate the post-development 10-year, 24-hour peak *discharge* rate (Qp) to predevelopment rates. The Qp requirement does not apply when:
(1) the site *discharge*s directly to tidal waters or fifth order or larger streams, or
(2) A downstream analysis reveals that *overbank* control is not required.

(v) Extreme Flood Control Criteria (Qf): Requires storage to attenuate the post-development 100-year, 24-hour peak *discharge* rate (Qf) to predevelopment rates. The Qf requirement does not apply when:
(1) the site *discharge*s directly to tidal waters or fifth order or larger streams, or
(2) A downstream analysis reveals that *overbank* control is not required.

c. Sizing Criteria for Redevelopment Activity

(i) Water Quality Volume (WQv): The WQv treatment objective for *redevelopment activity* shall be addressed by one of the following options. *Redevelopment activities* located in an Enhanced Phosphorus Removal Watershed (see Part III.B.3. and Appendix C of this permit) shall calculate the WQv in accordance with Section 10.3 of the Design Manual. All other *redevelopment activities* shall calculate the WQv in accordance with Section 4.2 of the Design Manual.

(1) Reduce the existing *impervious cover* by a minimum of 25% of the total disturbed, *impervious area*. The Soil Restoration criteria in Section 5.1.6 of the Design Manual must be applied to all newly created pervious areas, or

(2) Capture and treat a minimum of 25% of the WQv from the disturbed, *impervious area* by the application of standard SMPs; or reduce 25% of the WQv from the disturbed, *impervious area* by the application of RR techniques or standard SMPs with RRv capacity., or

(3) Capture and treat a minimum of 75% of the WQv from the disturbed, *impervious area* as well as any additional runoff from tributary areas by application of the alternative practices discussed in Sections 9.3 and 9.4 of the Design Manual., or

(4) Application of a combination of 1, 2 and 3 above that provide a weighted average of at least two of the above methods. Application of this method shall be in accordance with the criteria in Section 9.2.1(B) (IV) of the Design Manual.

If there is an existing post-construction stormwater management practice located on the site that captures and treats runoff from the *impervious area* that is being disturbed, the WQv treatment option selected must, at a minimum, provide treatment equal to the treatment that was being provided by the existing practice(s) if that treatment is greater than the treatment required by options 1 – 4 above.

(ii) Channel Protection Volume (Cpv): Not required if there are no changes to hydrology that increase the *discharge* rate from the project site.

(iii) *Overbank* Flood Control Criteria (Qp): Not required if there are no changes to hydrology that increase the *discharge* rate from the project site.

(iv) Extreme Flood Control Criteria (Qf): Not required if there are no changes to hydrology that increase the *discharge* rate from the project site

d. Sizing Criteria for Combination of Redevelopment Activity and New Development

Construction projects that include both New Development and Redevelopment Activity shall provide post-construction stormwater management controls that meet the sizing criteria calculated as an aggregate of the Sizing Criteria in Part I.C.2.a. or b. of this permit for the New Development portion of the project and Part I.C.2.c of this permit for Redevelopment Activity portion of the project.

D. Maintaining Water Quality

The Department expects that compliance with the conditions of this permit will control *discharge*s necessary to meet applicable *water quality standards*. It shall be a violation of the *ECL* for any discharge to either cause or contribute to a violation of *water quality standards* as contained in Parts 700 through 705 of Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York, such as:

1. There shall be no increase in turbidity that will cause a substantial visible contrast to natural conditions;

2. There shall be no increase in suspended, colloidal or settleable solids that will cause deposition or impair the waters for their best usages; and

3. There shall be no residue from oil and floating substances, nor visible oil film, nor globules of grease.

If there is evidence indicating that the stormwater *discharge*s authorized by this permit are causing, have the reasonable potential to cause, or are contributing to a violation of the *water quality standards*; the *owner or operator* must take appropriate corrective action in accordance with Part IV.C.5. of this general permit and document in accordance with Part IV.C.4. of this general permit. To address the *water quality standard* violation the *owner or operator* may need to provide additional information, include and implement appropriate controls in the SWPPP to correct the problem, or obtain an individual SPDES permit.

If there is evidence indicating that despite compliance with the terms and conditions of this general permit it is demonstrated that the stormwater *discharge*s authorized by this permit are causing or contributing to a violation of *water quality standards*, or if the Department determines that a modification of the permit is necessary to prevent a violation of *water quality standards*, the authorized *discharge*s will no longer be eligible for coverage under this permit. The Department may require the *owner or operator* to obtain an individual SPDES permit to continue discharging.

E. Eligibility Under This General Permit

1. This permit may authorize all *discharges* of stormwater from *construction activity* to *surface waters of the State* and *groundwaters* except for ineligible *discharges* identified under subparagraph F. of this Part.

2. Except for non-stormwater *discharges* explicitly listed in the next paragraph, this permit only authorizes stormwater *discharge*s; including stormwater runoff, snowmelt runoff, and surface runoff and drainage, from *construction activities*.

3. Notwithstanding paragraphs E.1 and E.2 above, the following non-stormwater discharges are authorized by this permit: those listed in 6 NYCRR 750-1.2(a)(29)(vi), with the following exception: "Discharges from firefighting activities are authorized only when the firefighting activities are emergencies/unplanned"; waters to which other components have not been added that are used to control dust in accordance with the SWPPP; and uncontaminated *discharge*s from *construction site* de-watering operations. All non-stormwater discharges must be identified in the SWPPP. Under all circumstances, the *owner or operator* must still comply with *water quality standards* in Part I.D of this permit.

4. The *owner or operator* must maintain permit eligibility to *discharge* under this permit. Any *discharges* that are not compliant with the eligibility conditions of this permit are not authorized by the permit and the *owner or operator* must either apply for a separate permit to cover those ineligible *discharges* or take steps necessary to make the *discharge* eligible for coverage.

F. Activities Which Are Ineligible for Coverage Under This General Permit

All of the following are **not** authorized by this permit:

1. *Discharge*s after *construction activities* have been completed and the site has undergone *final stabilization*;

2. *Discharge*s that are mixed with sources of non-stormwater other than those expressly authorized under subsection E.3. of this Part and identified in the SWPPP required by this permit;

3. *Discharges* that are required to obtain an individual SPDES permit or another SPDES general permit pursuant to Part VII.K. of this permit;

4. *Construction activities* or *discharges* from *construction activities* that may adversely affect an *endangered or threatened species* unless the *owner or*

operator has obtained a permit issued pursuant to 6 NYCRR Part 182 for the project or the Department has issued a letter of non-jurisdiction for the project. All documentation necessary to demonstrate eligibility shall be maintained on site in accordance with Part II.D.2 of this permit;

5. *Discharges* which either cause or contribute to a violation of *water quality standards* adopted pursuant to the *ECL* and its accompanying regulations;

6. *Construction activities* for residential, commercial and institutional projects:

   a. Where the *discharge*s from the *construction activities* are tributary to waters of the state classified as AA or AA-s; and

   b. Which are undertaken on land with no existing *impervious cover*; and

   c. Which disturb one (1) or more acres of land designated on the current United States Department of Agriculture ("USDA") Soil Survey as Soil Slope Phase "D", (provided the map unit name is inclusive of slopes greater than 25%), or Soil Slope Phase "E" or "F" (regardless of the map unit name), or a combination of the three designations.

7. *Construction activities* for linear transportation projects and linear utility projects:

   a. Where the *discharge*s from the *construction activities* are tributary to waters of the state classified as AA or AA-s; and

   b. Which are undertaken on land with no existing *impervious cover*; and

   c. Which disturb two (2) or more acres of land designated on the current USDA Soil Survey as Soil Slope Phase "D" (provided the map unit name is inclusive of slopes greater than 25%), or Soil Slope Phase "E" or "F" (regardless of the map unit name), or a combination of the three designations.

8. *Construction activities* that have the potential to affect an *historic property*, unless there is documentation that such impacts have been resolved. The following documentation necessary to demonstrate eligibility with this requirement shall be maintained on site in accordance with Part II.D.2 of this permit and made available to the Department in accordance with Part VII.F of this permit:

   a. Documentation that the *construction activity* is not within an archeologically sensitive area indicated on the sensitivity map, and that the *construction activity* is not located on or immediately adjacent to a property listed or determined to be eligible for listing on the National or State Registers of Historic Places, and that there is no new permanent building on the *construction site* within the following distances from a building, structure, or object that is more than 50 years old, or if there is such a new permanent building on the *construction site* within those parameters that NYS Office of Parks, Recreation and Historic Preservation (OPRHP), a Historic Preservation Commission of a Certified Local Government, or a qualified preservation professional has determined that the building, structure, or object more than 50 years old is not historically/archeologically significant.

      - 1-5 acres of disturbance - 20 feet
      - 5-20 acres of disturbance - 50 feet
      - 20+ acres of disturbance - 100 feet, or

   b. DEC consultation form sent to OPRHP, and copied to the NYS DEC Agency Historic Preservation Officer (APO), and
      (i) the State Environmental Quality Review (SEQR) Environmental Assessment Form (EAF) with a negative declaration or the Findings Statement, with documentation of OPRHP's agreement with the resolution; or
      (ii) documentation from OPRHP that the *construction activity* will result in No Impact; or
      (iii) documentation from OPRHP providing a determination of No Adverse Impact; or
      (iv) a Letter of Resolution signed by the owner/operator, OPRHP and the DEC APO which allows for this *construction activity* to be eligible for coverage under the general permit in terms of the State Historic Preservation Act (SHPA); or

   c. Documentation of satisfactory compliance with Section 106 of the National Historic Preservation Act for a coterminous project area:

(i) No Affect
(ii) No Adverse Affect
(iii) Executed Memorandum of Agreement, or

d. Documentation that:

(i) SHPA Section 14.09 has been completed by NYS DEC or another state agency.

9. *Discharge*s from *construction activities* that are subject to an existing SPDES individual or general permit where a SPDES permit for *construction activity* has been terminated or denied; or where the *owner or operator* has failed to renew an expired individual permit.

Part II. PERMIT COVERAGE

A. How to Obtain Coverage

1. An *owner or operator* of a *construction activity* that is not subject to the requirements of a regulated, traditional land use control MS4 must first prepare a SWPPP in accordance with all applicable requirements of this permit and then submit a completed Notice of Intent (NOI) to the Department to be authorized to discharge under this permit.

2. An *owner or operator* of a *construction activity* that is subject to the requirements of a *regulated, traditional land use control MS4* must first prepare a SWPPP in accordance with all applicable requirements of this permit and then have the SWPPP reviewed and accepted by the *regulated, traditional land use control MS4* prior to submitting the NOI to the Department. The *owner or operator* shall have the “MS4 SWPPP Acceptance” form signed in accordance with Part VII.H., and then submit that form along with a completed NOI to the Department.

3. The requirement for an *owner or operator* to have its SWPPP reviewed and accepted by the *regulated, traditional land use control MS4* prior to submitting the NOI to the Department does not apply to an *owner or operator* that is obtaining permit coverage in accordance with the requirements in Part II.F. (Change of *Owner or Operator*) or where the *owner or operator* of the *construction activity* is the *regulated, traditional land use control MS4* . This exemption does not apply to *construction activities* subject to the New York City Administrative Code.

B. Notice of Intent (NOI) Submittal

1. Prior to December 21, 2020, an owner or operator shall use either the electronic (eNOI) or paper version of the NOI that the Department prepared. Both versions of the NOI are located on the Department's website (http://www.dec.ny.gov/). The paper version of the NOI shall be signed in accordance with Part VII.H. of this permit and submitted to the following address:

   NOTICE OF INTENT
   NYS DEC, Bureau of Water Permits
   625 Broadway, 4th Floor
   Albany, New York 12233-3505

2. Beginning December 21, 2020 and in accordance with EPA's 2015 NPDES Electronic Reporting Rule (40 CFR Part 127), the *owner or operator* must submit the NOI electronically using the *Department's* online NOI.

3. The *owner or operator* shall have the SWPPP preparer sign the "SWPPP Preparer Certification" statement on the NOI prior to submitting the form to the Department.

4. As of the date the NOI is submitted to the Department, the *owner or operator* shall make the NOI and SWPPP available for review and copying in accordance with the requirements in Part VII.F. of this permit.

C. Permit Authorization

1. An *owner or operator* shall not *commence construction activity* until their authorization to *discharge* under this permit goes into effect.

2. Authorization to *discharge* under this permit will be effective when the *owner or operator* has satisfied all of the following criteria:

   a. project review pursuant to the State Environmental Quality Review Act ("SEQRA") have been satisfied, when SEQRA is applicable. See the Department's website (http://www.dec.ny.gov/) for more information,

   b. where required, all necessary Department permits subject to the *Uniform Procedures Act ("UPA")* (see 6 NYCRR Part 621), or the equivalent from another New York State agency, have been obtained, unless otherwise notified by the Department pursuant to 6 NYCRR 621.3(a)(4). *Owners or operators* of *construction activities* that are required to obtain *UPA* permits

must submit a preliminary SWPPP to the appropriate DEC Permit Administrator at the Regional Office listed in Appendix F at the time all other necessary *UPA* permit applications are submitted. The preliminary SWPPP must include sufficient information to demonstrate that the *construction activity* qualifies for authorization under this permit,

c. the final SWPPP has been prepared, and

d. a complete NOI has been submitted to the Department in accordance with the requirements of this permit.

3. An *owner or operator* that has satisfied the requirements of Part II.C.2 above will be authorized to *discharge* stormwater from their *construction activity* in accordance with the following schedule:

   a. For *construction activities* that are <u>not</u> subject to the requirements of a *regulated, traditional land use control MS4*:

      (i) Five (5) business days from the date the Department receives a complete electronic version of the NOI (eNOI) for *construction activities* with a SWPPP that has been prepared in conformance with the design criteria in the technical standard referenced in Part III.B.1 and the *performance criteria* in the technical standard referenced in Parts III.B., 2 or 3, for *construction activities* that require post-construction stormwater management practices pursuant to Part III.C.; or

      (ii) Sixty (60) business days from the date the Department receives a complete NOI (electronic or paper version) for *construction activities* with a SWPPP that has <u>not</u> been prepared in conformance with the design criteria in technical standard referenced in Part III.B.1. or, for *construction activities* that require post-construction stormwater management practices pursuant to Part III.C., the *performance criteria* in the technical standard referenced in Parts III.B., 2 or 3, or;

      (iii) Ten (10) business days from the date the Department receives a complete paper version of the NOI for *construction activities* with a SWPPP that has been prepared in conformance with the design criteria in the technical standard referenced in Part III.B.1 and the *performance criteria* in the technical standard referenced in Parts III.B., 2 or 3, for *construction activities* that require post-construction stormwater management practices pursuant to Part III.C.

b. For *construction activities* that are subject to the requirements of a *regulated, traditional land use control MS4*:

(i) Five (5) business days from the date the Department receives both a complete electronic version of the NOI (eNOI) and signed "*MS4* SWPPP Acceptance" form, or

(ii) Ten (10) business days from the date the Department receives both a complete paper version of the NOI and signed "MS4 SWPPP Acceptance" form.

4. Coverage under this permit authorizes stormwater *discharges* from only those areas of disturbance that are identified in the NOI. If an *owner or operator* wishes to have stormwater *discharges* from future or additional areas of disturbance authorized, they must submit a new NOI that addresses that phase of the development, unless otherwise notified by the Department. The *owner or operator* shall not *commence construction activity* on the future or additional areas until their authorization to *discharge* under this permit goes into effect in accordance with Part II.C. of this permit.

D. General Requirements For Owners or Operators With Permit Coverage

1. The *owner or operator* shall ensure that the provisions of the SWPPP are implemented from the *commencement of construction activity* until all areas of disturbance have achieved *final stabilization* and the Notice of Termination ("NOT") has been submitted to the Department in accordance with Part V. of this permit. This includes any changes made to the SWPPP pursuant to Part III.A.4. of this permit.

2. The *owner or operator* shall maintain a copy of the General Permit (GP-0-20-001), NOI, *NOI Acknowledgment Letter*, SWPPP, MS4 SWPPP Acceptance form, inspection reports, responsible contractor's or subcontractor's certification statement (see Part III.A.6.), and all documentation necessary to demonstrate eligibility with this permit at the *construction site* until all disturbed areas have achieved *final stabilization* and the NOT has been submitted to the Department. The documents must be maintained in a secure location, such as a job trailer, on-site construction office, or mailbox with lock. The secure location must be accessible during normal business hours to an individual performing a compliance inspection.

3. The *owner or operator* of a *construction activity* shall not disturb greater than five (5) acres of soil at any one time without prior written authorization from the Department or, in areas under the jurisdiction of a *regulated, traditional land*

use control MS4, the *regulated, traditional land use control MS4* (provided the *regulated, traditional land use control MS4* is not the *owner or operator* of the *construction activity*). At a minimum, the *owner or operator* must comply with the following requirements in order to be authorized to disturb greater than five (5) acres of soil at any one time:

a. The *owner or operator* shall have a *qualified inspector* conduct **at least** two (2) site inspections in accordance with Part IV.C. of this permit every seven (7) calendar days, for as long as greater than five (5) acres of soil remain disturbed. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.

b. In areas where soil disturbance activity has temporarily or permanently ceased, the application of soil stabilization measures must be initiated by the end of the next business day and completed within seven (7) days from the date the current soil disturbance activity ceased. The soil stabilization measures selected shall be in conformance with the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016.

c. The *owner or operator* shall prepare a phasing plan that defines maximum disturbed area per phase and shows required cuts and fills.

d. The *owner or operator* shall install any additional site-specific practices needed to protect water quality.

e. The *owner or operator* shall include the requirements above in their SWPPP.

4. In accordance with statute, regulations, and the terms and conditions of this permit, the Department may suspend or revoke an *owner's or operator's* coverage under this permit at any time if the Department determines that the SWPPP does not meet the permit requirements or consistent with Part VII.K..

5. Upon a finding of significant non-compliance with the practices described in the SWPPP or violation of this permit, the Department may order an immediate stop to all activity at the site until the non-compliance is remedied. The stop work order shall be in writing, describe the non-compliance in detail, and be sent to the *owner or operator*.

6. For *construction activities* that are subject to the requirements of a *regulated, traditional land use control MS4*, the *owner or operator* shall notify the

regulated, traditional land use control MS4 in writing of any planned amendments or modifications to the post-construction stormwater management practice component of the SWPPP required by Part III.A. 4. and 5. of this permit. Unless otherwise notified by the *regulated, traditional land use control MS4*, the *owner or operator* shall have the SWPPP amendments or modifications reviewed and accepted by the *regulated, traditional land use control MS4* prior to commencing construction of the post-construction stormwater management practice.

E. Permit Coverage for Discharges Authorized Under GP-0-15-002

1. Upon renewal of SPDES General Permit for Stormwater Discharges from *Construction Activity* (Permit No. GP-0-15-002), an *owner or operator* of *a construction activity* with coverage under GP-0-15-002, as of the effective date of GP- 0-20-001, shall be authorized to *discharge* in accordance with GP- 0-20-001, unless otherwise notified by the Department.

   An *owner or operator* may continue to implement the technical/design components of the post-construction stormwater management controls provided that such design was done in conformance with the technical standards in place at the time of initial project authorization. However, they must comply with the other, non-design provisions of GP-0-20-001.

F. Change of Owner or Operator

1. When property ownership changes or when there is a change in operational control over the construction plans and specifications, the original *owner or operator* must notify the new *owner or operator*, in writing, of the requirement to obtain permit coverage by submitting a NOI with the Department. For *construction activities* subject to the requirements of a *regulated, traditional land use control MS4,* the original *owner or operator* must also notify the MS4, in writing, of the change in ownership at least 30 calendar days prior to the change in ownership.

2. Once the new *owner or operator* obtains permit coverage, the original *owner or operator* shall then submit a completed NOT with the name and permit identification number of the new *owner or operator* to the Department at the address in Part II.B.1. of this permit. If the original *owner or operator* maintains ownership of a portion of the *construction activity* and will disturb soil, they must maintain their coverage under the permit.

3. Permit coverage for the new *owner or operator* will be effective as of the date the Department receives a complete NOI, provided the original *owner or*

operator was not subject to a sixty (60) business day authorization period that has not expired as of the date the Department receives the NOI from the new *owner or operator*.

Part III. STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

A. General SWPPP Requirements

1. A SWPPP shall be prepared and implemented by the *owner or operator* of each *construction activity* covered by this permit. The SWPPP must document the selection, design, installation, implementation and maintenance of the control measures and practices that will be used to meet the effluent limitations in Part I.B. of this permit and where applicable, the post-construction stormwater management practice requirements in Part I.C. of this permit. The SWPPP shall be prepared prior to the submittal of the NOI. The NOI shall be submitted to the Department prior to the *commencement of construction activity*. A copy of the completed, final NOI shall be included in the SWPPP.

2. The SWPPP shall describe the erosion and sediment control practices and where required, post-construction stormwater management practices that will be used and/or constructed to reduce the *pollutants* in stormwater *discharges* and to assure compliance with the terms and conditions of this permit. In addition, the SWPPP shall identify potential sources of pollution which may reasonably be expected to affect the quality of stormwater *discharges*.

3. All SWPPPs that require the post-construction stormwater management practice component shall be prepared by a *qualified professional* that is knowledgeable in the principles and practices of stormwater management and treatment.

4. The *owner or operator* must keep the SWPPP current so that it at all times accurately documents the erosion and sediment controls practices that are being used or will be used during construction, and all post-construction stormwater management practices that will be constructed on the site. At a minimum, the *owner or operator* shall amend the SWPPP, including construction drawings:

    a. whenever the current provisions prove to be ineffective in minimizing *pollutants* in stormwater *discharges* from the site;

b. whenever there is a change in design, construction, or operation at the *construction site* that has or could have an effect on the *discharge* of *pollutants*;

c. to address issues or deficiencies identified during an inspection by the *qualified inspector,* the Department or other regulatory authority; and

d. to document the final construction conditions.

5. The Department may notify the *owner or operator* at any time that the SWPPP does not meet one or more of the minimum requirements of this permit. The notification shall be in writing and identify the provisions of the SWPPP that require modification. Within fourteen (14) calendar days of such notification, or as otherwise indicated by the Department, the *owner or operator* shall make the required changes to the SWPPP and submit written notification to the Department that the changes have been made. If the *owner or operator* does not respond to the Department's comments in the specified time frame, the Department may suspend the *owner's or operator's* coverage under this permit or require the *owner or operator* to obtain coverage under an individual SPDES permit in accordance with Part II.D.4. of this permit.

6. Prior to the *commencement of construction activity*, the *owner or operator* must identify the contractor(s) and subcontractor(s) that will be responsible for installing, constructing, repairing, replacing, inspecting and maintaining the erosion and sediment control practices included in the SWPPP; and the contractor(s) and subcontractor(s) that will be responsible for constructing the post-construction stormwater management practices included in the SWPPP. The *owner or operator* shall have each of the contractors and subcontractors identify at least one person from their company that will be responsible for implementation of the SWPPP. This person shall be known as the *trained contractor.* The *owner or operator* shall ensure that at least one *trained contractor* is on site on a daily basis when soil disturbance activities are being performed.

   The *owner or operator* shall have each of the contractors and subcontractors identified above sign a copy of the following certification statement below before they commence any *construction activity*:

   "I hereby certify under penalty of law that I understand and agree to comply with the terms and conditions of the SWPPP and agree to implement any corrective actions identified by the *qualified inspector* during a site inspection. I also understand that the *owner or operator* must comply with

the terms and conditions of the most current version of the New York State Pollutant Discharge Elimination System ("SPDES") general permit for stormwater *discharge*s from *construction activities* and that it is unlawful for any person to cause or contribute to a violation of *water quality standards*. Furthermore, I am aware that there are significant penalties for submitting false information, that I do not believe to be true, including the possibility of fine and imprisonment for knowing violations"

In addition to providing the certification statement above, the certification page must also identify the specific elements of the SWPPP that each contractor and subcontractor will be responsible for and include the name and title of the person providing the signature; the name and title of the *trained contractor* responsible for SWPPP implementation; the name, address and telephone number of the contracting firm; the address (or other identifying description) of the site; and the date the certification statement is signed. The *owner or operator* shall attach the certification statement(s) to the copy of the SWPPP that is maintained at the *construction site*. If new or additional contractors are hired to implement measures identified in the SWPPP after construction has commenced, they must also sign the certification statement and provide the information listed above.

7. For projects where the Department requests a copy of the SWPPP or inspection reports, the *owner or operator* shall submit the documents in both electronic (PDF only) and paper format within five (5) business days, unless otherwise notified by the Department.

B. Required SWPPP Contents

1. Erosion and sediment control component - All SWPPPs prepared pursuant to this permit shall include erosion and sediment control practices designed in conformance with the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016. Where erosion and sediment control practices are not designed in conformance with the design criteria included in the technical standard, the *owner or operator* must demonstrate *equivalence* to the technical standard. At a minimum, the erosion and sediment control component of the SWPPP shall include the following:

    a. Background information about the scope of the project, including the location, type and size of project

b. A site map/construction drawing(s) for the project, including a general location map. At a minimum, the site map shall show the total site area; all improvements; areas of disturbance; areas that will not be disturbed; existing vegetation; on-site and adjacent off-site surface water(s); floodplain/floodway boundaries; wetlands and drainage patterns that could be affected by the *construction activity*; existing and final contours ; locations of different soil types with boundaries; material, waste, borrow or equipment storage areas located on adjacent properties; and location(s) of the stormwater *discharge*(s);

c. A description of the soil(s) present at the site, including an identification of the Hydrologic Soil Group (HSG);

d. A construction phasing plan and sequence of operations describing the intended order of *construction activities*, including clearing and grubbing, excavation and grading, utility and infrastructure installation and any other activity at the site that results in soil disturbance;

e. A description of the minimum erosion and sediment control practices to be installed or implemented for each *construction activity* that will result in soil disturbance. Include a schedule that identifies the timing of initial placement or implementation of each erosion and sediment control practice and the minimum time frames that each practice should remain in place or be implemented;

f. A temporary and permanent soil stabilization plan that meets the requirements of this general permit and the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016, for each stage of the project, including initial land clearing and grubbing to project completion and achievement of *final stabilization*;

g. A site map/construction drawing(s) showing the specific location(s), size(s), and length(s) of each erosion and sediment control practice;

h. The dimensions, material specifications, installation details, and operation and maintenance requirements for all erosion and sediment control practices. Include the location and sizing of any temporary sediment basins and structural practices that will be used to divert flows from exposed soils;

i. A maintenance inspection schedule for the contractor(s) identified in Part III.A.6. of this permit, to ensure continuous and effective operation of the erosion and sediment control practices. The maintenance inspection

schedule shall be in accordance with the requirements in the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016;

j. A description of the pollution prevention measures that will be used to control litter, construction chemicals and construction debris from becoming a *pollutant* source in the stormwater *discharges*;

k. A description and location of any stormwater *discharges* associated with industrial activity other than construction at the site, including, but not limited to, stormwater *discharges* from asphalt plants and concrete plants located on the *construction site*; and

l. Identification of any elements of the design that are not in conformance with the design criteria in the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016. Include the reason for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.

2. Post-construction stormwater management practice component – The *owner or operator* of any construction project identified in Table 2 of Appendix B as needing post-construction stormwater management practices shall prepare a SWPPP that includes practices designed in conformance with the applicable *sizing criteria* in Part I.C.2.a., c. or d. of this permit and the *performance criteria* in the technical standard, New York State Stormwater Management Design Manual dated January 2015

   Where post-construction stormwater management practices are not designed in conformance with the *performance criteria* in the technical standard, the *owner or operator* must include in the SWPPP the reason(s) for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.

   The post-construction stormwater management practice component of the SWPPP shall include the following:

   a. Identification of all post-construction stormwater management practices to be constructed as part of the project. Include the dimensions, material specifications and installation details for each post-construction stormwater management practice;

b. A site map/construction drawing(s) showing the specific location and size of each post-construction stormwater management practice;

c. A Stormwater Modeling and Analysis Report that includes:
   (i) Map(s) showing pre-development conditions, including watershed/subcatchments boundaries, flow paths/routing, and design points;

   (ii) Map(s) showing post-development conditions, including watershed/subcatchments boundaries, flow paths/routing, design points and post-construction stormwater management practices;

   (iii) Results of stormwater modeling (i.e. hydrology and hydraulic analysis) for the required storm events. Include supporting calculations (model runs), methodology, and a summary table that compares pre and post-development runoff rates and volumes for the different storm events;

   (iv) Summary table, with supporting calculations, which demonstrates that each post-construction stormwater management practice has been designed in conformance with the *sizing criteria* included in the Design Manual;

   (v) Identification of any *sizing criteria* that is not required based on the requirements included in Part I.C. of this permit; and

   (vi) Identification of any elements of the design that are not in conformance with the *performance criteria* in the Design Manual. Include the reason(s) for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the Design Manual;

d. Soil testing results and locations (test pits, borings);

e. Infiltration test results, when required; and

f. An operations and maintenance plan that includes inspection and maintenance schedules and actions to ensure continuous and effective operation of each post-construction stormwater management practice. The plan shall identify the entity that will be responsible for the long term operation and maintenance of each practice.

3. Enhanced Phosphorus Removal Standards - All construction projects identified in Table 2 of Appendix B that are located in the watersheds identified in Appendix C shall prepare a SWPPP that includes post-construction stormwater management practices designed in conformance with the applicable *sizing criteria* in Part I.C.2. b., c. or d. of this permit and the *performance criteria,* Enhanced Phosphorus Removal Standards included in the Design Manual. At a minimum, the post-construction stormwater management practice component of the SWPPP shall include items 2.a - 2.f. above.

C. Required SWPPP Components by Project Type

Unless otherwise notified by the Department, *owners or operators* of *construction activities* identified in Table 1 of Appendix B are required to prepare a SWPPP that only includes erosion and sediment control practices designed in conformance with Part III.B.1 of this permit. *Owners or operators* of the *construction activities* identified in Table 2 of Appendix B shall prepare a SWPPP that also includes post-construction stormwater management practices designed in conformance with Part III.B.2 or 3 of this permit.

Part IV. INSPECTION AND MAINTENANCE REQUIREMENTS

A. General Construction Site Inspection and Maintenance Requirements

1. The *owner or operator* must ensure that all erosion and sediment control practices (including pollution prevention measures) and all post-construction stormwater management practices identified in the SWPPP are inspected and maintained in accordance with Part IV.B. and C. of this permit.

2. The terms of this permit shall not be construed to prohibit the State of New York from exercising any authority pursuant to the ECL, common law or federal law, or prohibit New York State from taking any measures, whether civil or criminal, to prevent violations of the laws of the State of New York or protect the public health and safety and/or the environment.

B. Contractor Maintenance Inspection Requirements

1. The *owner or operator* of each *construction activity* identified in Tables 1 and 2 of Appendix B shall have a *trained contractor* inspect the erosion and sediment control practices and pollution prevention measures being implemented within the active work area daily to ensure that they are being maintained in effective operating condition at all times. If deficiencies are identified, the contractor shall

begin implementing corrective actions within one business day and shall complete the corrective actions in a reasonable time frame.

2. For construction sites where soil disturbance activities have been temporarily suspended (e.g. winter shutdown) and *temporary stabilization* measures have been applied to all disturbed areas, the *trained contractor* can stop conducting the maintenance inspections. The *trained contractor* shall begin conducting the maintenance inspections in accordance with Part IV.B.1. of this permit as soon as soil disturbance activities resume.

3. For construction sites where soil disturbance activities have been shut down with partial project completion, the *trained contractor* can stop conducting the maintenance inspections if all areas disturbed as of the project shutdown date have achieved *final stabilization* and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational.

C. Qualified Inspector Inspection Requirements

The *owner or operator* shall have a *qualified inspector* conduct site inspections in conformance with the following requirements:

[Note: The *trained contractor* identified in Part III.A.6. and IV.B. of this permit **cannot** conduct the *qualified inspector* site inspections unless they meet the *qualified inspector* qualifications included in Appendix A. In order to perform these inspections, the *trained contractor* would have to be a:

- licensed Professional Engineer,
- Certified Professional in Erosion and Sediment Control (CPESC),
- New York State Erosion and Sediment Control Certificate Program holder
- Registered Landscape Architect, or
- someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided they have received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity].

1. A *qualified inspector* shall conduct site inspections for all *construction activities* identified in Tables 1 and 2 of Appendix B, with the exception of:

   a. the construction of a single family residential subdivision with 25% or less *impervious cover* at total site build-out that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres and is not located

in one of the watersheds listed in Appendix C and not directly discharging to one of the 303(d) segments listed in Appendix E;

b. the construction of a single family home that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres and is not located in one of the watersheds listed in Appendix C and not directly discharging to one of the 303(d) segments listed in Appendix E;

c. construction on agricultural property that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres; and

d. *construction activities* located in the watersheds identified in Appendix D that involve soil disturbances between five thousand (5,000) square feet and one (1) acre of land.

2. Unless otherwise notified by the Department, the *qualified inspector* shall conduct site inspections in accordance with the following timetable:

a. For construction sites where soil disturbance activities are on-going, the *qualified inspector* shall conduct a site inspection at least once every seven (7) calendar days.

b. For construction sites where soil disturbance activities are on-going and the *owner or operator* has received authorization in accordance with Part II.D.3 to disturb greater than five (5) acres of soil at any one time, the *qualified inspector* shall conduct at least two (2) site inspections every seven (7) calendar days. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.

c. For construction sites where soil disturbance activities have been temporarily suspended (e.g. winter shutdown) and *temporary stabilization* measures have been applied to all disturbed areas, the *qualified inspector* shall conduct a site inspection at least once every thirty (30) calendar days. The *owner or operator* shall notify the DOW Water (SPDES) Program contact at the Regional Office (see contact information in Appendix F) or, in areas under the jurisdiction of a *regulated, traditional land use control MS4,* the *regulated, traditional land use control MS4* (provided the *regulated, traditional land use control MS4* is not the *owner or operator* of the *construction activity*) in writing prior to reducing the frequency of inspections.

d. For construction sites where soil disturbance activities have been shut down with partial project completion, the *qualified inspector* can stop conducting inspections if all areas disturbed as of the project shutdown date have achieved *final stabilization* and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational. The *owner or operator* shall notify the DOW Water (SPDES) Program contact at the Regional Office (see contact information in Appendix F) or, in areas under the jurisdiction of a *regulated, traditional land use control MS4,* the *regulated, traditional land use control MS4* (provided the *regulated, traditional land use control MS4* is not the *owner or operator* of the *construction activity*) in writing prior to the shutdown. If soil disturbance activities are not resumed within 2 years from the date of shutdown, the *owner or operator* shall have the *qualified inspector* perform a final inspection and certify that all disturbed areas have achieved *final stabilization,* and all temporary, structural erosion and sediment control measures have been removed*;* and that all post-construction stormwater management practices have been constructed in conformance with the SWPPP by signing the "*Final Stabilization*" and "Post-Construction Stormwater Management Practice" certification statements on the NOT. The *owner or operator* shall then submit the completed NOT form to the address in Part II.B.1 of this permit.

e. For construction sites that directly *discharge* to one of the 303(d) segments listed in Appendix E or is located in one of the watersheds listed in Appendix C, the *qualified inspector* shall conduct at least two (2) site inspections every seven (7) calendar days. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.

3. At a minimum, the *qualified inspector* shall inspect all erosion and sediment control practices and pollution prevention measures to ensure integrity and effectiveness, all post-construction stormwater management practices under construction to ensure that they are constructed in conformance with the SWPPP, all areas of disturbance that have not achieved *final stabilization,* all points of *discharge* to natural surface waterbodies located within, or immediately adjacent to, the property boundaries of the *construction site*, and all points of *discharge* from the *construction site*.

4. The *qualified inspector* shall prepare an inspection report subsequent to each and every inspection. At a minimum, the inspection report shall include and/or address the following:

a. Date and time of inspection;

b. Name and title of person(s) performing inspection;

c. A description of the weather and soil conditions (e.g. dry, wet, saturated) at the time of the inspection;

d. A description of the condition of the runoff at all points of *discharge* from the *construction site*. This shall include identification of any *discharges* of sediment from the *construction site*. Include *discharges* from conveyance systems (i.e. pipes, culverts, ditches, etc.) and overland flow;

e. A description of the condition of all natural surface waterbodies located within, or immediately adjacent to, the property boundaries of the *construction site* which receive runoff from disturbed areas. This shall include identification of any *discharges* of sediment to the surface waterbody;

f. Identification of all erosion and sediment control practices and pollution prevention measures that need repair or maintenance;

g. Identification of all erosion and sediment control practices and pollution prevention measures that were not installed properly or are not functioning as designed and need to be reinstalled or replaced;

h. Description and sketch of areas with active soil disturbance activity, areas that have been disturbed but are inactive at the time of the inspection, and areas that have been stabilized (temporary and/or final) since the last inspection;

i. Current phase of construction of all post-construction stormwater management practices and identification of all construction that is not in conformance with the SWPPP and technical standards;

j. Corrective action(s) that must be taken to install, repair, replace or maintain erosion and sediment control practices and pollution prevention measures; and to correct deficiencies identified with the construction of the post-construction stormwater management practice(s);

k. Identification and status of all corrective actions that were required by previous inspection; and

l. Digital photographs, with date stamp, that clearly show the condition of all practices that have been identified as needing corrective actions. The *qualified inspector* shall attach paper color copies of the digital photographs to the inspection report being maintained onsite within seven (7) calendar days of the date of the inspection. The *qualified inspector* shall also take digital photographs, with date stamp, that clearly show the condition of the practice(s) after the corrective action has been completed. The *qualified inspector* shall attach paper color copies of the digital photographs to the inspection report that documents the completion of the corrective action work within seven (7) calendar days of that inspection.

5. Within one business day of the completion of an inspection, the *qualified inspector* shall notify the *owner or operator* and appropriate contractor or subcontractor identified in Part III.A.6. of this permit of any corrective actions that need to be taken. The contractor or subcontractor shall begin implementing the corrective actions within one business day of this notification and shall complete the corrective actions in a reasonable time frame.

6. All inspection reports shall be signed by the *qualified inspector.* Pursuant to Part II.D.2. of this permit, the inspection reports shall be maintained on site with the SWPPP.

Part V. TERMINATION OF PERMIT COVERAGE

A. Termination of Permit Coverage

1. An *owner or operator* that is eligible to terminate coverage under this permit must submit a completed NOT form to the address in Part II.B.1 of this permit. The NOT form shall be one which is associated with this permit, signed in accordance with Part VII.H of this permit.

2. An *owner or operator* may terminate coverage when one or more the following conditions have been met:

   a. Total project completion - All *construction activity* identified in the SWPPP has been completed; and all areas of disturbance have achieved *final stabilization*; and all temporary, structural erosion and sediment control measures have been removed; and all post-construction stormwater management practices have been constructed in conformance with the SWPPP and are operational;

b. Planned shutdown with partial project completion - All soil disturbance activities have ceased; and all areas disturbed as of the project shutdown date have achieved *final stabilization*; and all temporary, structural erosion and sediment control measures have been removed; and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational;

c. A new *owner or operator* has obtained coverage under this permit in accordance with Part II.F. of this permit.

d. The *owner or operator* obtains coverage under an alternative SPDES general permit or an individual SPDES permit.

3. For *construction activities* meeting subdivision 2a. or 2b. of this Part, the *owner or operator* shall have the *qualified inspector* perform a final site inspection prior to submitting the NOT. The *qualified inspector* shall, by signing the "*Final Stabilization*" and "Post-Construction Stormwater Management Practice certification statements on the NOT, certify that all the requirements in Part V.A.2.a. or b. of this permit have been achieved.

4. For *construction activities* that are subject to the requirements of a *regulated, traditional land use control MS4* and meet subdivision 2a. or 2b. of this Part, the *owner or operator* shall have the *regulated, traditional land use control MS4* sign the "MS4 Acceptance" statement on the NOT in accordance with the requirements in Part VII.H. of this permit. The *regulated, traditional land use control MS4* official, by signing this statement, has determined that it is acceptable for the *owner or operator* to submit the NOT in accordance with the requirements of this Part. The *regulated, traditional land use control MS4* can make this determination by performing a final site inspection themselves or by accepting the *qualified inspector*'s final site inspection certification(s) required in Part V.A.3. of this permit.

5. For *construction activities* that require post-construction stormwater management practices and meet subdivision 2a. of this Part, the *owner or operator* must, prior to submitting the NOT, ensure one of the following:

   a. the post-construction stormwater management practice(s) and any right-of-way(s) needed to maintain such practice(s) have been deeded to the municipality in which the practice(s) is located,

b. an executed maintenance agreement is in place with the municipality that will maintain the post-construction stormwater management practice(s),

c. for post-construction stormwater management practices that are privately owned, the *owner or operator* has a mechanism in place that requires operation and maintenance of the practice(s) in accordance with the operation and maintenance plan, such as a deed covenant in the *owner or operator's* deed of record,

d. for post-construction stormwater management practices that are owned by a public or private institution (e.g. school, university, hospital), government agency or authority, or public utility; the *owner or operator* has policy and procedures in place that ensures operation and maintenance of the practices in accordance with the operation and maintenance plan.

Part VI. REPORTING AND RETENTION RECORDS

A. Record Retention

The *owner or operator* shall retain a copy of the NOI, NOI Acknowledgment Letter, SWPPP, MS4 SWPPP Acceptance form and any inspection reports that were prepared in conjunction with this permit for a period of at least five (5) years from the date that the Department receives a complete NOT submitted in accordance with Part V. of this general permit.

B. Addresses

With the exception of the NOI, NOT, and MS4 SWPPP Acceptance form (which must be submitted to the address referenced in Part II.B.1 of this permit), all written correspondence requested by the Department, including individual permit applications, shall be sent to the address of the appropriate DOW Water (SPDES) Program contact at the Regional Office listed in Appendix F.

Part VII. STANDARD PERMIT CONDITIONS

A. Duty to Comply

The *owner or operator* must comply with all conditions of this permit. All contractors and subcontractors associated with the project must comply with the terms of the SWPPP. Any non-compliance with this permit constitutes a violation of the Clean Water

Act (CWA) and the ECL and is grounds for an enforcement action against the *owner or operator* and/or the contractor/subcontractor; permit revocation, suspension or modification; or denial of a permit renewal application. Upon a finding of significant non-compliance with this permit or the applicable SWPPP, the Department may order an immediate stop to all *construction activity* at the site until the non-compliance is remedied. The stop work order shall be in writing, shall describe the non-compliance in detail, and shall be sent to the *owner or operator*.

If any human remains or archaeological remains are encountered during excavation, the *owner or operator* must immediately cease, or cause to cease, all *construction activity* in the area of the remains and notify the appropriate Regional Water Engineer (RWE). *Construction activity* shall not resume until written permission to do so has been received from the RWE.

B. Continuation of the Expired General Permit

This permit expires five (5) years from the effective date. If a new general permit is not issued prior to the expiration of this general permit, an *owner or operator* with coverage under this permit may continue to operate and *discharge* in accordance with the terms and conditions of this general permit, if it is extended pursuant to the State Administrative Procedure Act and 6 NYCRR Part 621, until a new general permit is issued.

C. Enforcement

Failure of the *owner or operator,* its contractors, subcontractors, agents and/or assigns to strictly adhere to any of the permit requirements contained herein shall constitute a violation of this permit. There are substantial criminal, civil, and administrative penalties associated with violating the provisions of this permit. Fines of up to $37,500 per day for each violation and imprisonment for up to fifteen (15) years may be assessed depending upon the nature and degree of the offense.

D. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for an *owner or operator* in an enforcement action that it would have been necessary to halt or reduce the *construction activity* in order to maintain compliance with the conditions of this permit.

E. Duty to Mitigate

The *owner or operator* and its contractors and subcontractors shall take all reasonable steps to *minimize* or prevent any *discharge* in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

F. Duty to Provide Information

The *owner or operator* shall furnish to the Department, within a reasonable specified time period of a written request, all documentation necessary to demonstrate eligibility and any information to determine compliance with this permit or to determine whether cause exists for modifying or revoking this permit, or suspending or denying coverage under this permit, in accordance with the terms and conditions of this permit. The NOI, SWPPP and inspection reports required by this permit are public documents that the *owner or operator* must make available for review and copying by any person within five (5) business days of the *owner or operator* receiving a written request by any such person to review these documents. Copying of documents will be done at the requester's expense.

G. Other Information

When the *owner or operator* becomes aware that they failed to submit any relevant facts, or submitted incorrect information in the NOI or in any of the documents required by this permit , or have made substantive revisions to the SWPPP (e.g. the scope of the project changes significantly, the type of post-construction stormwater management practice(s) changes, there is a reduction in the sizing of the post-construction stormwater management practice, or there is an increase in the disturbance area or *impervious area*), which were not reflected in the original NOI submitted to the Department, they shall promptly submit such facts or information to the Department using the contact information in Part II.A. of this permit. Failure of the *owner or operator* to correct or supplement any relevant facts within five (5) business days of becoming aware of the deficiency shall constitute a violation of this permit.

H. Signatory Requirements

1. All NOIs and NOTs shall be signed as follows:

    a. For a corporation these forms shall be signed by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:

(i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or

(ii) the manager of one or more manufacturing, production or operating facilities, provided the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;

b. For a partnership or sole proprietorship these forms shall be signed by a general partner or the proprietor, respectively; or

c. For a municipality, State, Federal, or other public agency these forms shall be signed by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes:

(i) the chief executive officer of the agency, or

(ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).

2. The SWPPP and other information requested by the Department shall be signed by a person described in Part VII.H.1. of this permit or by a duly authorized representative of that person. A person is a duly authorized representative only if:

a. The authorization is made in writing by a person described in Part VII.H.1. of this permit;

b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field,

superintendent, position of *equivalent* responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position) and,

c. The written authorization shall include the name, title and signature of the authorized representative and be attached to the SWPPP.

3. All inspection reports shall be signed by the *qualified inspector* that performs the inspection.

4. The MS4 SWPPP Acceptance form shall be signed by the principal executive officer or ranking elected official from the *regulated, traditional land use control MS4,* or by a duly authorized representative of that person.

   It shall constitute a permit violation if an incorrect and/or improper signatory authorizes any required forms, SWPPP and/or inspection reports.

I. Property Rights

The issuance of this permit does not convey any property rights of any sort, nor any exclusive privileges, nor does it authorize any injury to private property nor any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations. *Owners or operators* must obtain any applicable conveyances, easements, licenses and/or access to real property prior to *commencing construction activity*.

J. Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit shall not be affected thereby.

K. Requirement to Obtain Coverage Under an Alternative Permit

1. The Department may require any owner or operator authorized by this permit to apply for and/or obtain either an individual SPDES permit or another SPDES general permit. When the Department requires any discharger authorized by a general permit to apply for an individual SPDES permit, it shall notify the discharger in writing that a permit application is required. This notice shall

include a brief statement of the reasons for this decision, an application form, a statement setting a time frame for the owner or operator to file the application for an individual SPDES permit, and a deadline, not sooner than 180 days from owner or operator receipt of the notification letter, whereby the authorization to discharge under this general permit shall be terminated. Applications must be submitted to the appropriate Permit Administrator at the Regional Office. The Department may grant additional time upon demonstration, to the satisfaction of the Department, that additional time to apply for an alternative authorization is necessary or where the Department has not provided a permit determination in accordance with Part 621 of this Title.

2. When an individual SPDES permit is issued to a discharger authorized to *discharge* under a general SPDES permit for the same *discharge*(s), the general permit authorization for outfalls authorized under the individual SPDES permit is automatically terminated on the effective date of the individual permit unless termination is earlier in accordance with 6 NYCRR Part 750.

L. Proper Operation and Maintenance

The *owner or operator* shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the *owner or operator* to achieve compliance with the conditions of this permit and with the requirements of the SWPPP.

M. Inspection and Entry

The *owner or operator* shall allow an authorized representative of the Department, EPA, applicable county health department, or, in the case of a *construction site* which *discharges* through an *MS4*, an authorized representative of the *MS4* receiving the discharge, upon the presentation of credentials and other documents as may be required by law, to:

1. Enter upon the owner’s or operator's premises where a regulated facility or activity is located or conducted or where records must be kept under the conditions of this permit;

2. Have access to and copy at reasonable times, any records that must be kept under the conditions of this permit; and

3. Inspect at reasonable times any facilities or equipment (including monitoring and control equipment), practices or operations regulated or required by this permit.

4. Sample or monitor at reasonable times, for purposes of assuring permit compliance or as otherwise authorized by the Act or ECL, any substances or parameters at any location.

N. Permit Actions

This permit may, at any time, be modified, suspended, revoked, or renewed by the Department in accordance with 6 NYCRR Part 621. The filing of a request by the *owner or operator* for a permit modification, revocation and reissuance, termination, a notification of planned changes or anticipated noncompliance does not limit, diminish and/or stay compliance with any terms of this permit.

O. Definitions

Definitions of key terms are included in Appendix A of this permit.

P. Re-Opener Clause

1. If there is evidence indicating potential or realized impacts on water quality due to any stormwater discharge associated with construction activity covered by this permit, the owner or operator of such discharge may be required to obtain an individual permit or alternative general permit in accordance with Part VII.K. of this permit or the permit may be modified to include different limitations and/or requirements.

2. Any Department initiated permit modification, suspension or revocation will be conducted in accordance with 6 NYCRR Part 621, 6 NYCRR 750-1.18, and 6 NYCRR 750-1.20.

Q. Penalties for Falsification of Forms and Reports

In accordance with 6NYCRR Part 750-2.4 and 750-2.5, any person who knowingly makes any false material statement, representation, or certification in any application, record, report or other document filed or required to be maintained under this permit, including reports of compliance or noncompliance shall, upon conviction, be punished in accordance with ECL §71-1933 and or Articles 175 and 210 of the New York State Penal Law.

R. Other Permits

Nothing in this permit relieves the *owner or operator* from a requirement to obtain any other permits required by law.

APPENDIX A – Acronyms and Definitions

Acronyms

APO – Agency Preservation Officer
BMP – Best Management Practice
CPESC – Certified Professional in Erosion and Sediment Control
Cpv – Channel Protection Volume
CWA – Clean Water Act (or the Federal Water Pollution Control Act, 33 U.S.C. §1251 et seq)
DOW – Division of Water
EAF – Environmental Assessment Form
ECL - Environmental Conservation Law
EPA – U. S. Environmental Protection Agency
HSG – Hydrologic Soil Group
MS4 – Municipal Separate Storm Sewer System
NOI – Notice of Intent
NOT – Notice of Termination
NPDES – National Pollutant Discharge Elimination System
OPRHP – Office of Parks, Recreation and Historic Places
Qf – Extreme Flood
Qp – Overbank Flood
RRv – Runoff Reduction Volume
RWE – Regional Water Engineer
SEQR – State Environmental Quality Review
SEQRA - State Environmental Quality Review Act
SHPA – State Historic Preservation Act
SPDES – State Pollutant Discharge Elimination System
SWPPP – Stormwater Pollution Prevention Plan
TMDL – Total Maximum Daily Load
UPA – Uniform Procedures Act
USDA – United States Department of Agriculture
WQv – Water Quality Volume

Definitions

All definitions in this section are solely for the purposes of this permit.

Agricultural Building – a structure designed and constructed to house farm implements, hay, grain, poultry, livestock or other horticultural products; excluding any structure designed, constructed or used, in whole or in part, for human habitation, as a place of employment where agricultural products are processed, treated or packaged, or as a place used by the public.

Agricultural Property –means the land for construction of a barn, *agricultural building*, silo, stockyard, pen or other structural practices identified in Table II in the "Agricultural Management Practices Catalog for Nonpoint Source Pollution in New York State" prepared by the Department in cooperation with agencies of New York Nonpoint Source Coordinating Committee (dated June 2007).

Alter Hydrology from Pre to Post-Development Conditions - means the post-development peak flow rate(s) has increased by more than 5% of the pre-developed condition for the design storm of interest (e.g. 10 yr and 100 yr).

Combined Sewer - means a sewer that is designed to collect and convey both "sewage" and "stormwater".

Commence (Commencement of) Construction Activities - means the initial disturbance of soils associated with clearing, grading or excavation activities; or other construction related activities that disturb or expose soils such as demolition, stockpiling of fill material, and the initial installation of erosion and sediment control practices required in the SWPPP. See definition for "*Construction Activity(ies)*" also.

Construction Activity(ies) - means any clearing, grading, excavation, filling, demolition or stockpiling activities that result in soil disturbance. Clearing activities can include, but are not limited to, logging equipment operation, the cutting and skidding of trees, stump removal and/or brush root removal. Construction activity does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of a facility.

Construction Site – means the land area where *construction activity(ies)* will occur. See definition for "*Commence (Commencement of) Construction Activities"* and "*Larger Common Plan of Development or Sale" also.*

Dewatering – means the act of draining rainwater and/or groundwater from building foundations, vaults or excavations/trenches.

Direct Discharge (to a specific surface waterbody) - means that runoff flows from a *construction site* by overland flow and the first point of discharge is the specific surface waterbody, or runoff flows from a *construction site* to a separate storm sewer system

and the first point of discharge from the separate storm sewer system is the specific surface waterbody.

Discharge(s) - means any addition of any pollutant to waters of the State through an outlet or *point source*.

Embankment –means an earthen or rock slope that supports a road/highway.

Endangered or Threatened Species – see 6 NYCRR Part 182 of the Department's rules and regulations for definition of terms and requirements.

Environmental Conservation Law (ECL) - means chapter 43-B of the Consolidated Laws of the State of New York, entitled the Environmental Conservation Law.

Equivalent (Equivalence) – means that the practice or measure meets all the performance, longevity, maintenance, and safety objectives of the technical standard and will provide an equal or greater degree of water quality protection.

Final Stabilization - means that all soil disturbance activities have ceased and a uniform, perennial vegetative cover with a density of eighty (80) percent over the entire pervious surface has been established; or other equivalent stabilization measures, such as permanent landscape mulches, rock rip-rap or washed/crushed stone have been applied on all disturbed areas that are not covered by permanent structures, concrete or pavement.

General SPDES permit - means a SPDES permit issued pursuant to 6 NYCRR Part 750-1.21 and Section 70-0117 of the ECL authorizing a category of discharges.

Groundwater(s) - means waters in the saturated zone. The saturated zone is a subsurface zone in which all the interstices are filled with water under pressure greater than that of the atmosphere. Although the zone may contain gas-filled interstices or interstices filled with fluids other than water, it is still considered saturated.

Historic Property – means any building, structure, site, object or district that is listed on the State or National Registers of Historic Places or is determined to be eligible for listing on the State or National Registers of Historic Places.

Impervious Area (Cover) - means all impermeable surfaces that cannot effectively infiltrate rainfall. This includes paved, concrete and gravel surfaces (i.e. parking lots, driveways, roads, runways and sidewalks); building rooftops and miscellaneous impermeable structures such as patios, pools, and sheds.

Infeasible – means not technologically possible, or not economically practicable and achievable in light of best industry practices.

Larger Common Plan of Development or Sale - means a contiguous area where multiple separate and distinct *construction activities* are occurring, or will occur, under one plan. The term “plan” in “larger common plan of development or sale” is broadly defined as any announcement or piece of documentation (including a sign, public notice or hearing, marketing plan, advertisement, drawing, permit application, State Environmental Quality Review Act (SEQRA) environmental assessment form or other documents, zoning request, computer design, etc.) or physical demarcation (including boundary signs, lot stakes, surveyor markings, etc.) indicating that *construction activities* may occur on a specific plot.

For discrete construction projects that are located within a larger common plan of development or sale that are at least 1/4 mile apart, each project can be treated as a separate plan of development or sale provided any interconnecting road, pipeline or utility project that is part of the same “common plan” is not concurrently being disturbed.

Minimize – means reduce and/or eliminate to the extent achievable using control measures (including best management practices) that are technologically available and economically practicable and achievable in light of best industry practices.

Municipal Separate Storm Sewer (MS4) - a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):

(i) Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to surface waters of the State*;*
(ii) Designed or used for collecting or conveying stormwater;
(iii) Which is not a *combined sewer*; and
(iv) Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2.

National Pollutant Discharge Elimination System (NPDES) - means the national system for the issuance of wastewater and stormwater permits under the Federal Water Pollution Control Act (Clean Water Act).

Natural Buffer –means an undisturbed area with natural cover running along a surface water (e.g. wetland, stream, river, lake, etc.).

New Development – means any land disturbance that does not meet the definition of Redevelopment Activity included in this appendix.

New York State Erosion and Sediment Control Certificate Program – a certificate program that establishes and maintains a process to identify and recognize individuals who are capable of developing, designing, inspecting and maintaining erosion and sediment control plans on projects that disturb soils in New York State. The certificate program is administered by the New York State Conservation District Employees Association.

NOI Acknowledgment Letter - means the letter that the Department sends to an owner or operator to acknowledge the Department's receipt and acceptance of a complete Notice of Intent. This letter documents the owner's or operator's authorization to discharge in accordance with the general permit for stormwater discharges from *construction activity*.

Nonpoint Source - means any source of water pollution or pollutants which is not a discrete conveyance or *point source* permitted pursuant to Title 7 or 8 of Article 17 of the Environmental Conservation Law (see ECL Section 17-1403).

Overbank –means flow events that exceed the capacity of the stream channel and spill out into the adjacent floodplain.

Owner or Operator - means the person, persons or legal entity which owns or leases the property on which the *construction activity* is occurring; an entity that has operational control over the construction plans and specifications, including the ability to make modifications to the plans and specifications; and/or an entity that has day-to-day operational control of those activities at a project that are necessary to ensure compliance with the permit conditions.

Performance Criteria – means the design criteria listed under the "Required Elements" sections in Chapters 5, 6 and 10 of the technical standard, New York State Stormwater Management Design Manual, dated January 2015. It does not include the Sizing Criteria (i.e. WQv, RRv, Cpv, Qp and Qf) in Part I.C.2. of the permit.

Point Source - means any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, vessel or other floating craft, or landfill leachate collection system from which *pollutants* are or may be discharged.

Pollutant - means dredged spoil, filter backwash, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand and industrial, municipal, agricultural waste and ballast discharged into water; which may cause or might reasonably be expected to cause pollution of the waters of the state in contravention of the standards or guidance values adopted as provided in 6 NYCRR Parts 700 et seq .

Qualified Inspector - means a person that is knowledgeable in the principles and practices of erosion and sediment control, such as a licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, New York State Erosion and Sediment Control Certificate Program holder or other Department endorsed individual(s).

It can also mean someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided that person has training in the principles and practices of erosion and sediment control. Training in the principles and practices of erosion and sediment control means that the individual working under the direct supervision of the licensed Professional Engineer or Registered Landscape Architect has received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity. After receiving the initial training, the individual working under the direct supervision of the licensed Professional Engineer or Registered Landscape Architect shall receive four (4) hours of training every three (3) years.

It can also mean a person that meets the *Qualified Professional* qualifications in addition to the *Qualified Inspector* qualifications.

Note: Inspections of any post-construction stormwater management practices that include structural components, such as a dam for an impoundment, shall be performed by a licensed Professional Engineer.

Qualified Professional - means a person that is knowledgeable in the principles and practices of stormwater management and treatment, such as a licensed Professional Engineer, Registered Landscape Architect or other Department endorsed individual(s). Individuals preparing SWPPPs that require the post-construction stormwater management practice component must have an understanding of the principles of hydrology, water quality management practice design, water quantity control design, and, in many cases, the principles of hydraulics. All components of the SWPPP that involve the practice of engineering, as defined by the NYS Education Law (see Article 145), shall be prepared by, or under the direct supervision of, a professional engineer licensed to practice in the State of New York.

Redevelopment Activity(ies) – means the disturbance and reconstruction of existing impervious area, including impervious areas that were removed from a project site within five (5) years of preliminary project plan submission to the local government (i.e. site plan, subdivision, etc.).

Regulated, Traditional Land Use Control MS4 - means a city, town or village with land use control authority that is authorized to discharge under New York State DEC's

SPDES General Permit For Stormwater Discharges from Municipal Separate Stormwater Sewer Systems (MS4s) or the City of New York's Individual SPDES Permit for their Municipal Separate Storm Sewer Systems (NY-0287890).

Routine Maintenance Activity - means *construction activity* that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of a facility, including, but not limited to:

- Re-grading of gravel roads or parking lots,
- Cleaning and shaping of existing roadside ditches and culverts that maintains the approximate original line and grade, and hydraulic capacity of the ditch,
- Cleaning and shaping of existing roadside ditches that does not maintain the approximate original grade, hydraulic capacity and purpose of the ditch if the changes to the line and grade, hydraulic capacity or purpose of the ditch are installed to improve water quality and quantity controls (e.g. installing grass lined ditch),
- Placement of aggregate shoulder backing that stabilizes the transition between the road shoulder and the ditch or *embankment*,
- Full depth milling and filling of existing asphalt pavements, replacement of concrete pavement slabs, and similar work that does not expose soil or disturb the bottom six (6) inches of subbase material,
- Long-term use of equipment storage areas at or near highway maintenance facilities,
- Removal of sediment from the edge of the highway to restore a previously existing sheet-flow drainage connection from the highway surface to the highway ditch or *embankment*,
- Existing use of Canal Corp owned upland disposal sites for the canal, and
- Replacement of curbs, gutters, sidewalks and guide rail posts.

Site limitations – means site conditions that prevent the use of an infiltration technique and or infiltration of the total WQv. Typical site limitations include: seasonal high groundwater, shallow depth to bedrock, and soils with an infiltration rate less than 0.5 inches/hour. The existence of site limitations shall be confirmed and documented using actual field testing (i.e. test pits, soil borings, and infiltration test) or using information from the most current United States Department of Agriculture (USDA) Soil Survey for the County where the project is located.

Sizing Criteria – means the criteria included in Part I.C.2 of the permit that are used to size post-construction stormwater management control practices. The criteria include; Water Quality Volume (WQv), Runoff Reduction Volume (RRv), Channel Protection Volume (Cpv), *Overbank* Flood (Qp), and Extreme Flood (Qf).

State Pollutant Discharge Elimination System (SPDES) - means the system established pursuant to Article 17 of the ECL and 6 NYCRR Part 750 for issuance of permits authorizing discharges to the waters of the state.

Steep Slope – means land area designated on the current United States Department of Agriculture ("USDA") Soil Survey as Soil Slope Phase "D", (provided the map unit name is inclusive of slopes greater than 25%) , or Soil Slope Phase E or F, (regardless of the map unit name), or a combination of the three designations.

Streambank – as used in this permit, means the terrain alongside the bed of a creek or stream. The bank consists of the sides of the channel, between which the flow is confined.

Stormwater Pollution Prevention Plan (SWPPP) – means a project specific report, including construction drawings, that among other things: describes the construction activity(ies), identifies the potential sources of pollution at the *construction site*; describes and shows the stormwater controls that will be used to control the pollutants (i.e. erosion and sediment controls; for many projects, includes post-construction stormwater management controls); and identifies procedures the *owner or operator* will implement to comply with the terms and conditions of the permit. See Part III of the permit for a complete description of the information that must be included in the SWPPP.

Surface Waters of the State - shall be construed to include lakes, bays, sounds, ponds, impounding reservoirs, springs, rivers, streams, creeks, estuaries, marshes, inlets, canals, the Atlantic ocean within the territorial seas of the state of New York and all other bodies of surface water, natural or artificial, inland or coastal, fresh or salt, public or private (except those private waters that do not combine or effect a junction with natural surface waters), which are wholly or partially within or bordering the state or within its jurisdiction. Waters of the state are further defined in 6 NYCRR Parts 800 to 941.

Temporarily Ceased – means that an existing disturbed area will not be disturbed again within 14 calendar days of the previous soil disturbance.

Temporary Stabilization - means that exposed soil has been covered with material(s) as set forth in the technical standard, New York Standards and Specifications for Erosion and Sediment Control, to prevent the exposed soil from eroding. The materials can include, but are not limited to, mulch, seed and mulch, and erosion control mats (e.g. jute twisted yarn, excelsior wood fiber mats).

Total Maximum Daily Loads (TMDLs) - A TMDL is the sum of the allowable loads of a single pollutant from all contributing point and *nonpoint source*s. It is a calculation of the maximum amount of a pollutant that a waterbody can receive on a daily basis and still meet *water quality standards*, and an allocation of that amount to the pollutant's sources. A TMDL stipulates wasteload allocations (WLAs) for *point source* discharges, load allocations (LAs) for *nonpoint source*s, and a margin of safety (MOS).

Trained Contractor - means an employee from the contracting (construction) company, identified in Part III.A.6., that has received four (4) hours of Department endorsed

training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity. After receiving the initial training, the *trained contractor* shall receive four (4) hours of training every three (3) years.

It can also mean an employee from the contracting (construction) company, identified in Part III.A.6., that meets the *qualified inspector* qualifications (e.g. licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, New York State Erosion and Sediment Control Certificate Program holder, or someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided they have received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity).

The *trained contractor* is responsible for the day to day implementation of the SWPPP.

Uniform Procedures Act (UPA) Permit - means a permit required under 6 NYCRR Part 621 of the Environmental Conservation Law (ECL), Article 70.

Water Quality Standard - means such measures of purity or quality for any waters in relation to their reasonable and necessary use as promulgated in 6 NYCRR Part 700 et seq.

APPENDIX B – Required SWPPP Components by Project Type

Table 1
Construction Activities that Require the Preparation of a SWPPP That Only Includes Erosion and Sediment Controls

The following construction activities that involve soil disturbances of one (1) or more acres of land, but less than five (5) acres:

- Single family home not located in one of the watersheds listed in Appendix C or not *directly discharging* to one of the 303(d) segments listed in Appendix E
- Single family residential subdivisions with 25% or less impervious cover at total site build-out and not located in one of the watersheds listed in Appendix C and not directly discharging to one of the 303(d) segments listed in Appendix E
- Construction of a barn or other *agricultural building*, silo, stock yard or pen.

The following construction activities that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land:

All construction activities located in the watersheds identified in Appendix D that involve soil disturbances between five thousand (5,000) square feet and one (1) acre of land.

The following construction activities that involve soil disturbances of one (1) or more acres of land:

- Installation of underground, linear utilities; such as gas lines, fiber-optic cable, cable TV, electric, telephone, sewer mains, and water mains
- Environmental enhancement projects, such as wetland mitigation projects, stormwater retrofits and stream restoration projects
- Pond construction
- Linear bike paths running through areas with vegetative cover, including bike paths surfaced with an impervious cover
- Cross-country ski trails and walking/hiking trails
- Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that are not part of residential, commercial or institutional development;
- Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that include incidental shoulder or curb work along an existing highway to support construction of the sidewalk, bike path or walking path.
- Slope stabilization projects
- Slope flattening that changes the grade of the site, but does not significantly change the runoff characteristics

Table 1 (Continued) CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A SWPPP THAT ONLY INCLUDES EROSION AND SEDIMENT CONTROLS

The following construction activities that involve soil disturbances of one (1) or more acres of land:

- Spoil areas that will be covered with vegetation
- Vegetated open space projects (i.e. recreational parks, lawns, meadows, fields, downhill ski trails) excluding projects that *alter hydrology from pre to post development* conditions,
- Athletic fields (natural grass) that do not include the construction or reconstruction of *impervious area* and do not *alter hydrology from pre to post development* conditions
- Demolition project where vegetation will be established, and no redevelopment is planned
- Overhead electric transmission line project that does not include the construction of permanent access roads or parking areas surfaced with *impervious cover*
- Structural practices as identified in Table II in the "Agricultural Management Practices Catalog for Nonpoint Source Pollution in New York State", excluding projects that involve soil disturbances of greater than five acres and construction activities that include the construction or reconstruction of impervious area
- Temporary access roads, median crossovers, detour roads, lanes, or other temporary impervious areas that will be restored to pre-construction conditions once the construction activity is complete

Table 2

CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A SWPPP THAT INCLUDES POST-CONSTRUCTION STORMWATER MANAGEMENT PRACTICES

The following construction activities that involve soil disturbances of one (1) or more acres of land:

- Single family home located in one of the watersheds listed in Appendix C or *directly discharging* to one of the 303(d) segments listed in Appendix E
- Single family home that disturbs five (5) or more acres of land
- Single family residential subdivisions located in one of the watersheds listed in Appendix C or *directly discharging* to one of the 303(d) segments listed in Appendix E
- Single family residential subdivisions that involve soil disturbances of between one (1) and five (5) acres of land with greater than 25% impervious cover at total site build-out
- Single family residential subdivisions that involve soil disturbances of five (5) or more acres of land, and single family residential subdivisions that involve soil disturbances of less than five (5) acres that are part of a larger common plan of development or sale that will ultimately disturb five or more acres of land
- Multi-family residential developments; includes duplexes, townhomes, condominiums, senior housing complexes, apartment complexes, and mobile home parks
- Airports
- Amusement parks
- Breweries, cideries, and wineries, including establishments constructed on agricultural land
- Campgrounds
- Cemeteries that include the construction or reconstruction of impervious area (>5% of disturbed area) or *alter the hydrology from pre to post development* conditions
- Commercial developments
- Churches and other places of worship
- Construction of a barn or other *agricultural building* (e.g. silo) and structural practices as identified in Table II in the "Agricultural Management Practices Catalog for Nonpoint Source Pollution in New York State" that include the construction or reconstruction of *impervious area*, excluding projects that involve soil disturbances of less than five acres.
- Golf courses
- Institutional development; includes hospitals, prisons, schools and colleges
- Industrial facilities; includes industrial parks
- Landfills
- Municipal facilities; includes highway garages, transfer stations, office buildings, POTW's, water treatment plants, and water storage tanks
- Office complexes
- Playgrounds that include the construction or reconstruction of impervious area
- Sports complexes
- Racetracks; includes racetracks with earthen (dirt) surface
- Road construction or reconstruction, including roads constructed as part of the construction activities listed in Table 1

Table 2 (Continued)

CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A SWPPP THAT INCLUDES POST-CONSTRUCTION STORMWATER MANAGEMENT PRACTICES

The following construction activities that involve soil disturbances of one (1) or more acres of land:

- Parking lot construction or reconstruction, including parking lots constructed as part of the construction activities listed in Table 1
- Athletic fields (natural grass) that include the construction or reconstruction of impervious area (>5% of disturbed area) or *alter the hydrology from pre to post development* conditions
- Athletic fields with artificial turf
- Permanent access roads, parking areas, substations, compressor stations and well drilling pads, surfaced with *impervious cover,* and constructed as part of an over-head electric transmission line project, wind-power project, cell tower project, oil or gas well drilling project, sewer or water main project or other linear utility project
- Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that are part of a residential, commercial or institutional development
- Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that are part of a highway construction or reconstruction project
- All other construction activities that include the construction or reconstruction of *impervious area* or *alter the hydrology from pre to post development* conditions, and are not listed in Table 1

APPENDIX C – Watersheds Requiring Enhanced Phosphorus Removal

Watersheds where *owners or operators* of construction activities identified in Table 2 of Appendix B must prepare a SWPPP that includes post-construction stormwater management practices designed in conformance with the Enhanced Phosphorus Removal Standards included in the technical standard, New York State Stormwater Management Design Manual ("Design Manual").

- Entire New York City Watershed located east of the Hudson River **-** Figure 1
- Onondaga Lake Watershed **-** Figure 2
- Greenwood Lake Watershed **-**Figure 3
- Oscawana Lake Watershed – Figure 4
- Kinderhook Lake Watershed – Figure 5

Figure 1 - New York City Watershed East of the Hudson

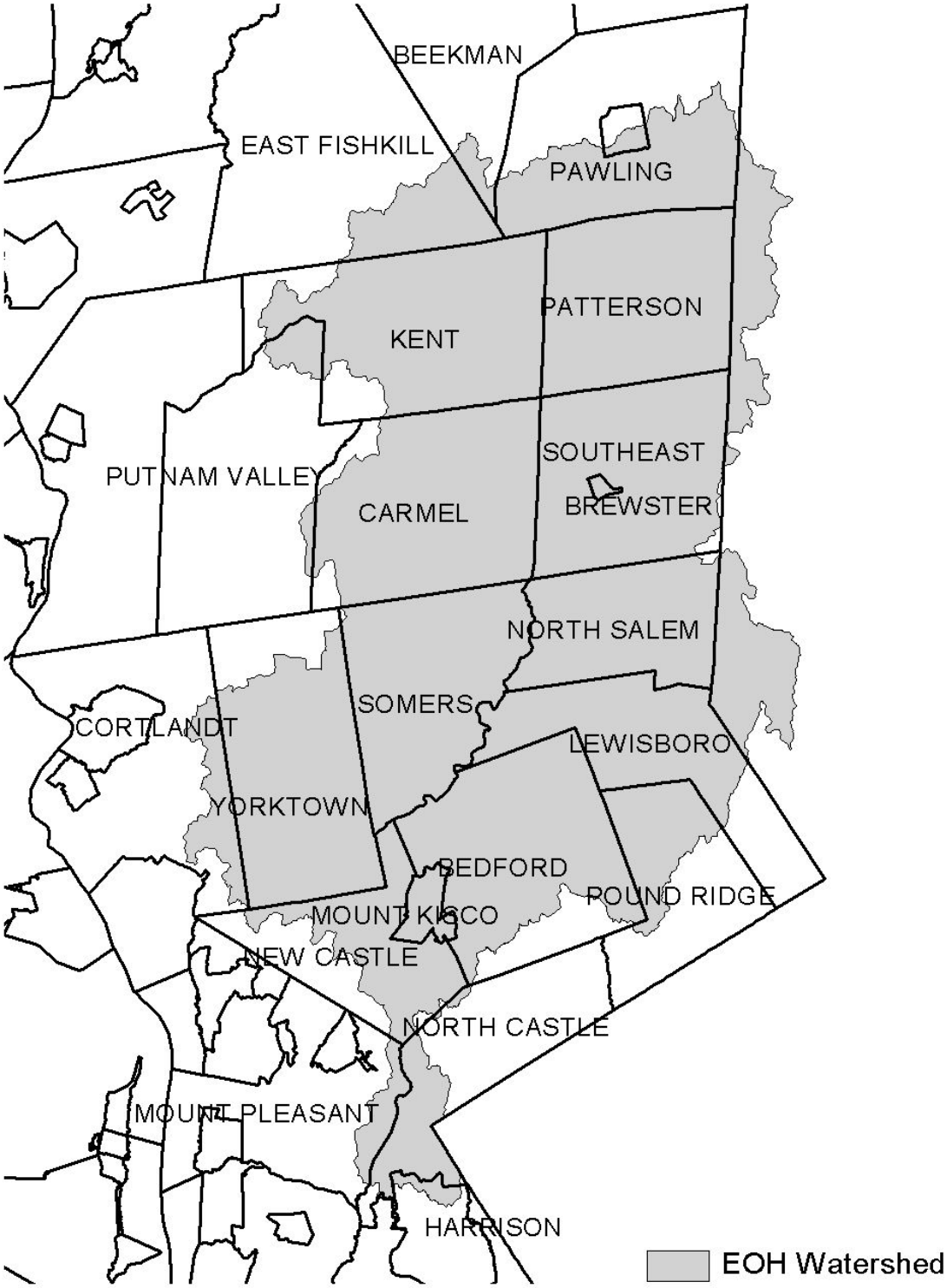


Figure 2 - Onondaga Lake Watershed

Figure 3 - Greenwood Lake Watershed

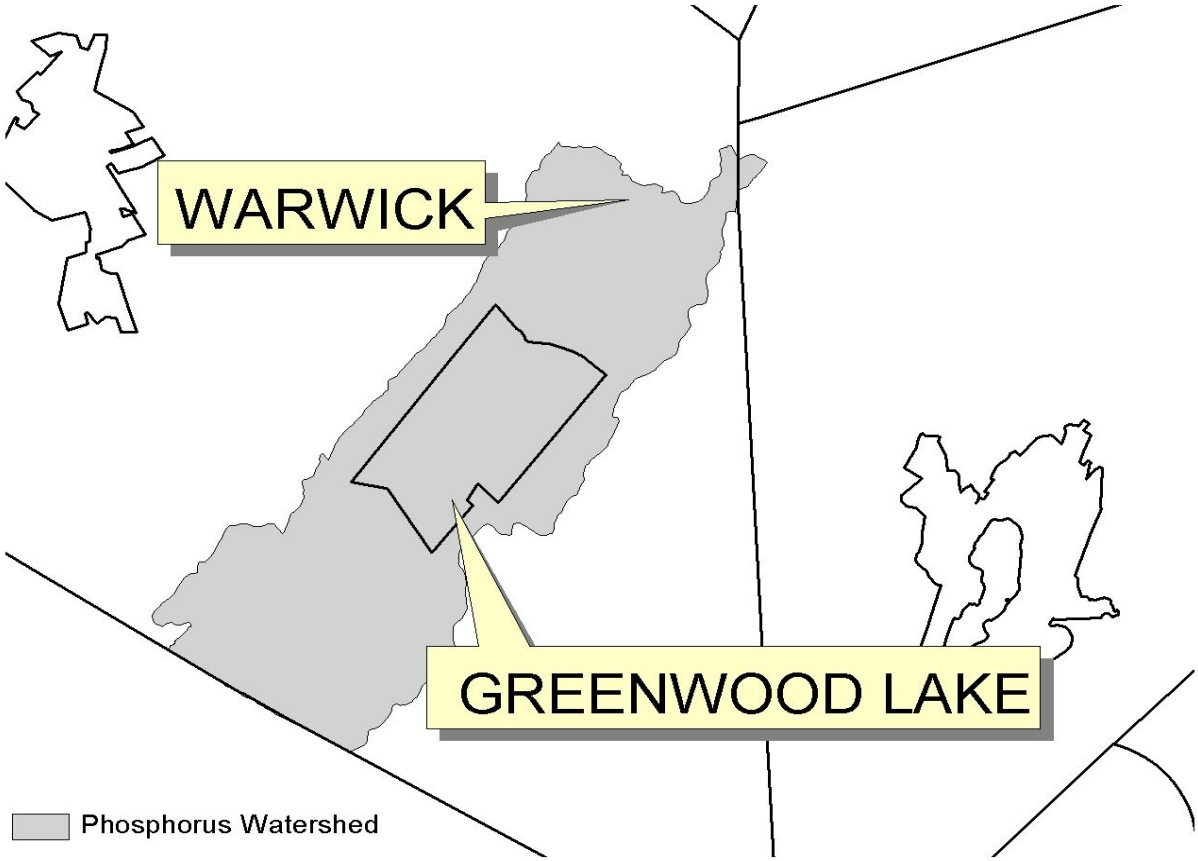


Figure 4 - Oscawana Lake Watershed

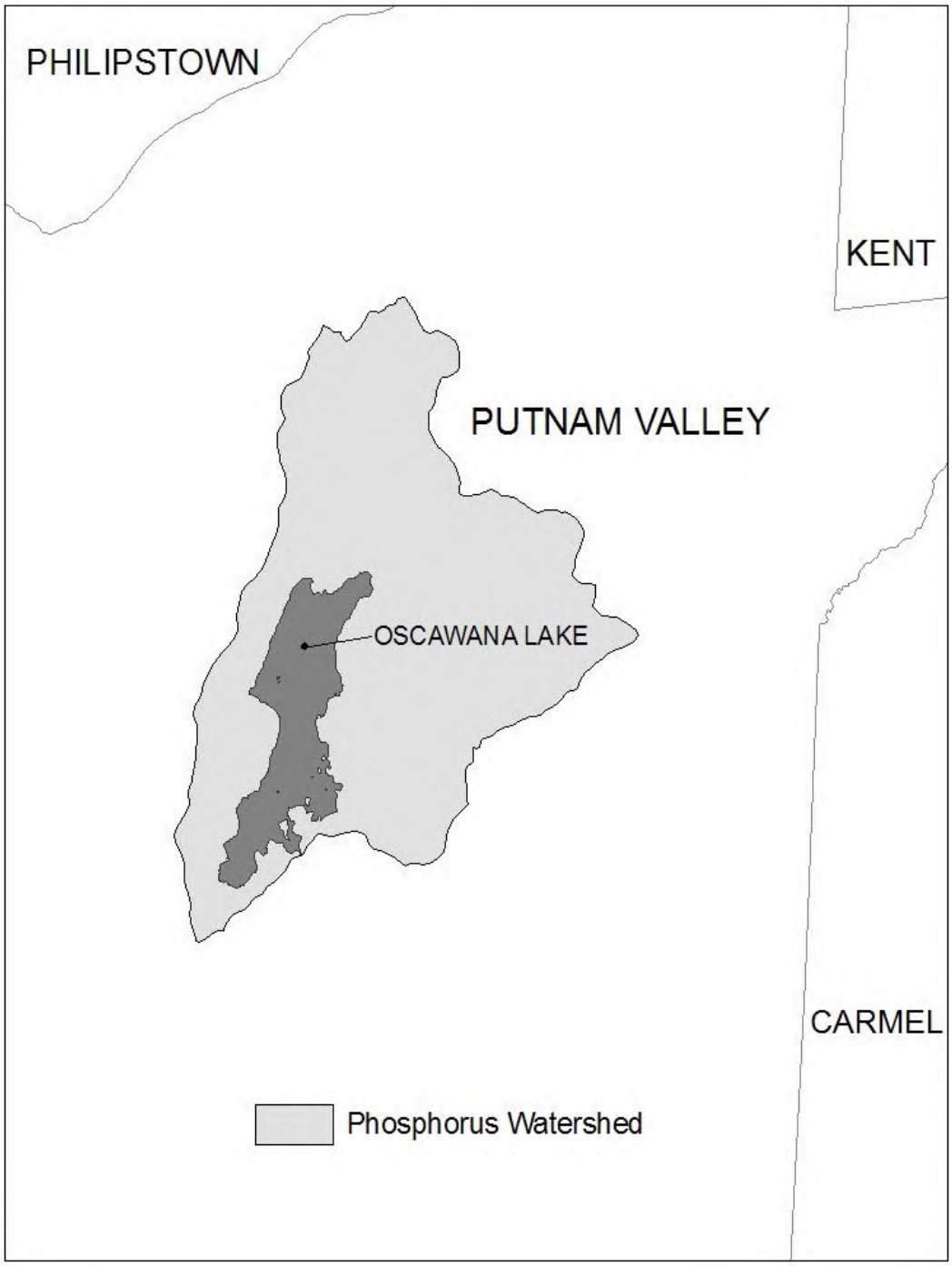
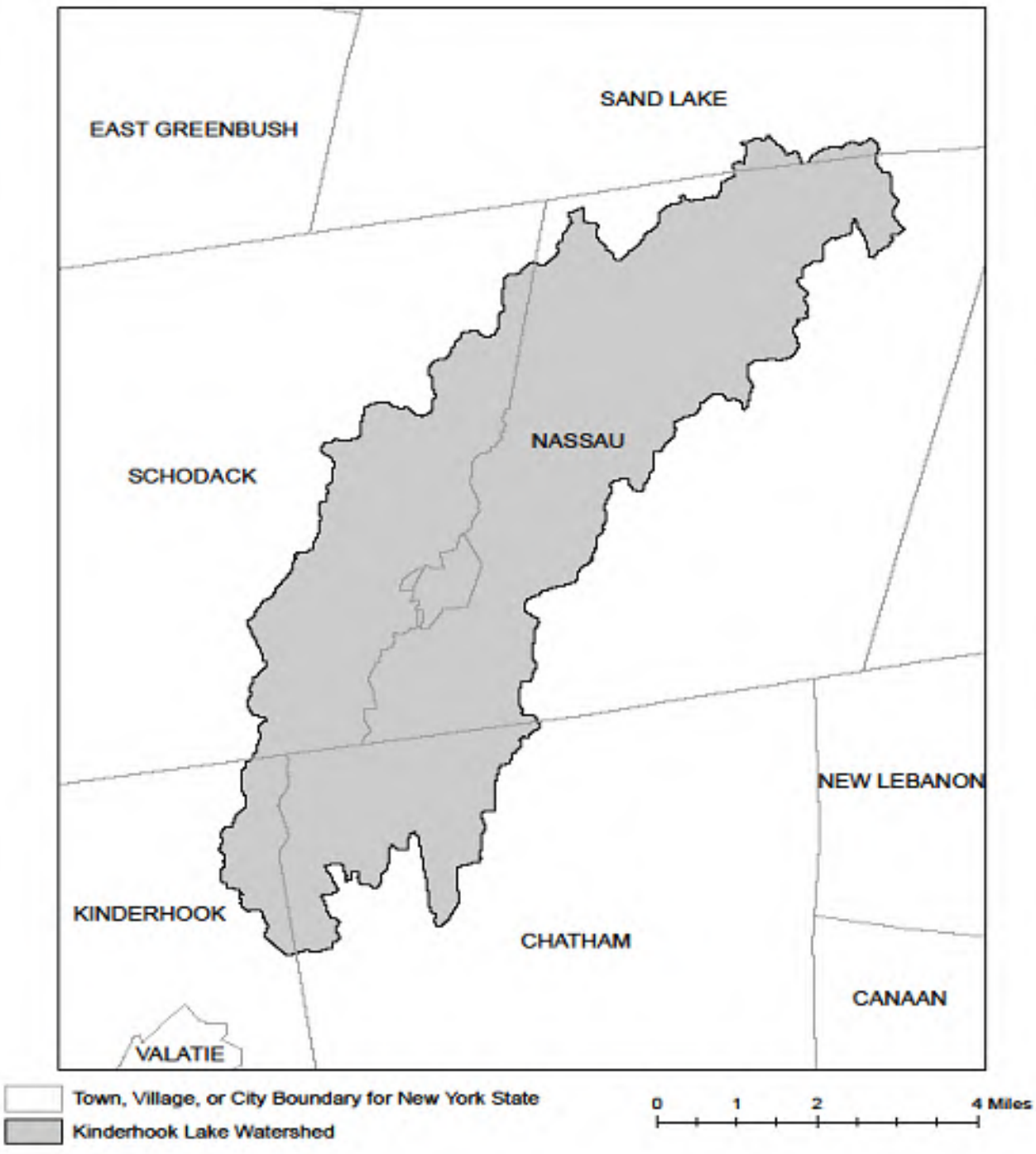


Figure 5 - Kinderhook Lake Watershed



APPENDIX D – Watersheds with Lower Disturbance Threshold

Watersheds where *owners or operators* of construction activities that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land must obtain coverage under this permit.

Entire New York City Watershed that is located east of the Hudson River **-** See Figure 1 in Appendix C

APPENDIX E – 303(d) Segments Impaired by Construction Related Pollutant(s)

List of 303(d) segments impaired by pollutants related to *construction activity* (e.g. silt, sediment or nutrients). The list was developed using "The Final New York State 2016 Section 303(d) List of Impaired Waters Requiring a TMDL/Other Strategy" dated November 2016. *Owners or operators* of single family home and single family residential subdivisions with 25% or less total impervious cover at total site build-out that involve soil disturbances of one or more acres of land, but less than 5 acres, and *directly discharge* to one of the listed segments below shall prepare a SWPPP that includes post-construction stormwater management practices designed in conformance with the New York State Stormwater Management Design Manual ("Design Manual"), dated January 2015.

COUNTY	WATERBODY	POLLUTANT
Albany	Ann Lee (Shakers) Pond, Stump Pond	Nutrients
Albany	Basic Creek Reservoir	Nutrients
Allegany	Amity Lake, Saunders Pond	Nutrients
Bronx	Long Island Sound, Bronx	Nutrients
Bronx	Van Cortlandt Lake	Nutrients
Broome	Fly Pond, Deer Lake, Sky Lake	Nutrients
Broome	Minor Tribs to Lower Susquehanna (north)	Nutrients
Broome	Whitney Point Lake/Reservoir	Nutrients
Cattaraugus	Allegheny River/Reservoir	Nutrients
Cattaraugus	Beaver (Alma) Lake	Nutrients
Cattaraugus	Case Lake	Nutrients
Cattaraugus	Linlyco/Club Pond	Nutrients
Cayuga	Duck Lake	Nutrients
Cayuga	Little Sodus Bay	Nutrients
Chautauqua	Bear Lake	Nutrients
Chautauqua	Chadakoin River and tribs	Nutrients
Chautauqua	Chautauqua Lake, North	Nutrients
Chautauqua	Chautauqua Lake, South	Nutrients
Chautauqua	Findley Lake	Nutrients
Chautauqua	Hulburt/Clymer Pond	Nutrients
Clinton	Great Chazy River, Lower, Main Stem	Silt/Sediment
Clinton	Lake Champlain, Main Lake, Middle	Nutrients
Clinton	Lake Champlain, Main Lake, North	Nutrients
Columbia	Kinderhook Lake	Nutrients
Columbia	Robinson Pond	Nutrients
Cortland	Dean Pond	Nutrients

303(d) Segments Impaired by Construction Related Pollutant(s)

Dutchess	Fall Kill and tribs	Nutrients
Dutchess	Hillside Lake	Nutrients
Dutchess	Wappingers Lake	Nutrients
Dutchess	Wappingers Lake	Silt/Sediment
Erie	Beeman Creek and tribs	Nutrients
Erie	Ellicott Creek, Lower, and tribs	Silt/Sediment
Erie	Ellicott Creek, Lower, and tribs	Nutrients
Erie	Green Lake	Nutrients
Erie	Little Sister Creek, Lower, and tribs	Nutrients
Erie	Murder Creek, Lower, and tribs	Nutrients
Erie	Rush Creek and tribs	Nutrients
Erie	Scajaquada Creek, Lower, and tribs	Nutrients
Erie	Scajaquada Creek, Middle, and tribs	Nutrients
Erie	Scajaquada Creek, Upper, and tribs	Nutrients
Erie	South Branch Smoke Cr, Lower, and tribs	Silt/Sediment
Erie	South Branch Smoke Cr, Lower, and tribs	Nutrients
Essex	Lake Champlain, Main Lake, South	Nutrients
Essex	Lake Champlain, South Lake	Nutrients
Essex	Willsboro Bay	Nutrients
Genesee	Bigelow Creek and tribs	Nutrients
Genesee	Black Creek, Middle, and minor tribs	Nutrients
Genesee	Black Creek, Upper, and minor tribs	Nutrients
Genesee	Bowen Brook and tribs	Nutrients
Genesee	LeRoy Reservoir	Nutrients
Genesee	Oak Orchard Cr, Upper, and tribs	Nutrients
Genesee	Tonawanda Creek, Middle, Main Stem	Nutrients
Greene	Schoharie Reservoir	Silt/Sediment
Greene	Sleepy Hollow Lake	Silt/Sediment
Herkimer	Steele Creek tribs	Silt/Sediment
Herkimer	Steele Creek tribs	Nutrients
Jefferson	Moon Lake	Nutrients
Kings	Hendrix Creek	Nutrients
Kings	Prospect Park Lake	Nutrients
Lewis	Mill Creek/South Branch, and tribs	Nutrients
Livingston	Christie Creek and tribs	Nutrients
Livingston	Conesus Lake	Nutrients
Livingston	Mill Creek and minor tribs	Silt/Sediment
Monroe	Black Creek, Lower, and minor tribs	Nutrients
Monroe	Buck Pond	Nutrients
Monroe	Cranberry Pond	Nutrients

303(d) Segments Impaired by Construction Related Pollutant(s)

Monroe	Lake Ontario Shoreline, Western	Nutrients
Monroe	Long Pond	Nutrients
Monroe	Mill Creek and tribs	Nutrients
Monroe	Mill Creek/Blue Pond Outlet and tribs	Nutrients
Monroe	Minor Tribs to Irondequoit Bay	Nutrients
Monroe	Rochester Embayment - East	Nutrients
Monroe	Rochester Embayment - West	Nutrients
Monroe	Shipbuilders Creek and tribs	Nutrients
Monroe	Thomas Creek/White Brook and tribs	Nutrients
Nassau	Beaver Lake	Nutrients
Nassau	Camaans Pond	Nutrients
Nassau	East Meadow Brook, Upper, and tribs	Silt/Sediment
Nassau	East Rockaway Channel	Nutrients
Nassau	Grant Park Pond	Nutrients
Nassau	Hempstead Bay	Nutrients
Nassau	Hempstead Lake	Nutrients
Nassau	Hewlett Bay	Nutrients
Nassau	Hog Island Channel	Nutrients
Nassau	Long Island Sound, Nassau County Waters	Nutrients
Nassau	Massapequa Creek and tribs	Nutrients
Nassau	Milburn/Parsonage Creeks, Upp, and tribs	Nutrients
Nassau	Reynolds Channel, west	Nutrients
Nassau	Tidal Tribs to Hempstead Bay	Nutrients
Nassau	Tribs (fresh) to East Bay	Nutrients
Nassau	Tribs (fresh) to East Bay	Silt/Sediment
Nassau	Tribs to Smith/Halls Ponds	Nutrients
Nassau	Woodmere Channel	Nutrients
New York	Harlem Meer	Nutrients
New York	The Lake in Central Park	Nutrients
Niagara	Bergholtz Creek and tribs	Nutrients
Niagara	Hyde Park Lake	Nutrients
Niagara	Lake Ontario Shoreline, Western	Nutrients
Niagara	Lake Ontario Shoreline, Western	Nutrients
Oneida	Ballou, Nail Creeks and tribs	Nutrients
Onondaga	Harbor Brook, Lower, and tribs	Nutrients
Onondaga	Ley Creek and tribs	Nutrients
Onondaga	Minor Tribs to Onondaga Lake	Nutrients
Onondaga	Ninemile Creek, Lower, and tribs	Nutrients
Onondaga	Onondaga Creek, Lower, and tribs	Nutrients
Onondaga	Onondaga Creek, Middle, and tribs	Nutrients

303(d) Segments Impaired by Construction Related Pollutant(s)

Onondaga	Onondaga Lake, northern end	Nutrients
Onondaga	Onondaga Lake, southern end	Nutrients
Ontario	Great Brook and minor tribs	Silt/Sediment
Ontario	Great Brook and minor tribs	Nutrients
Ontario	Hemlock Lake Outlet and minor tribs	Nutrients
Ontario	Honeoye Lake	Nutrients
Orange	Greenwood Lake	Nutrients
Orange	Monhagen Brook and tribs	Nutrients
Orange	Orange Lake	Nutrients
Orleans	Lake Ontario Shoreline, Western	Nutrients
Orleans	Lake Ontario Shoreline, Western	Nutrients
Oswego	Lake Neatahwanta	Nutrients
Oswego	Pleasant Lake	Nutrients
Putnam	Bog Brook Reservoir	Nutrients
Putnam	Boyd Corners Reservoir	Nutrients
Putnam	Croton Falls Reservoir	Nutrients
Putnam	Diverting Reservoir	Nutrients
Putnam	East Branch Reservoir	Nutrients
Putnam	Lake Carmel	Nutrients
Putnam	Middle Branch Reservoir	Nutrients
Putnam	Oscawana Lake	Nutrients
Putnam	Palmer Lake	Nutrients
Putnam	West Branch Reservoir	Nutrients
Queens	Bergen Basin	Nutrients
Queens	Flushing Creek/Bay	Nutrients
Queens	Jamaica Bay, Eastern, and tribs (Queens)	Nutrients
Queens	Kissena Lake	Nutrients
Queens	Meadow Lake	Nutrients
Queens	Willow Lake	Nutrients
Rensselaer	Nassau Lake	Nutrients
Rensselaer	Snyders Lake	Nutrients
Richmond	Grasmere Lake/Bradys Pond	Nutrients
Rockland	Congers Lake, Swartout Lake	Nutrients
Rockland	Rockland Lake	Nutrients
Saratoga	Ballston Lake	Nutrients
Saratoga	Dwaas Kill and tribs	Silt/Sediment
Saratoga	Dwaas Kill and tribs	Nutrients
Saratoga	Lake Lonely	Nutrients
Saratoga	Round Lake	Nutrients
Saratoga	Tribs to Lake Lonely	Nutrients

303(d) Segments Impaired by Construction Related Pollutant(s)

Schenectady	Collins Lake	Nutrients
Schenectady	Duane Lake	Nutrients
Schenectady	Mariaville Lake	Nutrients
Schoharie	Engleville Pond	Nutrients
Schoharie	Summit Lake	Nutrients
Seneca	Reeder Creek and tribs	Nutrients
St.Lawrence	Black Lake Outlet/Black Lake	Nutrients
St.Lawrence	Fish Creek and minor tribs	Nutrients
Steuben	Smith Pond	Nutrients
Suffolk	Agawam Lake	Nutrients
Suffolk	Big/Little Fresh Ponds	Nutrients
Suffolk	Canaan Lake	Silt/Sediment
Suffolk	Canaan Lake	Nutrients
Suffolk	Flanders Bay, West/Lower Sawmill Creek	Nutrients
Suffolk	Fresh Pond	Nutrients
Suffolk	Great South Bay, East	Nutrients
Suffolk	Great South Bay, Middle	Nutrients
Suffolk	Great South Bay, West	Nutrients
Suffolk	Lake Ronkonkoma	Nutrients
Suffolk	Long Island Sound, Suffolk County, West	Nutrients
Suffolk	Mattituck (Marratooka) Pond	Nutrients
Suffolk	Meetinghouse/Terrys Creeks and tribs	Nutrients
Suffolk	Mill and Seven Ponds	Nutrients
Suffolk	Millers Pond	Nutrients
Suffolk	Moriches Bay, East	Nutrients
Suffolk	Moriches Bay, West	Nutrients
Suffolk	Peconic River, Lower, and tidal tribs	Nutrients
Suffolk	Quantuck Bay	Nutrients
Suffolk	Shinnecock Bay and Inlet	Nutrients
Suffolk	Tidal tribs to West Moriches Bay	Nutrients
Sullivan	Bodine, Montgomery Lakes	Nutrients
Sullivan	Davies Lake	Nutrients
Sullivan	Evens Lake	Nutrients
Sullivan	Pleasure Lake	Nutrients
Tompkins	Cayuga Lake, Southern End	Nutrients
Tompkins	Cayuga Lake, Southern End	Silt/Sediment
Tompkins	Owasco Inlet, Upper, and tribs	Nutrients
Ulster	Ashokan Reservoir	Silt/Sediment
Ulster	Esopus Creek, Upper, and minor tribs	Silt/Sediment
Warren	Hague Brook and tribs	Silt/Sediment

303(d) Segments Impaired by Construction Related Pollutant(s)

Warren	Huddle/Finkle Brooks and tribs	Silt/Sediment
Warren	Indian Brook and tribs	Silt/Sediment
Warren	Lake George	Silt/Sediment
Warren	Tribs to L.George, Village of L George	Silt/Sediment
Washington	Cossayuna Lake	Nutrients
Washington	Lake Champlain, South Bay	Nutrients
Washington	Tribs to L.George, East Shore	Silt/Sediment
Washington	Wood Cr/Champlain Canal and minor tribs	Nutrients
Wayne	Port Bay	Nutrients
Westchester	Amawalk Reservoir	Nutrients
Westchester	Blind Brook, Upper, and tribs	Silt/Sediment
Westchester	Cross River Reservoir	Nutrients
Westchester	Lake Katonah	Nutrients
Westchester	Lake Lincolndale	Nutrients
Westchester	Lake Meahagh	Nutrients
Westchester	Lake Mohegan	Nutrients
Westchester	Lake Shenorock	Nutrients
Westchester	Long Island Sound, Westchester (East)	Nutrients
Westchester	Mamaroneck River, Lower	Silt/Sediment
Westchester	Mamaroneck River, Upper, and minor tribs	Silt/Sediment
Westchester	Muscoot/Upper New Croton Reservoir	Nutrients
Westchester	New Croton Reservoir	Nutrients
Westchester	Peach Lake	Nutrients
Westchester	Reservoir No.1 (Lake Isle)	Nutrients
Westchester	Saw Mill River, Lower, and tribs	Nutrients
Westchester	Saw Mill River, Middle, and tribs	Nutrients
Westchester	Sheldrake River and tribs	Silt/Sediment
Westchester	Sheldrake River and tribs	Nutrients
Westchester	Silver Lake	Nutrients
Westchester	Teatown Lake	Nutrients
Westchester	Titicus Reservoir	Nutrients
Westchester	Truesdale Lake	Nutrients
Westchester	Wallace Pond	Nutrients
Wyoming	Java Lake	Nutrients
Wyoming	Silver Lake	Nutrients

APPENDIX F – List of NYS DEC Regional Offices

Region	Covering the following counties:	DIVISION OF ENVIRONMENTAL PERMITS (DEP) Permit Administrators	DIVISION OF WATER (DOW) Water (SPDES) Program
1	Nassau and Suffolk	50 Circle Road Stony Brook, NY 11790 Tel. (631) 444-0365	50 Circle Road Stony Brook, NY 11790-3409 Tel. (631) 444-0405
2	Bronx, Kings, New York, Queens and Richmond	1 Hunters Point Plaza, 47-40 21st St. Long Island City, NY 11101-5407 Tel. (718) 482-4997	1 Hunters Point Plaza, 47-40 21st St. Long Island City, NY 11101-5407 Tel. (718) 482-4933
3	Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster and Westchester	21 South Putt Corners Road New Paltz, NY 12561-1696 Tel. (845) 256-3059	100 Hillside Avenue, Suite 1w White Plains, NY 10603 Tel. (914) 428 - 2505
4	Albany, Columbia, Delaware, Greene, Montgomery, Otsego, Rensselaer, Schenectady and Schoharie	1150 North Westcott Road Schenectady, NY 12306-2014 Tel. (518) 357-2069	1130 North Westcott Road Schenectady, NY 12306-2014 Tel. (518) 357-2045
5	Clinton, Essex, Franklin, Fulton, Hamilton, Saratoga, Warren and Washington	1115 State Route 86, Po Box 296 Ray Brook, NY 12977-0296 Tel. (518) 897-1234	232 Golf Course Road Warrensburg, NY 12885-1172 Tel. (518) 623-1200
6	HERKIMER, JEFFERSON, LEWIS, ONEIDA AND ST. LAWRENCE	STATE OFFICE BUILDING 317 WASHINGTON STREET WATERTOWN, NY 13601-3787 TEL. (315) 785-2245	STATE OFFICE BUILDING 207 GENESEE STREET UTICA, NY 13501-2885 TEL. (315) 793-2554
7	BROOME, CAYUGA, CHENANGO, CORTLAND, MADISON, ONONDAGA, OSWEGO, TIOGA AND TOMPKINS	615 ERIE BLVD. WEST SYRACUSE, NY 13204-2400 TEL. (315) 426-7438	615 ERIE BLVD. WEST SYRACUSE, NY 13204-2400 TEL. (315) 426-7500
8	CHEMUNG, GENESEE, LIVINGSTON, MONROE, ONTARIO, ORLEANS, SCHUYLER, SENECA, STEUBEN, WAYNE AND YATES	6274 EAST AVON-LIMA ROADAVON, NY 14414-9519 TEL. (585) 226-2466	6274 EAST AVON-LIMA RD. AVON, NY 14414-9519 TEL. (585) 226-2466
9	ALLEGANY, CATTARAUGUS, CHAUTAUQUA, ERIE, NIAGARA AND WYOMING	270 MICHIGAN AVENUE BUFFALO, NY 14203-2999 TEL. (716) 851-7165	270 MICHIGAN AVENUE BUFFALO, NY 14203-2999 TEL. (716) 851-7070

Appendix B

Notice of Intent

NOI for coverage under Stormwater General Permit for Construction Activity

version 1.35

(Submission #: HPN-D8BV-6987K, version 1)

Details

Originally Started By	Alexander Wilson
Alternate Identifier	Green Street Solar
Submission ID	HPN-D8BV-6987K
Submission Reason	New
Status	Draft

Form Input

Owner/Operator Information

Owner/Operator Name (Company/Private Owner/Municipality/Agency/Institution, etc.)
Green Street Power Partners, LLC

Owner/Operator Contact Person Last Name (NOT CONSULTANT)
Zurlo

Owner/Operator Contact Person First Name
Amanda

Owner/Operator Mailing Address
1 Landmark Square

City
Stamford

State
CT

Zip
06901

Phone
NONE PROVIDED

Email
azurla@aspp.com

Federal Tax ID
NONE PROVIDED

Project Location

Project/Site Name
Green Street Solar

Street Address (Not P.O. Box)
6975 NYS Route 206

Side of Street
North

City/Town/Village (THAT ISSUES BUILDING PERMIT)
Byron

State
NY

Zip
14416

DEC Region
NONE PROVIDED

County
GENESEE

Name of Nearest Cross Street
Tripp Road

Distance to Nearest Cross Street (Feet)
250

Project In Relation to Cross Street
East

Tax Map Numbers Section-Block-Parcel
11.00-2-67

Tax Map Numbers
NONE PROVIDED

1. Coordinates

Provide the Geographic Coordinates for the project site. The two methods are:
- Navigate to the project location on the map (below) and click to place a marker and obtain the XY coordinates.
- The "Find Me" button will provide the lat/long for the person filling out this form. Then pan the map to the correct location and click the map to place a marker and obtain the XY coordinates.

Navigate to your location and click on the map to get the X,Y coordinates
43.085120924573545,-78.01824612491453

Project Details

2. What is the nature of this project?
New Construction

3. Select the predominant land use for both pre and post development conditions.

Pre-Development Existing Landuse
Cultivated Land

Post-Development Future Land Use
Other: Ground Mounted Solar Array

3a. If Single Family Subdivision was selected in question 3, enter the number of subdivision lots.
NONE PROVIDED

---

4. In accordance with the larger common plan of development or sale, enter the total project site acreage, the acreage to be disturbed and the future impervious area (acreage)within the disturbed area.

*** ROUND TO THE NEAREST TENTH OF AN ACRE. ***

Total Site Area (acres)
36.52

Total Area to be Disturbed (acres)
36.52

Existing Impervious Area to be Disturbed (acres)
0

Future Impervious Area Within Disturbed Area (acres)
0.01

5. Do you plan to disturb more than 5 acres of soil at any one time?
No

---

6. Indicate the percentage (%) of each Hydrologic Soil Group(HSG) at the site.

A (%)
0

B (%)
40

C (%)
40

D (%)
20

7. Is this a phased project?
Yes

8. Enter the planned start and end dates of the disturbance activities.

Start Date
NONE PROVIDED

End Date
NONE PROVIDED

9. Identify the nearest surface waterbody(ies) to which construction site runoff will discharge.
Black Creek

9a. Type of waterbody identified in question 9?
Stream/Creek Off Site

Other Waterbody Type Off Site Description
NONE PROVIDED

9b. If "wetland" was selected in 9A, how was the wetland identified?
NONE PROVIDED

10. Has the surface waterbody(ies in question 9 been identified as a 303(d) segment in Appendix E of GP-0-20-001?
No

11. Is this project located in one of the Watersheds identified in Appendix C of GP-0-20-001?
No

12. Is the project located in one of the watershed areas associated with AA and AA-S classified waters?
No

If No, skip question 13.

13. Does this construction activity disturb land with no existing impervious cover and where the Soil Slope Phase is identified as D (provided the map unit name is inclusive of slopes greater than 25%), E or F on the USDA Soil Survey?
NONE PROVIDED

If Yes, what is the acreage to be disturbed?
NONE PROVIDED

14. Will the project disturb soils within a State regulated wetland or the protected 100 foot adjacent area?
No

15. Does the site runoff enter a separate storm sewer system (including roadside drains, swales, ditches, culverts, etc)?
No

16. What is the name of the municipality/entity that owns the separate storm sewer system?
NONE PROVIDED

17. Does any runoff from the site enter a sewer classified as a Combined Sewer?
No

18. Will future use of this site be an agricultural property as defined by the NYS Agriculture and Markets Law?
No

19. Is this property owned by a state authority, state agency, federal government or local government?
No

20. Is this a remediation project being done under a Department approved work plan? (i.e. CERCLA, RCRA, Voluntary Cleanup Agreement, etc.)
No

Required SWPPP Components

21. Has the required Erosion and Sediment Control component of the SWPPP been developed in conformance with the current NYS Standards and Specifications for Erosion and Sediment Control (aka Blue Book)?
Yes

22. Does this construction activity require the development of a SWPPP that includes the post-construction stormwater management practice component (i.e. Runoff Reduction, Water Quality and Quantity Control practices/techniques)?
Yes

If you answered No in question 22, skip question 23 and the Post-construction Criteria and Post-construction SMP Identification sections.

23. Has the post-construction stormwater management practice component of the SWPPP been developed in conformance with the current NYS Stormwater Management Design Manual?
Yes

24. The Stormwater Pollution Prevention Plan (SWPPP) was prepared by:
Professional Engineer (P.E.)

SWPPP Preparer
MJ Engineering and Land Surveying, PC

Contact Name (Last, Space, First)
Panichelli, Michael

Mailing Address
1533 Crescent Road

City
Clifton Park

State
NY

Zip
12065

Phone
518-372-0799

Email
mpanichelli@mjels.com

Download SWPPP Preparer Certification Form
Please take the following steps to prepare and upload your preparer certification form:

1) Click on the link below to download a blank certification form
2) The certified SWPPP preparer should sign this form

3) Scan the signed form
4) Upload the scanned document
Download SWPPP Preparer Certification Form

Please upload the SWPPP Preparer Certification
NONE PROVIDED
Comment
NONE PROVIDED

Erosion & Sediment Control Criteria

25. Has a construction sequence schedule for the planned management practices been prepared?
Yes

26. Select all of the erosion and sediment control practices that will be employed on the project site:

Temporary Structural
Dust Control
Perimeter Dike/Swale
Silt Fence
Stabilized Construction Entrance

Biotechnical
None

Vegetative Measures
Seeding
Sodding
Topsoiling
Mulching

Permanent Structural
Land Grading

Other
NONE PROVIDED

Post-Construction Criteria

*** IMPORTANT: Completion of Questions 27-39 is not required if response to Question 22 is No.**

27. Identify all site planning practices that were used to prepare the final site plan/layout for the project.
Preservation of Undisturbed Area
Reduction of Clearing and Grading

27a. Indicate which of the following soil restoration criteria was used to address the requirements in Section 5.1.6("Soil Restoration") of the Design Manual (2010 version).
All disturbed areas will be restored in accordance with the Soil Restoration requirements in Table 5.3 of the Design Manual (see page 5-22).

28. Provide the total Water Quality Volume (WQv) required for this project (based on final site plan/layout). (Acre-feet)
.001

29. Post-construction SMP Identification
Use the Post-construction SMP Identification section to identify the RR techniques (Area Reduction), RR techniques(Volume Reduction) and Standard SMPs with RRv Capacity that were used to reduce the Total WQv Required (#28).

Identify the SMPs to be used by providing the total impervious area that contributes runoff to each technique/practice selected. For the Area Reduction Techniques, provide the total contributing area (includes pervious area) and, if applicable, the total impervious area that contributes runoff to the technique/practice.

Note: Redevelopment projects shall use the Post-Construction SMP Identification section to identify the SMPs used to treat and/or reduce the WQv required. If runoff reduction techniques will not be used to reduce the required WQv, skip to question 33a after identifying the SMPs.

30. Indicate the Total RRv provided by the RR techniques (Area/Volume Reduction) and Standard SMPs with RRv capacity identified in question 29. (acre-feet)
.0002

31. Is the Total RRv provided (#30) greater than or equal to the total WQv required (#28)?
Yes

If Yes, go to question 36. If No, go to question 32.

32. Provide the Minimum RRv required based on HSG. [Minimum RRv Required = (P) (0.95) (Ai) / 12, Ai=(s) (Aic)] (acre-feet)
.0002

32a. Is the Total RRv provided (#30) greater than or equal to the Minimum RRv Required (#32)?
Yes

If Yes, go to question 33.
Note: Use the space provided in question #39 to summarize the specific site limitations and justification for not reducing 100% of WQv required (#28). A detailed evaluation of the specific site limitations and justification for not reducing 100% of the WQv required (#28) must also be included in the SWPPP.

If No, sizing criteria has not been met; therefore, NOI can not be processed. SWPPP preparer must modify design to meet sizing criteria.

33. SMPs
Use the Post-construction SMP Identification section to identify the Standard SMPs and, if applicable, the Alternative SMPs to be used to treat the remaining total WQv (=Total WQv Required in #28 - Total RRv Provided in #30).

Also, provide the total impervious area that contributes runoff to each practice selected.

NOTE: Use the Post-construction SMP Identification section to identify the SMPs used on Redevelopment projects.

33a. Indicate the Total WQv provided (i.e. WQv treated) by the SMPs identified in question #33 and Standard SMPs with RRv Capacity identified in question #29. (acre-feet)
.001

Note: For the standard SMPs with RRv capacity, the WQv provided by each practice = the WQv calculated using the contributing drainage area to the practice - provided by the practice. (See Table 3.5 in Design Manual)

34. Provide the sum of the Total RRv provided (#30) and the WQv provided (#33a).
.001

35. Is the sum of the RRv provided (#30) and the WQv provided (#33a) greater than or equal to the total WQv required (#28)?
Yes

If Yes, go to question 36.

If No, sizing criteria has not been met; therefore, NOI can not be processed. SWPPP preparer must modify design to meet sizing criteria.

36. Provide the total Channel Protection Storage Volume (CPv required and provided or select waiver (#36a), if applicable.

CPv Required (acre-feet)
1.60

CPv Provided (acre-feet)
0.90

36a. The need to provide channel protection has been waived because:
NONE PROVIDED

37. Provide the Overbank Flood (Qp) and Extreme Flood (Qf) control criteria or select waiver (#37a), if applicable.

Overbank Flood Control Criteria (Qp)

Pre-Development (CFS)
72.46

Post-Development (CFS)
67.27

Total Extreme Flood Control Criteria (Qf)

Pre-Development (CFS)
135.28

Post-Development (CFS)
125.68

37a. The need to meet the Qp and Qf criteria has been waived because:
NONE PROVIDED

38. Has a long term Operation and Maintenance Plan for the post-construction stormwater management practice(s) been developed?
Yes

If Yes, Identify the entity responsible for the long term Operation and Maintenance
NONE PROVIDED

39. Use this space to summarize the specific site limitations and justification for not reducing 100% of WQv required (#28). (See question #32a) This space can also be used for other pertinent project information.
NONE PROVIDED

Post-Construction SMP Identification

Runoff Reduction (RR) Techniques, Standard Stormwater Management Practices (SMPs) and Alternative SMPs
Identify the Post-construction SMPs to be used by providing the total impervious area that contributes runoff to each technique/practice selected. For the Area Reduction Techniques, provide the total contributing area (includes pervious area) and, if applicable, the total impervious area that contributes runoff to the technique/practice.

RR Techniques (Area Reduction)

Round to the nearest tenth

Total Contributing Acres for Conservation of Natural Area (RR-1)
NONE PROVIDED

Total Contributing Impervious Acres for Conservation of Natural Area (RR-1)
NONE PROVIDED

Total Contributing Acres for Sheetflow to Riparian Buffers/Filter Strips (RR-2)
.01

Total Contributing Impervious Acres for Sheetflow to Riparian Buffers/Filter Strips (RR-2)
NONE PROVIDED

Total Contributing Acres for Tree Planting/Tree Pit (RR-3)
NONE PROVIDED

Total Contributing Impervious Acres for Tree Planting/Tree Pit (RR-3)
NONE PROVIDED

Total Contributing Acres for Disconnection of Rooftop Runoff (RR-4)
NONE PROVIDED

RR Techniques (Volume Reduction)

Total Contributing Impervious Acres for Disconnection of Rooftop Runoff (RR-4)
NONE PROVIDED

Total Contributing Impervious Acres for Vegetated Swale (RR-5)
NONE PROVIDED

Total Contributing Impervious Acres for Rain Garden (RR-6)
NONE PROVIDED

Total Contributing Impervious Acres for Stormwater Planter (RR-7)
NONE PROVIDED

Total Contributing Impervious Acres for Rain Barrel/Cistern (RR-8)
NONE PROVIDED

Total Contributing Impervious Acres for Porous Pavement (RR-9)
NONE PROVIDED

Total Contributing Impervious Acres for Green Roof (RR-10)
NONE PROVIDED

Standard SMPs with RRv Capacity

Total Contributing Impervious Acres for Infiltration Trench (I-1)
NONE PROVIDED

Total Contributing Impervious Acres for Infiltration Basin (I-2)
NONE PROVIDED

Total Contributing Impervious Acres for Dry Well (I-3)
NONE PROVIDED

Total Contributing Impervious Acres for Underground Infiltration System (I-4)
NONE PROVIDED

Total Contributing Impervious Acres for Bioretention (F-5)
NONE PROVIDED

Total Contributing Impervious Acres for Dry Swale (O-1)
NONE PROVIDED

Standard SMPs

Total Contributing Impervious Acres for Micropool Extended Detention (P-1)
NONE PROVIDED

Total Contributing Impervious Acres for Wet Pond (P-2)
NONE PROVIDED

Total Contributing Impervious Acres for Wet Extended Detention (P-3)
NONE PROVIDED

Total Contributing Impervious Acres for Multiple Pond System (P-4)
NONE PROVIDED

Total Contributing Impervious Acres for Pocket Pond (P-5)
NONE PROVIDED

Total Contributing Impervious Acres for Surface Sand Filter (F-1)
NONE PROVIDED

Total Contributing Impervious Acres for Underground Sand Filter (F-2)
NONE PROVIDED

Total Contributing Impervious Acres for Perimeter Sand Filter (F-3)
NONE PROVIDED

Total Contributing Impervious Acres for Organic Filter (F-4)
NONE PROVIDED

Total Contributing Impervious Acres for Shallow Wetland (W-1)
NONE PROVIDED

Total Contributing Impervious Acres for Extended Detention Wetland (W-2)
NONE PROVIDED

Total Contributing Impervious Acres for Pond/Wetland System (W-3)
NONE PROVIDED

Total Contributing Impervious Acres for Pocket Wetland (W-4)
NONE PROVIDED

Total Contributing Impervious Acres for Wet Swale (O-2)
NONE PROVIDED

Alternative SMPs (DO NOT INCLUDE PRACTICES BEING USED FOR PRETREATMENT ONLY)

Total Contributing Impervious Area for Hydrodynamic
NONE PROVIDED

Total Contributing Impervious Area for Wet Vault
NONE PROVIDED

Total Contributing Impervious Area for Media Filter
NONE PROVIDED

"Other" Alternative SMP?
NONE PROVIDED

Total Contributing Impervious Area for "Other"
NONE PROVIDED

Provide the name and manufaturer of the alternative SMPs (i.e. proprietary practice(s)) being used for WQv treatment.

Note: Redevelopment projects which do not use RR techniques, shall use questions 28, 29, 33 and 33a to provide SMPs used, total WQv required and total WQv provided for the project.

Manufacturer of Alternative SMP
NONE PROVIDED

Name of Alternative SMP
NONE PROVIDED

Other Permits

40. Identify other DEC permits, existing and new, that are required for this project/facility.
None

If SPDES Multi-Sector GP, then give permit ID
NONE PROVIDED

If Other, then identify
NONE PROVIDED

41. Does this project require a US Army Corps of Engineers Wetland Permit?
No

If "Yes," then indicate Size of Impact, in acres, to the nearest tenth
NONE PROVIDED

42. If this NOI is being submitted for the purpose of continuing or transferring coverage under a general permit for stormwater runoff from construction activities, please indicate the former SPDES number assigned.
NONE PROVIDED

MS4 SWPPP Acceptance

43. Is this project subject to the requirements of a regulated, traditional land use control MS4?
Yes - Please attach the MS4 Acceptance form below

If No, skip question 44

44. Has the "MS4 SWPPP Acceptance" form been signed by the principal executive officer or ranking elected official and submitted along with this NOI?
Yes

MS4 SWPPP Acceptance Form Download
Download form from the link below. Complete, sign, and upload.
MS4 SWPPP Acceptance Form

MS4 Acceptance Form Upload
NONE PROVIDED
Comment
NONE PROVIDED

Owner/Operator Certification

Owner/Operator Certification Form Download
Download the certification form by clicking the link below. Complete, sign, scan, and upload the form.
Owner/Operator Certification Form (PDF, 45KB)

Upload Owner/Operator Certification Form
NONE PROVIDED
Comment
NONE PROVIDED

Appendix B

Notice of Termination (NOT) (Sample Form)

New York State Department of Environmental Conservation
Division of Water
625 Broadway, 4th Floor
Albany, New York 12233-3505
(NOTE: Submit completed form to address above)

NOTICE OF TERMINATION for Storm Water Discharges Authorized under the SPDES General Permit for Construction Activity

Please indicate your permit identification number: NYR ___ ___ ___ ___ ___ ___

I. Owner or Operator Information

1. Owner/Operator Name:

2. Street Address:

3. City/State/Zip:

4. Contact Person: | 4a.Telephone:

4b. Contact Person E-Mail:

II. Project Site Information

5. Project/Site Name:

6. Street Address:

7. City/Zip:

8. County:

III. Reason for Termination

9a. □ All disturbed areas have achieved final stabilization in accordance with the general permit and SWPPP. ***Date final stabilization completed** (month/year): _____

9b. □ Permit coverage has been transferred to new owner/operator. Indicate new owner/operator's permit identification number: NYR ___ ___ ___ ___ ___ ___
(Note: Permit coverage can not be terminated by owner identified in I.1. above until new owner/operator obtains coverage under the general permit)

9c. □ Other (Explain on Page 2)

IV. Final Site Information:

10a. Did this construction activity require the development of a SWPPP that includes post-construction stormwater management practices? □ yes □ no (If no, go to question 10f.)

10b. Have all post-construction stormwater management practices included in the final SWPPP been constructed? □ yes □ no (If no, explain on Page 2)

10c. Identify the entity responsible for long-term operation and maintenance of practice(s)?

_____

NOTICE OF TERMINATION for Storm Water Discharges Authorized under the SPDES General Permit for Construction Activity - continued

10d. Has the entity responsible for long-term operation and maintenance been given a copy of the operation and maintenance plan required by the general permit? □ yes □ no

10e. Indicate the method used to ensure long-term operation and maintenance of the post-construction stormwater management practice(s):

□ Post-construction stormwater management practice(s) and any right-of-way(s) needed to maintain practice(s) have been deeded to the municipality.

□ Executed maintenance agreement is in place with the municipality that will maintain the post-construction stormwater management practice(s).

□ For post-construction stormwater management practices that are privately owned, a mechanism is in place that requires operation and maintenance of the practice(s) in accordance with the operation and maintenance plan, such as a deed covenant in the owner or operator's deed of record.

□ For post-construction stormwater management practices that are owned by a public or private institution (e.g. school, university or hospital), government agency or authority, or public utility; policy and procedures are in place that ensures operation and maintenance of the practice(s) in accordance with the operation and maintenance plan.

10f. Provide the total area of impervious surface (i.e. roof, pavement, concrete, gravel, etc.) constructed within the disturbance area? _____ (acres)

11. Is this project subject to the requirements of a regulated, traditional land use control MS4? □ yes □ no

(If Yes, complete section VI - "MS4 Acceptance" statement

V. Additional Information/Explanation:

(Use this section to answer questions 9c. and 10b., if applicable)

VI. MS4 Acceptance - MS4 Official (principal executive officer or ranking elected official) or Duly Authorized Representative (Note: Not required when 9b. is checked -transfer of coverage)

I have determined that it is acceptable for the owner or operator of the construction project identified in question 5 to submit the Notice of Termination at this time.

Printed Name:	
Title/Position:	
Signature:	Date:

NOTICE OF TERMINATION for Storm Water Discharges Authorized under the SPDES General Permit for Construction Activity - continued

VII. Qualified Inspector Certification - Final Stabilization:

I hereby certify that all disturbed areas have achieved final stabilization as defined in the current version of the general permit, and that all temporary, structural erosion and sediment control measures have been removed. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

Printed Name:	
Title/Position:	
Signature:	Date:

VIII. Qualified Inspector Certification - Post-construction Stormwater Management Practice(s):

I hereby certify that all post-construction stormwater management practices have been constructed in conformance with the SWPPP. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

Printed Name:	
Title/Position:	
Signature:	Date:

IX. Owner or Operator Certification

I hereby certify that this document was prepared by me or under my direction or supervision. My determination, based upon my inquiry of the person(s) who managed the construction activity, or those persons directly responsible for gathering the information, is that the information provided in this document is true, accurate and complete. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

Printed Name:	
Title/Position:	
Signature:	Date:

(NYS DEC Notice of Termination - January 2015)

Appendix B

SWPPP Preparer Certification

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

SWPPP Preparer Certification Form

SPDES General Permit for Stormwater Discharges
From Construction Activity (GP-0-15-002)

Project Site Information

Project/Site Name

Green Street Power Partners, LLC

Owner/Operator Information

Owner/Operator (Company Name/Private Owner/Municipality Name)

MJ ENGINEERING AND LAND SURVEYING

Certification Statement – SWPPP Preparer

I hereby certify that the Stormwater Pollution Prevention Plan (SWPPP) for this project has been prepared in accordance with the terms and conditions of the GP-0-15-002. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of this permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

First name | MI | Last Name

Signature | Date

Revised: April 2015

Appendix B

Owner/Operator Certification Form

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Owner/Operator Certification Form

SPDES General Permit For Stormwater Discharges From Construction Activity (GP-0-20-001)

Project/Site Name: Green Street Power Partners, LLC

eNOI Submission Number: _____

eNOI Submitted by: ☐ **Owner/Operator** ☑ **SWPPP Preparer** ☐ **Other**

Certification Statement - Owner/Operator

I have read or been advised of the permit conditions and believe that I understand them. I also understand that, under the terms of the permit, there may be reporting requirements. I hereby certify that this document and the corresponding documents were prepared under my direction or supervision. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I further understand that coverage under the general permit will be identified in the acknowledgment that I will receive as a result of submitting this NOI and can be as long as sixty (60) business days as provided for in the general permit. I also understand that, by submitting this NOI, I am acknowledging that the SWPPP has been developed and will be implemented as the first element of construction, and agreeing to comply with all the terms and conditions of the general permit for which this NOI is being submitted.

Owner/Operator First Name M.I. Last Name

_____

Signature

_____

Date

Appendix B

NYSDEC Acknowledgement Letter of Permit Coverage

Appendix C

Operator's Certification Form

STORM WATER POLLUTION PREVENTION PLAN
OPERATOR'S CERTIFICATION

The Operator that will implement the erosion and sediment control measures described in the SWPPP must certifying that he/she understands the NYSDEC general permit (GP-0-15-002) authorizing storm water discharges during construction. This signed statement must be maintained in the SWPPP file on-site.

OWNER:

Business Name:_____

Business Address:_____

Telephone No.:_____

Name of Signatory:_____

Title of Signatory:_____

Signature:_____

Date:_____

CERTIFICATION:

"I have read or been advised of the permit conditions and believe that I understand them. I also understand that, under the terms of the permit, there may be reporting requirements. I hereby certify that this document and the corresponding documents were prepared under my direction or supervision. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I further understand that coverage under the general permit will be identified in the acknowledgment that I will receive as a result of submitting this NOI and can be as long as sixty (60) business days as provided for in the general permit. I also understand that, by submitting this NOI, I am acknowledging that the SWPPP has been developed and will be implemented as the first element of construction, and agreeing to comply with all the terms and conditions of the general permit for which this NOI is being submitted."

**Signatory Requirements - All NOIs, NOTs and SWPPPs shall be signed as follows:

1. For a corporation: by a (1) president, secretary, treasurer, or vice-president of the corporation in charge of a principle business function, or any other person authorized to and who performs similar policy or decision-making functions for the corporation; or (2) the manager of one or more manufacturing, production or operating facilities, provided the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can endure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;

2. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or

3. For a municipality, State, Federal, or other public agency; by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes (1) the chief executive officer of the agency, or (2) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g. Regional Administrators of EPA).

**Note: signature requirements in Part VII.H of the NYSDEC SPDES Permit GP-0-15-002

Appendix C

Contractor's Certification Form

STORM WATER POLLUTION PREVENTION PLAN
CONTRACTOR'S CERTIFICATION

The Contractor and/or Subcontractor(s) that will implement the erosion and sediment control measures described in the SWPPP must be identified below. Each must sign a statement certifying that they understand the NYSDEC general permit (GP-0-15-002) authorizing storm water discharges during construction. These statements must be maintained in the SWPPP file on-site.

CONTRACTOR IMPLEMENTING THE SWPPP:

Business Name:_____

Business Address:_____

Telephone No.:_____

Name of Signatory:_____

Title of Signatory:_____

Signature:_____

Date:_____

Contractor's Responsibility(s):_____
_____
_____
_____

Names of Company "Trained Contractors":

1._____ 4._____

2._____ 5._____

3._____ 6._____

CERTIFICATION:

"I hereby certify that I understand and agree to comply with the terms and conditions of the SWPPP and agree to implement any corrective actions identified by the *Qualified Inspector* during a site inspection. I also understand that the *Operator* must comply with the terms and conditions of the most current version of the New York State Pollutant Discharge Elimination System ("SPDES") general permit for stormwater discharges from construction activities and that it is unlawful for any person to cause or contribute to a violation of water quality standards. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings."

Appendix D

SWPPP Inspection Report (Sample Form)

SWPPP INSPECTION FORM

General Information			
Name of Project		**Weather Conditions**	
Date _____ /_____ /_____ **Time** **IN** _____ **AM / PM** **OUT** _____ **AM / PM**	**Soil Conditions** ☐ Dry ☐ Wet ☐ Saturated ☐ Frozen ☐ Other:_____		
	Present Phase of Construction		
Inspector Name		**Inspector Title**	

Inspection Frequency ☐ Routine - Once every 7 calendar days ☐ Routine - Two every 7 calendar days, min 2 day separation (5 acre waiver) ☐ Initial or Final Inspection ☐ Monthly - Once every 30 calendar days (winter shutdown)

Stabilized Construction Entrance			
Yes	**No**	**N/A**	
☐	☒	☐	Installed per standards and specifications
☐	☒	☐	Stone is clean enough to effectively remove mud from vehicle tires?
☐	☒	☐	Do all vehicles enter and exit the site via the construction entrance?

Silt Fencing			
Yes	**No**	**N/A**	
☐	☒	☐	Installed on contour, not in drainage channels?
☐	☒	☐	Ends (Joints) wrapped around each other for support?
☐	☒	☐	Fabric buried minimum 6"and facing upstream?
☒	☐	☐	Broken posts, unstable posts, rips or tears in fabric?
☒	☐	☐	Sediment accumulation ≥ 50% of design capacity?

Drop Inlets			
Yes	**No**	**N/A**	
☐	☒	☐	Unit consists of 2x4 wood frame and posts?
☐	☒	☐	Fabric buried minimum 8"?
☐	☒	☐	Fabric secured to frame/posts, max 8" spacing?
☐	☒	☐	Posts are 3' max spacing?
☒	☐	☐	Broken posts, unstable posts, rips or tears in fabric?
☒	☐	☐	Sediment accumulation ≥ 50% of design capacity?

Stone Check Dams			
Yes	**No**	**N/A**	
☐	☒	☐	Geotextile fabric placed beneath rock fill?
☒	☐	☐	Erosion occurring within channel?
☒	☐	☐	Ponding occurring behind check dam?
☒	☐	☐	Rocks have been displaced from the check dam?
☒	☐	☐	Sediment accumulation ≥ 50% of design capacity?

Temporary Sediment Basin			
Yes	**No**	**N/A**	
☐	☒	☐	Basin and outlet constructed per plans?
☐	☒	☐	Side slopes stabilized (seed, mulch, hydroseed, etc)?
☒	☐	☐	Sediment accumulation ≥ 50% of design capacity?

Temporary Sediment Trap			
Yes	**No**	**N/A**	
☐	☒	☐	Outlet structure constructed per plans?
☐	☒	☐	Geotextile fabric placed beneath rock fill?
☒	☐	☐	Sediment accumulation ≥ 50% of design capacity?

General Housekeeping			
Yes	**No**	**N/A**	
☒	☐	☐	Visible oil & grease or reside of such?
☒	☐	☐	Construction activities impacting adjacent properties?
☒	☐	☐	Is excessive dust being produced by construction activities?
☐	☒	☐	All roadways and adjacent parcels free of sediment, garbage and debris?

Sediment Control			
Yes	**No**	**N/A**	
☐	☒	☐	Stockpiles are stabilized and contained?
☐	☒	☐	De-watering activities are preventing sediment laden discharge from sensitive areas?
☐	☒	☐	All ponds, streams, wetlands free of sediment (no visual contrast)?

SOIL DISTURBANCE ACTIVITY				
AREAS	**SOIL DISTURBANCE**			**NOTES**
	ACTIVE (Check if applicable)	**INACTIVE**		
		Date of Temporary Stabilization	**Date of Final Stabilization**	
1.				
2.				
3.				
4.				
5.				
6.				
7.				

SWPPP INSPECTION FORM

Description of Discharges	
Was a stormwater discharge or other discharge occurring from any part of your site at the time of the inspection? ☐ Yes ☐ No If "yes", provide the following information for each point of discharge:	
Discharge Location	**Observations**
1.	☐ Yes ☐ No Any visible signs of erosion and/or sediment accumulation attributed to your discharge?
If yes, please describe below (specify the location(s) where these conditions were found, and indicate whether modification, maintenance, or corrective action is needed to resolve the issue)	
2.	☐ Yes ☐ No Any visible signs of erosion and/or sediment accumulation attributed to your discharge?
If yes, please describe below (specify the location(s) where these conditions were found, and indicate whether modification, maintenance, or corrective action is needed to resolve the issue)	
3.	☐ Yes ☐ No Any visible signs of erosion and/or sediment accumulation attributed to your discharge?
If yes, please describe below (specify the location(s) where these conditions were found, and indicate whether modification, maintenance, or corrective action is needed to resolve the issue)	

Items Repaired Since Last Inspection:

Comments: *(Provide further detail for any checked Grey boxes on page 1)*

Repair/Maintenance Items: (Provide a list of all E&S practices and pollution prevention measures that need repair or maintenance or were installed improperly)

1.
2.
3.
4.
5.

INSPECTOR (PRINT NAME) | **INSPECTOR SIGNATURE**

QUALIFIED PROFESSIONAL (PRINT NAME) | **QUALIFIED PROFESSIONAL SIGNATURE**

OWNER/OPERATOR (PRINT NAME) | **OWNER/OPERATOR SIGNATURE**

Appendix E

Record of Stabilization and Construction Activity Dates (Sample Form)

GRADING & STABILIZATION ACTIVITIES LOG

GRADING			STABILIZATION		
Start Date	**Description of Activity**	**End Date**	**Temporary or Permanent**	**Start Date**	**Description of Measures and Location**

Appendix F

USDA Soils Report

United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Genesee County, New York

October 13, 2022

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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Contents

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map

Map Scale: 1:4,770 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 50 100 200 300

Feet: 0 200 400 800 1200

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Genesee County, New York
Survey Area Data: Version 23, Sep 10, 2022

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Dec 31, 2009—Oct 11, 2016

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
ApA	Appleton silt loam, 0 to 3 percent slopes	1.2	1.3%
HlA	Hilton loam, 0 to 3 percent slopes	11.5	11.9%
NgA	Niagara silt loam, 0 to 2 percent slopes	0.3	0.3%
OnB	Ontario loam, 3 to 8 percent slopes	65.9	68.5%
OnC	Ontario loam, 8 to 15 percent slopes	17.3	18.0%
Totals for Area of Interest		**96.1**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Genesee County, New York

ApA—Appleton silt loam, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 2w5hn
Elevation: 260 to 1,740 feet
Mean annual precipitation: 31 to 57 inches
Mean annual air temperature: 41 to 50 degrees F
Frost-free period: 100 to 190 days
Farmland classification: Prime farmland if drained

Map Unit Composition

Appleton and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Appleton

Setting

Landform: Drumlins, ridges, till plains
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Linear
Parent material: Calcareous loamy lodgment till derived from limestone, sandstone, and shale

Typical profile

Ap - 0 to 8 inches: silt loam
E - 8 to 16 inches: loam
Bt - 16 to 30 inches: gravelly silt loam
C1 - 30 to 54 inches: gravelly loam
C2 - 54 to 79 inches: gravelly loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.01 to 1.42 in/hr)
Depth to water table: About 6 to 18 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 40 percent
Available water supply, 0 to 60 inches: Moderate (about 8.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: B/D
Ecological site: F101XY013NY - Moist Till
Hydric soil rating: No

Minor Components

Lima

Percent of map unit: 5 percent
Landform: Drumlins, till plains
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Crest
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Lyons

Percent of map unit: 4 percent
Landform: Drainageways, depressions
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Darien

Percent of map unit: 3 percent
Landform: Drainageways, till plains
Landform position (two-dimensional): Footslope, summit
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Linear
Hydric soil rating: No

Churchville

Percent of map unit: 3 percent
Landform: Lake plains, till plains
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope, rise, talf
Down-slope shape: Concave
Across-slope shape: Linear
Hydric soil rating: No

HIA—Hilton loam, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 2wrdq
Elevation: 660 to 980 feet
Mean annual precipitation: 31 to 57 inches
Mean annual air temperature: 41 to 50 degrees F
Frost-free period: 100 to 190 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Hilton and similar soils: 85 percent

Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hilton

Setting

Landform: Till plains, drumlins, ridges
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Crest
Down-slope shape: Linear
Across-slope shape: Convex, concave
Parent material: Calcareous loamy lodgment till derived from limestone, sandstone, and shale

Typical profile

Ap - 0 to 9 inches: loam
E - 9 to 17 inches: loam
Bt/E - 17 to 24 inches: gravelly loam
Bt - 24 to 36 inches: gravelly loam
C1 - 36 to 54 inches: gravelly loam
C2 - 54 to 79 inches: gravelly loam

Properties and qualities

Slope: 0 to 5 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 1.42 in/hr)
Depth to water table: About 18 to 24 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 40 percent
Available water supply, 0 to 60 inches: Moderate (about 7.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2w
Hydrologic Soil Group: B/D
Ecological site: F101XY013NY - Moist Till
Hydric soil rating: No

Minor Components

Ontario

Percent of map unit: 5 percent
Landform: Drumlins, till plains, ridges
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Crest
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Appleton

Percent of map unit: 5 percent
Landform: Drumlins, till plains, ridges
Landform position (two-dimensional): Footslope

Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Linear
Hydric soil rating: No

Bombay

Percent of map unit: 3 percent
Landform: Drumlinoid ridges
Landform position (two-dimensional): Shoulder, summit, backslope
Landform position (three-dimensional): Side slope, crest
Down-slope shape: Concave
Across-slope shape: Convex
Hydric soil rating: No

Cayuga

Percent of map unit: 2 percent
Landform: Drumlinoid ridges
Landform position (two-dimensional): Shoulder, summit
Landform position (three-dimensional): Side slope, crest
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

NgA—Niagara silt loam, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: p9fp
Elevation: 750 to 1,740 feet
Mean annual precipitation: 31 to 38 inches
Mean annual air temperature: 46 to 50 degrees F
Frost-free period: 120 to 175 days
Farmland classification: Prime farmland if drained

Map Unit Composition

Niagara and similar soils: 75 percent
Minor components: 25 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Niagara

Setting

Landform: Lake plains
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Tread
Down-slope shape: Concave
Across-slope shape: Linear
Parent material: Silty and clayey glaciolacustrine deposits

Typical profile

H1 - 0 to 11 inches: silt loam
H2 - 11 to 26 inches: silty clay loam

H3 - 26 to 72 inches: silt loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.57 in/hr)
Depth to water table: About 6 to 18 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Available water supply, 0 to 60 inches: High (about 10.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: C/D
Ecological site: F101XY009NY - Moist Lake Plain
Hydric soil rating: No

Minor Components

Minoa

Percent of map unit: 5 percent
Hydric soil rating: No

Rhinebeck

Percent of map unit: 5 percent
Hydric soil rating: No

Canandaigua

Percent of map unit: 5 percent
Landform: Depressions
Hydric soil rating: Yes

Unnamed soils

Percent of map unit: 5 percent
Hydric soil rating: No

Collamer

Percent of map unit: 5 percent
Hydric soil rating: No

OnB—Ontario loam, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2w3ps
Elevation: 250 to 1,490 feet
Mean annual precipitation: 31 to 57 inches
Mean annual air temperature: 41 to 50 degrees F
Frost-free period: 100 to 190 days

Farmland classification: All areas are prime farmland

Map Unit Composition

Ontario and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Ontario

Setting

Landform: Drumlins, ridges, till plains
Landform position (two-dimensional): Summit, shoulder
Landform position (three-dimensional): Crest
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Calcareous loamy lodgment till derived from limestone, sandstone, and shale

Typical profile

Ap - 0 to 8 inches: loam
E - 8 to 14 inches: loam
Bt/E - 14 to 21 inches: loam
Bt - 21 to 39 inches: gravelly loam
C1 - 39 to 48 inches: gravelly loam
C2 - 48 to 79 inches: gravelly loam

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 1.42 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 40 percent
Available water supply, 0 to 60 inches: Moderate (about 7.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: B
Ecological site: F101XY012NY - Till Upland
Hydric soil rating: No

Minor Components

Hilton

Percent of map unit: 5 percent
Landform: Drumlins, ridges, till plains
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Crest
Down-slope shape: Linear
Across-slope shape: Concave, convex
Hydric soil rating: No

Honeoye

Percent of map unit: 5 percent
Landform: Drumlins, ridges, till plains
Landform position (two-dimensional): Shoulder, summit, backslope
Landform position (three-dimensional): Side slope, crest
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Cazenovia

Percent of map unit: 3 percent
Landform: Reworked lake plains, till plains
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Crest
Down-slope shape: Concave
Across-slope shape: Convex
Hydric soil rating: No

Appleton

Percent of map unit: 2 percent
Landform: Drumlins, ridges, till plains
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Linear
Hydric soil rating: No

OnC—Ontario loam, 8 to 15 percent slopes

Map Unit Setting

National map unit symbol: 2w3px
Elevation: 250 to 1,570 feet
Mean annual precipitation: 31 to 57 inches
Mean annual air temperature: 41 to 50 degrees F
Frost-free period: 100 to 190 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Ontario and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Ontario

Setting

Landform: Drumlins, ridges, till plains
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Crest, side slope
Down-slope shape: Convex
Across-slope shape: Convex

Parent material: Calcareous loamy lodgment till derived from limestone, sandstone, and shale

Typical profile

Ap - 0 to 8 inches: loam
E - 8 to 14 inches: loam
Bt/E - 14 to 21 inches: loam
Bt - 21 to 39 inches: gravelly loam
C1 - 39 to 48 inches: gravelly loam
C2 - 48 to 79 inches: gravelly loam

Properties and qualities

Slope: 8 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 1.42 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 40 percent
Available water supply, 0 to 60 inches: Moderate (about 7.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: B
Ecological site: F101XY012NY - Till Upland
Hydric soil rating: No

Minor Components

Hilton

Percent of map unit: 5 percent
Landform: Drumlins, ridges, till plains
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Crest
Down-slope shape: Linear
Across-slope shape: Concave, convex
Hydric soil rating: No

Honeoye

Percent of map unit: 5 percent
Landform: Drumlins, ridges, till plains
Landform position (two-dimensional): Shoulder, summit, backslope
Landform position (three-dimensional): Side slope, crest
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Cazenovia

Percent of map unit: 3 percent
Landform: Reworked lake plains, till plains
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Crest
Down-slope shape: Concave

Across-slope shape: Convex
Hydric soil rating: No

Appleton

Percent of map unit: 2 percent
Landform: Drumlins, ridges, till plains
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Linear
Hydric soil rating: No

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Appendix F

USGS Aquifer Mapping

M.J. Engineering and Land Surveying, P.C.
1533 Crescent Road, Clifton Park, NY 12065
Phone: 518.371.0799 / Fax: 518.371.0822
www.mjels.com

USGS AQUIFER MAP

Ground Mounted Solar Array
6975 NYS Route 262/County Route 13
GENESEE COUNTY

DATE ACCESSED: 10/13/2022

Legend

- Site Location
- Aquifer Extent
- Aquifer Study Area
- Hydrologic Unit Boundary
- County Boundary

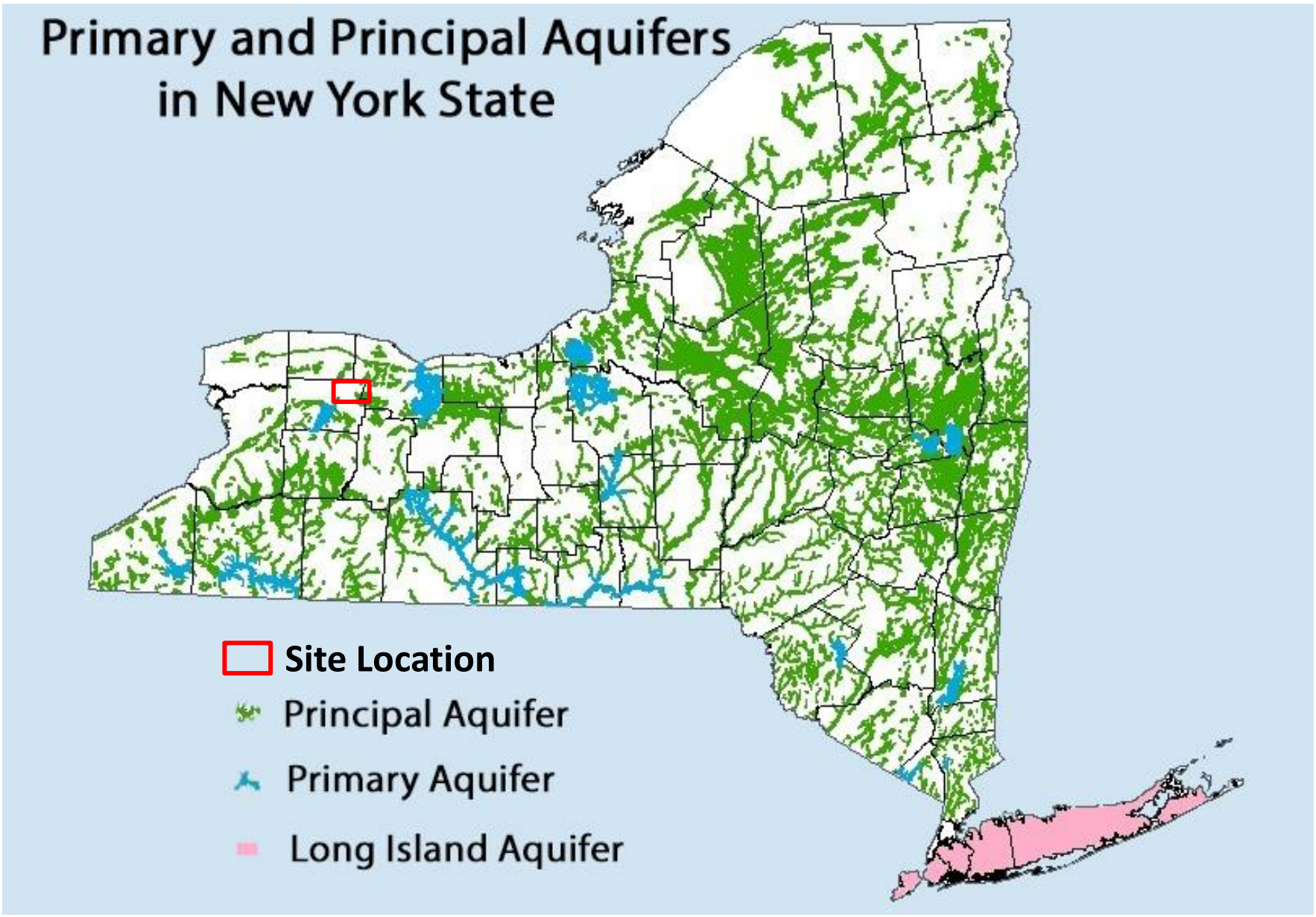
N

M.J. Engineering and Land Surveying, P.C.
1533 Crescent Road, Clifton Park, NY 12065
Phone: 518.371.0799 / Fax: 518.371.0822
www.mjels.com

NEW YORK USGS UNCONSOLIDATED AQUIFER MAP

Ground Mounted Solar Array
6975 NYS Route 262/County Route 13
GENESEE COUNTY

DATE ACCESSED: 10/13/2022



M.J. Engineering and
Land Surveying, P.C.
1533 Crescent Road, Clifton Park, NY 12065
Phone: 518.371.0799 / Fax: 518.371.0822
www.mjels.com

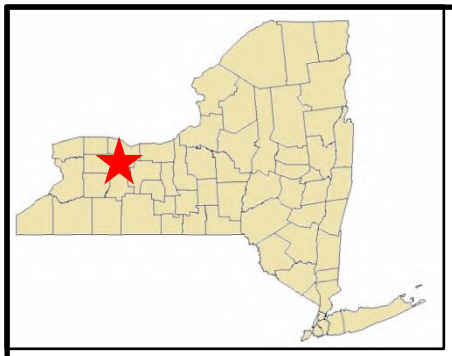
NEW YORK USGS AQUIFER MAP

Ground Mounted Solar Array
6975 NYS Route 262/County Route 13
GENESEE COUNTY

DATE ACCESSED: 10/13/2022

Appendix F

NYSDEC Environmental Resource Mapper



Legend

- Site Location
- Significant Natural Communities
- Rare Plants or Animals

M.J. Engineering and Land Surveying, P.C.
1533 Crescent Road, Clifton Park, NY 12065
Phone: 518.371.0799 / Fax: 518.371.0822
www.mjels.com

NYSDEC ENVIRONMENTAL RESOURCE MAPPER

Ground Mounted Solar Array
6975 NYS Route 262/County Route 13
GENESEE COUNTY

DATE ACCESSED: 10/13/2022

Appendix F

USFWS Threatened and Endangered Species Screening (IPac)

United States Department of the Interior

FISH AND WILDLIFE SERVICE
New York Ecological Services Field Office
3817 Luker Road
Cortland, NY 13045-9385
Phone: (607) 753-9334 Fax: (607) 753-9699
Email Address: fw5es_nyfo@fws.gov

In Reply Refer To: October 13, 2022
Project Code: 2023-0003929
Project Name: Green Street Solar, Ground Mounted Array

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)

(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see https://www.fws.gov/birds/policies-and-regulations.php.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. **Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.**

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

New York Ecological Services Field Office
3817 Luker Road
Cortland, NY 13045-9385
(607) 753-9334

Project Summary

Project Code: 2023-0003929
Project Name: Green Street Solar, Ground Mounted Array
Project Type: Power Gen - Solar
Project Description: Ground Mounted Solar Array
Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@43.08317425,-78.01893067094963,14z

Counties: Genesee County, New York

Endangered Species Act Species

There is a total of 3 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

---

1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Reptiles

NAME	STATUS
Eastern Massasauga (=rattlesnake) *Sistrurus catenatus*	Threatened

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/2202

Insects

NAME	STATUS
Monarch Butterfly *Danaus plexippus*	Candidate

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/9743

Flowering Plants

NAME	STATUS
Houghton's Goldenrod *Solidago houghtonii*	Threatened

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/5219

Critical habitats

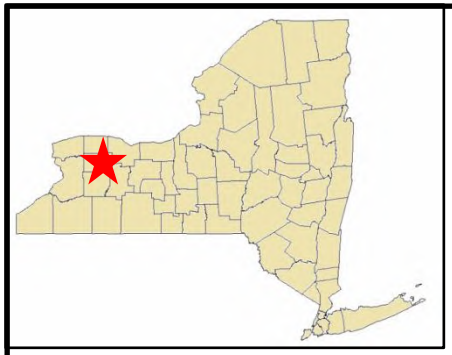
THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

IPaC User Contact Information

Agency: MJ Engineering & Land Surveying P.C
Name: Alexander Wilson
Address: 1533 Crescent Road
City: Clifton Park
State: NY
Zip: 12065
Email awilson@mjels.com
Phone: 5183710799

Appendix F

SHPO CRIS Historic Places Screening Maps



Legend

- Site Location
- Survey Building Area
- Survey Archaeology Area
- Consultation Project
- Archeologically Sensitive Areas

N

M.J. Engineering and Land Surveying, P.C.
1533 Crescent Road, Clifton Park, NY 12065
Phone: 518.371.0799 / Fax: 518.371.0822
www.mjels.com

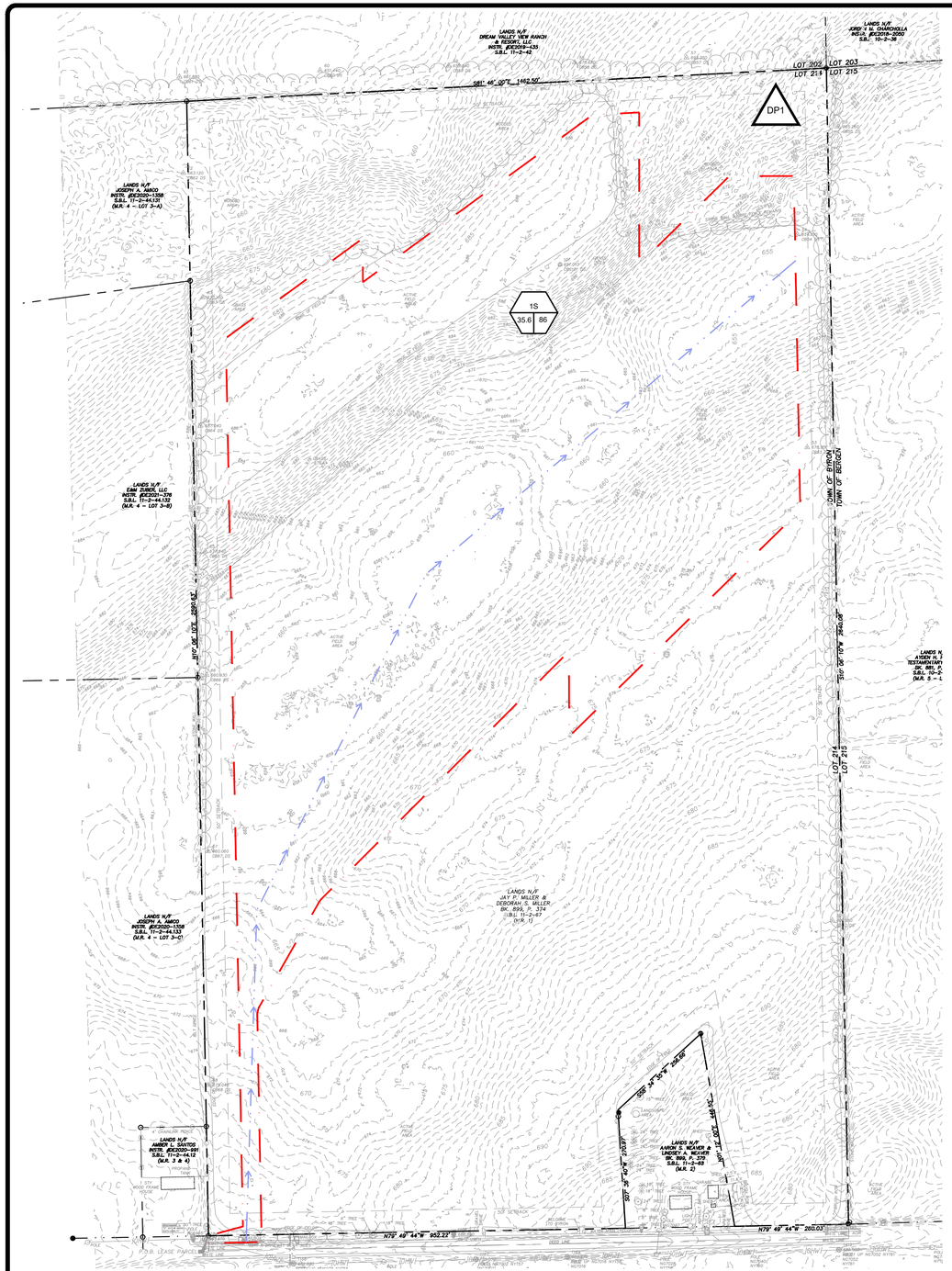
NYSOPRHP NATIONAL REGISTER SITES AND ARCHAELOLGICALLY SENSITIVE AREAS

Ground Mounted Solar Array
6975 NYS Route 262/County Route 13
GENESEE COUNTY

DATE ACCESSED: 10/13/2022

Appendix G

Site Watershed Map



EXISTING CONDITIONS WATERSHED PLAN

SCALE: 1" = 150'

PROPOSED CONDITIONS WATERSHED PLAN

SCALE: 1" = 150'

LEGEND:

- SUBCATCHMENT BOUNDARY
- STORMWATER TIME OF CONCENTRATION (Tc) FLOW PATH
- STORMWATER FLOW DIRECTION
- OS — SUBCATCHMENT I.D.
- 1.0 — AREA (ACRES)
- 98 — WEIGHTED CURVE NUMBER

150' 75' 0 150'

SUBMITTAL / REVISIONS					
No.	DATE	DESCRIPTION	BY	REVIEWED BY:	DATE
1	10/14/2022	PLANNING BOARD SUBMISSION	BP	JMB	10/14/22

PROJ. MANAGER:	JMB
CHIEF DESIGNER:	DL
DESIGNED BY:	BP
DRAWN BY:	BP
CHECKED BY:	JMB

Engineering and Land Surveying, P.C.
1533 Crescent Road - Clifton Park, NY 12065

GSPP ROUTE 262,LLC.

PRE-EXISTING WATERSHED PLAN

NYS ROUTE 262, TAX PARCEL 11.00-2-67
TOWN OF BYRON, GENESEE COUNTY NY

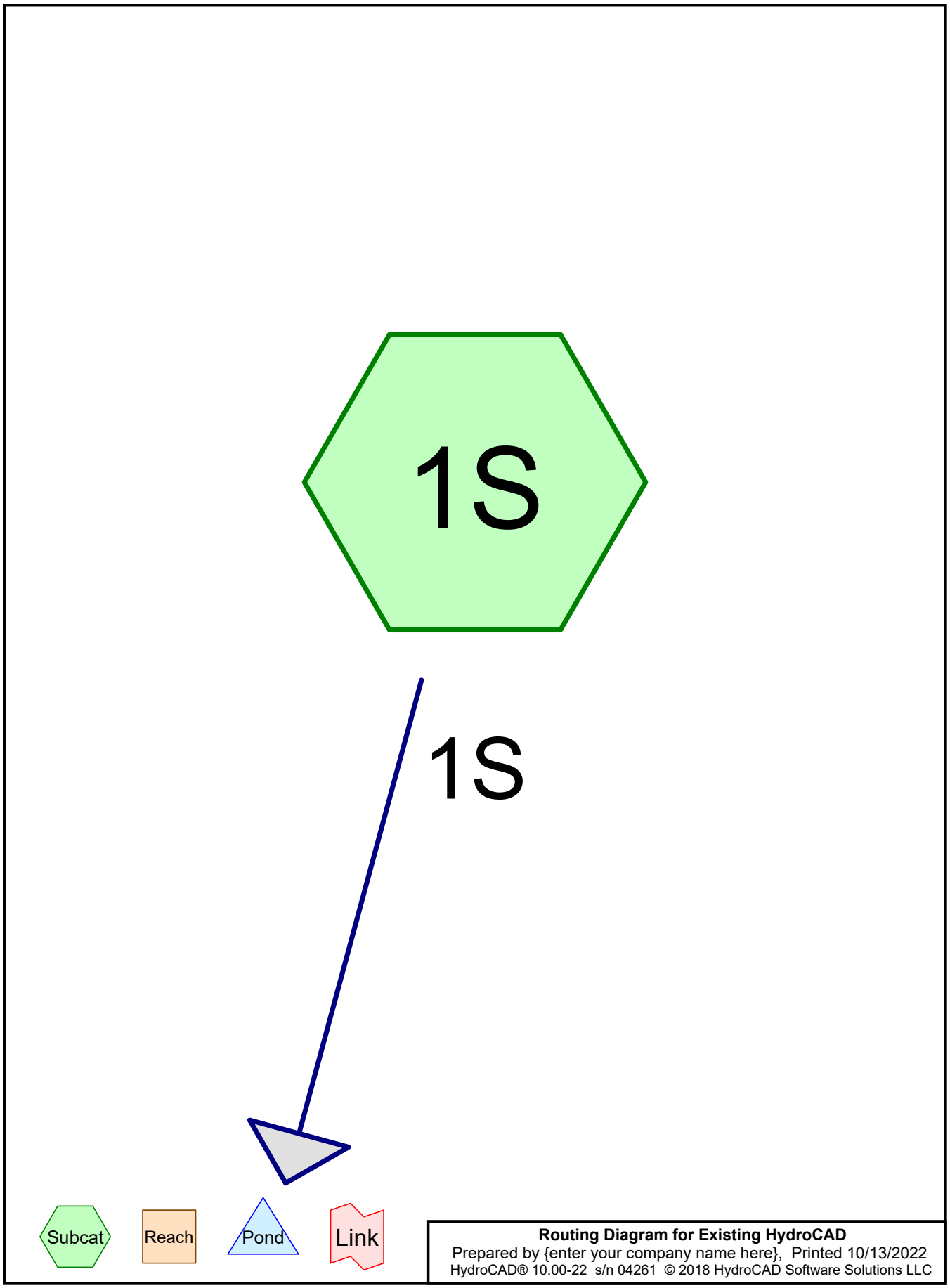
SCALE: 1" = 150'
CONTRACT No.: N/A
MJ PROJ. No.: 1660.01
DATE: 08/18/2022

W-1

File Name: C:\Users\awilson\AppData\Local\Temp\AcPublish_9344\1660.01 EW-1 Pre Watershed.dwg (Layout: W-1)
Date: Thu, Oct 13, 2022 - 3:09 PM (Name: awilson)

Appendix G

Pre-Development HydroCAD Model



Routing Diagram for Existing HydroCAD
Prepared by {enter your company name here}, Printed 10/13/2022

Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
36.520	89	Row crops, straight row, Good, HSG D (1S)
36.520	**89**	**TOTAL AREA**

Soil Listing (selected nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.000	HSG C	
36.520	HSG D	1S
0.000	Other	
36.520		**TOTAL AREA**

Ground Covers (selected nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.000	0.000	36.520	0.000	36.520	Row crops, straight row, Good	1S
0.000	**0.000**	**0.000**	**36.520**	**0.000**	**36.520**	**TOTAL AREA**	

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1S: 1S Runoff Area=1,590,811 sf 0.00% Impervious Runoff Depth>1.07"
Flow Length=2,721' Tc=33.1 min CN=89 Runoff=34.62 cfs 3.258 af

Total Runoff Area = 36.520 ac Runoff Volume = 3.258 af Average Runoff Depth = 1.07"
100.00% Pervious = 36.520 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment 1S: 1S

Runoff = 34.62 cfs @ 12.28 hrs, Volume= 3.258 af, Depth> 1.07"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 1yr Rainfall=2.17"

Area (sf)	CN	Description
1,590,811	89	Row crops, straight row, Good, HSG D
1,590,811		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.5	100	0.0300	0.37		**Sheet Flow, Grass** Cultivated: Residue<=20% n= 0.060 P2= 2.55"
28.6	2,621	0.0090	1.53		**Shallow Concentrated Flow, grass** Unpaved Kv= 16.1 fps
33.1	2,721	Total			

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1S: 1S Runoff Area=1,590,811 sf 0.00% Impervious Runoff Depth>2.27"
Flow Length=2,721' Tc=33.1 min CN=89 Runoff=72.46 cfs 6.902 af

Total Runoff Area = 36.520 ac Runoff Volume = 6.902 af Average Runoff Depth = 2.27"
100.00% Pervious = 36.520 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment 1S: 1S

Runoff = 72.46 cfs @ 12.27 hrs, Volume= 6.902 af, Depth> 2.27"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 10yr Rainfall=3.60"

Area (sf)	CN	Description
1,590,811	89	Row crops, straight row, Good, HSG D
1,590,811		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.5	100	0.0300	0.37		**Sheet Flow, Grass** Cultivated: Residue<=20% n= 0.060 P2= 2.55"
28.6	2,621	0.0090	1.53		**Shallow Concentrated Flow, grass** Unpaved Kv= 16.1 fps
33.1	2,721	Total			

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1S: 1S Runoff Area=1,590,811 sf 0.00% Impervious Runoff Depth>4.35"
Flow Length=2,721' Tc=33.1 min CN=89 Runoff=135.28 cfs 13.236 af

Total Runoff Area = 36.520 ac Runoff Volume = 13.236 af Average Runoff Depth = 4.35"
100.00% Pervious = 36.520 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment 1S: 1S

Runoff = 135.28 cfs @ 12.27 hrs, Volume= 13.236 af, Depth> 4.35"

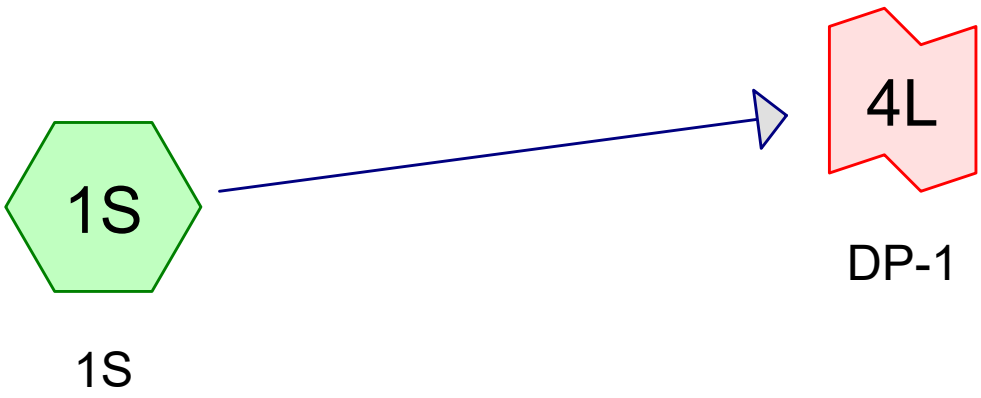
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 100yr Rainfall=5.93"

Area (sf)	CN	Description
1,590,811	89	Row crops, straight row, Good, HSG D
1,590,811		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.5	100	0.0300	0.37		**Sheet Flow, Grass** Cultivated: Residue<=20% n= 0.060 P2= 2.55"
28.6	2,621	0.0090	1.53		**Shallow Concentrated Flow, grass** Unpaved Kv= 16.1 fps
33.1	2,721	Total			

Appendix H

Post-Development HydroCAD Model



Subcat Reach Pond Link

Routing Diagram for Proposed HydroCAD
Prepared by {enter your company name here}, Printed 10/13/2022

Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
36.520	89	Row crops, straight row, Good, HSG D (1S)
36.520	**89**	**TOTAL AREA**

Soil Listing (selected nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.000	HSG C	
36.520	HSG D	1S
0.000	Other	
36.520		**TOTAL AREA**

Ground Covers (selected nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.000	0.000	36.520	0.000	36.520	Row crops, straight row, Good	1S
0.000	**0.000**	**0.000**	**36.520**	**0.000**	**36.520**	**TOTAL AREA**	

Summary for Subcatchment 1S: 1S

Runoff = 32.14 cfs @ 12.33 hrs, Volume= 3.254 af, Depth> 1.07"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 1yr Rainfall=2.17"

Area (sf)	CN	Description
1,590,811	89	Row crops, straight row, Good, HSG D
1,590,811		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.3	100	0.0300	0.20		**Sheet Flow, Grass** Range n= 0.130 P2= 2.55"
28.6	2,621	0.0090	1.53		**Shallow Concentrated Flow, grass** Unpaved Kv= 16.1 fps
36.9	2,721	Total			

Summary for Link 4L: DP-1

Inflow Area = 36.520 ac, 0.00% Impervious, Inflow Depth > 1.07" for 1yr event
Inflow = 32.14 cfs @ 12.33 hrs, Volume= 3.254 af
Primary = 32.14 cfs @ 12.33 hrs, Volume= 3.254 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Subcatchment 1S: 1S

Runoff = 67.27 cfs @ 12.32 hrs, Volume= 6.893 af, Depth> 2.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 10yr Rainfall=3.60"

Area (sf)	CN	Description
1,590,811	89	Row crops, straight row, Good, HSG D
1,590,811		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.3	100	0.0300	0.20		**Sheet Flow, Grass** Range n= 0.130 P2= 2.55"
28.6	2,621	0.0090	1.53		**Shallow Concentrated Flow, grass** Unpaved Kv= 16.1 fps
36.9	2,721	Total			

Summary for Link 4L: DP-1

Inflow Area = 36.520 ac, 0.00% Impervious, Inflow Depth > 2.26" for 10yr event
Inflow = 67.27 cfs @ 12.32 hrs, Volume= 6.893 af
Primary = 67.27 cfs @ 12.32 hrs, Volume= 6.893 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Subcatchment 1S: 1S

Runoff = 125.68 cfs @ 12.32 hrs, Volume= 13.223 af, Depth> 4.34"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 100yr Rainfall=5.93"

Area (sf)	CN	Description
1,590,811	89	Row crops, straight row, Good, HSG D
1,590,811		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.3	100	0.0300	0.20		**Sheet Flow, Grass** Range n= 0.130 P2= 2.55"
28.6	2,621	0.0090	1.53		**Shallow Concentrated Flow, grass** Unpaved Kv= 16.1 fps
36.9	2,721	Total			

Summary for Link 4L: DP-1

Inflow Area = 36.520 ac, 0.00% Impervious, Inflow Depth > 4.34" for 100yr event
Inflow = 125.68 cfs @ 12.32 hrs, Volume= 13.223 af
Primary = 125.68 cfs @ 12.32 hrs, Volume= 13.223 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Appendix I

Stormwater Design Calculations

Version 1.8 Total Water Quality Volume Calculation
Last Updated: 11/09/2015 WQv(acre-feet) = [(P)(Rv)(A)] /12

Is this project subject to Chapter 10 of the NYS Design Manual (i.e. WQv is equal to post-development 1 year runoff volume)?.....	

Design Point:	1	
P=	1.10	*inch*

Breakdown of Subcatchments

Catchment Number	Total Area *(Acres)*	Impervious Area *(Acres)*	Percent Impervious *%*	Rv	WQv *(ft^3)*	Description
1	0.01	0.01	100%	0.95	49	
2						
3						
4						
5						
6						
7						
8						
9						
10						
Subtotal (1-30)	0.01	0.01	100%	0.95	**49**	**Subtotal 1**
Total	0.01	0.01	100%	0.95	**49**	**Initial WQv**

Identify Runoff Reduction Techniques By Area

Technique	Total Contributing Area *(Acre)*	Contributing Impervious Area *(Acre)*	Notes
Conservation of Natural Areas	0.00	0.00	*minimum 10,000 sf*
Riparian Buffers	0.00	0.00	*maximum contributing length 75 feet to 150 feet*
Filter Strips	0.01	0.01	
Tree Planting	0.00	0.00	*Up to 100 sf directly connected impervious area may be subtracted per tree*
Total	**0.01**	**0.01**	

Recalculate WQv after application of Area Reduction Techniques

	Total Area *(Acres)*	Impervious Area *(Acres)*	Percent Impervious *%*	Runoff Coefficient Rv	WQv *(ft^3)*
"<<Initial WQv"	0.01	0.01	100%	0.95	49
Subtract Area	-0.01	-0.01			
WQv adjusted after Area Reductions	**0.00**	**0.00**	0%	0.05	0
Disconnection of Rooftops		0.00			
Adjusted WQv after Area Reduction and Rooftop Disconnect	0.00	0.00	0%	0.05	**0**
WQv reduced by Area Reduction techniques					49

Runoff Reduction Volume and Treated volumes						
	Runoff Reduction Techiques/Standard SMPs		**Total Contributing Area**	**Total Contributing Impervious Area**	**WQv Reduced (RRv)**	**WQv Treated**
			(acres)	**(acres)**	**cf**	**cf**
Area/Volume Reduction	Conservation of Natural Areas	RR-1	0.00	0.00		
	Sheetflow to Riparian Buffers/Filter Strips	RR-2	0.01	0.01		
	Tree Planting/Tree Pit	RR-3	0.00	0.00		
	Disconnection of Rooftop Runoff	RR-4		0.00		
	Vegetated Swale	RR-5	0.00	0.00	0	
	Rain Garden	RR-6	0.00	0.00	0	
	Stormwater Planter	RR-7	0.00	0.00	0	
	Rain Barrel/Cistern	RR-8	0.00	0.00	0	
	Porous Pavement	RR-9	0.00	0.00	0	
	Green Roof (Intensive & Extensive)	RR-10	0.00	0.00	0	
Standard SMPs w/RRv Capacity	Infiltration Trench	I-1	0.00	0.00	0	0
	Infiltration Basin	I-2	0.00	0.00	0	0
	Dry Well	I-3	0.00	0.00	0	0
	Underground Infiltration System	I-4				
	Bioretention & Infiltration Bioretention	F-5	0.00	0.00	0	0
	Dry swale	O-1	0.00	0.00	0	0
Standard SMPs	Micropool Extended Detention (P-1)	P-1				
	Wet Pond (P-2)	P-2				
	Wet Extended Detention (P-3)	P-3				
	Multiple Pond system (P-4)	P-4				
	Pocket Pond (p-5)	P-5				
	Surface Sand filter (F-1)	F-1				
	Underground Sand filter (F-2)	F-2				
	Perimeter Sand Filter (F-3)	F-3				
	Organic Filter (F-4	F-4				
	Shallow Wetland (W-1)	W-1				
	Extended Detention Wetland (W-2	W-2				
	Pond/Wetland System (W-3)	W-3				
	Pocket Wetland (W-4)	W-4				
	Wet Swale (O-2)	O-2				
Totals by Area Reduction →			0.01	0.01	49	
Totals by Volume Reduction →			0.00	0.00	0	
Totals by Standard SMP w/RRV →			0.00	0.00	0	0
Totals by Standard SMP →			0.00	0.00		0
Totals (Area + Volume + all SMPs) →			0.01	0.01	49	0
	Impervious Cover √	okay				

Minimum RRv

Enter the Soils Data for the site		
Soil Group	Acres	S
A		55%
B		40%
C		30%
D	**0.01**	20%
Total Area	0.013	
Calculate the Minimum RRv		
S =	**0.20**	
Impervious =	0.01	*acre*
Precipitation	1.1	*in*
Rv	0.95	
Minimum RRv	**10**	***ft3***
	0.00	af

Filter Strip

Design Point:	1

Enter Site Data For Drainage Area to be Treated by Practice							
Catchment Number	**Total Area** *(Acres)*	**Impervious Area** *(Acres)*	**Percent Impervious** *%*	**Rv**	**WQv** *(ft^3)*	**Precipitation** *(in)*	**Description**
1	0.01	0.01	1.00	0.95	49.31	1.10	

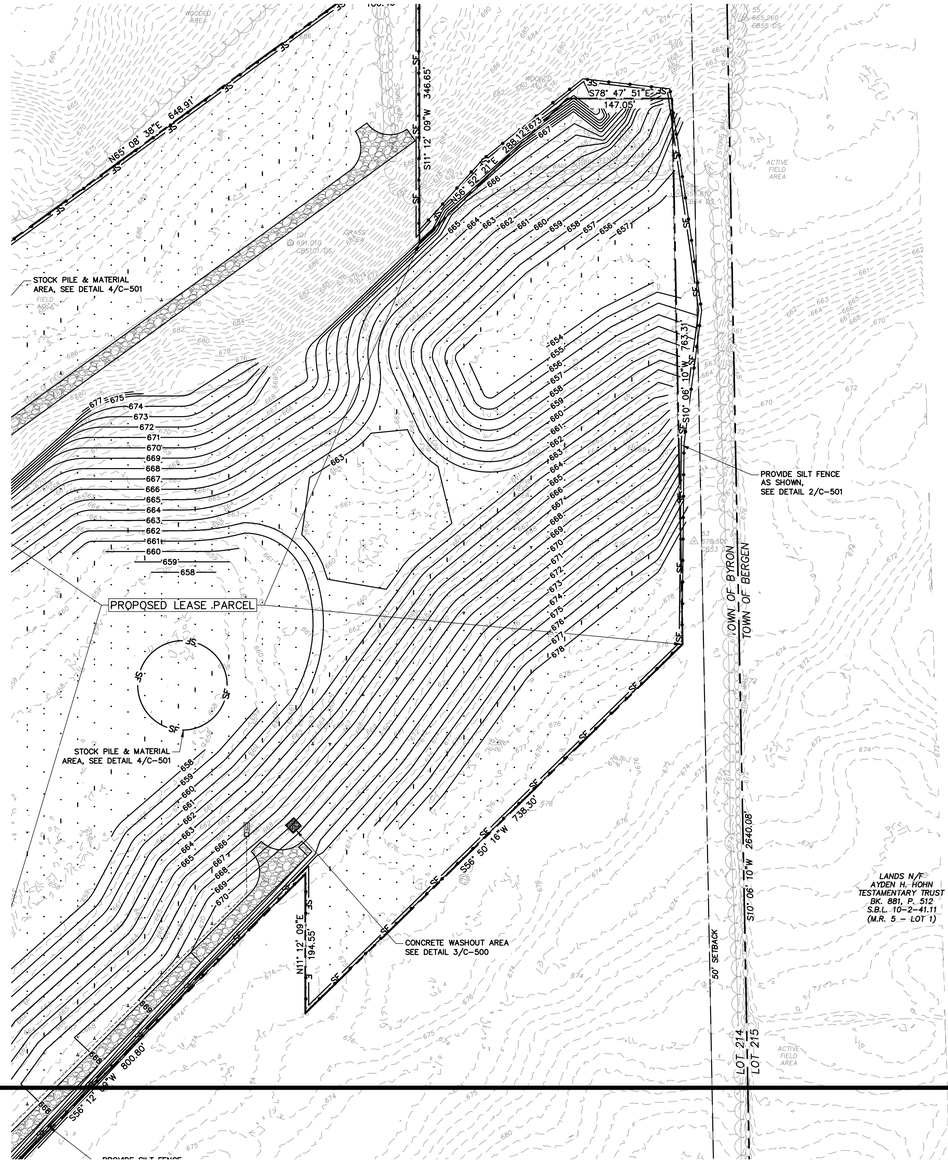
Design Elements			
Is another area based practice applied to this area?	*No*	*Y/N*	
Amended Soils & Dense Turf Cover?	*Yes*	*Y/N*	
Is area protected from compaction from heavy equipment during construction?	*Yes*	*Y/N*	
Small Area of Impervious Area & close to source?	*Yes*	*Y/N*	
Composte Amendments?	*No*	*Y/N*	
Boundary Spreader?	*No*	*Y/N*	*Gravel Diaphram at top*
Boundary Zone?	*No*	*Y/N*	*25 feet of level grass*
Specify how sheet flow will be ensured.			*level spreader shall be used for buffer slopes ranging from 3-15%*
Average contributing slope	1	*%*	*3% maximum unless a level spreader is*
Slope of first 10 feet of Filter Strip	1	*%*	*2% maximum*
Overall Slope	1	*%*	*8% maximum*
Contributing Length of Pervious Areas (PC)	0	*ft*	*150 ft maximum*
Contributing Length of Impervious areas (IC)	25	*ft*	*75 ft maximum*
Maximum PC Contributing Length for combination of PC & IC	125	*ft*	
Soil Group (HSG)	C		
Filter Strip Width	50	*ft*	*50 ft minimum for slopes 0-8%* *75 ft minimum for slopes 8-12%* *100 ft minimum for slopes 12-15%* *HSG C or D increase by 15-20%*
Are All Criteria for Filter Strips in Section 5.3.2 met?	*Yes*		

Area Reduction Adjustments		
Subtract	**0.01**	***Acres from total Area***
Subtract	**0.01**	***Acres from total Impervious Area***

FALSE

Appendix J

Erosion and Sediment Control Plans



SUBMITTAL / REVISIONS					
No.	DATE	DESCRIPTION	BY	REVIEWED BY:	DATE
1	10/14/2022	PLANNING BOARD SUBMISSION	BP	JMB	10/14/22

PROJ. MANAGER:	JMB
CHIEF DESIGNER:	DL
DESIGNED BY:	BP
DRAWN BY:	BP
CHECKED BY:	JMB

Engineering and Land Surveying, P.C.
1533 Crescent Road - Clifton Park, NY 12065

GSPP ROUTE 262,LLC.

GRADING AND EROSION CONTROL PLAN

NYS ROUTE 262, TAX PARCEL 11.00-2-67
TOWN OF BYRON, GENESEE COUNTY NY

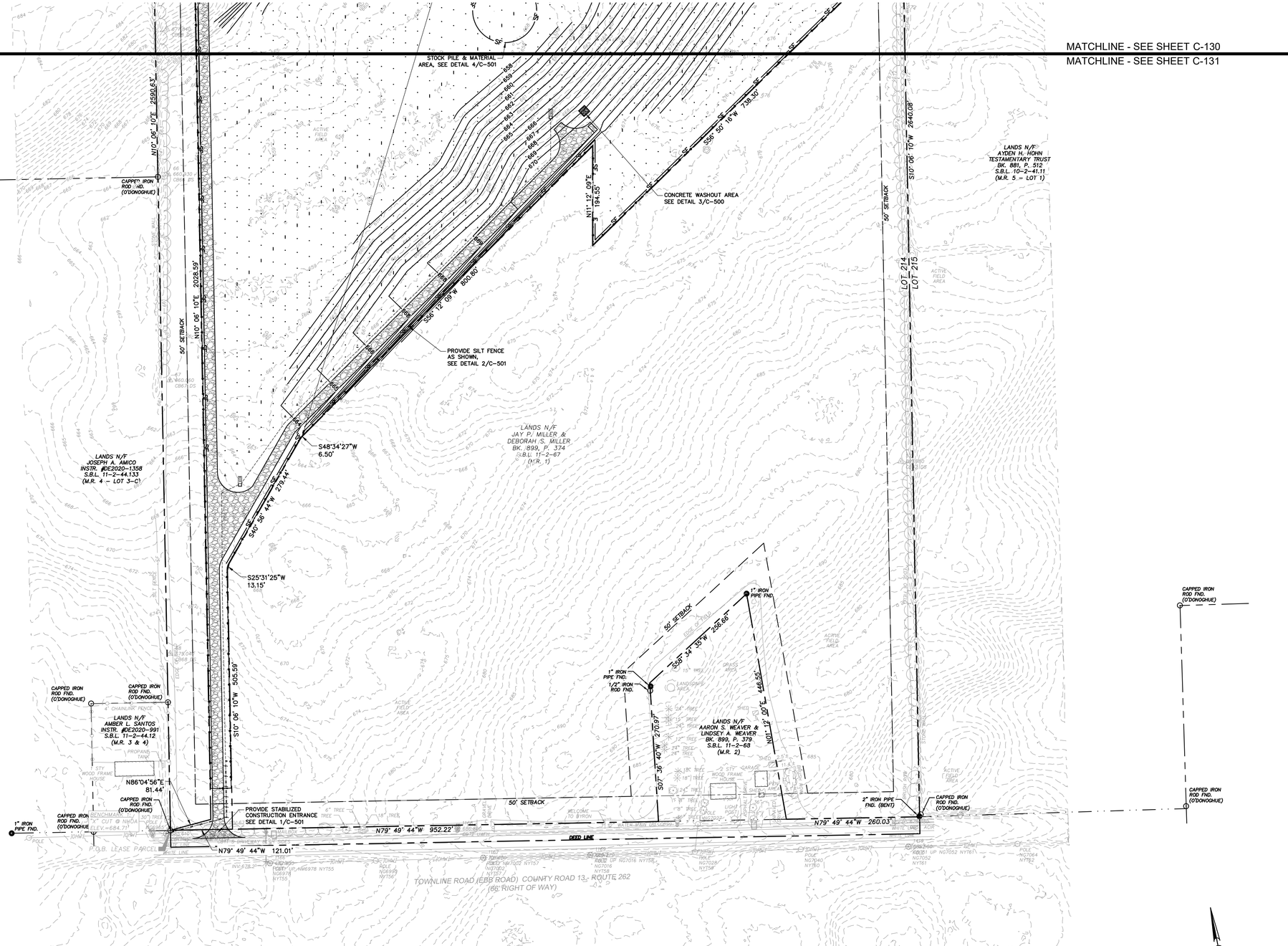
SCALE: 1" = 100'
CONTRACT No.: N/A
MJ PROJ. No.: 1660.01
DATE: 08/18/2022

C-130

File Name: F:\MJ1660\1660.01 C-130 Grading and Erosion Control Plan.dwg (Layout: C-130)
Date: Thu, Oct 13, 2022 - 3:05 PM (Name: awilson)

MATCHLINE - SEE SHEET C-130

MATCHLINE - SEE SHEET C-131



SUBMITTAL / REVISIONS					
No.	DATE	DESCRIPTION	BY	REVIEWED BY:	DATE
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PROJ. MANAGER:	JMB
CHIEF DESIGNER:	DL
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Engineering and Land Surveying, P.C.
1533 Crescent Road - Clifton Park, NY 12065

GSPP ROUTE 262,LLC.

GRADING AND EROSION CONTROL PLAN

NYS ROUTE 262, TAX PARCEL 11.00-2-67

TOWN OF BYRON, GENESEE COUNTY NY

SCALE: 1" = 100'
CONTRACT No.: N/A
MJ PROJ. No.: 1660.01
DATE: 08/18/2022

C-131

File Name: F:\MJ1660\1660.01 C-130 Grading and Erosion Control Plan.dwg (Layout: C-131)
Date: Thu, Oct 13, 2022 - 3:05 PM (Name: awilson)