



# GENESEE COUNTY PLANNING BOARD REFERRALS NOTICE OF FINAL ACTION

GCDP Referral ID

T-02-ELB-08-23

Review Date

8/10/2023

Municipality  
Board Name  
Applicant's Name  
Referral Type  
Variance(s)  
Description:

ELBA, T.
PLANNING BOARD
NY CDG Genesee 1, LLC
Special Use Permit
Special Use Permit and Site Plan Review for a 23.5 acre, 5 MW ground mounted commercial solar system.

Location  
Zoning District

7209 Oak Orchard Rd. (NYS Rt. 98), Elba
Agricultural-Residential (A-R) District

**PLANNING BOARD RECOMMENDS:**

**APPROVAL WITH MODIFICATION(S)**

**EXPLANATION:**

The required modifications are as follows: 1) Given that the project parcel is enrolled in Agricultural District No. 2 and that the project will receive public funding, the applicant comply with NYS Agriculture and Markets Law Section 305 (Notice of Intent provision); and 2) The applicant amend the decommissioning plan to include decompaction of the footprint of the access road and the 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.

Director

August 10, 2023

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:**

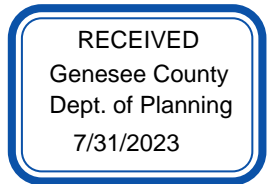
GENESEE COUNTY DEPARTMENT OF PLANNING  
3837 West Main Street Road  
Batavia, NY 14020-9404  
Phone: (585) , 9!+ \$%

**DEPARTMENT USE ONLY:**

GCDP Referral # T-02-ELB-08-23



**\* GENESEE COUNTY \*  
PLANNING BOARD REFERRAL**



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 Elba, Planning Board

Address 7133 Oak Orchard Road

City, State, Zip Elba, NY 14058

Phone (585) 757 - 2762 Ext. \_\_\_\_\_

**2. APPLICANT INFORMATION**

Name NY CDG Genesee 1, LLC

Address c/o Catalyze Holdings, 6325 Gunpark Dr., Suite C-2

City, State, Zip Boulder, CO 80301

Phone (914) 246 - 0592 Ext. \_\_\_\_\_ Email marc.digiuseppe@catalyze.com

MUNICIPALITY:  City  Town  Village of Elba

**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 7209 Oak Orchard Road, Elba, NY 14058

B. Nearest intersecting road Edgerton Road

C. Tax Map Parcel Number 11.-1-5.12

D. Total area of the property 55.8 acres Area of property to be disturbed 23.5 acres

E. Present zoning district(s) Agricultural-Residential (A-R) District

**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 Approved with mods 5/13/21. This is an amendment application.

B. Special Use Permit and/or Variances refer to the following section(s) of the present zoning ordinance and/or law  
Zoning Section 413 (Solar Energy Systems)

C. Please describe the nature of this request The application would amend the existing site plan and special permit for Solar Project to reduce the project footprint from to 23.5 acres, raise the maximum pa23nel height from 10 to 18 feet, increase impervious surfaces from 0.5 to 0.9 acres, and extend the permit timeframe.

**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: Prior approved project application for comparison

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

Name Dwight Kanyuck Title Attorney for Town Phone (585) 546 - 8430 Ext. \_\_\_\_\_

Address, City, State, Zip 100 S. Clinton Ave., Ste. 2600, Rochester 14604 Email dkanyuck@nyenvlaw.com



March 30, 2023

Mr. Chuck Hoover  
Chair, Planning Board  
Town of Elba  
7 Maple Avenue  
P.O. Box 295  
Elba, NY 14058

Re: **NY CDG Genesee 1 LLC Solar Project**

Dear Mr. Hoover:

On behalf of Catalyze Holdings, LLC, we are providing this letter as a notification to the Town of Elba that the Genesee 1 Solar project, proposed at 7195 Oak Orchard Road, Elba, NY 14058, and its affiliated Limited Liability Corporation, NY CDG Genesee 1, LLC., has been purchased from the previous parent company, BW Solar. The closing on the project and the Limited Liability Corporation between BW Solar (grantor) and Catalyze Holdings (grantee) occurred on March 1, 2023.

Catalyze Holdings, now doing business as NY CDG Genesee 1, LLC, will be providing updated documentation to the Town regarding the project and its updated design as soon as able. We look forward to working with both the Town of Elba and Catalyze throughout the permitting and construction of this project.

If you have any questions or require any additional information currently, please feel free to contact me at (570) 220-1845 or [jpantella@labellapc.com](mailto:jpantella@labellapc.com).

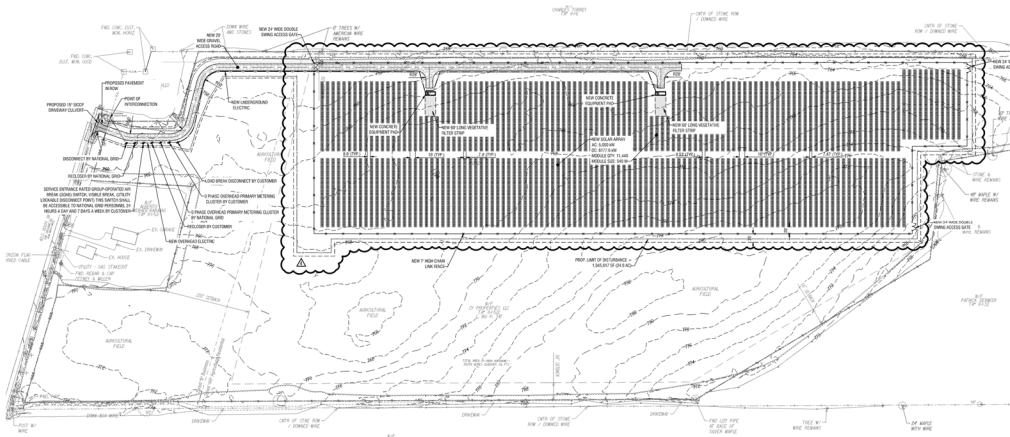
Respectfully Submitted,

LABELLA ASSOCIATES, D.P.C.

Jared Pantella, PE, PLS  
Civil Regional Leader / Civil Renewable Market Leader  
(570) 220-1845  
[jpantella@labellapc.com](mailto:jpantella@labellapc.com)

# Genesee 1 (5.0 MW AC) Community Solar Project Applications

7195 Oak Orchard Road, Elba, NY 14058



Prepared by Jared Pantella, PE, PLS, LaBella Associates  
Reviewed by Marc DiGuiseppe, Catalyze  
Created on June 29, 2023

**APPLICATION FORM FOR  
SPECIAL USE PERMIT  
ELBA TOWN PLANNING BOARD**

**Applicant (name):** NY CDG Genesee 1. LLC

**Address:** 6325 Gunpark Drive, Suite C-2, Boulder CO 80301 **Phone:** 914-246-0592 Ext. 367

**Zoning Permit for:** Installation of an approximately 5 MW solar array and appurtenances.

**Location of Property For Which Permit Applies:** 7209 Oak Orchard Road, Elba, NY 14058

**Tax Lot Number:** 11.-1-5.12

**TO BE COMPLETED BY TOWN PLANNING BOARD:**

**Application Date:** \_\_\_\_\_ **Next Planning Board Meeting : (date)** \_\_\_\_\_

**LISTED IN ZONING LAW:** \_\_\_ YES \_\_\_ NO; **BUILDING PERMIT REQUIRED:** \_\_\_ YES \_\_\_ NO

**SITE PLAN REVIEW REQUIRED:** \_\_\_ YES \_\_\_ NO

**COMPATIBLE WITH ADJACENT LAND USE:**

- \_\_\_\_\_ 1) the site is determined to be safe and harmonious to the adjacent area
- \_\_\_\_\_ 2) the location, nature, and height of buildings, walls, and fences will not discourage the appropriate development of adjacent land and buildings nor impair their value
- \_\_\_\_\_ 3) the operation of such use will not be objectionable to nearby properties (signs, hours of operation,
- \_\_\_\_\_ 4) the use will not be noisy, cause vibration, odor, glare and unsightliness
- \_\_\_\_\_ 5) when a commercial or industrial use adjacent to residential property a buffer may be needed
- \_\_\_\_\_ 6) electrical disturbances shall not be created
- \_\_\_\_\_ 7) off-street parking and loading shall be considered
- \_\_\_\_\_ 8) appropriate on-lot drainage shall be provided
- \_\_\_\_\_ 9) traffic and traffic hazards shall be considered
- \_\_\_\_\_ 10) attractive landscaping shall be required

\_\_\_\_\_ 11) shall not be issued where a violation of Zoning Law exists

\_\_\_\_\_ 12) right of entry for inspection of the use

COMPATIBLE WITH ADJACENT LAND USE: \_\_\_\_\_ YES \_\_\_\_\_ NO

Decision Due On or Before : (date) \_\_\_\_\_ [62 days]

SEQR Completed by Planning Board [attached] \_\_\_\_\_

Public Hearing Required: \_\_\_\_\_ NO \_\_\_\_\_ YES; (date) \_\_\_\_\_, (time) \_\_\_\_\_

Notice of Hearing to DAILY News: (date) \_\_\_\_\_ [5 days prior]

Notice of Hearing to neighbors: (date) \_\_\_\_\_ [10 days prior]

Site Plan to Gen. Co. Planning Board: _____ NO _____ YES; their recommendation: _____ Approved _____ Approved With Modifications: _____ _____ _____ _____ Disapproved
---

Elba Planning Board Decision: (to Town Clerk - 5 days after decision)

\_\_\_\_\_ **Special Use Permit** Approved

\_\_\_\_\_ **Special Use Permit** Approved With the Following Modifications: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_ **Special Use Permit** Disapproved: (Reasons) \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

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

\_\_\_\_\_  
Signature - Secretary Planning Board

**To Be Completed by Town Planning Board:**

Next Planning Board Meeting : (date) \_\_\_\_\_

Decision Due On or Before : (date) \_\_\_\_\_ [62 days]

SEQR Completed by Planning Board [attached] \_\_\_\_\_

Public Hearing Required: \_\_\_\_\_ NO \_\_\_\_\_ YES; (date) \_\_\_\_\_, (time) \_\_\_\_\_

Notice of Hearing to DAILY News: (date) \_\_\_\_\_ [5 days prior]

Notice of Hearing to neighbors: (date) \_\_\_\_\_ [10 days prior]

Site Plan to Gen. Co. Planning Board: _____ NO _____ YES; their recommendation: _____ Approved _____ Approved With Modifications: _____ _____ _____ Disapproved
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Elba Planning Board Decision: (to Town Clerk - 5 days after decision)

\_\_\_\_\_ Zoning Permit Approved

\_\_\_\_\_ Zoning Permit Approved With the Following Modifications: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_ Zoning Permit Disapproved: (Reasons) \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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

\_\_\_\_\_  
Signature - Secretary Planning Board

**APPLICATION FORM FOR  
SITE PLAN REVIEW  
ELBA TOWN PLANNING BOARD**

**Applicant (name):** NY CDG Genesee 1, LLC

**Address:** 6325 Gunpark Drive, Suite C-2, Boulder CO 80301

**Phone:** 226-753-2847

**Purpose of Zoning Permit:** Installation of an approximately 5 MW solar array and appurtenances.

**Location of Property For Which Permit Applies:** 7209 Oak Orchard Road, Elba, NY 14058

**Tax Lot Number:** 11.-1-5.12

**Required Supporting Data:**

1) survey of property showing existing features, including contours, utility easements, large trees, buildings, uses, structures, streets, rights-of-way, zoning and ownership of surrounding property

2) layout sketch showing proposed lots, blocks, building locations and land use area

N/A 3) traffic circulation, parking and loading spaces, pedestrian walks

4) landscaping plans including site grading, landscape design, open space and buffer zone

N/A 5) preliminary architectural drawings for buildings to be constructed, floor plans, exterior elevations and sections

6) engineering feasibility study of an anticipated problem which may arise from the proposed development [if required by Planning Board]

N/A 7) construction sequence and time schedule for completion of each phase for buildings, parking and landscape areas

N/A 8) description of proposed uses, anticipated hours of operation, expected number of employees and anticipated volume of traffic

9) other information requested by Planning Board:

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**All Completed Application Information Attached: (date)** 3/10/21



APPLICATION FOR BUILDING PERMIT

APPLICATION NO. \_\_\_\_\_

TOWN OF ELBA, NY 14058

APPLICATION DATE \_\_\_\_\_

APPLICANT: NY CDG Genesee 1, LLC

PROJECT SITE LOCATION: 7209 Oak Orchard Road, Elba, NY

ADDRESS: 6325 Gunpark Drive, Suite C-2 Boulder, CO 80301

TELEPHONE: 914-246-0592

TAX MAP (TMP) 11.-1-5.12

CHECK WITH LOCAL ASSESSOR

INSTRUCTIONS: PLEASE FILL OUT THE ENTIRE APPLICATION WITH A BALL POINT PEN. ONCE COMPLETED SUBMIT APPLICATION WITH REQUIRED ATTACHMENTS TO THE ZONING ENFORCEMENT OFFICE (ZEO) PRIOR TO COMMENCING CONSTRUCTION. THIS APPLICATION IS NON-TRANSFERABLE.

- 1. APPLICATION FOR RESIDENTIAL [ ] COMMERCIAL [x] INDUSTRIAL [ ] AGRICULTURAL [ ]
2. PERMIT FOR(CHECK ONE) NEW CONSTRUCTION [x] ADDITION [ ] RELOCATION [ ] REPAIR [ ]
DEMOLITION [ ] CHANGE IN USE [ ]
3. IS THIS PARCEL A CORNER LOT? YES [ ] NO [x] IN A SEWER DISTRICT? YES [ ] NO [ ]

4. LIST DIMENSIONS OF LOT +/- 2760' X +/- 1010', AND/OR LOT AREA (ACRES) 55.8

5. WHAT IS THE FRONT SETBACK (FEET) FROM THE PROJECT TO THE STREET RIGHT-OF-WAY (ROW) +/- 580', AND THE YARD SETBACKS (FEET) FROM THE PROJECT TO PROPERTY LINES(S) SIDE (A) +/- 54' (B) +/- 138' REAR +/- 84'

6. TOTAL % OF COVERAGE OF ALL BUILDINGS ON LOT (INCLUDING PROPOSED PROJECT) +/- 30% TOTAL%

7. NAME OF ARCHITECT OR ENGINEER LaBella Associates TELEPHONE 570-220-1845
ADDRESS 300 State Street, Rochester, NY 14614

8. NAME OF CONTRACTOR TELEPHONE
ADDRESS

9. ESTIMATED COST OF PROJECT +/- \$7,000,000.00 (SUBSTANTIATION MAY BE REQUIRED)

10. TOTAL DWELLING UNITS N/A

Table with 5 columns: PROPOSED PROJECT, HEIGHT, LENGTH, WIDTH, SQ.FT. Rows include HOUSE, GARAGE, ACCESSORY BUILDING, COMMERCIAL, INDUSTRIAL, OTHER, and a TOTAL SQ. FT. row.

12. DESCRIBE PROSPED PROJECT AND USE:
Catalyze d.b.a. NY CDG Genesee 1, LLC is proposing the construction of an approximately five (5) MW-AC Photovoltaic Array on approximately 28 acres on one parcel totaling approximately 55.8 acres of agricultural land.

USE ADDITIONAL SHEET(S) FOR MORE SPACE & ANY SUPPORTING INFORMATION

CERTIFICATION: I hereby certify that I have read the instructions 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.

Signature lines for Applicant and Owner.

OFFICE USE ONLY

ACTION TAKEN BY ZEO APPROVED [ ] DENIED [ ] REASONING IF DENIED:

DATE ZEO (SIGNATURE) FEE

SENT TO: PLANNING BOARD DATE BOARD OF APPEALS DATE

ACTION TAKEN BY ZEO APPROVED [ ] DENIED [ ] REASONING IF DENIED:

DATE CEO (SIGNATURE) FEE

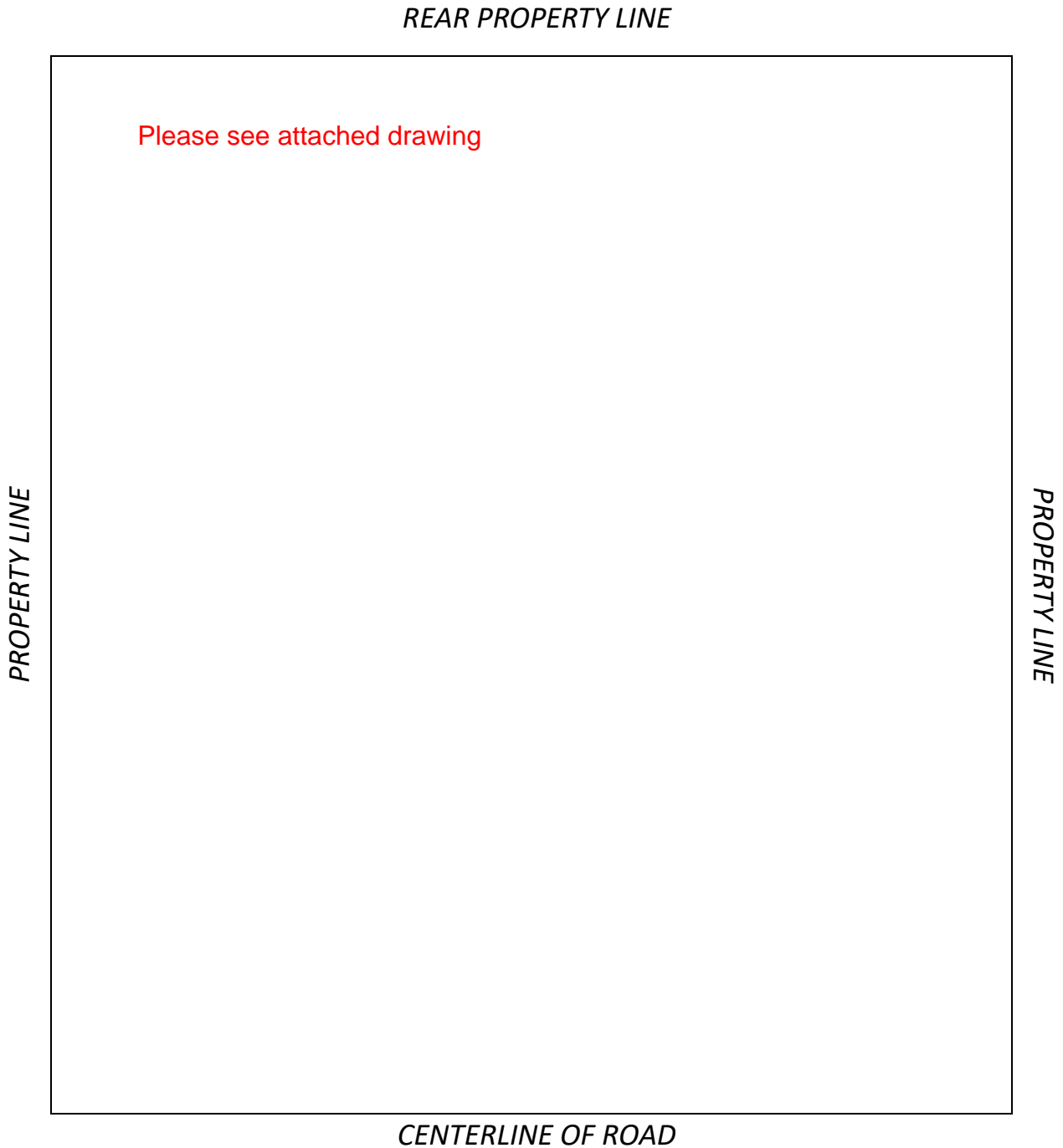
SENT TO: PLANNING BOARD DATE BOARD OF APPEALS DATE

Form box for Date Paid, Amount, and Clerk.

**PLOT DIAGRAM**

**TOWN OF ELBA, GENESEE COUNTY, NEW YORK**

Locate clearly and distinctly all buildings, whether existing or proposed and indicate all yard dimensions from property lines. Give identifying information or deed description, show street names and adjacent property owners names and any other information.



The plot diagram of this application and/or separate drawings, showing the location of all buildings, existing or proposed, together with dimensions from property lines, the surface elevation of the front yard at the front wall of the principal building as related to the surface of the street or highway, lot number, street names and type of lot (interior or corner lot) and lot description are a part of this application.

Signature of Applicant Marc DiGuiseppe For Catalyze \_\_\_\_\_ Date \_\_\_\_\_

## BUILDING PERMIT ATTACHMENT LIST

(Check the required Attachments)

The Zoning Enforcement Officer (ZEO) will inform you of which attachments will be required for your particular project and/or use.

Note: The building permit application will not be considered complete until all appropriate attachments have been supplied and accepted. The applicant is responsible to provide all applicable attachments to the ZEO. Your project **CANNOT** be started until a Zoning/Building Permit has been issued by the Town of Elba. The applicant is also responsible to make all necessary calls for inspections. Our current Town of Elba Inspector is **Mark Mikolajczyk (585)356-8851**. For specific questions regarding the permit application, please contact Mr. Mikolajczyk.

- Submit a site plan. This should be a scaled drawing (tape location, survey map, etc.) showing all structures and/or buildings on the parcel. Show ALL dimensions of proposed projects and dimensions to property lines and street right of ways (ROW).
- Submit a Certificate of Insurance showing a valid Workers' Compensation Insurance Policy in effect. Note: ACCORD Forms are not acceptable.
- Provide one set of prints (signed and stamped by a licensed architect or engineer).
- Submit supporting data (written form):
  - List construction sequence with time schedule for completion of each phase.
  - List description of proposed uses, hours of operation, expected number of employees and anticipate volume of traffic that this project will generate.
- Submit a Petition to the Zoning Board of Appeals. Form is available at the Town Clerk's office.
- Graphic material showing traffic circulation, parking spaces and pedestrian walks. Also, topography and landscape plans, open space and buffer zones.
- Preliminary engineering plans showing street improvements, storm drainage, water supply and sanitary sewer facilities.
- Provide a copy of a current Genesee County Health Department approval for an individual sewage disposal system and the plans (required for new dwelling construction, bedroom additions, etc.)
- Describe the nature of the existing use.
- Identify adjoining parcels and owners within 500' of property lines.
- Drawing of the sign, clearly showing the dimensions, characters and shape and; if illuminated, show source of power and location of illumination.
- Provide a copy of an energy audit.
- Freshwater wetlands determination/permit from the NYS Department of Environmental Conservation (NYSDEC).
- Certification indicating specific elevation in relation to the Federal Flood Hazard area.
- Describe extent of proposed mining operation. Valid NYSDEC permit.
- Other: \_\_\_\_\_

NOT FOR CONSTRUCTION

It is a violation of New York Education Law Article 145 Sec. 7209, for any person, unless acting under the direction of a licensed architect, professional engineer, or land surveyor, to alter an item in any way. If an item bearing the seal of an architect, engineer, or land surveyor is altered; the altering architect, engineer, or land surveyor shall affix to the item their seal and notation "altered by" followed by their signature and date of such alteration, and a specific description of the alteration.

© 2020 LaBella Associates

**NY CDG GENESEE 1, LLC**  
6325 GUNPARK DRIVE, SUITE C-2,  
BOULDER, CO 80301



**Genesee 1**  
7195 OAK ORCHARD RD.  
TOWN OF ELBA, NY 14058

NO.	DATE	DESCRIPTION
4	6/22/23	REVISED PER CATALYZE 6/14/23 LAYOUT
3	4/19/22	PER CLIENT COMMENTS
2	7/30/21	REVISED PANEL SPACING AND OUTPUT
1	6/7/21	PER PLANNING BOARD COMMENTS

PROJECT NUMBER: 2210066

DRAWN BY: MLZ

REVIEWED BY: JJP

ISSUED FOR: SITE PLAN REVIEW

DATE: 6/2023

DRAWING NAME:

**SITE PLAN**

DRAWING NUMBER:

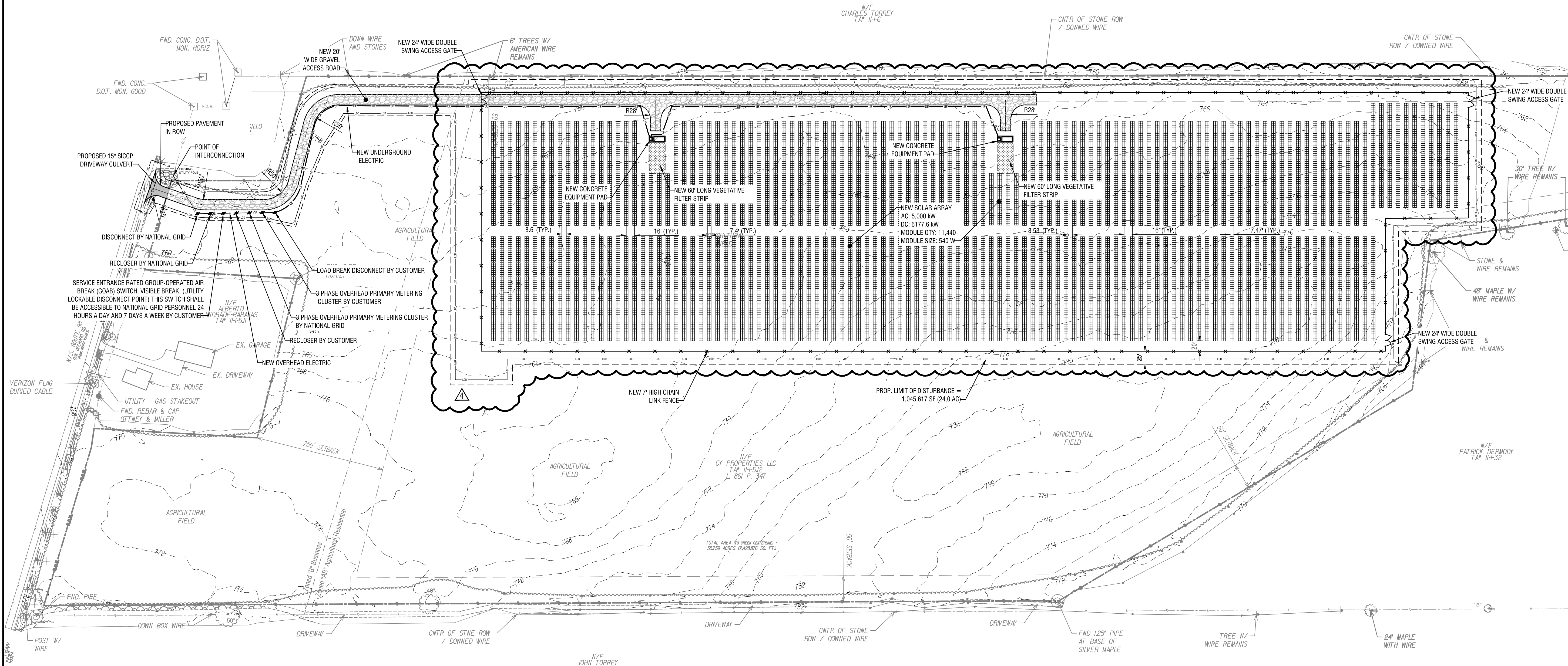
**C201**

PROJECT DATA	
PARCEL INFORMATION	
APPLICANT	NY CDG Genesee 1 LLC
PARCEL ADDRESS	7195 Oak Orchard Rd Elba, NY 14058
TAX NUMBER	11-1-5.12
NUMBER OF TABLES	1,760
NUMBER OF PANELS	11,440
SYSTEM SIZE (DC)	6.1776 MW (DC)
SYSTEM SIZE (AC)	5 MW (AC)
GPS COORDINATES	N: 43.064856 W: -78.186928
AVERAGE SITE ELEVATION	±769'
PARCEL AREA	±55.76 ACRES
EQUIPMENT PAD AREA	±706 SF
FENCED AREA	±20.86 ACRES
LEASE AREA	±24.73 ACRES
DISTURBED AREA	±23.53 ACRES
ROAD LENGTH	±1,844 FT
CHAIN LINK FENCE	±4,804 FT
GATE COUNT	1

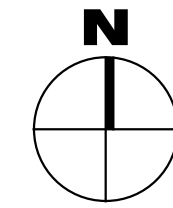
ZONING INFORMATION		
	REQUIRED	PROPOSED
CODE APPLIED	TOWN OF ELBA	
WEBSITE	http://elbanewyork.com/index.php/code-zoning-enforcement	
CLASSIFICATION	AGRICULTURAL	
FRONT SETBACK	250 FT	250 FT
SIDE SETBACK	50 FT	50 FT
REAR SETBACK	50 FT	50 FT
ENTRANCE WIDTH	-	20 FT
MAX FENCE HEIGHT	-	7 FT

**Notes:**

- The western ±500 ft of the parcel is zoned as a business district. The access road is the only element of the project outside of the agricultural district.
- Town of Elba Local Law No.1 of 2021 Section F.4.j.i. The Tier 3 Solar Energy Systems shall meet the following setback requirements:
  - Setbacks from adjacent non-participating residences shall be a minimum of 250 feet.
  - Setbacks from adjacent non-participating residential property lines shall be a minimum of 100 feet.
  - Setbacks from a state roads or highways shall be a minimum of 100 feet from the edge of the right of way.
  - Setbacks from County or Town roads shall be a minimum of 70 feet from the edge of the right of way.
  - Setbacks from adjacent non-participating non-residential property lines shall be a minimum of 50 feet.



**1 SITE PLAN**  
C201 SCALE: 1" = 100'



TOWN OF ELBA PLANNING BOARD APPROVAL

\_\_\_\_\_  
TOWN OF ELBA PLANNING BOARD CHAIR (PRINT)

\_\_\_\_\_  
TOWN OF ELBA PLANNING BOARD CHAIR (SIGNATURE)

\_\_\_\_\_  
APPROVAL DATE

**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 1 is accurate and complete.

**A. Project and Applicant/Sponsor Information.**

Name of Action or Project: NY CDG Genesee 1, LLC		
Project Location (describe, and attach a general location map): 7209 Oak Orchard Road, Town of Elba, Genesee County (Tax ID 11.-1-5.12; see attached USGS site location map)		
Brief Description of Proposed Action (include purpose or need): NY CDG Genesee 1, LLC is developing plans for the installation of a 5 megawatt (MW) alternating current (ac) photovoltaic array on approximately 23.5 acres of agricultural land on one parcel totaling approximately 55.8 acres, located at 7209 Oak Orchard Road in the Town of Elba, Genesee County, 14058 (Tax ID 11.-1-5.12). Activities include the installation of an estimated 5-MWac ground-mounted solar energy system consisting of +/-1,760 free standing tracking solar tables with +/-11,440 panels (which may be up to 18 feet in height), new electrical equipment and accessories with concrete pads for equipment, and a new gravel access drive. Solar posts will be installed at a depth that will not exceed 4 feet. No tree clearing is anticipated, and approximately 0.9 acres of new impervious surface will be created as a result of this project. The purpose of this project is to generate clean, renewable energy for local residences and businesses. For additional details, see attached USGS location map and site drawings.  The purpose of this Environmental Assessment Form is to reflect design/applicant changes to a previously approved project for supplemental review. The previous design was given a SEQRA Negative Declaration on May 20, 2021.		
Name of Applicant/Sponsor: NY CDG Genesee 1, LLC (Contact: Marc DiGiuseppe, Catalyze Holdings LLC)		Telephone: (914) 246-0592 E-Mail: marc.digiuseppe@catalyze.com
Address: 6325 Gunpark Drive, Suite C-2		
City/PO: Boulder	State: Colorado	Zip Code: 80301
Project Contact (if not same as sponsor; give name and title/role): Celia Flynn (Environmental Analyst, LaBella Associates, DPC)		Telephone: (585) 770-2532 E-Mail: cflynn@labellapc.com
Address: 300 State Street, Suite 201		
City/PO: Rochester	State: New York	Zip Code: 14614
Property Owner (if not same as sponsor): CY Properties, LLC		Telephone: E-Mail:
Address: 6465 Transit Road		
City/PO: Elba	State: NY	Zip Code: 14058

**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, <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No or Village Board of Trustees		
b. City, Town or Village Planning Board or Commission <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Site Plan Approval, Special Use Permit	July 2023
c. City, Town or Village Zoning Board of Appeals <input type="checkbox"/> Yes <input type="checkbox"/> No		
d. Other local agencies <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Town of Elba Code & Zoning Officer: (Building Permit)	July 2023
e. County agencies <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Genesee County Planning Dept. (239-m review)	July 2023
f. Regional agencies <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
g. State agencies <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	NYSERDA - funding: SHPO - signoff; NYSDEC - SWPPP	Pending; SHPO sign-off received 04-22-21 under sec. 14.09 of NYS law
h. Federal agencies <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
i. Coastal Resources.		
i. Is the project site within a Coastal Area, or the waterfront area of a Designated Inland Waterway?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
ii. Is the project site located in a community with an approved Local Waterfront Revitalization Program?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
iii. Is the project site within a Coastal Erosion Hazard Area?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

**C. Planning and Zoning**

**C.1. Planning and zoning actions.**

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

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

**C.2. Adopted land use plans.**

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

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

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

If Yes, identify the plan(s):

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

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):

Genesee 2050, Green Genesee Road Map, Genesee County Agricultural and Farmland Protection Plan

\_\_\_\_\_

\_\_\_\_\_

**C.3. Zoning**

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

Parcel is within 2 zoning districts from Oak Orchard Road (RT. 98) to approximately 500' back is zoned "B" Business. from that point, the parcel is zoned "AR" Agricultural Residential

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? Elba Central School District

b. What police or other public protection forces serve the project site?  
Genesee County Sheriffs Office, NYS Police

c. Which fire protection and emergency medical services serve the project site?  
Elba Fire protection District, Elba Volunteer Fire Department, & Mercy Flight EMS

d. What parks serve the project site?  
Veterans Memorial Park

**D. Project Details**

**D.1. Proposed and Potential Development**

a. What is the general nature of the proposed action (e.g., residential, industrial, commercial, recreational; if mixed, include all components)? The Project is a Community / Distributed Generation Solar Energy System.

b. a. Total acreage of the site of the proposed action? +/- 55.8 acres  
b. Total acreage to be physically disturbed? +/- 23.5 acres  
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? +/-24.7 acres (lease area)

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: +/- 6 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.

	<u>One Family</u>	<u>Two Family</u>	<u>Three Family</u>	<u>Multiple Family (four or more)</u>
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 +/-1,760 solar tables with approximately 11,440 panels  
 ii. Dimensions (in feet) of largest proposed structure: +/-18 height; +/- 3' width; and +/- 7' length  
 iii. Approximate extent of building space to be heated or cooled: N/A 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?  Yes  No  
 (Not including general site preparation, grading or installation of utilities or foundations where all excavated materials will remain onsite)  
 If Yes:  
 i. What is the purpose of the excavation or dredging? \_\_\_\_\_  
 ii. How much material (including rock, earth, sediments, etc.) is proposed to be removed from the site?  
 • Volume (specify tons or cubic yards): \_\_\_\_\_  
 • Over what duration of time? \_\_\_\_\_  
 iii. Describe nature and characteristics of materials to be excavated or dredged, and plans to use, manage or dispose of them. \_\_\_\_\_  
 iv. Will there be onsite dewatering or processing of excavated materials?  Yes  No  
 If yes, describe. \_\_\_\_\_  
 v. What is the total area to be dredged or excavated? \_\_\_\_\_ acres  
 vi. What is the maximum area to be worked at any one time? \_\_\_\_\_ acres  
 vii. What would be the maximum depth of excavation or dredging? \_\_\_\_\_ feet  
 viii. Will the excavation require blasting?  Yes  No  
 ix. Summarize site reclamation goals and plan: \_\_\_\_\_

b. Would the proposed action cause or result in alteration of, increase or decrease in size of, or encroachment into any existing wetland, waterbody, shoreline, beach or adjacent area?  Yes  No  
 If Yes:  
 i. Identify the wetland or waterbody which would be affected (by name, water index number, wetland map number or geographic description): LaBella performed a wetland delineation in November 2020 and no regulated wetland or waterbody was identified.



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?  
 \_\_\_\_\_ Square feet or +/-0.9 acres (impervious surface)  
 \_\_\_\_\_ Square feet or +/- 55.8 acres (parcel size)  
 ii. Describe types of new point sources. Equipment pad(s) and access road  
 \_\_\_\_\_  
 \_\_\_\_\_

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 structures ( filter strips). A Storm Water Pollution Prevention Plan (SWPPP) will be submitted as part of this application.  
 \_\_\_\_\_  
 • If to surface waters, identify receiving water bodies or wetlands: \_\_\_\_\_  
N/A. Runoff will only be directed towards filter strips.  
 \_\_\_\_\_  
 • 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)  
Mobile sources during Project operations will include light vehicles for regular work. Specialized repair may require heavy duty vehicles.  
 ii. Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers)  
Contractor may elect to provide an on-site generator during construction activities.  
 iii. Stationary sources during operations (e.g., process emissions, large boilers, electric generation)  
None expected.  
 \_\_\_\_\_

g. Will any air emission sources named in D.2.f (above), require a NY State Air Registration, Air Facility Permit, or Federal Clean Air Act Title IV or Title V Permit?  Yes  No  
 If Yes:  
 i. Is the project site located in an Air quality non-attainment area? (Area routinely or periodically fails to meet ambient air quality standards for all or some parts of the year)  Yes  No  
 ii. In addition to emissions as calculated in the application, the project will generate:  
 • \_\_\_\_\_ Tons/year (short tons) of Carbon Dioxide (CO<sub>2</sub>)  
 • \_\_\_\_\_ Tons/year (short tons) of Nitrous Oxide (N<sub>2</sub>O)  
 • \_\_\_\_\_ Tons/year (short tons) of Perfluorocarbons (PFCs)  
 • \_\_\_\_\_ Tons/year (short tons) of Sulfur Hexafluoride (SF<sub>6</sub>)  
 • \_\_\_\_\_ Tons/year (short tons) of Carbon Dioxide equivalent of Hydroflouorocarbons (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 1/2 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.

<p>i. During Construction:</p> <ul style="list-style-type: none"> <li>• Monday - Friday: <u>Potentially 7am - 7 pm</u></li> <li>• Saturday: <u>minimal, if any</u></li> <li>• Sunday: <u>minimal, if any</u></li> <li>• Holidays: <u>minimal, if any</u></li> </ul>	<p>ii. During Operations:</p> <ul style="list-style-type: none"> <li>• Monday - Friday: <u>24 hours</u></li> <li>• Saturday: <u>24 hours</u></li> <li>• Sunday: <u>24 hours</u></li> <li>• Holidays: <u>24 hours</u></li> </ul>
---	---

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:  
 Intermittent construction noises could exceed ambient noise levels for short periods of time during the day. Once operational, noise levels are expected to be within existing levels

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: \_\_\_\_\_

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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: \_\_\_\_\_

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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: \_\_\_\_\_

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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: \_\_\_\_\_ TBD tons per \_\_\_\_\_ week (unit of time)  
 • Operation : \_\_\_\_\_ 0 tons per \_\_\_\_\_ week (unit of time)

ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste:  
 • Construction: Materials will arrive by shipping container, minimizing waste. Pallets and protective covers will be recycled as feasible.  
 \_\_\_\_\_  
 • Operation: No solid waste is produced  
 \_\_\_\_\_

iii. Proposed disposal methods/facilities for solid waste generated on-site:  
 • Construction: TBD - The exact disposal method will be determined by the contractor and will follow all applicable NYSDEC guidelines and standards.  
 \_\_\_\_\_  
 • Operation: No solid waste is produced  
 \_\_\_\_\_

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	+/-0.9	+ 0.9
• Forested	+/-3.0	+/-3.0	0
• Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural)	+/-0.5	+/-0.5	0
• Agricultural (includes active orchards, field, greenhouse etc.)	+/-52.0	+/-28.5	-23.5
• Surface water features (lakes, ponds, streams, rivers, etc.)	0	0	0
• Wetlands (freshwater or tidal)	0	0	0
• Non-vegetated (bare rock, earth or fill)	0	0	0
• Other Describe: <u>Solar array (panels with seed mix underneath, excluding impervious areas)</u>	0	+/-22.6	+22.6

c. Is the project site presently used by members of the community for public recreation?  Yes  No  
i. If Yes: explain: \_\_\_\_\_

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

e. Does the project site contain an existing dam?  Yes  No  
If Yes:  
i. Dimensions of the dam and impoundment:  
• Dam height: \_\_\_\_\_ feet  
• Dam length: \_\_\_\_\_ feet  
• Surface area: \_\_\_\_\_ acres  
• Volume impounded: \_\_\_\_\_ gallons OR acre-feet  
ii. Dam's existing hazard classification: \_\_\_\_\_  
iii. Provide date and summarize results of last inspection: \_\_\_\_\_

f. Has the project site ever been used as a municipal, commercial or industrial solid waste management facility, or does the project site adjoin property which is now, or was at one time, used as a solid waste management facility?  Yes  No  
If Yes:  
i. Has the facility been formally closed?  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: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

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**E.2. Natural Resources On or Near Project Site**

a. What is the average depth to bedrock on the project site? \_\_\_\_\_ >6.7 feet

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

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

Lima Silt Loam, 3-8% slopes	_____	+/-66.9 %
Ontario Loam, 3-8% slopes	_____	+/-18.5 %
Appleton Silt Loam, 0-3% slopes	_____	+/-11.9 %

d. What is the average depth to the water table on the project site? Average: \_\_\_\_\_ +/- 2.5 feet

e. Drainage status of project site soils:

<input checked="" type="checkbox"/> Well Drained:	_____	18.6 % of site
<input checked="" type="checkbox"/> Moderately Well Drained:	_____	66.9 % of site
<input checked="" type="checkbox"/> Poorly Drained	_____	14.5 % of site

**Note: Somewhat poorly drained only.**

f. Approximate proportion of proposed action site with slopes:

<input checked="" type="checkbox"/> 0-10%:	_____	99.9 % of site
<input checked="" type="checkbox"/> 10-15%:	_____	0.1 % of site
<input type="checkbox"/> 15% or greater:	_____	_____ % of site

g. Are there any unique geologic features on the project site?  Yes  No  
 If Yes, describe: \_\_\_\_\_  
 \_\_\_\_\_

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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.

**Note: The NYSDEC Environmental Resource Mapper shows a NYSDEC-regulated wetland on an adjacent site. A wetland delineation was performed in November 2020 and no wetlands were found to be located on site.**

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: \_\_\_\_\_  
 \_\_\_\_\_

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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: <u>squirrels, rabbits, raccoons,</u> <u>woodchucks, chipmunks, rodents</u> <u>woodchucks, chipmunks, rodents</u> <u>raptors, frogs &amp; snakes</u> _____      _____	
n. Does the project site contain a designated significant natural community? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span> If Yes: <i>i.</i> Describe the habitat/community (composition, function, and basis for designation): _____ _____ <i>ii.</i> Source(s) of description or evaluation: _____ <i>iii.</i> Extent of community/habitat: <ul style="list-style-type: none"> <li>• Currently: _____ acres</li> <li>• Following completion of project as proposed: _____ acres</li> <li>• Gain or loss (indicate + or -): _____ acres</li> </ul>	
o. Does project site contain any species of plant or animal that is listed by the federal government or NYS as endangered or threatened, or does it contain any areas identified as habitat for an endangered or threatened species? <span style="float: right;"><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</span> If Yes: <i>i.</i> Species and listing (endangered or threatened): <u>The USFWS Information for Planning and Consultation (IPaC) tool flagged the northern long-eared bat (NLEB; Myotis septentrionalis; endangered) as potentially occurring within the Project Area. However, no tree clearing is proposed for the Project and a "no effect" determination was generated through IPaC.</u>	
p. Does the project site contain any species of plant or animal that is listed by NYS as rare, or as a species of special concern? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span> If Yes: <i>i.</i> Species and listing: _____ _____	
q. Is the project site or adjoining area currently used for hunting, trapping, fishing or shell fishing? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span> If yes, give a brief description of how the proposed action may affect that use: _____ _____	
<b>E.3. Designated Public Resources On or Near Project Site</b>	
a. Is the project site, or any portion of it, located in a designated agricultural district certified pursuant to Agriculture and Markets Law, Article 25-AA, Section 303 and 304? <span style="float: right;"><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</span> If Yes, provide county plus district name/number: <u>Genesee County Agricultural District No. 2</u>	
b. Are agricultural lands consisting of highly productive soils present? <span style="float: right;"><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</span> <i>i.</i> If Yes: acreage(s) on project site? <u>+/- 20.2 acres</u> <i>ii.</i> Source(s) of soil rating(s): <u>NYSDAM Master List of Agricultural Soils, Mineral Soil Ratings (1-4)</u>	
c. Does the project site contain all or part of, or is it substantially contiguous to, a registered National Natural Landmark? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span> If Yes: <i>i.</i> Nature of the natural landmark: <input type="checkbox"/> Biological Community <input type="checkbox"/> Geological Feature <i>ii.</i> Provide brief description of landmark, including values behind designation and approximate size/extent: _____ _____ _____	
d. Is the project site located in or does it adjoin a state listed Critical Environmental Area? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span> If Yes: <i>i.</i> CEA name: _____ <i>ii.</i> Basis for designation: _____ <i>iii.</i> 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?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
If Yes: <span style="float: right; color: red; font-size: small;">Note: SHPO No Effect received April 22, 2021</span>		
i. Nature of historic/archaeological resource: <input type="checkbox"/> Archaeological Site <input type="checkbox"/> Historic Building or District		
ii. Name: _____		
iii. Brief description of attributes on which listing is based: _____		
f. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
g. Have additional archaeological or historic site(s) or resources been identified on the project site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
If Yes:		
i. Describe possible resource(s): _____		
ii. Basis for identification: _____		
h. Is the project site within five miles of any officially designated and publicly accessible federal, state, or local scenic or aesthetic resource?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
If Yes:		
i. Identify resource: <u>Veterans Memorial Park, Centennial Park in Batavia, Oak Orchard Wildlife Management Area</u>		
ii. Nature of, or basis for, designation (e.g., established highway overlook, state or local park, state historic trail or scenic byway, etc.): <u>Municipal parks, wildlife management area</u>		
iii. Distance between project and resource: _____ <u>0.3 - 5</u> miles.		
i. Is the project site located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR 666?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
If Yes:		
i. Identify the name of the river and its designation: _____		
ii. Is the activity consistent with development restrictions contained in 6NYCRR Part 666?		<input type="checkbox"/> Yes <input type="checkbox"/> No

**F. Additional Information**

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

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

**G. Verification**

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

Applicant/Sponsor Name NY CDG Genesee 1, LLC Date \_\_\_\_\_  
 (Contact: Marc DiGuiseppe, Catalyze Holdings LLC)

Signature \_\_\_\_\_ Title \_\_\_\_\_

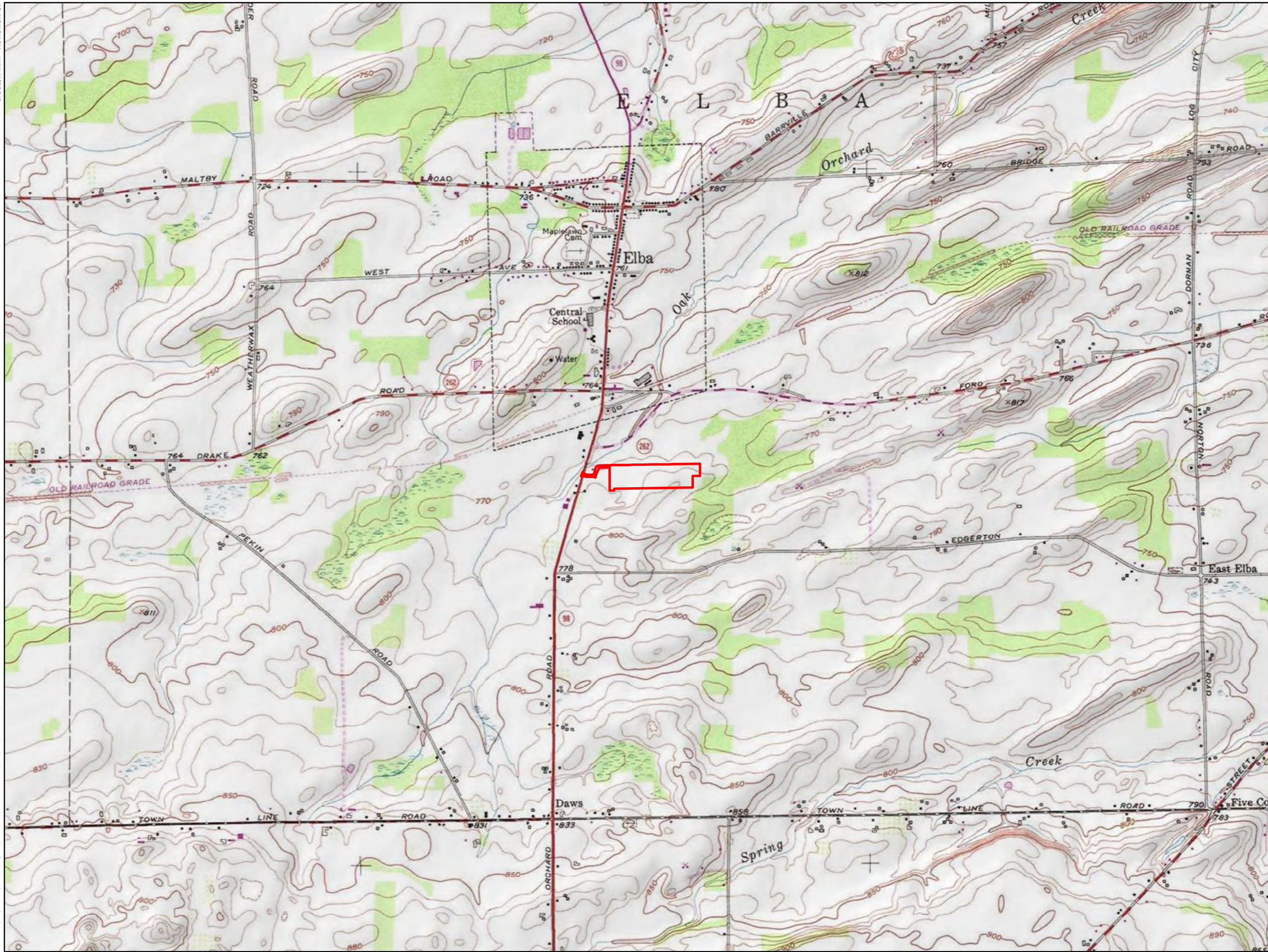


**Disclaimer:** The EAF Mapper is a screening tool intended to assist project sponsors and reviewing agencies in preparing an environmental assessment form (EAF). Not all questions asked in the EAF are answered by the EAF Mapper. Additional information on any EAF question can be obtained by consulting 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.



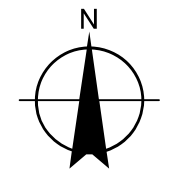
B.i.i [Coastal or Waterfront Area]	No
B.i.ii [Local Waterfront Revitalization Area]	No
C.2.b. [Special Planning District]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h [DEC Spills or Remediation Site - Potential Contamination History]	Digital mapping data are 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]	Yes
E.2.h.ii [Surface Water Features]	Yes
E.2.h.iii [Surface Water Features]	Yes - Digital mapping information on local and federal wetlands and waterbodies is known to be incomplete. Refer to EAF Workbook.
E.2.h.iv [Surface Water Features - Wetlands Name]	Federal Waters, NYS Wetland
E.2.h.iv [Surface Water Features - Wetlands Size]	NYS Wetland (in acres):44.8
E.2.h.iv [Surface Water Features - DEC Wetlands Number]	BN-23
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]	No
E.2.o. [Endangered or Threatened Species]	No
E.2.p. [Rare Plants or Animals]	No
E.3.a. [Agricultural District]	Yes
E.3.a. [Agricultural District]	GENE002
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



**SEQRA &  
Agricultural  
Data Statement**

**Genesee 1  
Solar Project  
Town of Elba, NY**



0 1,000 2,000 Feet  
1 inch = 2,000 feet

**Legend**

Project Area

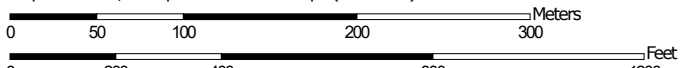
Sources:  
1. Study Area: Created by LaBella using information provided by the client.  
2. Basemap: ESRI USA Topo Map (Updated: 2020) in reference to Batavia North, NY (1950) USGS Topographic Quadrangle.

**USGS  
Site Location**

Farmland Classification—Genesee County, New York  
(NY CDG Genesee 1, LLC)



Map Scale: 1:4,360 if printed on A landscape (11" x 8.5") sheet.



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



Natural Resources  
Conservation Service


Web Soil Survey  
National Cooperative Soil Survey

7/14/2023  
Page 1 of 5

Farmland Classification—Genesee County, New York  
(NY CDG Genesee 1, LLC)









**MAP LEGEND**








**Area of Interest (AOI)**






 Area of Interest (AOI)








**Soils**



**Soil Rating Polygons**

-  Not prime farmland
-  All areas are prime farmland
-  Prime farmland if drained
-  Prime farmland if protected from flooding or not frequently flooded during the growing season
-  Prime farmland if irrigated
-  Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
-  Prime farmland if irrigated and drained
-  Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season









-  Prime farmland if subsoiled, completely removing the root inhibiting soil layer
-  Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
-  Prime farmland if irrigated and reclaimed of excess salts and sodium
-  Farmland of statewide importance
-  Farmland of statewide importance, if drained
-  Farmland of statewide importance, if protected from flooding or not frequently flooded during the growing season
-  Farmland of statewide importance, if irrigated

-  Farmland of statewide importance, if drained and either protected from flooding or not frequently flooded during the growing season
-  Farmland of statewide importance, if irrigated and drained
-  Farmland of statewide importance, if irrigated and either protected from flooding or not frequently flooded during the growing season
-  Farmland of statewide importance, if subsoiled, completely removing the root inhibiting soil layer
-  Farmland of statewide importance, if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60





































-  Farmland of statewide importance, if irrigated and reclaimed of excess salts and sodium
-  Farmland of statewide importance, if drained or either protected from flooding or not frequently flooded during the growing season
-  Farmland of statewide importance, if warm enough, and either drained or either protected from flooding or not frequently flooded during the growing season
-  Farmland of statewide importance, if warm enough
-  Farmland of statewide importance, if thawed
-  Farmland of local importance
-  Farmland of local importance, if irrigated

-  Farmland of unique importance
-  Not rated or not available

















**Soil Rating Lines**

-  Not prime farmland
-  All areas are prime farmland
-  Prime farmland if drained
-  Prime farmland if protected from flooding or not frequently flooded during the growing season
-  Prime farmland if irrigated
-  Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
-  Prime farmland if irrigated and drained
-  Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season

Farmland Classification—Genesee County, New York  
(NY CDG Genesee 1, LLC)

	Prime farmland if subsoiled, completely removing the root inhibiting soil layer		Farmland of statewide importance, if drained and either protected from flooding or not frequently flooded during the growing season		Farmland of statewide importance, if irrigated and reclaimed of excess salts and sodium		Farmland of unique importance		Prime farmland if subsoiled, completely removing the root inhibiting soil layer	
	Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60		Farmland of statewide importance, if irrigated and drained		Farmland of statewide importance, if drained or either protected from flooding or not frequently flooded during the growing season	<b>Soil Rating Points</b>		Not prime farmland		Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
	Prime farmland if irrigated and reclaimed of excess salts and sodium		Farmland of statewide importance, if irrigated and either protected from flooding or not frequently flooded during the growing season		Farmland of statewide importance, if warm enough, and either drained or either protected from flooding or not frequently flooded during the growing season		Prime farmland if drained		Prime farmland if irrigated and reclaimed of excess salts and sodium	
	Farmland of statewide importance		Farmland of statewide importance, if subsoiled, completely removing the root inhibiting soil layer		Farmland of statewide importance, if warm enough		Prime farmland if protected from flooding or not frequently flooded during the growing season		Farmland of statewide importance	
	Farmland of statewide importance, if drained		Farmland of statewide importance, if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60		Farmland of statewide importance, if thawed		Prime farmland if irrigated		Farmland of statewide importance, if drained	
	Farmland of statewide importance, if protected from flooding or not frequently flooded during the growing season				Farmland of local importance		Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season		Farmland of statewide importance, if protected from flooding or not frequently flooded during the growing season	
	Farmland of statewide importance, if irrigated				Farmland of local importance, if irrigated		Prime farmland if irrigated and drained		Farmland of statewide importance, if irrigated	
							Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season			

Farmland Classification—Genesee County, New York  
(NY CDG Genesee 1, LLC)

<ul style="list-style-type: none"> <li> Farmland of statewide importance, if drained and either protected from flooding or not frequently flooded during the growing season</li> <li> Farmland of statewide importance, if irrigated and drained</li> <li> Farmland of statewide importance, if irrigated and either protected from flooding or not frequently flooded during the growing season</li> <li> Farmland of statewide importance, if subsoiled, completely removing the root inhibiting soil layer</li> <li> Farmland of statewide importance, if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60</li> </ul>	<ul style="list-style-type: none"> <li> Farmland of statewide importance, if irrigated and reclaimed of excess salts and sodium</li> <li> Farmland of statewide importance, if drained or either protected from flooding or not frequently flooded during the growing season</li> <li> Farmland of statewide importance, if warm enough, and either drained or either protected from flooding or not frequently flooded during the growing season</li> <li> Farmland of statewide importance, if warm enough</li> <li> Farmland of statewide importance, if thawed</li> <li> Farmland of local importance</li> <li> Farmland of local importance, if irrigated</li> </ul>	<ul style="list-style-type: none"> <li> Farmland of unique importance</li> <li> Not rated or not available</li> </ul> <p><b>Water Features</b></p> <ul style="list-style-type: none"> <li> Streams and Canals</li> </ul> <p><b>Transportation</b></p> <ul style="list-style-type: none"> <li> Rails</li> <li> Interstate Highways</li> <li> US Routes</li> <li> Major Roads</li> <li> Local Roads</li> </ul> <p><b>Background</b></p> <ul style="list-style-type: none"> <li> Aerial Photography</li> </ul>	<p>The soil surveys that comprise your AOI were mapped at 1:24,000.</p> <div style="border: 1px solid black; padding: 5px; margin: 5px 0;"> <p>Warning: Soil Map may not be valid at this scale.</p> <p>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.</p> </div> <p>Please rely on the bar scale on each map sheet for map measurements.</p> <p>Source of Map: Natural Resources Conservation Service Web Soil Survey URL: Coordinate System: Web Mercator (EPSG:3857)</p> <p>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.</p> <p>This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.</p> <p>Soil Survey Area: Genesee County, New York Survey Area Data: Version 23, Sep 10, 2022</p> <p>Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.</p> <p>Date(s) aerial images were photographed: Jul 29, 2011—Oct 18, 2016</p> <p>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.</p>
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## Farmland Classification

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
ApA	Appleton silt loam, 0 to 3 percent slopes	Prime farmland if drained	2.8	11.9%
LmB	Lima silt loam, 3 to 8 percent slopes	All areas are prime farmland	15.8	66.9%
OnB	Ontario loam, 3 to 8 percent slopes	All areas are prime farmland	4.4	18.5%
OnC	Ontario loam, 8 to 15 percent slopes	Farmland of statewide importance	0.0	0.1%
OvB	Ovid silt loam, 3 to 8 percent slopes	Prime farmland if drained	0.6	2.6%
<b>Totals for Area of Interest</b>			<b>23.6</b>	<b>100.0%</b>

## Description

Farmland classification identifies map units as prime farmland, farmland of statewide importance, farmland of local importance, or unique farmland. It identifies the location and extent of the soils that are best suited to food, feed, fiber, forage, and oilseed crops. NRCS policy and procedures on prime and unique farmlands are published in the "Federal Register," Vol. 43, No. 21, January 31, 1978.

## Rating Options

*Aggregation Method:* No Aggregation Necessary

*Tie-break Rule:* Lower

## DETERMINATION KEY RESULT

Based on the information you provided, you have determined that the Proposed Action will have no effect on the Endangered northern long-eared bat (*Myotis septentrionalis*). Therefore, no consultation with the U.S. Fish and Wildlife Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (87 Stat. 884, as amended 16 U.S.C. 1531 *et seq.*) is required for those species.

## QUALIFICATION INTERVIEW

1. Does the proposed project include, or is it reasonably certain to cause, intentional take of the northern long-eared bat or any other listed species?

**Note:** Intentional take is defined as take that is the intended result of a project. Intentional take could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered or proposed species?

*No*

2. The proposed action does not intersect an area where the northern long-eared bat is likely to occur, based on the information available to U.S. Fish and Wildlife Service as of the most recent update of this key. If you have data that indicates that northern long-eared bats are likely to be present in the action area, answer "NO" and continue through the key.

Do you want to make a no effect determination?

*Yes*

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**Parks, Recreation,  
and Historic Preservation**

**ANDREW M. CUOMO**  
Governor

**ERIK KULLESEID**  
Commissioner

April 22, 2021

Allison Koch  
Environmental Analyst  
LaBella Associates, DPC.  
300 State Street, Suite 201  
Rochester, NY 14614

Re: NYSERDA  
Genesee 1 Solar Array Construction Project (5MW/30 Acres of 54 Acre Parcel)  
7209 Oak Orchard Road Tax ID: 11.-1-5.12), Town of Elba, Genesee County, NY  
20PR07466

Dear Allison Koch:

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



# Agricultural Data Statement

Date 07/14/2023

**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: <u>NY CDG Genesee 1, LLC</u> Address: <u>6325 Gunpark Drive, Suite C-2</u> <u>Boulder, Colorado 80301</u>	Name: <u>CY Properties, LLC</u> Address: <u>6465 Transit Road</u> <u>Elba, NY 14058</u>

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

2. Description of proposed project: The project consists of the installation of an estimated 5 MWAC ground mounted solar photovoltaic (PV) system covering approximately 23.5 acres of a 55.8 acre parcel. Activities include the installation of solar panels/modules, new electrical equipment, and accessories including electrical lines, access road, and concrete pads containing transformers.

3. Location of project: Address: 7209 Oak Orchard Road, Elba, NY 14058  
Tax Map Number (TMP) 11-1-5.12

4. Is this parcel within an Agricultural District?  NO  YES (Check with your local assessor if you do not know)

5. If YES, Agricultural District Number 2

6. Is this parcel actively farmed?  NO  YES

7. List all farm operations within 500 feet of your parcel. Attach additional sheets if necessary.  
Per Section 305-a of NYS Agriculture and Markets Law, farm parcels within the Ag District are listed.

Name: <u>John Torrey (Parcel 10.-1-12.1, # 1 on map)</u> Address: <u>Mailing Address: 4199 Maltby Road</u> <u>P.O.Box 187 Elba, NY 14058</u> Is this parcel actively farmed? <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES	Name: <u>John Torrey ( Parcel 11.-1-2, # 2 on map)</u> Address: <u>Mailing Address: 4199 Maltby Road</u> <u>P.O. Box 187 Elba, NY 14058</u> Is this parcel actively farmed? <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES
Name: <u>John Torrey ( Parcel 11.-1-4.2, #3 on map)</u> Address: <u>Mailing Address: 4199 Maltby Road</u> <u>P.O. Box 187 Elba, NY 14058</u> Is this parcel actively farmed? <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES	Name: <u>Catherine Torrey (Parcel 11.-1-8.2, #4 on map)</u> Address: <u>4593 Edgerton Road</u> <u>Elba, NY 14058</u> Is this parcel actively farmed? <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES

[Signature]  
Signature of Applicant

\_\_\_\_\_  
Signature of Owner (if other than applicant)

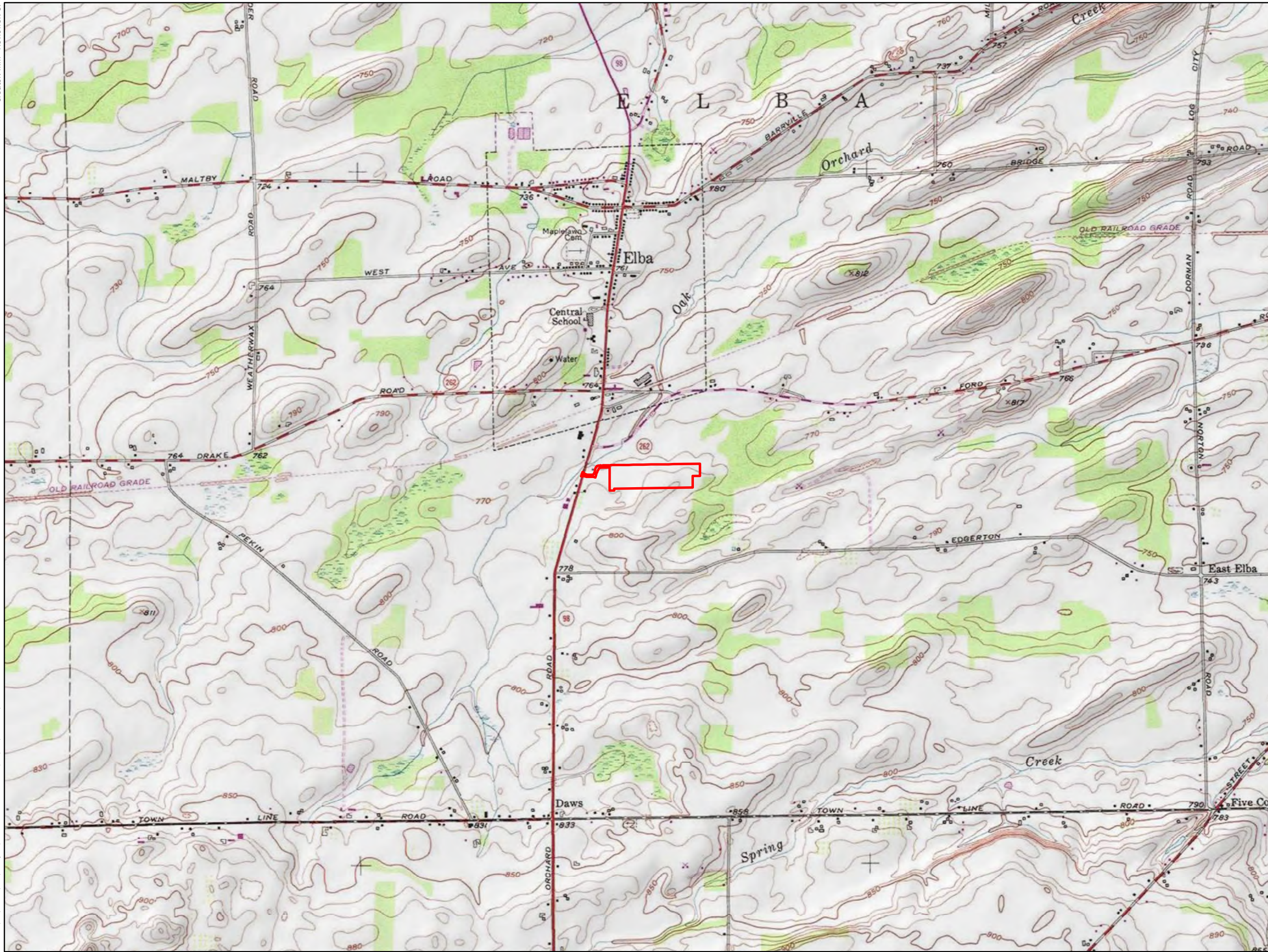
Reviewed by: \_\_\_\_\_  
Signature of Municipal Official

\_\_\_\_\_  
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.

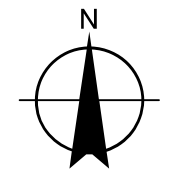
## 7209 OAK ORCHARD ROAD - LIST OF NEIGHBORING FARMLAND PROPERTIES

Map Number	Municipality	Property Owner(s) Name and Address	Tax Map No.	Mailing Address	Used for Farming?
1	Town of Elba	John Torrey Oak Orchard Road	10.-1-12.1	Torrey Partnership No. 2 4199 Maltby Road P.O. Box 187 Elba, NY 14058	Yes
2	Town of Elba	John Torrey Oak Orchard Road	11.-1-2	Torrey Partnership No. 2 4199 Maltby Road P.O. Box 187 Elba, NY 14058	Yes
3	Town of Elba	John Torrey Oak Orchard Road	11.-1-4.2	4199 Maltby Road P.O. Box 187 Elba, NY 14058	Yes
4	Town of Elba	Charles Augello 4529 Edgerton Road	11.-1-7	Same as home address	Yes
5	Town of Elba	Catherine Torrey 4593 Edgerton Road	11.-1-8.2	Same as home address	Yes
6	Town of Elba	Torrey Farms Inc. Edgerton Road	11.-1-8.1	4199 Maltby Road P.O. Box 187 Elba, NY 14058	Yes
7	Town of Elba	Charles Torrey Oak Orchard Road	11.-1-6	4199 Maltby Road P.O. Box 187 Elba, NY 14058	Yes
8	Town of Elba	Charles Torrey Ford Road	8.-1-51.1	4199 Maltby Road P.O. Box 187 Elba, NY 14058	Yes
9	Town of Elba	John Torrey 7206-7212 Oak Orchard Road	11.-1-1	4199 Maltby Road P.O. Box 187 Elba, NY 14058	Yes
10	Town of Elba	John Torrey Oak Orchard Road	10.-1-11.1	4199 Maltby Road P.O. Box 187 Elba, NY 14058	Yes



**SEQRA &  
 Agricultural  
 Data Statement**

**Genesee 1  
 Solar Project  
 Town of Elba, NY**



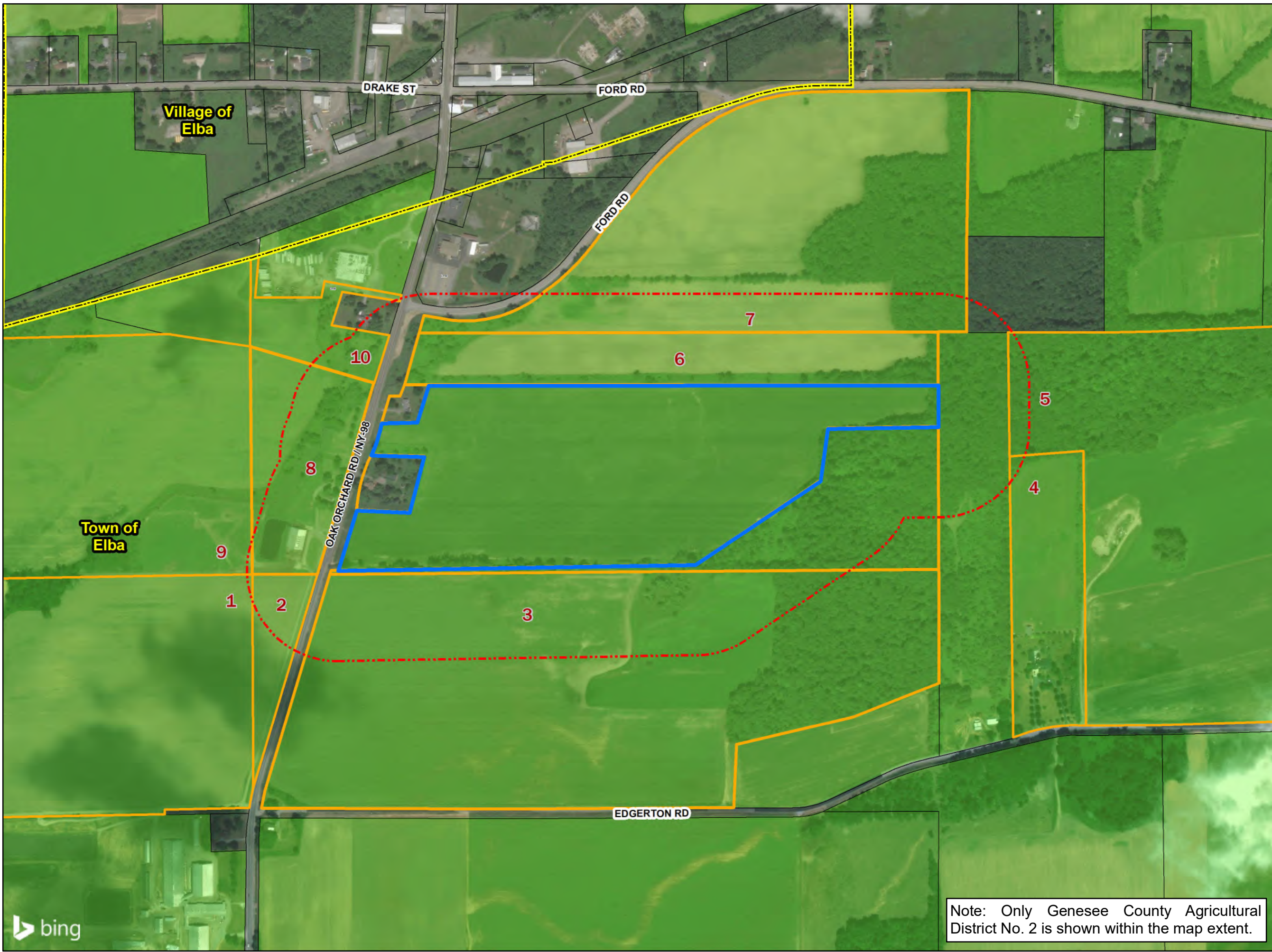
0 1,000 2,000 Feet  
 1 inch = 2,000 feet

**Legend**

Project Area

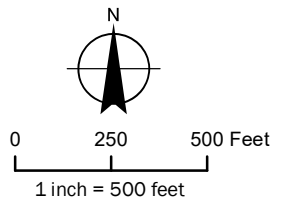
Sources:  
 1. Study Area: Created by LaBella using information provided by the client.  
 2. Basemap: ESRI USA Topo Map (Updated: 2020) in reference to Batavia North, NY (1950) USGS Topographic Quadrangle.

**USGS  
 Site Location**



**Agricultural  
Data Statement**

**Genesee 1  
Solar Project  
Town of Elba, NY**



**Legend**

- Project Parcel
- 500 Ft Buffer
- Nearby Agriculture
- Genesee County Parcels
- Genesee County Agricultural Districts
- Municipal Boundary

Sources:

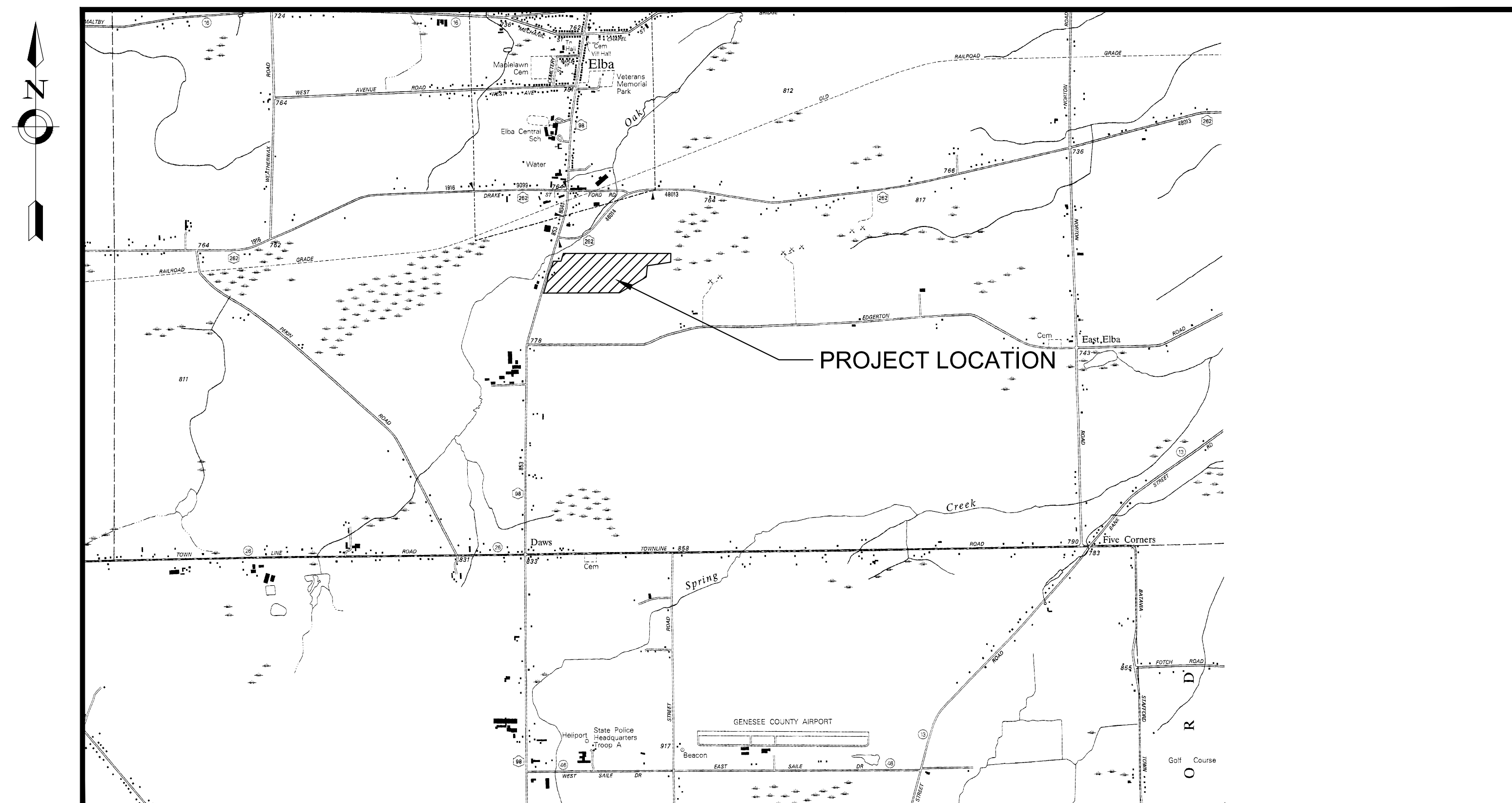
1. Project Parcel & 500-ft Buffer: Created by LaBella using information provided by the Client.
2. Genesee County Parcels: REGRID. 2023.
3. Genesee County Agricultural Districts: CUGIR. 2022.
4. Basemap: Microsoft Bing. 2023.

**Agricultural District  
Map**

Note: Only Genesee County Agricultural District No. 2 is shown within the map extent.

# GENESEE 1

7195 OAK ORCHARD RD.  
TOWN OF ELBA, NY 14058



LOCATION MAP  
N.T.S.

## CIVIL DRAWING INDEX

C-000	COVER SHEET
C-001	GENERAL NOTES
C-101	EXISTING CONDITIONS AND DEMOLITION PLAN
C-201	SITE AND UTILITY PLAN
C-401	GRADING PLAN
C-501	CONSTRUCTION DETAILS
C-502	CONSTRUCTION DETAILS
C-503	CONSTRUCTION DETAILS
C601	DECOMMISSIONING PLAN (PHASE 1)
C602	DECOMMISSIONING PLAN (PHASE 2)
L-101	LANDSCAPE PLAN

**CATALYZE HOLDINGS, LLC**

D.B.A. NY CDG GENESEE 1, LLC  
6325 GUNPARK DRIVE, SUITE C-2,  
BOULDER, CO 80301  
PROJECT NUMBER: 2210066

JUNE 2023

TOWN OF ELBA PLANNING BOARD APPROVAL
_____
TOWN OF ELBA PLANNING BOARD CHAIR (PRINT)
_____
TOWN OF ELBA PLANNING BOARD CHAIR (SIGNATURE)
_____
APPROVAL DATE
_____

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Rochester, NY 14614  
585-454-6110  
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**NY CDG GENESEE 1, LLC**

6325 GUNPARK DRIVE, SUITE C-2,  
BOULDER, CO 80301



**Genesee 1**

7195 OAK ORCHARD RD.  
TOWN OF ELBA, NY 14058

NO.	DATE	DESCRIPTION
4	6/22/23	REVISED PER CATALYZE 6/14/23 LAYOUT
3	4/19/22	PER CLIENT COMMENTS
2	7/30/21	REVISED PANEL SPACING AND OUTPUT
1	6/7/21	PER PLANNING BOARD COMMENTS

PROJECT NUMBER: 2210066

DRAWN BY: MLZ  
REVIEWED BY: JJP

ISSUED FOR: SITE PLAN REVIEW

DATE: 6/2023

DRAWING NAME:

**EXISTING CONDITION**

TOWN OF ELBA PLANNING BOARD APPROVAL

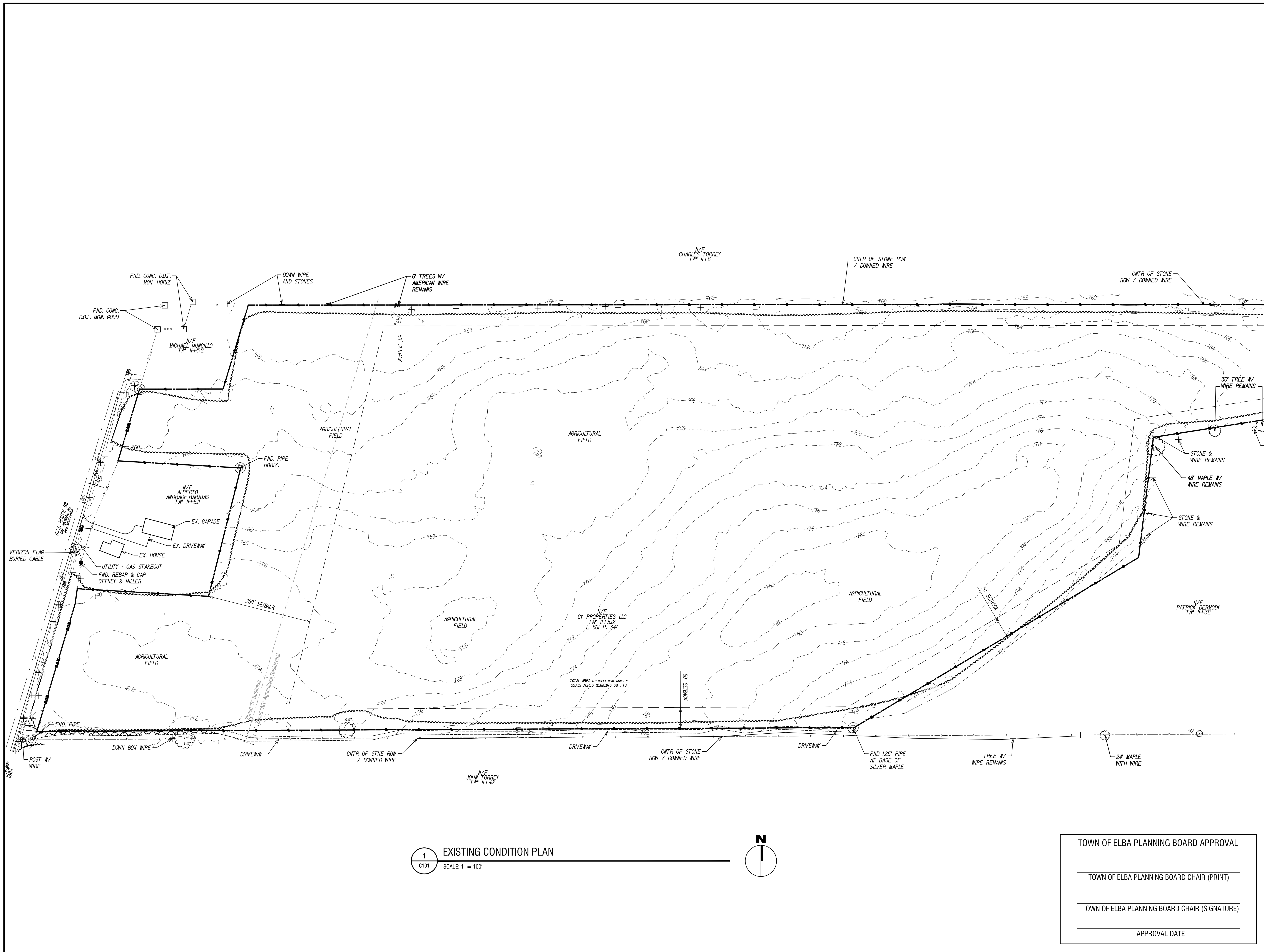
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TOWN OF ELBA PLANNING BOARD CHAIR (PRINT)

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TOWN OF ELBA PLANNING BOARD CHAIR (SIGNATURE)

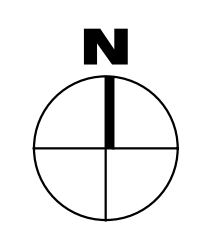
\_\_\_\_\_  
APPROVAL DATE

DRAWING NUMBER:

**C101**



**1** EXISTING CONDITION PLAN  
C101 SCALE: 1" = 100'



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**NY CDG GENESEE 1, LLC**  
6325 GUNPARK DRIVE, SUITE C-2,  
BOULDER, CO 80301



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PROJECT NUMBER: 2210066

DRAWN BY: MLZ

REVIEWED BY: JJP

ISSUED FOR: SITE PLAN REVIEW

DATE: 6/2023

DRAWING NAME:

**SITE PLAN**

DRAWING NUMBER:

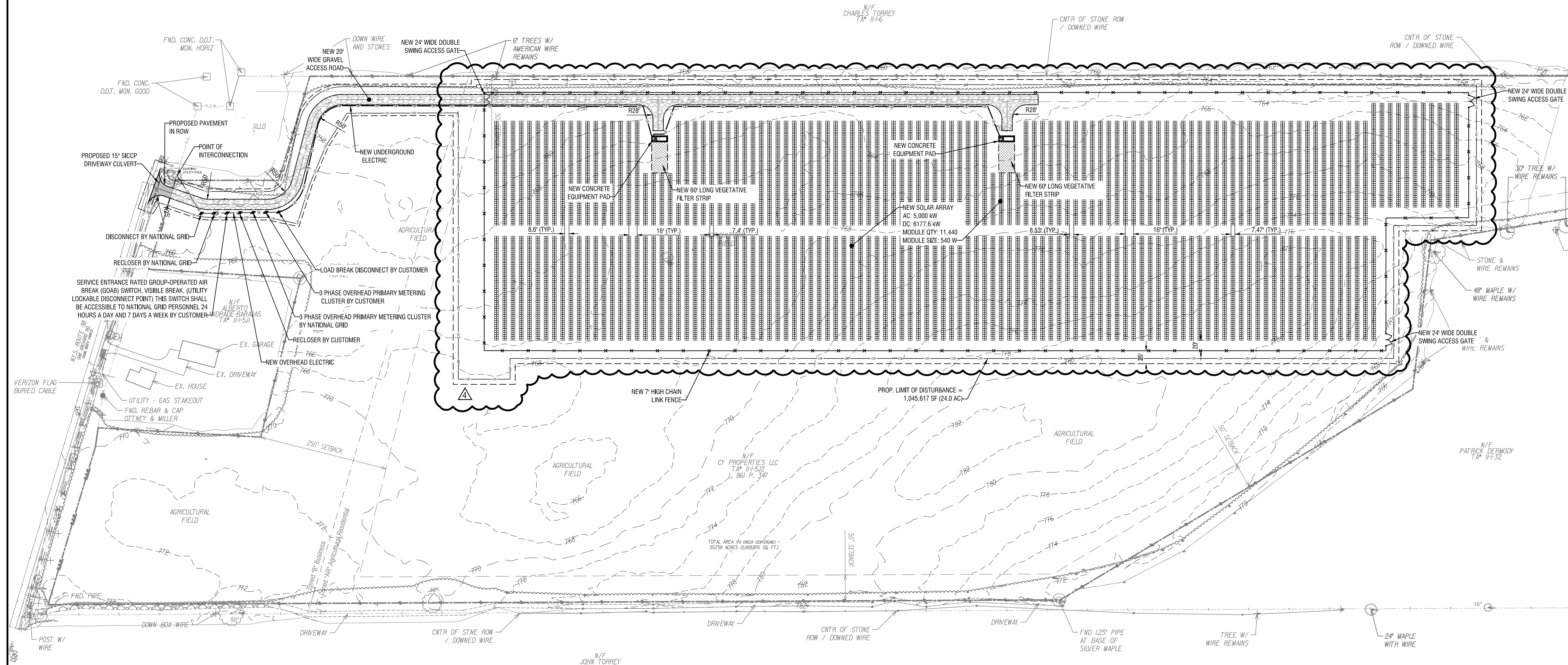
**C201**

PROJECT DATA	
PARCEL INFORMATION	
APPLICANT	NY CDG Genesee 1 LLC
PARCEL ADDRESS	7195 Oak Orchard Rd Elba, NY 14058
TAX NUMBER	11-1-5.12
NUMBER OF TABLES	1,760
NUMBER OF PANELS	11,440
SYSTEM SIZE (DC)	6.1776 MW (DC)
SYSTEM SIZE (AC)	5 MW (AC)
GPS COORDINATES	N: 43.064856 W: -78.186928
AVERAGE SITE ELEVATION	±769'
PARCEL AREA	±55.76 ACRES
EQUIPMENT PAD AREA	±706 SF
FENCED AREA	±20.86 ACRES
LEASE AREA	±24.73 ACRES
DISTURBED AREA	±23.53 ACRES
ROAD LENGTH	±1,844 FT
CHAIN LINK FENCE	±4,804 FT
GATE COUNT	1

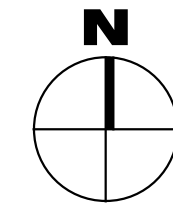
ZONING INFORMATION		
	REQUIRED	PROPOSED
CODE APPLIED	TOWN OF ELBA	
WEBSITE	http://elbanewyork.com/index.php/code-zoning-enforcement	
CLASSIFICATION	AGRICULTURAL	
FRONT SETBACK	250 FT	250 FT
SIDE SETBACK	50 FT	50 FT
REAR SETBACK	50 FT	50 FT
ENTRANCE WIDTH	-	20 FT
MAX FENCE HEIGHT	-	7 FT

**Notes:**

- The western ±500 ft of the parcel is zoned as a business district. The access road is the only element of the project outside of the agricultural district.
- Town of Elba Local Law No.1 of 2021 Section F.4.j.i. The Tier 3 Solar Energy Systems shall meet the following setback requirements:
  - Setbacks from adjacent non-participating residences shall be a minimum of 250 feet.
  - Setbacks from adjacent non-participating residential property lines shall be a minimum of 100 feet.
  - Setbacks from a state roads or highways shall be a minimum of 100 feet from the edge of the right of way.
  - Setbacks from County or Town roads shall be a minimum of 70 feet from the edge of the right of way.
  - Setbacks from adjacent non-participating non-residential property lines shall be a minimum of 50 feet.



**1 SITE PLAN**  
C201 SCALE: 1" = 100'



TOWN OF ELBA PLANNING BOARD APPROVAL

\_\_\_\_\_  
TOWN OF ELBA PLANNING BOARD CHAIR (PRINT)

\_\_\_\_\_  
TOWN OF ELBA PLANNING BOARD CHAIR (SIGNATURE)

\_\_\_\_\_  
APPROVAL DATE

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**NY CDG GENESEE 1, LLC**

6325 GUNPARK DRIVE, SUITE C-2,  
BOULDER, CO 80301



**Genesee 1**

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TOWN OF ELBA, NY 14058

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PROJECT NUMBER: 2210066

DRAWN BY: MLZ

REVIEWED BY: JJP

ISSUED FOR: SITE PLAN REVIEW

DATE: 6/2023

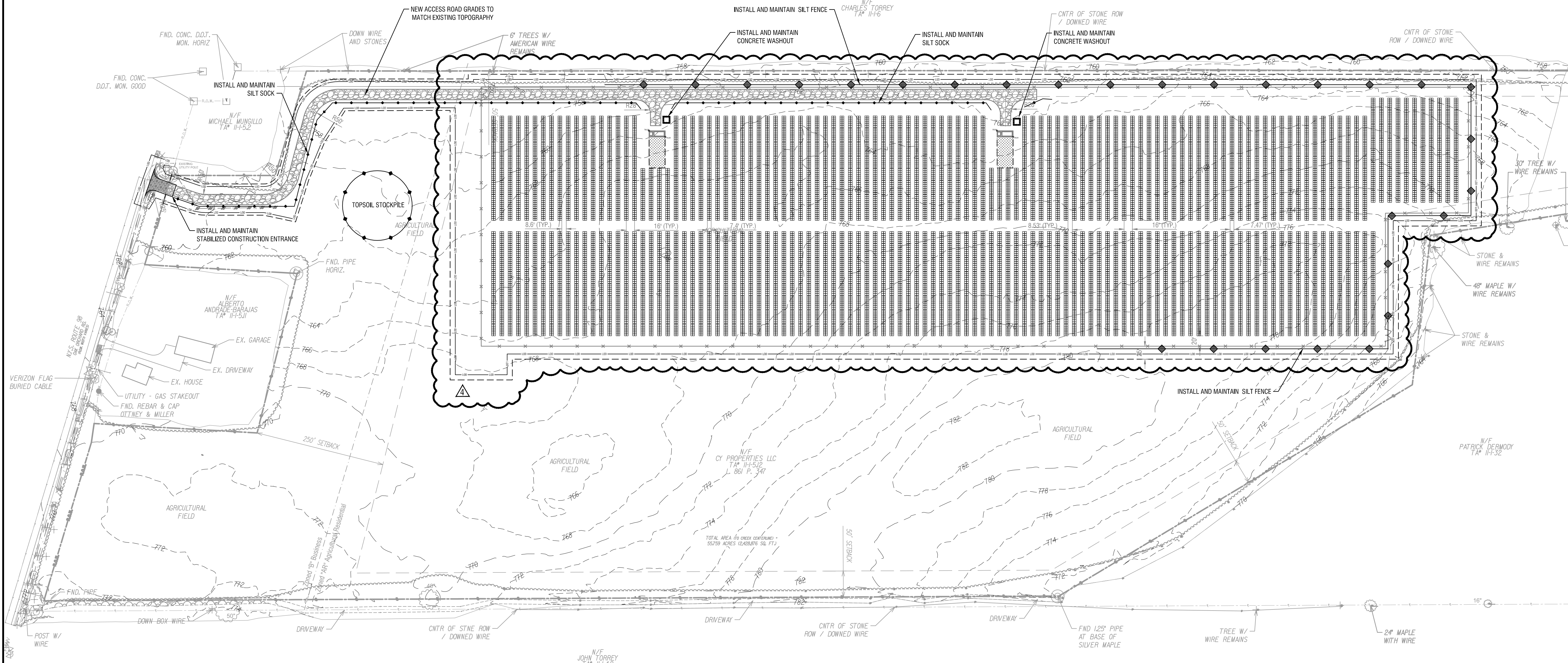
DRAWING NAME:

**GRADING AND EROSION CONTROL PLAN**

DRAWING NUMBER:

**C401**

Note:  
This site is subject to New York State Agriculture and Markets requirements. All topsoil is to be protected and kept on site. No topsoil export permitted.



**1 GRADING AND EROSION CONTROL PLAN**  
SCALE: 1" = 100'

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\_\_\_\_\_  
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**NY CDG GENESEE 1, LLC**

6325 GUNPARK DRIVE, SUITE C-2,  
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Revisions

PROJECT NUMBER: 2210066

DRAWN BY: MLZ

REVIEWED BY: JJP

ISSUED FOR: SITE PLAN REVIEW

DATE: 6/2023

DRAWING NUMBER:

**CONSTRUCTION DETAILS**

DRAWING NUMBER:

**C501**

TOWN OF ELBA PLANNING BOARD APPROVAL

\_\_\_\_\_

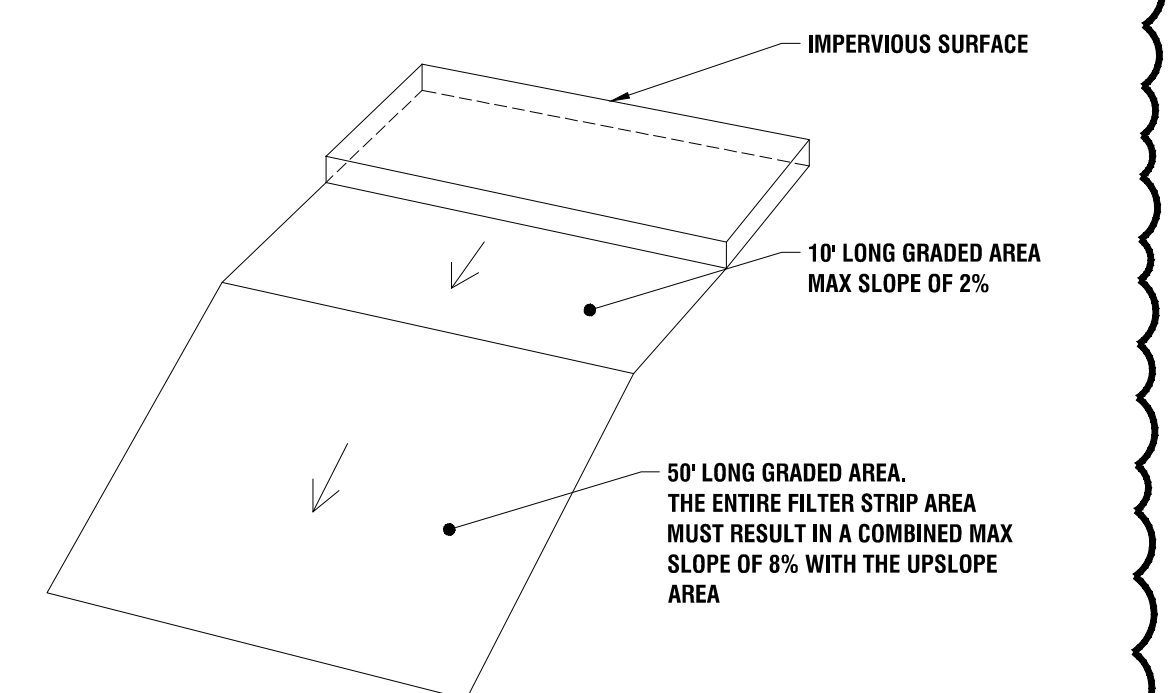
TOWN OF ELBA PLANNING BOARD CHAIR (PRINT)

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TOWN OF ELBA PLANNING BOARD CHAIR (SIGNATURE)

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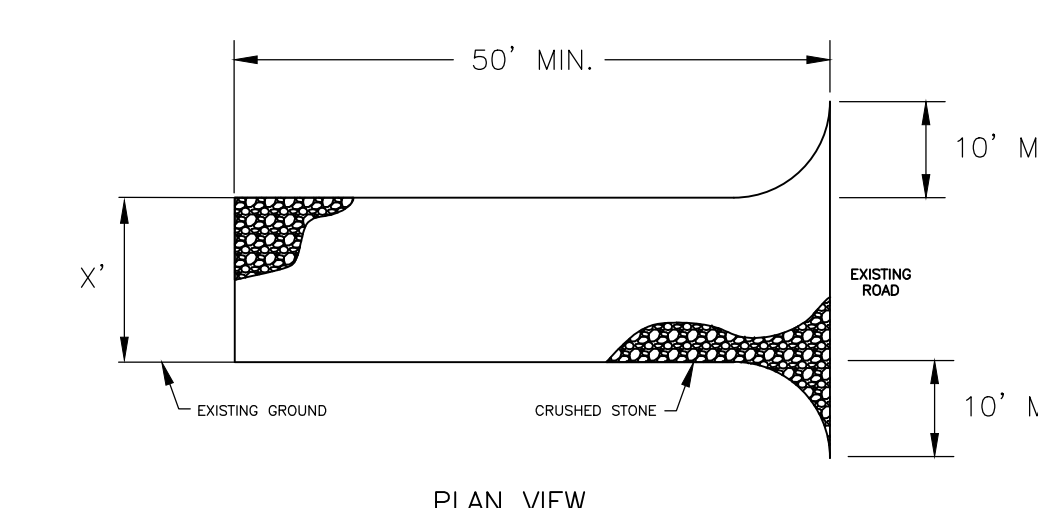
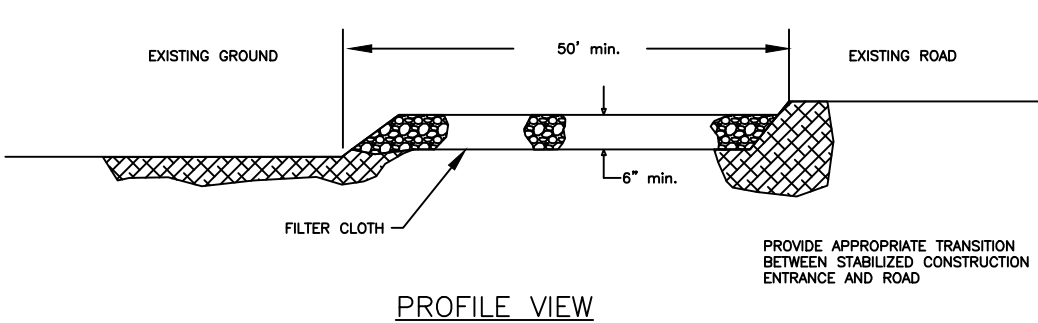
APPROVAL DATE



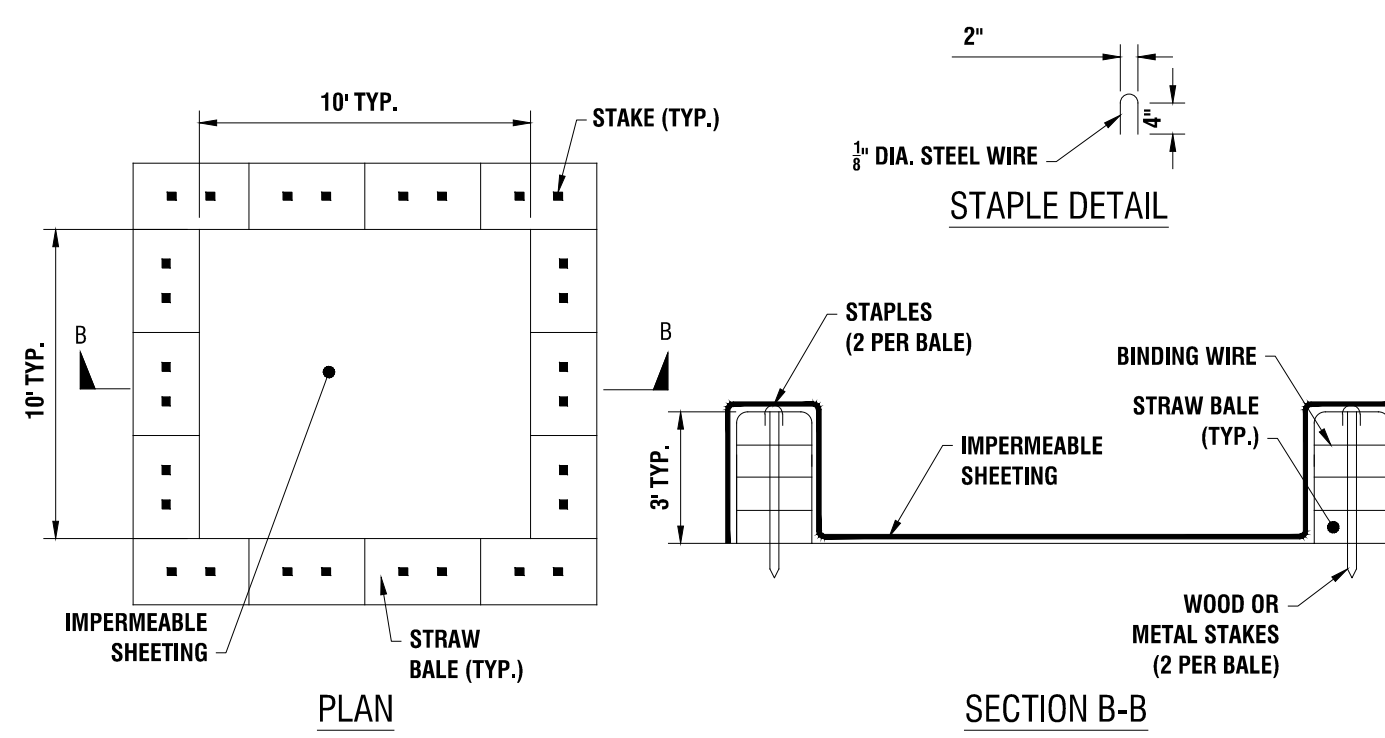
- NOTES:**
- NO DEVELOPMENT IS ALLOWED ON FILTER STRIP AREA.
  - AREAS TO BE SEEDING USING SPECIFIED SEED MIXTURE ON THE LANDSCAPING PLAN.

**VEGETATIVE FILTER STRIP**

8  
C501 N.T.S.



- STONE FOR A STABILIZED CONSTRUCTION ENTRANCE SHALL BE 1 TO 2 INCH STONE, RECLAIMED STONE, OR RECYCLED CONCRETE EQUIVALENT.
- THE LENGTH OF THE STABILIZED ENTRANCE SHALL NOT BE LESS THAN 50 FEET.
- THE THICKNESS OF THE STONE FOR THE STABILIZED ENTRANCE SHALL NOT BE LESS THAN 6 INCHES.
- THE WIDTH OF THE ENTRANCE SHALL NOT BE LESS THAN THE FULL WIDTH OF THE PROPOSED ENTRANCE.
- GEOTEXTILE FILTER CLOTH SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING THE STONE.
- ALL SURFACE WATER THAT IS FLOWING TO OR DIVERTED TOWARDS THE CONSTRUCTION ENTRANCE SHALL BE PIPED BENEATH THE SURFACE.
- THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO EXISTING ROAD. THIS MANY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE OR ADDITIONAL LENGTH AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO EXISTING ROAD SHALL BE REMOVED IMMEDIATELY.



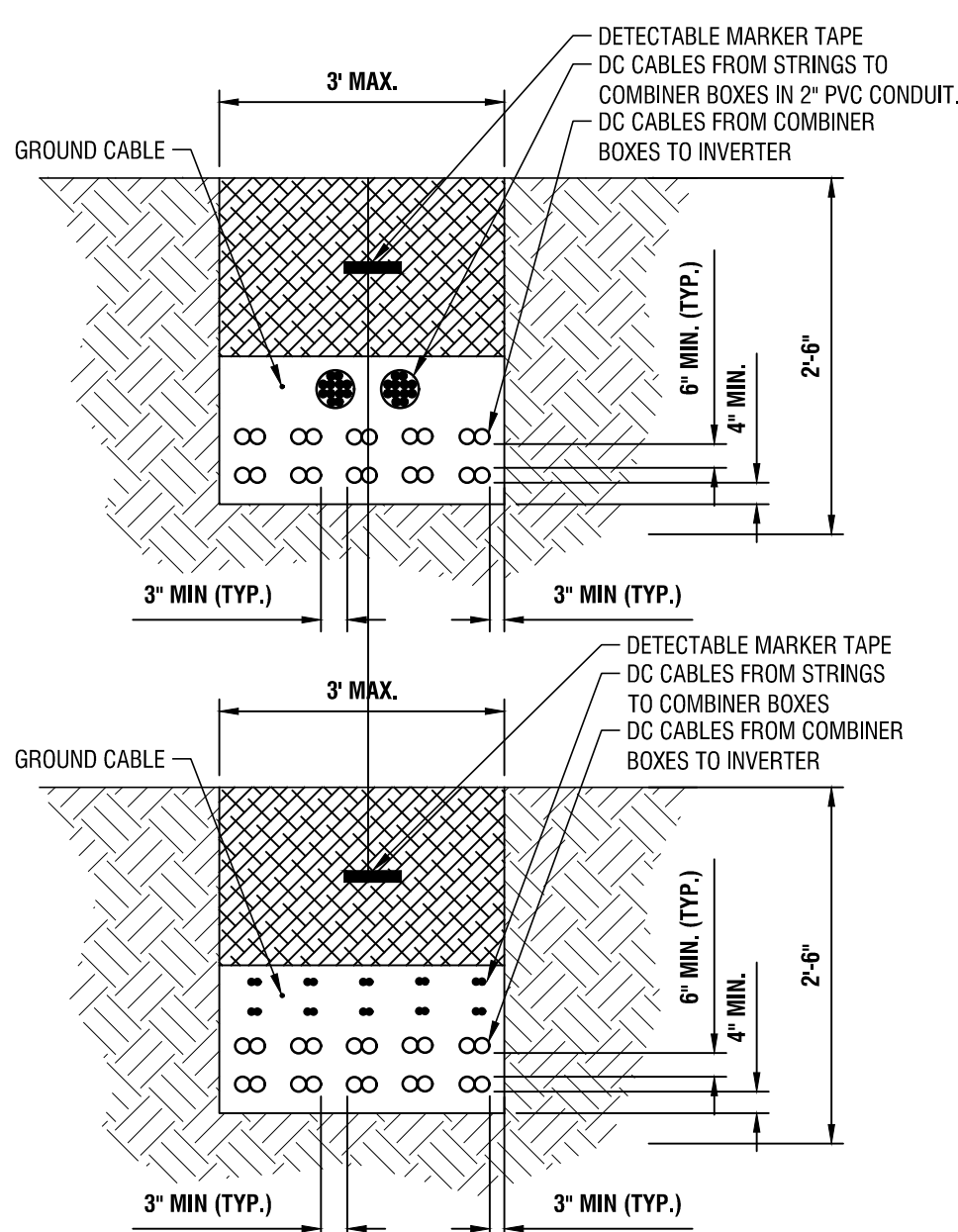
**NOTE:**  
CAN BE TWO STACKED BALES OR PARTIALLY EXCAVATED TO REACH 3 FT DEPTH

**CONSTRUCTION SPECIFICATIONS**

- LOCATE WASHOUT STRUCTURE A MINIMUM OF 50 FEET AWAY FROM OPEN CHANNELS, STORM DRAIN INLETS, SENSITIVE AREAS, WETLANDS, BUFFERS AND WATER COURSES AND AWAY FROM CONSTRUCTION TRAFFIC.
- SIZE WASHOUT STRUCTURE FOR VOLUME NECESSARY TO CONTAIN WASH WATER AND SOLIDS AND MAINTAIN AT LEAST 4 INCHES OF FREEBOARD. TYPICAL DIMENSIONS ARE 10 FEET X 10 FEET X 3 FEET DEEP.
- PREPARE SOIL BASE FREE OF ROCKS OR OTHER DEBRIS THAT MAY CAUSE TEARS OR HOLES IN THE LINER. FOR LINER, USE 10 MIL OR THICKER UV RESISTANT, IMPERMEABLE SHEETING, FREE OF HOLES AND TEARS OR OTHER DEFECTS THAT COMPROMISE IMPERMEABILITY OF THE MATERIAL.
- PROVIDE A SIGN FOR THE WASHOUT IN CLOSE PROXIMITY TO THE FACILITY.
- KEEP CONCRETE WASHOUT STRUCTURE WATER TIGHT. REPLACE IMPERMEABLE LINER IF DAMAGED (E.G., RIPPED OR PUNCTURED). EMPTY OR REPLACE WASHOUT STRUCTURE THAT IS 75 PERCENT FULL, AND DISPOSE OF ACCUMULATED MATERIAL PROPERLY. DO NOT REUSE PLASTIC LINER, WET-VACUUM STORED LIQUIDS THAT HAVE NOT EVAPORATED AND DISPOSE OF IN AN APPROVED MANNER. PRIOR TO FORECAST RAINSTORMS, REMOVE LIQUIDS OR COVER STRUCTURE TO PREVENT OVERFLOWS. REMOVE HARDENED SOLIDS, WHOLE OR BROKEN UP, FOR DISPOSAL OR RECYCLING. MAINTAIN RUNOFF DIVERSION AROUND EXCAVATED WASHOUT STRUCTURE UNTIL STRUCTURE IS REMOVED.

**CONCRETE WASHOUT AREA WITH STRAW BALES**

4  
C501 N.T.S.



**TRENCH NOTES:**

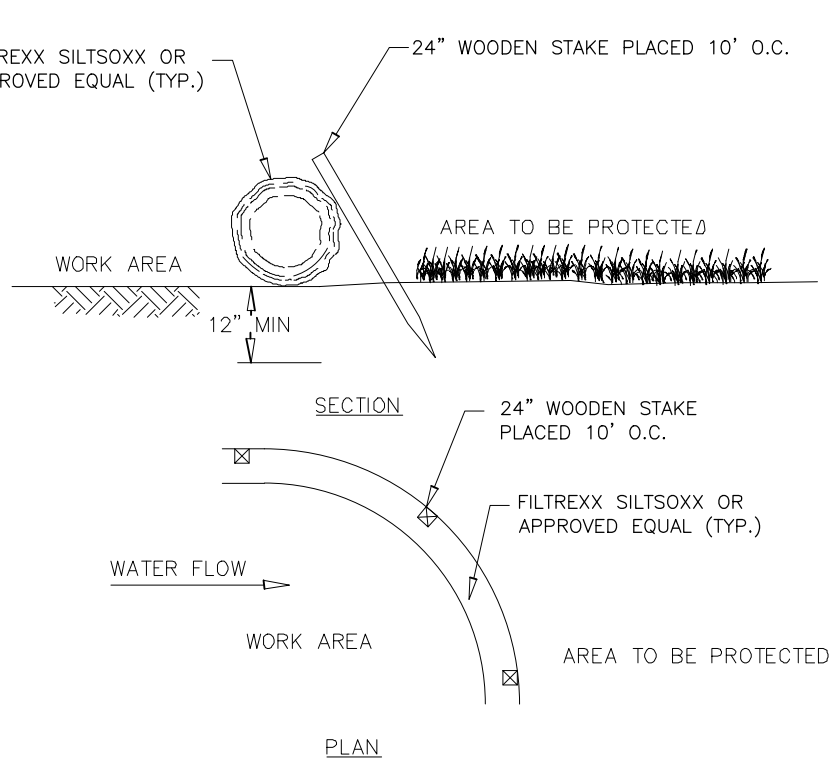
- ADDITIONAL MISCELLANEOUS CABLES FROM FIELD DEVICES SUCH AS TEMPERATURE TRANSMITTERS, METEOROLOGICAL STATIONS, REFERENCE MODULES, SIGNAL GROUND SHALL UTILIZE THE UNDERGROUND TRENCH SYSTEM WHERE IT IS APPLICABLE. CABLES SHALL BE INSTALLED AT LAYERS AS INDICATED.
  - THE TRENCH DETAIL BELOW SHOWS A SAMPLE NUMBER OF DC FEEDER CABLES FROM DC COMBINER BOXES. SPECIFIC CABLE QUANTITIES ARE SHOWN IN RESPECTIVE DETAIL SECTION.
  - TRENCHING MUST COMPLY WITH THE LATEST STANDARDS.
  - CLEAN FILL REQUIREMENTS: TRENCHING BEDDING SHALL BE SAND OR ROCK-SEE FIL SCREENED TO A MAXIMUM 1/4" SIZE AS A CUSHION (FREE OF SHARP EDGE MATERIAL THAT MAY DAMAGE THE CABLE DURING BACKFILL). THE CABLES SHALL BE COVERED WITH "CLEAN FILL" SAND OR SOFT EARTH, FREE FROM STONES, ROCKS OR OTHER MATERIAL THAT MAY DAMAGE THE CABLE DURING BACKFILL.
  - THE CABLES CROSS-SECTION AND THE NUMBER SHOWN IS ONLY AN EXAMPLE. ALL CABLES SHALL BE IN ACCORDANCE WITH STANDARDS AND SHALL BE SIZED ACCORDING TO USE AND TYPE OF INSTALLATION.
- UNTREATED NATIVE SOIL
  - CLEAN, DRY BACKFILL CUSHION
  - EARTH UNDISTURBED

**NOTES:**

- CONDUCTORS TO BE 1000V RATED FOR DIRECT BURIAL. MEDIUM VOLTAGE CONDUCTORS FROM PS1 TO BE RATED FOR CLASS 35KV, AND MEDIUM VOLTAGE CONDUCTORS FROM PS2 TO BE RATED FOR CLASS 15KV.
- CONDUCTORS OF THE SAME CIRCUIT TO BE NEXT TO EACH OTHER. COMBINER CIRCUITS TO BE SPACED 4.5' FROM EACH OTHER UNLESS POSTED OTHERWISE (HORIZONTAL/VERTICAL DIRECTIONS).
- COMMUNICATIONS TO BE BURIED 1' AWAY FROM ALL POWER CONDUCTORS. USE DIRECT BURIED RATED FIBER CABLE.
- 3" OR 4" PVC SCH80 JUMP-CONDUIT SHALL BE UTILIZED FOR ROW-TO-ROW STRING CIRCUITS WIRING.
- POWER SUPPLY CABLES TO ARC FAULT CIRCUIT INTERRUPTION CIRCUITS SHALL BE LOCATED AT A MINIMUM 1' FROM DC CIRCUITS.
- CONTRACTOR SHALL SIZE THE ROW-TO-ROW JUMPER CONDUIT FOR THE CONDUCTORS USED, WITH PVC SCHEDULE 80. A TOTAL OF 60 #10 HOMERUN CABLES CAN FIT INTO A STANDARD 4" PVC CONDUIT. CONTACT THE ENGINEER IF ADDITIONAL GUIDANCE IS REQUIRED.

**TYPICAL TRENCH DETAILS**

1  
C501 N.T.S.



- FILTER SOCK SHALL BE 12" DIAMETER MIN.
- SOCKS TO BE FILLED WITH BIODEGRADABLE COMPOST MATERIAL.
- WOODEN STAKES SHALL BE PLACED DOWNSLOPE OF THE FILTER SOCK.

**COMPOST FILTER SOCK**

6  
C501 N.T.S.

**STABILIZED CONSTRUCTION ACCESS**

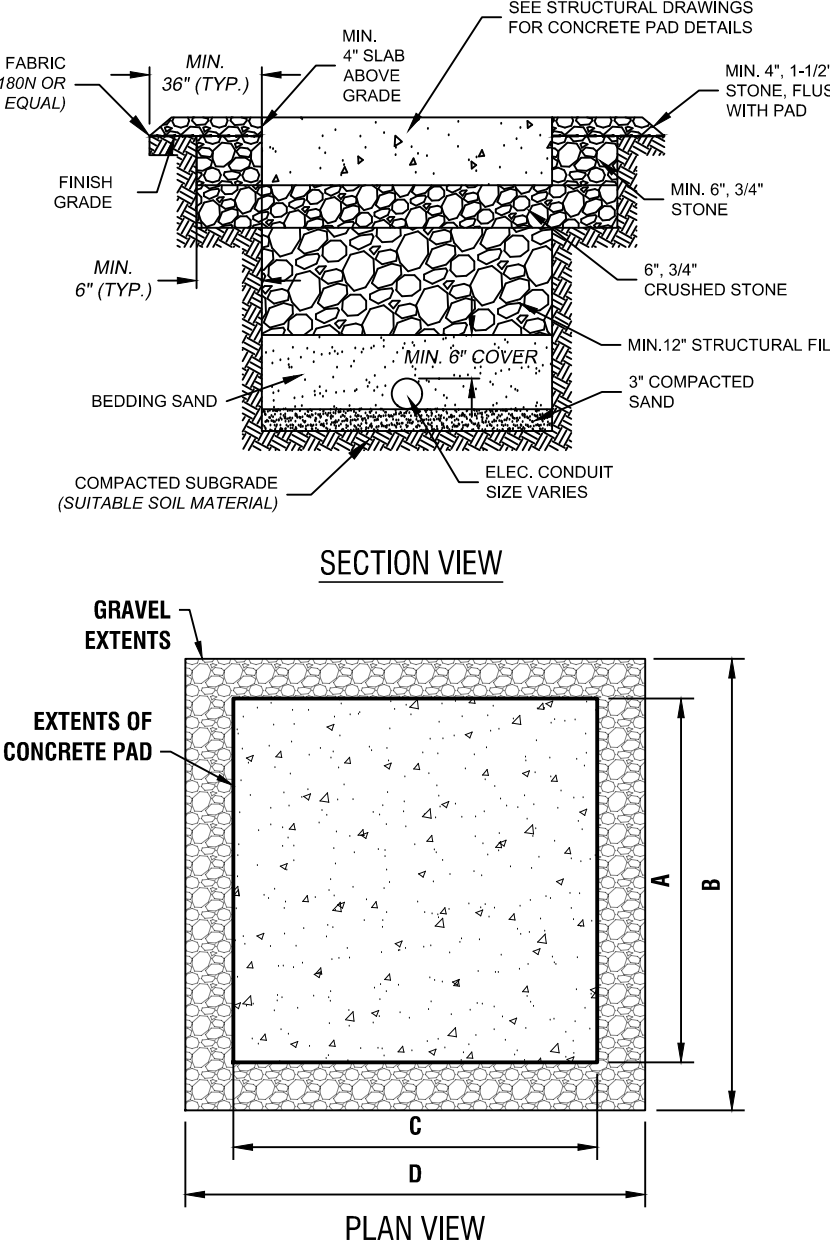
5  
C501 N.T.S.

**EQUIPMENT SKID DIMENSIONS**

EQUIPMENT	DIM. A (FT)	DIM. B (FT)	DIM. C (FT)	DIM. D (FT)
MAIN EQUIPMENT PAD	11	17	31	37

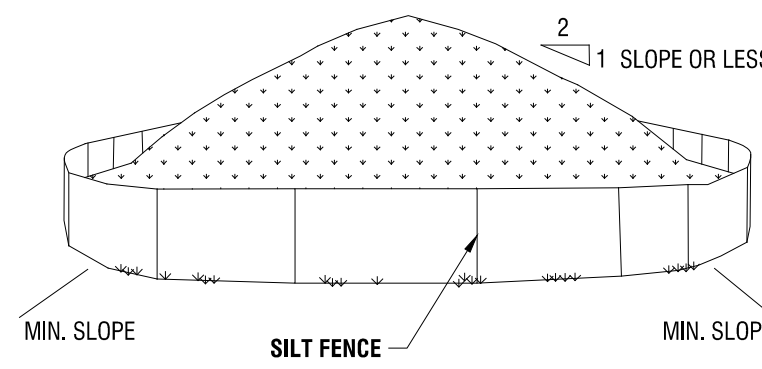
**EQUIPMENT SKID NOTES:**

- ALL ELECTRICAL EQUIPMENT IS TO BE SITUATED ON A CONCRETE PAD AS SHOWN ON THE SITE PLANS.
- CONCRETE STRENGTH: CLASS B CONCRETE. CONTRACTOR SHALL ALLOW 3 DAYS CURING TIME PRIOR TO INSTALLATION OF EQUIPMENT ON CONCRETE PAD.
- WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185, Fy=65000 PSI, AND SHALL BE HOT-DIPPED GALVANIZED OR EPOXY COATED AFTER FABRICATION TO PRODUCE A CLASS 2 COATING EQUAL TO THAT SPECIFIED IN ASTM A641, TABLE 1.
- ANCHOR BOLTS SHALL BE DRILLED AND SET IN FIELD AFTER INSTALLATION ON FOOTING AS PER MANUFACTURER'S SPECIFICATIONS.
- LOCATION OF ALL ELECTRICAL EQUIPMENT AND CONCRETE PADS SHALL BE APPROVED BY THE OWNER PRIOR TO CONSTRUCTION.
- COMPACTED STONE SHALL BE MYSOT TYPE 2 CRUSHED GRAVEL OR APPROVED EQUAL BY THE ENGINEER OF RECORD.
- ANCHOR BOLTS SHALL BE 1/2" DIA. HILTI HSE ADHESIVE ANCHOR RODS WITH 4-1/2" EMBEDMENT DEPTH OR APPROVED EQUAL.
- REINFORCEMENT BARS SHALL CONFORM TO ASTM A615, GRADE 60.
- VERIFY ALL DIMENSIONS WITH THOSE ON EQUIPMENT SKID SHOP DRAWINGS AND ADJUST ACCORDINGLY. LOCATE CHASES AND CONDUIT STUB-UPS PER EQUIPMENT SKID SHOP DRAWINGS.
- GROUNDING PLATE TO BE LOCATED UNDERNEATH EQUIPMENT PAD
- GROUNDING RINGS TO BE BURIED AT EQUIPMENT PAD LOCATION



**ELECTRICAL EQUIPMENT CONCRETE PAD**

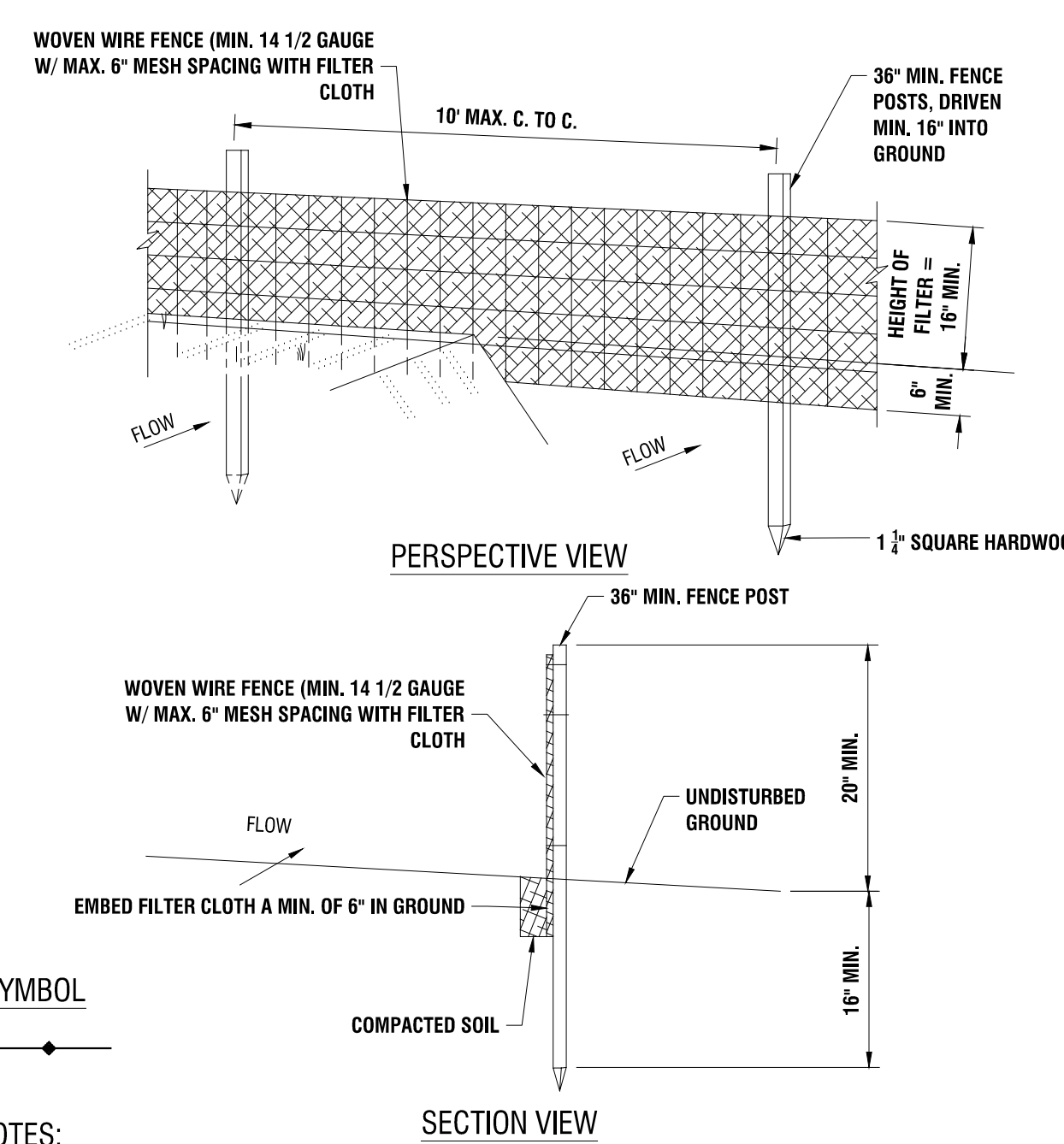
2  
C501 N.T.S.



- NOTES:**
- AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
  - MAXIMUM SLOPE OF STOCKPILE SHALL BE 1V:2H.
  - UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE SURROUNDED WITH SILT FENCING, THEN STABILIZED WITH VEGETATION OR COVERED.
  - SEE SPECIFICATIONS AND DETAIL FOR INSTALLATION OF SILT FENCE.

**TEMPORARY SOIL STOCKPILE**

7  
C501 N.T.S.



- NOTES:**
- WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. POSTS SHALL BE STEEL EITHER 1" OR 1 1/2" TYPE OR HARDWOOD.
  - 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" MAXIMUM MESH OPENING.
  - WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER-LAPPED BY SIX INCHES AND FOLDED. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI 100X, STABILINKA 140N, OR APPROVED EQUAL.
  - PREFABRICATED UNITS SHALL BE GEOTEX, ENVIROFENCE, OR APPROVED EQUAL.
  - MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

**SILT FENCE**

3  
C501 N.T.S.

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**NY CDG GENESEE 1, LLC**  
6325 GUNPARK DRIVE, SUITE C-2,  
BOULDER, CO 80301



**Genesee 1**  
7195 OAK ORCHARD RD.  
TOWN OF ELBA, NY 14058

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REVIEWED BY: JJP

ISSUED FOR: SITE PLAN REVIEW

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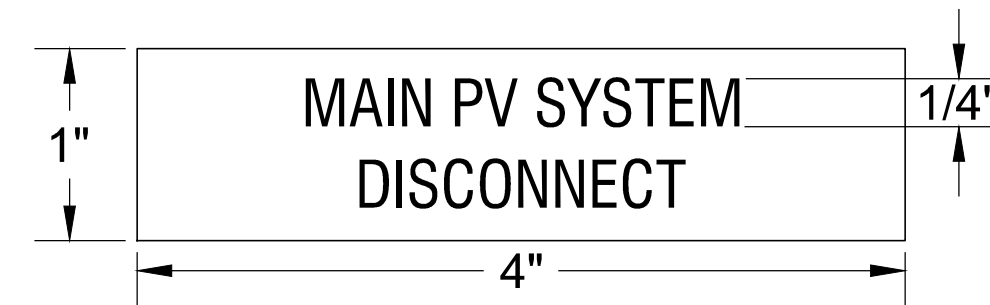
DRAWING NAME:

**CONSTRUCTION DETAILS**

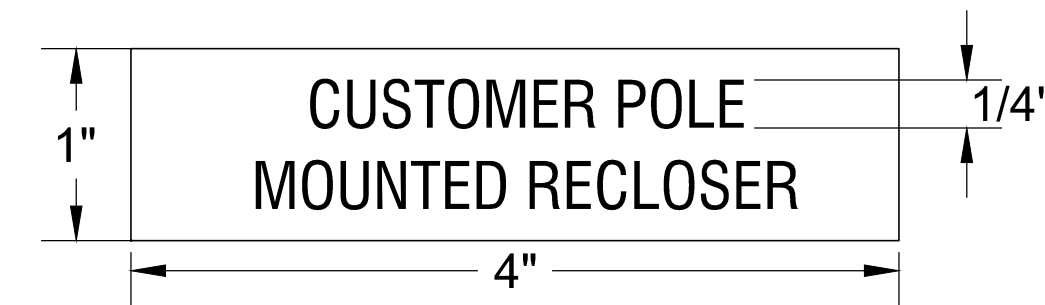
DRAWING NUMBER:

**C502**

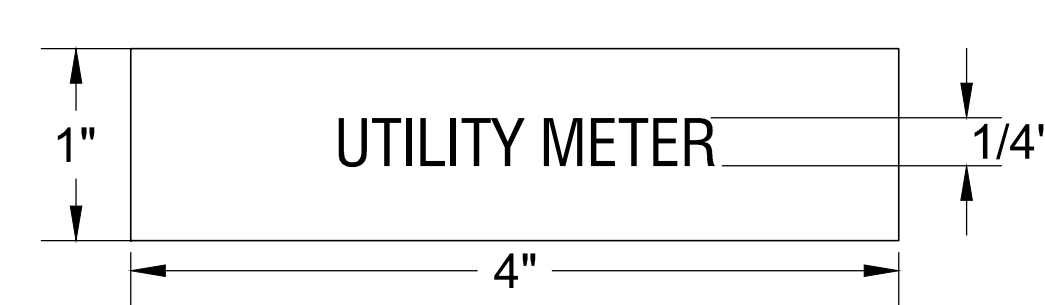
LOCATION: POLE C1



LOCATION: POLE C3



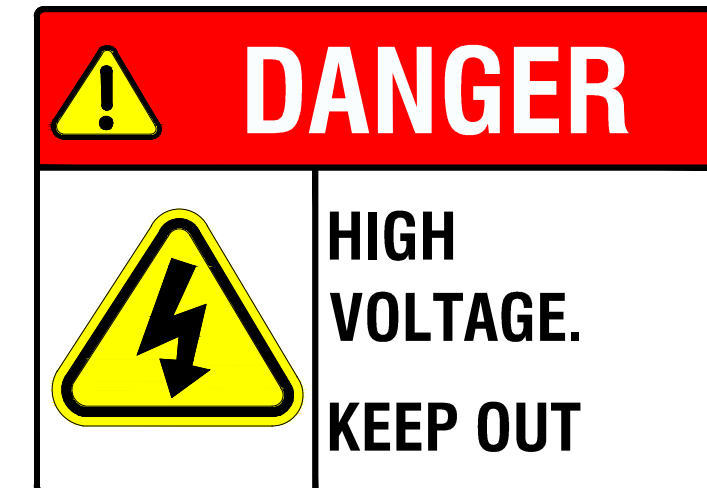
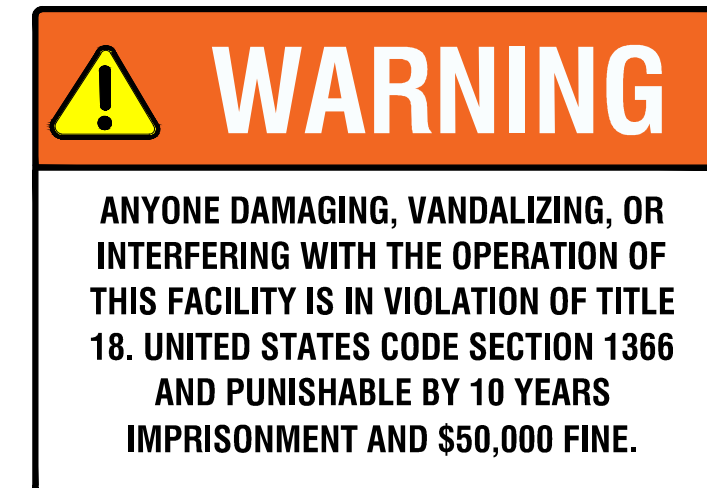
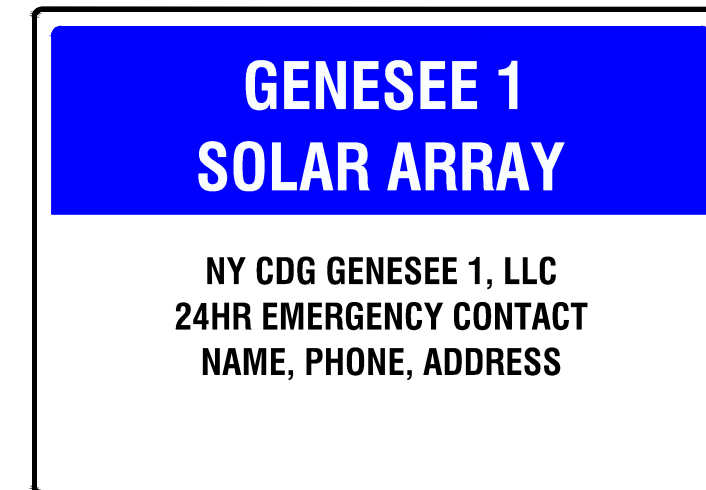
LOCATION: POLE C2



GENERAL NOTES:

- LABELS SHOWN ARE TO BE APPLIED AS A MINIMUM REQUIREMENT. NAMETAGS ARE RECOMMENDED FOR ALL SYSTEM EQUIPMENT.
- LABELS NEED NOT BE APPLIED FOR CASES WHERE EQUIPMENT IS PROVIDED WITH SIMILAR LABELS AND MARKINGS.
- TEXT LABELS AND 10"x10" PLACARD TO BE ETCHED WITH WHITE GRAPHICS ONTO 1/16" RED PLASTIC PLACARDS. ATTACH LABEL TO APPROPRIATE COMPONENT ENCLOSURES IN CONSPICUOUS LOCATION USING TWO PART EPOXY.
- ALL SIGNAGE AND LABELS WILL BE IN COMPLIANCE WITH NFPA 70 - 110.20, ANSI Z395.4 AND UL 969.

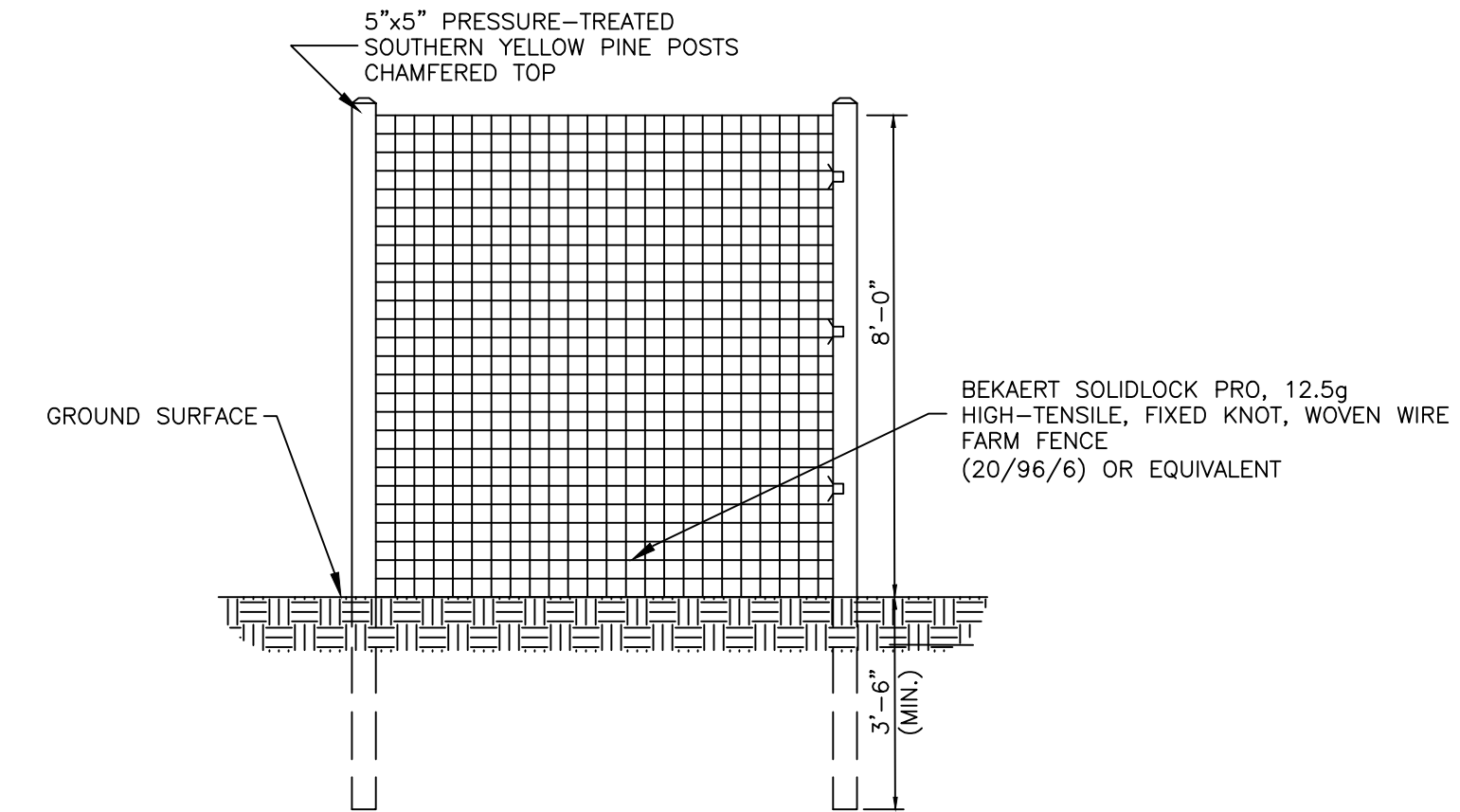
5 POLE SIGNAGE  
C502 N.T.S.



NOTES:

- ALL SIGNS TO BE 18" x 24" IN SIZE
- SIGNS SHALL BE UV RESISTANT AND IN COLOR. SIGN MATERIAL SHALL BE HDPE OR LIGHT GAGE GALVANIZED STEEL.
- SIGNS TO BE ATTACHED TO FENCING WITH PERMANENT FASTENERS.

4 PERMANENT SIGNAGE  
C502 N.T.S.



# WIRE	NOMENCLATURE	LENGTH	WEIGHT
23	23/120/6	330'	492
20	20/96/3	165'	308
20	20/96/6	330'	396
20	20/96/6	500'	598
17	17/96/6	330'	326
17	17/75/6	330'	326
10	10/60/6	330'	210

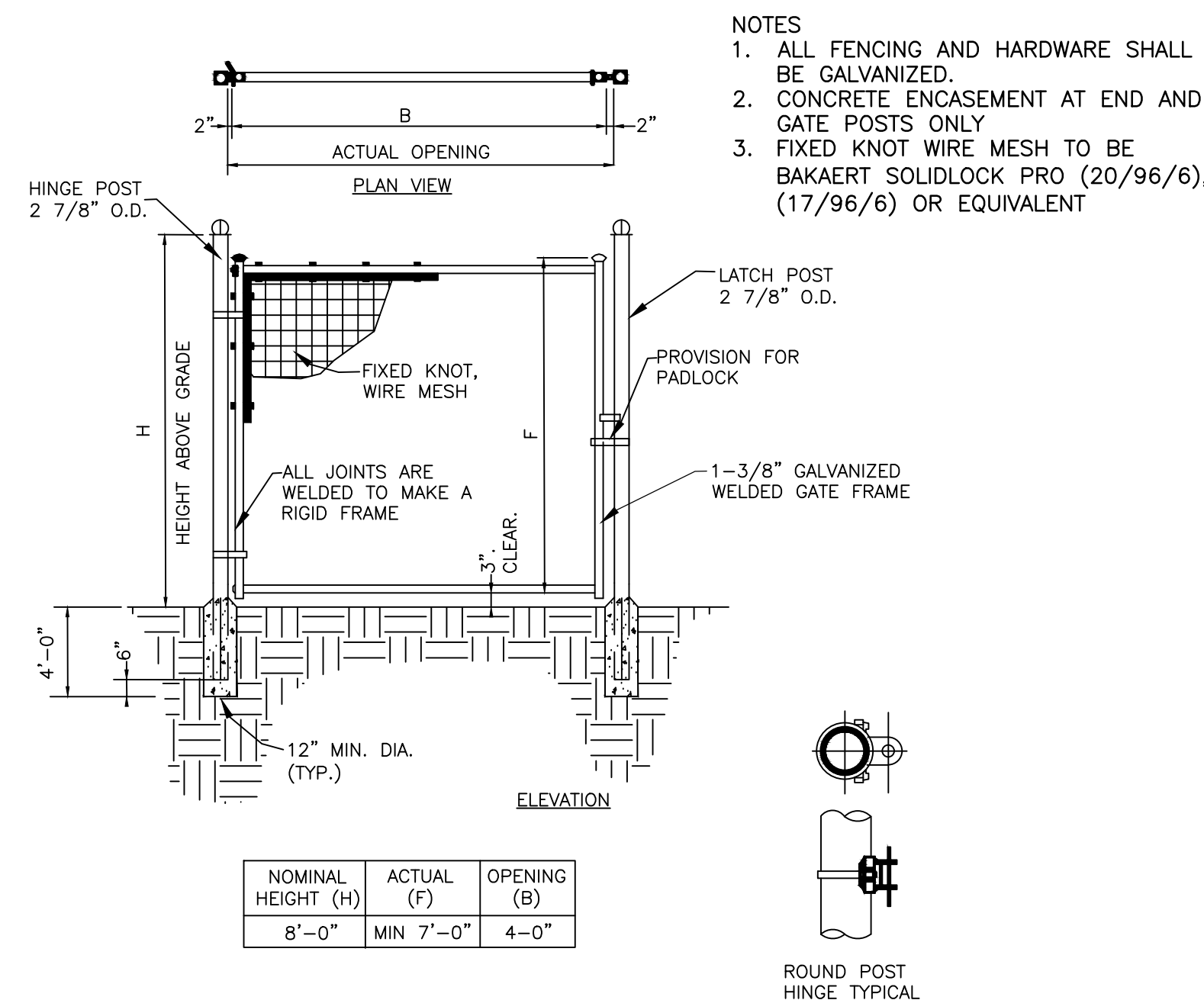
  

# WIRE	NOMENCLATURE	LENGTH	WEIGHT
23	23/120/12	330'	343
20	20/96/12	330'	282
20	20/96/12	660'	564
17	17/96/12	330'	248
17	17/96/12	660'	496
17	17/75/12	330'	235
10	10/60/12	660'	294

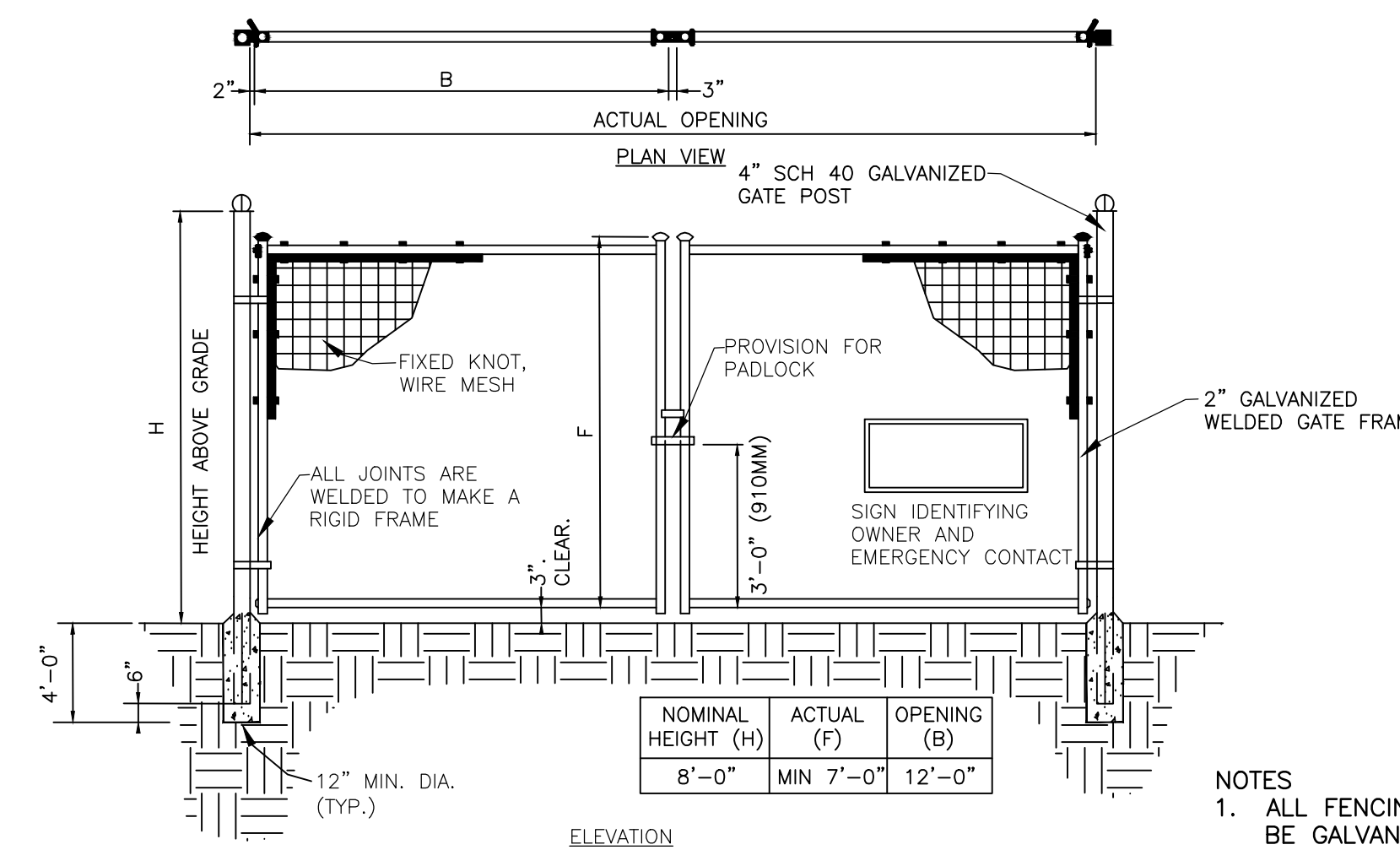
WIRE	GAUGE	TENSILE STRENGTH	BREAKING LOAD	GALVANIZATION
Line Wires	12 1/2 ga.	Hi-Tensile 180K-212K	1347 lbs=1687 lbs	.85 oz.=1.4 oz. per sq. ft.
Stay Wires	12 1/2 ga.	Med-Tensile 140K-170K*	1048 lbs=1273 lbs*	.85 oz.=1.4 oz. per sq. ft.
Knot Wires	13 ga.	Low Tensile 57K-76K	311 lbs=456 lbs	.85 oz.=1.4 oz. per sq. ft.

3 8' FIXED KNOT FARM FENCE  
C502 N.T.S.



NOMINAL HEIGHT (H)	ACTUAL (F)	OPENING (B)
8'-0"	MIN 7'-0"	4'-0"

1 PERSONNEL GATE - FIXED KNOT FARM FENCE  
C502 N.T.S.



NOMINAL HEIGHT (H)	ACTUAL (F)	OPENING (B)
8'-0"	MIN 7'-0"	12'-0"

2 DOUBLE GATE - FIXED KNOT FARM FENCE  
C502 N.T.S.

NOTES:

- ALL FENCING AND HARDWARE SHALL BE GALVANIZED.
- CONCRETE ENCASEMENT AT END AND GATE POSTS ONLY
- FIXED KNOT WIRE MESH TO BE BAKAERT SOLIDLOCK PRO (20/96/6), (17/96/6) OR EQUIVALENT
- MAIN ENTRANCE SHALL BE FURNISHED WITH FIRE DEPARTMENT ACCESS KEY BOX OR KNOX LOCK.

TOWN OF ELBA PLANNING BOARD APPROVAL

TOWN OF ELBA PLANNING BOARD CHAIR (PRINT)

TOWN OF ELBA PLANNING BOARD CHAIR (SIGNATURE)

APPROVAL DATE

NOT FOR CONSTRUCTION

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**NY CDG GENESEE 1, LLC**

6325 GUNPARK DRIVE, SUITE C-2,  
BOULDER, CO 80301



**Genesee 1**

7195 OAK ORCHARD RD.  
TOWN OF ELBA, NY 14058

NO.	DATE	DESCRIPTION
4	6/22/23	REVISED PER CATALYZE 6/14/23 LAYOUT
3	4/19/22	PER CLIENT COMMENTS
2	7/30/21	REVISED PANEL SPACING AND OUTPUT
1	6/7/21	PER PLANNING BOARD COMMENTS

Revisions

PROJECT NUMBER: 2210066

DRAWN BY: MLZ

REVIEWED BY: JJP

ISSUED FOR: SITE PLAN REVIEW

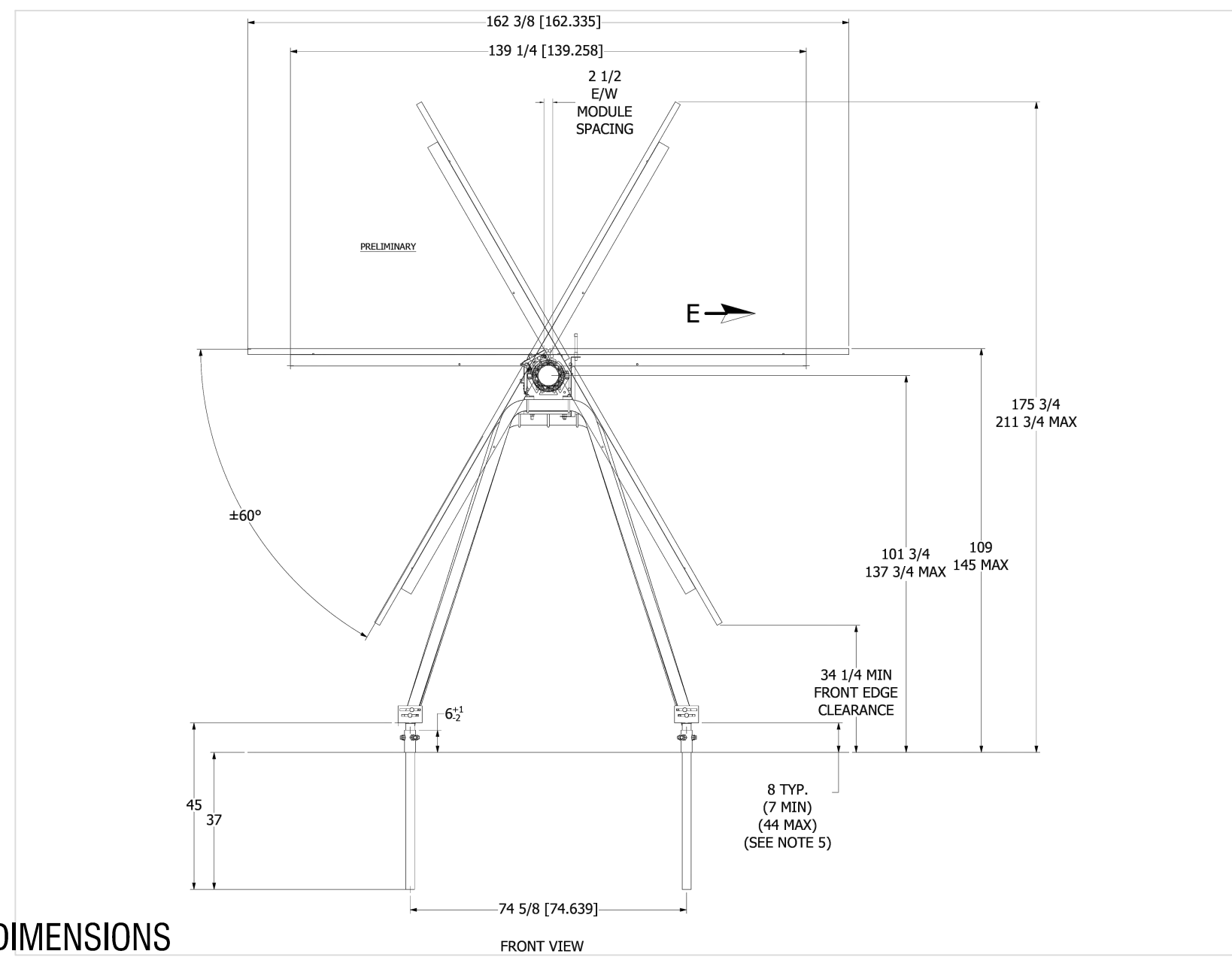
DATE: 6/2023

DRAWING NAME:

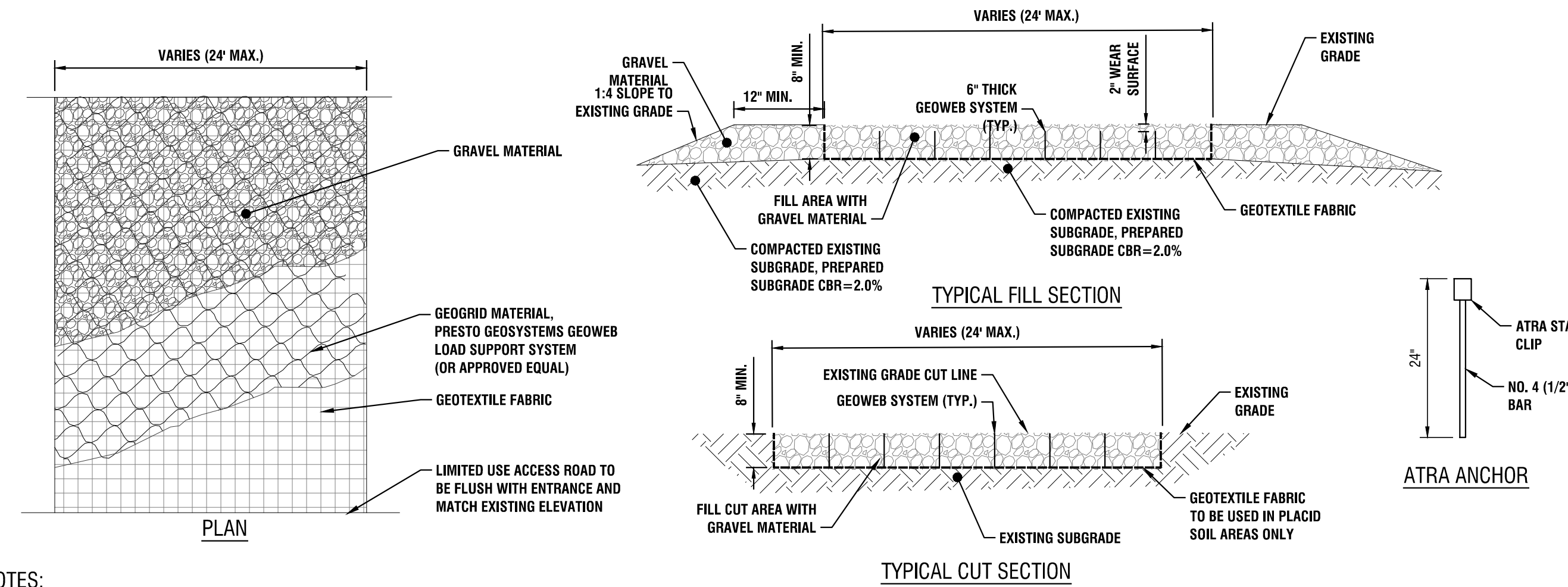
**CONSTRUCTION DETAILS**

DRAWING NUMBER:

**C503**



3 TYPICAL PANEL AND RACK DIMENSIONS  
C503 N.T.S.



**GENERAL NOTES:**

1. PROVIDE A 4800 LB/FT ENHANCED WOVEN GEOTEXTILE SEPARATION LAYER AND INSTALL PERMANUFACTURER RECOMMENDATIONS INCLUDING OVERLAPS BASED ON SUB GRADE CBR.
2. THE GEOWEB PANELS SHALL BE CONNECTED WITH ATRA KEYS OF EACH INTERLEAF AND END TO END CONNECTION.
3. PROVIDE ATRA ANCHORS TO KEEP PANELS OPEN FOR INFILL AS REQUIRED.
4. GEOWEB INFILL SHALL BE 3/4" TO 1.5" CRUSHED AGGREGATE WITH FINES LIMITED TO LESS THAN 10% TO ALLOW FREE DRAINAGE.
5. LIMIT THE DROP OF INFILL TO PREVENT PANEL DISTORTION.
6. ASSUME HS-20 LOADING.

**PERMEABLE ACCESS ROAD GENERAL NOTES:**

1. USE OF THIS DETAIL/CRITERION IS LIMITED TO ACCESS ROADS USED ON AN OCCASIONAL BASIS ONLY (I.E. PROVIDE ACCESS FOR MOWING EQUIPMENT REPAIR OR MAINTENANCE, ETC.).
2. LIMITED USE PERVIOUS ACCESS ROAD IS LIMITED TO LOW IMPACT IRREGULAR MAINTENANCE ACCESS ASSOCIATED WITH RENEWABLE ENERGY PROJECTS IN NEW YORK STATE.
3. REMOVE STUMPS, ROCKS AND DEBRIS AS NECESSARY, FILL VOIDS TO MATCH EXISTING NATIVE SOILS AND COMPACTION LEVEL.
4. REMOVED TOPSOIL MAY BE SPREAD IN ADJACENT AREAS AS DIRECTED BY THE PROJECT ENGINEER. COMPACT TO THE DEGREE OF THE NATIVE INSTITU SOIL. DO NOT PLACE IN AN AREA THAT IMPEDES STORMWATER DRAINAGE.
5. GRADE ROADWAY, WHERE NECESSARY, TO NATIVE SOIL AND DESIRED ELEVATION. MINOR GRADING FOR CROSS SLOPE CUT AND FILL MAY BE REQUIRED.
6. REMOVE REFUSE SOILS AS DIRECTED BY THE PROJECT ENGINEER. DO NOT PLACE IN AN AREA THAT IMPEDES STORMWATER DRAINAGE.
7. ROADWAY WIDTH TO BE DETERMINED BY CLIENT.
8. THE LIMITED USE PERVIOUS ACCESS ROAD CROSS SLOPE SHALL BE 2% IN MOST CASES AND SHOULD NOT EXCEED 5%. THE LONGITUDINAL SLOPE OF THE ACCESS DRIVE SHOULD NOT EXCEED 15%.
9. LIMITED USE PERVIOUS ACCESS ROAD IS NOT INTENDED TO BE UTILIZED FOR CONSTRUCTION WHICH MAY SUBJECT THE ACCESS TO SEDIMENT TRACKING. THIS SPECIFICATION IS TO BE DEVELOPED FOR POST-CONSTRUCTION USE. SOIL RESTORATION PRACTICES MAY BE APPLICABLE TO RESTORE CONSTRUCTION RELATED COMPACTION TO PRE-EXISTING CONDITIONS AND SHOULD BE VERIFIED BY SOIL PENETROMETER READINGS. THE PENETROMETER READINGS SHALL BE COMPARED TO THE RESPECTIVE RECORDED READINGS TAKEN PRIOR TO CONSTRUCTION. EVERY 100 LINEAR FEET ALONG THE PERVIOUS ACCESS ROAD WILL BE REQUIRED IF SEDIMENT IS OBSERVED WITHIN THE CLEAN STONE.
10. TO ENSURE THAT SOIL IS NOT TRACKED ONTO THE LIMITED USE PERVIOUS ACCESS ROAD, IT SHALL NOT BE USED BY CONSTRUCTION VEHICLES TRANSPORTING SOIL, FILL MATERIAL, ETC. IF THE LIMITED USE PERVIOUS ACCESS IS COMPLETED DURING INITIAL PHASES OF CONSTRUCTION, A STANDARD NEW YORK STATE STABILIZED CONSTRUCTION ACCESS SHALL BE CONSTRUCTED AND UTILIZED TO REMOVE SEDIMENT FROM CONSTRUCTION VEHICLES AND EQUIPMENT PRIOR TO ENTERING THE LIMITED USE PERVIOUS ACCESS ROAD FROM ANY LOCATION ON, OR OFF SITE. MAINTENANCE OF THE PERVIOUS ACCESS ROAD WILL BE REQUIRED IF SEDIMENT IS OBSERVED WITHIN THE CLEAN STONE.
11. THE LIMITED USE PERVIOUS ACCESS ROAD SHALL NOT BE CONSTRUCTED OR USED UNTIL ALL AREAS SUBJECT TO RUNOFF ONTO THE PERVIOUS ACCESS HAVE ACHIEVED FINAL STABILIZATION.
12. PROJECTS SHOULD AVOID INSTALLATION OF THE LIMITED USE PERVIOUS ACCESS ROAD IN POORLY DRAINED AREAS, HOWEVER IF NO ALTERNATIVE LOCATION IS AVAILABLE, THE PROJECT SHALL UTILIZE WOVEN GEOTEXTILE MATERIAL AS DETAILED IN FOLLOWING NOTES.
13. THE DRAINAGE DITCH IS OFFERED IN THE DETAIL FOR CIRCUMSTANCES WHEN CONCENTRATED FLOW COULD NOT BE AVOIDED. THE INTENTION OF THIS DESIGN IS TO MINIMIZE ALTERATIONS TO HYDROLOGY, HOWEVER WHEN DEALING WITH 5%-15% GRADES NOT PARALLEL TO THE CONTOUR, A ROADSIDE DITCH MAY BE REQUIRED. THE NYS STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROLS FOR GRASSED WATERWAYS AND VEGETATED WATERWAYS ARE APPLICABLE FOR SIZING AND STABILIZATION. DIMENSIONS FOR THE GRASSED WATERWAY SPECIFICATION WOULD BE DESIGNED FOR PROJECT SPECIFIC HYDROLOGIC RUNOFF CALCULATIONS, AND A SEPARATE DETAIL FOR THE SPECIFIC GRASSED WATERWAY WOULD BE INCLUDED IN THIS PRACTICE. RUNOFF DISCHARGES WILL BE SUBJECT TO THE OUTLET REQUIREMENTS OF THE REFERENCED STANDARD. INCREASED POST-DEVELOPMENT RUNOFF FROM THE ASSOCIATED ROADSIDE DITCH MAY REQUIRE ADDITIONAL PRACTICES TO ATTENUATE RUNOFF TO PRE-DEVELOPMENT CONDITIONS.
14. IF A ROADSIDE DITCH IS NOT UTILIZED TO CAPTURE RUNOFF FROM THE ACCESS ROAD, THE PERVIOUS ACCESS ROAD WILL HAVE A WELL-ESTABLISHED PERENNIAL VEGETATIVE COVER, WHICH SHALL CONSIST OF UNIFORM VEGETATION (I.E. BUFFER), 20 FEET WIDE AND PARALLEL TO THE DOWN GRADIENT SIDE OF THE ACCESS ROAD. POST-CONSTRUCTION OPERATION AND MAINTENANCE PRACTICES WILL MAINTAIN THIS VEGETATIVE COVER TO ENSURE FINAL STABILIZATION FOR THE LIFE OF THE ACCESS ROAD.
15. THE DESIGN PROFESSIONAL MUST ACCOUNT FOR THE LIMITED USE PERVIOUS ACCESS ROAD IN THEIR SITE ASSESSMENT/HYDROLOGY ANALYSIS. IF THE HYDROLOGY ANALYSIS SHOWS THAT THE HYDROLOGY HAS BEEN ALTERED FROM PRE- TO POST-DEVELOPMENT CONDITIONS (SEE APPENDIX A OF GP-Q-20-001 FOR THE DEFINITION OF "ALTER THE HYDROLOGY..."), THE DESIGN MUST INCLUDE THE NECESSARY DETENTION/RETENTION PRACTICES TO ATTENUATE THE RATES (10 AND 100 YEAR EVENTS) TO PRE-DEVELOPMENT CONDITIONS.

**GEOGRID MATERIAL NOTES:**

1. THE GEOGRID, OR COMPARABLE PRODUCT, IS INTENDED FOR USE FOR ALL CONDITIONS, IN ORDER TO ASSIST IN MATERIAL SEPARATION FROM NATIVE SOILS AND PRESERVE ACCESS LOADS.
2. GRAVEL FILL MATERIAL SHALL CONSIST OF 1-4" CLEAN, DURABLE, SHARP-ANGLED CRUSHED STONE OF UNIFORM QUALITY, MEETING THE SPECIFICATIONS OF NYS DOT ITEM 703-02, SIZE DESIGNATION 3-5 OF TABLE 703-4. STONE MAY BE PLACED IN FRONT OF, AND SPREAD WITH, A TRACKED VEHICLE. GRAVEL SHALL NOT BE COMPACTED.
3. GEOGRID SHALL BE MIRAFI BXG110 OR APPROVED EQUAL. GEOGRID SHALL BE DESIGNED BASED ON EXISTING SOIL CONDITIONS AND PROPOSED HAUL ROAD SLOPES.
4. IF MORE THAN ONE ROLL WIDTH IS REQUIRED, ROLLS SHOULD OVERLAP A MINIMUM OF SIX INCHES.
5. REFER TO MANUFACTURER'S SPECIFICATION FOR PROPER TYING AND CONNECTIONS.
6. LIMITED USE PERVIOUS ACCESS ROAD SHALL BE TOP DRESSED AS REQUIRED WITH ONLY 1-4" CRUSHED STONE MEETING NYS DOT ITEM 703-02 SPECIFICATIONS.

BASIS OF DESIGN: TENCATE MIRAFI BXG110 GEOGRIDS; 365 SOUTH HOLLAND DRIVE, PENDERGRASS, GA; 800-685-9990 OR 706-693-2226; WWW.MIRAFI.COM

**GEOWEB MATERIAL NOTES:**

1. THE GEOWEB, OR COMPARABLE PRODUCT, IS SUGGESTED FOR USE ON ROAD PROFILES EXCEEDING 10%. THE GEOWEB PRODUCT IS INTENDED TO LIMIT SHIFTING STONE MATERIAL DURING USE.
2. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
3. WHERE REQUIRED, A NATIVE SOIL WEDGE SHALL BE PLACED TO ACCOMMODATE ROAD CROSS SLOPE OF 2%. NATIVE SOIL SHALL BE COMPACTED TO MATCH EXISTING SOIL CONDITIONS.
4. GRAVEL FILL MATERIAL SHALL CONSIST OF 1-4" CLEAN, DURABLE, SHARP-ANGLED CRUSHED STONE OF UNIFORM QUALITY, MEETING THE SPECIFICATIONS OF NYS DOT ITEM 703-02, SIZE DESIGNATION 3-5 OF TABLE 703-4. STONE MAY BE PLACED IN FRONT OF, AND SPREAD WITH, A TRACKED VEHICLE. GRAVEL SHALL NOT BE COMPACTED.
5. GEOWEB SYSTEM SHALL BE PRESTO GEOSYSTEMS GEOWEB OR APPROVED EQUAL. GEOWEB SHALL BE DESIGNED BASED ON EXISTING SOIL CONDITIONS AND PROPOSED HAUL ROAD SLOPES.
6. LIMITED USE PERVIOUS ACCESS ROAD SHALL BE TOP DRESSED AS REQUIRED WITH ONLY 1-4" CRUSHED STONE, SIZE 3A, MEETING NYS DOT ITEM 703-02 SPECIFICATIONS.
7. THE TOP EDGES OF ADJACENT CELL WALLS SHALL BE FLUSH WHEN CONNECTING. ALIGN THE I-SLOTS FOR INTERLEAF AND END TO END CONNECTIONS. THE GEOWEB PANELS SHALL BE CONNECTED WITH ATRA KEYS AT EACH INTERLEAF AND END TO END CONNECTIONS. REFER TO MANUFACTURER'S SPECIFICATION FOR PROPER INSTALLATION, TYING AND CONNECTIONS.
8. PREPARE THE SUBGRADE AS SHOWN ON THE CONSTRUCTION DRAWINGS.
9. COMPACT THE SOIL TO A MINIMUM 95% STANDARD PROCTOR.
10. VERIFY THAT THE SUBGRADE STRENGTH, IF UNACCEPTABLE, THE SOILS SHALL BE REMOVED AND REPLACED AS DIRECTED BY THE ENGINEER.
11. WHERE REQUIRED, PROVIDE GEOTEXTILE SEPARATION LAYER.
12. WHERE REQUIRED, PLACE AND COMPACT SUBBASE MATERIAL TO A MINIMUM 95% STANDARD PROCTOR.
13. EXPAND THE GEOWEB SECTIONS INTO POSITION AND CONNECT THE END TO END INTERLEAF CONNECTIONS WITH ATRA KEYS.
14. PLACE THE SPECIFIED INFILL MATERIAL TO 2 INCHES ABOVE CELL WALLS AND COMPACT TO A MINIMUM 95% STANDARD PROCTOR.
15. PROVIDE ADDITIONAL SURFACE MATERIAL, AS SPECIFIED.

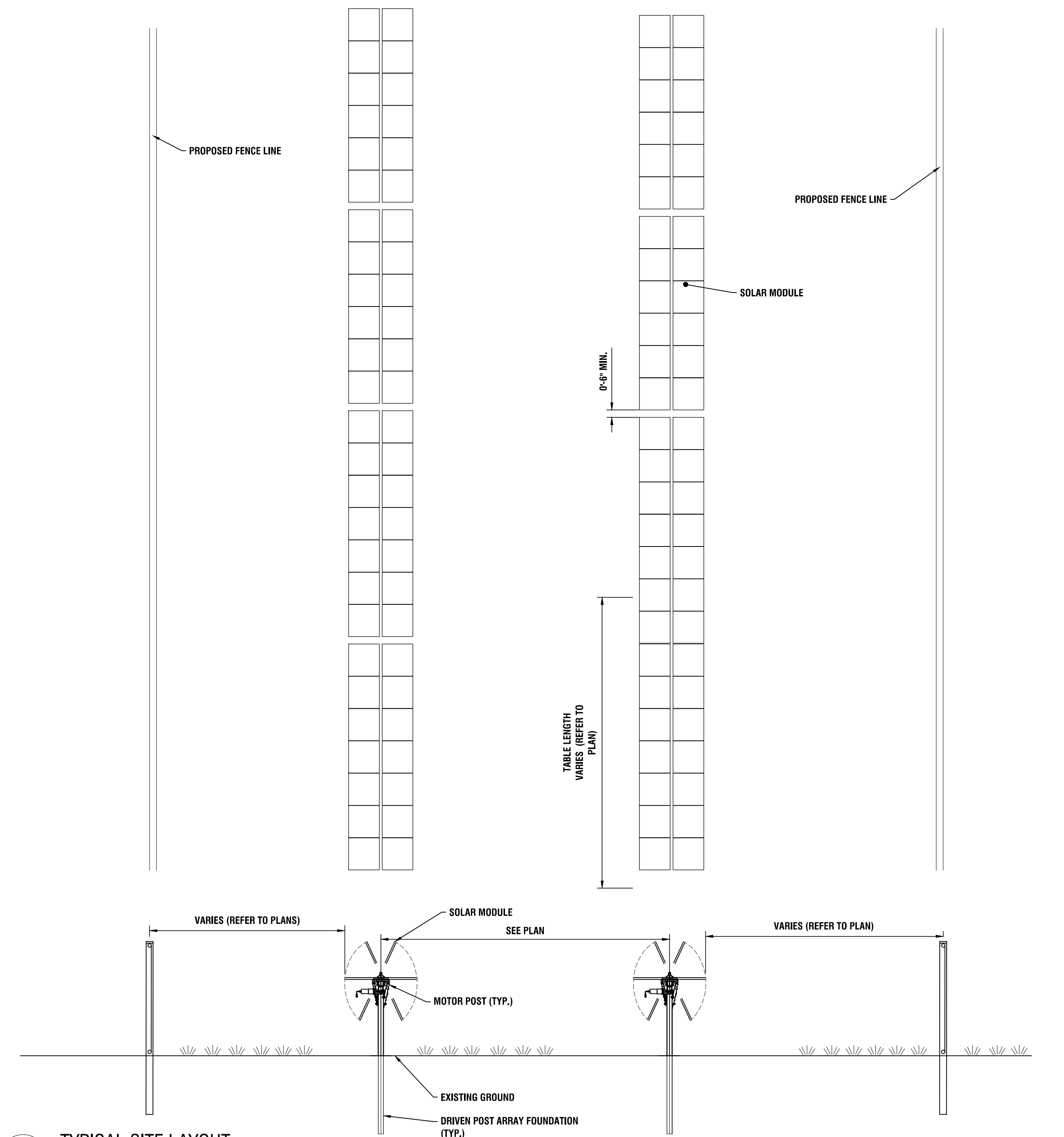
BASIS OF DESIGN: PRESTO GEOSYSTEMS GEOWEB; 670 NORTH PERKINS STREET, APPLETON, WI; 800-548-3424 OR 920-738-1222; INFOR@PRESTOCEO.COM; WWW.PRESTOCEO.COM

**WOVEN GEOTEXTILE MATERIAL NOTES:**

1. SPECIFIED GEOTEXTILE WILL ONLY BE UTILIZED IN PLACID SOILS. PLACID SOILS CONSIST OF POORLY DRAINED SOILS COMPOSED OF FINELY TEXTURED PARTICLES AND ARE PRONE TO RUTTING. PLACID SOILS ARE TYPICALLY PRESENT IN LOW-LYING AREAS WITH HYDROLOGIC SOILS GROUP (HSG) OF C OR D, OR AS SPECIFIED FROM AN ENVIRONMENTAL SCIENTIST, SOIL SCIENTIST, OR GEOTECHNICAL DATA.
2. THE CONCERN FOR POTENTIAL REDUCTION OF NATIVE INFILTRATION RATES DUE TO THE GEOTEXTILE MATERIAL WOULD NOT BE A SIGNIFICANT CONCERN IN POORLY DRAINED SOILS WHERE SEGREGATION OF PERVIOUS STONE AND NATIVE MATERIALS IS CRUCIAL FOR LONG TERM OPERATION AND MAINTENANCE.

BASIS OF DESIGN: TENCATE MIRAFI RSJ-SERIES WOVEN GEOSYNTHETICS; 365 SOUTH HOLLAND DRIVE, PENDERGRASS, GA; 800-685-9990 OR 706-693-2226; WWW.MIRAFI.COM

1 LIMITED USE PERVIOUS ACCESS ROAD - 0% TO 10% SLOPES  
C503 N.T.S.



2 TYPICAL SITE LAYOUT  
C503 N.T.S.

NOT FOR CONSTRUCTION

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**NY CDG GENESEE 1, LLC**

6325 GUNPARK DRIVE, SUITE C-2,  
BOULDER, CO 80301



**Genesee 1**

7195 OAK ORCHARD RD.  
TOWN OF ELBA, NY 14058

NO.	DATE	DESCRIPTION
4	6/22/23	REVISED PER CATALYZE 6/14/23 LAYOUT
3	4/19/22	PER CLIENT COMMENTS
2	7/30/21	REVISED PANEL SPACING AND OUTPUT
1	6/7/21	PER PLANNING BOARD COMMENTS

PROJECT NUMBER: 2210066

DRAWN BY: MLZ  
REVIEWED BY: JJP

ISSUED FOR: SITE PLAN REVIEW

DATE: 6/2023

DRAWING NAME:

**DECOMMISSIONING PLAN (PHASE 1)**

TOWN OF ELBA PLANNING BOARD APPROVAL

\_\_\_\_\_

TOWN OF ELBA PLANNING BOARD CHAIR (PRINT)

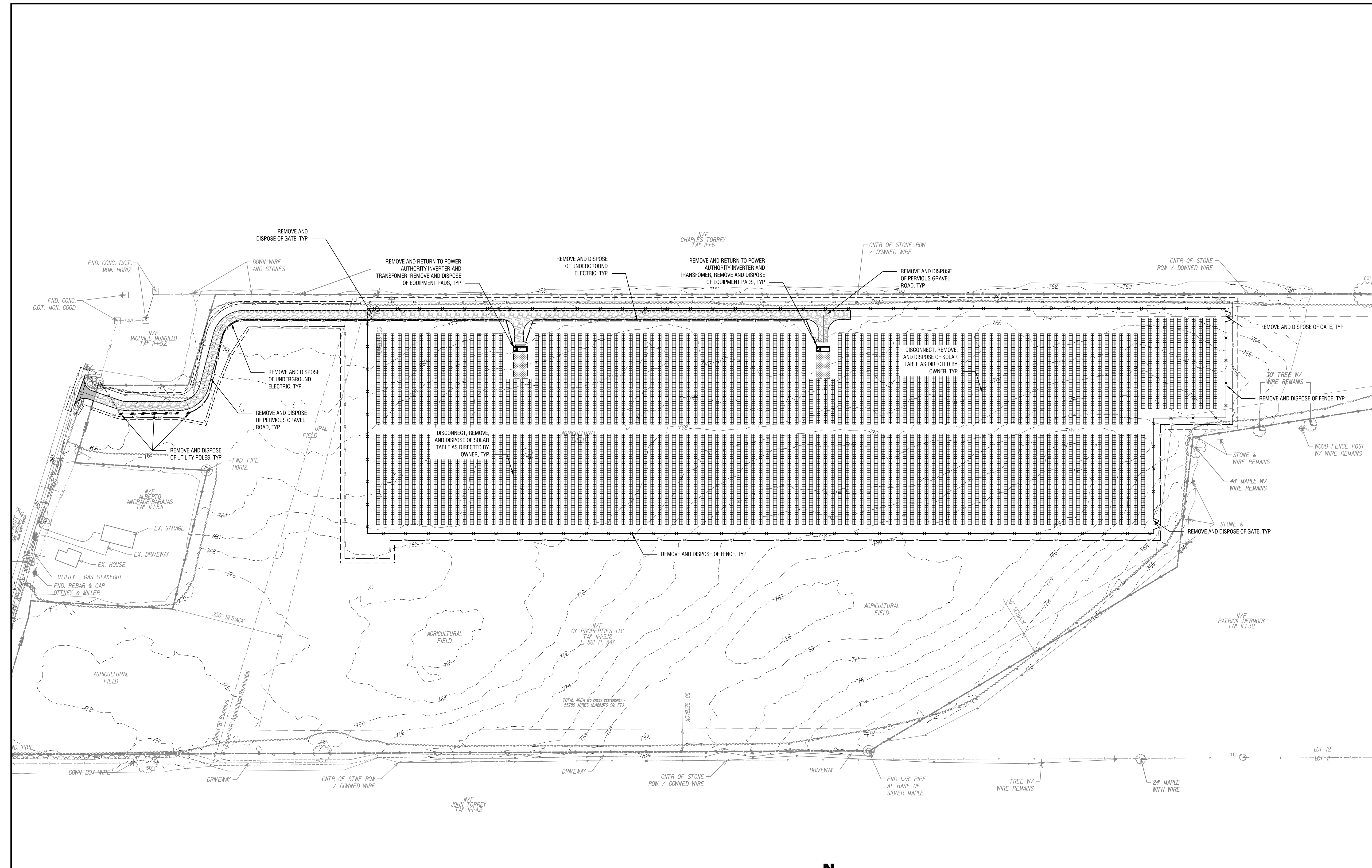
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TOWN OF ELBA PLANNING BOARD CHAIR (SIGNATURE)

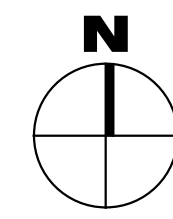
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APPROVAL DATE

**C601**



**1**  
C601 DECOMMISSIONING PLAN (PHASE 1)  
SCALE: 1" = 100'





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**NY CDG GENESEE 1, LLC**  
6325 GUNPARK DRIVE, SUITE C-2,  
BOULDER, CO 80301



**Genesee 1**  
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TOWN OF ELBA, NY 14058

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PROJECT NUMBER: 2210066

DRAWN BY: MLZ

REVIEWED BY: JJP

ISSUED FOR: SITE PLAN REVIEW

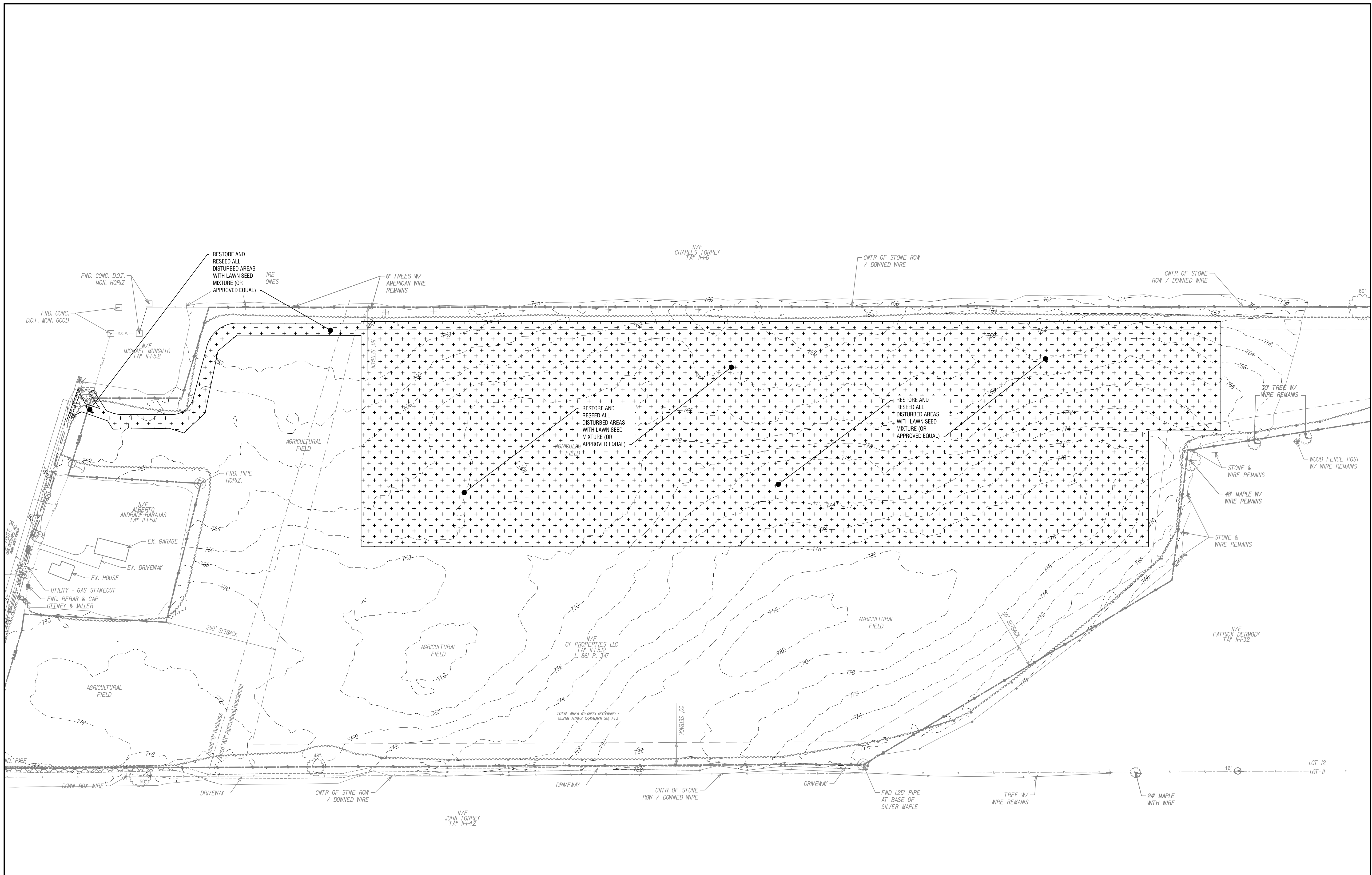
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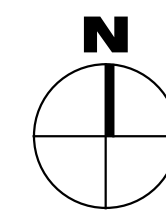
**DECOMMISSIONING PLAN  
(PHASE 2)**

DRAWING NUMBER:

**C602**



**1**  
C602  
DECOMMISSIONING PLAN (PHASE 2)  
SCALE: 1" = 100'



TOWN OF ELBA PLANNING BOARD APPROVAL

\_\_\_\_\_  
TOWN OF ELBA PLANNING BOARD CHAIR (PRINT)

\_\_\_\_\_  
TOWN OF ELBA PLANNING BOARD CHAIR (SIGNATURE)

\_\_\_\_\_  
APPROVAL DATE

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**NY CDG GENESEE 1, LLC**

6325 GUNPARK DRIVE, SUITE C-2,  
BOULDER, CO 80301



**Genesee 1**

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TOWN OF ELBA, NY 14058

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PROJECT NUMBER: 2210066

DRAWN BY: MLZ

REVIEWED BY: JJP

ISSUED FOR: SITE PLAN REVIEW

DATE: 6/2023

DRAWING NAME:

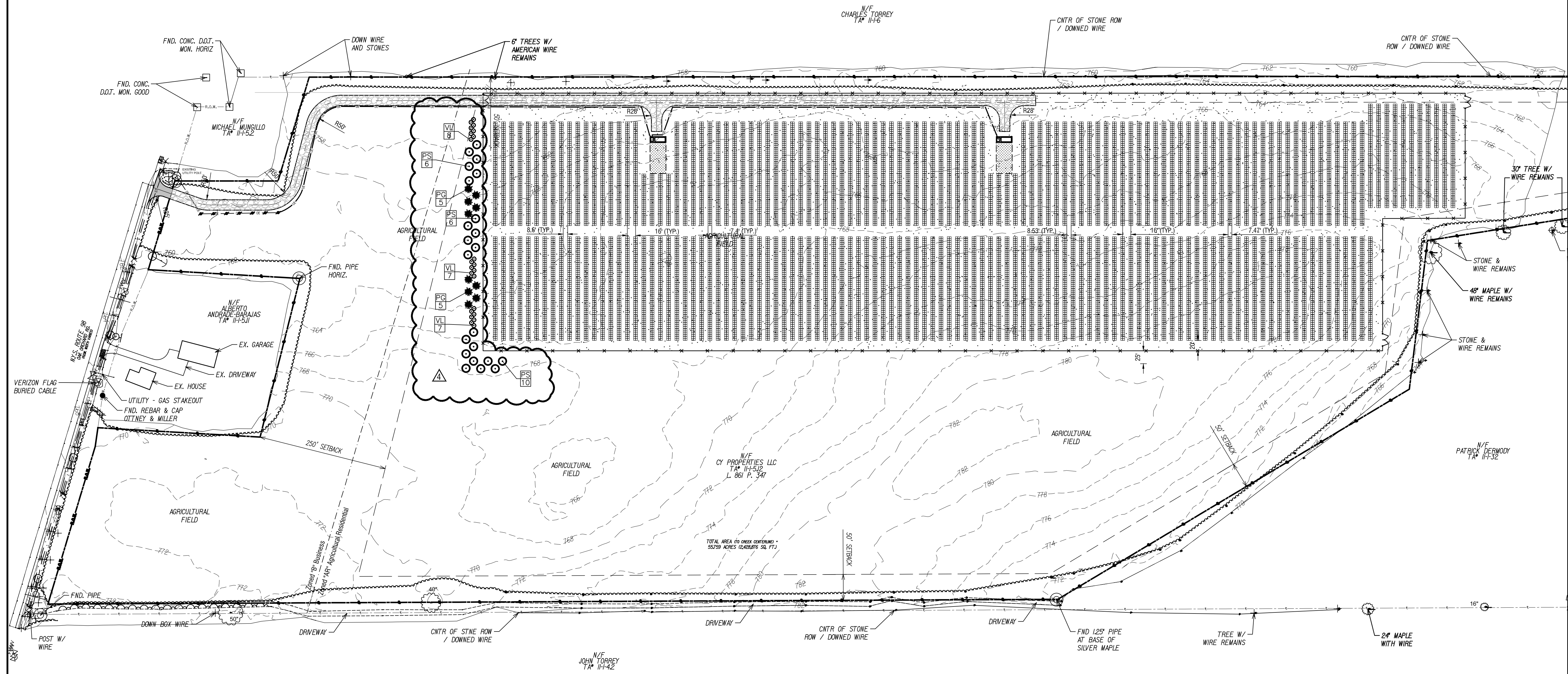
**LANDSCAPE PLAN**

DRAWING NUMBER:

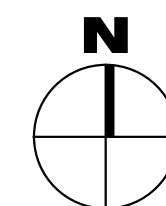
**L101**

KEY	QUANTITY	SCIENTIFIC NAME	COMMON NAME	SIZE	SPACING
PG	10	Picea glauca	White Spruce	6' HT.	AS SHOWN
PS	22	Pinus strobus	Eastern White Pine	6' HT.	AS SHOWN
VL	22	Viburnum lentago	Nannyberry	4' HT.	AS SHOWN

INTERIOR OF THE ARRAY TO BE SEEDED WITH A POLLINATOR FRIENDLY SEED MIX



1 LANDSCAPE PLAN  
L101 SCALE: 1" = 100'



TOWN OF ELBA PLANNING BOARD APPROVAL

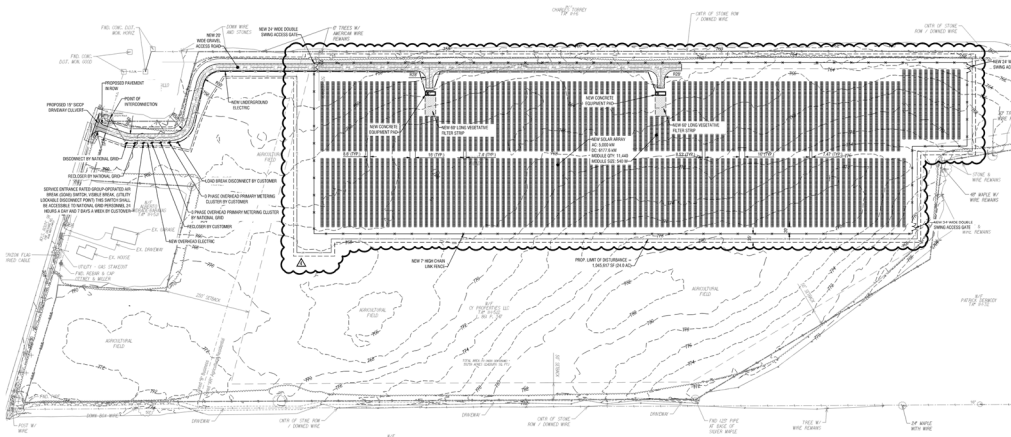
\_\_\_\_\_  
TOWN OF ELBA PLANNING BOARD CHAIR (PRINT)

\_\_\_\_\_  
TOWN OF ELBA PLANNING BOARD CHAIR (SIGNATURE)

\_\_\_\_\_  
APPROVAL DATE

# Genesee 1 (5.0 MW AC) Community Solar Project Equipment Specifications

7195 Oak Orchard Road, Elba, NY 14058



Prepared by Jared Pantella, PE, PLS, LaBella Associates  
Reviewed by Marc DiGuiseppe, Catalyze  
Created on June 29, 2023

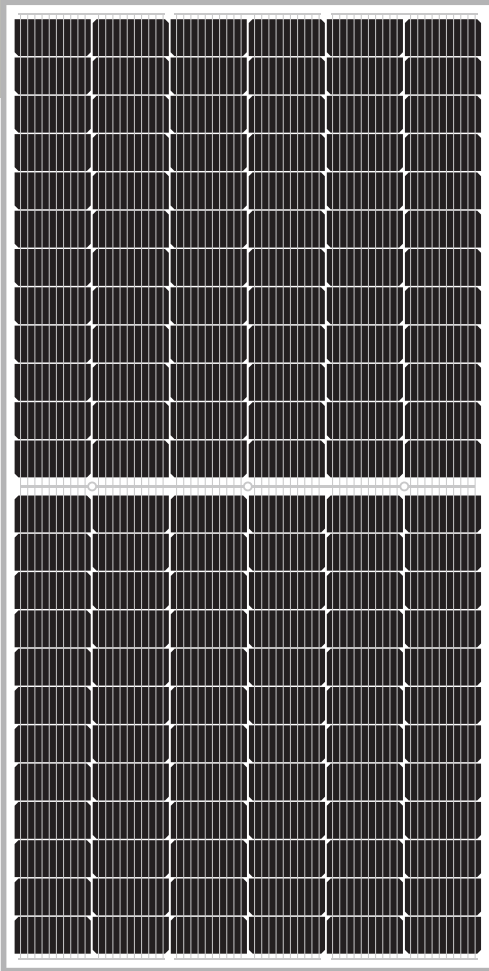


FROM STRENGTH TO STRENGTH IN NATURE

# NESE 550-72MHB-M10

MONO PERC HALF-CELL BIFACIAL SOLAR MOUDLE

FROM CAMBODIA



## KEY FEATURES



### High efficiency PERC

A high efficiency 182 (M10) PERC solar cell with 10 busbars technology to ensure the efficiency of the solar module up to 21.29% and stable operation.



### Bifacial power generation

Increases 10-30% power generation revenue.



### Excellent performance with weak light

More power output with a weak light condition-through advanced glass and solar cells.



### Wind/Snow load

Wind load 2400 pa, snow load 5400 pa.



PID

### Pid Free

Excellent Anti-PID performance, minimized the degradation of power.



### Resistance of extreme environment conditions

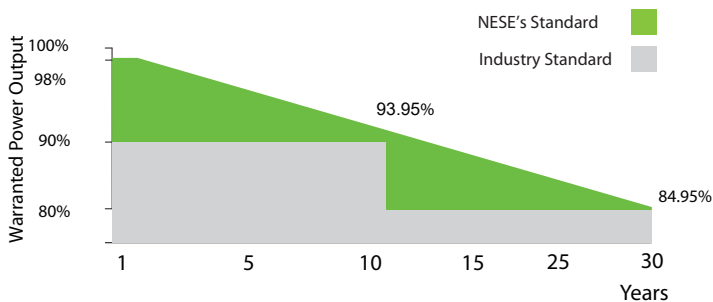
High Salt Mist and Ammonia resistance certified by TUV.

INSURED BY



## LINEAR PERFORMANCE WARRANTY

12 years product warranty. 30 years linear power warranty.



## MANAGEMENT SYSTEM CERTIFICATES

ISO 9001:2015/QUALITY MANAGEMENT SYSTEM  
ISO 14001:2015/STANDARDS FOR ENVIRONMENTAL MANAGEMENT SYSTEM

## PRODUCT CERTIFICATES

IEC 61215/IEC 61730:VDE/CE/CEC AU  
UL 61730: CSA



PHUM TANOUN, SANGKAT KOMBOUL, KHAN POSENCHAY, PHNOM PENH, KINGDOM OF CAMBODIA

WWW.NESOLAR.COM.KH

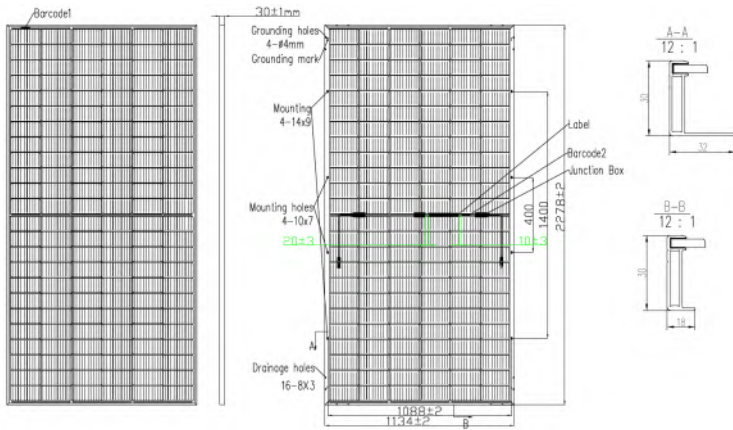
# SPECIFICATIONS

Module type	NESE 530-72MHB-M10		NESE 535-72MHB-M10		NESE 540-72MHB-M10		NESE 545-72MHB-M10		NESE 550-72MHB-M10	
	STC	(NOCT)	STC	(NOCT)	STC	(NOCT)	STC	(NOCT)	STC	(NOCT)
Maximum power(Pmax)	530Wp	396Wp	535Wp	400Wp	540Wp	404Wp	545Wp	407Wp	550Wp	411Wp
Maximum power voltage(Vmp)	41.1V	38.2V	41.3V	38.4V	41.5V	38.5V	41.7V	38.8V	41.9V	38.9V
Maximum power current (Imp)	12.91A	10.38A	12.96A	10.42A	13.02A	10.47A	13.08A	10.49A	13.13A	10.56A
Open-circuit voltage( Voc)	49.4V	46.2V	49.6V	46.3V	49.8V	46.5V	50.0V	46.7V	50.2V	46.9V
Short-circuit current(Isc)	13.65A	11.02A	13.71A	11.07A	13.77A	11.12A	13.83A	1.17A	13.89A	11.22A
Module efficiency STC (%)	20.52%		20.71%		20.90%		21.10%		21.29%	
Operating temperature(°C)	-40°C ~ 85°C									

## ELECTRICAL CHARACTERISTICS WITH 25% REAR SIDE POWER GAIN

Front power Pmax/W	530	535	540	545	550
Total power Pmax/W	663	669	675	681	688
Vmp/V(Total)	41.2	41.4	41.6	41.8	42.0
Imp/A(Total)	16.08	16.15	16.23	16.30	16.37
Voc/V(Total)	49.5	49.7	49.9	50.1	50.3
Isc/A(Total)	17.02	17.10	17.17	17.25	17.32

## ENGINEERING DRAWING



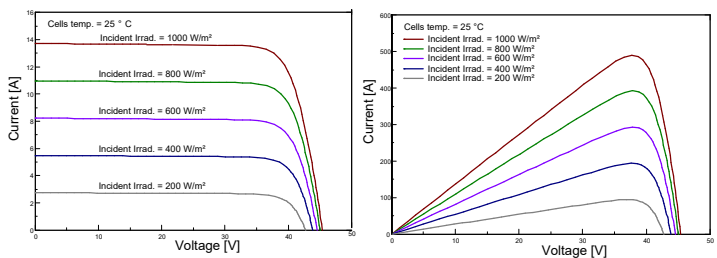
## TEMPERATURE RATINGS

NOCT	44 ± 2°C
Temperature coefficients of Pmax	-0.35%/°C
Temperature coefficients of Voc	-0.29%/°C
Temperature coefficients of Isc	+0.05%/°C
Refer. Bifacial Factor	70 ± 5%

## MATERIAL CHARACTERISTICS

Number of cell	144 (6 * 24)
Dimensions	2278*1134*30mm
Weight	33.5+/-1kg
Front glass	2.0mm+2.0mm heat strengthened glass
Frame	Anodized aluminium alloy

## IV CURVES OF THE PV MODULES



Electrical performance vs Incident Irradiance  
Current-voltage & power-voltage curves (545W)

## WORKING CONDITIONS

Maximum system voltage	1000/1500 VDC
Maximum series fuse rating	30A

Junction box	Ip68 , 3 diodes
Cables	12 AWG, length: 350 mm or Customized
Connectors	MC4-Compatible

## PACKAGING CONFIGURATION

40HQ	720PCS
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# ZXM7-SHLDD144 Series ZNSHINESOLAR

Znshinesolar 10BB HALF-CELL Bifacial Light-Weight Double Glass Monocrystalline PERC PV Module

525W | 530W | 535W | 540W | 545W | 550W



## Excellent cells efficiency

MBB technology decreases the distance between busbar and finger grid line which is benefit to power increase.



## Better Weak Illumination Response

More power output in weak light condition, such as haze, cloudy, and early morning.



## Anti PID

Ensured PID resistance through the quality control of cell manufacturing process and raw materials.



## Adapt To Harsh Outdoor Environment

Resistant to harsh environments such as salt, ammonia, sand, high temperature and high humidity environment.



## TIER 1

Global, Tier 1 bankable brand, with independently certified state-of-the-art automated manufacturing.



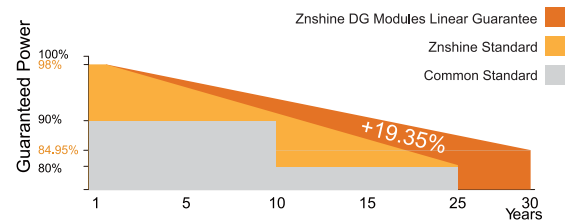
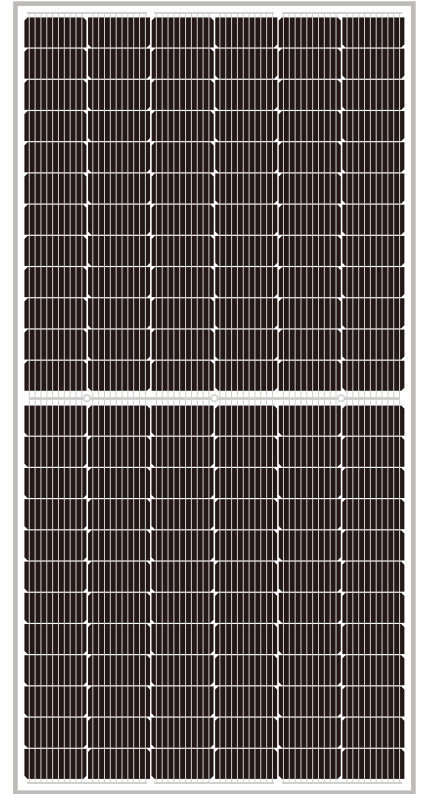
## Excellent Quality Management System

Warranted reliability and stringent quality assurances well beyond certified requirements.



## Bifacial Technology

Up to 25% additional power gain from back side depending on albedo.



12 years product guarantee  
30 years output guarantee



0.45% annual degradation  
after the first year



IEC61215/IEC61730/IEC61701/IEC62716/UL61730

ISO 9001: Quality Management System

ISO 14001: Environmental Management System

ISO45001: Occupational Health and Safety Management System

Founded in 1988, ZNShine solar is a world's leading high-tech PV module manufacturer. With the state-of-the-art production lines, the company boasts module capacity of 6GW. Bloomberg has listed ZNShine as a global Tier 1 PV module maker. Today Znshine has distributed its sales to more than 60 countries around the globe.

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

**ELECTRICAL CHARACTERISTICS | STC\***

Nominal Power Watt Pmax(W)*	525	530	535	540	545	550
Power Output Tolerance Pmax(%)	0~+3	0~+3	0~+3	0~+3	0~+3	0~+3
Maximum Power Voltage Vmp(V)	40.90	41.10	41.30	41.50	41.70	41.90
Maximum Power Current Imp(A)	12.85	12.91	12.96	13.02	13.07	13.13
Open Circuit Voltage Voc(V)	49.20	49.40	49.60	49.80	50.00	50.20
Short Circuit Current Isc(A)	13.59	13.65	13.71	13.77	13.83	13.89
Module Efficiency (%)	20.31	20.51	20.70	20.89	21.09	21.28

\*STC (Standard Test Condition): Irradiance 1000W/m<sup>2</sup>, Module Temperature 25°C, AM 1.5

\*Measuring tolerance: ±3%

**ELECTRICAL CHARACTERISTICS | NMOT\***

Maximum Power Pmax(Wp)	392.70	396.40	399.90	403.60	406.80	410.80
Maximum Power Voltage Vmp(V)	38.00	38.20	38.40	38.50	38.80	38.90
Maximum Power Current Imp(A)	10.33	10.38	10.42	10.47	10.49	10.56
Open Circuit Voltage Voc(V)	46.00	46.20	46.30	46.50	46.70	46.90
Short Circuit Current Isc(A)	10.98	11.02	11.07	11.12	11.17	11.22

\*NMOT(Nominal module operating temperature):Irradiance 800W/m<sup>2</sup>, Ambient Temperature 20°C, AM 1.5, Wind Speed 1m/s

**ELECTRICAL CHARACTERISTICS WITH 25% REAR SIDE POWER GAIN**

Front power Pmax/W	525	530	535	540	545	550
Total power Pmax/W	656	663	669	675	681	688
Vmp/V(Total)	41.00	41.20	41.40	41.60	41.80	42.00
Imp/A(Total)	16.01	16.08	16.15	16.23	16.30	16.37
Voc/V(Total)	49.30	49.50	49.70	49.90	50.10	50.30
Isc/A(Total)	16.95	17.02	17.10	17.17	17.25	17.32

**MECHANICAL DATA**

Solar cells	Mono PERC
Cells orientation	144 (6×24)
Module dimension	2279×1134×30 mm(With Frame)
Weight	33.5 kg
Glass	2.0 mm+2.0mm, High Transmission, AR Coated Heat Strengthened Glass
Junction box	IP 68, 3 diodes
Cables	4 mm <sup>2</sup> , 350 mm
Connectors	MC4-compatible

**TEMPERATURE RATINGS**

NMOT	44°C ±2°C	Maximum system voltage	1500 V DC
Temperature coefficient of Pmax	-0.35%/°C	Operating temperature	-40°C~+85°C
Temperature coefficient of Voc	-0.29%/°C	Maximum series fuse	30 A
Temperature coefficient of Isc	0.05%/°C	Maximum load(snow/wind)	5400 Pa / 2400 Pa

Refer.Bifacial Factor 70±5%

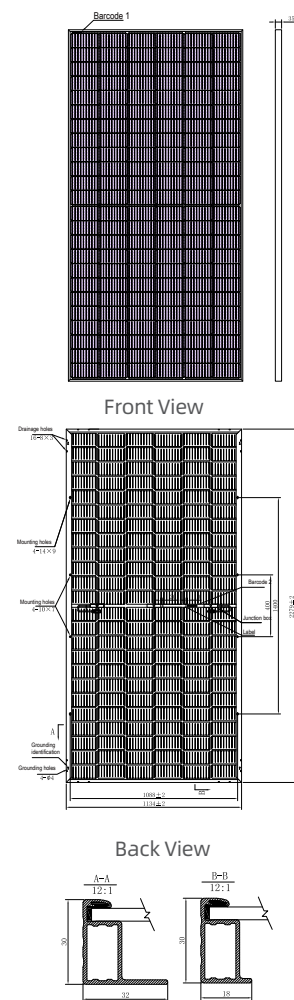
\*Do not connect Fuse in Combiner Box with two or more strings in parallel connection

\*Remark:Electrical data in this catalog do not refer to a single module and they are not part of the offer.They only serve for comparison among different module types.

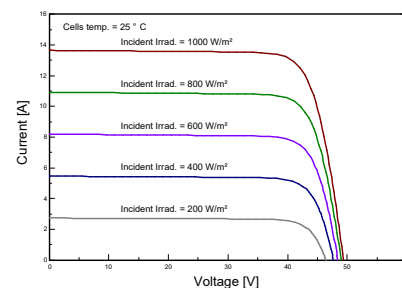
**PACKAGING CONFIGURATION**

Piece/Box	36	
Piece/Container(40'HQ)	720	*Please be kindly advised that PV modules should be handled and installed by qualified people who have professional skills and please carefully read the safety and installation instructions before using our PV modules.
Piece/Container(with additional small package)	/	

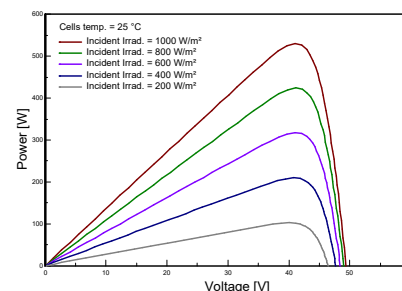
**DIMENSIONS(MM)**



**I-V CURVES OF PV MODULE(530W)**

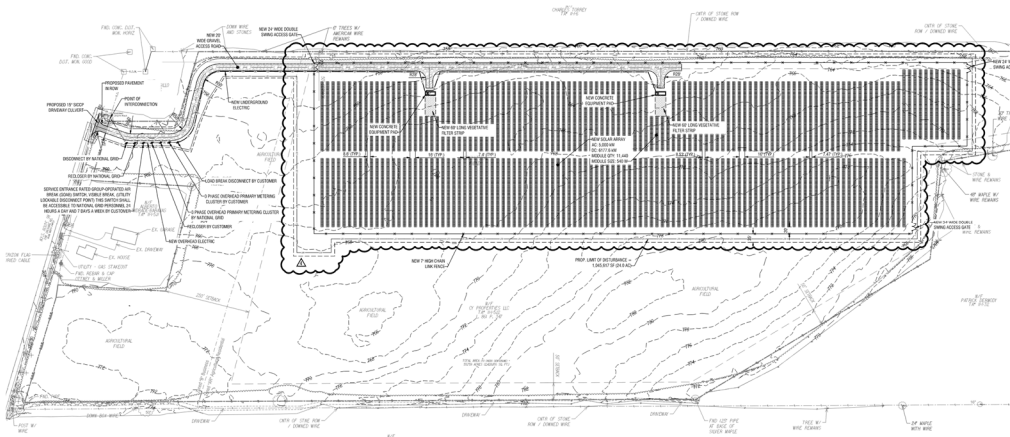


**P-V CURVES OF PV MODULE(530W)**



# Genesee 1 (5.0 MW AC) Community Solar Project Operations and Maintenance Plan

7195 Oak Orchard Road, Elba, NY 14058



Prepared by Jared Pantella, PE, PLS, LaBella Associates  
Reviewed by Marc DiGuiseppe, Catalyze  
Created on June 29, 2023



# Property Operation & Maintenance Plan

## Property Operation & Maintenance Plan for Genesee 1 Site

- NY CDG Genesee 1 LLC

## Property Maintenance and Housekeeping

- Observation and review of the property and planting buffer to include tree, vegetation and grass trimming to prevent obstruction of the solar arrays as well as access and egress of the site.
- Clearing of snow on the access drive when there is an accumulation of 12” of snow, and, on an as-needed basis in and around the electrical equipment requiring inspections.

## Emergency Response and Unplanned Maintenance

- **Monitoring**
  - Using the DAS, monitor daily, the day-to-day system output and performance. Ensure 98% availability of system.
  - Setup alarm point for abnormal system behavior including any inverter shutdowns and protection tripping.
- **Unplanned maintenance**
  - 24-hour response to alarms to identify and document failures.
  - Coordination with utility and other authorities, as necessary.
  - Troubleshoot issues and document details of testing or performance maintenance work, create a remediation plan if issue cannot be solved during first response.
  - Make and coordinate claims for reimbursement and/or replacement under any available warranty from manufacturers, installers or other similar entities relating to the System.

## Full Site Visual Inspection

- **PV Panel Condition**
  - Inspect for cleanliness, cracked/chipped/scratched/ shattered panels, fading/discoloration, burn marks, seal condition, frame damage or rust
- **PV Mounting Structure**
  - Inspect mounts and mounting structures (loose panels, loose rack/clips missing hardware, rusted bolts, flashing issues, ballast condition, rack anchor condition)
- **PV Array Ventilation**
  - Inspect conditions under panels, remove of any large debris or pests; visual check to ensure maximum ventilation under panels
- **PV System Foundations**
  - Ground mount arrays (visual inspection of grounds and vegetation, identify issues related to mud, water pooling, soil erosion)

- **Balance of System**
  - Inspect conduit runs (separated/cracked conduits, misaligned wire runs)
  - Inspect panel interconnectivity and string lines (wire/cable wear, wire fading, chewed wire due to pests, identify loose/detached wires)
  - Inspect junction/combiner enclosure(s) condition (seals, rust, damage, locks)
  - Inspect electrical equipment enclosure(s) (seals, rust, damage, door condition, locks, equipment pad(s))
- **Inverter(s)**
  - Inspect inverter structure(s) and enclosure(s) (seals, rust, damage, door condition, switch/handle condition, locks)
  - Inspect inverter equipment pad(s) (cracks, base damage, soil erosion)
- **Data Acquisition System (DAS)**
- **Weather Station Condition** (alignment of irradiance sensor, condition of wind and temperature meters)
  - DAS device condition (screen, seals, rust, damage)
- **Shading Conditions**
  - Visual inspection to identify any shading issues, preventive care if shading caused by nearby vegetation)
- **System Security**
  - Visually inspect fence line or confinement structures for wear, damage, breach, vandalism, or problems
  - Visually inspect any electronic surveillance equipment (cameras, alarms, etc.) and identify if operating.
  - Check condition of any locks, chains or other protection measures preventing unauthorized access to the system.
- **Reports**
  - Document all deficiencies and classify as “continue to monitor”, “recommended to repair/replace”, or “unsafe condition”. Immediately notify and properly secure/remediate any hazard.

### **Inverter Preventative Maintenance**

- Conduct preventative maintenance in accordance with manufacturer specifications.
- Clean and vacuum enclosure, vents and heat sink / remove any identifiable debris and clean any accumulation of dust.
- Change air filters according to manufacturer specifications (filters are billed at cost, installation is included in O&M fees)
- Check fuses and switchboards (visually inspect for signs of corrosion/burning of components)
- Check wiring (visually inspect for breaks, deterioration, or signs of corrosion/burning, check cable wire protection)

### **String Level Voc, DC Operating Current**

- Perform testing to measure the open circuit voltage (Voc) and operating current of each string in the system.
- Analyze and document any anomalies that effect system performance and propose correct actions if necessary.

### **String Level IV Curve Tracing**

- Perform string level IV Curve tracing with a minimum of 400 w/m<sup>2</sup> irradiance.
- Analyze and document any anomalies that effect system performance and propose correct actions if necessary.

### **Module Level IR Drone Imaging and Analysis (can replace IV curve tracing)**

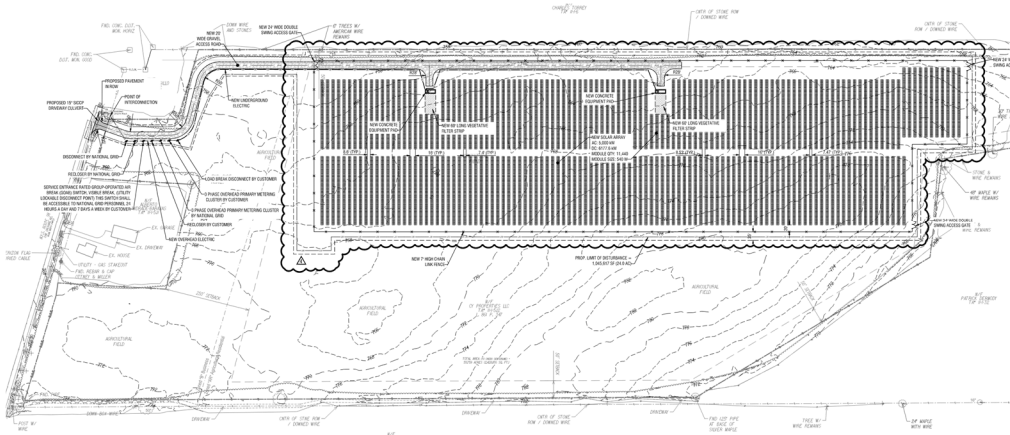
- Perform drone IR scan and desktop analysis to identify all module, string, connection, or DC bus issues.
- Replace and module operating less than 30% of expected rating. Repair all underperforming strings.

### **Thermal Imaging Combiners, Inverters and Disconnects**

- Thermal imaging of combiners, inverters and disconnects by a trained thermographer.
- Analyze and document all images taken, identify any potential hot spots and propose correct actions if necessary.

## Genesee 1 (5.0 MW AC) Community Solar Project Decommissioning Plan

7195 Oak Orchard Road, Elba, NY 14058



Prepared by Jared Pantella, PE, PLS, LaBella Associates  
Reviewed by Marc DiGuiseppe, Catalyze  
Created on June 29, 2023



## Genesee 1 5MW AC Community Solar Decommissioning plan

June 29, 2023

Decommissioning plan for Genesee 1 Solar Project located at 7209 Oak Orchard Rd, Elba.

Prepared and Submitted by NY CDG Genesee 1 LLC, the owner of Genesee 1 Solar Project.

As required by the Town of Elba, NY CDG Genesee 1 LLC present this decommissioning plan for Genesee 1 Solar project (the "Facility").

This Decommission Plan provides a description of decommissioning and restoration of 5MW Community Solar projects in NY. Start of Construction is planned for 2022 or 2023. The projects will consist of perimeter fencing, solar arrays, single axis tracking racking structures and foundations, inverters, electrical collection system and gravel access roads.

For solar energy systems constructed on prime Farmland or Farmland of Statewide importance, such as this project, the restoration of such Farmland pursuant to the decommissioning and restoration guidelines of the NYS Ag and Markets Solar Energy Project Guidance should be followed.

Project lifetime is expected to be 35 years. The plan will need to be completely revised should there be an opportunity to extend the life or repower.

It is important to realize that the probability of early an early decommissioning event that would lead to abandonment or long-term interruption is extremely low during the first 20 years of the Project life due to:

- Sophisticated financing and tax equity partners
- Equipment warranties
- Insurance and business interruption insurance for unforeseen failures
- Operations and maintenance planning
- Creation of a major equipment reserve fund for equipment failures
- Replacement costs declining steadily.

Decommissioning will occur as a result of any of the following conditions the land lease with CY Farms at 7209 Oak Orchard Rd, Elba ends. The lease could end for the following reasons:

1. The system is damaged and will not be repaired or replaced
2. The system does not produce power for 12 months
3. Any failures to meet obligations of the lease, local and utility regulations, or law.

The owner of the Facility, as provided for in its lease with the landowner, shall restore the property to its condition as it existed before the Facility was installed, pursuant to which may include the following:

1. Removal of all operator-owned equipment, concrete, conduits, structures, fencing, and foundations to a depth of 48 inches below the soil surface.
2. Removal of any solid and hazardous waste caused by the Facility in accordance with local, state and federal waste disposal regulations.
3. Removal of all graveled areas and access roads unless the landowner requests in writing for it to remain. These areas will be decompacted to a depth of 24" beneath the stone layer and that 12 inches of native topsoil is to be placed.
4. Disturbed soils must have subsoils buried and covered by at least 6 inches of native topsoil that is free of large rocks typical of subsoil and additional topsoil will be added as necessary to account for settlement.
5. All soil disturbed during decommissioning will be stabilized within two weeks with a perennial grass stabilization mix applied using standard NYSDEC erosion and sediment control methods and seeding rates applicable for the season, soil type, and slope.

All said removal and decommissioning shall occur within 12 months of the Facility ceasing to produce power for sale. Decommissioning tasks will be done over a period of 4-6 months.

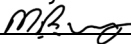
Project stakeholders will be notified by the owner/operator a minimum of 6 months prior to initiating decommissioning activities. Local, county and state authorities will be notified, as needed, to discuss potential approvals required to complete decommissioning activities.

The deposit, executions, or filing with the Town of Elba Clerk of cash, a bond issued from a surety listed as acceptable sureties on Federal surety bonds in Circular 570 of the U.S. Department of the Treasury, letter of credit, or other form of security reasonably acceptable to the Town of Elba attorney and/or engineer, shall be in an amount sufficient to ensure the good faith performance of the terms and conditions of the permit issued pursuant hereto and to provide for the removal and restorations of the site subsequent to removal pursuant to the approved decommissioning plan. The amount of the bond or security shall be 125% of the cost of removal of the Tier 3 Solar Energy System and restoration of the property with an escalator of 2% annually for the life of the Solar Energy System. The salvage value of the solar energy equipment shall not be accounted for in the estimated cost of implementing the decommissioning plan. The financial security shall be updated every fifth year thereafter specifying changes to the estimated cost of implementing the decommissioning plan. A summary of the Decommissioning Costs below show that a security should be \$211,000.00 with a 2% annual escalator. In the event of default upon performance of such conditions, after proper notice and expiration of any cure periods, the cash deposit, bond, or security shall be forfeited to the Town of Elba, which shall be entitled to maintain an action thereon. The cash deposit, bond, or security shall remain in full force and effect until restoration of the property as set forth in the decommissioning plan is completed. The plan and the bond will be reviewed / updated every 5 years to reflect new technologies/ guidelines and costs.

## Summary of Decommissioning Costs

Tasks	Total Cost
Removal of PV string wiring	-\$ 6,250.00
Removal of Modules	-\$ 20,000.00
Dismatle and remove racking	-\$ 50,000.00
Removal of Electrical Equipment	-\$ 10,000.00
Removal of concrete	-\$ 2,500.00
Removal of racking foundations	-\$ 50,000.00
safely abandoning/removing cable	-\$ 5,000.00
removal of fencing	-\$ 12,500.00
Site Restoration work	-\$ 6,250.00
Shipping costs	-\$ 6,250.00
<b>Total</b>	<b>-\$ 168,750.00</b>

The owner of the Facility, currently NY CDG Genesee 1 LLC, is responsible for this decommissioning.

Facility Owner Signature:  Date: May 19, 2021

## PHOTOGRAPH LOCATION PLAN





## PHOTOGRAPHS OF EXISTING SITE CONDITIONS



Southwest



South



Southeast

# Location 1

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Southwest



South



Southeast

# Location 2

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Southwest



South



Southeast

# Location 3

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Southwest



South



Southeast

# Location 4

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Southwest



South



Southeast

# Location 5

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Southwest



South



Southeast

# Location 6

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Southwest



South



Southeast

# Location 7

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Southwest



South



Southeast

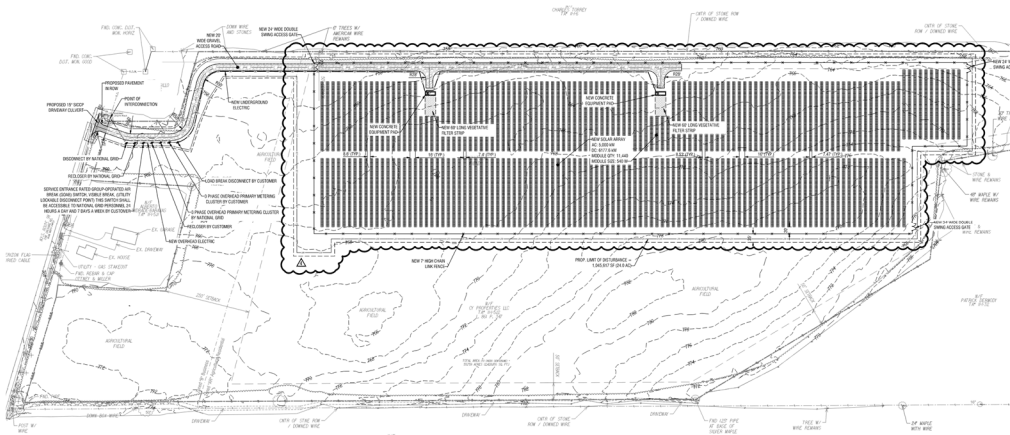
# Location 8

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# Genesee 1 (5.0 MW AC) Community Solar

## Project Glint-Glare Analysis

7195 Oak Orchard Road, Elba, NY 14058



Prepared by Jared Pantella, PE, PLS, LaBella Associates  
Reviewed by Marc DiGuiseppe, Catalyze  
Created on June 29, 2023

# FORGESOLAR GLARE ANALYSIS

Project: **Genesee 1**

Ground mount community solar - 2023-06-29 Layout

Site configuration: **Genesee 1 2023-06-29**

Client: Catalyze

Created 29 Jun, 2023

Updated 29 Jun, 2023

Time-step 1 minute

Timezone offset UTC-5

Minimum sun altitude 0.0 deg

DNI peaks at 1,000.0 W/m<sup>2</sup>

Category 1 MW to 5 MW

Site ID 94244.16532

Ocular transmission coefficient 0.5

Pupil diameter 0.002 m

Eye focal length 0.017 m

Sun subtended angle 9.3 mrad

PV analysis methodology V2



## Summary of Results Glare with potential for temporary after-image predicted

PV Array	Tilt	Orient	Annual Green Glare		Annual Yellow Glare		Energy kWh
	°	°	min	hr	min	hr	
PV array 1	SA tracking	SA tracking	883	14.7	440	7.3	-

Total 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
Edgerton Road	0	0.0	0	0.0
Ford Road	252	4.2	440	7.3
Oak Orchard Road	0	0.0	0	0.0
Batavia Municipal Airport	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	79	1.3	0	0.0
OP 8	460	7.7	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 9	92	1.5	0	0.0

# Component Data

## PV Arrays

**Name:** PV array 1  
**Axis tracking:** Single-axis rotation  
**Backtracking:** Shade-slope  
**Tracking axis orientation:** 180.0°  
**Max tracking angle:** 60.0°  
**Resting angle:** 0.0°  
**Ground Coverage Ratio:** 0.5  
**Rated power:** -  
**Panel material:** Smooth glass without AR coating  
**Reflectivity:** Vary with sun  
**Slope error:** correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	43.065646	-78.186667	752.96	0.00	752.96
2	43.064392	-78.186763	759.80	0.00	759.80
3	43.064392	-78.180862	767.24	0.00	767.24
4	43.065105	-78.180841	767.20	0.00	767.20
5	43.065082	-78.179500	760.98	0.00	760.98
6	43.065638	-78.179489	757.44	0.00	757.44

## Route Receptors

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



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	43.059207	-78.181383	780.81	0.00	780.81
2	43.059286	-78.192155	767.96	0.00	767.96

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



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	43.066902	-78.188968	753.47	0.00	753.47
2	43.066823	-78.188206	752.61	0.00	752.61
3	43.066816	-78.187659	753.68	0.00	753.68
4	43.066870	-78.187037	754.08	0.00	754.08
5	43.067004	-78.186618	753.43	0.00	753.43
6	43.067396	-78.185867	753.03	0.00	753.03
7	43.068477	-78.184580	753.99	0.00	753.99

**Name:** Oak Orchard Road  
**Path type:** Two-way  
**Observer view angle:** 50.0°



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	43.059427	-78.192155	768.58	0.00	768.58
2	43.066842	-78.189043	753.88	0.00	753.88

## Flight Path Receptors

**Name:** Batavia Municipal Airport

**Description:**

**Threshold height:** 50 ft

**Direction:** 270.7°

**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	43.031887	-78.180027	905.96	50.00	955.96
Two-mile	43.031528	-78.140430	889.88	619.51	1509.39

## Discrete Observation Point Receptors

Name	ID	Latitude (°)	Longitude (°)	Elevation (ft)	Height (ft)
OP 1	1	43.065403	-78.189016	754.51	5.50
OP 2	2	43.064298	-78.189317	764.14	5.50
OP 3	3	43.064173	-78.189714	762.31	5.50
OP 4	4	43.064416	-78.190411	758.15	5.50
OP 5	5	43.064008	-78.190540	760.00	0.00
OP 6	6	43.063428	-78.191076	764.29	5.50
OP 7	7	43.067625	-78.188088	756.21	5.50
OP 8	8	43.067759	-78.188925	755.18	5.50
OP 9	9	43.067280	-78.189778	755.88	5.50



## Obstruction Components

**Name:** Creekside Brush  
**Top height:** 20.0 ft



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	43.065672	-78.189145	752.28
2	43.065782	-78.187826	750.43
3	43.065774	-78.187772	750.78

**Name:** Ford Road Treeline  
**Top height:** 35.0 ft



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	43.066754	-78.186952	750.22
2	43.066891	-78.186523	749.86

**Name:** Intersection Woodland

**Top height:** 35.0 ft



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	43.066264	-78.188856	751.84
2	43.066695	-78.188158	752.54

**Name:** Proposed Landscaping

**Top height:** 7.0 ft



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	43.065679	-78.186769	752.56
2	43.064299	-78.186854	761.70
3	43.064292	-78.186350	761.09

**Name:** SE Treeline  
**Top height:** 35.0 ft



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	43.063045	-78.187455	763.77
2	43.062959	-78.184355	771.30
3	43.063006	-78.183400	766.76
4	43.063194	-78.182498	766.47
5	43.064221	-78.180642	764.60
6	43.064448	-78.180460	763.91
7	43.064911	-78.180396	767.33
8	43.065209	-78.178218	788.84
9	43.065655	-78.178207	778.84
10	43.065726	-78.180760	759.28

# Glare Analysis Results

## Summary of Results Glare with potential for temporary after-image predicted

PV Array	Tilt	Orient	Annual Green Glare		Annual Yellow Glare		Energy
	°	°	min	hr	min	hr	kWh
PV array 1	SA tracking	SA tracking	883	14.7	440	7.3	-

Total 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
Edgerton Road	0	0.0	0	0.0
Ford Road	252	4.2	440	7.3
Oak Orchard Road	0	0.0	0	0.0
Batavia Municipal Airport	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	79	1.3	0	0.0
OP 8	460	7.7	0	0.0
OP 9	92	1.5	0	0.0

## PV: PV array 1 potential temporary after-image

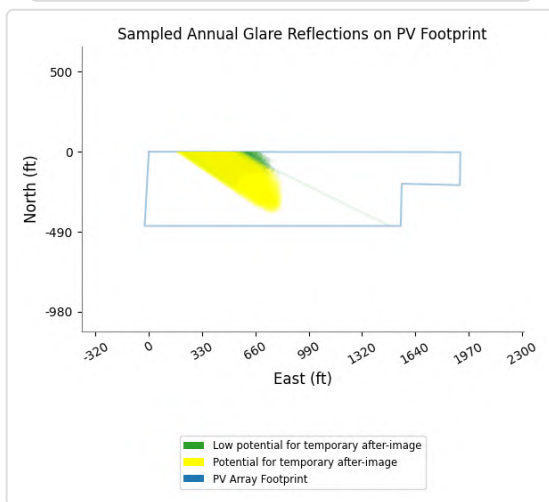
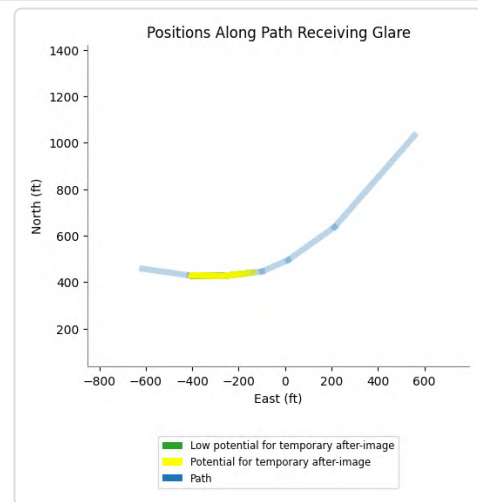
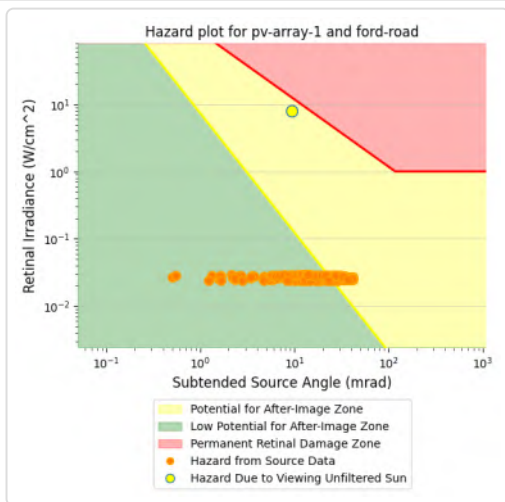
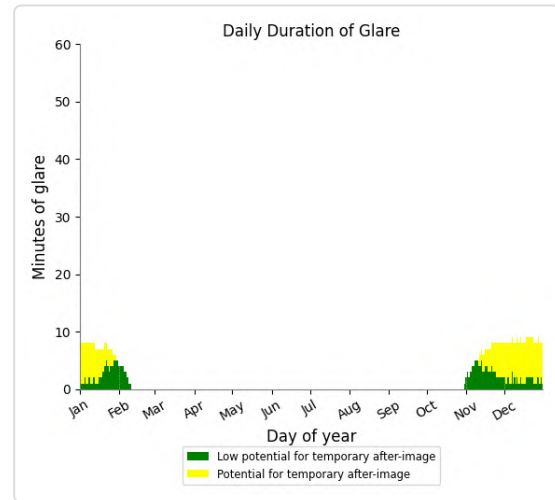
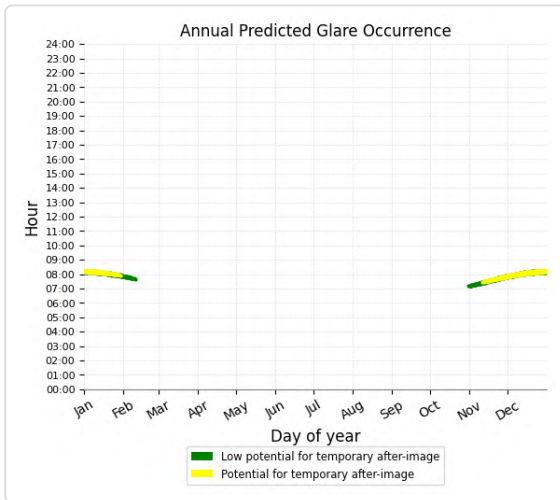
Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Ford Road	252	4.2	440	7.3
Edgerton Road	0	0.0	0	0.0
Oak Orchard Road	0	0.0	0	0.0
Batavia Municipal Airport	0	0.0	0	0.0
OP 7	79	1.3	0	0.0
OP 8	460	7.7	0	0.0
OP 9	92	1.5	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0

## PV array 1 and Route: Ford Road

Yellow glare: 440 min.

Green glare: 252 min.



## PV array 1 and Route: Edgerton Road

No glare found

## PV array 1 and Route: Oak Orchard Road

No glare found

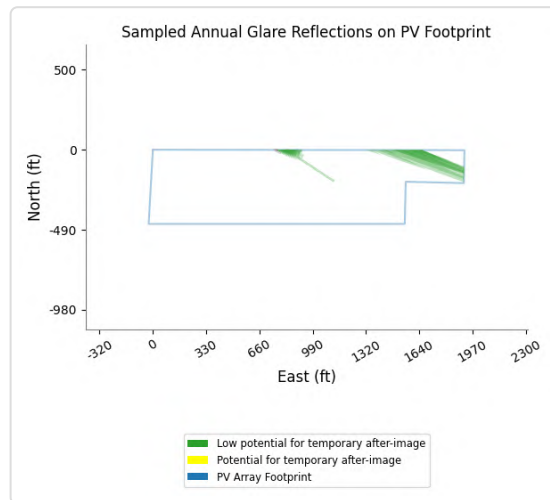
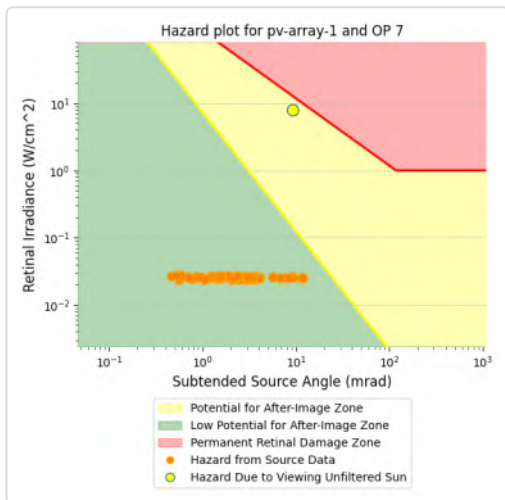
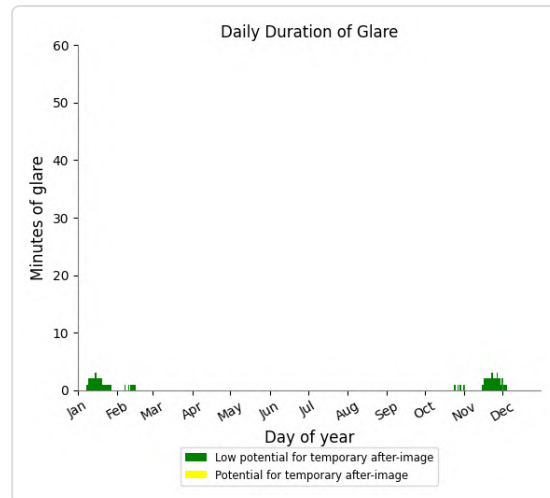
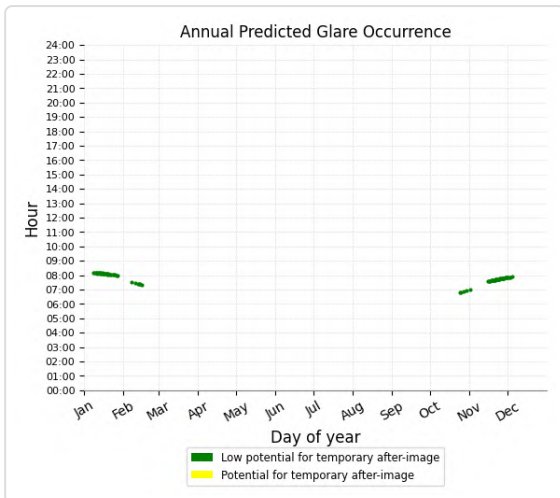
## PV array 1 and FP: Batavia Municipal Airport

No glare found

## PV array 1 and OP 7

Yellow glare: none

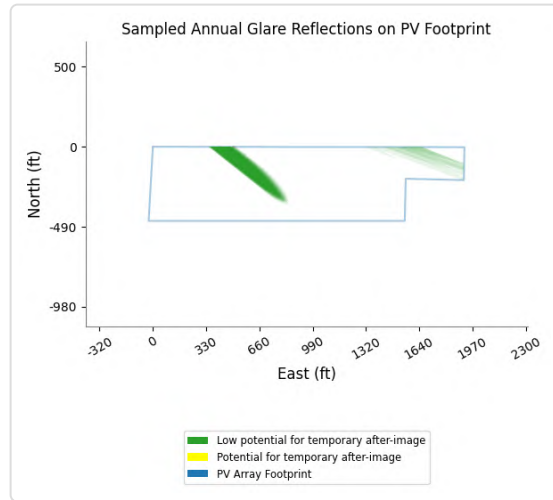
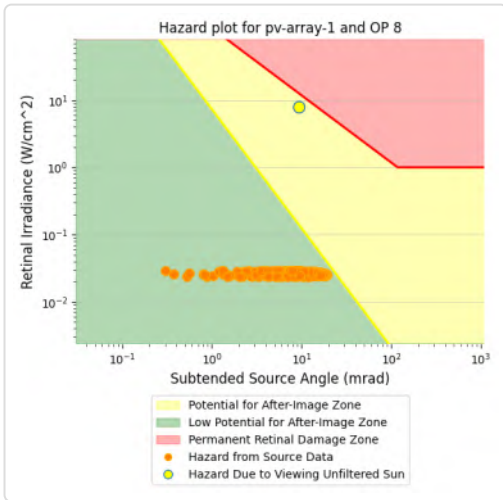
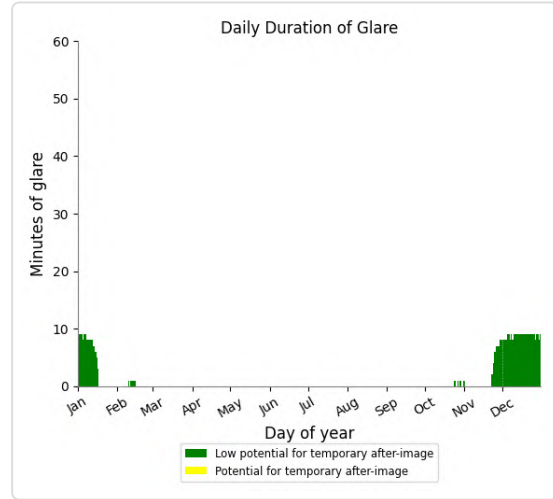
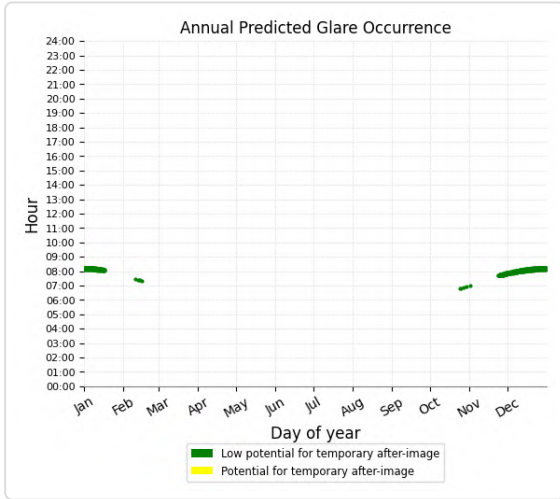
Green glare: 79 min.



# PV array 1 and OP 8

Yellow glare: none

Green glare: 460 min.

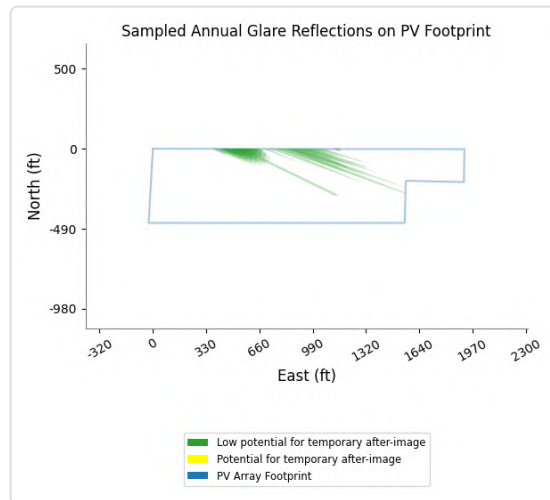
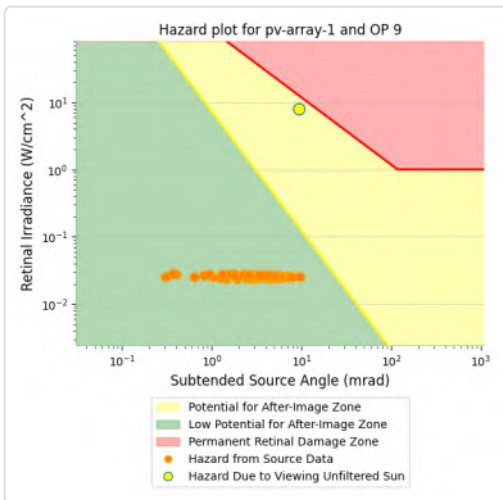
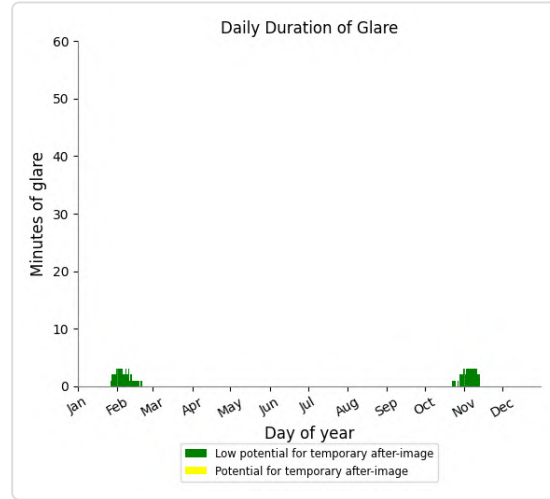
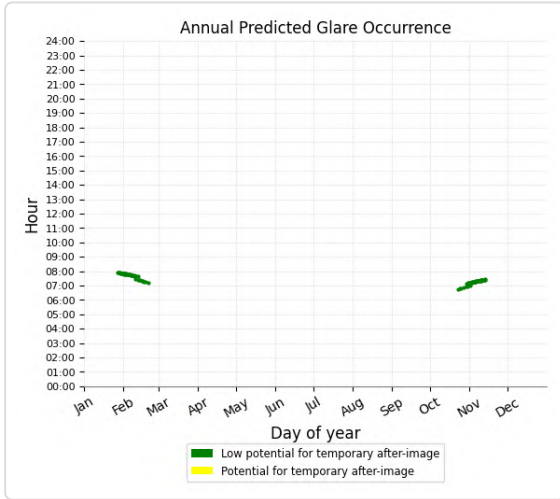




## PV array 1 and OP 9

Yellow glare: none

Green glare: 92 min.



## PV array 1 and OP 1

No glare found

## PV array 1 and OP 2

No glare found

## PV array 1 and OP 3

No glare found

## PV array 1 and OP 4

No glare found

## PV array 1 and OP 5

No glare found

## PV array 1 and OP 6

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/](http://www.forgesolar.com/help/) for assumptions and limitations not listed here.

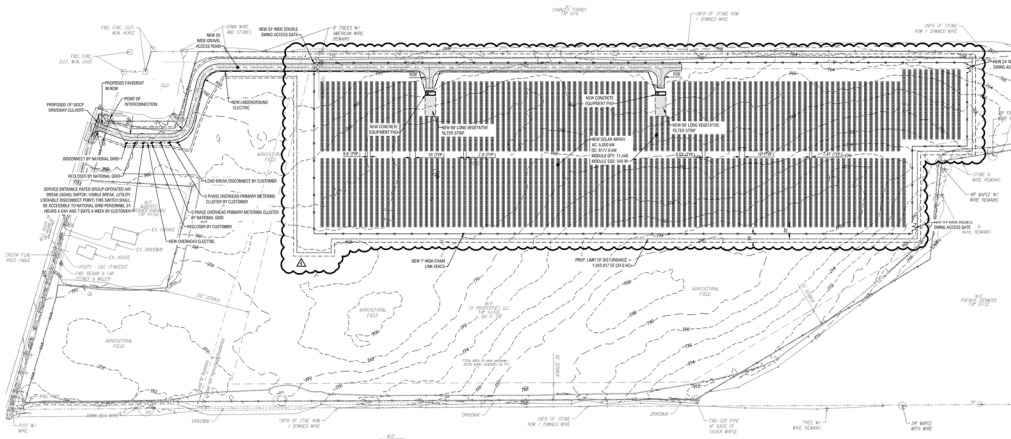
Default glare analysis parameters and observer eye characteristics (for reference only):

- 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

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# Genesee 1 (5.0 MW AC) Community Solar Project Vegetation Management Plan

7195 Oak Orchard Road, Elba, NY 14058



Prepared by Jared Pantella, PE, PLS, LaBella Associates  
Reviewed by Marc DiGuiseppe, Catalyze  
Created on June 29, 2023

# GENESEE 1 SOLAR

## VEGETATION MANAGEMENT AND MONITORING PLAN

### Overview

This Vegetation Management & Monitoring Plan (VMP) outlines NY CDG Genesee 1, LLC's plan for managing and monitoring vegetation for a five (5) year period after installation, expected to begin in the Spring of 2024.

Project description:

The project consists of the installation of a 5 megawatt (MW) alternating current (ac) photovoltaic array on approximately 24 acres, located at 7209 Oak Orchard Road in the Town of Elba, Genesee County.

The existing site consists of agricultural land, with hedgerows to the west behind existing houses, and along the north and south boundaries. There is a large wooded area to the east of the site.

The site will be constructed within the existing agricultural field and minimal, if any, clearing of existing trees will be necessary. This allows any existing habitat/nesting areas to remain and be supplemented by the new meadow and screening plantings.

For the purposes of this VMP, the site is broken down into two distinct environments:

- **Area One:** Existing plant material within the fenced area will be removed and replaced with a new "meadow" area around and under the solar panels
- **Area Two:** New plant material outside the fence used to screen the project.

### Goals and Objectives

The primary goals of this VMP are the establishment and control of both vegetation and operating procedures relative to vegetation management to maintain the safe operation of the site, provide a visual buffer to the surrounding area, and to limit and/ or control nuisance and invasive species.

An additional goal of this VMP is that the vegetation management practices are conducted in the most environmentally sound manner through an integrated vegetation management (IVM) program that will minimize the reliance upon herbicides and encourage the growth of the plant species on site. IVM involves utilizing a variety of techniques to control unwanted vegetation in the most ecologically based manner.

The primary objectives of the VMP are:

- The establishment, maintenance, and monitoring of a low growth pollinator species meadow within the fenced area of the project.

- The establishment, maintenance, and monitoring of the plant material used to provide screening for the project.
- The control of nuisance vegetation and invasive species to promote the health and growth of the installed plant material.

## **Vegetation Management**

Vegetation management activities will use the most suitable techniques to control undesirable vegetation and establish a healthy vegetation community at the project site.

Methods of vegetation Management on site include cultural, mechanical control methods, and as a last resort, chemical control.

Cultural management tools involve changing the timing, intensity or duration of a land use or management action to achieve a desired vegetation composition or structure. Targeted grazing, and reseeding or planting desirable vegetation are all forms of cultural control. These management practices can be implemented at different seasons, intensities or durations to accomplish clearly defined vegetation management goals. Cultural control is most often employed to manage invasive herbaceous weeds. Planting desirable, low growth competitive herbaceous plants that can capture soil and moisture resources, preventing weeds from obtaining these resources, and limiting their abundance is an example of cultural control, allowing sheep or other smaller herd animals to graze within an area is another.

Mechanical control is the use of a tool(s) to remove or destroy above and/or below ground plant material. There are numerous different ways to treat habitats mechanically. The most common methods include mowers, string trimmers, and hand held shears or loppers.

Chemical control involves the use of herbicides and pesticides. These interfere with and/or disrupt the biochemical or physiological processes unique to plants or organisms, and should be the last line of defense when dealing with a problem involving a plant community.

Herbicides typically decreases the growth, competitiveness, and/or seed production of unwanted plant species while providing opportunities for desired species to increase in number, size and productivity. Once weed species are removed from a site, the area must be revegetated with desired species that can competitively exclude the potential weed species.

Pesticides are used to kill, repel or control forms of plant or animal life that can cause damage to a plant.

Herbicide use will be minimized through the timing and method of applications to maximize control and protect non target plants and organisms. Herbicides are most valuable when they are one component of an integrated weed management plan that focuses on replacing of weeds with desired species, proper grazing management, and management actions that reduce the risk of new infestations.

Herbicides and pesticides should be applied by foliar treatments with a low pressure, hand held pump sprayer. All herbicides shall be applied by contractors that are licensed /certified by New York State and in accordance with label directions and precautions, as well as all applicable Federal and State laws and regulations.

The method(s) chosen will attempt to achieve a long-term, low maintenance vegetation management program through the encouragement of a stable plant environment.

### **Management - Area 1:**

Area 1 consists of approximately 24 acres within the fenced area that will be planted with a pollinator friendly seed mix.

This seed mix provides a diversity of species with a variety of flower colors and shapes that flower at different times of the year to provide pollen and nectar throughout the growing season for different pollinators.

Preparation prior to installation:

Because the area has been used for farming, the field should remain fallow to allow the residues of any herbicides used to break down prior to planting. Some herbicides residues can prevent seedling germination.

Competition from invasive or undesirable vegetation is the most limiting factor in site preparation. Prior to planting, all such vegetation within area one must be fully controlled. The best way to achieve this is by repeated tilling. This involves disc harrowing the site twice, initially and then three to four weeks later. The underlying premise of this process is that the root system of perennial species will be worn out to the point of killing the species. In addition, tillage will stimulate germination of dormant weed seed which will be killed by the second tillage. Planting should not occur until perennial species are completely killed.

*First growing season:*

- Watering- All planting to receive watering if needed during establishment · Ensure sufficient water is applied to encourage germination and maintain healthy growth; taking into account published meteorological data on rainfall for any given period, in particular in periods of drought.
- Weed Control -Remove weeds.
- Reseeding – Reseed bare/ limited coverage areas as necessary.
- Trimming/mowing - When the canopy (average height) reaches a height of 18 - 24” - trim the meadow to a height of 8”. This will reduce competition by fast-growing weeds for sunlight, water and nutrients needed by slow-growing perennial natives. Mowing shall be limited to two (2) mowings over the course of the growing season unless such frequency interferes with the operation of the project.
- Tall plants – Trim or remove any plant that reaches a height that interferes with the operation of the panels or other equipment.

*Second through fifth season:*

- Cutting - Prior to new growth, cut the meadow close to the ground, to a height of approximately 2". This will allow the soil to warm more quickly as well as stimulate the emergence and growth of native seedlings and reduce the likelihood of invasive species. Mowing shall be limited to two (2) mowings over the course of the growing season unless such frequency interferes with the operation of the project.
- Weed Control -Remove weeds.
- Reseeding – Reseed all bare spots.
- Tall plants – Trim or remove any plant that reaches a height that interferes with the operation of the panels or other equipment.

**Management - Area 2:**

Area 2 consists of trees and shrubs used to help screen the project.

The trees specified include a variety of both evergreen and deciduous trees and shrubs to ensure that they provide a diverse visual aesthetic, as well as to protect the screening from a single infestation or disease event.

*Installation/ first season:*

Trees and shrubs should be installed per accepted horticultural methods and include:

- Watering- All planting to receive watering if needed during establishment · Ensure sufficient water is applied to maintain healthy growth; taking into account published meteorological data on rainfall for any given period, in particular in periods of Spring drought (April, May & June).
- Weed Control - All planting areas shall be kept clear of weed growth. Achieve by a combination of mulching and hand-weeding/ hoeing. Ensure that the methods used will cause a minimum of damage to adjacent planted areas.
- Mulch – 3" of shredded hardwood bark mulch with a minimum diameter of four (4) feet.
- Stakes and guys – Adjust as necessary during the first year.
- Assess health/condition and make recommendations to ensure health of plants.

*Second through fifth season:*

- Remove stakes and guys.
- Continue Weed Control.
- Supplement mulch as necessary.
- Selectively prune for health.
- Assess health/condition and make recommendations to ensure health of the plants.

## **Vegetation Monitoring**

NY CDG Genesee 1, LLC will perform periodic monitoring to assess the installed plants and revegetation progress at the site. Assessments may include seed germination observations, determining percent cover, amount of growth, measuring the height and spread, and evaluating overall health of the plants. Photo documentation of the plants and site conditions will be conducted as part of the monitoring observations, and will be included in the monitoring report. The monitoring report will describe site progress to achieving success criteria, conditions, and, if necessary, make recommendations regarding remedial work and/or maintenance. The monitoring report will be submitted to the Town after the last visit of the season.

### **Monitoring Area 1:**

The Town of Elba Solar law requires that planting plans must provide native cover to at least 80% of the solar array, with no invasive or weedy species used.

To ensure that seed germination and coverage are achieved, NY CDG Genesee 1, LLC will conduct monitoring on weekly basis for the first month, and continue monitoring on a monthly basis for the first growing season. A qualified monitor will visit the site and will assess germination success, percent coverage, as well as the presence of pests or invasive species. Monitoring will document the progress of the mix, as well as indicate if there is a need for additional seed mix to be applied, or if any maintenance work needs to be performed to achieve success criteria.

For seasons two through five, monitoring will be conducted three times a year. The first observation will take place in late March/early April, prior to the grasses/ flowers being cut. The second will be around mid-May, to assess the new growth and make recommendations as necessary for plant health. The third will be sometime in September to observe how the field has survived the season, to assess if any implemented recommendations have been successful, and to make recommendations for plant health.

### **Monitoring Area 2:**

The Town of Elba Solar law requires a landscape plan that shows adequate measures to screen, through the use of existing and/or proposed vegetation, so that views of solar panels and solar energy equipment shall be minimized as reasonably practical from public roadways and adjacent properties to the extent feasible. Planted tree and shrub survivorship of less than 75% after two growing seasons or visual screening survivorship of less than 75% after five growing seasons as viewed from adjacent non-participating residences will require replacement with additional plantings at a size and species as originally specified, or equivalent, at the expense of the operator/owner.

NY CDG Genesee 1, LLC will conduct monitoring on a quarterly (April, July & October) basis for the first growing season. Monitoring will include the assessment of the condition of the mulch, the presence of



weeds, the condition of the stakes and guys, and the overall appearance/health of the plant. It will also include any recommendations to improve the health, and viability of the installed plant material. Trees and shrubs will have their height and spread measured at installation. Photographs will be taken at installation and at the last visit of the growing season.

For seasons two through five, monitoring will be conducted twice during the growing season. The first, in mid-May will be to assess if the tree/shrub has survived the winter, and to make recommendations that may improve the health of the tree/shrubs, including weeding, mulch replacement, pruning and other required maintenance. Plants will be measured and photographs will be taken. The second will be in September to assess how the tree has responded to the growing season and to make recommendations for the next growing season. Photographs will be taken and included in the report.

**Prepared For:**

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**Submitted by:**

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Rochester, NY 14614  
(585) 454-6110



Genesee 1  
Stormwater Pollution Prevention Plan

JULY 2023  
PROJECT NO. 2210066

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SECTION 7:	Soil Restoration
SECTION 8:	Record Keeping & Certifications

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FIGURE 3:	Proposed Drainage Area Map

### **APPENDICES**

APPENDIX A:	Background Information
APPENDIX B:	Geotechnical Report
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### SWPPP REFERENCES UNDER SEPARATE COVER

1. **CONTRACT DOCUMENTS** (Plans and Specifications) for Genesee 1 dated June 2023, prepared by LaBella Associates, D.P.C.

## SECTION 1: INTRODUCTION

### 1.1 Site Address, Scope, Type, and Size of Project

NY CDG Genesee 1, LLC plans to install a 5-MW AC solar project on approximately 30 acres of agricultural land. The project is located on a 55.8-acre parcel, located between 7183 and 7205 Oak Orchard Road in the town of Elba, Genesee County, NY (Tax ID 11.-1-5.12). Activities include the installation of a 5-MW ground-mounted solar energy system, new electrical equipment, and a new pervious gravel road. The energy system consists of approximately 600 freestanding tracking tables and 16,400 panels; each panel is roughly 6'8" tall by 3'2" wide. Additionally, a new small concrete pad and roughly 3,300 feet of electrical line will be installed. The maximum depth of excavation will not exceed 4 feet, however the helix screw (or H-piles) of the solar tables will be installed at a depth of approximately 8-10 feet. No tree clearing is anticipated, and only 600 sq. ft. (<0.1 acres) of new impervious surface will be created as a result of this project.

The project is not subject to the requirements of a regulated traditional land use control MS4. Refer to A-1 of Appendix A showing the project site is not within a regulated MS4 area on the NYSDEC's Stormwater Interactive Map.

Refer to Figure 1 for a Location Map.

### 1.2 Owner or Operator, and SWPPP Preparer Information

#### Owner or Operator, And SWPPP Preparer Information

<b>Owner/Operator</b>	NY CDG Genesee 1, LLC 6325 Gunpark Drive Suite C-2 Boulder, CO 80301	Contact	Marc DiGuiseppe
		Phone	914-246-0592 Ext. 367
		Email	Marc.diguisepe@catalyze.com
<b>SWPPP Preparer</b>	LaBella Associates 300 State Street Rochester, NY 14614	Contact	Jared Pantella, PE, PLS
		Phone	570-220-1845
		Email	jpantella@labellapc.com
<b>Qualified Inspector</b>	TBD	Contact	TBD
		Phone	TBD
		Email	TBD

## SECTION 2: EXISTING CONDITIONS

### 2.1 Existing Site

The existing site is a 55.8-acre former agricultural lot located at 7209 Oak Orchard Road in Elba, NY. The parcel is bound by agricultural lots to the north and south, and woods to the east. To the west, the parcel partially surrounds two residential lots and abuts Oak Orchard Road.

Northwest of the parcel Oak Orchard Creek runs approximately 50 ft. from the corner of the parcel after crossing under Oak Orchard Road. Survey indicates there is one existing utility pole within the road right-of-way (ROW) on-site.

Refer to Figure 1 for a Location Map. Refer to the Existing Conditions and Demolition Plan, sheet C101, for a topographic survey of the site.

### 2.2 Drainage Patterns

Most of the parcel drains to the north to Oak Orchard Creek after it crosses the parcel boundary, however about 8 acres in the southeastern corner of the parcel discharges off the property to the southeast. This water eventually flows to Oak Orchard Creek as well, per off-site topography. Oak Orchard Creek is part of a larger watershed, which eventually discharges to Lake Ontario.

Refer to Figure 2 for the Existing Drainage Area Map.

The receiving water is classified as a 303d impaired waterbody. Refer to A-1 in Appendix A for the NYSDEC's Stormwater Interactive Map showing nearby impaired waters.

Catchment CM-E1 consists of the majority of the site (41.6 acres), on the western side of the parcel. This grassy portion of the site drains north to the parcel boundary. Catchment CM-E2 consists of the northeastern 6.5 acres of the site. This area is also grassy and drains north to the parcel boundary. Catchment CM-E3 consists of the southeastern 7.7 acres of the site, which discharges to the southeast. Discharge from all three catchments eventually flows to Oak Orchard Creek.

**Table 2.2.1: Existing Runoff Rates**

Drainage Area	10-Year Storm Event (cfs)	100-Year Storm Event (cfs)
CM-E1	26.41	69.40
CM-E2	8.08	21.11
CM-E3	0.96	5.96
<b>TOTAL</b>	<b>35.45</b>	<b>96.47</b>

## 2.3 Soils

Refer to A-3 in Appendix A for a Soils Map generated from the USDA's Web Soil Survey. Soils within the drainage area are as follows:

**Table 2.3.1: Hydrologic Soil Group Classifications**

Symbol	Map Unit Name	Percent Of Area	Hydrologic Soil Group
ApA	Appleton silt loam, 0 to 3 percent slopes	12.5	B/D
HaA	Halsey silt loam, 0 to 4 percent slopes	<0.0	B/D
LmB	Lima silt loam, 3 to 8 percent slopes	57.4	B/D
LoA	Lyons soils, 0 to 3 percent slopes	0.7	C/D
OnB	Ontario loam, 3 to 8 percent slopes	26.1	B
OnC	Ontario loam, 8 to 15 percent slopes	0.7	B
OvB	Ovid silt loam, 3 to 8 percent slopes	2.6	C/D

For the purposes of this report, HSG X/D soils were modeled as HSG D soils to reflect the undrained condition. The drainage area is composed of approximately 26.8% HSG B soils and 73.2% HSG D soils.

## 2.4 Environmental Resources

The NYSDEC's Environmental Resource Mapper indicates the proximity of wetlands to the east of the parcel boundary and Oak Orchard Creek, a 303D waterbody, to the northwest. No rare plants or animals are indicated within the vicinity of the project. Refer to A-4 of Appendix A for the Environmental Resource map within the project area.

## 2.5 Wetlands

The U.S. Fish and Wildlife Service's National Wetlands Inventory indicates no federally-regulation wetlands within the vicinity of the project. Refer to A-5 of Appendix A for the National Wetland Inventory map within the project area.

LaBella has completed a Wetland and Stream Delineation. No wetlands were found on-site. The report detailing the delineation results will be included in the final report.

## 2.6 Flood Plain

FEMA's Flood Insurance Rate Map (FIRM) number 361120B dated 10/05/1984 indicates that the project area is within Zone C, outside of the 500-year flood plain. Refer to A-6 of Appendix A for the FIRM within the project area.

## 2.7 New York State Office of Parks, Recreation, and Historic Preservation (SHPO)

This project was submitted to the Office of Parks, Recreation, and Historic Preservation (OPRHP) for review. The submission is currently ongoing and final documentation will be included in the final SWPPP.

## 2.8 Geotechnical Investigation

A Geotechnical Report was prepared by LaBella Associates, D.P.C. on January 19, 2021. The Report can be seen in Appendix B

# SECTION 3: PLANNING

## 3.1 Preservation of Undisturbed Areas

The existing, pervious cover under the solar arrays shall be restored to predeveloped conditions.

## 3.2 Preservation of Buffers

Vegetative buffers and heavily wooded areas of this property have been avoided. Construction will occur in areas with minimal vegetation.

## 3.3 Reduction of Clearing and Grading

Development will occur on existing grades with little to no grading.

## 3.4 Locating Development in Less Sensitive Areas

A solar array is a good fit for this location due to the minimal impacts on the terrain as solar panels can be installed on the existing contours as is.

## 3.5 Open Space Design

Solar arrays have been spaced the minimum width apart per the Maryland Department of the Environment's Solar Design Guidance located in Appendix F.

### 3.6 Soil Restoration

All compacted soils located in lawn areas will be tilled in order to restore the original properties of the soil prior to seeding.

### 3.7 Roadway Reduction

The proposed roadway will be a pervious geoweb access road with washed stone, extending from Oak Orchard Road approximately 1200 ft. east to the array.

### 3.8 Sidewalk Reduction

There are no sidewalks proposed as a part of this project.

### 3.9 Driveway Reduction

There are no driveways proposed as a part of this project.

### 3.10 Cul-de-sac Reduction

There are no cul-de-sacs proposed as a part of this project.

### 3.11 Building Footprint Reduction

There are no new buildings or building additions proposed as a part of this project.

### 3.12 Parking Reduction

There are no parking lots proposed as a part of this project.

## SECTION 4: PROPOSED CONDITIONS

### 4.1 Proposed Development

The Owner plans to install a 5.0-MW AC solar farm on a 55.8-acre parcel of vacant former agricultural field located at 7209 Oak Orchard Road in the Town of Elba, New York. The 24.3-acre project area will consist of roughly 600 freestanding tracking tables to be installed within a fallow field. Anchored into the ground via H-piles or ground screws, each row of solar tables will be about 9 ft. in height, 13 ft. in width, and of variable length. No tree clearing is anticipated, and only 600 sq. ft. (<0.1 acres) of new impervious surface will be created as a result of this project. For utility connection, approximately 3,300 ft. of underground electric will be installed, extending from the existing overhead electric within the road right-of-way.

Refer to the Site Plan, sheet C201, for a map of the proposed features of the project.



## 4.2 Drainage Patterns

This project falls under Scenario 1 from the NYSDEC's Solar Memorandum, therefore the proposed drainage pattern will remain the same as in existing conditions resulting in no change in hydrology from pre to post development. Refer to Figures 1 and 2 from the Maryland Department of the Environment's Solar Design Guidance in Appendix F, which has been incorporated by the NYSDEC as additional guidance.

Refer to Figure 3 for the Proposed Drainage Area Map. Refer to Appendix F for the NYSDEC's Solar Memorandum.

Proposed runoff rates were modeled utilizing TR-55 with HydroCAD software, version 10.00-19. Refer to Appendix C for the model output. The following tables summarize the results:

**Table 4.2.1: Proposed Runoff Rates**

Drainage Area	10-Year Storm Event (cfs)	100-Year Storm Event (cfs)
CM-P1	26.41	69.40
CM-P2	8.08	21.11
CM-P3	0.96	5.96
<b>TOTAL</b>	<b>35.45</b>	<b>96.47</b>

## 4.3 Water Quality Volume

The proposed impervious areas are negligible (under 0.1 acres) and there is no change in hydrology between existing and proposed conditions, therefore water quality volume requirements do not pertain to this project.

## 4.4 Runoff Reduction

The proposed impervious areas are negligible (under 0.1 acres), therefore runoff reduction requirements do not pertain to this project.

# SECTION 5: STORMWATER MANAGEMENT

No post-construction management is required as the increase in impervious area is negligible. As discussed in Section 4.2 Drainage Patterns, this project falls under Scenario 1 in the NYSDEC's Solar Memorandum, and no change in hydrology occurs between the pre- and post-development.

## SECTION 6: EROSION CONTROL

### 6.1 Temporary Erosion Control Practices

Temporary erosion control practices will be installed prior to construction to limit silt migration to ditches, rivers, wetlands, permanent drainage structures, storm sewer systems and/or adjacent properties. Erosion and sediment control measures to be employed by the project have been prepared in accordance with the current version of the *New York Standards and Specifications for Erosion and Sediment Control*. The following practices are used for this project:

#### SUBGRADE PROTECTION:

- Use generally accepted construction practices to minimize areas of subgrade exposed at one time and protect exposed subgrade surfaces from erosion.
- Divert upgradient storm water where practical.
- Do not disturb the finished subgrade by traffic or other operations to prevent rutting.
- In asphalt areas place overlaying granular materials as soon as possible to minimize length of time prepared subgrade is exposed.
- In grassed areas, provide temporary seeding.
- Use proper dewatering operations.

#### AT DISTURBED CROSS SLOPES AND DOWN GRADIENT SITE PERIMETER:

- Silt fence will be installed at various locations as shown on the plans within the contract work limits.
- Silt fence will be set, relocated and reset to accommodate the changing grades and slopes during site development.
- Contractor to inspect silt fence daily. Remove accumulated silt to maintain flow through silt fence. Replace silt fence if bulges occur

Temporary measures shall be maintained until permanent stabilization is established. Size and location of all erosion control practices can be seen on the Grading and Erosion Control Plan, sheet C401. Construction details of the temporary erosion control practices can be seen on plan sheet C501.

### 6.2 Permanent Erosion Control Measures

Permanent erosion and sediment control measures will be employed by the project to minimize erosion and scour after construction is complete. All practices have been prepared in accordance with the current version of the *New York Standards and Specifications for Erosion and Sediment Control*. The following practices are used for this project:

#### PERMANENT SEEDING WITH MULCHING

- Establish a uniform erosion-resistant perennial vegetative cover where the surface soil is capable of resisting erosion during runoff events.
- Seed as soon as ground surfaces are brought to final grade with topsoil unless unfavorable weather conditions exist or seeding would occur outside recommended dates for proper germination. Under these conditions, temporary

seeding would be provided until such time as permanent seeding could commence.

- All areas disturbed during construction and not shown to receive other surface treatments (including, but not limited to, sod) will be restored with topsoil and seeded to provide stabilized vegetative cover.

### 6.3 Staging

Refer to the Site Plan, C201, for location of concrete washout areas, waste areas, equipment storage areas, and staging.

### 6.4 Construction Sequence

The construction schedule indicates work will begin in May 2022 and continue as necessary through October 2022.

The Contractor shall install erosion control measures in the following sequence unless otherwise authorized by the Engineer or Qualified Inspector:

- Submit erosion control measures and sequencing for review and approval by the Qualified Inspector.
- Install stabilized construction entrance.
- Install construction area and staging area fencing.
- Install perimeter sediment controls.
- Install additional erosion and sediment controls according to plan. Inspect, clean, and maintain erosion control measures as necessary and as ordered by the Qualified Inspector. Sweep public or private roadways, drives and parking areas as necessary to maintain clean from debris. Relocate and reset erosion control measures and construction fencing as required to complete work. All appropriate erosion and sediment control measures shall be in place and functional before commencement of construction of any segment of the project that requires such measures.
- Stabilize denuded areas and stockpiles within 7 days of last construction activity in each area (14 days if less than 5 acres disturbed).
- Install underground electric. Excess materials not backfilled in utility trenches shall be removed from the site or spoiled in areas approved by the Owner. Erosion control measures are not required around soils (earthen materials) excavated, side cast and backfilled into the trench within the same day.
- Install concrete washout area. No wet or fresh concrete, washings from concrete trucks, mixers or other devices, or concrete leachate shall be allowed to escape into any wetland or waters.
- Pour concrete pads as shown on the Contract Documents.
- Install permanent seeding, fertilizer, and mulch.
- Complete pervious access road installation once all areas subject to runoff onto the pervious access road have achieved final stabilization.
- Capture, remove, and dispose of accumulated silt or sediment from silt fence, check dams, inlet protection, and sediment basins.
- Clean the site of all incidental construction materials that are not incorporated into the work, and properly dispose offsite.

- Where seed does not germinate, or where wash out, erosion, rutting or other damage occurs, repair damage, re-seed and re-fertilize as necessary to achieve 80% germination over 100% of the site.
- Remove all temporary erosion control practices upon approval of final stabilization by the Qualified Inspector.

No more than 5 acres of soil shall be disturbed at one time without prior written approval from the NYSDEC Regional Staff. It is expected that more than 5 acres will be disturbed at any one time during the course of the project.

A 5-acre waiver has been submitted to the NYSDEC Regional Office requesting disturbance of 24.3 acres at once for this project. The waiver will be added to Appendix F upon receipt.

## 6.5 Inspection and Maintenance

A 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 at all times.

The site ultimately discharges to a 303d impaired waterbody. Therefore, 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.

In addition to the Trained Contractor and Qualified Inspector inspections, the Town of Elba and the NYSDEC may conduct periodic inspections throughout construction.

The Trained Contractor, Qualified Inspector, the Town of Elba and the NYSDEC shall notify the Contractor in writing of any corrective actions to be made. The Contractor or Subcontractor shall begin implementing the corrective actions within one business day of notification and shall complete the corrective actions in a reasonable timeframe.

## 6.6 Control of Construction Debris, Chemicals, and Litter

Management practices should be implemented by the Contractor(s) and subcontractors to reduce the risk of contaminated storm runoff. The Contractor should provide training regarding waste management practices and procedures to all on-site employees and subcontractors.

The Contractor should arrange for appropriate waste management services from a licensed solid waste management company. Trash disposal, proper material handling, and daily cleanup at the site will reduce the potential for contaminated stormwater runoff. All recyclable waste (cardboard, wood etc.) shall be collected and recycled. No construction waste materials will be buried on site.

Toilet facilities should be well-maintained with regular inspections, service, and disposal. Facilities should be located away from storm drain inlets and waterways.

The Contractor should establish material storage and staging areas with cover and containment as necessary. See contract documents for locations of material stockpile areas. Building materials such as paint, solvents, pesticides, fuels, and oils should be stored indoors or under cover when possible. Regular inspection of the storage containers is the responsibility of the Contractor.

Paint and concrete washout areas should be located appropriately, at least 50 yards from storm drains and watercourses, where possible. Washout areas should be inspected daily during use to detect leaks or tears. Materials from the washout area must be disposed of properly.

Equipment/vehicle fueling and maintenance should be performed off-site. For grading and excavating equipment, an on-site fueling and maintenance area should be clearly designated. The area should be equipped with a spill kit and a person knowledgeable in the use of the spill kit. Inspect vehicles and equipment daily for leaks, damage, and service problems. If problems are noted, remove the equipment from service and conduct significant maintenance/repair off-site.

Petroleum products will be stored in tightly sealed containers that are clearly labeled. Any asphalt substances used onsite will be applied according to the manufacturer's recommendations.

Equipment/vehicle washing and other allowable non-stormwater discharges should be controlled; if on-site washing is necessary, use a designated area with appropriate containment. Eliminate discharge to the storm drain or waterways by infiltrating wash water or routing to the sanitary sewer.

Fertilizers used will be applied only in the minimum amounts recommended by the manufacturer and as described in part IV.A. Once applied, fertilizer will be worked into the soil to limit exposure to stormwater. Storage will be in a covered shed. The contents of any partially used bags of fertilizer will be transferred to a sealable plastic bin to avoid spills.

All containers will be tightly sealed and stored when not required for use. Excess paint will not be discharged to the storm sewer system but will be properly disposed according to manufacturers' instructions or state and local regulations.

All hazardous waste materials will be disposed of in the manner specified by local or State regulation or by the manufacturer.

The Contractor shall provide a site-specific spill prevention and response plan which addresses the following:

- Reducing chance of spills
- Stopping the source of spills
- Containing and cleaning up spills
- Disposing of materials contaminated by spills
- Training personnel responsible for spill prevention/response
- Material handling procedures
- Material storage requirements

**Table 6.6.1 - Potential Construction Site Pollutants**

Material/Chemical	Physical Description	Stormwater Pollutants	Location*
Pesticides (insecticides, fungicides, herbicides, rodenticides)	Various colored to colorless liquid, powder, pellets, or grains	Chlorinated hydrocarbons, organophosphates, carbamates, arsenic	Herbicides used for noxious weed control
Fertilizer	Liquid or solid grains	Nitrogen, phosphorous	Newly seeded areas
Cleaning solvents	Colorless, blue, or yellow-green liquid	Perchloroethylene, methylene chloride, trichloroethylene, petroleum distillates	No equipment cleaning allowed in project limits
Asphalt	Black solid	Oil, petroleum distillates	Streets and roofing
Concrete	White solid/grey liquid	Limestone, sand, pH, chromium	Curb and gutter, building construction
Curing compounds	Creamy white liquid	Naphtha	Curb and gutter
Hydraulic oil/fluids	Brown oily petroleum hydrocarbon	Mineral oil	Leaks or broken hoses from equipment
Gasoline	Colorless, pale brown or pink petroleum hydrocarbon	Benzene, ethyl benzene, toluene, xylene, MTBE	Secondary containment / staging area
Diesel Fuel	Clear, blue-green to yellow liquid	Petroleum distillate, oil & grease, naphthalene, xylenes	Secondary containment / staging area
Kerosene	Pale yellow liquid petroleum hydrocarbon	Coal oil, petroleum distillates	Secondary containment / staging area

Antifreeze/coolant	Clear green/yellow liquid	Ethylene glycol, propylene glycol, heavy metals (copper, lead, zinc)	Leaks or broken hoses from equipment
Sanitary toilets	Various colored liquid	Bacteria, parasites, and viruses	Staging area
Construction materials			
Granular fill	Various colored solids	Sediment	Stockpile / fill areas
Subbase course	Gray/brown solid	Sediment, dust	Stockpile
Topsoil	Brown solid	Sediment	Stockpile
Mulch	Various colored solid	Sediment, debris	Staging area
Seed	Brown/yellow solid	Nutrients, debris	Staging area
HDPE Storm Pipe	Black solid		Staging area
SDR-35, SDR-21 PVC Pipe	Various colored solid		Staging area
Metals Frames and Grates	Gray solid		Staging area
Joint Sealant	Light gray viscous solid	Polyurethane	Staging area

\*(Area where material/chemical is used on-site)

The following are the management practices that will be used to reduce the risk of spills or other accidental exposure of materials and substances listed above to stormwater runoff:

- o Products will be kept in original containers unless they are not resealable.
- o Original labels and material safety data sheets will be retained; they contain important product information.
- o An effort will be made to store only enough product required to do the job.
- o All materials stored onsite will be stored in a neat, orderly manner in their appropriate containers and, if possible, under a roof or other enclosure and/or on blacktop.
- o Products will be kept in their original containers with the original manufacturer's label.
- o Substances will not be mixed with one another unless recommended by the manufacturer.
- o Whenever possible, all of a product will be used up before disposing of the container.
- o Manufacturer's recommendations for proper use and disposal will be followed.
- o The site superintendent will inspect daily to ensure the proper use and disposal of materials onsite.

- Manufacturers' recommended methods for spill cleanup will be clearly posted and site personnel will be made aware of the procedures and the location of the information and cleanup supplies.
- Materials and equipment necessary for spill cleanup will be kept in the material storage area onsite. Equipment and materials will include but not be limited to brooms, dustpans, mops, rags, gloves, goggles, kitty litter, sand, sawdust, and plastic and metal trash containers specifically for this purpose.
- All spills will be cleaned up immediately after discovery.
- The spill area will be kept well ventilated and personnel will wear appropriate protective clothing to prevent injury from contact with a hazardous substance.
- Spills, of any size, of toxic or hazardous material will be reported to the appropriate State or local government agency.
- The spill prevention plan will be adjusted to include measures to prevent this type of spill from recurring and how to clean up the spill if there is another one. A description of the spill, what caused it, and the cleanup measures will also be included.

## 6.7 Non-stormwater Discharges

There are no anticipated non-stormwater discharges associated with this project that are not authorized by the SPDES General Permit, Part I.C.3, which includes:

1. Waters used to wash vehicles or equipment, *provided no detergents or chemical additive are used;*
2. Water used to control dust, *provided no chemical additives are used;*
3. Waters, *with no detergents or chemical additives*, used to wash pavements where spills or leaks of toxic or hazardous materials have not occurred (unless all spilled material has been removed), and where detergents are not used.
4. *Uncontaminated groundwater foundation drains, provided there is no chemical contamination, floating substances, residual oil, solids to cause deposition in receiving waters, or turbidity to cause a visual contrast to receiving water conditions.*

Waters from these sources shall also be directed through erosion control measures prior to discharge to any waterbody or ditches.

## SECTION 7: SOIL RESTORATION

According to Section 5 of the NYS Stormwater Design Manual, soil restoration practices must be applied across the site in areas of soil disturbance. Since no grading is being proposed for the solar arrays, soil restoration should be applied where staging areas have been set up. This is necessary to reclaim the original properties and porosity of the soil before construction. The benefits of soil restoration include but are not limited to:

- Less stormwater runoff
- Increased porosity on redevelopment sites where impervious cover is converted to pervious
- Achieves performance standards on runoff reduction practices
- Healthier, aesthetically pleasing landscapes



- Enhances direct groundwater recharge
- Promotes successful long term revegetation by restoring soil organic matter, permeability, drainage and water holding capacity for healthy root system development of trees, shrubs and deep-rooted ground covers, minimizing lawn chemical requirements, plant drowning during wet periods, and burnout during dry periods

Table 5.3 on page 5-22 of the NYS Stormwater Design Manual has been included below that highlights these requirements and provides guidance on when to implement soil restoration techniques. Also included is the NYS Stormwater Design Manual section on Practice implementation, Maintenance and Inspection.

Table 5.3 Soil Restoration Requirements			
Type of Soil Disturbance	Soil Restoration Requirement		Comments/Examples
No soil disturbance	Restoration not permitted		Preservation of Natural Features
Minimal soil disturbance	Restoration not required		Clearing and grubbing
Areas where topsoil is stripped only - no change in grade	HSG A & B	HSG C & D	Protect area from any ongoing construction activities.
	apply 6 inches of topsoil	Aerate* 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 (especially in a zone 5-25 feet around buildings but not within a 5 foot perimeter around foundation walls)	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 practice from any ongoing construction activities construct a single phase operation fence area
Redevelopment projects	Soil Restoration is required on redevelopment projects in areas where existing impervious area will be converted to pervious area.		

\*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”.

Figure 5. 16 Soil aerator implement



Figure 5. 17 Soil aerator implement



### 7.1 Soil Restoration Practice Implementation

During periods of relatively low to moderate subsoil moisture, the disturbed subsoils are returned to rough grade and the following Soil Restoration steps applied:

1. Apply 3 inches of compost over subsoil.
2. Till compost into subsoil to a depth of at least 12 inches using a cat-mounted ripper, tractor mounted disc, or tiller, mixing, and circulating air and compost into subsoils.
3. Rock-pick until uplifted stone/rock materials of 1/2 inches and larger size are cleaned off site.
4. Apply mechanically screened topsoil to a depth of 6 inches.
5. Vegetate as required by approved plan

Figures 5.16 and 5.17 above show two attachments used for soil decompaction. Tilling (step 2 above) should not be performed within the drip line of any existing trees or over utility installations that are within 24 inches of the surface.

### 7.2 Soil Restoration Inspection

At the end of the project an inspector should be able to push a 3/8" metal bar 12 inches into the soil just with body weight.

### 7.3 Compost Specifications

Compost shall be aged, from plant derived materials, free of viable weed seeds, have no visible free water or dust produced when handling, pass through a half inch screen and have a pH suitable to grow desired plants.

### 7.4 Soil Restoration Maintenance

Contractor to provide a site maintenance plan prior to construction for review. Maintenance plan should identify where Soil Restoration is applied, where newly restored areas are/cannot be cleared, and who the responsible parties are to ensure that routine vegetation improvements are made (i.e., thinning, invasive plant removal,

etc.). Soil compost amendments within a filter strip or grass channel should be located in public right of way, or within a dedicated stormwater or drainage easement.

## 7.5 First Year Maintenance Operations

- Initial inspections for the first six months (once after each storm greater than half-inch)
- Reseeding to repair bare or eroding areas to assure grass stabilization
- Water once every three days for first month, and then provide a half inch of water per week during first year. Irrigation plan may be adjusted according to the rain event.
- Fertilization may be needed in the fall after the first growing season to increase plant vigor

## 7.6 Ongoing Maintenance

Two points help ensure lasting results of de-compaction:

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

# SECTION 8: RECORD KEEPING & CERTIFICATIONS

## 8.1 Notice of Intent (NOI)

The Notice of Intent (NOI) was prepared electronically on the NYSDEC website. A copy of the NOI is included in Appendix F of this report.

## 8.2 NOI Acknowledgement Letter

The NOI Acknowledgement Letter will be added to Appendix F upon receipt. Construction may not begin until the NOI Acknowledgement Letter has been received.

## 8.3 MS4 SWPPP Acceptance Form

The project is not subject to the requirements of a regulated traditional land use control MS4. The MS4 SWPPP Acceptance Form is not required.

## 8.4 Certifications

Contractor certifications can be found in Appendix H of this report.

It shall be a violation of the SPDES General Permit and the ECL for any discharge authorized by the SPDES General Permit to either cause or contributes to a violation of the 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. (SPDES General Permit, Part I.B.)

The Owner or Operator must comply with all conditions of the SPDES General Permit. All contractors and subcontractors associated with the project must comply with the terms of the SWPPP. Any permit noncompliance constitutes a violation of the CWA and the ECL and is grounds for an enforcement action against the Owner or Operator or the contractor/subcontractor; permit revocation or modification; or denial of a permit renewal application. Upon a finding of significant non-compliance with the SPDES General Permit or the SWPPP, the NYSDEC may order an immediate stop to all construction activity at the site until the non-compliance is remedied. (SPDES General Permit, Part VII.A.)

The Owner and its contractors and subcontractors shall take all reasonable steps to minimize or prevent any discharge in violation of the SPDES General Permit which has a reasonable likelihood of adversely affecting human health or the environment. (SPDES General Permit, Part VII.E.)

There are substantial criminal, civil, and administrative penalties associated with violating the provisions of the SPDES General Permit. Fines of up to \$37,500 per day for each violation and imprisonment for up to fifteen (15) years may be assessed depending on the nature and degree of the violation (SPDES General Permit, Part VII.C.).

## 8.5 Revisions to the SWPPP

The SWPPP is a "living" document and may be updated as the construction process proceeds. Any updates to the SWPPP should be noted and attached to this SWPPP in Appendix G. If any of the following substantive revisions to the SWPPP occur during construction, the NYSDEC must be made aware of the changes:

- a. the scope of the project changes significantly, or
- b. there is an increase in the disturbance area or impervious area

## 8.6 Corrective Action Log

The Corrective Action Log is located in Appendix G.

## 8.7 Notice of Termination

A blank Notice of Termination (NOT) is included in Appendix F. A project is eligible to terminate permit coverage by filing the Notice of Termination when one or more of the following criteria have been met:

1. The project is complete. The owner or operator may terminate coverage when 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.
2. The project has planned shutdown with partial project completion. The owner operator may terminate coverage when 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;

3. A new owner or operator has obtained coverage in conformance with the general permit.

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.



## SWPPP FIGURES

- Figure 1 – Location Map**
- Figure 2 – Existing Drainage Area Map**
- Figure 3 – Proposed Drainage Area Map**

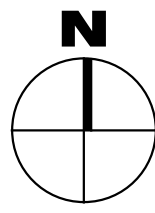





1  
FIGURE 1

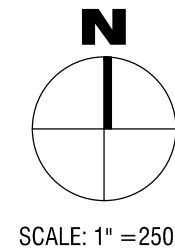
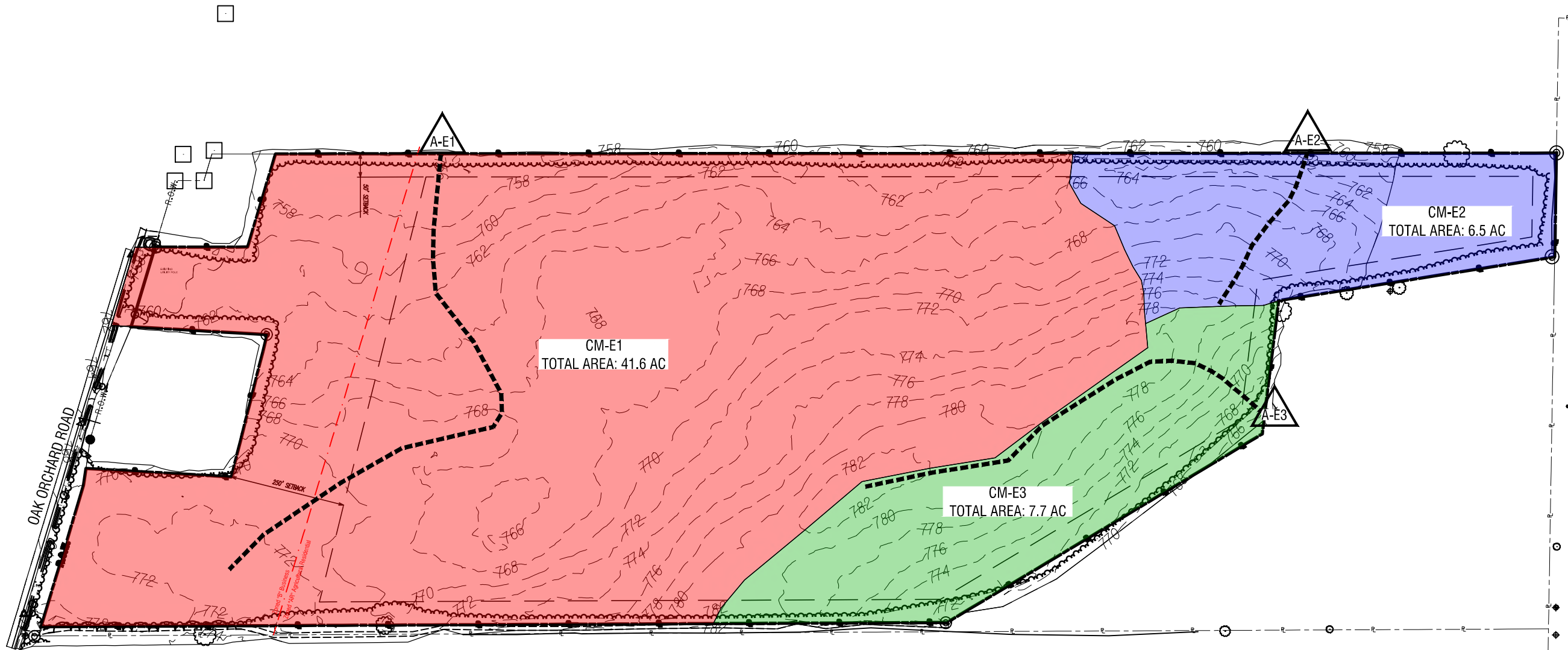
# PROJECT LOCATION MAP

SCALE: N.T.S.



 300 STATE STREET ROCHESTER, NY 14614 P: (585) 454-6110 F: (585) 454-3066 www.labellapc.com	DRAWING NAME: <b>PROJECT LOCATION MAP</b>	DRAWN BY: <b>MSB</b>	DATE: <b>2/24/2021</b>	PROJECT NO: <b>2210066</b>
	PROJECT NAME: <b>GENESEE 1</b> OAK ORCHARD ROAD ELBA, NY 14058	ISSUED FOR: <b>REPORT</b>	SHEET NO. <b>FIGURE 1</b>	

DATE/TIME: Tuesday, October 2, 2018 AT 8:53 PM  
 SHEET SIZE: ANSI full bleed B (17.00 x 11.00 inches)  
 PLOT STYLE: LBA - Civil Default.sbt  
 FILENAME: I:\BW Solar\2210066 - Genesee 1 Solar Permitting\Reports\SWPPP - Solar\Figures\02 - Existing Drainage Area Map\Genesee Drainage Maps.dwg



**LEGEND**

- ANALYSIS POINT
- ANALYSIS POINT LOCATION
- Tc PATH
- CM-X** CATCHMENT AREA



PROJECT  
**GENESEE 1**  
 OAK ORCHARD ROAD  
 ELBA, NEW YORK

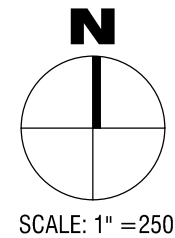
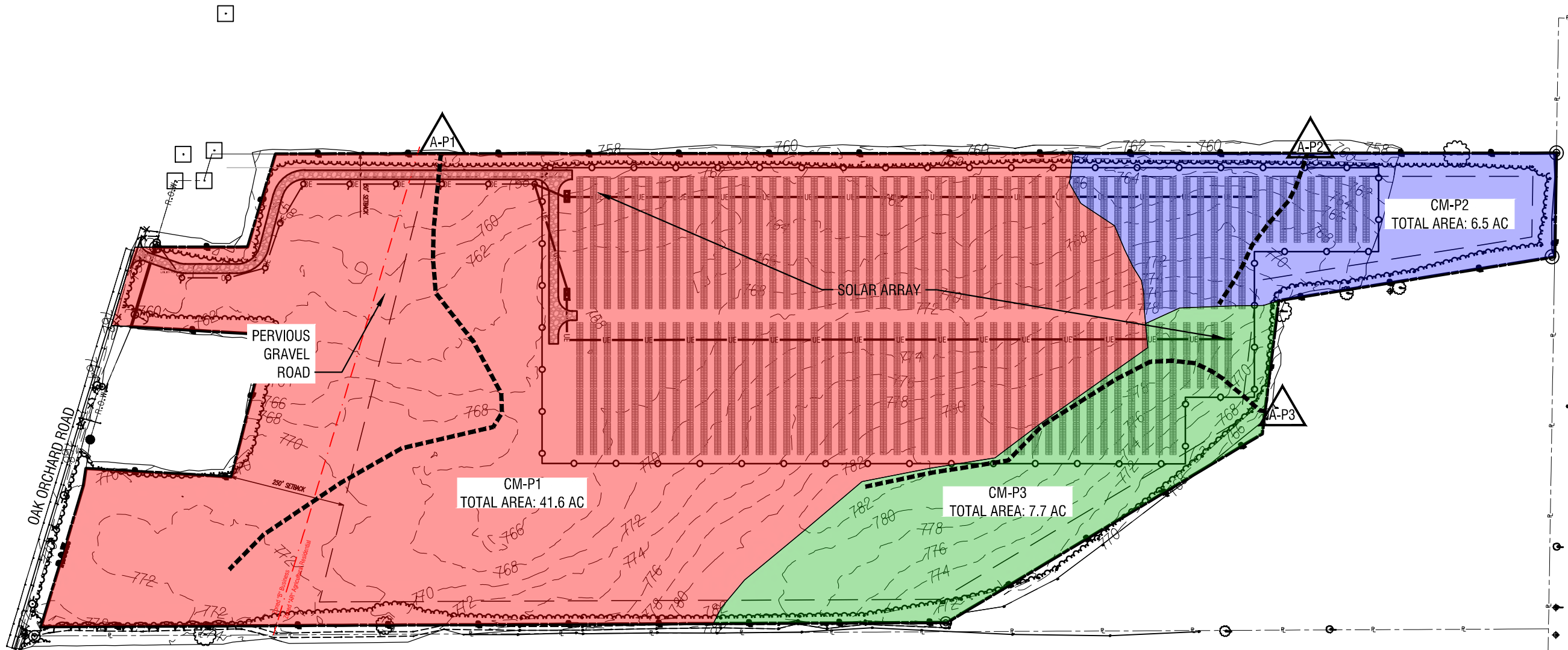
**EXISTING CONDITIONS DRAINAGE MAP**

BY: MSB    DATE: MAR 2021

**FIG. 2**



DATE/TIME: Tuesday, October 2, 2018 AT 8:53 PM  
 SHEET SIZE: ANSI full bleed B (17.00 x 11.00 inches)  
 PLOT STYLE: LBA - Civil Default.sbt  
 FILENAME: I:\BW Solar\2210066 - Genesee 1 Solar Permitting\Reports\SWPPP - Solar\Figures\02 - Existing Drainage Area Map\Genesee Drainage Maps.dwg



**LEGEND**

- ANALYSIS POINT
- ANALYSIS POINT LOCATION
- Tc PATH
- CM-X** CATCHMENT AREA



PROJECT  
**GENESEE 1**  
 OAK ORCHARD ROAD  
 ELBA, NEW YORK

**PROPOSED CONDITIONS DRAINAGE MAP**

BY: MSB    DATE: MAR 2021

**FIG. 3**

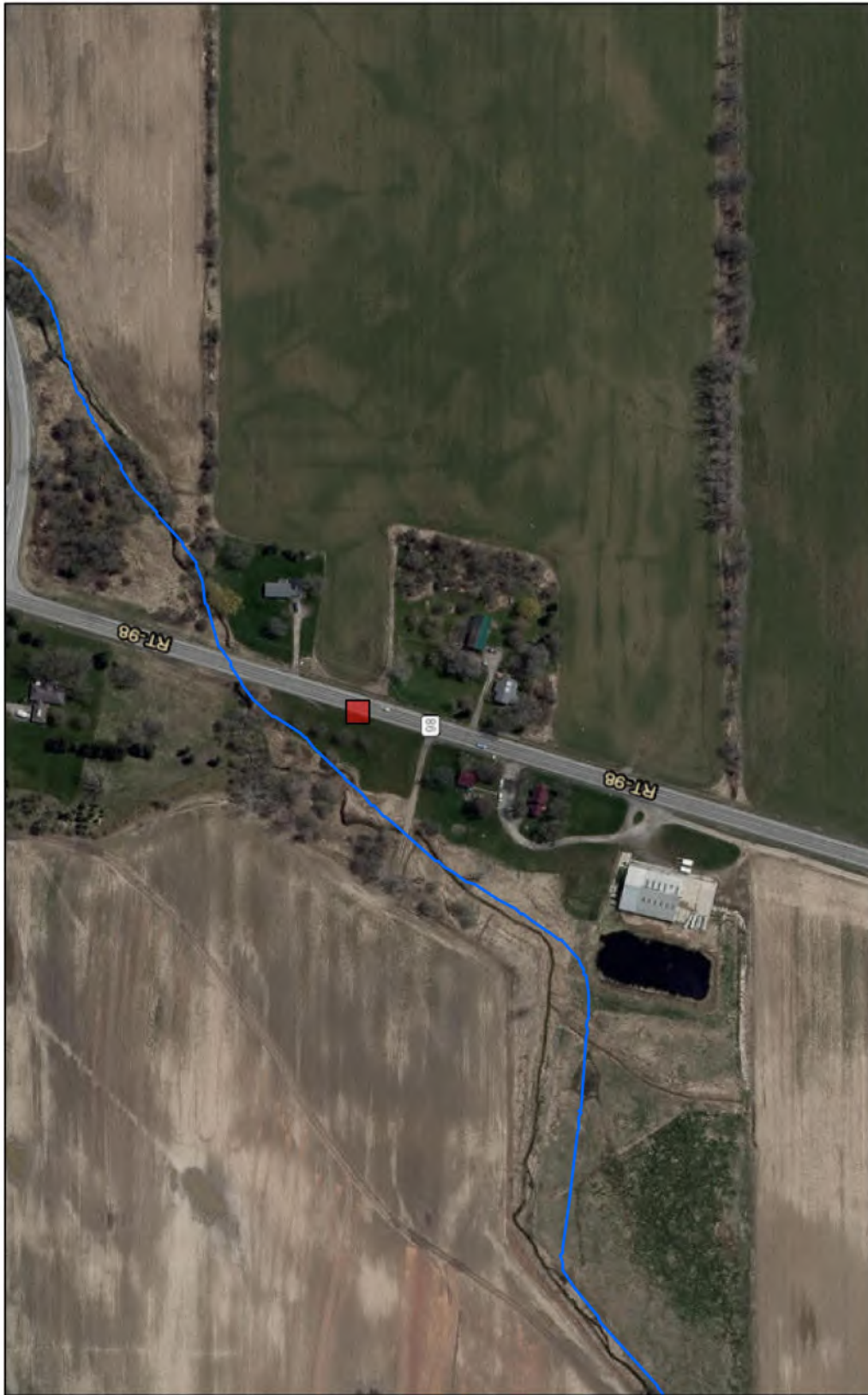


## APPENDIX A: BACKGROUND INFORMATION

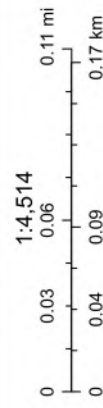
- A-1 NYSDEC Stormwater Interactive Map**
- A-2 Not Used**
- A-3 Soil Map**
- A-4 Environmental Resource Mapper**
- A-5 Federal Wetlands**
- A-6 FEMA Flood Insurance Rate Map (FIRM)**
- A-7 CRIS Map**
- A-7.1 SHPO No Impact Letter (*in progress*)**



# Genesee 1



February 24, 2021



Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, NYS ITS GIS  
 Author: LaBella Associates  
 Not a legal document



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 Architecture  
 Environmental  
 Planning

DRAWING NAME:  
**NYSDEC'S STORMWATER INTERACTIVE MAP**

PROJECT NAME:  
**GENESEE 1**  
 OAK ORCHARD ROAD  
 ELBA, NY 14058

DRAWN BY:  
 MSB

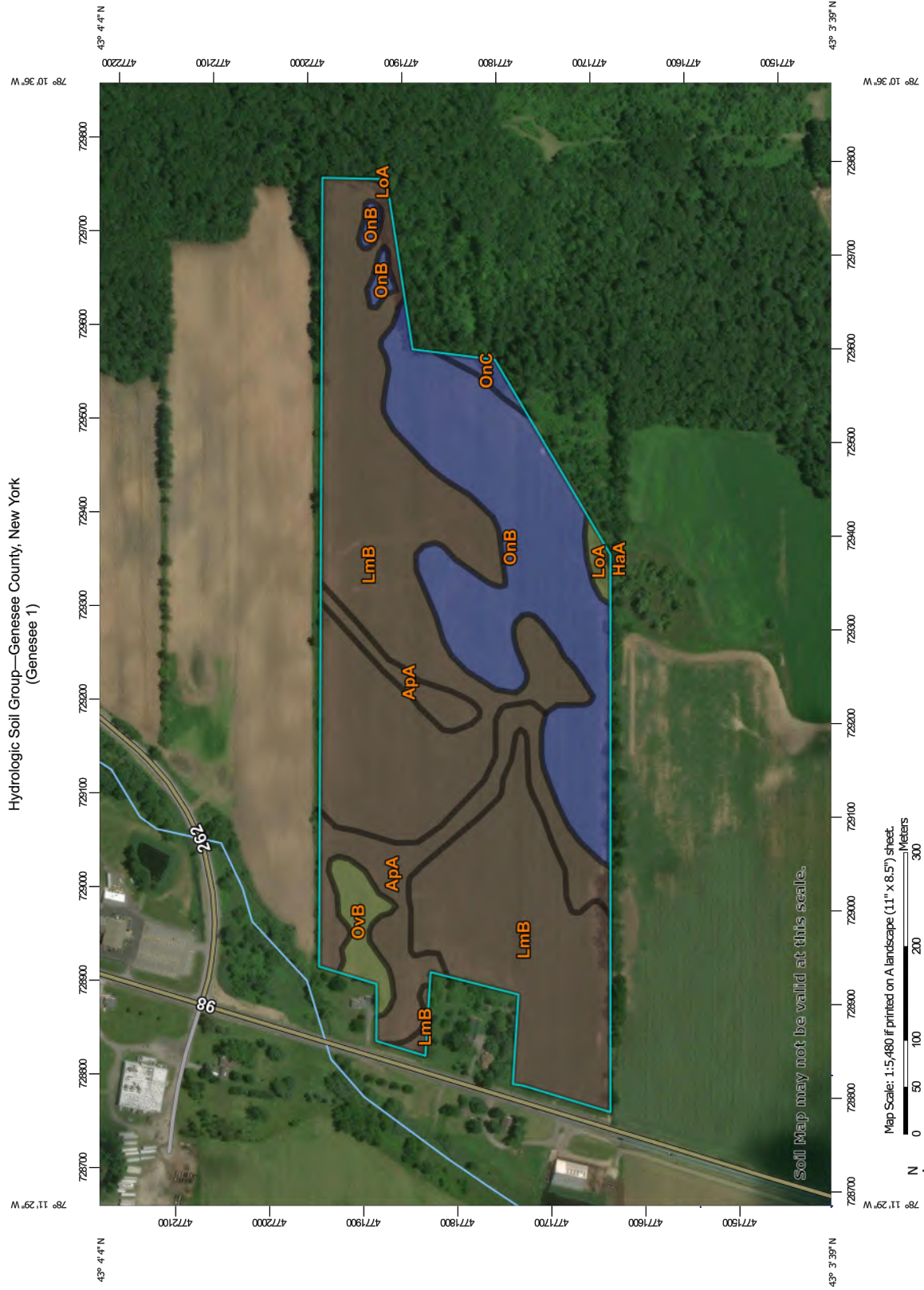
DATE:  
 2/24/2021

PROJECT NO:  
 2210066

ISSUED FOR:  
 REPORT

SHEET NO.  
 APPENDIX A-2

Hydrologic Soil Group—Genesee County, New York  
(Genesee 1)



Soil Map may not be valid at this scale.

Map Scale: 1:5,480 if printed on A landscape (11" x 8.5") sheet.  
 0 50 100 200 300 Meters  
 0 250 500 1000 1500 Feet  
 Map projection: Web Mercator Corner coordinates: WGS84 Edge ties: UTM Zone 17N WGS84



Web Soil Survey  
National Cooperative Soil Survey



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DRAWING NAME:

**SOIL MAP**

DRAWN BY:  
MSB

DATE:  
2/24/2021

PROJECT NO:  
2210066

PROJECT NAME:

**GENESEE 1**  
OAK ORCHARD ROAD  
ELBA, NY 14058

ISSUED FOR:

REPORT

SHEET NO.

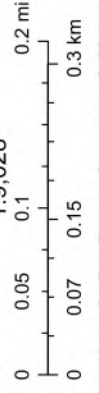
APPENDIX A-3

# Genesee 1



February 24, 2021

1:9,028



Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, NYS ITS GIS  
 Author: LaBella Associates  
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DRAWING NAME:

**ENVIRONMENTAL RESOURCE MAPPER**

DRAWN BY:  
 MSB

DATE:  
 2/24/2021

PROJECT NO:  
 2210066

PROJECT NAME:

**GENESEE 1**  
 OAK ORCHARD ROAD  
 ELBA, NY 14058

ISSUED FOR:

REPORT

SHEET NO.

APPENDIX A-4



U.S. Fish and Wildlife Service

# National Wetlands Inventory

## Genesee 1



Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

- Lake
- Other
- Riverine

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland

February 24, 2021

### Wetlands

National Wetlands Inventory (NWI)  
This page was produced by the NWI mapper



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Planning

DRAWING NAME:

### FEDERAL WETLANDS

DRAWN BY:  
MSB

DATE:  
2/24/2021

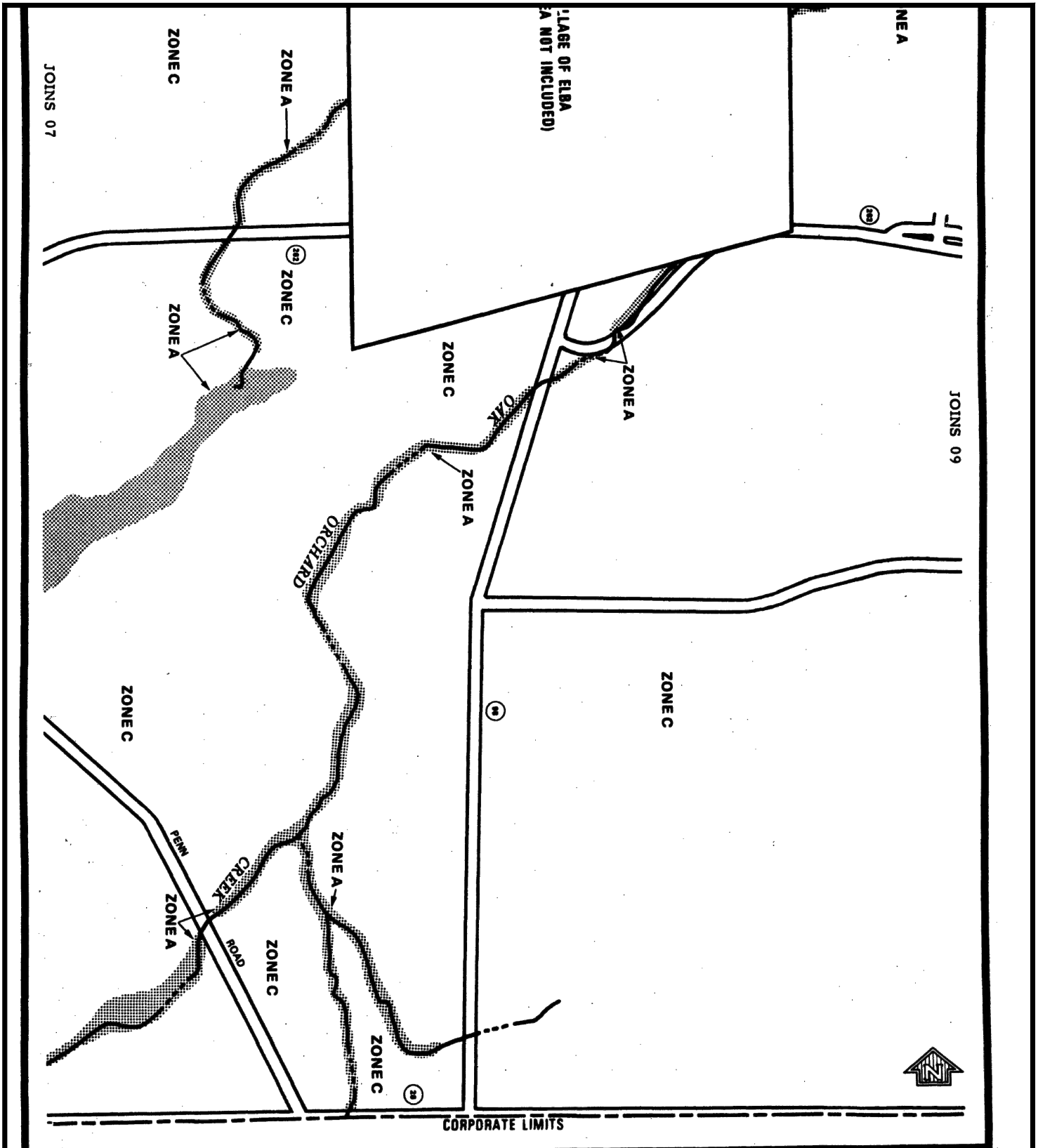
PROJECT NO:  
2210066

PROJECT NAME:

**GENESEE 1**  
OAK ORCHARD ROAD  
ELBA, NY 14058

ISSUED FOR:  
REPORT

SHEET NO.  
APPENDIX A-5



08 federal emergency management agency  
**TOWN OF ELBA, NY**  
 GENESEE COUNTY

APPROXIMATE SCALE  
 1000 0 1000 2000 3000 FEET  
**FLOOD INSURANCE RATE MAP**  
 COMMUNITY NUMBER 361120 B

EFFECTIVE DATE  
**OCTOBER 5, 1984**

**LaBella**  
 Powered by partnership  
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 ROCHESTER, NY 14614  
 P: (585) 454-6110  
 F: (585) 454-3066  
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DRAWING NAME:  
**FEMA FLOOD INSURANCE RATE MAP**

PROJECT NAME:  
**GENESEE 1**  
 OAK ORCHARD ROAD  
 ELBA, NY 14058

DRAWN BY:  
 MSB


ISSUED FOR:  
 REPORT

DATE:  
 2/24/2021

SHEET NO.  
 APPENDIX A-6

PROJECT NO.:  
 2210066



 <b>LaBella</b> <small>Powered by partnership</small>	DRAWING NAME:		<b>CRIS MAP</b>		DRAWN BY:	DATE:	PROJECT NO.:
	300 STATE STREET ROCHESTER, NY 14614 P: (585) 454-6110 F: (585) 454-3066 www.labellapc.com		Engineering Architecture Environmental Planning		MSB	2/24/2021	2210066
PROJECT NAME:			<b>GENESEE 1</b>		ISSUED FOR:		SHEET NO.
			OAK ORCHARD ROAD ELBA, NY 14058		REPORT		APPENDIX A-7





# APPENDIX B: GEOTECHNICAL REPORT

## Geotechnical Report







**GEOTECHNICAL  
SUBSURFACE INVESTIGATION  
and  
ENGINEERING REPORT**

**PROPOSED GENESEE 1 SOLAR ARRAY**

**TOWN OF ELBA, GENESEE COUNTY, NEW YORK**

*Prepared for:*  
**BW Solar**  
**3 Young Street**  
**Acton, Ontario**  
**Canada L7J 2G5**

*Prepared by:*  
**LaBella Associates, D.P.C.**  
**300 State Street, Suite 201**  
**Rochester, New York 14614**

**LaBella Project No.: 2210066**

**January 19, 2021**

**NOTE**

This report is written using **U.S. Customary Units** unless otherwise noted.

The professional services provided in this project include only the specific geotechnical aspects of the subsurface conditions at the site. The presence or implications of possible surface or subsurface contaminants from any source are outside the terms of reference for this geotechnical study and have not been investigated or addressed herein. Coal seam hazard evaluation, fire and gas hazard evaluation, site subsidence hazard evaluation, wetland impact study, septic field hazard or impact evaluation, slope stability and landslide hazard analysis, and a detailed site-specific seismic hazard evaluation are beyond the scope of work for this project.

The subsurface soil profile and design parameters provided in this report are estimated based on the results of the soil borings as indicated by: the boring logs, visual classification of the recovered soil and/or rock samples, geotechnical laboratory results (where applicable), analytical laboratory results (where applicable) and/or generally published soil and/or rock property correlations. Actual subsurface conditions beyond the soil borings and below the depths explored may vary, as well as subsurface conditions encountered in the field during and/or as a result of construction activity. The recommendations contained within this report are based on the subsurface conditions encountered and a plan prepared by LaBella; titled "*Study Area Figure 1*" dated November 2020. If subsurface conditions or the arrangement of the array and/or the proposed equipment vary from those presented within this report or on the plan referenced, the geotechnical engineer shall be notified immediately to identify if the recommendations provided herein are still applicable.

**PRIOR TO CONDUCTING ANY SUBSURFACE EXCAVATIONS, THE CONTRACTOR IS OBLIGATED TO CONTACT THE LOCAL ONE-CALL SERVICE TO MARK OUT UTILITIES. FOR PROJECTS THAT OCCUR ON PRIVATE PROPERTY, THE CONTRACTOR IS OBLIGATED TO HIRE A THIRD PARTY UTILITY LOCATING SERVICE.**

Please contact the undersigned Geotechnical Engineer with questions regarding the information provided herein.

This report was prepared by **LaBella Associates, D.P.C.**

Written by:

Reviewed by:



Andrew Hochreiter, E.I.T.  
Geotechnical Engineer

*(electronic or copied signature unless in blue ink)*

Patrick Waterman, P.E.  
Senior Engineer

*(electronic or copied signature unless in blue ink)*

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**APPENDICIES**

A - FIGURES

B - BORING LOGS

C - SEISMIC SITE EVALUATION

## 1.0 INTRODUCTION

LaBella Associates, D.P.C. (LaBella) is pleased to present this report for the subsurface exploration and geotechnical engineering evaluation for the proposed Genesee 1 solar array to be constructed at 7309-7183 Oak Orchard Road, Elba, Genesee County, New York. The planned improvement area is depicted on a plan prepared by LaBella; titled “Study Area Figure 1”, dated November 2020. The seven boring locations and designations as well as the Surficial Soil Type Map have been superimposed over this figure. The Surficial Soil Type information depicted was obtained from the United States Department of Agriculture – Natural Resource Conservation Services (USDA-NRCS). The area within New York State where the site is located is shown on Figure 2 – Site Location Sketch. Both figures are provided in Appendix A.

The proposed solar array area is located on Oak Orchard Road, just south of where Oak Orchard Road and Route 262 intersect. Specifically, the proposed solar array is sited in an agricultural field surrounded by woods and private residences.

Plans to develop the site include:

- Installing arrays of solar panels;
- Installing battery containers and transformers on equipment pads;
- Constructing access roads within the site; and
- Installing a perimeter security fence;

A grading plan was not provided at the time this report was developed such that it is not known whether site grades will be changed.

LaBella’s Scope of Services included advancing Test Borings, preparing subsurface exploration logs, and preparing this report that contains geotechnical recommendations for developing the site. These services were performed in accordance with LaBella’s proposal.

## 2.0 SUBSURFACE EXPLORATION PROGRAM

The subsurface exploration was performed by LaBella Environmental, LLC. On December 9 through 11, 2020 LaBella advanced borings GE1-B1 through GE1-B7 at the approximate locations depicted on Figure 1. The soil borings were advanced using a track-mounted CME55LC drill rig equipped with 4-¼" I.D. hollow stem augers and drive sampling tools.

Soil Sampling and Standard Penetration Testing (SPT) were conducted using a 140-pound automatic safety hammer dropping 30-inches to drive a 2-inch O.D. split barrel sampler in general conformance with ASTM Standard Practice D1586. The standard penetration resistance (N-Value) is calculated as described on the Boring Log General Information Key in Appendix B. The soil samples retrieved were placed in sealed containers. Upon completion of each Test Boring, the borehole was backfilled with auger cuttings to grade to closely match the existing ground surface. Prior to advancing any subsurface explorations, LaBella Environmental, LLC contacted Dig Safely New York (DSNY) to clear public utilities. Utility conflicts were not identified at any of the seven subsurface exploration locations.

Soil samples were logged and visually classified by a LaBella geotechnical engineer. The visual soil classifications were made using a modified Burmister Classification System. In this system the soil is divided into Gravel, Sand, Silt, and Clay. The predominant fraction is listed first and if it is more than 50-percent of the matrix, it will be capitalized. Modifiers are also provided to establish a sense of the percentage of the remaining fractions. The modifiers are as follows:

Modifier	Percentage
trace	1 – 10
little	11 – 20

Modifier	Percentage
some	21 – 35
and	36 – 50

### 3.0 SUBSURFACE SOIL AND GROUNDWATER CONDITIONS SUMMARY

The subsurface conditions discussed below have been generalized from the Test Boring Logs provided in this report. The information provided on the Test Boring Logs is representative of the location where each subsurface exploration was conducted. Subsurface conditions between exploration locations and depths sampled may vary. The stratification lines indicated on the logs are approximate and may indicate gradational changes. Please, refer to the attached Test Boring Logs for conditions encountered at the time, location, and depth of each sampling.

#### 3.1 Subsurface Conditions

**Surfacings:** The surface material at each Test Boring consisted of approximately 9 to 10 inches of Topsoil with vegetative matter (e.g., roots).

**Alluvial Deposits:** Beneath the Surfacings are either Fluvial Deposits or Alluvial Deposits. The Alluvial Deposits consist of gravelly Sandy SILT or clayey sandy SILT. Based on SPT results, the relative density ranges from loose to very dense for the granular material and the consistency ranges from very soft to hard for the cohesive soils.

**Fluvial Deposits:** Beneath the Surfacings are either Fluvial Deposits or Alluvial Deposits. The Fluvial Deposits consist of gravelly silty SAND, and silty sandy GRAVEL. These materials are medium dense to very dense in relative density based of the SPT results.

**Weathered Bedrock and Bedrock:** Weathered bedrock and bedrock were not encountered during the subsurface exploration. LaBella uses the United States Geologic Survey (USGS) Mineral Resources Online Spatial Data (MROSD) web site to access information with regards to the type of bedrock that underlies the site. According to the USGS-MROSD, the underlying bedrock consists of shale called the Camillus, Syracuse, and Vernon Formation, which Upper Silurian in age. This Shale is part of the Akron Dolostone and Salina Groups. Named Vernon-Shale member of Salina formation. It also consists of red, green, and gray gypsiferous shales and thin platen dolomites. Underlies Syracuse salt and overlies Pittsford Shale.

#### 3.2 Groundwater Conditions

Groundwater was encountered in the borings during drilling and prior to backfilling the boreholes at depths ranging from approximately 14 to 16 feet bgs. For this site, a design groundwater depth of 14 feet bgs should be used.

If groundwater is encountered above the depths listed above, it is anticipated that the use of local sumps and pumps should be adequate to control groundwater fluctuations. If continuous pumping of infiltrating water is required, the pump shall be placed within crushed stone in a sump area that is dug outside of the planned shallow foundation footprint. The crushed stone shall be separated from the subgrade soil with a geotextile fabric (i.e., Mirafi 140N or equivalent) so that continuous pumping of fines (i.e., fine sand, silt) does not occur. Perched or trapped water may be encountered within soil layers of differing gradation, particularly within fill layers.

For spread footing foundations that are installed below the water table, a well point system will most likely be required in order to keep the groundwater surface a minimum of two-feet below the bottom of the deepest footing. Groundwater levels will fluctuate due to seasonal affects and/or construction related activities.

### 3.3 Expansive Soils and Hydrologic Soil Group

Based on naked-eye visual examination of the retrieved soil and bedrock samples, it is LaBella’s professional opinion that potentially expansive materials were not identified. The USDA-NRCS Web Soil Survey was used to identify aspects of the surficial soils at the site. The table below provides a summary of surficial soils with regards to Hydrologic Soil Group, Hydric Rating, and the Risk of Corrosion to Concrete and Steel. The results are summarized in the table below and a copy of the Soil Type map is provided in Appendix A.

Map Unit Symbol	Map Unit Name	Area (ac.)	Hydrologic Soil Group	Hydric Soil Rating	Risk of Corrosion	
					Concrete	Steel
Apa	Appleton silt loam, 0 to 3 percent slopes	7.3	B/D	No	Low	High
HaA	Halsey silt loam, 0 to 4 percent slopes	<0.1	B/D	Yes	Low	Moderate
HIB	Hilton silt loam, 3 to 8 percent slopes	0.2	B/D	No	Moderate	High
LmB	Limasilt loam, 3 to 8 percent slopes	34.0	B/D	No	Low	High
LoA	Lyons soils, 0 to 3 percent slopes	1.5	C/D	Yes	Low	High
OnB	Ontario loam, 3 to 8 percent slopes	15.9	B	No	Moderate	Low
OnC	Ontario loam, 8 to 15 percent slopes	0.5	B	No	Moderate	Low
OvB	Ovid silt loam, 3 to 8 percent slopes	1.8	C/D	No	Low	High
Wy	Wayland soils complex, 0 to 3 percent slopes, frequently flooded	0.2	B/D	Yes	Low	Moderate

The “risk of corrosion” pertains to potential soil-induced electrochemical or chemical action that corrodes or weakens concrete and/or unprotected steel. The rate of corrosion is based mainly on the following characteristics:

- For concrete: Sulfate (SO<sub>4</sub>) content, chloride (Cl) content, and acidity (pH);
- For steel: Resistivity/electrical conductivity, reduction/oxidation (Redox) potential, presence of sulfides, and acidity (pH);
- For concrete & steel: soil moisture content, and grain size distribution

In accordance with the client’s request, soil samples were tested for the parameters listed above to identify if some type of special coating or cathodic protection will be required for buried metal items (e.g., steel piles or utilities). The results of these tests will be presented under separate cover.

### 4.0 SEISMIC CONSIDERATIONS

Based on the subsurface information obtained from the Test Borings and our knowledge of the local geology, it is our opinion that Site Class D, “Stiff Soil”, as referenced in the International Building Code as adopted by New York State, may be used for the site. Refer to the Seismic Site Classification Worksheet provided in Appendix C for additional information.

Interpolated probabilistic ground motion parameters for the project site were obtained from the Applied Technology Council (ATC) website using the seismic hazard tool. This tool accesses the United States Geologic Survey (USGS) Seismic Design Maps. Based on the latitude-longitude coordinates of the site,



earthquake ground motion parameters were developed in general accordance with the American Society of Civil Engineers (ASCE) 7-16 Standard. Based upon this information, the following ground motion parameters with 2% probability for exceedance, in 50 years, may be used for this site:

- 0.2 second period mapped spectral response acceleration ( $S_S$ ): 0.181g;
- 1.0 second period mapped spectral response acceleration ( $S_1$ ): 0.048g;
- MCE spectral response acceleration at short period ( $S_{MS}$ ): 0.289g;
- MCE spectral response acceleration at 1.0 second period ( $S_{M1}$ ): 0.115g;
- Five percent damped spectral response acceleration at short period ( $S_{DS}$ ): 0.193g;
- Five percent damped spectral response acceleration at 1.0 second period ( $S_{D1}$ ): 0.076g; and
- Peak Ground Acceleration (PGA): 0.102g.

Based on these parameters the Seismic Design Category for this site is C for a Risk Category IV Structure. Refer to the ATC Report provided in Appendix C for additional information.

Based upon additional data obtained from the USGS website (2016 Earthquake Probability Mapping) the probability that a magnitude 6.0 earthquake on the Richter scale might occur within 100 years and 50 Km of the project site is less than 1%.

## 5.0 GEOTECHNICAL RECOMMENDATIONS

The geotechnical evaluations and recommendations contained within this report are based on the subsurface conditions encountered and a plan provided by BW Solar, titled “Study Area Figure 1” and dated November 2020. If subsurface conditions or the arrangement of the array or proposed equipment vary from those presented within this report or on the plan referenced, the geotechnical engineer should be notified immediately to identify if the recommendations provided herein are still applicable.

### 5.1 Engineering Evaluation

Based on the subsurface conditions encountered within the Test Borings performed at the subject site, it is our opinion that the proposed solar array may be founded on shallow footings consisting of isolated spread and continuous strip foundations bearing upon a 6-inch stone pad placed and compacted upon approved native soils or the arrays may be supported by screw piles/driven piles. The proposed equipment pads for the planned battery storage units and transformers may be supported on a mat foundation (with modifications as noted in Section 5.1.1 due to in-situ fine-grained soils).

If filling and/or cutting in excess of 2 feet is planned to be conducted, LaBella recommends that the proposed side slopes, where fill will be placed, be no steeper than 2.5 horizontal to 1 vertical (2.5H:1V) for areas where maintenance is not required and 3H:1V for areas where maintenance is required (e.g., mowing). LaBella also recommends that for areas where cuts are required, the side slope be no steeper than 2H:1V. If steeper side slopes are required (e.g., 2H:1V [fill area], 1.5H:1V [cut area]), the Geotechnical Engineer must conduct a Slope Stability Evaluation. The Geotechnical Engineer must be provided with information that includes but is not limited to the following in order to model the proposed slopes correctly.

- Final Site Grading plan that depicts the slopes and the location of all equipment;
- Final loading conditions for all foundation elements within the fill area (e.g., shallow spread footing, slab-on-grade, drilled shafts);
- Identification of the source of fill material (if applicable);
- Geotechnical properties of the fill material (if applicable); and
- Geotechnical properties of the cut area by means of advancing borings and/or test pits.

### 5.1.1 Shallow Spread Footing Foundations

It is anticipated the equipment pads for the planned battery storage units and transformers will be a “mat” spread footing foundation construction. As reported above, the underlying soils contain an appreciable amount and/or are predominantly Silt and/or Clay (material passing the No. 200 sieve). As such, these soils can be considered as frost susceptible and potentially expansive. In addition, these soils are not well draining due to the amount of Silt and/or Clay being present. For these reasons, LaBella recommends that all spread footing foundations bear either at a depth of 4-feet below finished ground surface –OR– be placed on Controlled Low Strength Material (CLSM [i.e., flowable fill/lean concrete]), with a compressive strength of 400 to 500 psi, placed between the bottom of the mat foundation and a depth of 4-feet bgs. By using CLSM in lieu of Select Granular Fill beneath the mat foundations, a “bathtub” effect will not be present for water to collect from precipitation events, thus minimizing Adfreeze stresses. Furthermore, by using CLSM beneath the spread footing foundations will provide added weight to overcome Adfreeze stresses and minimize potential shrink/swell and frost heaving effects.

For the Solar Array, the governing factor is not bearing but rather uplift and overturning due to wind loading. Based on the existing site grades, it is anticipated that the foundation bearing materials will be approved native silty Sand/sandy Silt, or near-surface clayey Silt. LaBella conducted bearing capacity evaluations for shallow spread footings founded on 6 inches of ¾” crushed stone compacted to a non-yielding surface placed on the native soils to identify an allowable bearing pressure for the new equipment that will bear within each material. In addition to the bearing capacity evaluation, LaBella conducted settlement analysis using the Schmertmann Method. It is anticipated that most settlement will occur during construction.

LaBella modeled a shallow spread footing using the data obtained from the above report sections to identify the bearing capacity for the area. LaBella anticipates that the bottom of the foundations will be located at a depth of approximately 4-feet bgs which is greater than 1.5 times the width of the footing ( $1.5 \times B_f$ ) from the design groundwater surface. Therefore, corrections for ground water (i.e., using the submerged unit weight for the entire soil column to calculate the Effective Overburden Stress, and a ground water correction factor based on the geometry and modeled depth of the foundation) **are not** required to calculate the ultimate bearing capacity for the solar array foundations. Since the modeled width for the mat foundation is 20 feet, the groundwater correction factor **is** required for the mat foundation for proposed equipment. The allowable bearing capacity is subsequently calculated by dividing the ultimate bearing capacity by a factor of safety. The ultimate bearing capacity was calculated using the following bearing capacity formula developed by Terzaghi and modified by Meyerhoff:

$$Q_{ult} = (c \times N_c \times S_c) + (q \times N_q \times S_q) + (0.5 \times \gamma \times b_f \times N_\gamma \times S_\gamma)$$

Where:  $Q_{ult}$  = Ultimate Bearing Capacity (psf);  $c$  = cohesion (psf);  $N_c$  = cohesive bearing capacity factor = 5.14;  
 $N_q$  = non-cohesive bearing capacity factor (1 when cohesive soils are encountered);  
 $N_\gamma$  = footing bearing capacity factor;  $S_c, S_q, S_\gamma$  = footing shape factors;  
 $q$  = effective overburden stress (psf);  $\gamma$  = unit weight of soil directly beneath footing (pcf); and  
 $b_f$  = width of footing (ft)

$$Q_{all} = \frac{Q_{ult} \times GWCF}{FOS}$$

Where:  $Q_{all}$  = Allowable Bearing Capacity;  $GWCF$  = Groundwater Correction Factor  $\leq 1.0$ ; and  
 $FOS$  = Factor of Safety = 3.0

The shallow spread footings modeled are as follows:

Equipment	Location	Footing Size	Footing Depth	Allowable Bearing Capacity	Calculated Settlement
Solar Panels	All	6'w x 90'l x 1't	4' bgs	3,000 psf	<1" <3/4" differential
Equipment Pads	Estimated	20'w x 30'l x 2't	2' bgs	3,500 psf	<1" <3/4" differential

Note: If proposed locations of equipment are provided, LaBella will be able to provide a more accurate estimate of Allowable Bearing Capacity.

LaBella recommends that the preparation of the site (e.g., preparing soil bearing grades, installation of controlled compacted fill, etc.) be observed and evaluated by a representative of the geotechnical engineer. The exposed native soil or structural fill bearing grades shall be thoroughly compacted using a manually operated compactor (e.g. jumping jack, vibratory plate compactor or walk behind vibratory roller) prior to placement of compacted crushed stone, CLSM, forms, and/or reinforcing steel. This should improve the consistency of the exposed grades and re-compact areas that were loosened during excavation activities. The exposed subgrade shall be approved by LaBella's geotechnical representative prior to the placement of crushed stone, CLSM, forms, and rebar to ensure that the subgrade is consistent with soils that meet or exceed the allowable bearing capacity reported above. The geotechnical representative will also observe the exposed grade to verify that it is free of loose soil, mud, water, frost, and/or deleterious materials.

If unsuitable materials are encountered at the exposed subgrade for the planned foundations, these materials shall be removed by over-excavating and replaced with suitable imported structural fill (i.e., Select Granular Fill as described below in this report) that is compacted in accordance with the project specifications. For every one foot of vertical undercut within a footing excavation, the foundation area shall be widened one foot on all sides of the planned foundation footprint. If Controlled Low-Strength Material (CLSM) is used to fill the over-excavated area, the foundation area shall be widened a minimum of 6-inches on all sides of the planned footing footprint. The design strength for the CLSM should be in the range of 400 to 500 pounds per square inch (psi). Since the anticipated soil bearing materials tend to be moisture sensitive, the construction of the foundations should proceed as soon as possible after the acceptance of the soil bearing grade by the geotechnical representative.

The bearing capacity and anticipated settlement provided above are based on preliminary foundation sizes and preliminary loading values. If BW Solar is able to provide a grading plan, planned foundation sizes and actual structural loading information, more definitive settlement outcomes can be determined.

### 5.1.2 Lateral and Uplift Load Resistance for Shallow Foundations

Shallow foundations for the proposed solar arrays and equipment shall be designed to resist lateral, overturning, and uplift loads. The footings shall be designed for a factor of safety of 2.0 for sustained lateral, overturning, and uplift load conditions or 1.5 for transient lateral, overturning, and uplift load conditions. LaBella also recommends that the resultant of lateral and vertical loading be located within the middle 1/3 of the footing in order to minimize eccentric loading effects.

Passive lateral resistance can be provided by a vertical excavation face if the cast-in-place concrete is poured neat up against the side of the excavation. To increase the uplift resistance for shallow

foundations, the foundations can be embedded further below grade with the weight of the foundation in addition to the weight of the soil placed and compacted above the foundation used to resist uplift forces. The volume of soil that can be used is defined by a soil wedge extending out 20 degrees from the vertical edge of the top of the foundation to the ground surface. Passive resistance can be calculated using a passive earth pressure coefficient ( $k_p$ ) and sliding resistance can be calculated for the subgrade materials and the foundation bottom using an ultimate friction factor of 0.35. The following soil design values may be used to develop the resistive forces.

Material <sup>1</sup>	Effective Friction Angle ( $\phi$ )	Cohesion (c)	Moist Unit Weight ( $\gamma_{moist}$ )	Submerged Unit Weight ( $\gamma_{sub}$ )	Equivalent Fluid Pressure (EFP)	Earth Pressure Coefficients		
						Active ( $k_a$ )	Passive ( $k_p$ )	At Rest ( $k_o$ )
Select Granular Fill	35°	0 psf	140 pcf	80 pcf	70 pcf	0.27	3.7	0.5
Native Soils	28°	500 psf	120 pcf	60 pcf	60 pcf	0.36	2.77	0.5

Notes: 1. Values provided are based on each material placed & compacted to a minimum of 95% maximum modified density (ASTM D1557)

### 5.1.1 Deep Foundation System – Screw Piles and Driven Piles

The soil conditions indicate that screw piles and/or driven piles are a viable option for the solar arrays at these sites. By using a deep foundation system, the solar panel rack system could possibly be directly connected to the stem of the screw pile.

One type of screw pile consists of a main shaft (i.e., square or pipe) with individual helices at the leading end. These types of piles are referred to as Helical Piles which allows the pile to be screwed into the subsurface thus causing little to no vibration. Sections of the main shaft (without helices) are added as the pile is advanced to the underlying bearing strata. The load is subsequently transferred down the shaft to the lead helices. When pipes are used as the main shaft, these piles can be filled with grout/concrete which provides additional rigidity to the main shaft and are primarily used as end-bearing piles.

Another type of screw pile that is often used to support solar array panels is known as a soil screw anchor. This type of pile looks like large screws with an auger (thread) that extends along a portion of or the entire shaft and are able to develop high tension capacities. The auger along the shaft provides tension/uplift resistance to account for wind loading. These type of piles/anchors can also be filled with grout/concrete to provide additional rigidity if needed for lateral loading.

A third type of screw pile consists of a main shaft (i.e., pipe) with a soil displacement helix at the leading end with a reverse spiral auger along the remaining portion of the main shaft. These types of piles are referred to as Drilled-in Displacement Micropiles (DDM). As the DDM is advanced into the ground, high strength grout is added to the main shaft which subsequently drains through grout ports. The reverse auger works to push the grout down the outside of the pile and mix it with the surrounding soils. The combination of the steel pipe, interior and exterior grout provides a high strength “mini pile” that can be used as an end-bearing and/or friction pile and can develop lateral resistance such that battering of the piles may not be required.

Screw piles are often installed using a small excavator or “skid steer” equipped with a rotating drive head. For this project, there is a possibility that when advancing the screw piles at the site, cobbles could be encountered that may require the pile to be removed and/or relocated. If the obstruction cannot be removed and the pile fetches up significantly shallower than the design depth, the Engineer of Record should be consulted and it is possible that additional Screw Piles along with reconfiguring the pile cap (if one is used) at a specific location may be required.

The design of these three types of Screw Piles is proprietary with regards to the type of pile and configuration. After the type of screw pile is chosen, the installer shall provide a design drawing.

Driven piles such as a typical W6x9 pile section can also be considered as an option for this site. Piles can be driven with small-footprint, tracked, hydraulic pile driving rig. The solar panel rack system could be directly connected to the stem of the driven pile or the pile may be incorporated into a pile cap. One concern with regard to driven pile sections is that they are susceptible to damage during driving within denser soils or soils with embedded cobbles or boulders. Piles that fetch up at shallower depths than anticipated should be removed and advanced at an offset location with guidance from the design engineer or the near-surface obstruction could be removed, the excavation backfilled with structural fill, and the pile re-driven in the original location.

LaBella recommends that load and pullout testing be conducted prior to installing any production piles. This will require that reaction piles be installed and a reaction frame used to jack against during the test. A geotechnical representative from LaBella should be on-site to witness and record the pile load tests as well as during pile installation to record as-built pile locations, resistance to advancement, and termination depths for review by the Engineer of Record.

## 5.2 Site Preparation

Site preparation will consist of necessary clearing and grubbing, removal of organic-laden soils and installation of access ways. If any portion of the sites shall be filled, the area shall be stripped of the organic-laden soils to the limits of the toe-of-slope plus a 5-foot buffer all around. This activity should be observed by a representative of the geotechnical engineer to evaluate the stability of the area prior to any filling operations. As indicated above, final grading plans were not provided at the time this report was prepared.

Upon satisfactorily exposing the planned subgrade, the surface shall be graded, sealed, and subsequently proofrolled using a minimum 5-ton (operating weight) smooth steel-drum roller on vibratory mode on a dry day, free of rain. Proofrolling will consist of five passes over the prepared subgrade at walking speed in the presence of LaBella's geotechnical representative. If pumping or weaving is observed while proof rolling, the unsuitable soil shall be removed and replaced with **Select Granular Fill** (as described in this report).

Immediately following a satisfactory proofroll, the Contractor shall install Structural Fill and/or **Select Granular Fill**, to achieve subgrade elevations in a quality controlled manner. If the approved subgrade must remain exposed for any length of time, unnecessary trafficking of vehicles across the subgrade shall be avoided. The contractor should also note that the subgrade soils contain an appreciable amount of Silt and/or Clay (material passing the No. 200 sieve) and thus it is moisture sensitive. LaBella recommends that site preparation activities be limited to areas such that earthwork activities can be completed in a few days. The contractor should also be aware that if an area is proofrolled and remains open to weather, that area could become unstable and thus additional stripping and proofrolling may be required.

## 5.3 Gravel Access Roadway

The solar array site will have a new gravel access roadway that traverses the site off of Oak Orchard Road. LaBella used the Giroud-Han equation to calculate the thicknesses for a non-reinforced and for a

reinforced gravel roadway. The reinforcement would consist of a woven geotextile fabric. The following design values were used:

- Calibration Factor (CF): Geotextile Reinforcement consisting of Mirafi RS280i geotextile = 0.24;
- Calibration Factor (CF): non-reinforced = 1.0;
- Number of Equivalent Single Axle Loads (N) = 5000;
- Wheel Load (1/2 of axle load) (P) = 16000 pound;
- Tire Contact radius (r) = 6 inch;
- Allowable rut depth (s) = 2 inch;
- Bearing Capacity Factor (Nc) = 3.14 (non-reinforced) and 5.14 (geotextile reinforced); and
- California Bearing Ratio (CBR) = 2.0 (medium dense silty Sand).

Using these design values, the total gravel thickness were calculated to be:

- 22-inches for a non-reinforced gravel roadway; and
- 10-inches for a reinforced gravel roadway section.

LaBella recommends that an 10-inch thick (minimum) gravel roadway be constructed using Mirafi RS280i geotextile (or equivalent) laid out on the prepared subgrade and subsequently covered with Select Granular Fill placed and compacted in accordance with the recommendations provided in Section 6.3 of this report.

#### **5.4 Temporary Excavations and Buried Structures**

Temporary excavations must be conducted in accordance with the U.S. Department of Labor – Occupational Safety and Health Administration (OSHA) 29 CFR Part 1926 Subpart P titled “Excavations”; and the New York State Code Rules and Regulations (NYCRR) Part 23 titled “Protection in Construction, Demolition and Excavation Operations”. OSHA and NYCRR pertain to safety aspects of excavations such as: soil classification, sloping and benching, shoring, and assistance with selecting the appropriate protective system. Prior to workers entering the excavation a Competent Person, as defined by OSHA, must inspect the excavation and deem it safe for entry.

For excavations 5-feet deep and greater, the Contractor will be required to provide excavation protection (e.g., sloping of the side walls, shielding, trench box) and if necessary an Excavation Protection System (EPS) (e.g., shoring, support of excavation). The EPS must be designed by a professional structural or professional geotechnical engineer licensed in New York State that is familiar with such systems. The Contractor shall also place excavated spoils no closer to the excavation than the minimum setback distance prescribed by OSHA such that the stability of the excavation and/or EPS is not compromised. In addition, the Contractor should consider installing small berms/swales where necessary to control surface water runoff from entering excavations.

The shallow excavations should be able to be made using conventional open-cut methods and standard construction techniques and equipment.

#### **5.5 Frost Depth**

The minimum burial depth of foundations and/or un-insulated utility lines, including water and sewer pipelines, should not be less than the frost penetration depth of 48-inches or 4.0-feet. Spread footing foundations and utilities that are susceptible to freezing should be placed below this depth or should be protected from frost. Insulation should be provided if pipelines are buried with soil cover less than the frost penetration depth. The insulation should be rigid polystyrene composition (Styrofoam Hi-load 40 or

equivalent) and be a minimum of 4-inches in thickness. It is recommended that the minimum depth to the top of the insulation be no less than 1.5-feet below finished grade. Depending upon the insulation properties, additional layers may be required. For pipelines the insulation will extend outwards from the center line of the pipe. The total width of the insulation to be centered over the center line of the pipe can be calculated below.

$$W = [d + (2 \times (F - I))]$$

Where: d = pipe diameter (ft)  
F = seasonal frost penetration depth (ft)  
I = insulation depth below finished grade (ft).

## 5.6 Uplift Forces due to Adfreezing Stress

An adfreeze upward stress of 0.35 tsf (700 psf) is recommended to be applied to the bottom of any foundation element (e.g., equipment slab-on-grade, pile shaft, pile cap) that is less than 4-feet bgs and a value of 85 psf should be used for the sides of the foundation element that is less than 4-feet bgs. If non-frost susceptible fill material (e.g., Select Granular Fill as described in Section 6.2 of this report) is used, the Adfreeze value of 85 psf for the side of the foundation element can be ignored. In addition, if the bottom of the foundation element is located greater than 4-feet bgs, the Adfreeze value of 700 psf can also be ignored. If the dead load of the foundation element and applied load are less than 700 psf, the foundation element must be modified to withstand this uplift force. Where frost-jacking and transient uplift loads (such as wind loads) occur simultaneously, these two loads need not be considered together, the larger of the two should be used. If the top of the foundation element is greater than 48 inches below finished grade adfreeze stresses can be neglected.

## 6.0 FILL & BACKFILL

It is the Contractor's responsibility to identify a source of fill material prior to the work beginning. LaBella recommends that the Contractor submit geotechnical laboratory test results a minimum of 2 weeks prior to any of the earth work commencing for the analyses listed in Section 6.1 of this report.

It is also recommended that the test results be no more than 6-months old and that testing shall be conducted for all sources of fill material the Contractor intends to use during the project. No fill material shall be allowed to be brought on-site until the Geotechnical Engineer has been able to review and comment on the laboratory results.

### 6.1 On-Site Borrow Material

On-site Native Soils contain an appreciable amount of Clay/Silt which can make these soils moisture sensitive and/or frost susceptible. As such, if the on-site Native Soils are planned to be used to raise grades, the contractor must be cognizant of the natural moisture content of the soils that are proposed to be used as structural fill. The moisture content of the proposed borrow materials to be used as fill should be within 3% of the Optimum Moisture Content as determined by the Modified Proctor Test per ASTM D1557. Moisture conditioning (i.e., adding moisture if too dry, discing/aerating if too wet) may be required during placement of the onsite Native Soils. If onsite Native Soils are considered for use as general fill material, the Contractor shall obtain representative samples from the areas where cuts shall be performed and shall submit them for the following geotechnical laboratory tests:

- Moisture Content (ASTM D2216)
- Soil Gradation without Hydrometer (ASTM C117 & C136)

- Modified Proctor (ASTM D1557)

When raising grades, the on-site native soils must be excavated, transported to the location where material is required, placed and compacted in accordance with the Filling and Backfilling Methodology provide in Section 6.3 of this report. The on-site soils shall not be pushed from a location of higher elevation into a location of lower elevation that will subsequently create a soil wedge that is not placed and compacted in accordance with the methodology provided below. Select Granular Fill shall be used around and above all spread footing foundations in order to resist overturning or uplift forces; in areas where access ways are planned; and beneath all equipment slabs.

On-site native soil contains an appreciable amount of Clay/Silt and may be re-used as backfill on the around isolated spread (mat) foundations for planned electrical structures/equipment. The on-site soils will be sensitive to moisture, therefore compaction requirements may be difficult to achieve, in which case imported structural fill should be used. Imported structural fill shall be used in areas where driveways/roadways are planned. If additional passive resistance is needed for the isolated spread foundations, in order to resist overturning or uplift forces, then Select Granular Fill (as described below) will be required.

## 6.2 Select Granular Fill Material

Structural Fill and Subbase Course Material shall consist of **Select Granular Fill** that shall consist of well-graded sand and gravel or crushed rock product which is capable of being compacted to the required density at the proper moisture content. **Select Granular FILL** shall be free of deleterious materials, trash, roots, debris, frozen material, organic or other foreign matter. **Select Granular Fill** material shall be accepted based on gradation, plasticity index and a well-defined Moisture-Density Relationship Curve. Plasticity Index for material passing the No. 40 sieve shall not exceed 5.0. Gradation requirements are as provided in the following table.

Standard Sieve Size	% Passing by Dry Weight	
	Run-of-Crush	Screened Gravel
2-inch	100	100
1/4-inch	25 to 60	30 to 65
No. 40	5 to 40	5 to 40
No. 200	0 to 10	0 to 10
Note: Gradation and quality requirements conform to those provided in NYSDOT Standard Specifications Section 304, Type 2 (Run-of-Crush) and Type 4 (Screened Gravel) corresponding to NYSDOT Items 304.12 and 304.14, respectively.		

## 6.3 Filling & Backfilling Methodology

The exposed grade shall be sealed and proofrolled as described above in this report. All filling and backfilling planned for this project shall be accomplished according to good industry practice and installed in a quality controlled manner with prequalified materials. LaBella recommends that structural tests and inspections be conducted according to the International Building Code as adopted by New York State, and in accordance with the following recommendations:

- The area to receive fill shall be properly prepared and dewatered (where applicable). All backfilling shall be conducted in the dry on days without rain.



- Fill material shall be placed on the satisfactory subgrade to minimize segregation and shall be placed in nearly horizontal lifts. The lowest elevation fill area shall be where fill/backfill operations begins and then proceed with each lift upward and outward from the lower lift.
- The moisture content of the material shall be adjusted prior to application of compaction such that it is within 3% of the Optimum Moisture Content and may involve adding water when the fill material is too dry, or discing and aerating to reduce moisture when the fill material is too wet.
- The compacted lift thickness and minimum in-place field density shall conform to the recommendations provided in the following table:

Minimum In-Place Density <sup>1</sup>	Maximum Compacted Lift Thickness <sup>2</sup>	Location
95%	12 inches	Mass fill areas (e.g., mat foundations) where self-propelled compaction equipment is used.
95%	8 inches	Confined fill areas (e.g., trenches) when walk-behind compaction equipment is used.
Notes:		
1. As determined using ASTM D1557, Modified Effort Proctor.		
2. Or compactor manufacturer's recommended thickness, whichever is less.		

- When the test results indicate that insufficient compaction has been obtained, the Contractor shall take action to modify or alter the moisture content of the soil, provide additional compaction and/or make other adjustments to increase the in-place soil density. If the Contractor cannot obtain satisfactory compaction due to material properties, the Contractor shall remove the unsatisfactory material and replace with new material.
- Material which is frozen, or includes: mud, debris, organics or other deleterious materials shall be removed and replaced with clean specified material.
- Material shall not be placed over an area or lift of fill that has not been tested and achieved the minimum in-place density requirements.
- A minimum of one compaction test per 2,000 square feet shall be performed on each lift of material placed as mass fill areas and a minimum of one test per 20 linear feet per lift placed in confined fill areas.
- Backfilling around buried concrete walls should not begin until the concrete has reached the minimum of 75 percent of the 28-day strength. Heavy rollers and/or compacting equipment should not operate within 2-feet of the structure. Caution should be exercised while placing the backfill to avoid lateral loads induced by the compaction equipment. To avoid differential lateral pressures against walls that were not designed to retain soil, the backfill should be brought up evenly on each side of the wall.
- If inclement weather occurs after achieving acceptable test results, areas subjected to the inclement weather shall be retested to identify if those areas require repair or replacement prior to placing additional fill.

## 7.0 CONSTRUCTION OBSERVATIONS & TESTING

Special Inspections are required to be performed in accordance with the International Building Code as adopted by New York State. A representative of the geotechnical engineer should be on-site during site preparation activities (e.g., proofrolling), installation of the piles, installation of fill, preparation of foundation bearing grades, and any other geotechnical construction related activities. An independent testing lab shall be retained by the owner to perform compaction testing at frequencies noted earlier in this report.

## **8.0 CLOSING**

LaBella has prepared this report for the use by BW Solar and the design team exclusively. LaBella's recommendations with regard to the design of the planned substation improvements are based upon our understanding of the proposed construction and the information obtained from the subsurface exploration. Variations in the subsurface conditions may occur between Test Boring locations or there may be changes in the planned construction during the design phase. As this may be the case, changes to our recommendations may be warranted.

Generally accepted soil mechanics and geotechnical engineering practices were used to develop the recommendations stated in this report. Our services were conducted in a manner that is in accordance with generally accepted geotechnical engineering practice. The geotechnical engineer of record should review the final design plans and specifications to evaluate their consistency with LaBella's recommendations. Prospective bidders should understand that this report was prepared for design purposes only and may not contain sufficient information to prepare an accurate bid. We recommend that LaBella be retained to monitor and observe the bearing grades, piles, and roadway subgrades during the construction.

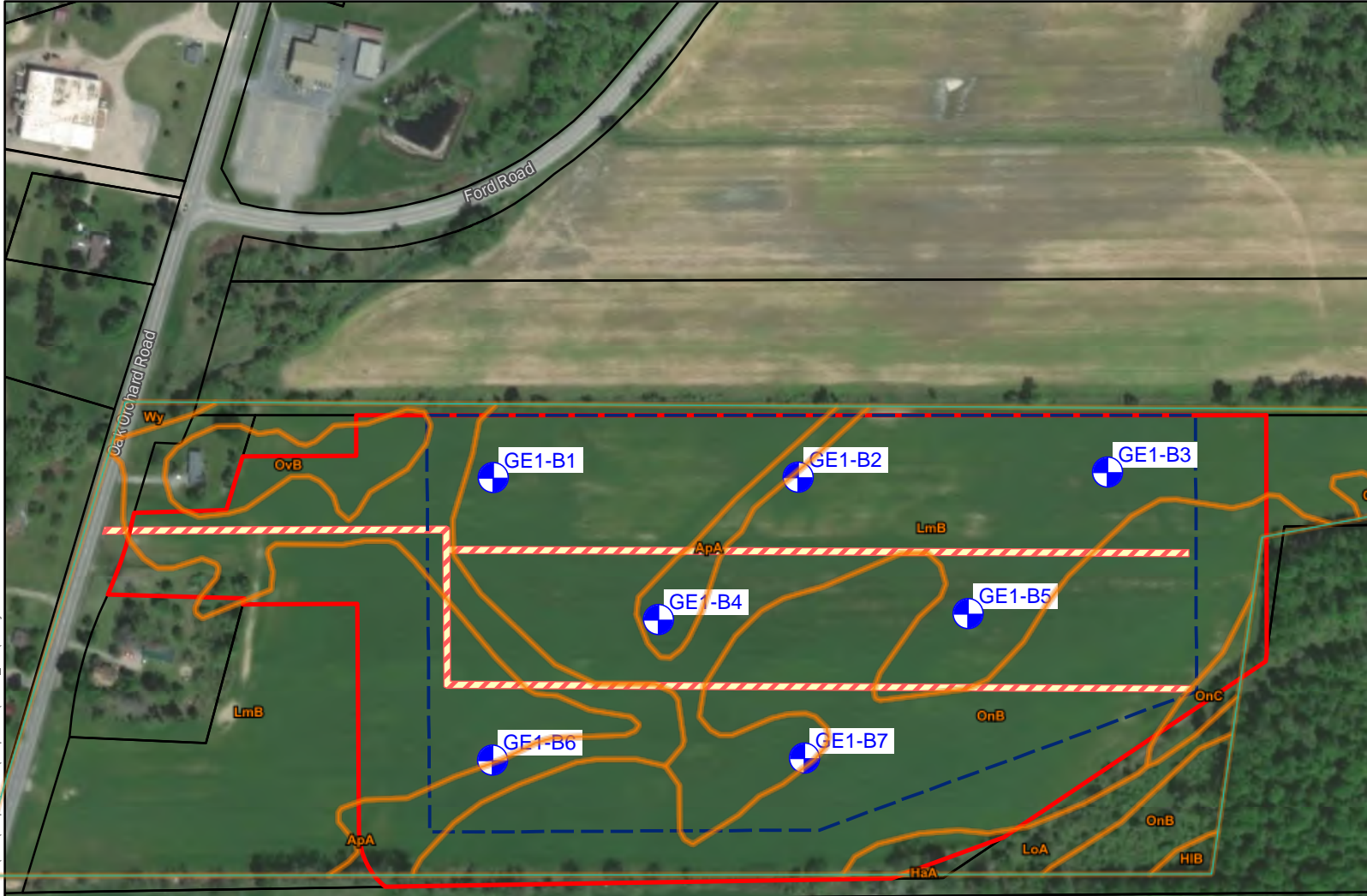
## **9.0 DISPOSITION OF SAMPLES**

LaBella will hold all soil, rock, and/or pavement core samples for 90-days after the date of this report. If the Client desires that these samples be retained for a longer period of time the Client shall notify LaBella in writing and make arrangements to obtain the samples from LaBella prior to the expiration of the 90-day time period; otherwise the samples will be properly disposed by LaBella.

**APPENDIX A**

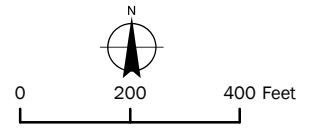
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**FIGURES**



**BW SOLAR**

**Genesee 1 Solar**



- Legend
- Study Area
  - Solar Array Fenceline
  - Access Road
  - Tax Parcel Boundary
  - ⊕ Proposed Boring Location

**LABELLA GEOTECHNICAL REPORT**

**GENESEEE 1 SOLAR - FIGURE 2**

**GENERAL NOTES:**

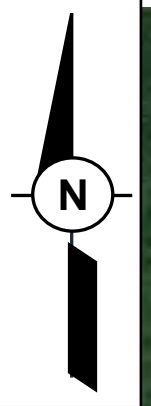
1. AERIAL PHOTOGRAPHY WAS OBTAINED FROM GOOGLE EARTH.
2. FIGURES 1 THROUGH 4 ARE NOT TO BE USED FOR CONSTRUCTION, ESTIMATING, OR LAYOUT PURPOSES.
3. BORINGS WERE ADVANCED BY NYEG DRILLING, LLC. ON DECEMBER 9 - 11, 2020.
4. LOCATIONS ARE APPROXIMATE.
5. NORTHING, & EASTING FROM GOOGLE EARTH TERRAIN MODELING FEATURE AND ARE APPROXIMATE. ELEVATIONS FROM CROSS SECTIONS BY LABELLA ASSOCIATES, D.P.C. ROUNDED TO CLOSEST 1-FOOT.
6. SOIL MAP BOUNDARIES OBTAINED (ORANGE) FROM USDA-NRCS SOIL WEB SURVEY.

EXPLORATION INFORMATION			
Location	Northing	Easting	Elevation
GE1-B1	43.0654°	-78.1867°	756'
GE1-B2	43.0653°	-78.1839°	760'
GE1-B3	43.0653°	-78.1818°	764'
GE1-B4	43.0645°	-78.1854°	763'
GE1-B5	43.0644°	-78.1828°	773'
GE1-B6	43.0637°	-78.1873°	763'
GE1-B7	43.0637°	-78.1855°	767'

Sources: BW Solar 2020; Genesee County 2019; LaBella 2020; Maxar 2017.

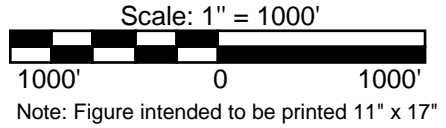
**Study Area  
Figure 1**

LaBella Project No: P2001904  
Date: November 2020



**GENERAL NOTES:**

1. AERIAL PHOTOGRAPHY WAS OBTAINED FROM GOOGLE EARTH.
2. FIGURES 1 THROUGH 4 ARE NOT TO BE USED FOR CONSTRUCTION, ESTIMATING, OR LAYOUT PURPOSES.
3. BORINGS WERE ADVANCED BY NYEG DRILLING, LLC. ON DECEMBER 9 - 11, 2020.
4. LOCATIONS ARE APPROXIMATE.



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**GEOTECHNICAL SUBSURFACE INVESTIGATION**

**GENESSEE 1 SOLAR  
 OAK ORCHARD ROAD**

TOWN OF ELBA      GENESEE COUNTY      NEW YORK

PROJECT NO:	2210066.00
DATE:	JAN 2021
DRAWN BY:	AJH
CHECKED BY:	TJZ

**SITE  
 LOCATION  
 SKETCH**

**FIGURE 2**

C:\Users\tzaso\Documents\Coppy of Genessee Solar Figures TZ Review.XLS\Figure 1 Site Location Sketch

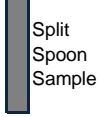
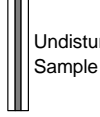

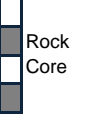
**APPENDIX B**

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**BORING LOGS**

**BORING LOG  
GENERAL INFORMATION & KEY**

Casing, Sampling and Other Equipment					Moisture Content	
H.S.A: Hollow Stem Auger (record I.D.)	Rock Core Sizes				M/C - moisture content	
S.S.A: Solid Stem Auger (record O.D.)	Standard	I.D.	Wire Line	I.D.	Dry	No moisture to touch
HW: Hollow Steel Flush Joint Casing (recorded I.D.)	EW / EX	1-13/32"	BQ	1-7/16"	Dry to Moist	Slight hand staining
Open: Open Hole / No Casing (record I.D.)	AW / AX	1-25/32"	NQ	1-7/8"	Moist	Stains hands easily
S.S.: Split Spoon (record I.D.)	BW / BX	2-7/32"	NQTK(NQ2)	2"	Moist to Wet	Stains hands, feels greasy
Hammer: Auto - Automatic, Man - Manual (rope & cat-head)	NW / NX	2-27/32"	NQ3	1-3/8"	Wet	Free water in sample
Undist: Tube - Shelby, Oste - Osteberg (record I.D. & length)	HW / HX	2-25/32"	HQ	2-1/2"	Saturated	Water flows from sample

Symbol Legend	Abbreviations	
 Split Spoon Sample	N - Standard Penetration Test N-value	TOR - Torvane
 Undisturbed Sample	REC - Recovery	% Rec - Percent Recovered
 No Recovery	WOH - Weight of Rods & Hammer	RQD - Rock Quality Designation
 Rock Core	WOR - Weight of Rods	
	NWE - No Water Encountered	
	PP - Pocket Penetrometer	

Modified Burmister Classification System (visual description of soil)	Percentage Ranges			
	Soil (3" minus)		Oversized (Cobbles & Boulders)	
This system divides the soil into three general categories of Gravel, Sand, Silt/Clay (fines). The predominant fraction is listed first and if it is more than 50% of the matrix the entire word will be capitalized otherwise the first letter of the fraction is capitalized. Quantifiers are used to give a sense of the percentage of the remaining fractions. LaBella has modified the classification system by NOT using "+" or "-" in the descriptions to further quantify the amount of each fraction.	Quantifier	Percent	Quantifier	Percent
	trace	1 - 10	very few	1 - 10
	little	11 - 20	few	11 - 25
	some	21 - 35	common	26 - 40
	and	36 - 50	numerous	41 - 50

**Description of Soil Density**  
Soil consistency is determined while collecting soil samples using ASTM Method D-1586, *Standard Penetration Test N-Value*. The N-Value is calculated by adding the blow counts of the 2nd & 3rd sampling intervals together while driving a 2" O.D. sampler using a 140 lb. hammer falling 30" --OR-- by obtaining Pocket Penetrometer or Torvane Readings.

Coarse Grained Soils Greater than half the material larger than No. 200 Sieve (sand and gravel)	N-Value	Fine Grained Soils [Greater than half the material is smaller than No. 200 Sieve (silt and clay)]				Soil Consistency
		Undrained Shear Strength				
N-Value	Soil Consistency	psi	psf	tsf or kg/cm <sup>2</sup>	kN/m <sup>2</sup>	
0 to 2	Very Loose	< 2.5	< 375	< 0.2	< 20	Very Soft
3 to 4	Loose	2.5 to 5	375 to 750	0.20 to 0.40	20 to 40	Soft
5 to 8	Medium Dense	5 to 10	750 to 1,500	0.40 to 0.75	40 to 75	Firm -or- Medium Stiff
9 to 15	Dense	10 to 20	1,500 to 3,000	0.75 to 1.5	75 to 150	Stiff
16 to 30	Very Dense	20 to 40	3,000 to 6,000	1.5 to 3.0	150 to 300	Very Stiff
> 30		> 40	> 6,000	> 3.0	> 3,000	Hard

Burmister Grain Size Distribution & Soil Type (sizes listed in inches or standard sieve tray size)									
Boulder	Cobble	Gravel (passing 3", retained on #10)			Sand (passing #10, retained on #200)			Fines (passing #200)	
		Coarse	Medium	Fine	Coarse	Medium	Fine	Silt	Clay
>12"	12" - 3"	3" to 1"	1" to 3/8"	3/8" to #10	#10 to #30	#30 to #60	#60 to #200	#200 to 0.002 mm	<0.002 mm

Burmister Guide to Soil with Fines (Silt & Clay)					
Designation	Dilatancy	Plasticity	Feel & Smear	Rolling Threads	Smallest Diameter of Thread
SILT	Slow to Rapid	Non-plastic	gritty / rough	No Thread can be rolled	Ball Cracks
clayey SILT	None to slow	Slightly plastic	rough to smooth	Difficult	1/4"
SILT & CLAY	None to slow	Low plasticity	rough to smooth	Less Difficult	1/8"
CLAY & SILT	None to very slow	Medium plasticity	smooth & dull	Readily	1/16"
silty CLAY	None to very slow	High plasticity	smooth & shiny	Very Readily	1/32"
CLAY	None	Very high plasticity	very shiny & waxy	Very Readily	1/64"

Field Guide for Describing Dilatancy & Toughness for Fine Soils (Silt & Clay)	
Dilatancy	
Term	Description
None	No Visible change to the specimen when shaking
Slow	Water appears slowly on the surface of the specimen during shaking and does not disappear or disappears slowly when squeezed.
Rapid	Water appears quickly on the surface of the specimen during shaking and disappears quickly upon squeezing
Toughness	
Term	Description
Low	Only slight pressure is required to roll a 1/8" thread near the plastic limit. Thread is weak and soft.
Medium	Medium pressure is required to roll a thread near the plastic limit. Thread and lump have medium stiffness.
High	Considerable pressure is required to roll the thread near its plastic limit. Thread and lump have a very high plasticity.

**Bed Rock Classification Terms & Field Test / Field Observation - COLOR**  
Rock color is described in basic terms such as gray, black, green, white, and red. These term are often given modifiers such as light gray or dark gray.

**Bed Rock Classification Terms & Field Test / Field Observation - LITHOLOGY**  
Geologic name/type of rock (e.g., Sandstone, Shale, Limestone, Granite, Gneiss, Schist)

**BORING LOG**  
**GENERAL INFORMATION & KEY**

**Bed Rock Classification Terms & Field Test / Field Observation - FIELD HARDNESS**

Term	Description
Very hard	Cannot be scratched by knife or sharp pick. Breaking hand specimens requires several hard blows of geologist's pick.
Hard	Can be scratched by knife or pick only with difficulty. Hard blow of hammer required to detach specimen.
Moderately hard	Can be scratched by knife or pick. Gouges or grooves to 1/4-inch deep can be excavated by hard blow of point of geologist's pick. Hand specimens can be detached by moderate blow.
Medium	Can be grooved or gouged 1/16-inch deep by firm pressure on knife or pick. Can be excavated in chips to pieces about 1-inch maximum size by hard blows of the point of a geologist's pick.
Soft	Can be grooved or gouged readily with knife or pick. Can be excavated in chips to pieces several inches in size by moderate blows a pick point. Small pieces can be broken by finger pressure.
Very Soft	Can be carved with knife or nail. Can be excavated with point of pick. Pieces 1-inch or more in thickness can be broken with finger pressure. Can be scratched readily by fingernail.

**Bed Rock Classification Terms & Field Test / Field Observation - WEATHERING**

Term	Description
Fresh	No visible signs of rock material weathering. Perhaps slight discoloration on major discontinuity surfaces.
Slightly weathered	Discoloration indicates weathering of rock material and discontinuity surfaces. All the rock may be discolored by weathering and may be somewhat weaker externally than in its fresh condition.
Moderately weathered	Less than half the rock material is decomposed and/or disintegrated to soil. Fresh or discolored rock is present either as a continuous framework or core stones.
Highly Weathered	More than half the rock material is decomposed and/or disintegrated to soil. Fresh or discolored rock is present either as a discontinuous framework or core stones.
Completely weathered	All rock material is decomposed and/or disintegrated to soil. The original mass structure is still largely in tact.
Residual soil	All rock material is converted to soil. The mass structure and material fabric are destroyed. There is a large change in volume, but the soil has not been significantly transported.

**Bed Rock Classification Terms & Field Test / Field Observation - TEXTURE**

Term	Description
Aphanitic	Grains not individually visible to the unaided eye.
Fine-grained	Grains barely visible to the unaided eye up to 1/16-inch in diameter.
Medium-grained	Grains between 1/16-inch and 3/16-inch in diameter.
Coarse-grained	Grains between 3/16-inch and 1/4-inch in diameter.
Very coarse-grained	Grains greater than 1/4-inch in diameter.

**Bed Rock Classification Terms & Field Test / Field Observation - JOINTING**

**Types:**

Term	Description
Joint	A break of geologic origin in the continuity of a body of rock along which there has been no visible displacement.
Shear	A discontinuity along which differential movement has taken place parallel to the discontinuity surface, sufficient to produce slickensides (i.e., striations and polishing).
Fault	Major discontinuity along which there has been appreciable displacement and accompanied by gouge and/or a severely fractured adjacent zone of rock.
Shear or Fault Zone	Band or zone of parallel, closely spaced discontinuities along which differential movement has occurred.

**Orientation**

**Spacing**

Orientation of rock discontinuity relative to the horizontal, (strike and dip, or dip and dip direction in oriented cores), for regular coreing only the dip angle can be obtained.		The perpendicular distance between discontinuities normal to the plane of the fractures of a single system.		
Term	Dip Angle (degrees)	Term	Thickness	
		Extremely Close	< 3/4-inch	< 20-mm
		Very Close	3/4-inch to 2-1/2-inch	20-mm to 60-mm
Horizontal	0 - 5	Close	2-1/2-inch to 8-inch	60-mm to 200-mm
Low Angle	5 - 35	Moderate	8-inch to 24-inch	200-mm to 600-mm
Moderately Dipping	35 - 55	Wide	24-inch to 80-inch	600-mm to 2000-mm
High Angle	55 - 85	Very Wide	80-inch to 240-inch	2000-mm to 6000-mm
Vertical	85 - 90	Extremely Wide	> 240-inch (20 ft)	> 6000-mm

**BEDDING, ROCK QUALITY DESIGNATION & ROCK MASS CLASSIFICATION**

Bedding is the arrangement of a sedimentary rock in beds or layers. The bedding surface may also be applied to the layered arrangement of tabular masses of igneous rock. The terminology to the right is used to describe the thickness of bedding as measured between bedding surfaces:	Term	Thickness		Rock Quality Designation (RQD) & Rock Mass Classification based on RQD		RQD = $\frac{\Sigma \text{ of pieces } \geq 4''}{\text{total length of run}}$
		mm	in. (round)	RQD	Rock Mass Class	
	Very Thin Laminae	< 1	< 0.04	< 25%	very poor	
	Thin Laminae	1 - 3	0.04 - 0.12	25% to 50%	poor	
	Medium Laminae	3 - 6	0.12 - 0.25	50% to 75%	fair	
	Thick Laminae	6 - 10	0.25 - 0.40	75% to 90%	good	
	Very Thin Bed	10 - 30	0.40 - 1.2	90% to 100%	excellent	
	Thin Bed	30 - 100	1.2 - 4.0			
	Medium Bed	100 - 300	4.0 - 12			
	Thick Bed	300 - 1,000	12 - 40			
	Very Thick Bed	> 1,000	> 40			

ASTM Method D-6032, Standard Test Method for Determining Rock Quality Designation (RQD) of Rock Cores




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			<b>Project No.:</b> 2210066 <b>Start Date:</b> 12/09/20 <b>Finish Date:</b> 12/09/20 <b>Inspector:</b> -- <b>Surface Elev.:</b> +/-756.0


<b>Project Name:</b>	Genesee 1 Solar	<b>Drilling Firm:</b>	LaBella Environmental, LLC.
<b>Location:</b>	Oak Orchard Road, Elba NY	<b>Drilling Crew:</b>	C. Stone
<b>Client:</b>	BW Solar		

<b>Key:</b> _____ Geologic Strata Change - - - - - Gradation Change Within Strata	<b>Drill Rig:</b>	CME 55LC	<b>Rock Core:</b>	NA
	<b>Casing:</b>	4 1/4" H.S.A.	<b>Other:</b>	NM - Not Measured N.W.E.-No Water Encountered
	<b>Sampler:</b>	1 3/8" ID S.S.		
	<b>Undisturbed:</b>	NA		
<b>Coordinates:</b>	<b>N:</b> 43.0652°	<b>E:</b> -78.1878°	<b>Hammer:</b>	140#, 30" Autodrop

Depth (ft.)	Sample Number	Symbol	Blows on Sampler per 6"	VISUAL-MANUAL MATERIAL DESCRIPTION trace (1 - 10%), little (11 - 20%), some (21 - 35%), and (36-50%);	Depth of Change	COMMENTS (e.g., N-value, recovery, moisture, core run, % recovered, RQD)
			W.O.H.	Topsoil	0.8'	
1	S-1		4	Red brown SILT, some coarse to fine Sand, trace medium to fine Gravel.	11.5'	<b>S-1</b> 0.0' - 2.0' <b>N=9</b> REC = 18" M/C: Dry to Moist Consistency: Loose
2			5			
3	S-2		5	Red brown SILT, little fine Sand.		<b>S-2</b> 2.0' - 4.0' <b>N=14</b> REC = 12" M/C: Moist to Wet Consistency: Medium Dense
4			7			
5	S-3		6	Brown SILT, some coarse to fine Sand, trace fine Gravel.		<b>S-3</b> 4.0' - 6.0' <b>N=19</b> REC = 14" M/C: Dry to Moist Consistency: Medium Dense
6			13	-Alluvial Deposits-		
7	S-4		15	similar to Sample-3		<b>S-4</b> 6.0' - 8.0' <b>N=34</b> REC = 8" M/C: Dry to Moist Consistency: Dense
8			17			
9	S-5		14	Red brown SILT, and coarse to fine Sand.		<b>S-5</b> 8.0' - 10.0' <b>N=52</b> REC = 10" M/C: Dry to Moist Consistency: Very Dense
10			24			
11			28			
12			26			
13			36			
14	S-6		28	Brown coarse to fine SAND, little Silt, trace medium to fine Gravel.		<b>S-6</b> 13.0' - 15.0' <b>N=62</b> REC = 14" M/C: Dry Consistency: Very Dense
15			36			
16			32	-Fluvial Deposits-		
17						
18						
19	S-7		13	similar to Sample-6.		<b>S-7</b> 18.0' - 20.0' <b>N=21</b> REC = 16" M/C: Dry Consistency: Medium Dense
20			11			
21			10			
22			10	Bottom of Exploration @ 20.0'		
23						

Groundwater/Caving	Date (mm/dd/yy)	Time (24 hr clock)	Elapsed Time (hours)	Depth in feet to:		
				Bottom of Casing	Bottom of Hole	Water
<b>While Drilling:</b>	12/09/20	NM	NM	18.0	20.0	N.W.E.
<b>While Drilling:</b>	12/09/20	NM	NM	18.0	20.0	N.W.E.
<b>After Casing Removed:</b>	12/09/20	NM	NM	Removed	17.3	N.W.E.


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<b>Project Name:</b> Genesee 1 Solar		<b>Location:</b> Oak Orchard Road, Elba NY		<b>Client:</b> BW Solar		<b>Project No.:</b> 2210066	
<b>Drilling Firm:</b> LaBella Environmental, LLC.		<b>Drilling Crew:</b> C. Stone		<b>Start Date:</b> 12/10/20		<b>Finish Date:</b> 12/10/20	
<b>Inspector:</b> --		<b>Surface Elev.:</b> +/-760.0		<b>Key:</b>			
_____ Geologic Strata Change - - - - - Gradation Change Within Strata		<b>Drill Rig:</b> CME 55LC	<b>Rock Core:</b> NA	<b>Other:</b> NM - Not Measured			
<b>Coordinates:</b> N: 43.0653° E: -78.1839°		<b>Casing:</b> 4 1/4" H.S.A.	<b>Sampler:</b> 1 3/8" ID S.S.	<b>Undisturbed:</b> NA			
		<b>Hammer:</b> 140#, 30" Autodrop					
Depth (ft.)	Sample Number	Symbol	Blows on Sampler per 6"	VISUAL-MANUAL MATERIAL DESCRIPTION trace (1 - 10%), little (11 - 20%), some (21 - 35%), and (36-50%);		Depth of Change	COMMENTS (e.g., N-value, recovery, moisture, core run, % recovered, RQD)
1	S-1		W.O.H.	Topsoil		0.8'	<b>S-1</b> 0.0' - 2.0' <b>N=5</b> REC = 16" M/C: Moist Consistency: Medium Stiff
2			2	Gray brown clayey SILT, trace fine Sand.		2.0'	
3			3	-Alluvial Deposits-			
3	S-2		10	Red brown coarse to fine SAND, some Silt, trace fine Gravel.		11.5'	<b>S-2</b> 2.0' - 4.0' <b>N=24</b> REC = 14" M/C: Dry to Moist Consistency: Medium Dense
4			12				
5			14				
5	S-3		13	similar to Sample-2.			<b>S-3</b> 4.0' - 6.0' <b>N=26</b> REC = 12" M/C: Dry Consistency: Medium Dense
6			12				
7			14				
7	S-4		25	similar to Sample-2.			<b>S-4</b> 6.0' - 8.0' <b>N=46</b> REC = 14" M/C: Dry Consistency: Dense
8			22	-Fluvial Deposits-			
9			24				
9	S-5		20	similar to Sample-2.			<b>S-5</b> 8.0' - 10.0' <b>N=43</b> REC = 14" M/C: Dry Consistency: Dense
10			22				
11			21				
14	S-6		10	Red brown clayey SILT, some coarse to fine Sand.		<b>S-6</b> 13.0' - 15.0' <b>N=32</b> REC = 16" M/C: Dry Consistency: Hard	
15			15				
16			17				
17			17	-Alluvial Deposits-		<b>S-7</b> 18.0' - 20.0' <b>N=24</b> REC = 0"	
18							
19	S-7		15	No Recovery			
20			12				
21			12			Bottom of Exploration @ 20.0'	
22			15				
23							
<b>Groundwater/Caving</b>		<b>Date</b>	<b>Time</b>	<b>Elapsed Time</b>	<b>Depth in feet to:</b>		
		<b>(mm/dd/yy)</b>	<b>(24 hr clock)</b>	<b>(hours)</b>	<b>Bottom of Casing</b>	<b>Bottom of Hole</b>	<b>Water</b>
<b>While Drilling:</b>		12/10/20	NM	NM	18'	20.0	16.3
<b>Before Casing Removed:</b>		12/10/20	NM	NM	18'	20.0	16.3
<b>After Casing Removed:</b>		12/10/20	NM	NM	Removed	17.9	15.2

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			<b>Project No.:</b> 2210066 <b>Start Date:</b> 12/10/20 <b>Finish Date:</b> 12/10/20 <b>Inspector:</b> -- <b>Surface Elev.:</b> +/-764.0
<b>Project Name:</b> Genesee 1 Solar		<b>Drilling Firm:</b> LaBella Environmental, LLC.	
<b>Location:</b> Oak Orchard Road, Elba NY		<b>Drilling Crew:</b> C. Stone	
<b>Client:</b> BW Solar			

<b>Key:</b> _____ Geologic Strata Change - - - - - Gradation Change Within Strata	<b>Drill Rig:</b> CME 55LC	<b>Rock Core:</b> NA
	<b>Casing:</b> 4 1/4" H.S.A.	<b>Other:</b> NM - Not Measured N.W.E. - No Water Encountered
	<b>Sampler:</b> 1 3/8" ID S.S.	
	<b>Undisturbed:</b> NA	
<b>Coordinates:</b> N: 43.0653° E: -78.1818°	<b>Hammer:</b> 140#, 30" Autodrop	

Depth (ft.)	Sample Number	Symbol	Blows on Sampler per 6"	VISUAL-MANUAL MATERIAL DESCRIPTION trace (1 - 10%), little (11 - 20%), some (21 - 35%), and (36-50%);	Depth of Change	COMMENTS (e.g., N-value, recovery, moisture, core run, % recovered, RQD)
1	S-1		1	Topsoil	0.8'	<b>S-1</b> 0.0' - 2.0' <b>N=7</b> REC = 11" M/C: Moist Consistency: Loose
2			3	Brown SILT, some coarse to fine Sand, little coarse to fine Gravel.		
			4			
			5			
3	S-2		7	similar to Sample-1.		<b>S-2</b> 2.0' - 4.0' <b>N=12</b> REC = 6" M/C: Dry to Moist Consistency: Medium Dense
4			5	-Alluvial Deposits-		
			7			
5	S-3		10	Similar to Sample-1.	5.5'	<b>S-3</b> 4.0' - 6.0' <b>N=22</b> REC = 18" M/C: Dry to Moist Consistency: Medium Dense
6			11	-Fluvial Deposits-		
			11			
			20			
			31			
7	S-4		30	Gray coarse to fine GRAVEL, some brown coarse to fine SAND, little Silt.	8.0'	<b>S-4</b> 6.0' - 8.0' <b>N=70</b> REC = 6" M/C: Dry Consistency: Very Dense
8			40			
			42			
9	S-5		33	Gray brown coarse to fine SAND, some Silt, trace fine Gravel.		<b>S-5</b> 8.0' - 10.0' <b>N=57</b> REC = 18" M/C: Dry Consistency: Very Dense
10			25			
			32			
			35			
11				-Fluvial Deposits-		
12						
13						
14	S-6		50/3"	No Recovery.		<b>S-6</b> 13.0' - 13.2' <b>N&gt;50</b> REC = 0"
15						
16						
17						
18						
19	S-7		22			
20			21	Bottom of Exploration 20.0'		
			19			
			20			
21						
22						
23						

Groundwater/Caving	Date	Time	Elapsed Time	Depth in feet to:		
	(mm/dd/yy)	(24 hr clock)	(hours)	Bottom of Casing	Bottom of Hole	Water
While Drilling:	12/10/20	NM	NM	18.0	20.0	N.W.E.
Before Casing Removed:	12/10/20	NM	NM	18.0	20.0	N.W.E.
After Casing Removed:	12/10/20	NM	NM	Removed	16.3	N.W.E.


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<b>Project Name:</b> Genesee 1 Solar						<b>Project No.:</b> 2210066	
<b>Location:</b> Oak Orchard Road, Elba NY						<b>Start Date:</b> 12/10/20	
<b>Client:</b> BW Solar						<b>Finish Date:</b> 12/10/20	
<b>Drilling Firm:</b> LaBella Environmental, LLC.		<b>Drilling Crew:</b> C. Stone				<b>Inspector:</b> --	
<b>Key:</b> _____ Geologic Strata Change - - - - - Gradation Change Within Strata		<b>Drill Rig:</b> CME 55LC		<b>Rock Core:</b> NA		<b>Other:</b> NM - Not Measured	
<b>Coordinates:</b> N: 43.0645° E: -78.1854°		<b>Casing:</b> 4 1/4" H.S.A.					
		<b>Sampler:</b> 1 3/8" ID S.S.					
		<b>Undisturbed:</b> NA					
		<b>Hammer:</b> 140#, 30" Autodrop					


  


Depth (ft.)	Sample Number	Symbol	Blows on Sampler per 6"	VISUAL-MANUAL MATERIAL DESCRIPTION trace (1 - 10%), little (11 - 20%), some (21 - 35%), and (36-50%);	Depth of Change	COMMENTS (e.g., N-value, recovery, moisture, core run, % recovered, RQD)
1	S-1		3	W.O.H. Topsoil	0.8'	<b>S-1</b> 0.0' - 2.0' <b>N=7</b> REC = 10" M/C: Moist Consistency: Medium Stiff
2			4	-Alluvial Deposits-	2.5'	<b>S-2</b> 2.0' - 4.0' <b>N=25</b> REC = 12" M/C: Dry to Moist Consistency: Medium Dense
			5			
3	S-2		10			
4			15	Red brown coarse to fine Sand, and Silt, trace fine Gravel.		<b>S-3</b> 4.0' - 6.0' <b>N=32</b> REC = 20" M/C: Dry Consistency: Dense
5	S-3		15			
6			16	similar to Sample-2.		<b>S-4</b> 6.0' - 8.0' <b>N=57</b> REC = 10" M/C: Dry Consistency: Very Dense
7	S-4		16			
8			20	similar to Sample-2.		<b>S-5</b> 8.0' - 10.0' <b>N=51</b> REC = 16" M/C: Dry Consistency: Very Dense
9	S-5		18			
10			25	Red brown coarse to fine SAND, some Silt, trace fine Gravel.		<b>S-6</b> 13.0' - 15.0' <b>N=22</b> REC = 8" M/C: Moist to Wet Consistency: Medium Dense
11			26			
12			30	-Fluvial Deposits-		
13						
14	S-6		13	Brown medium to fine SAND, trace Silt.	13.0'	
15			10	-Fluvial Deposits-		
16			12			
17			12			
18					18.0'	<b>S-7</b> 18.0' - 20.0' <b>N=37</b> REC = 11" M/C: Moist Consistency: Dense
19	S-7		16	Brown coarse to fine SAND, some red Clay and Silt.		
20			17	-Fluvial Deposits-		
21			20			
22			22			
23						

Groundwater/Caving	Date	Time	Elapsed Time	Depth in feet to:		
	(mm/dd/yy)	(24 hr clock)	(hours)	Bottom of Casing	Bottom of Hole	Water
While Drilling:	12/10/20	NM	NM	18.0	20.0	16.3
Before Casing Removed:	12/10/20	NM	NM	18.0	20.0	16.3
After Casing Removed:	12/10/20	NM	NM	Removed	16.8	14.2

 <b>LaBella</b> Powered by partnership. <a href="http://www.labellapc.com">www.labellapc.com</a>		LaBella Associates, D.P.C. 300 State Street, Suite 201 Rochester, New York 14614 p: 585-454-6110		<h2>TEST BORING LOG</h2>			<b>Boring No.:</b> GE1-B5
<b>Project Name:</b> Genesee 1 Solar		<b>Location:</b> Oak Orchard Road, Elba NY		<b>Client:</b> BW Solar		<b>Project No.:</b> 2210066	
<b>Drilling Firm:</b> LaBella Environmental, LLC.		<b>Drilling Crew:</b> C. Stone		<b>Start Date:</b> 12/11/20		<b>Finish Date:</b> 12/11/20	
<b>Key:</b> _____ Geologic Strata Change - - - - - Gradation Change Within Strata		<b>Drill Rig:</b> CME 55LC		<b>Rock Core:</b> NA		<b>Other:</b> NM - Not Measured N.W.E. - No Water Encountered	
<b>Coordinates:</b> N: 43.0644° E: -78.1828°		<b>Casing:</b> 4 1/4" H.S.A.		<b>Sampler:</b> 1 3/8" ID S.S.		<b>Undisturbed:</b> NA	
		<b>Hammer:</b> 140#, 30" Autodrop					
Depth (ft.)	Sample Number	Symbol	Blows on Sampler per 6"	VISUAL-MANUAL MATERIAL DESCRIPTION trace (1 - 10%), little (11 - 20%), some (21 - 35%), and (36-50%);	Depth of Change	COMMENTS (e.g., N-value, recovery, moisture, core run, % recovered, RQD)	
1	S-1		1	W.O.H. Topsoil	0.8'	<b>S-1</b> 0.0' - 2.0' <b>N=3</b> REC = 10" M/C: Dry to Moist Consistency: Soft	
2			2	Red brown SILT, some coarse to fine Sand, trace fine Gravel.			
			4				
3	S-2		5				Brown clayey SILT, little coarse to fine Sand, trace fine Gravel.
4			6	-Alluvial Deposits-			
			6				
5	S-3		12				Brown SILT, some coarse to fine Sand, trace fine Gravel.
6			11	-Fluvial Deposits-			
			9				
7	S-4		10				Brown to red coarse to fine Gravel, and coarse to fine Sand, little Silt.
8			21	-Fluvial Deposits-			
			26				
9	S-5		28				Gray brown coarse to fine SAND, some Silt, little medium to fine Gravel.
10			29	-Fluvial Deposits-			
			32				
11			34				
12				-Fluvial Deposits-			
13							
14	S-6		36	similar to Sample-5.	6.0'	<b>S-6</b> 13.0' - 15.0' <b>N=48</b> REC = 20" M/C: Dry Consistency: Dense	
			28				
15			20				
16				-Fluvial Deposits-			
17							
18				-Fluvial Deposits-			
19	S-7		24				similar to Sample-5.
20			20	-Fluvial Deposits-		<b>S-7</b> 18.0' - 20.0' <b>N=38</b> REC = 10" M/C: Dry Consistency: Dense	
			18				
21			36				
22				Bottom of Exploration @ 20.0'			
23							
Groundwater/Caving		Date (mm/dd/yy)	Time (24 hr clock)	Elapsed Time (hours)	Bottom of Casing	Bottom of Hole	Water
While Drilling:		12/11/20	NM	NM	18.0	20.0	N.W.E.
Before Casing Removed:		12/11/20	NM	NM	18.0	20.0	N.W.E.
After Casing Removed:		12/11/20	NM	NM	Removed	17.8	N.W.E.

 <b>LaBella</b> Powered by partnership. <a href="http://www.labellapc.com">www.labellapc.com</a>		<b>LaBella Associates, D.P.C.</b> 300 State Street, Suite 201 Rochester, New York 14614 p: 585-454-6110		<b>TEST BORING LOG</b>			<b>Boring No.:</b> GE1-B6
<b>Project Name:</b> Genesee 1 Solar		<b>Location:</b> Oak Orchard Road, Elba NY		<b>Client:</b> BW Solar		<b>Project No.:</b> 2210066	
<b>Drilling Firm:</b> LaBella Environmental, LLC.		<b>Drilling Crew:</b> C. Stone		<b>Start Date:</b> 12/11/20		<b>Finish Date:</b> 12/11/20	
<b>Key:</b> _____ Geologic Strata Change - - - - - Gradation Change Within Strata		<b>Drill Rig:</b> CME 55LC		<b>Rock Core:</b> NA		<b>Other:</b> NM - Not Measured N.W.E. - No Water Encountered	
<b>Coordinates:</b> N: 43.0637° E: -78.1873°		<b>Casing:</b> 4 1/4" H.S.A.		<b>Sampler:</b> 1 3/8" ID S.S.		<b>Undisturbed:</b> NA	
		<b>Hammer:</b> 140#, 30" Autodrop					
Depth (ft.)	Sample Number	Symbol	Blows on Sampler per 6"	VISUAL-MANUAL MATERIAL DESCRIPTION trace (1 - 10%), little (11 - 20%), some (21 - 35%), and (36-50%);		Depth of Change	COMMENTS (e.g., N-value, recovery, moisture, core run, % recovered, RQD)
1	S-1		1	W.O.H. Topsoil		0.8'	<b>S-1</b> 0.0' - 2.0' <b>N=3</b> REC = 12" M/C: Dry to Moist Consistency: Very Loose  <b>S-2</b> 2.0' - 4.0' <b>N=11</b> REC = 12" M/C: Dry to Moist Consistency: Medium Dense  <b>S-3</b> 4.0' - 6.0' <b>N=25</b> REC = 6" M/C: Dry to Moist Consistency: Medium Dense  <b>S-4</b> 6.0' - 8.0' <b>N=30</b> REC = 18" M/C: Dry to Moist Consistency: Medium Dense  <b>S-5</b> 8.0' - 10.0' <b>N=35</b> REC = 14" M/C: Dry Consistency: Dense  Cobbles encountered.  <b>S-6</b> 13.0' - 15.0' <b>N=59</b> REC = 18" M/C: Dry Consistency: Very Dense  <b>S-7</b> 18.0' - 20.0' <b>N=50</b> REC = 8" M/C: Dry Consistency: Dense
2			2	Brown coarse to fine SAND, little Silt, trace fine Gravel.		11.5'	
3	S-2		4	similar to Sample-1.			
4			5				
5	S-3		12	Brown coarse to fine SAND, little Silt, trace medium to fine Gravel.			
6			13	-Fluvial Deposits-			
7	S-4		12	similar to Sample-3.			
8			17				
9	S-5		15	similar to Sample-3.			
10			15				
11			21				
12			13	similar to Sample-3.			
13			15				
14	S-6		29	Gray SILT, some coarse to fine Sand, trace fine Gravel.			
15			28	-Alluvial Deposits-			
16			31				
17			36				
18			36	similar to Sample-6.			
19	S-7		29				
20			21				
21			37	Bottom of Exploration @ 20.0'			
22							
23							
Groundwater/Caving		Date (mm/dd/yy)	Time (24 hr clock)	Elapsed Time (hours)	Depth in feet to:		
While Drilling:		12/11/20	NM	NM	Bottom of Casing	Bottom of Hole	Water
Before Casing Removed:		12/11/20	NM	NM	18.0	20.0	N.W.E.
After Casing Removed:		12/11/20	NM	NM	Removed	17.0	N.W.E.

 <b>LaBella</b> Powered by partnership. <a href="http://www.labellapc.com">www.labellapc.com</a>		LaBella Associates, D.P.C. 300 State Street, Suite 201 Rochester, New York 14614 p: 585-454-6110		<h2>TEST BORING LOG</h2>			<b>Boring No.:</b> GE1-B7
<b>Project Name:</b> Genesee 1 Solar						<b>Project No.:</b> 2210066	
<b>Location:</b> Oak Orchard Road, Elba NY						<b>Start Date:</b> 12/11/20	
<b>Client:</b> BW Solar						<b>Finish Date:</b> 12/11/20	
<b>Drilling Firm:</b> LaBella Environmental, LLC.		<b>Drilling Crew:</b> C. Stone				<b>Inspector:</b> --	
<b>Key:</b> _____ Geologic Strata Change - - - - - Gradation Change Within Strata		<b>Drill Rig:</b> CME 55LC		<b>Rock Core:</b> NA		<b>Other:</b> NM - Not Measured N.W.E. - No Water Encountered	
<b>Coordinates:</b> N: 43.0637° E: -78.1855°		<b>Casing:</b> 4 1/4" H.S.A.					
		<b>Sampler:</b> 1 3/8" ID S.S.					
		<b>Undisturbed:</b> NA					
		<b>Hammer:</b> 140#, 30" Autodrop					
Depth (ft.)	Sample Number	Symbol	Blows on Sampler per 6"	VISUAL-MANUAL MATERIAL DESCRIPTION trace (1 - 10%), little (11 - 20%), some (21 - 35%), and (36-50%);	Depth of Change	COMMENTS (e.g., N-value, recovery, moisture, core run, % recovered, RQD)	
1	S-1		3	W.O.H. Topsoil	0.8'	<b>S-1</b> 0.0' - 2.0' <b>N=6</b> REC = 6" M/C: Moist Consistency: Loose	
2			3	-Fluvial Deposits-	2.0'		
3	S-2		5	Brown coarse to fine SAND, trace Silt, trace fine Gravel.			<b>S-2</b> 2.0' - 4.0' <b>N=12</b> REC = 18" M/C: Moist Consistency: Medium Dense
4			7	-Fluvial Deposits-	5.0'		
5	S-3		4	Brown coarse to fine SAND, trace Silt, trace fine Gravel.			<b>S-3</b> 4.0' - 6.0' <b>N=22</b> REC = 8" M/C: Dry to Moist Consistency: Medium Dense
6			11	Brown Silt, and coarse to fine Sand, little coarse to fine Gravel.			
7	S-4		10	-Fluvial Deposits-	8.0'		
8			12	Brown coarse to fine SAND, trace Silt, trace fine Gravel.			<b>S-4</b> 6.0' - 8.0' <b>N=34</b> REC = 16" M/C: Dry to Moist Consistency: Dense
9	S-5		14	Brown clayey SILT and fine Sand.	11.5'		
10			20	-Alluvial Deposits-			<b>S-5</b> 8.0' - 10.0' <b>N=33</b> REC = 18" M/C: Dry Consistency: Hard
11			23				
12			28				
13							
14	S-6		29	Gray brown Silt, and coarse to fine Sand, trace medium to fine Gravel.			
15			31	-Fluvial Deposits-			<b>S-6</b> 13.0' - 15.0' <b>N=63</b> REC = 20" M/C: Dry Consistency: Very Dense
16			32				
17			38				
18							
19	S-7		28	similar to Sample-6.			
20			27				<b>S-7</b> 18.0' - 20.0' <b>N=54</b> REC = 10" M/C: Dry Consistency: Very Dense
21			27				
22			23				
23				Bottom of Exploration @ 20.0'			
Groundwater/Caving		Date (mm/dd/yy)	Time (24 hr clock)	Elapsed Time (hours)	Depth in feet to:		
While Drilling:		12/11/20	NM	NM	Bottom of Casing	Bottom of Hole	
Before Casing Removed:		12/11/20	NM	NM	18.0	20.0	
After Casing Removed:		12/11/20	NM	NM	Removed	16.9	
						Water	
						N.W.E.	
						N.W.E.	
						N.W.E.	

**APPENDIX C**

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**SEISMIC SITE EVALUATION**





**LaBella Associates, D.P.C.**  
 300 Pearl Street, Suite 130  
 Buffalo, New York 14202  
 p: 716-551-6281

Project: **Genesee 1 Solar Array**  
 Location: **Oak Orchard Road, Elba, Genesee Co., NY.** File: 2210066.00  
 Client: **BW Solar**  
 Prepared by: **AJH** Date: **1/13/21** Checked by: **TJZ** Date: **1/19/21**

### SEISMIC SITE CLASSIFICATION WORK SHEET

**BUILDING CODE: INTERNATIONAL BUILDING CODE - SECTION 1616**

**BORING: See Below**

**Class F Questions:**

1 Are soils vulnerable to potential failure or collapse under seismic loading present (i.e., liquefiable, quick/highly sensitive clay, collapsible weakly cemented)?	<b>NO</b>
2 Is there a layer of Peat or Highly Organic Clay greater than 10 feet in thickness?	<b>NO</b>
3 Is there a layer of High Plasticity Clay (PI > 75) greater than 25 feet in thickness?	<b>NO</b>
4 Is there a layer of soft to medium stiff Clay greater than 120 feet in thickness?	<b>NO</b>

**Class E Questions:**

More than 10 feet of soil having ALL the following:	
1 Plasticity Index (PI) > 20?	<b>No</b>
2 Moisture Content (w) >= 40%?	<b>No</b>
3 Undrained shear strength (su) < 500 psf?	<b>No</b>

CLASS E & F CHECKS
<b>CONTINUE WITH SHEET BELOW</b>

**Site Classification Determination using SPT Results**

LAYER INTERVAL			Thick d <sub>i</sub>	N-VALUES (STANDARD PENETRATION TEST RESULTS) FOR EACH SAMPLE RETRIEVED WITHIN LAYER														AVG N VALUE N <sub>i</sub>	d <sub>i</sub> / N <sub>i</sub>			
NO.	BEG	END		B1	B2	B3	B4	B5	B6	B7												
1	0	2	2	9	5	7	3	1	3	6										4.9	0.41	
2	2	4	2	14	24	12	25	6	11	12										14.9	0.13	
3	4	6	2	19	26	22	32	23	25	22										24.1	0.08	
4	6	8	2	34	46	70	57	47	30	34										45.4	0.04	
5	8	13	5	52	43	57	51	61	35	33										47.4	0.11	
6	13	18	5	62	32	70	22	48	59	63										50.9	0.10	
7	18	20	2	21	24	40	37	38	50	54										37.7	0.05	
8	20	30	10	21	24	40	37	38	50	54										37.7	0.27	
9	30	40	10	21	24	40	37	38	50	54										37.7	0.27	
10	40	50	10	21	24	40	37	38	50	54										37.7	0.27	
11	50	60	10	21	24	40	37	38	50	54										37.7	0.27	
12	60	70	10	21	24	40	37	38	50	54										37.7	0.27	
13	70	80	10	21	24	40	37	38	50	54										37.7	0.27	
14	80	90	10	21	24	40	37	38	50	54										37.7	0.27	
15	90	100	10	21	24	40	37	38	50	54										37.7	0.27	
16	-	-	-																			
17	-	-	-																			
18	-	-	-																			
19	-	-	-																			
20	-	-	-																			
21	-	-	-																			
22	-	-	-																			
23	-	-	-																			
24	-	-	-																			
25	-	-	-																			
Σ d <sub>i</sub> :			100															Σ d <sub>i</sub> /N <sub>i</sub> :	3.05			

**SITE CLASSIFICATION: Class D**

$$N = \frac{\sum d_i}{\sum d_i/N_i} = \frac{100.0}{3.05} = 32.8$$

- CLASS C N > 50
- CLASS D 15 ≤ N ≤ 50
- CLASS E N < 15

**Stiff Soil**



**LaBella Associates, D.P.C.**  
 300 Pearl Street, Suite 130  
 Buffalo, New York 14202  
 p: 716-551-6281

Project: **Genesee 1 Solar Array**  
 Location: **Oak Orchard Road, Elba, Genesee Co., NY.** File: 2210066.00  
 Client: **BW Solar**  
 Prepared by: **AJH** Date: 1/13/21 Checked by: **TJZ** Date: 1/19/21

**SEISMIC SITE CLASSIFICATION WORK SHEET**

**SITE CLASSIFICATION: Class D Stiff Soil**

Risk Category	Nature of occupancy
I	Buildings and other structures that represent low risk to human life in the event of failure, including but not limited to: Agricultural Facilities Certain Temporary Facilities Minor Storage Facilities
II	All buildings and other structures except those listed in Risk Category I, III, and IV
III	Buildings and other structures, the failure of which could pose a substantial risk to human life, including but not limited to: Primary occupancy is public assembly of greater than 300 people. Group E Occupancies greater than 250 people. Educational Occupancies for students above 12th grade greater than 500 people. Group I-2 Occupancies greater than 50 resident care recipients but NOT having surgery or emergency treatment facilities. Group I-3 Occupancies. Any other Occupancies of 5,000 people or greater. Power Generating Stations Potable Water Treatment Facilities. Waste Water Treatment Facilities. Other Public Utility Facilities not listed in Risk Category IV. Buildings and other structures, not included in Risk Category IV, with potential to cause a substantial economic impact and/or mass disruption to day-to-day civilian life in the event of failure. Buildings and other structures, not included in Risk Category IV, (including, but not limited to, facilities that manufacture, process, handle, store, use, or dispose of such substances as hazardous fuels, hazardous chemicals, hazardous waste or explosives) containing toxic or explosive substances where the quantity of the material exceeds the threshold quantity established by the authority having jurisdiction and is sufficient to pose a threat to the public if released.
IV	Buildings and other structures designated as essential facilities, including but not limited to: Group I-2 Occupancies having surgery or emergency treatment facilities Fire, Rescue, Ambulance and Police Stations and Emergency vehicle garages Designated Earthquake, Hurricane or other emergency shelters Designated Emergency Preparedness, communications & operations centers for emergency response. Power-generating stations and other public utility facilities required as emergency back up facilities for Risk Category IV Structures. Buildings and other structures, the failure of which could pose a substantial hazard to the community. Buildings and other structures, (including, but not limited to, facilities that manufacture, process, handle, store, use, or dispose of such substances as hazardous fuels, hazardous chemicals, hazardous waste) containing sufficient quantities of highly toxic substances where the quantity of the material exceeds the threshold quantity established by the authority having jurisdiction and is sufficient to pose a threat to the public if released.



**LaBella Associates, D.P.C.**  
 300 Pearl Street, Suite 130  
 Buffalo, New York 14202  
 p: 716-551-6281

Project: **Genesee 1 Solar Array**  
 Location: **Oak Orchard Road, Elba, Genesee Co., NY.** File: 2210066.00  
 Client: **BW Solar**  
 Prepared by: **AJH** Date: 1/13/21 Checked by: **TJZ** Date: 1/19/21

**SEISMIC SITE PARAMETERS**

**BASIC PARAMETERS**

Latitude  
 N: 43.0641°  
 Longitude  
 E: -78.1859°  
 Risk Category: **IV**  
 Seismic Site Class: **D**  
 Reference:  
**ASCE 7-16**

Parameter	Value	Description
S <sub>S</sub>	0.181	MCE <sub>R</sub> ground motion (period = 0.2 sec)
S <sub>1</sub>	0.048	MCE <sub>R</sub> ground motion (period = 1.0 sec)
S <sub>MS</sub>	0.289	Site-modified spectral acceleration value
S <sub>M1</sub>	0.115	Site-modified spectral acceleration value
S <sub>DS</sub>	0.193	Numeric seismic design value at 0.2 sec SA
S <sub>D1</sub>	0.076	Numeric seismic design value at 1.0 sec SA

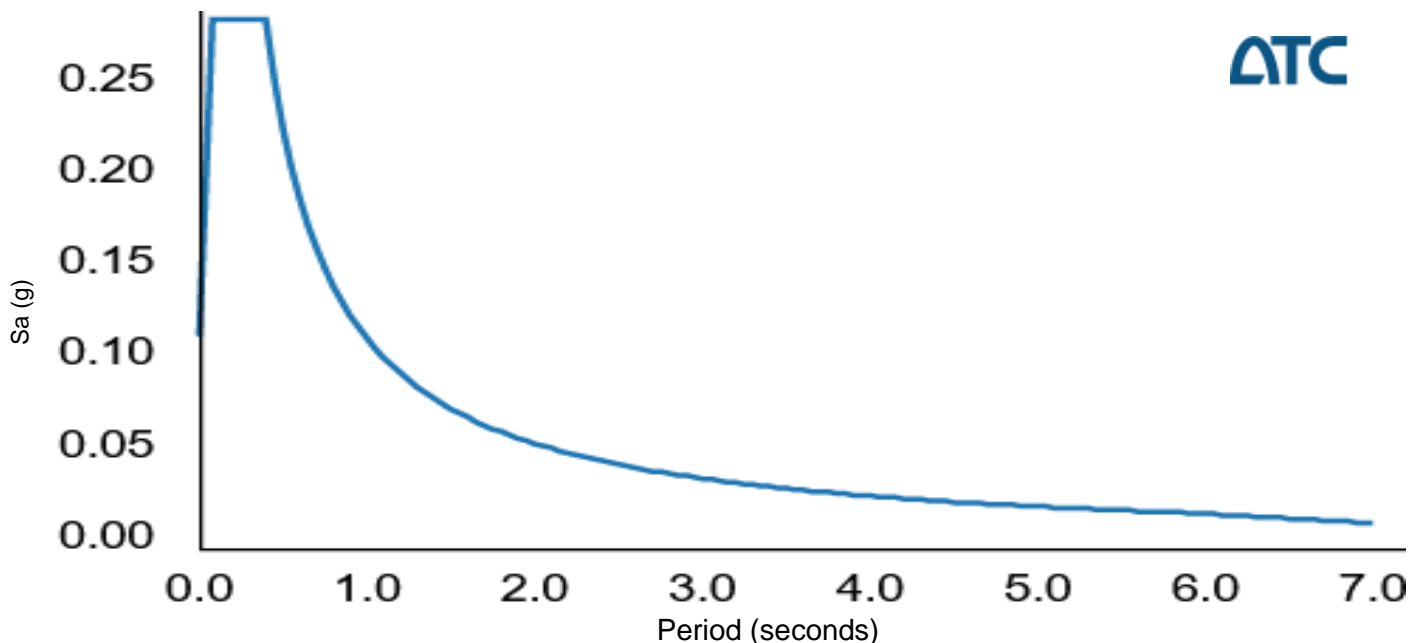
**ADDITIONAL INFORMATION**

Parameter	Value	Description
SDC	C	Seismic Design Category
F <sub>A</sub>	1.60	Site amplification factor at 0.2 sec
F <sub>V</sub>	2.40	Site amplification factor at 1.0 sec
CR <sub>S</sub>	0.958	Coefficient of risk at 0.2 sec
CR <sub>1</sub>	0.934	Coefficient of risk at 1.0 sec
PGA	0.102	MCE <sub>G</sub> peak ground acceleration
F <sub>PGA</sub>	1.60	Site amplification factor at PGA
PGA <sub>M</sub>	0.163	Site modified peak ground acceleration
T <sub>L</sub>	6.0	Long-period transition period (sec)
S <sub>SRT</sub>	0.181	Probabilistic risk -targeted ground motion at 0.2 sec
S <sub>SUH</sub>	0.189	Factored uniform-hazard spectral acceleration at 0.2 sec (2% probability of exceedance in 50 years)
S <sub>SD</sub>	1.50	Factored deterministic acceleratoin value at 0.2 sec
S <sub>1RT</sub>	0.048	Probabilistic risk -targeted ground motion at 1.0 sec
S <sub>1UH</sub>	0.051	Factored uniform-hazard spectral acceleration at 1.0 sec (2% probability of exceedance in 50 years)
S <sub>1D</sub>	0.60	Factored deterministic acceleratoin value at 1.0 sec
PGAd	0.50	Factored deterministic acceleratoin value at PGA
k <sub>h</sub>	0.08140	Calculated Horizontal Seismic Loading (k <sub>h</sub> = 0.5 x F <sub>PGA</sub> x PGA)
k <sub>v</sub>	0.02719	Calculated Vertical Seismic Loading (k <sub>v</sub> = 0.167 x F <sub>PGA</sub> x PGA)

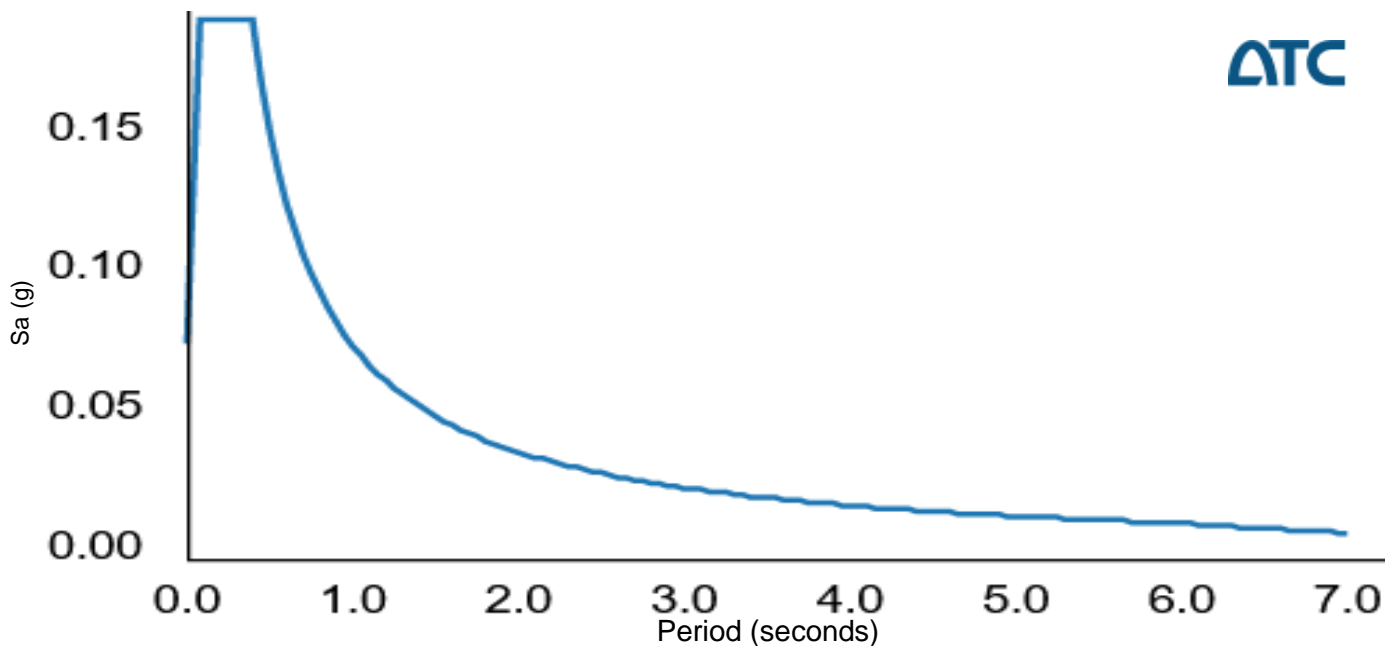
The horizontal and vertical Swismic Loading coefficients provided above are used for slope stability seismic evaluation

The information provide on these two pages was copied from the Applied Technology Council (ATC) Hazard by Location Website for the location listed.

**MCRE Horizontal Response Spectrum**



**Design Horizontal Response Spectrum**



The results indicated here DO NOT reflect any state or local amendments to the values or any delineation lines made during the building code adoption process. Users should confirm any output obtained from this tool with the local Authority Having Jurisdiction before proceeding with design.

**Disclaimer**

Hazard loads are provided by the U.S. Geological Survey Seismic Design Web Services.

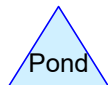
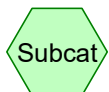
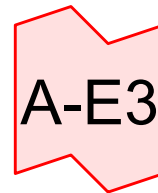
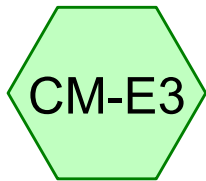
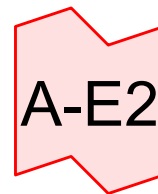
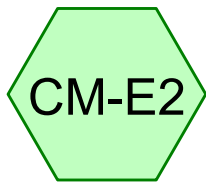
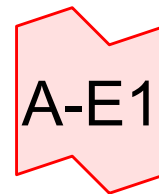
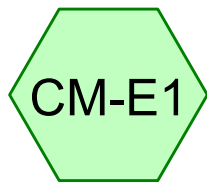
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# APPENDIX C: STORMWATER CALCULATIONS

## HydroCAD Diagram HydroCAD Node Inputs & Outputs





**Genesee Solar Model**

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**Area Listing (selected nodes)**

Area (acres)	CN	Description (subcatchment-numbers)
14.910	58	Meadow, non-grazed, HSG B (CM-E1, CM-E2, CM-E3)
41.050	78	Meadow, non-grazed, HSG D (CM-E1, CM-E2, CM-E3)

**Genesee Solar Model**

Prepared by HP Inc.

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**Soil Listing (selected nodes)**

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
14.910	HSG B	CM-E1, CM-E2, CM-E3
0.000	HSG C	
41.050	HSG D	CM-E1, CM-E2, CM-E3
0.000	Other	



**Genesee Solar Model**

Prepared by HP Inc.

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Genesee 1 Existing  
*Type II 24-hr 1-yr, 24-hr Rainfall=1.86"*

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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 Stor-Ind+Trans method - Pond routing by Stor-Ind method

<b>SubcatchmentCM-E1:</b>	Runoff Area=41.600 ac 0.00% Impervious Runoff Depth>0.27" Flow Length=1,297' Tc=42.6 min CN=75 Runoff=6.33 cfs 0.928 af
<b>SubcatchmentCM-E2:</b>	Runoff Area=6.550 ac 0.00% Impervious Runoff Depth>0.25" Flow Length=380' Tc=13.5 min CN=74 Runoff=1.89 cfs 0.135 af
<b>SubcatchmentCM-E3:</b>	Runoff Area=7.810 ac 0.00% Impervious Runoff Depth>0.02" Flow Length=972' Tc=39.7 min CN=59 Runoff=0.02 cfs 0.012 af
<b>Link A-E1:</b>	Inflow=6.33 cfs 0.928 af Primary=6.33 cfs 0.928 af
<b>Link A-E2:</b>	Inflow=1.89 cfs 0.135 af Primary=1.89 cfs 0.135 af
<b>Link A-E3:</b>	Inflow=0.02 cfs 0.012 af Primary=0.02 cfs 0.012 af

**Genesee Solar Model**

Prepared by HP Inc.

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Genesee 1 Existing  
*Type II 24-hr 10-yr, 24-hr Rainfall=3.07"*

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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 Stor-Ind+Trans method - Pond routing by Stor-Ind method

**SubcatchmentCM-E1:** Runoff Area=41.600 ac 0.00% Impervious Runoff Depth>0.89"  
Flow Length=1,297' Tc=42.6 min CN=75 Runoff=26.41 cfs 3.096 af

**SubcatchmentCM-E2:** Runoff Area=6.550 ac 0.00% Impervious Runoff Depth>0.85"  
Flow Length=380' Tc=13.5 min CN=74 Runoff=8.08 cfs 0.467 af

**SubcatchmentCM-E3:** Runoff Area=7.810 ac 0.00% Impervious Runoff Depth>0.27"  
Flow Length=972' Tc=39.7 min CN=59 Runoff=0.96 cfs 0.175 af

**Link A-E1:** Inflow=26.41 cfs 3.096 af  
Primary=26.41 cfs 3.096 af

**Link A-E2:** Inflow=8.08 cfs 0.467 af  
Primary=8.08 cfs 0.467 af

**Link A-E3:** Inflow=0.96 cfs 0.175 af  
Primary=0.96 cfs 0.175 af

**Genesee Solar Model**

Prepared by HP Inc.

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Genesee 1 Existing  
*Type II 24-hr 100-yr, 24-hr Rainfall=5.03"*

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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 Stor-Ind+Trans method - Pond routing by Stor-Ind method

**SubcatchmentCM-E1:** Runoff Area=41.600 ac 0.00% Impervious Runoff Depth>2.24"  
Flow Length=1,297' Tc=42.6 min CN=75 Runoff=69.40 cfs 7.777 af

**SubcatchmentCM-E2:** Runoff Area=6.550 ac 0.00% Impervious Runoff Depth>2.19"  
Flow Length=380' Tc=13.5 min CN=74 Runoff=21.11 cfs 1.194 af

**SubcatchmentCM-E3:** Runoff Area=7.810 ac 0.00% Impervious Runoff Depth>1.09"  
Flow Length=972' Tc=39.7 min CN=59 Runoff=5.96 cfs 0.712 af

**Link A-E1:** Inflow=69.40 cfs 7.777 af  
Primary=69.40 cfs 7.777 af

**Link A-E2:** Inflow=21.11 cfs 1.194 af  
Primary=21.11 cfs 1.194 af

**Link A-E3:** Inflow=5.96 cfs 0.712 af  
Primary=5.96 cfs 0.712 af

## Genesee Solar Model

Prepared by HP Inc.

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Genesee 1 Existing  
*Multi-Event Tables*

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### Events for Subcatchment CM-E1:

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1-yr, 24-hr	1.86	6.33	0.928	0.27
10-yr, 24-hr	3.07	26.41	3.096	0.89
100-yr, 24-hr	<b>5.03</b>	<b>69.40</b>	<b>7.777</b>	<b>2.24</b>

## Genesee Solar Model

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Genesee 1 Existing  
*Multi-Event Tables*

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### Events for Subcatchment CM-E2:

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1-yr, 24-hr	1.86	1.89	0.135	0.25
10-yr, 24-hr	3.07	8.08	0.467	0.85
100-yr, 24-hr	<b>5.03</b>	<b>21.11</b>	<b>1.194</b>	<b>2.19</b>

## Genesee Solar Model

Prepared by HP Inc.

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Genesee 1 Existing

*Multi-Event Tables*

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### Events for Subcatchment CM-E3:

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1-yr, 24-hr	1.86	0.02	0.012	0.02
10-yr, 24-hr	3.07	0.96	0.175	0.27
100-yr, 24-hr	<b>5.03</b>	<b>5.96</b>	<b>0.712</b>	<b>1.09</b>

## Genesee Solar Model

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Genesee 1 Existing  
*Multi-Event Tables*

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### Events for Link A-E1:

Event	Inflow (cfs)	Primary (cfs)	Elevation (feet)
1-yr, 24-hr	6.33	6.33	<b>0.00</b>
10-yr, 24-hr	26.41	26.41	0.00
100-yr, 24-hr	<b>69.40</b>	<b>69.40</b>	0.00

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Genesee 1 Existing

*Multi-Event Tables*

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### Events for Link A-E2:

Event	Inflow (cfs)	Primary (cfs)	Elevation (feet)
1-yr, 24-hr	1.89	1.89	<b>0.00</b>
10-yr, 24-hr	8.08	8.08	0.00
100-yr, 24-hr	<b>21.11</b>	<b>21.11</b>	0.00



## Genesee Solar Model

Prepared by HP Inc.

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Genesee 1 Existing

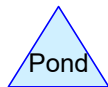
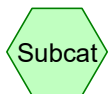
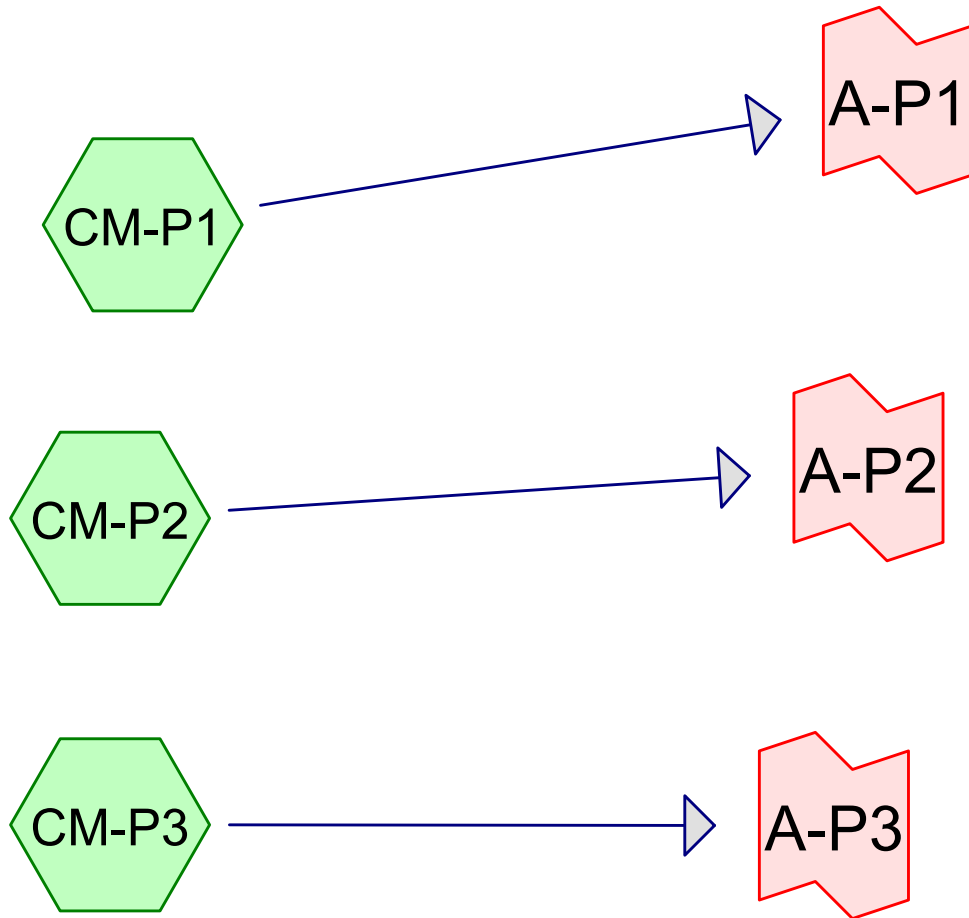
*Multi-Event Tables*

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### Events for Link A-E3:

Event	Inflow (cfs)	Primary (cfs)	Elevation (feet)
1-yr, 24-hr	0.02	0.02	<b>0.00</b>
10-yr, 24-hr	0.96	0.96	0.00
100-yr, 24-hr	<b>5.96</b>	<b>5.96</b>	0.00



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**Area Listing (selected nodes)**

Area (acres)	CN	Description (subcatchment-numbers)
0.500	96	Gravel surface, HSG D (CM-P1)
14.910	58	Meadow, non-grazed, HSG B (CM-P1, CM-P2, CM-P3)
40.550	78	Meadow, non-grazed, HSG D (CM-P1, CM-P2, CM-P3)

**Genesee Solar Model**

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**Soil Listing (selected nodes)**

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
14.910	HSG B	CM-P1, CM-P2, CM-P3
0.000	HSG C	
41.050	HSG D	CM-P1, CM-P2, CM-P3
0.000	Other	

**Genesee Solar Model**

Prepared by HP Inc.

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Genesee 1 Proposed  
*Type II 24-hr 1-yr, 24-hr Rainfall=1.86"*

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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 Stor-Ind+Trans method - Pond routing by Stor-Ind method

<b>SubcatchmentCM-P1:</b>	Runoff Area=41.600 ac 0.00% Impervious Runoff Depth>0.27" Flow Length=1,297' Tc=42.6 min CN=75 Runoff=6.33 cfs 0.928 af
<b>SubcatchmentCM-P2:</b>	Runoff Area=6.550 ac 0.00% Impervious Runoff Depth>0.25" Flow Length=380' Tc=13.5 min CN=74 Runoff=1.89 cfs 0.135 af
<b>SubcatchmentCM-P3:</b>	Runoff Area=7.810 ac 0.00% Impervious Runoff Depth>0.02" Flow Length=972' Tc=39.7 min CN=59 Runoff=0.02 cfs 0.012 af
<b>Link A-P1:</b>	Inflow=6.33 cfs 0.928 af Primary=6.33 cfs 0.928 af
<b>Link A-P2:</b>	Inflow=1.89 cfs 0.135 af Primary=1.89 cfs 0.135 af
<b>Link A-P3:</b>	Inflow=0.02 cfs 0.012 af Primary=0.02 cfs 0.012 af

**Genesee Solar Model**

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Genesee 1 Proposed

Type II 24-hr 10-yr, 24-hr Rainfall=3.07"

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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 Stor-Ind+Trans method - Pond routing by Stor-Ind method

**SubcatchmentCM-P1:** Runoff Area=41.600 ac 0.00% Impervious Runoff Depth>0.89"  
Flow Length=1,297' Tc=42.6 min CN=75 Runoff=26.41 cfs 3.096 af

**SubcatchmentCM-P2:** Runoff Area=6.550 ac 0.00% Impervious Runoff Depth>0.85"  
Flow Length=380' Tc=13.5 min CN=74 Runoff=8.08 cfs 0.467 af

**SubcatchmentCM-P3:** Runoff Area=7.810 ac 0.00% Impervious Runoff Depth>0.27"  
Flow Length=972' Tc=39.7 min CN=59 Runoff=0.96 cfs 0.175 af

**Link A-P1:** Inflow=26.41 cfs 3.096 af  
Primary=26.41 cfs 3.096 af

**Link A-P2:** Inflow=8.08 cfs 0.467 af  
Primary=8.08 cfs 0.467 af

**Link A-P3:** Inflow=0.96 cfs 0.175 af  
Primary=0.96 cfs 0.175 af

**Genesee Solar Model**

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Genesee 1 Proposed

Type II 24-hr 100-yr, 24-hr Rainfall=5.03"

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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 Stor-Ind+Trans method - Pond routing by Stor-Ind method

<b>SubcatchmentCM-P1:</b>	Runoff Area=41.600 ac 0.00% Impervious Runoff Depth>2.24" Flow Length=1,297' Tc=42.6 min CN=75 Runoff=69.40 cfs 7.777 af
<b>SubcatchmentCM-P2:</b>	Runoff Area=6.550 ac 0.00% Impervious Runoff Depth>2.19" Flow Length=380' Tc=13.5 min CN=74 Runoff=21.11 cfs 1.194 af
<b>SubcatchmentCM-P3:</b>	Runoff Area=7.810 ac 0.00% Impervious Runoff Depth>1.09" Flow Length=972' Tc=39.7 min CN=59 Runoff=5.96 cfs 0.712 af
<b>Link A-P1:</b>	Inflow=69.40 cfs 7.777 af Primary=69.40 cfs 7.777 af
<b>Link A-P2:</b>	Inflow=21.11 cfs 1.194 af Primary=21.11 cfs 1.194 af
<b>Link A-P3:</b>	Inflow=5.96 cfs 0.712 af Primary=5.96 cfs 0.712 af

## Genesee Solar Model

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Genesee 1 Proposed

*Multi-Event Tables*

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### Events for Subcatchment CM-P1:

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1-yr, 24-hr	1.86	6.33	0.928	0.27
10-yr, 24-hr	3.07	26.41	3.096	0.89
100-yr, 24-hr	<b>5.03</b>	<b>69.40</b>	<b>7.777</b>	<b>2.24</b>



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Genesee 1 Proposed

*Multi-Event Tables*

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### Events for Subcatchment CM-P2:

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1-yr, 24-hr	1.86	1.89	0.135	0.25
10-yr, 24-hr	3.07	8.08	0.467	0.85
100-yr, 24-hr	<b>5.03</b>	<b>21.11</b>	<b>1.194</b>	<b>2.19</b>

## Genesee Solar Model

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Genesee 1 Proposed

*Multi-Event Tables*

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### Events for Subcatchment CM-P3:

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1-yr, 24-hr	1.86	0.02	0.012	0.02
10-yr, 24-hr	3.07	0.96	0.175	0.27
100-yr, 24-hr	<b>5.03</b>	<b>5.96</b>	<b>0.712</b>	<b>1.09</b>

## Genesee Solar Model

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Genesee 1 Proposed

*Multi-Event Tables*

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### Events for Link A-P1:

Event	Inflow (cfs)	Primary (cfs)	Elevation (feet)
1-yr, 24-hr	6.33	6.33	<b>0.00</b>
10-yr, 24-hr	26.41	26.41	0.00
100-yr, 24-hr	<b>69.40</b>	<b>69.40</b>	0.00

# Genesee Solar Model

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Genesee 1 Proposed

*Multi-Event Tables*

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## Events for Link A-P2:

Event	Inflow (cfs)	Primary (cfs)	Elevation (feet)
1-yr, 24-hr	1.89	1.89	<b>0.00</b>
10-yr, 24-hr	8.08	8.08	0.00
100-yr, 24-hr	<b>21.11</b>	<b>21.11</b>	0.00

## Genesee Solar Model

Prepared by HP Inc.

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Genesee 1 Proposed

*Multi-Event Tables*

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### Events for Link A-P3:

Event	Inflow (cfs)	Primary (cfs)	Elevation (feet)
1-yr, 24-hr	0.02	0.02	<b>0.00</b>
10-yr, 24-hr	0.96	0.96	0.00
100-yr, 24-hr	<b>5.96</b>	<b>5.96</b>	0.00



# APPENDIX D: INSPECTION REPORTS

**NYSDEC Annual Inspection Form  
SPDES Construction Site Log Book  
SPDES Standardized Qualified Inspector Form**



## APPENDIX H

### STATE POLLUTANT DISCHARGE ELIMINATION SYSTEM FOR CONSTRUCTION ACTIVITIES CONSTRUCTION SITE LOG BOOK

#### Table of Contents

---

- I. Pre-Construction Meeting Documents
  - a. Preamble to Site Assessment and Inspections
  - b. Operator's Certification
  - c. Qualified Professional's Credentials & Certification
  - d. Pre-Construction Site Assessment Checklist
  
- II. Construction Duration Inspections
  - a. Directions
  - b. Modification to the SWPPP
  
- III. Monthly Summary Reports

Properly completing forms such as those contained in Appendix H meet the inspection requirement of NYS-DEC SPDES GP for Construction Activities. Completed forms shall be kept on site at all times and made available to authorities upon request.

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## I. PRE-CONSTRUCTION MEETING DOCUMENTS

**Project Name** \_\_\_\_\_  
**Permit No.** \_\_\_\_\_ **Date of Authorization** \_\_\_\_\_  
**Name of Operator** \_\_\_\_\_  
**Prime Contractor** \_\_\_\_\_

### a. Preamble to Site Assessment and Inspections

The Following Information To Be Read By All Person's Involved in The Construction of Stormwater Related Activities:

The Operator agrees to have a qualified professional<sup>1</sup> conduct an assessment of the site prior to the commencement of construction<sup>2</sup> and certify in this inspection report that the appropriate erosion and sediment controls described in the SWPPP have been adequately installed or implemented to ensure overall preparedness of the site for the commencement of construction.

Prior to the commencement of construction, the Operator shall certify in this site logbook that the SWPPP has been prepared in accordance with the State's standards and meets all Federal, State and local erosion and sediment control requirements.

When construction starts, site inspections shall be conducted by the qualified professional at least every 7 calendar days and within 24 hours of the end of a storm event of 0.5 inches or greater (Construction Duration Inspections). The Operator shall maintain a record of all inspection reports in this site logbook. The site logbook shall be maintained on site and be made available to the permitting authorities upon request. The Operator shall post at the site, in a publicly accessible location, a summary of the site inspection activities on a monthly basis (Monthly Summary Report).

The operator shall also prepare a written summary of compliance with this general permit at a minimum frequency of every three months (Operator's Compliance Response Form), while coverage exists. The summary should address the status of achieving each component of the SWPPP.

Prior to filing the Notice of Termination or the end of permit term, the Operator shall have a qualified professional perform a final site inspection. The qualified professional shall certify that the site has undergone final stabilization<sup>3</sup> using either vegetative or structural stabilization methods and that all temporary erosion and sediment controls (such as silt fencing) not needed for long-term erosion control have been removed. In addition, the Operator must identify and certify that all permanent structures described in the SWPPP have been constructed and provide the owner(s) with an operation and maintenance plan that ensures the structure(s) continuously functions as designed.

1 "Qualified Professional means a person knowledgeable in the principles and practice of erosion and sediment controls, such as a Certified Professional in Erosion and Sediment Control (CPESC), soil scientist, licensed engineer or someone working under the direction and supervision of a licensed engineer (person must have experience in the principles and practices of erosion and sediment control).

2 "Commencement of construction" means the initial removal of vegetation and disturbance of soils associated with clearing, grading or excavating activities or other construction activities.

3 "Final stabilization" means that all soil-disturbing activities at the site have been completed and a uniform, perennial vegetative cover with a density of eighty (80) percent has been established or equivalent stabilization measures (such as the use of mulches or geotextiles) have been employed on all unpaved areas and areas not covered by permanent structures.

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**b. Operators Certification**

"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 or persons 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. Further, I hereby certify that the SWPPP meets all Federal, State, and local erosion and sediment control requirements. I am aware that false statements made herein are punishable as a class A misdemeanor pursuant to Section 210.45 of the Penal Law.

**Name (please print):** \_\_\_\_\_

**Title** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Address:** \_\_\_\_\_

**Phone:** \_\_\_\_\_ **Email:** \_\_\_\_\_

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

**c. Qualified Professional's Credentials & Certification**

"I hereby certify that I meet the criteria set forth in the General Permit to conduct site inspections for this project and that the appropriate erosion and sediment controls described in the SWPPP and as described in the following Pre-construction Site Assessment Checklist have been adequately installed or implemented, ensuring the overall preparedness of this site for the commencement of construction."

**Name (please print):** \_\_\_\_\_

**Title** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Address:** \_\_\_\_\_

**Phone:** \_\_\_\_\_ **Email:** \_\_\_\_\_

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

**d. Pre-construction Site Assessment Checklist**

**(NOTE: Provide comments below as necessary)**

1. Notice of Intent, SWPPP, and Contractors Certification:

**Yes No NA**

- Has a Notice of Intent been filed with the NYS Department of Conservation?
- Is the SWPPP on-site? Where? \_\_\_\_\_
- Is the Plan current? What is the latest revision date? \_\_\_\_\_
- Is a copy of the NOI (with brief description) onsite? Where? \_\_\_\_\_
- Have all contractors involved with stormwater related activities signed a contractor's certification?

2. Resource Protection

**Yes No NA**

- Are construction limits clearly flagged or fenced?
- Important trees and associated rooting zones, on-site septic system absorption fields, existing vegetated areas suitable for filter strips, especially in perimeter areas, have been flagged for protection.
- Creek crossings installed prior to land-disturbing activity, including clearing and blasting.

3. Surface Water Protection

**Yes No NA**

- Clean stormwater runoff has been diverted from areas to be disturbed.
- Bodies of water located either on site or in the vicinity of the site have been identified and protected.
- Appropriate practices to protect on-site or downstream surface water are installed.
- Are clearing and grading operations divided into areas <5 acres?

4. Stabilized Construction Entrance

**Yes No NA**

- A temporary construction entrance to capture mud and debris from construction vehicles before they enter the public highway has been installed.
- Other access areas (entrances, construction routes, equipment parking areas) are stabilized immediately as work takes place with gravel or other cover.
- Sediment tracked onto public streets is removed or cleaned on a regular basis.

5. Perimeter Sediment Controls

**Yes No NA**

- Silt fence material and installation comply with the standard drawing and specifications.
- Silt fences are installed at appropriate spacing intervals
- Sediment/detention basin was installed as first land disturbing activity.
- Sediment traps and barriers are installed.

6. Pollution Prevention for Waste and Hazardous Materials

**Yes No NA**

- The Operator or designated representative has been assigned to implement the spill prevention avoidance and response plan.
- The plan is contained in the SWPPP on page \_\_\_\_\_
- Appropriate materials to control spills are onsite. Where? \_\_\_\_\_

## II. CONSTRUCTION DURATION INSPECTIONS

### a. Directions:

**Inspection Forms will be filled out during the entire construction phase of the project.**

Required Elements:

- (1) On a site map, indicate the extent of all disturbed site areas and drainage pathways. Indicate site areas that are expected to undergo initial disturbance or significant site work within the next 14-day period;
- (2) Indicate on a site map all areas of the site that have undergone temporary or permanent stabilization;
- (3) Indicate all disturbed site areas that have not undergone active site work during the previous 14-day period;
- (4) Inspect all sediment control practices and record the approximate degree of sediment accumulation as a percentage of sediment storage volume (for example, 10 percent, 20 percent, 50 percent);
- (5) Inspect all erosion and sediment control practices and record all maintenance requirements such as verifying the integrity of barrier or diversion systems (earthen berms or silt fencing) and containment systems (sediment basins and sediment traps). Identify any evidence of rill or gully erosion occurring on slopes and any loss of stabilizing vegetation or seeding/mulching. Document any excessive deposition of sediment or ponding water along barrier or diversion systems. Record the depth of sediment within containment structures, any erosion near outlet and overflow structures, and verify the ability of rock filters around perforated riser pipes to pass water; and
- (6) Immediately report to the Operator any deficiencies that are identified with the implementation of the SWPPP.

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**Prepared by:**

LaBella Associates  
300 State Street  
Suite 201  
Rochester, NY 14614  
(585) 454-6110



# Example



SWPP Inspection

**PERFORMED:**

at 8

AM

**ISSUED:**

**STATUS:** Immediate Action Required

**Corrective Actions**

- All Erosion control measures are installed and in working order
- Corrective actions required

Notes:

- Immediate Action Required:** Overdue corrective actions may result in fines from the NYSDEC in the amount of \$37,500/day/violation.

Notes:

# Example

**Weather Conditions**

Temperature:	°F	Weather:	
Soil Conditions:			

**Area of Disturbance**

YES	NO	
<input type="checkbox"/>	<input type="checkbox"/>	Are all disturbances within the limits of the SWPPP?
		Total area of disturbance?

**Permit Required Reporting**

- Describe the condition of runoff at all points of discharge.

- Provide a description of the conditions of all natural water bodies within or immediately adjacent to the project.



YES	NO	N/A	Overall Site Conditions
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No visible increase in turbidity causing a substantial contrast to natural conditions?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	There is not residue from oil and floating substances, visible oil film, or globules or grease?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	There is no evidence of silt deposition from project in a stream, wetland, or other water body?

Comments:

YES	NO	N/A	Notice of Intent, SWPPP, and Contractor's Certification
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Has a notice of Intent been filed with the NYS Department of Environmental Conservation?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is a copy of the NOI and NOI Acknowledgement letter on site and accessible?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is there a signed SWPPP on Site? Where?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is there a copy of the MS4 SWPPP Acceptance Form available on site and accessible?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Does the SWPPP identify the contractor and subcontractor(s) responsible for each measure?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Does the SWPPP identify at least one trained individual from each contractor(s) and subcontractor(s) companies?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Does the SWPPP include all the necessary contractor certification statements and signatures?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is a copy of the SPDES General Permit retained on site?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is there greater than 5 acres of disturbance? Has written authorization been issued and is it accessible for viewing and in compliance with 5 acre requirements?

Comments:

YES	NO	N/A	General Site Conditions
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are adjoining properties and downstream waterways adequately protected from erosion and sediment deposition due to stormwater runoff from the site?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Have all erosion and sediment control measures been installed/constructed as detailed in the SWPPP including perimeter control measures?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is dust adequately controlled?

YES	NO	N/A	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are equipment and material storage areas free of spills, leaks and other harmful materials?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are garbage and waste building materials being controlled/managed properly?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Have all temporary control measures that are no longer needed been removed?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Have all permanent stormwater management structures been installed/constructed according to plans?

Comments:

YES	NO	N/A	<b>Runoff Conveyance Systems</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are all runoff conveyance systems called for in the SWPPP installed, stabilized and working?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	With minimum side slopes 2H:1V or flatter? Stabilized by geotextile fabric, seed, or mulch with no erosion occurring? Sediment-laden runoff directed to sediment trapping structure?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sediment-laden runoff directed to sediment trapping structure?

Comments:

Example

YES	NO	N/A	<b>Runoff Control Structures</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Have all required runoff control structures (rock outlets and aprons) been installed and constructed per plan and according to the Blue Book?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Installed concurrently with pipe installation?

Comments:

YES	NO	N/A	<b>Temporary Stream or Channel Crossing</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Have construction crossings at concentrated flow areas been culverted?

Comments:

YES	NO	N/A	Stone Check Dam
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Installed per standards?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is Check dam in good condition (rocks in place and lined with geotextile fabric)?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sediment does not need to be removed?
<b>Comments:</b>			

YES	NO	N/A	Excavation Dewatering
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Upstream berm (sandbags, inflatable dams, etc. with one-foot minimum freeboard) and downstream berms are installed per plan? And functioning? (clean water from upstream pool is being pumped to the downstream pool)?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is sediment laden water from work area being discharged to a silt-trapping device?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is groundwater from excavations being managed properly (sumps and sediment control)?
<b>Comments:</b>			

Example

YES	NO	N/A	Top Soil and Stockpiles
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Stabilized - sediment controls at downhill slope?
<b>Comments:</b>			

YES	NO	N/A	Revegetation/Stabilization
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Has temporary or permanent seeding and mulch been applied to areas that have been inactive for 14 days or less (or, inactive for 7 days if over 5 acres disturbed)?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Has soil preparation been applied as specified in the SWPPP and in accordance with the Blue Book (Assure that all the necessary soil testing/fertilizer/lime, topsoil, decompaction has been applied)?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Have rolled erosion control products specified for steep slopes or channels been installed?
<b>Comments:</b>			

YES	NO	N/A	<b>Stabilized Construction Entrance</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A temporary construction entrance to capture debris from vehicles before they enter public roads has been installed according to NYS standards?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Other access areas are stabilized immediately as work takes place with gravel or other cover?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Tracking onto public streets is minimized and cleaned daily?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Stone is clean enough to effectively remove mud from vehicles?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is adequate drainage provided to prevent ponding at entrance?

Comments:

YES	NO	N/A	<b>Silt Fence</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Installed on contour?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not across conveyance channels?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	At least 10 feet from toe of slope?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	At appropriate spacing intervals based on slope?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Wrapped ends for continuous support?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Fabric is tight, without rips or frayed areas?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Posts are stable?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Buried 6 inches minimum?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No bulges?

Comments:

YES	NO	N/A	<b>Compost Filter Sock</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Installed on contour?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Terminal ends extended 8' upslope (at 45° angle)?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Anchored at 10' intervals?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Less than 50% sediment built up?

Comments:

YES NO N/A

### Compost Filter Sock

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

Is outlet structure constructed properly?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

Geotextile fabric has been placed beneath rock fill?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

Maintenance – depth of sediment in basin?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

Less than 50% capacity built up?

Comments:

YES NO N/A

### Temporary Sediment Basin

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

Is basin and outlet structure constructed per the approved plan?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

Are basin side slopes stabilized with seed/mulch?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

Maintenance – depth of sediment in basin?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

Less than 50% capacity built up?

Comments:

YES NO N/A

### Drop Inlet Protection

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

Type(s) of inlet control?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

Installed per Blue Book specifications: drainage area (typically 1 acre)?

Appropriate for location?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

Has sediment been removed when 50% of storage volume has been achieved?

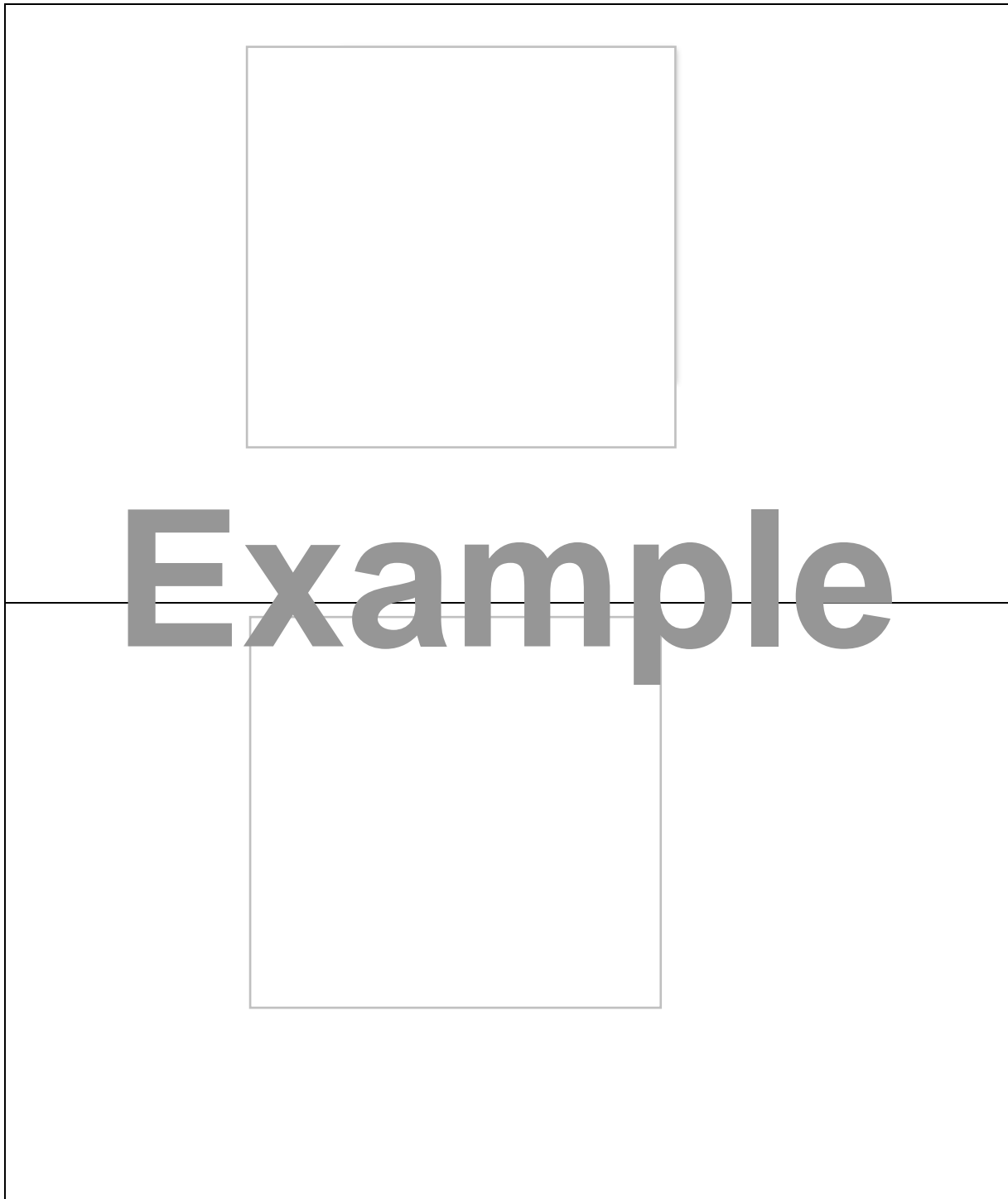
Comments:

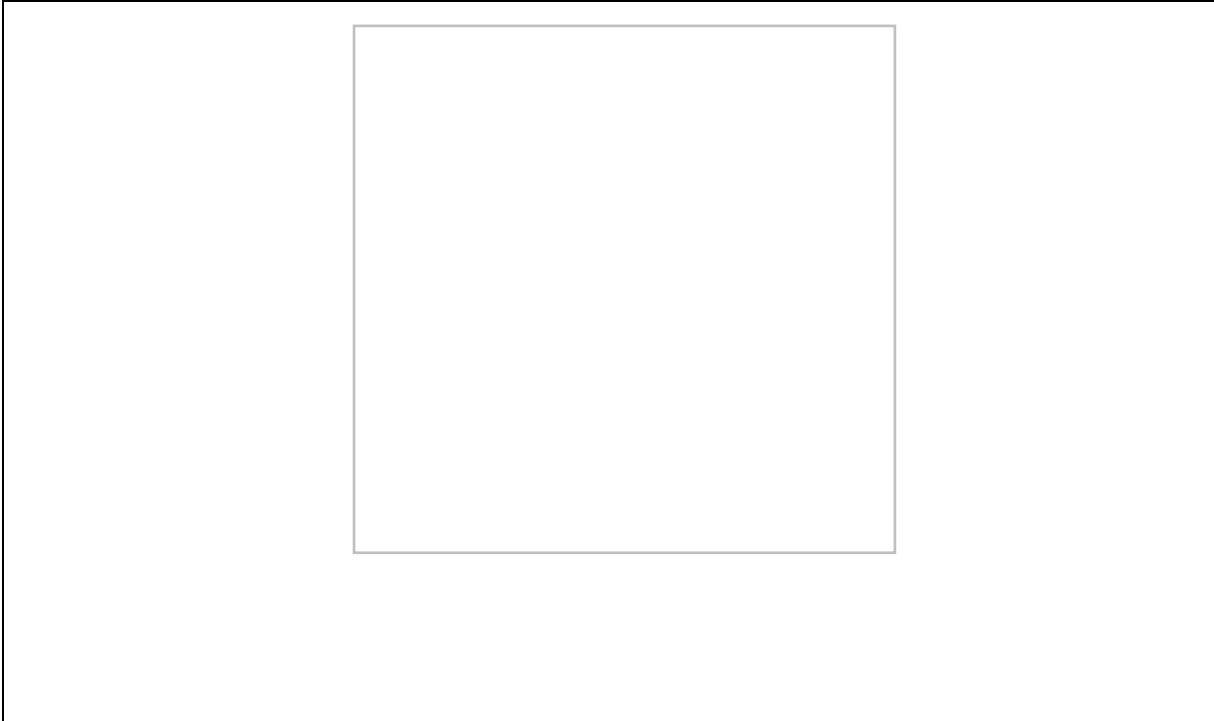
YES	NO	N/A	<b>Fabric Drop Inlet Protection</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is there an installed 2" x 4" wood frame and wood posts, with maximum 3' spacing?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is filter fabric buried a minimum of 1 to 1.5 feet below ground and secured to frame/posts?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are posts stable, fabric is tight and without rips or frayed areas?

**Inspection Notes**

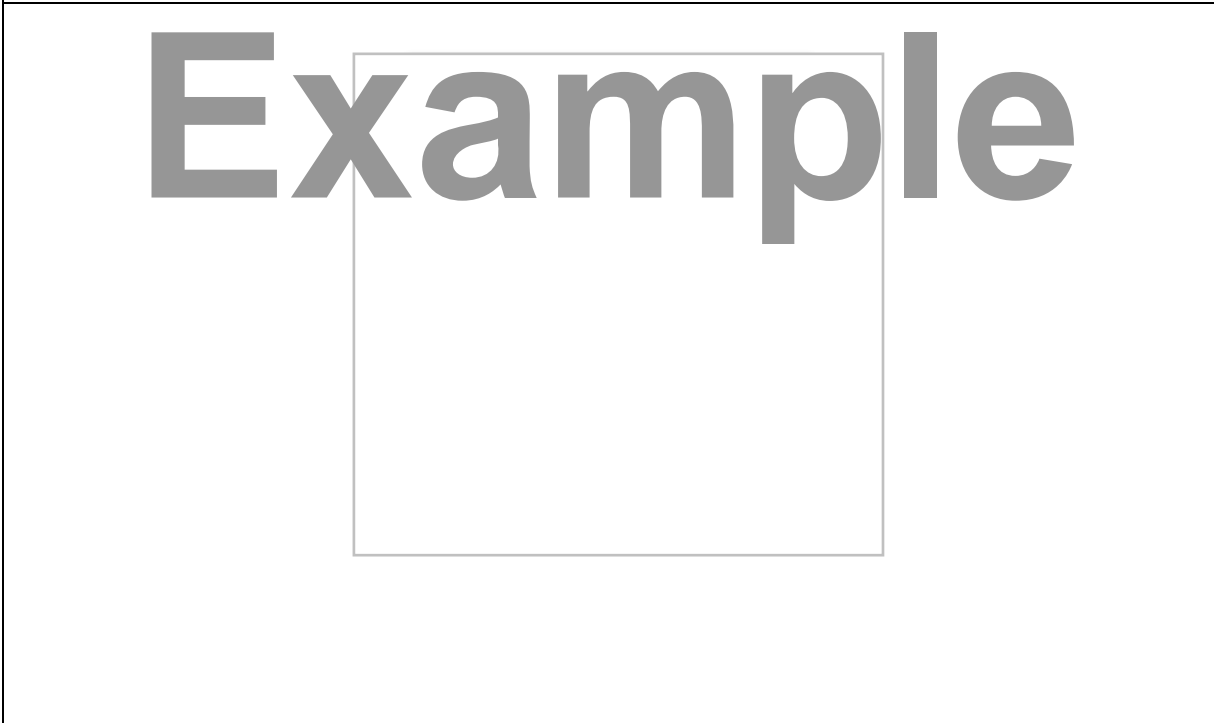
Example

## Digital Color Photographs of Deficient BMP's

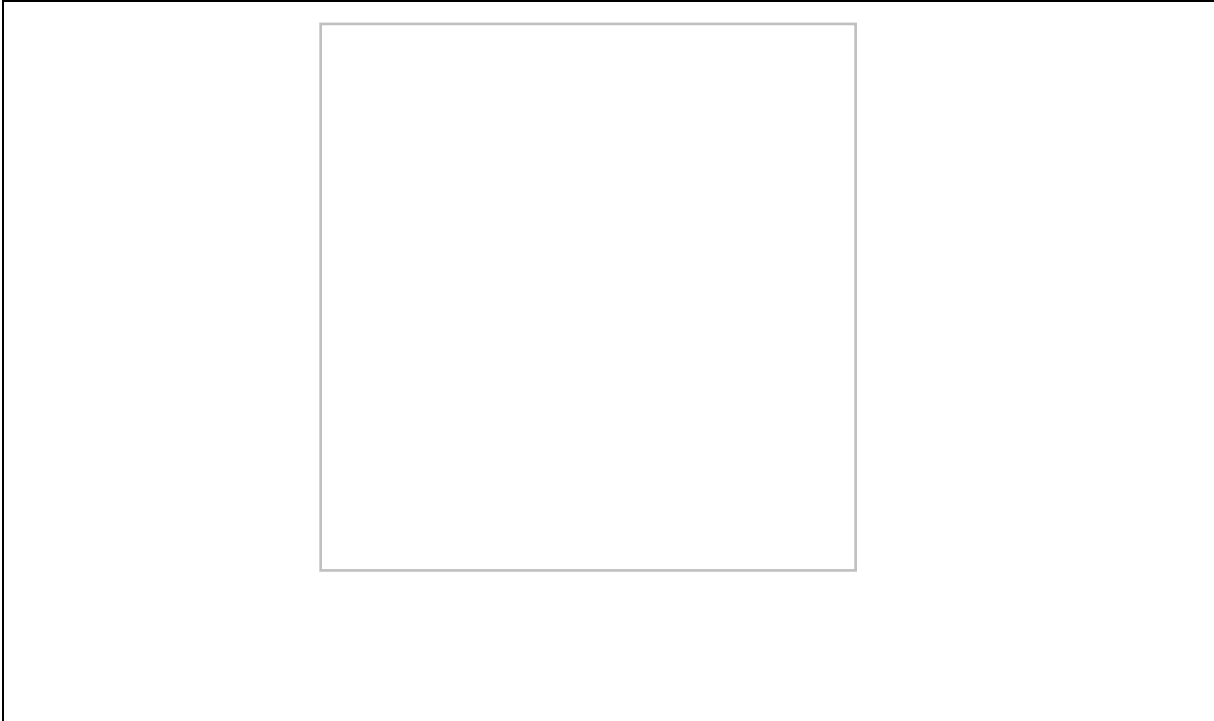




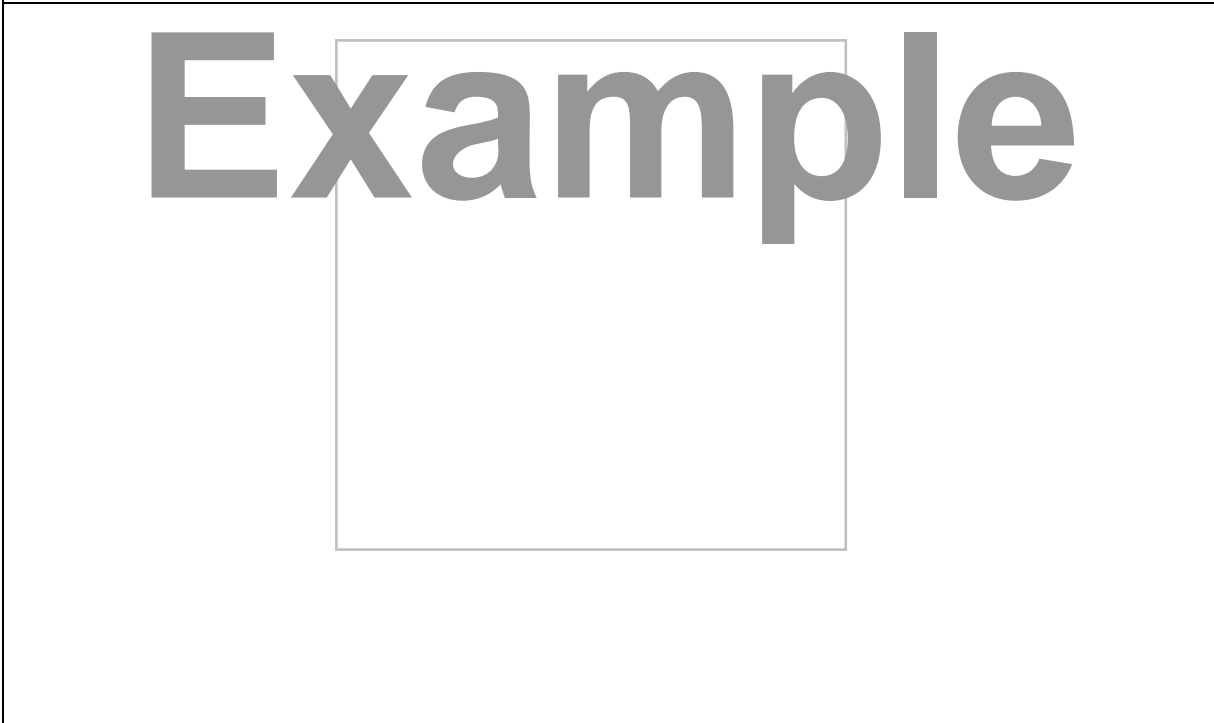
**Example**



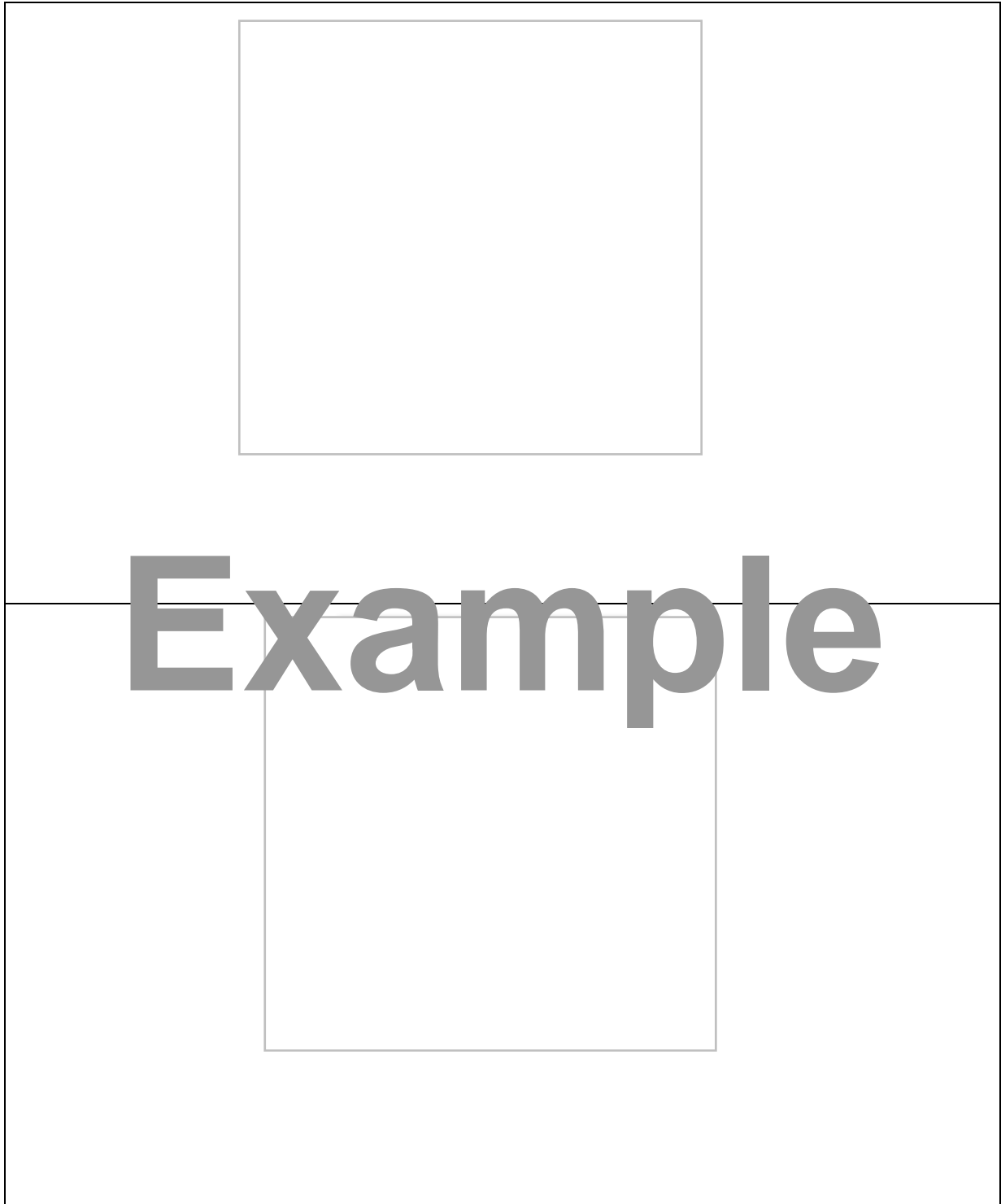




**Example**



## Digital Color Photographs of BMP's that have been corrected



**PART II - SIGNATURES**

**GP-0-15-002 Part VII.Q**

Articles 175 and 210 of the New York State Penal Law provide for Criminal penalty of a fine and/or imprisonment for falsifying forms and reports required by this permit.

\_\_\_\_\_  
Qualified Inspector (print name)

\_\_\_\_\_  
Date of Inspection

\_\_\_\_\_  
Signature

The above signed acknowledges that, to the best of his/her knowledge, all information provided on the forms is accurate and complete.

Title: Civil Engineer Address: 300 State St. Rochester NY 14614

Phone: \_\_\_\_\_ Email: \_\_\_\_\_@labella.com

Example

**Stormwater Training Number** for *Trained Individuals*:

**CPESC, P.E. or L.A. Supervisor Name** for *Trained Individuals*:

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### III. Monthly Summary of Site Inspection Activities

Name of Permitted Facility:	Today's Date:	Reporting Month:
Location:	Permit Identification #:	
Name and Telephone Number of Site Inspector:		

Date of Inspection	Regular / Rainfall based Inspection	Name of Inspector	Items of Concern

**Owner/Operator Certification:**

"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 or persons 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 210.45 of the Penal Law."

\_\_\_\_\_  
Signature of Permittee or Duly Authorized Representative                      Name of Permittee or Duly Authorized Representative                      Date

Duly authorized representatives must have written authorization, submitted to DEC, to sign any permit documents.



# APPENDIX E: OPERATION AND MAINTENANCE REQUIREMENTS

## Maintenance Recommendations



# STANDARD AND SPECIFICATIONS FOR CONCRETE TRUCK WASHOUT



## **Definition & Scope**

A temporary excavated or above ground lined constructed pit where concrete truck mixers and equipment can be washed after their loads have been discharged, to prevent highly alkaline runoff from entering storm drainage systems or leaching into soil.

## **Conditions Where Practice Applies**

Washout facilities shall be provided for every project where concrete will be poured or otherwise formed on the site. This facility will receive highly alkaline wash water from the cleaning of chutes, mixers, hoppers, vibrators, placing equipment, trowels, and screeds. Under no circumstances will wash water from these operations be allowed to infiltrate into the soil or enter surface waters.

## **Design Criteria**

**Capacity:** The washout facility should be sized to contain solids, wash water, and rainfall and sized to allow for the evaporation of the wash water and rainfall. Wash water shall be estimated at 7 gallons per chute and 50 gallons per hopper of the concrete pump truck and/or discharging drum. The minimum size shall be 8 feet by 8 feet at the bottom and 2 feet deep. If excavated, the side slopes shall be 2 horizontal to 1 vertical.

**Location:** Locate the facility a minimum of 100 feet from drainage swales, storm drain inlets, wetlands, streams and other surface waters. Prevent surface water from entering the structure except for the access road. Provide appropriate access with a gravel access road sloped down to the structure. Signs shall be placed to direct drivers to the facility after their load is discharged.

**Liner:** All washout facilities will be lined to prevent

leaching of liquids into the ground. The liner shall be plastic sheeting with a minimum thickness of 10 mils with no holes or tears, and anchored beyond the top of the pit with an earthen berm, sand bags, stone, or other structural appurtenance except at the access point.

If pre-fabricated washouts are used they must ensure the capture and containment of the concrete wash and be sized based on the expected frequency of concrete pours. They shall be sited as noted in the location criteria.

## **Maintenance**

- All concrete washout facilities shall be inspected daily. Damaged or leaking facilities shall be deactivated and repaired or replaced immediately. Excess rainwater that has accumulated over hardened concrete should be pumped to a stabilized area, such as a grass filter strip.
- Accumulated hardened material shall be removed when 75% of the storage capacity of the structure is filled. Any excess wash water shall be pumped into a containment vessel and properly disposed of off site.
- Dispose of the hardened material off-site in a construction/demolition landfill. On-site disposal may be allowed if this has been approved and accepted as part of the projects SWPPP. In that case, the material should be recycled as specified, or buried and covered with a minimum of 2 feet of clean compacted earthfill that is permanently stabilized to prevent erosion.
- The plastic liner shall be replaced with each cleaning of the washout facility.
- Inspect the project site frequently to ensure that no concrete discharges are taking place in non-designated areas.

# STANDARD AND SPECIFICATIONS FOR STABILIZED CONSTRUCTION ACCESS



inert to commonly encountered chemicals, hydro-carbons, mildew, rot resistant, and conform to the fabric properties as shown:

Fabric Properties <sup>3</sup>	Light Duty <sup>1</sup> Roads Grade Sub- grade	Heavy Duty <sup>2</sup> Haul Roads Rough Graded	Test Meth- od
Grab Tensile Strength (lbs)	200	220	ASTM D1682
Elongation at Failure (%)	50	60	ASTM D1682
Mullen Burst Strength (lbs)	190	430	ASTM D3786
Puncture Strength (lbs)	40	125	ASTM D751 Modified
Equivalent	40-80	40-80	US Std Sieve
Opening Size			CW-02215
Aggregate Depth	6	10	-

## Definition & Scope

A stabilized pad of aggregate underlain with geotextile located at any point where traffic will be entering or leaving a construction site to or from a public right-of-way, street, alley, sidewalk, or parking area. The purpose of stabilized construction access is to reduce or eliminate the tracking of sediment onto public rights-of-way or streets.

## Conditions Where Practice Applies

A stabilized construction access shall be used at all points of construction ingress and egress.

## Design Criteria

See Figure 2.1 on page 2.31 for details.

**Aggregate Size:** Use a matrix of 1-4 inch stone, or reclaimed or recycled concrete equivalent.

**Thickness:** Not less than six (6) inches.

**Width:** 12-foot minimum but not less than the full width of points where ingress or egress occurs. 24-foot minimum if there is only one access to the site.

**Length:** As required, but not less than 50 feet (except on a single residence lot where a 30 foot minimum would apply).

**Geotextile:** To be placed over the entire area to be covered with aggregate. Filter cloth will not be required on a single-family residence lot. Piping of surface water under entrance shall be provided as required. If piping is impossible, a mountable berm with 5:1 slopes will be permitted.

**Criteria for Geotextile:** The geotextile shall be woven or nonwoven fabric consisting only of continuous chain polymeric filaments or yarns of polyester. The fabric shall be

<sup>1</sup>Light Duty Road: Area sites that have been graded to subgrade and where most travel would be single axle vehicles and an occasional multi-axle truck. Acceptable materials are Trevira Spunbond 1115, Mirafi 100X, Typar 3401, or equivalent.

<sup>2</sup>Heavy Duty Road: Area sites with only rough grading, and where most travel would be multi-axle vehicles. Acceptable materials are Trevira Spunbond 1135, Mirafi 600X, or equivalent.

<sup>3</sup>Fabrics not meeting these specifications may be used only when design procedure and supporting documentation are supplied to determine aggregate depth and fabric strength.

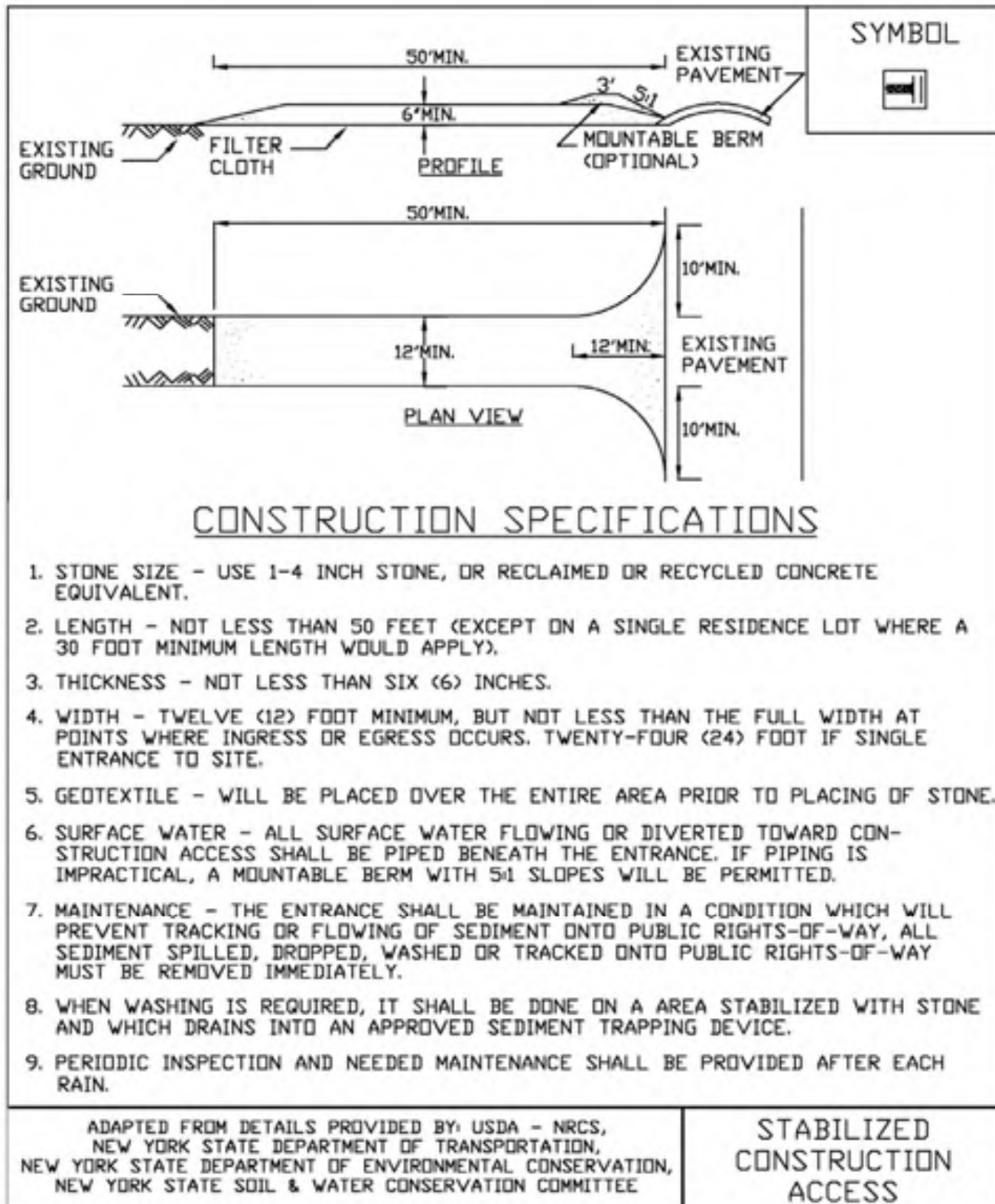
## Maintenance

The access shall be maintained in a condition which will prevent tracking of sediment onto public rights-of-way or streets. This may require periodic top dressing with additional aggregate. All sediment spilled, dropped, or washed onto public rights-of-way must be removed immediately.

When necessary, wheels must 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 aggregate, which drains into an approved sediment-trapping device. All sediment shall be prevented from entering storm drains, ditches, or watercourses.



**Figure 2.1**  
**Stabilized Construction Access**



# STANDARD AND SPECIFICATIONS FOR CONSTRUCTION ROAD STABILIZATION



## **Definition & Scope**

The stabilization of temporary construction access routes, on-site vehicle transportation routes, and construction parking areas to control erosion on temporary construction routes and parking areas.

## **Conditions Where Practice Applies**

All traffic routes and parking areas for temporary use by construction traffic.

## **Design Criteria**

Construction roads should be located to reduce erosion potential, minimize impact on existing site resources, and maintain operations in a safe manner. Highly erosive soils, wet or rocky areas, and steep slopes should be avoided. Roads should be routed where seasonal water tables are deeper than 18 inches. Surface runoff and control should be in accordance with other standards.

**Road Grade** – A maximum grade of 12% is recommended, although grades up to 15% are possible for short distances.

**Road Width** – 12 foot minimum for one-way traffic or 24 foot minimum for two-way traffic.

**Side Slope of Road Embankment** – 2:1 or flatter.

**Ditch Capacity** – On-site roadside ditch and culvert capacities shall be the 10 yr. peak runoff.

**Composition** – Use a 6-inch layer of NYS DOT sub-base Types 1,2,3, 4 or equivalent as specified in NYSDOT Standard Specifications.

## **Construction Specifications**

1. Clear and strip roadbed and parking areas of all vegetation, roots, and other objectionable material.
2. Locate parking areas on naturally flat areas as available. Keep grades sufficient for drainage, but not more than 2 to 3 percent.
3. Provide surface drainage and divert excess runoff to stabilized areas.
4. Maintain cut and fill slopes to 2:1 or flatter and stabilized with vegetation as soon as grading is accomplished.
5. Spread 6-inch layer of sub-base material evenly over the full width of the road and smooth to avoid depressions.
6. Provide appropriate sediment control measures to prevent offsite sedimentation.

## **Maintenance**

Inspect construction roads and parking areas periodically for condition of surface. Top dress with new gravel as needed. Check ditches for erosion and sedimentation after rainfall events. Maintain vegetation in a healthy, vigorous condition. Areas producing sediment should be treated immediately.

# STANDARD AND SPECIFICATIONS FOR DUST CONTROL



dust control (see Section 3).

**Mulch** (including gravel mulch) – Mulch offers a fast effective means of controlling dust. This can also include rolled erosion control blankets.

**Spray adhesives** – These are products generally composed of polymers in a liquid or solid form that are mixed with water to form an emulsion that is sprayed on the soil surface with typical hydroseeding equipment. The mixing ratios and application rates will be in accordance with the manufacturer's recommendations for the specific soils on the site. In no case should the application of these adhesives be made on wet soils or if there is a probability of precipitation within 48 hours of its proposed use. Material Safety Data Sheets will be provided to all applicators and others working with the material.

## Definition & Scope

The control of dust resulting from land-disturbing activities, to prevent surface and air movement of dust from disturbed soil surfaces that may cause off-site damage, health hazards, and traffic safety problems.

## Conditions Where Practice Applies

On construction roads, access points, and other disturbed areas subject to surface dust movement and dust blowing where off-site damage may occur if dust is not controlled.

## Design Criteria

**Construction operations should be scheduled to minimize the amount of area disturbed at one time.** Buffer areas of vegetation should be left where practical. Temporary or permanent stabilization measures shall be installed. No specific design criteria is given; see construction specifications below for common methods of dust control.

Water quality must be considered when materials are selected for dust control. Where there is a potential for the material to wash off to a stream, ingredient information must be provided to the NYSDEC.

No polymer application shall take place without written approval from the NYSDEC.

## Construction Specifications

A. **Non-driving Areas** – These areas use products and materials applied or placed on soil surfaces to prevent airborne migration of soil particles.

**Vegetative Cover** – For disturbed areas not subject to traffic, vegetation provides the most practical method of

B. **Driving Areas** – These areas utilize water, polymer emulsions, and barriers to prevent dust movement from the traffic surface into the air.

**Sprinkling** – The site may be sprayed with water until the surface is wet. This is especially effective on haul roads and access route to provide short term limited dust control.

**Polymer Additives** – These polymers are mixed with water and applied to the driving surface by a water truck with a gravity feed drip bar, spray bar or automated distributor truck. The mixing ratios and application rates will be in accordance with the manufacturer's recommendations. Incorporation of the emulsion into the soil will be done to the appropriate depth based on expected traffic. Compaction after incorporation will be by vibratory roller to a minimum of 95%. The prepared surface shall be moist and no application of the polymer will be made if there is a probability of precipitation within 48 hours of its proposed use. Material Safety Data Sheets will be provided to all applicators working with the material.

**Barriers** – Woven geo-textiles can be placed on the driving surface to effectively reduce dust throw and particle migration on haul roads. Stone can also be used for construction roads for effective dust control.

**Windbreak** – A silt fence or similar barrier can control air currents at intervals equal to ten times the barrier height. Preserve existing wind barrier vegetation as much as practical.

## Maintenance

Maintain dust control measures through dry weather periods until all disturbed areas are stabilized.

# STANDARD AND SPECIFICATIONS FOR MULCHING



## **Definition and Scope**

Applying coarse plant residue or chips, or other suitable materials, to cover the soil surface to provide initial erosion control while a seeding or shrub planting is establishing. Mulch will conserve moisture and modify the surface soil temperature and reduce fluctuation of both. Mulch will prevent soil surface crusting and aid in weed control. Mulch can also be used alone for temporary stabilization in non-growing months. Use of stone as a mulch could be more permanent and should not be limited to non-growing months.

## **Conditions Where Practice Applies**

On soils subject to erosion and on new seedlings and shrub plantings. Mulch is useful on soils with low infiltration rates by retarding runoff.

## **Criteria**

Site preparation prior to mulching requires the installation of necessary erosion control or water management practices and drainage systems.

Slope, grade and smooth the site to fit needs of selected mulch products.

Remove all undesirable stones and other debris to meet the needs of the anticipated land use and maintenance required.

Apply mulch after soil amendments and planting is accomplished or simultaneously if hydroseeding is used.

Select appropriate mulch material and application rate or material needs. Hay mulch shall not be used in wetlands or in areas of permanent seeding. Clean straw mulch is preferred alternative in wetland application. Determine local availability.

Select appropriate mulch anchoring material.

NOTE: The best combination for grass/legume establishment is straw (cereal grain) mulch applied at 2 ton/acre (90 lbs./1000sq.ft.) and anchored with wood fiber mulch (hydromulch) at 500 – 750 lbs./acre (11 – 17 lbs./1000 sq. ft.). The wood fiber mulch must be applied through a hydroseeder immediately after mulching.



**Table 4.2**  
**Guide to Mulch Materials, Rates, and Uses**

<b>Mulch Material</b>	<b>Quality Standards</b>	<b>per 1000 Sq. Ft.</b>	<b>per Acre</b>	<b>Depth of Application</b>	<b>Remarks</b>
Wood chips or shavings	Air-dried. Free of objectionable coarse material	500-900 lbs.	10-20 tons	2-7"	Used primarily around shrub and tree plantings and recreation trails to inhibit weed competition. Resistant to wind blowing. Decomposes slowly.
Wood fiber cellulose (partly digested wood fibers)	Made from natural wood usually with green dye and dispersing agent	50 lbs.	2,000 lbs.	—	Apply with hydromulcher. No tie down required. Less erosion control provided than 2 tons of hay or straw.
Gravel, Crushed Stone or Slag	Washed; Size 2B or 3A—1 1/2"	9 cu. yds.	405 cu. yds.	3"	Excellent mulch for short slopes and around plants and ornamentals. Use 2B where subject to traffic. (Approximately 2,000 lbs./cu. yd.). Frequently used over filter fabric for better weed control.
Hay or Straw	Air-dried; free of undesirable seeds & coarse materials	90-100 lbs. 2-3 bales	2 tons (100-120 bales)	cover about 90% surface	Use small grain straw where mulch is maintained for more than three months. Subject to wind blowing unless anchored. Most commonly used mulching material. Provides the best micro-environment for germinating seeds.
Jute twisted yarn	Undyed, unbleached plain weave. Warp 78 ends/yd., Weft 41 ends/yd. 60-90 lbs./roll	48" x 50 yds. or 48" x 75 yds.	—	—	Use without additional mulch. Tie down as per manufacturers specifications. Good for center line of concentrated water flow.
Excelsior wood fiber mats	Interlocking web of excelsior fibers with photodegradable plastic netting	4' x 112.5' or 8' x 112.5'.	—	—	Use without additional mulch. Excellent for seeding establishment. Anchor as per manufacturers specifications. Approximately 72 lbs./roll for excelsior with plastic on both sides. Use two sided plastic for centerline of waterways.
Straw or coconut fiber, or combination	Photodegradable plastic net on one or two sides	Most are 6.5 ft. x 3.5 ft.	81 rolls	—	Designed to tolerate higher velocity water flow, centerlines of waterways, 60 sq. yds. per roll.

**Table 4.3**  
**Mulch Anchoring Guide**

Anchoring Method or Material	Kind of Mulch to be Anchored	How to Apply
1. Peg and Twine	Hay or straw	After mulching, divide areas into blocks approximately 1 sq. yd. in size. Drive 4-6 pegs per block to within 2" to 3" of soil surface. Secure mulch to surface by stretching twine between pegs in criss-cross pattern on each block. Secure twine around each peg with 2 or more tight turns. Drive pegs flush with soil. Driving stakes into ground tightens the twine.
2. Mulch netting	Hay or straw	Staple the light-weight paper, jute, wood fiber, or plastic nettings to soil surface according to manufacturer's recommendations. Should be biodegradable. Most products are not suitable for foot traffic.
3. Wood cellulose fiber	Hay or straw	Apply with hydroseeder immediately after mulching. Use 500 lbs. wood fiber per acre. Some products contain an adhesive material ("tackifier"), possibly advantageous.
4. Mulch anchoring tool	Hay or straw	Apply mulch and pull a mulch anchoring tool (blunt, straight discs) over mulch as near to the contour as possible. Mulch material should be "tucked" into soil surface about 3".
5. Tackifier	Hay or straw	Mix and apply polymeric and gum tackifiers according to manufacturer's instructions. Avoid application during rain. A 24-hour curing period and a soil temperature higher than 45 <sup>o</sup> Fahrenheit are required.

# STANDARD AND SPECIFICATIONS FOR SILT FENCE



## **Definition & Scope**

A **temporary** barrier of geotextile fabric installed on the contours across a slope used to intercept sediment laden runoff from small drainage areas of disturbed soil by temporarily ponding the sediment laden runoff allowing settling to occur. The maximum period of use is limited by the ultraviolet stability of the fabric (approximately one year).

## **Conditions Where Practice Applies**

A silt fence may be used subject to the following conditions:

1. Maximum allowable slope length and fence length will not exceed the limits shown in the Design Criteria for the specific type of silt fence used ; and
2. Maximum ponding depth of 1.5 feet behind the fence; and
3. Erosion would occur in the form of sheet erosion; and
4. There is no concentration of water flowing to the barrier; and
5. Soil conditions allow for proper keying of fabric, or other anchorage, to prevent blowouts.

## **Design Criteria**

1. Design computations are not required for installations of 1 month or less. Longer installation periods should be designed for expected runoff.
2. All silt fences shall be placed as close to the disturbed area as possible, but at least 10 feet from the toe of a slope steeper than 3H:1V, to allow for maintenance and

roll down. The area beyond the fence must be undisturbed or stabilized.

3. The type of silt fence specified for each location on the plan shall not exceed the maximum slope length and maximum fence length requirements shown in the following table:

		Slope Length/Fence Length (ft.)		
Slope	Steepness	Standard	Reinforced	Super
<2%	< 50:1	300/1500	N/A	N/A
2-10%	50:1 to 10:1	125/1000	250/2000	300/2500
10-20%	10:1 to 5:1	100/750	150/1000	200/1000
20-33%	5:1 to 3:1	60/500	80/750	100/1000
33-50%	3:1 to 2:1	40/250	70/350	100/500
>50%	> 2:1	20/125	30/175	50/250

**Standard Silt Fence (SF)** is fabric rolls stapled to wooden stakes driven 16 inches in the ground.

**Reinforced Silt Fence (RSF)** is fabric placed against welded wire fabric with anchored steel posts driven 16 inches in the ground.

**Super Silt Fence (SSF)** is fabric placed against chain link fence as support backing with posts driven 3 feet in the ground.

4. Silt fence shall be removed as soon as the disturbed area has achieved final stabilization.

The silt fence shall be installed in accordance with the appropriate details. Where ends of filter cloth come together, they shall be overlapped, folded and stapled to prevent sediment bypass. Butt joints are not acceptable. A detail of the silt fence shall be shown on the plan. See Figure 5.30 on page 5.56 for Reinforced Silt Fence as an example of details to be provided.

## **Criteria for Silt Fence Materials**

1. Silt Fence Fabric: The fabric shall meet the following specifications unless otherwise approved by the appropriate erosion and sediment control plan approval authority. Such approval shall not constitute statewide acceptance.

Fabric Properties	Minimum Acceptable Value	Test Method
Grab Tensile Strength (lbs)	110	ASTM D 4632
Elongation at Failure (%)	20	ASTM D 4632
Mullen Burst Strength (PSI)	300	ASTM D 3786
Puncture Strength (lbs)	60	ASTM D 4833
Minimum Trapezoidal Tear Strength (lbs)	50	ASTM D 4533
Flow Through Rate (gal/min/sf)	25	ASTM D 4491
Equivalent Opening Size	40-80	US Std Sieve ASTM D 4751
Minimum UV Residual (%)	70	ASTM D 4355

Super Silt Fence



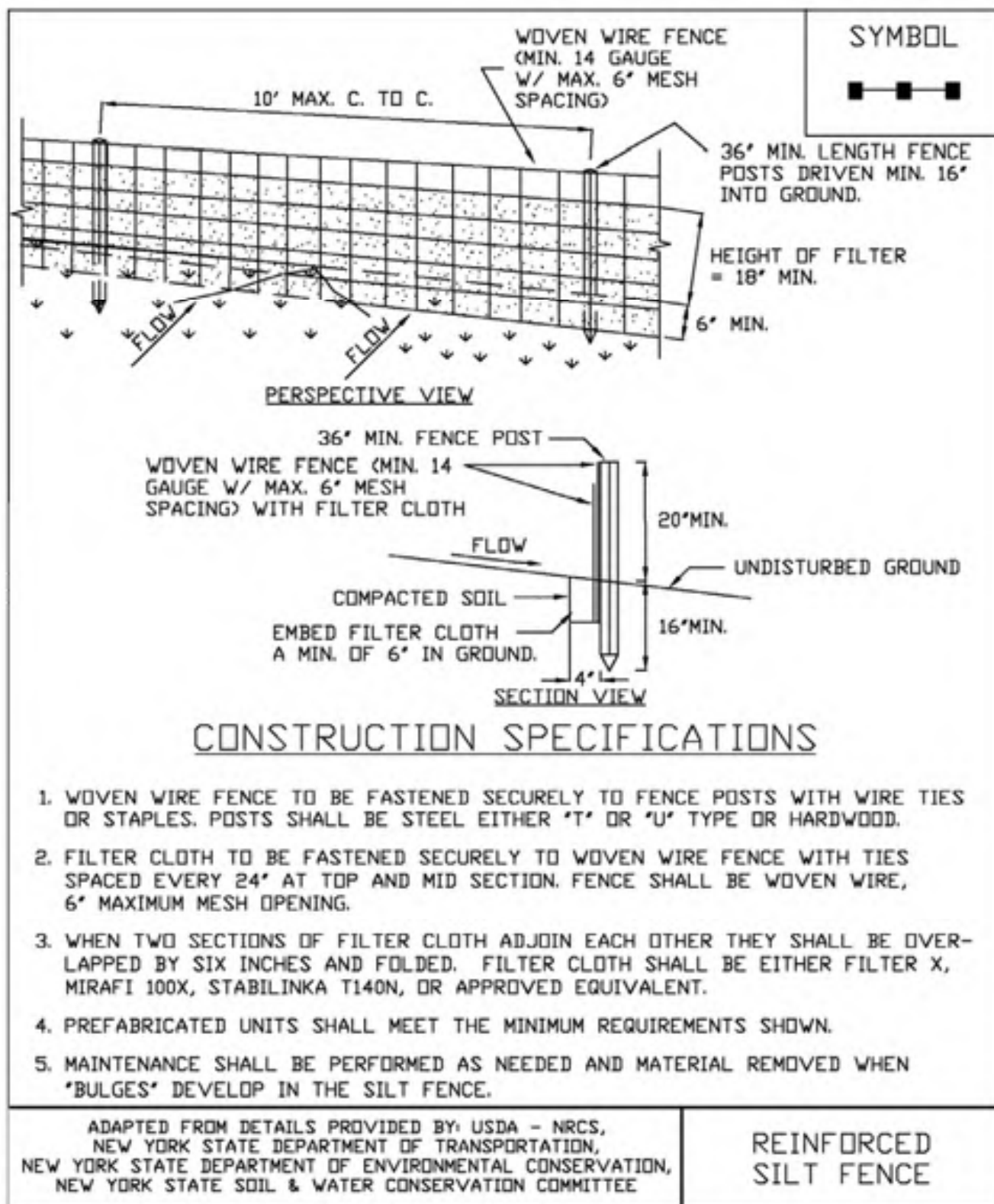
2. Fence Posts (for fabricated units): The length shall be a minimum of 36 inches long. Wood posts will be of sound quality hardwood with a minimum cross sectional area of 3.5 square inches. Steel posts will be standard T and U section weighing not less than 1.00 pound per linear foot. Posts for super silt fence shall be standard chain link fence posts.
3. Wire Fence for reinforced silt fence: Wire fencing shall be a minimum 14 gage with a maximum 6 in. mesh opening, or as approved.
4. Prefabricated silt fence is acceptable as long as all material specifications are met.

Reinforced Silt Fence





**Figure 5.30  
Reinforced Silt Fence**



# STANDARD AND SPECIFICATIONS FOR COMPOST FILTER SOCK



that 8” diameter socks may be used for residential lots to control areas less than 0.25 acres.

3. The flat dimension of the sock shall be at least 1.5 times the nominal diameter.
4. The **Maximum Slope Length** (in feet) above a compost filter sock shall not exceed the following limits:

Dia. (in.)	Slope %						
	2	5	10	20	25	33	50
8	225*	200	100	50	20	—	—
12	250	225	125	65	50	40	25
18	275	250	150	70	55	45	30
24	350	275	200	130	100	60	35
32	450	325	275	150	120	75	50

\* Length in feet

## Definition & Scope

A **temporary** sediment control practice composed of a degradable geotextile mesh tube filled with compost filter media to filter sediment and other pollutants associated with construction activity to prevent their migration offsite.

## Condition Where Practice Applies

Compost filter socks can be used in many construction site applications where erosion will occur in the form of sheet erosion and there is no concentration of water flowing to the sock. In areas with steep slopes and/or rocky terrain, soil conditions must be such that good continuous contact between the sock and the soil is maintained throughout its length. For use on impervious surfaces such as road pavement or parking areas, proper anchorage must be provided to prevent shifting of the sock or separation of the contact between the sock and the pavement. Compost filter socks are utilized both at the site perimeter as well as within the construction areas. These socks may be filled after placement by blowing compost into the tube pneumatically, or filled at a staging location and moved into its designed location.

## Design Criteria

1. Compost filter socks will be placed on the contour with both terminal ends of the sock extended 8 feet upslope at a 45 degree angle to prevent bypass flow.
2. Diameters designed for use shall be 12” – 32” except



5. The compost infill shall be well decomposed (matured at least 3 months), weed-free, organic matter. It shall be aerobically composted, possess no objectionable odors, and contain less than 1%, by dry weight, of man-made foreign matter. The physical parameters of the compost shall meet the standards listed in Table 5.2 - Compost Standards Table. **Note: All biosolids compost produced in New York State (or approved for importation) must meet NYS DEC’s 6 NYCRR Part 360 (Solid Waste Management Facilities) requirements. The Part 360 requirements are equal to or more stringent than 40 CFR Part 503 which ensure safe standards for pathogen reduction and heavy metals content. When using compost filter socks adjacent to surface water, the compost should have a low nutrient value.**
6. The compost filter sock fabric material shall meet the

7. Compost filter socks shall be anchored in earth with 2” x 2” wooden stakes driven 12” into the soil on 10 foot centers on the centerline of the sock. On uneven terrain, effective ground contact can be enhanced by the placement of a fillet of filter media on the disturbed area side of the compost sock.
8. All specific construction details and material specifications shall appear on the erosion and sediment control constructions drawings when compost filter socks are included in the plan.
3. Socks shall be inspected weekly and after each runoff event. Damaged socks shall be repaired in the manner required by the manufacturer or replaced within 24 hours of inspection notification.
4. Biodegradable filter socks shall be replaced after 6 months; photodegradable filter socks after 1 year. Polypropylene socks shall be replaced according to the manufacturer’s recommendations.
5. Upon stabilization of the area contributory to the sock, stakes shall be removed. The sock may be left in place and vegetated or removed in accordance with the stabilization plan. For removal the mesh can be cut and the compost spread as an additional mulch to act as a soil supplement.

**Maintenance**

1. Traffic shall not be permitted to cross filter socks.
2. Accumulated sediment shall be removed when it reaches half the above ground height of the sock and disposed of in accordance with the plan.

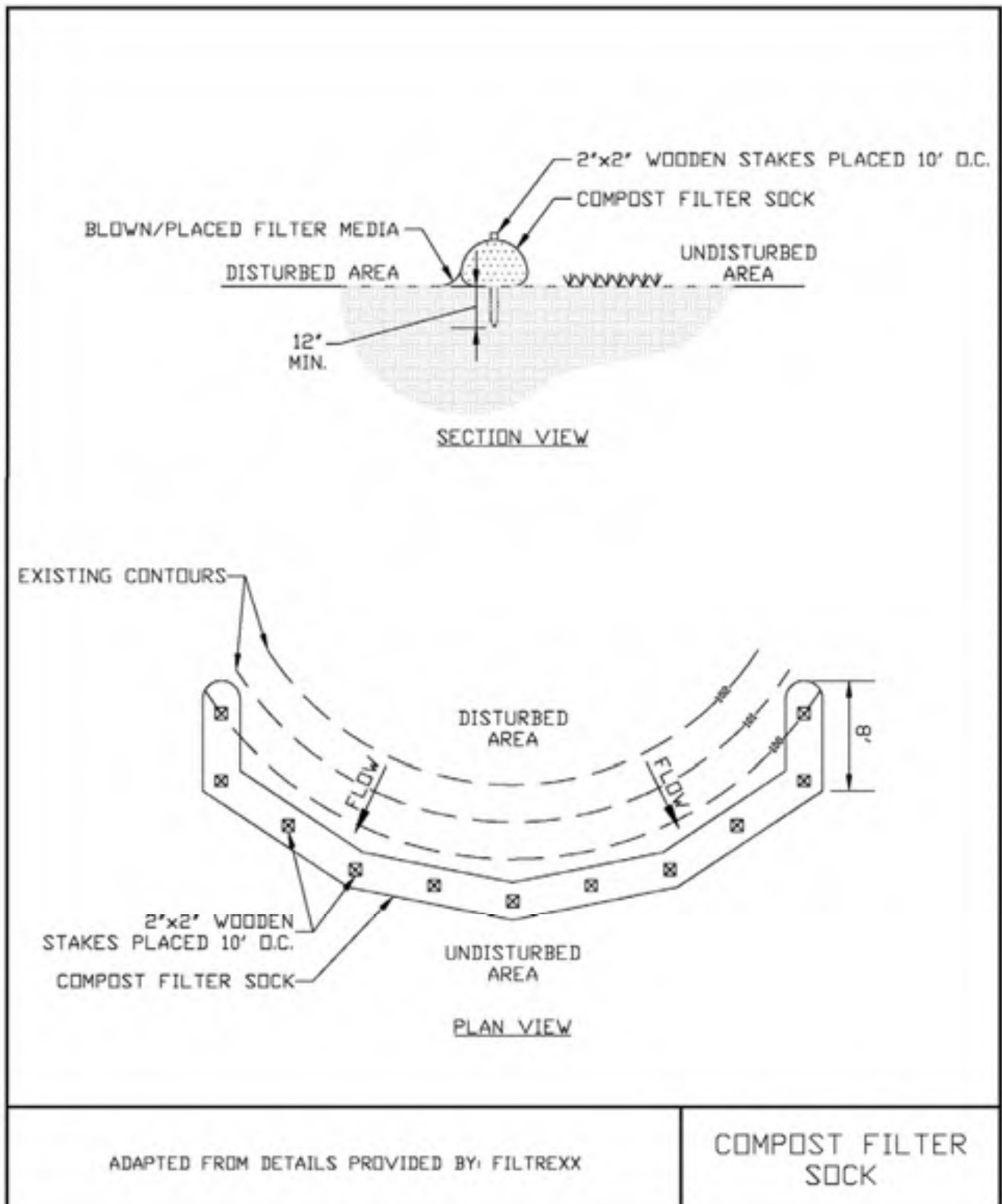
**Table 5.1 - Compost Sock Fabric Minimum Specifications Table**

Material Type	3 mil HDPE	5 mil HDPE	5 mil HDPE	Multi-Filament Polypropylene (MFPP)	Heavy Duty Multi-Filament Polypropylene (HDMFPP)
<b>Material Characteristics</b>	Photodegradable	Photodegradable	Biodegradable	Photodegradable	Photodegradable
<b>Sock Diameters</b>	12” 18”	12” 18” 24” 32”	12” 18” 24” 32”	12” 18” 24” 32”	12” 18” 24” 32”
<b>Mesh Opening</b>	3/8”	3/8”	3/8”	3/8”	1/8”
<b>Tensile Strength</b>		26 psi	26 psi	44 psi	202 psi
<b>Ultraviolet Stability % Original Strength (ASTM G-155)</b>	23% at 1000 hr.	23% at 1000 hr.		100% at 1000 hr.	100% at 1000 hr.
<b>Minimum Functional Longevity</b>	6 months	9 months	6 months	1 year	2 years

**Table 5.2 - Compost Standards Table**

Organic matter content	25% - 100% (dry weight)
Organic portion	Fibrous and elongated
pH	6.0 – 8.0
Moisture content	30% - 60%
Particle size	100% passing a 1” screen and 10 - 50% passing a 3/8” screen
Soluble salt concentration	5.0 dS/m (mmhos/cm) maximum

**Figure 5.2**  
**Compost Filter Sock**



# STANDARD AND SPECIFICATIONS FOR SOIL RESTORATION



## Definition & Scope

The decompaction of areas of a development site or construction project where soils have been disturbed to recover the original properties and porosity of the soil; thus providing a sustainable growth medium for vegetation, reduction of runoff and filtering of pollutants from stormwater runoff.

## Conditions Where Practice Applies

Soil restoration is to be applied to areas whose heavy construction traffic is done and final stabilization is to begin. This is generally applied in the cleanup, site restoration, and landscaping phase of construction followed by the permanent establishment of an appropriate ground cover to maintain the soil structure. Soil restoration measures should be applied over and adjacent to any runoff reduction practices to achieve design performance.



## Design Criteria

1. Soil restoration areas will be designated on the plan views of areas to be disturbed.

2. Soil restoration will be completed in accordance with Table 4.6 on page 4.53.

## Specification for Full Soil Restoration

During periods of relatively low to moderate subsoil moisture, the disturbed subsoils are returned to rough grade and the following Soil Restoration steps applied:

1. Apply 3 inches of compost over subsoil. The compost shall be well decomposed (matured at least 3 months), weed-free, organic matter. It shall be aerobically composted, possess no objectionable odors, and contain less than 1%, by dry weight, of man-made foreign matter. The physical parameters of the compost shall meet the standards listed in Table 5.2 - Compost Standards Table, except for "Particle Size" 100% will pass the 1/2" sieve. **Note: All biosolids compost produced in New York State (or approved for importation) must meet NYS DEC's 6 NYCRR Part 360 (Solid Waste Management Facilities) requirements. The Part 360 requirements are equal to or more stringent than 40 CFR Part 503 which ensure safe standards for pathogen reduction and heavy metals content.**



2. Till compost into subsoil to a depth of at least 12 inches using a cat-mounted ripper, tractor mounted disc, or tiller, to mix and circulate air and compost into the subsoil.
3. Rock-pick until uplifted stone/rock materials of four inches and larger size are cleaned off the site.
4. Apply topsoil to a depth of 6 inches.
5. Vegetate as required by the seeding plan. Use appropriate ground cover with deep roots to maintain the soil structure.
6. Topsoil may be manufactured as a mixture or a mineral component and organic material such as compost.

At the end of the project an inspector should be able to push a 3/8” metal bar 12 inches into the soil just with body weight. This should not be performed within the drip line of any existing trees or over utility installations that are within 24 inches of the surface.

### **Maintenance**

Keep the site free of vehicular and foot traffic or other weight loads. Consider pedestrian footpaths.

**Table 4.6  
Soil Restoration Requirements**

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

# STANDARD AND SPECIFICATIONS FOR WINTER STABILIZATION



## Definition & Scope

A temporary site specific, enhanced erosion and sediment control plan to manage runoff and sediment at the site during construction activities in the winter months to protect off-site water resources.

## Conditions Where Practice Applies

This standard applies to all construction activities involved with ongoing land disturbance and exposure between November 15<sup>th</sup> to the following April 1<sup>st</sup>.

## Design Criteria

1. Prepare a snow management plan with adequate storage for snow and control of melt water, requiring cleared snow to be stored in a manner not affecting ongoing construction activities.
2. Enlarge and stabilize access points to provide for snow management and stockpiling. Snow management activities must not destroy or degrade installed erosion and sediment control practices.
3. A minimum 25 foot buffer shall be maintained from all perimeter controls such as silt fence. Mark silt fence with tall stakes that are visible above the snow pack.
4. Edges of disturbed areas that drain to a waterbody within 100 feet will have 2 rows of silt fence, 5 feet apart, installed on the contour.
5. Drainage structures must be kept open and free of snow and ice dams. All debris, ice dams, or debris from plowing operations, that restrict the flow of runoff and meltwater, shall be removed.
6. Sediment barriers must be installed at all appropriate

perimeter and sensitive locations. Silt fence and other practices requiring earth disturbance must be installed before the ground freezes.

7. Soil stockpiles must be protected by the use of established vegetation, anchored straw mulch, rolled stabilization matting, or other durable covering. A barrier must be installed at least 15 feet from the toe of the stockpile to prevent soil migration and to capture loose soil.
8. In areas where soil disturbance activity has temporarily or permanently ceased, the application of soil stabilization measures should be initiated by the end of the next business day and completed within three (3) days. Rolled erosion control blankets must be used on all slopes 3 horizontal to 1 vertical or steeper.
9. If straw mulch alone is used for temporary stabilization, it shall be applied at double the standard rate of 2 tons per acre, making the application rate 4 tons per acre. Other manufactured mulches should be applied at double the manufacturer's recommended rate.
10. To ensure adequate stabilization of disturbed soil in advance of a melt event, areas of disturbed soil should be stabilized at the end of each work day unless:
  - a. work will resume within 24 hours in the same area and no precipitation is forecast or;
  - b. the work is in disturbed areas that collect and retain runoff, such as open utility trenches, foundation excavations, or water management areas.
11. Use stone paths to stabilize access perimeters of buildings under construction and areas where construction vehicle traffic is anticipated. Stone paths should be a minimum 10 feet in width but wider as necessary to accommodate equipment.

## Maintenance

The site shall be inspected frequently to ensure that the erosion and sediment control plan is performing its winter stabilization function. If the site will not have earth disturbing activities ongoing during the "winter season", all bare exposed soil must be stabilized by established vegetation, straw or other acceptable mulch, matting, rock, or other approved material such as rolled erosion control products. Seeding of areas with mulch cover is preferred but seeding alone is not acceptable for proper stabilization.

Compliance inspections must be performed and reports filed properly in accordance with the SWPPP for all sites under a winter shutdown.

## References

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1. Northeastern Illinois Soil and Sedimentation Control Steering Committee. October 1981. Procedures and Standards for Urban Soil Erosion and Sediment Control in Illinois.
2. J.F. Rushing, V.M. Moore, J.S. Tingle, Q. Mason, and T. McCaffery, 2005. Dust Abatement Methods for Lines of Communication and Base Camps in Temperate Climates. ERDC/GSL TR-05-23, October 2005.





## **APPENDIX F: GENERAL PERMIT COVERAGE**

**Owner Certification  
SWPPP Preparer Certification  
Electronic Notice of Intent  
Five Acre Waiver  
General Permit  
Notice of Termination  
Nationwide Permit 51 – Land-Based Renewable Energy Generation Facilities  
NYSDEC Solar Panel Construction Stormwater Permitting/SWPPP Guidance  
Maryland Department of the Environment Stormwater Design Guidance**





# Owner/Operator Certification Form

## SPDES General Permit For Stormwater Discharges From Construction Activity (GP-0-20-001)

Project/Site Name: Genesee 1

eNOI Submission Number: HP6-WTJE-SH397

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



# SWPPP Preparer Certification Form

---

*SPDES General Permit for Stormwater  
Discharges From Construction Activity  
(GP-0-20-001)*

## Project Site Information

### Project/Site Name

Genesee 1

## Owner/Operator Information

### Owner/Operator (Company Name/Private Owner/Municipality Name)

NY CDG Genesee 1 LLC

## 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-0-20-001. 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.

Jim

First name

MI

Taravella

Last Name

Signature

Date

# NOI for coverage under Stormwater General Permit for Construction Activity

version 1.29

(Submission #: HP6-WTJE-SH397, version 1)

## Details

---

**Submission Alias** NOI for Genesee 1  
**Originally Started By** Mallory Squier Babcock  
**Submission ID** HP6-WTJE-SH397  
**Submission Reason** New  
**Status** Draft

## Form Input

---

### Owner/Operator Information

**Owner/Operator Name (Company/Private Owner/Municipality/Agency/Institution, etc.)**  
NY CDG Genesee 1, LLC

**Owner/Operator Contact Person Last Name (NOT CONSULTANT)**  
Dinu

**Owner/Operator Contact Person First Name**  
Bogdan

**Owner/Operator Mailing Address**  
850 New Burton Road, Suite 201

**City**  
Dover

**State**  
Delaware

**Zip**  
19904

**Phone**  
226-753-2847

**Email**  
bogdan.dinu@bwsolar.com

**Federal Tax ID**  
NONE PROVIDED

### Project Location

**Project/Site Name**  
Genesee 1

**Street Address (Not P.O. Box)**  
7209 Oak Orchard Rd

**Side of Street**

East

**City/Town/Village (THAT ISSUES BUILDING PERMIT)**

Elba

**State**

NY

**Zip**

14058

**County**

GENESSEE

**DEC Region**

8

**Name of Nearest Cross Street**

Ford Rd

**Distance to Nearest Cross Street (Feet)**

500

**Project In Relation to Cross Street**

South

**Tax Map Numbers Section-Block-Parcel**

11-1-5.12

**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**

43.06446198844874,-78.18626216335383

**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**

Pasture/Open Land

**Post-Development Future Land Use**

Other: Solar Farm

**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)**

55.8

**Total Area to be Disturbed (acres)**

24.3

**Existing Impervious Area to be Disturbed (acres)**

0

**Future Impervious Area Within Disturbed Area (acres)**

0

**5. Do you plan to disturb more than 5 acres of soil at any one time?**

Yes

---

**6. Indicate the percentage (%) of each Hydrologic Soil Group(HSG) at the site.**

**A (%)**

0

**B (%)**

26.8

**C (%)**

0

**D (%)**

73.2

**7. Is this a phased project?**

No

**8. Enter the planned start and end dates of the disturbance activities.**

**Start Date**

05/01/2022

**End Date**

10/31/2022

**9. Identify the nearest surface waterbody(ies) to which construction site runoff will discharge.**

Oak Orchard 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?**

Yes

**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 an E or F on the USDA Soil Survey?**

No

**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)?**

Yes

**16. What is the name of the municipality/entity that owns the separate storm sewer system?**

Elba

**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)?**

No

**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?**

NONE PROVIDED

**24. The Stormwater Pollution Prevention Plan (SWPPP) was prepared by:**

Professional Engineer (P.E.)

**SWPPP Preparer**

LaBella Associates, D.P.C.

**Contact Name (Last, Space, First)**

Taravella, Jim

**Mailing Address**

300 State St., Ste 201

**City**

Rochester

**State**  
New York

**Zip**  
14614

**Phone**  
716-551-6281

**Email**  
jtaravella@labellapc.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**

Silt Fence  
Stabilized Construction Entrance

**Biotechnical**

None

**Vegetative Measures**

Seeding  
Mulching

**Permanent Structural**

None

**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.**

NONE PROVIDED

**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).**

NONE PROVIDED

**28. Provide the total Water Quality Volume (WQv) required for this project (based on final site plan/layout). (Acre-feet)**

NONE PROVIDED



**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)**

NONE PROVIDED

**31. Is the Total RRv provided (#30) greater than or equal to the total WQv required (#28)?**

NONE PROVIDED

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)**

NONE PROVIDED

**32a. Is the Total RRv provided (#30) greater than or equal to the Minimum RRv Required (#32)?**

NONE PROVIDED

**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)**

NONE PROVIDED

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).**

NONE PROVIDED

**35. Is the sum of the RRv provided (#30) and the WQv provided (#33a) greater than or equal to the total WQv required (#28)?**

NONE PROVIDED

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)**

NONE PROVIDED

**CPv Provided (acre-feet)**

NONE PROVIDED

**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)**

NONE PROVIDED

**Post-Development (CFS)**

NONE PROVIDED

**Total Extreme Flood Control Criteria (Qf)**

**Pre-Development (CFS)**

NONE PROVIDED

**Post-Development (CFS)**

NONE PROVIDED

**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?**

NONE PROVIDED

**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)**

NONE PROVIDED

**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 manufacturer 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?**

No

**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?**

NONE PROVIDED

**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



03/24/2021

Luke Scannell  
NYSDEC, Region 8  
6274 East Avon-Lima Rd.  
Avon, NY 14414

**RE: Genesee 1  
BW Solar  
Request to Disturb Greater Than 5-acres  
LaBella Project No. 2210066**

Mr. Scannell:

In accordance with the SPDES General Permit for Stormwater Discharges from Construction Activity, Permit No. GP-0-20-001 (Part II.D.3), the purpose of this letter is to request written authorization, on behalf of BW Solar., from the NYSDEC to grant disturbance of greater than five (5) acres of soil at any one time.

The need for greater than five (5) acres of disturbance at any one time is due to:

- Anticipating approximately 24.3 acres of project area/disturbance area; primarily from construction vehicles.
- Anticipating approximately 1 acre for a staging/lay-down area.
- Nature of the schedule and sequence of construction.

In accordance with the General Permit, the following minimum requirements will be fulfilled:

- A Qualified Inspector will conduct at least two (2) site inspections every seven (7) calendar days whenever more than 5-Acres of soil have been disturbed. Inspections during this period will be separated by a minimum of two (2) full calendar days.
- In areas where soil disturbance activity has temporarily or permanently ceased, the application of soil stabilization measures will 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 erosion and sediment control plans and SWPPP have been designed for a disturbance greater than 5-Acres; however, the owner agrees to install any additional practices needed to protect water quality.
- A copy of this letter (once executed) will be retained within the SWPPP that is kept on-site.

If you agree to authorize greater than 5-Acres of soil to be disturbed, please sign below:

Signature:	_____
Name:	_____
Title:	_____

Should you have any questions or require additional information to act on this matter, please do not hesitate to contact me at 716-551-6281.

Respectfully submitted,  
**LaBella Associates**

Jim Taravella, PE ENVSP  
Civil Engineer



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

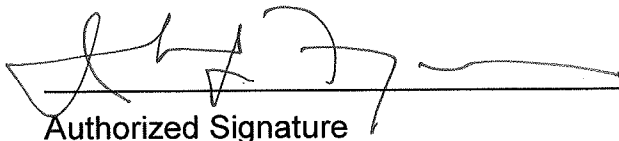
Issued Pursuant to Article 17, Titles 7, 8 and Article 70  
of the Environmental Conservation Law

Effective Date: January 29, 2020

Expiration Date: January 28, 2025

John J. Ferguson

Chief Permit Administrator



Authorized Signature

1-23-20

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

*Discharges* 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 discharges*;
  - (ii) Control stormwater *discharges*, 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 *discharges* from the site;
  - (vi) Provide and maintain *natural buffers* around surface waters, direct stormwater to vegetated areas and maximize stormwater infiltration to reduce *pollutant discharges*, 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.** *Discharges* from *dewatering* activities, including *discharges* 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 *discharges* 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 *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.



### 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 *discharges* 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 *discharges* 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 *discharges* 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 *discharges* 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 *discharges*; 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 *discharges* 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. *Discharges* after *construction activities* have been completed and the site has undergone *final stabilization*;
2. *Discharges* 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 *discharges* 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 *discharges* 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. *Discharges 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, 4<sup>th</sup> 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 not 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 not 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 *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 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

- I. 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 sources*. 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 sources*, 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**

<p><b>The following construction activities that involve soil disturbances of one (1) or more acres of land, but less than five (5) acres:</b></p> <ul style="list-style-type: none"><li>• Single family home <u>not</u> located in one of the watersheds listed in Appendix C or <u>not directly discharging</u> to one of the 303(d) segments listed in Appendix E</li><li>• Single family residential subdivisions with 25% or less impervious cover at total site build-out and <u>not</u> located in one of the watersheds listed in Appendix C and <u>not</u> directly discharging to one of the 303(d) segments listed in Appendix E</li><li>• Construction of a barn or other <i>agricultural building</i>, silo, stock yard or pen.</li></ul>
<p><b>The following construction activities that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land:</b></p> <p>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.</p>
<p><b>The following construction activities that involve soil disturbances of one (1) or more acres of land:</b></p> <ul style="list-style-type: none"><li>• Installation of underground, linear utilities; such as gas lines, fiber-optic cable, cable TV, electric, telephone, sewer mains, and water mains</li><li>• Environmental enhancement projects, such as wetland mitigation projects, stormwater retrofits and stream restoration projects</li><li>• Pond construction</li><li>• Linear bike paths running through areas with vegetative cover, including bike paths surfaced with an impervious cover</li><li>• Cross-country ski trails and walking/hiking trails</li><li>• Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that are not part of residential, commercial or institutional development;</li><li>• 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.</li><li>• Slope stabilization projects</li><li>• Slope flattening that changes the grade of the site, but does not significantly change the runoff characteristics</li></ul>

**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:

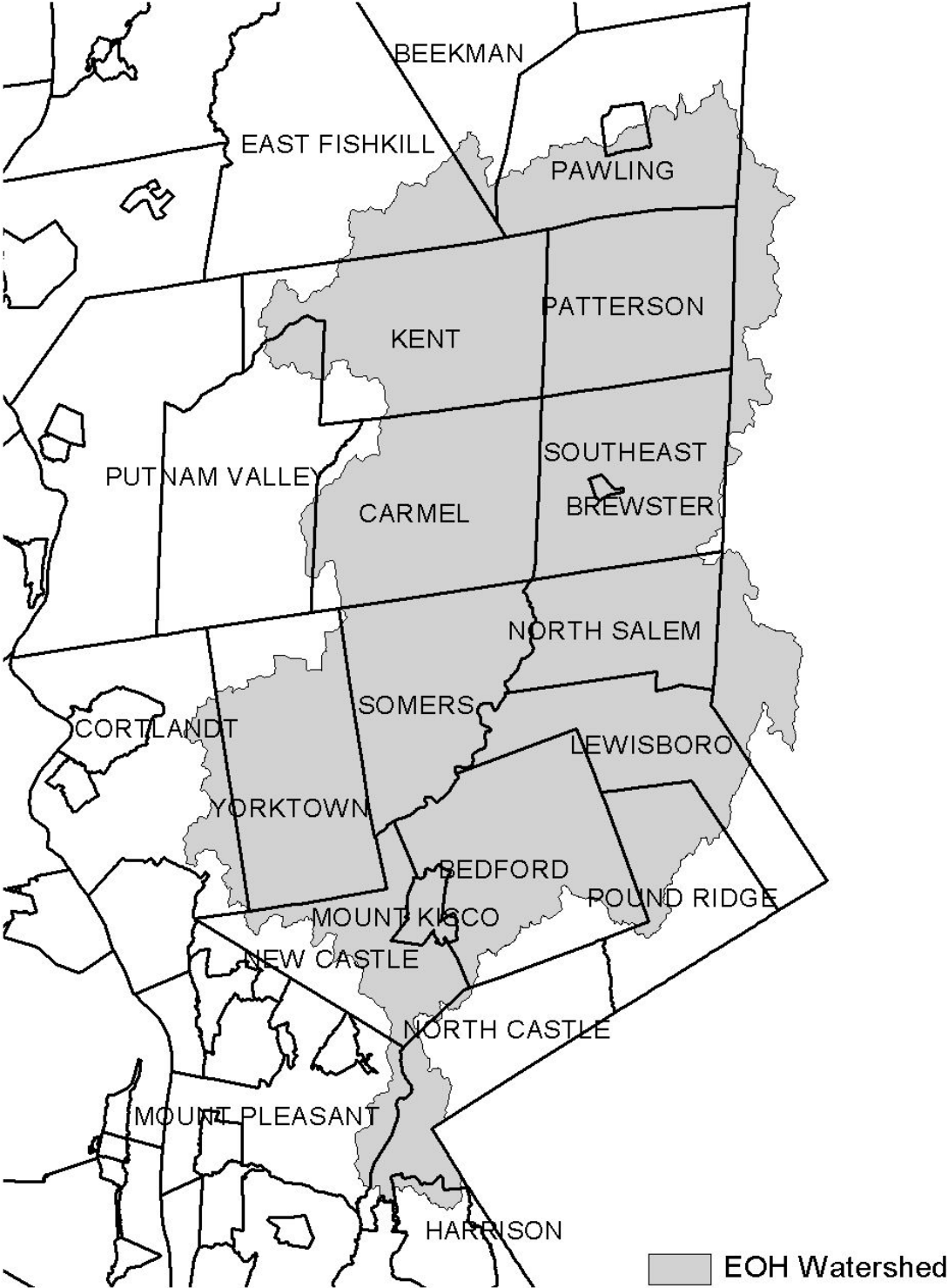
- Parking lot construction or reconstruction, including parking lots constructed as part of the construction activities listed in Table 1
- Athletic fields (natural grass) that include the construction or reconstruction of impervious area (>5% of disturbed area) or *alter the hydrology from pre to post 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**

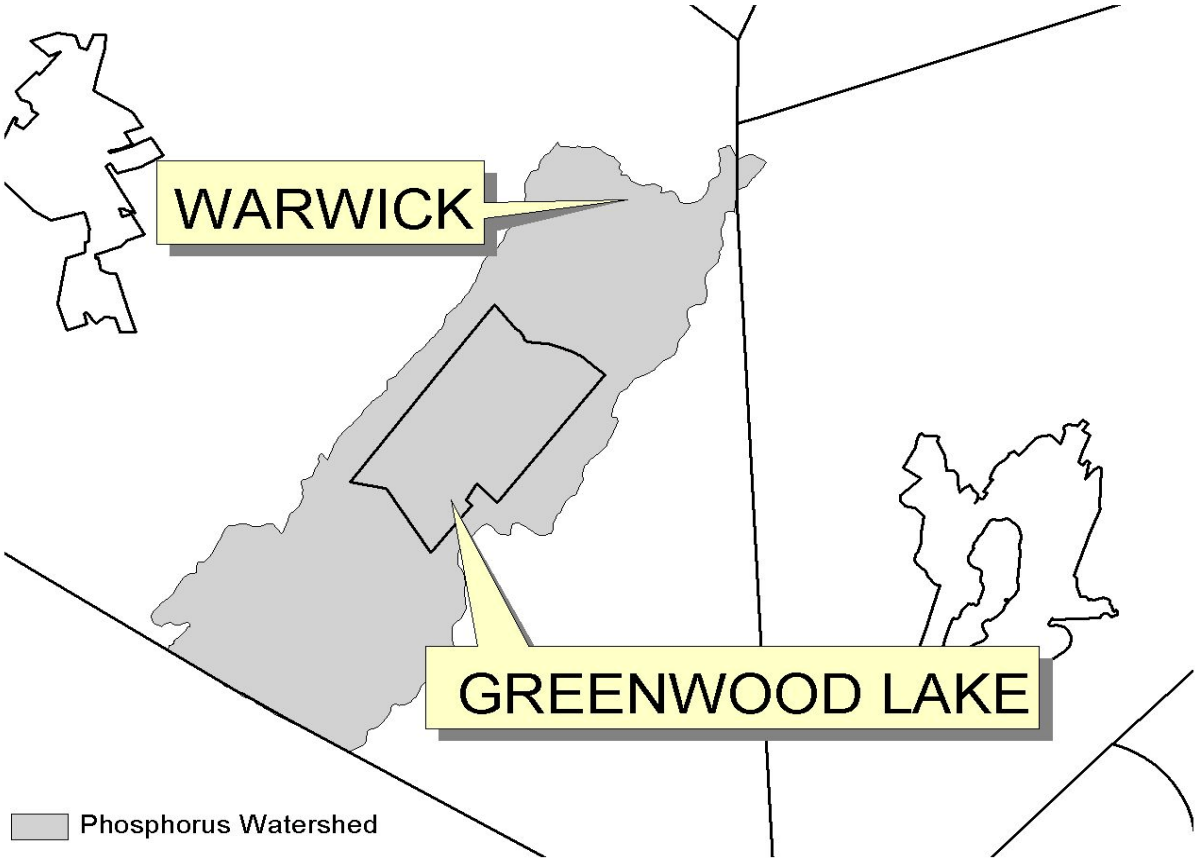


**Figure 2 - Onondaga Lake Watershed**

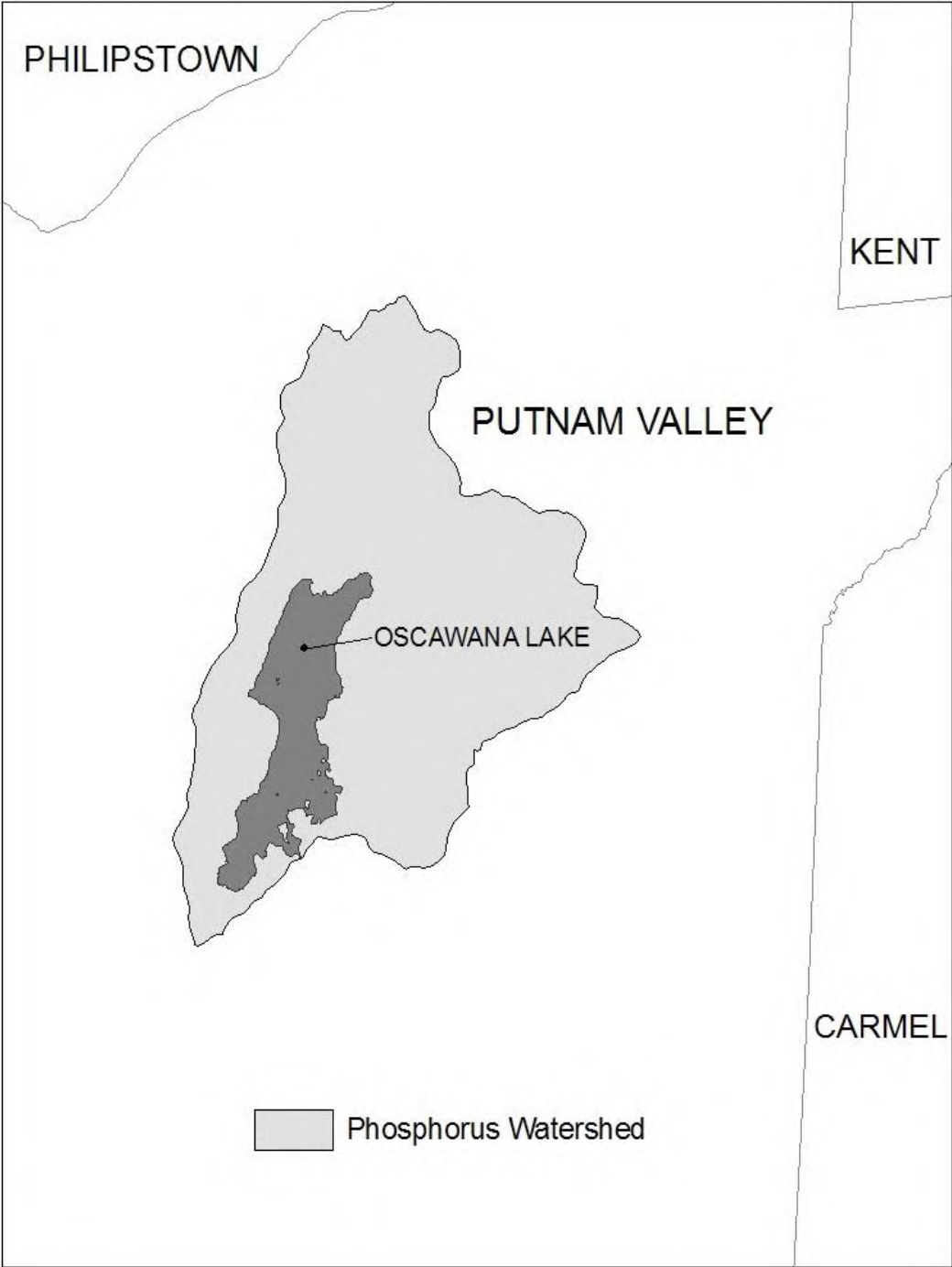




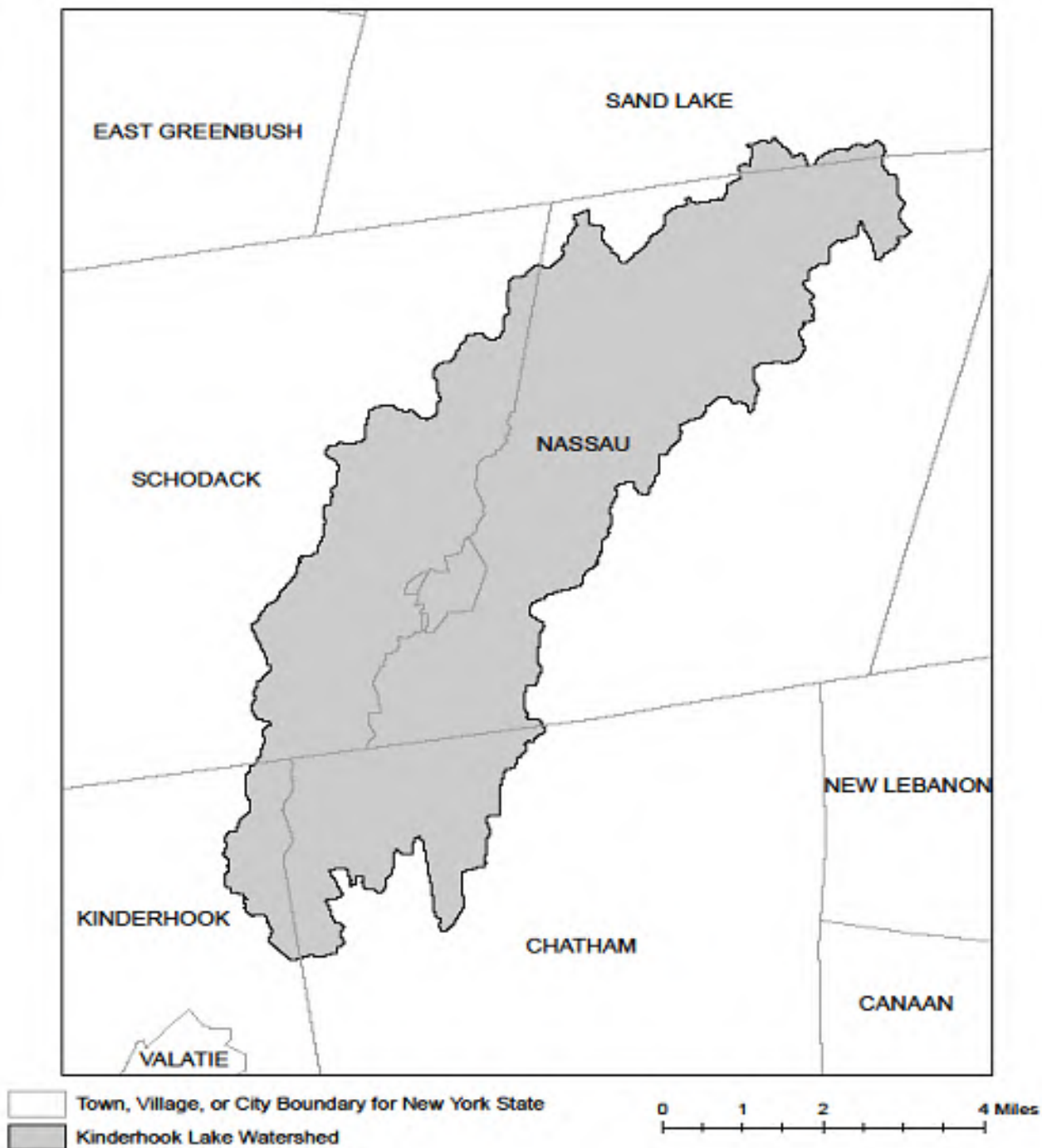
**Figure 3 - Greenwood Lake Watershed**



**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

<u>Region</u>	<u>COVERING THE FOLLOWING COUNTIES:</u>	<u>DIVISION OF ENVIRONMENTAL PERMITS (DEP) PERMIT ADMINISTRATORS</u>	<u>DIVISION OF WATER (DOW) WATER (SPDES) PROGRAM</u>
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

**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:

## **Nationwide Permit 51 - Land-Based Renewable Energy Generation Facilities**

Effective Date: March 19, 2017; Expiration Date: March 18, 2022

(NWP Final Notice, 82 FR 1860)

**Nationwide Permit 51 - Land-Based Renewable Energy Generation Facilities.** Discharges of dredged or fill material into non-tidal waters of the United States for the construction, expansion, or modification of land-based renewable energy production facilities, including attendant features. Such facilities include infrastructure to collect solar (concentrating solar power and photovoltaic), wind, biomass, or geothermal energy. Attendant features may include, but are not limited to roads, parking lots, and stormwater management facilities within the land-based renewable energy generation facility.

The discharge must not cause the loss of greater than 1/2-acre of non-tidal waters of the United States. The discharge must not cause the loss of more than 300 linear feet of stream bed, unless for intermittent and ephemeral stream beds the district engineer waives the 300 linear foot limit by making a written determination concluding that the discharge will result in no more than minimal adverse environmental effects. The loss of stream bed plus any other losses of jurisdictional wetlands and waters caused by the NWP activity cannot exceed 1/2-acre. This NWP does not authorize discharges into non-tidal wetlands adjacent to tidal waters.

**Notification:** The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity if the discharge results in the loss of greater than 1/10-acre of waters of the United States. (See general condition 32.) (Authorities: Sections 10 and 404)

Note 1: Utility lines constructed to transfer the energy from the land-based renewable energy generation facility to a distribution system, regional grid, or other facility are generally considered to be linear projects and each separate and distant crossing of a waterbody is eligible for treatment as a separate single and complete linear project. Those utility lines may be authorized by NWP 12 or another Department of the Army authorization.

Note 2: If the only activities associated with the construction, expansion, or modification of a land-based renewable energy generation facility that require Department of the Army authorization are discharges of dredged or fill material into waters of the United States to construct, maintain, repair, and/or remove utility lines and/or road crossings, then NWP 12 and/or NWP 14 shall be used if those activities meet the terms and conditions of NWPs 12 and 14, including any applicable regional conditions and any case-specific conditions imposed by the district engineer.

Note 3: For any activity that involves the construction of a wind energy generating structure, solar tower, or overhead transmission line, a copy of the PCN and NWP verification will be provided to the Department of Defense Siting Clearinghouse, which will evaluate potential effects on military activities.

### **A. Nationwide Permit General Conditions**

Note: To qualify for NWP authorization, the prospective permittee must comply with the following general conditions, as applicable, in addition to any regional or case-specific conditions imposed by the division engineer or district engineer. Prospective permittees should contact the appropriate Corps district office to determine if regional conditions have been imposed on an NWP. Prospective permittees should also contact the appropriate Corps district office to determine the status of Clean Water Act Section 401 water quality certification and/ or Coastal Zone Management Act consistency for an NWP. Every person who may wish to obtain permit authorization under one or more NWPs, or who is currently relying on an existing or prior permit authorization under one or more NWPs, has been and is on notice that all of the provisions of 33 CFR 330.1 through 330.6 apply to every NWP authorization. Note especially 33 CFR 330.5 relating to the modification, suspension, or revocation of any NWP authorization.

1. **Navigation.** (a) No activity may cause more than a minimal adverse effect on navigation. (b) Any safety lights

and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, must be installed and maintained at the permittee's expense on authorized facilities in navigable waters of the United States. (c) The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

2. **Aquatic Life Movements.** No activity may substantially disrupt the necessary life cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless the activity's primary purpose is to impound water. All permanent and temporary crossings of waterbodies shall be suitably culverted, bridged, or otherwise designed and constructed to maintain low flows to sustain the movement of those aquatic species. If a bottomless culvert cannot be used, then the crossing should be designed and constructed to minimize adverse effects to aquatic life movements.
3. **Spawning Areas.** Activities in spawning areas during spawning seasons must be avoided to the maximum extent practicable. Activities that result in the physical destruction (e.g., through excavation, fill, or downstream smothering by substantial turbidity) of an important spawning area are not authorized.
4. **Migratory Bird Breeding Areas.** Activities in waters of the United States that serve as breeding areas for migratory birds must be avoided to the maximum extent practicable.
5. **Shellfish Beds.** No activity may occur in areas of concentrated shellfish populations, unless the activity is directly related to a shellfish harvesting activity authorized by NWPs 4 and 48, or is a shellfish seeding or habitat restoration activity authorized by NWP 27.
6. **Suitable Material.** No activity may use unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.). Material used for construction or discharged must be free from toxic pollutants in toxic amounts (see section 307 of the Clean Water Act).
7. **Water Supply Intakes.** No activity may occur in the proximity of a public water supply intake, except where the activity is for the repair or improvement of public water supply intake structures or adjacent bank stabilization.
8. **Adverse Effects from Impoundments.** If the activity creates an impoundment of water, adverse effects to the aquatic system due to accelerating the passage of water, and/or restricting its flow must be minimized to the maximum extent practicable.
9. **Management of Water Flows.** To the maximum extent practicable, the preconstruction course, condition, capacity, and location of open waters must be maintained for each activity, including stream channelization, storm water management activities, and temporary and permanent road crossings, except as provided below. The activity must be constructed to withstand expected high flows. The activity must not restrict or impede the passage of normal or high flows, unless the primary purpose of the activity is to impound water or manage high flows. The activity may alter the preconstruction course, condition, capacity, and location of open waters if it benefits the aquatic environment (e.g., stream restoration or relocation activities).
10. **Fills Within 100-Year Floodplains.** The activity must comply with applicable FEMA-approved state or local floodplain management requirements.
11. **Equipment.** Heavy equipment working in wetlands or mudflats must be placed on mats, or other measures must be taken to minimize soil disturbance.



**12. Soil Erosion and Sediment Controls.** Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date. Permittees are encouraged to perform work within waters of the United States during periods of low-flow or no-flow, or during low tides.

**13. Removal of Temporary Fills.** Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The affected areas must be revegetated, as appropriate.

**14. Proper Maintenance.** Any authorized structure or fill shall be properly maintained, including maintenance to ensure public safety and compliance with applicable NWP general conditions, as well as any activity-specific conditions added by the district engineer to an NWP authorization.

**15. Single and Complete Project.** The activity must be a single and complete project. The same NWP cannot be used more than once for the same single and complete project.

**16. Wild and Scenic Rivers.**

(a) No NWP activity may occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, unless the appropriate Federal agency with direct management responsibility for such river, has determined in writing that the proposed activity will not adversely affect the Wild and Scenic River designation or study status.

(b) If a proposed NWP activity will occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, the permittee must submit a pre-construction notification (see general condition 32). The district engineer will coordinate the PCN with the Federal agency with direct management responsibility for that river. The permittee shall not begin the NWP activity until notified by the district engineer that the Federal agency with direct management responsibility for that river has determined in writing that the proposed NWP activity will not adversely affect the Wild and Scenic River designation or study status.

(c) Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency responsible for the designated Wild and Scenic River or study river (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service). Information on these rivers is also available at: <http://www.rivers.gov/>.

**17. Tribal Rights.** No NWP activity may cause more than minimal adverse effects on tribal rights (including treaty rights), protected tribal resources, or tribal lands.

**18. Endangered Species.**

(a) No activity is authorized under any NWP which is likely to directly or indirectly jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which will directly or indirectly destroy or adversely modify the critical habitat of such species. No activity is authorized under any NWP which "may affect" a listed species or critical habitat, unless ESA section 7 consultation addressing the effects of the proposed activity has been completed. Direct effects are the immediate effects on listed species and critical habitat caused by the NWP activity. Indirect effects are those effects on listed species and critical habitat that are caused by the NWP activity and are later in time, but still are reasonably certain to occur.

(b) Federal agencies should follow their own procedures for complying with the requirements of the ESA. If preconstruction notification is required for the proposed activity, the Federal permittee must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district

engineer will verify that the appropriate documentation has been submitted. If the appropriate documentation has not been submitted, additional ESA section 7 consultation may be necessary for the activity and the respective federal agency would be responsible for fulfilling its obligation under section 7 of the ESA.

(c) Non-federal permittees must submit a pre-construction notification to the district engineer if any listed species or designated critical habitat might be affected or is in the vicinity of the activity, or if the activity is located in designated critical habitat, and shall not begin work on the activity until notified by the district engineer that the requirements of the ESA have been satisfied and that the activity is authorized. For activities that might affect Federally-listed endangered or threatened species or designated critical habitat, the pre-construction notification must include the name(s) of the endangered or threatened species that might be affected by the proposed activity or that utilize the designated critical habitat that might be affected by the proposed activity. The district engineer will determine whether the proposed activity “may affect” or will have “no effect” to listed species and designated critical habitat and will notify the non-Federal applicant of the Corps’ determination within 45 days of receipt of a complete pre-construction notification. In cases where the non-Federal applicant has identified listed species or critical habitat that might be affected or is in the vicinity of the activity, and has so notified the Corps, the applicant shall not begin work until the Corps has provided notification that the proposed activity will have “no effect” on listed species or critical habitat, or until ESA section 7 consultation has been completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.

(d) As a result of formal or informal consultation with the FWS or NMFS the district engineer may add species-specific permit conditions to the NWPs.

(e) Authorization of an activity by an NWP does not authorize the “take” of a threatened or endangered species as defined under the ESA. In the absence of separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with “incidental take” provisions, etc.) from the FWS or the NMFS, the Endangered Species Act prohibits any person subject to the jurisdiction of the United States to take a listed species, where “take” means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. The word “harm” in the definition of “take” means an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering.

(f) If the non-federal permittee has a valid ESA section 10(a)(1)(B) incidental take permit with an approved Habitat Conservation Plan for a project or a group of projects that includes the proposed NWP activity, the non-federal applicant should provide a copy of that ESA section 10(a)(1)(B) permit with the PCN required by paragraph (c) of this general condition. The district engineer will coordinate with the agency that issued the ESA section 10(a)(1)(B) permit to determine whether the proposed NWP activity and the associated incidental take were considered in the internal ESA section 7 consultation conducted for the ESA section 10(a)(1)(B) permit. If that coordination results in concurrence from the agency that the proposed NWP activity and the associated incidental take were considered in the internal ESA section 7 consultation for the ESA section 10(a)(1)(B) permit, the district engineer does not need to conduct a separate ESA section 7 consultation for the proposed NWP activity. The district engineer will notify the non-federal applicant within 45 days of receipt of a complete pre-construction notification whether the ESA section 10(a)(1)(B) permit covers the proposed NWP activity or whether additional ESA section 7 consultation is required.

(g) Information on the location of threatened and endangered species and their critical habitat can be obtained directly from the offices of the FWS and NMFS or their world wide Web pages at <http://www.fws.gov/> or <http://www.fws.gov/ipac> and <http://www.nmfs.noaa.gov/pr/species/esa/> respectively.

**19. Migratory Birds and Bald and Golden Eagles.** The permittee is responsible for ensuring their action complies with the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act. The permittee is responsible for contacting appropriate local office of the U.S. Fish and Wildlife Service to determine applicable

measures to reduce impacts to migratory birds or eagles, including whether “incidental take” permits are necessary and available under the Migratory Bird Treaty Act or Bald and Golden Eagle Protection Act for a particular activity.

**20. Historic Properties.** (a) In cases where the district engineer determines that the activity may have the potential to cause effects to properties listed, or eligible for listing, in the National Register of Historic Places, the activity is not authorized, until the requirements of Section 106 of the National Historic Preservation Act (NHPA) have been satisfied.

(b) Federal permittees should follow their own procedures for complying with the requirements of section 106 of the National Historic Preservation Act. If pre-construction notification is required for the proposed NWP activity, the Federal permittee must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will verify that the appropriate documentation has been submitted. If the appropriate documentation is not submitted, then additional consultation under section 106 may be necessary. The respective federal agency is responsible for fulfilling its obligation to comply with section 106.

(c) Non-federal permittees must submit a pre-construction notification to the district engineer if the NWP activity might have the potential to cause effects to any historic properties listed on, determined to be eligible for listing on, or potentially eligible for listing on the National Register of Historic Places, including previously unidentified properties. For such activities, the preconstruction notification must state which historic properties might have the potential to be affected by the proposed NWP activity or include a vicinity map indicating the location of the historic properties or the potential for the presence of historic properties. Assistance regarding information on the location of, or potential for, the presence of historic properties can be sought from the State Historic Preservation Officer, Tribal Historic Preservation Officer, or designated tribal representative, as appropriate, and the National Register of Historic Places (see 33 CFR 330.4(g)). When reviewing pre-construction notifications, district engineers will comply with the current procedures for addressing the requirements of section 106 of the National Historic Preservation Act. The district engineer shall make a reasonable and good faith effort to carry out appropriate identification efforts, which may include background research, consultation, oral history interviews, sample field investigation, and field survey. Based on the information submitted in the PCN and these identification efforts, the district engineer shall determine whether the proposed NWP activity has the potential to cause effects on the historic properties. Section 106 consultation is not required when the district engineer determines that the activity does not have the potential to cause effects on historic properties (see 36 CFR 800.3(a)). Section 106 consultation is required when the district engineer determines that the activity has the potential to cause effects on historic properties. The district engineer will conduct consultation with consulting parties identified under 36 CFR 800.2(c) when he or she makes any of the following effect determinations for the purposes of section 106 of the NHPA: no historic properties affected, no adverse effect, or adverse effect. Where the non-Federal applicant has identified historic properties on which the activity might have the potential to cause effects and so notified the Corps, the non-Federal applicant shall not begin the activity until notified by the district engineer either that the activity has no potential to cause effects to historic properties or that NHPA section 106 consultation has been completed.

(d) For non-federal permittees, the district engineer will notify the prospective permittee within 45 days of receipt of a complete pre-construction notification whether NHPA section 106 consultation is required. If NHPA section 106 consultation is required, the district engineer will notify the non-Federal applicant that he or she cannot begin the activity until section 106 consultation is completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.

(e) Prospective permittees should be aware that section 110k of the NHPA (54 U.S.C. 306113) prevents the Corps from granting a permit or other assistance to an applicant who, with intent to avoid the requirements of section 106 of the NHPA, has intentionally significantly adversely affected a historic property to which the permit would relate, or having legal power to prevent it, allowed such significant adverse effect to occur, unless the

Corps, after consultation with the Advisory Council on Historic Preservation (ACHP), determines that circumstances justify granting such assistance despite the adverse effect created or permitted by the applicant. If circumstances justify granting the assistance, the Corps is required to notify the ACHP and provide documentation specifying the circumstances, the degree of damage to the integrity of any historic properties affected, and proposed mitigation. This documentation must include any views obtained from the applicant, SHPO/THPO, appropriate Indian tribes if the undertaking occurs on or affects historic properties on tribal lands or affects properties of interest to those tribes, and other parties known to have a legitimate interest in the impacts to the permitted activity on historic properties.

**21. Discovery of Previously Unknown Remains and Artifacts.** If you discover any previously unknown historic, cultural or archeological remains and artifacts while accomplishing the activity authorized by this permit, you must immediately notify the district engineer of what you have found, and to the maximum extent practicable, avoid construction activities that may affect the remains and artifacts until the required coordination has been completed. The district engineer will initiate the Federal, Tribal, and state coordination required to determine if the items or remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

**22. Designated Critical Resource Waters.** Critical resource waters include, NOAA-managed marine sanctuaries and marine monuments, and National Estuarine Research Reserves. The district engineer may designate, after notice and opportunity for public comment, additional waters officially designated by a state as having particular environmental or ecological significance, such as outstanding national resource waters or state natural heritage sites. The district engineer may also designate additional critical resource waters after notice and opportunity for public comment.

(a) Discharges of dredged or fill material into waters of the United States are not authorized by NWP 7, 12, 14, 16, 17, 21, 29, 31, 35, 39, 40, 42, 43, 44, 49, 50, 51, and 52 for any activity within, or directly affecting, critical resource waters, including wetlands adjacent to such waters.

(b) For NWPs 3, 8, 10, 13, 15, 18, 19, 22, 23, 25, 27, 28, 30, 33, 34, 36, 37, 38, and 54, notification is required in accordance with general condition 32, for any activity proposed in the designated critical resource waters including wetlands adjacent to those waters. The district engineer may authorize activities under these NWPs only after it is determined that the impacts to the critical resource waters will be no more than minimal.

**23. Mitigation.** The district engineer will consider the following factors when determining appropriate and practicable mitigation necessary to ensure that the individual and cumulative adverse environmental effects are no more than minimal:

(a) The activity must be designed and constructed to avoid and minimize adverse effects, both temporary and permanent, to waters of the United States to the maximum extent practicable at the project site (i.e., on site).

(b) Mitigation in all its forms (avoiding, minimizing, rectifying, reducing, or compensating for resource losses) will be required to the extent necessary to ensure that the individual and cumulative adverse environmental effects are no more than minimal.

(c) Compensatory mitigation at a minimum one-for-one ratio will be required for all wetland losses that exceed 1/10-acre and require preconstruction notification, unless the district engineer determines in writing that either some other form of mitigation would be more environmentally appropriate or the adverse environmental effects of the proposed activity are no more than minimal, and provides an activity-specific waiver of this requirement. For wetland losses of 1/10-acre or less that require preconstruction notification, the district engineer may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in only minimal adverse environmental effects.

(d) For losses of streams or other open waters that require pre-construction notification, the district engineer may require compensatory mitigation to ensure that the activity results in no more than minimal adverse environmental effects. Compensatory mitigation for losses of streams should be provided, if practicable, through stream rehabilitation, enhancement, or preservation, since streams are difficult to-replace resources (see 33 CFR 332.3(e)(3)).

(e) Compensatory mitigation plans for NWP activities in or near streams or other open waters will normally include a requirement for the restoration or enhancement, maintenance, and legal protection (e.g., conservation easements) of riparian areas next to open waters. In some cases, the restoration or maintenance/protection of riparian areas may be the only compensatory mitigation required. Restored riparian areas should consist of native species. The width of the required riparian area will address documented water quality or aquatic habitat loss concerns. Normally, the riparian area will be 25 to 50 feet wide on each side of the stream, but the district engineer may require slightly wider riparian areas to address documented water quality or habitat loss concerns. If it is not possible to restore or maintain/protect a riparian area on both sides of a stream, or if the waterbody is a lake or coastal waters, then restoring or maintaining/protecting a riparian area along a single bank or shoreline may be sufficient. Where both wetlands and open waters exist on the project site, the district engineer will determine the appropriate compensatory mitigation (e.g., riparian areas and/or wetlands compensation) based on what is best for the aquatic environment on a watershed basis. In cases where riparian areas are determined to be the most appropriate form of minimization or compensatory mitigation, the district engineer may waive or reduce the requirement to provide wetland compensatory mitigation for wetland losses.

(f) Compensatory mitigation projects provided to offset losses of aquatic resources must comply with the applicable provisions of 33 CFR part 332.

(1) The prospective permittee is responsible for proposing an appropriate compensatory mitigation option if compensatory mitigation is necessary to ensure that the activity results in no more than minimal adverse environmental effects. For the NWPs, the preferred mechanism for providing compensatory mitigation is mitigation bank credits or in-lieu fee program credits (see 33 CFR 332.3(b)(2) and (3)). However, if an appropriate number and type of mitigation bank or in-lieu credits are not available at the time the PCN is submitted to the district engineer, the district engineer may approve the use of permittee-responsible mitigation.

(2) The amount of compensatory mitigation required by the district engineer must be sufficient to ensure that the authorized activity results in no more than minimal individual and cumulative adverse environmental effects (see 33 CFR 330.1(e)(3)). (See also 33 CFR 332.3(f)).

(3) Since the likelihood of success is greater and the impacts to potentially valuable uplands are reduced, aquatic resource restoration should be the first compensatory mitigation option considered for permittee-responsible mitigation.

(4) If permittee-responsible mitigation is the proposed option, the prospective permittee is responsible for submitting a mitigation plan. A conceptual or detailed mitigation plan may be used by the district engineer to make the decision on the NWP verification request, but a final mitigation plan that addresses the applicable requirements of 33 CFR 332.4(c)(2) through (14) must be approved by the district engineer before the permittee begins work in waters of the United States, unless the district engineer determines that prior approval of the final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation (see 33 CFR 332.3(k)(3)).

(5) If mitigation bank or in-lieu fee program credits are the proposed option, the mitigation plan only needs to address the baseline conditions at the impact site and the number of credits to be provided.

(6) Compensatory mitigation requirements (e.g., resource type and amount to be provided as compensatory mitigation, site protection, ecological performance standards, monitoring requirements) may be addressed

through conditions added to the NWP authorization, instead of components of a compensatory mitigation plan (see 33 CFR 332.4(c)(1)(ii)).

(g) Compensatory mitigation will not be used to increase the acreage losses allowed by the acreage limits of the NWPs. For example, if an NWP has an acreage limit of 1/2-acre, it cannot be used to authorize any NWP activity resulting in the loss of greater than 1/2- acre of waters of the United States, even if compensatory mitigation is provided that replaces or restores some of the lost waters. However, compensatory mitigation can and should be used, as necessary, to ensure that an NWP activity already meeting the established acreage limits also satisfies the no more than minimal impact requirement for the NWPs.

(h) Permittees may propose the use of mitigation banks, in-lieu fee programs, or permittee- responsible mitigation. When developing a compensatory mitigation proposal, the permittee must consider appropriate and practicable options consistent with the framework at 33 CFR 332.3(b). For activities resulting in the loss of marine or estuarine resources, permittee responsible mitigation may be environmentally preferable if there are no mitigation banks or in- lieu fee programs in the area that have marine or estuarine credits available for sale or transfer to the permittee. For permittee responsible mitigation, the special conditions of the NWP verification must clearly indicate the party or parties responsible for the implementation and performance of the compensatory mitigation project, and, if required, its long-term management.

(i) Where certain functions and services of waters of the United States are permanently adversely affected by a regulated activity, such as discharges of dredged or fill material into waters of the United States that will convert a forested or scrub-shrub wetland to a herbaceous wetland in a permanently maintained utility line right-of-way, mitigation may be required to reduce the adverse environmental effects of the activity to the no more than minimal level.

**24. Safety of Impoundment Structures.** To ensure that all impoundment structures are safely designed, the district engineer may require non-Federal applicants to demonstrate that the structures comply with established state dam safety criteria or have been designed by qualified persons. The district engineer may also require documentation that the design has been independently reviewed by similarly qualified persons, and appropriate modifications made to ensure safety.

**25. Water Quality.** Where States and authorized Tribes, or EPA where applicable, have not previously certified compliance of an NWP with CWA section 401, individual 401 Water Quality Certification must be obtained or waived (see 33 CFR 330.4(c)). The district engineer or State or Tribe may require additional water quality management measures to ensure that the authorized activity does not result in more than minimal degradation of water quality.

**26. Coastal Zone Management.** In coastal states where an NWP has not previously received a state coastal zone management consistency concurrence, an individual state coastal zone management consistency concurrence must be obtained, or a presumption of concurrence must occur (see 33 CFR 330.4(d)). The district engineer or a State may require additional measures to ensure that the authorized activity is consistent with state coastal zone management requirements.

**27. Regional and Case-By-Case Conditions.** The activity must comply with any regional conditions that may have been added by the Division Engineer (see 33 CFR 330.4(e)) and with any case specific conditions added by the Corps or by the state, Indian Tribe, or U.S. EPA in its section 401 Water Quality Certification, or by the state in its Coastal Zone Management Act consistency determination.

**28. Use of Multiple Nationwide Permits.** Use of Multiple Nationwide Permits. The use of more than one NWP for a single and complete project is prohibited, except when the acreage loss of waters of the United States authorized by the NWPs does not exceed the acreage limit of the NWP with the highest specified acreage limit. For example, if a road crossing over tidal waters is constructed under NWP 14, with associated bank stabilization

authorized by NWP 13, the maximum acreage loss of waters of the United States for the total project cannot exceed 1/3- acre.

**29. Transfer of Nationwide Permit Verifications.** If the permittee sells the property associated with a nationwide permit verification, the permittee may transfer the nationwide permit verification to the new owner by submitting a letter to the appropriate Corps district office to validate the transfer. A copy of the nationwide permit verification must be attached to the letter, and the letter must contain the following statement and signature:

“When the structures or work authorized by this nationwide permit are still in existence at the time the property is transferred, the terms and conditions of this nationwide permit, including any special conditions, will continue to be binding on the new owner(s) of the property. To validate the transfer of this nationwide permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.”

\_\_\_\_\_  
(Transferee)

\_\_\_\_\_  
(Date)

**30. Compliance Certification.** Each permittee who receives an NWP verification letter from the Corps must provide a signed certification documenting completion of the authorized activity and implementation of any required compensatory mitigation. The success of any required permittee-responsible mitigation, including the achievement of ecological performance standards, will be addressed separately by the district engineer. The Corps will provide the permittee the certification document with the NWP verification letter. The certification document will include:

- (a) A statement that the authorized activity was done in accordance with the NWP authorization, including any general, regional, or activity-specific conditions;
- (b) A statement that the implementation of any required compensatory mitigation was completed in accordance with the permit conditions. If credits from a mitigation bank or in-lieu fee program are used to satisfy the compensatory mitigation requirements, the certification must include the documentation required by 33 CFR 332.3(l)(3) to confirm that the permittee secured the appropriate number and resource type of credits; and
- (c) The signature of the permittee certifying the completion of the activity and mitigation. The completed certification document must be submitted to the district engineer within 30 days of completion of the authorized activity or the implementation of any required compensatory mitigation, whichever occurs later.

**31. Activities Affecting Structures or Works Built by the United States.** If an NWP activity also requires permission from the Corps pursuant to 33 U.S.C. 408 because it will alter or temporarily or permanently occupy or use a U.S. Army Corps of Engineers (USACE) federally authorized Civil Works project (a “USACE project”), the prospective permittee must submit a preconstruction notification. See paragraph (b)(10) of general condition 32. An activity that requires section 408 permission is not authorized by NWP until the appropriate Corps office issues the section 408 permission to alter, occupy, or use the USACE project, and the district engineer issues a written NWP verification.

**32. Pre-Construction Notification.** (a) Timing. Where required by the terms of the NWP, the prospective permittee must notify the district engineer by submitting a pre-construction notification (PCN) as early as possible. The district engineer must determine if the PCN is complete within 30 calendar days of the date of receipt and, if the PCN is determined to be incomplete, notify the prospective permittee within that 30 day period to request the additional information necessary to make the PCN complete. The request must specify the information needed to make the PCN complete. As a general rule, district engineers will request additional information necessary to make the PCN complete only once. However, if the prospective permittee does not provide all of the requested information, then the district engineer will notify the prospective permittee that the PCN is still incomplete and the PCN review process will not commence until all of the requested information has been received by the district engineer. The prospective permittee shall not begin the activity until either:

(1) He or she is notified in writing by the district engineer that the activity may proceed under the NWP with any special conditions imposed by the district or division engineer; or

(2) 45 calendar days have passed from the district engineer's receipt of the complete PCN and the prospective permittee has not received written notice from the district or division engineer. However, if the permittee was required to notify the Corps pursuant to general condition 18 that listed species or critical habitat might be affected or are in the vicinity of the activity, or to notify the Corps pursuant to general condition 20 that the activity might have the potential to cause effects to historic properties, the permittee cannot begin the activity until receiving written notification from the Corps that there is "no effect" on listed species or "no potential to cause effects" on historic properties, or that any consultation required under Section 7 of the Endangered Species Act (see 33 CFR 330.4(f)) and/or section 106 of the National Historic Preservation Act (see 33 CFR 330.4(g)) has been completed. Also, work cannot begin under NWPs 21, 49, or 50 until the permittee has received written approval from the Corps. If the proposed activity requires a written waiver to exceed specified limits of an NWP, the permittee may not begin the activity until the district engineer issues the waiver. If the district or division engineer notifies the permittee in writing that an individual permit is required within 45 calendar days of receipt of a complete PCN, the permittee cannot begin the activity until an individual permit has been obtained. Subsequently, the permittee's right to proceed under the NWP may be modified, suspended, or revoked only in accordance with the procedure set forth in 33 CFR 330.5(d)(2).

(b) Contents of Pre-Construction Notification: The PCN must be in writing and include the following information:

(1) Name, address and telephone numbers of the prospective permittee;

(2) Location of the proposed activity;

(3) Identify the specific NWP or NWP(s) the prospective permittee wants to use to authorize the proposed activity;

(4) A description of the proposed activity; the activity's purpose; direct and indirect adverse environmental effects the activity would cause, including the anticipated amount of loss of wetlands, other special aquatic sites, and other waters expected to result from the NWP activity, in acres, linear feet, or other appropriate unit of measure; a description of any proposed mitigation measures intended to reduce the adverse environmental effects caused by the proposed activity; and any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity, including other separate and distant crossings for linear projects that require Department of the Army authorization but do not require pre-construction notification. The description of the proposed activity and any proposed mitigation measures should be sufficiently detailed to allow the district engineer to determine that the adverse environmental effects of the activity will be no more than minimal and to determine the need for compensatory mitigation or other mitigation measures. For single and complete linear projects, the PCN must include the quantity of anticipated losses of



wetlands, other special aquatic sites, and other waters for each single and complete crossing of those wetlands, other special aquatic sites, and other waters. Sketches should be provided when necessary to show that the activity complies with the terms of the NWP. (Sketches usually clarify the activity and when provided results in a quicker decision. Sketches should contain sufficient detail to provide an illustrative description of the proposed activity (e.g., a conceptual plan), but do not need to be detailed engineering plans);

(5) The PCN must include a delineation of wetlands, other special aquatic sites, and other waters, such as lakes and ponds, and perennial, intermittent, and ephemeral streams, on the project site. Wetland delineations must be prepared in accordance with the current method required by the Corps. The permittee may ask the Corps to delineate the special aquatic sites and other waters on the project site, but there may be a delay if the Corps does the delineation, especially if the project site is large or contains many wetlands, other special aquatic sites, and other waters. Furthermore, the 45 day period will not start until the delineation has been submitted to or completed by the Corps, as appropriate;

(6) If the proposed activity will result in the loss of greater than 1/10-acre of wetlands and a PCN is required, the prospective permittee must submit a statement describing how the mitigation requirement will be satisfied, or explaining why the adverse environmental effects are no more than minimal and why compensatory mitigation should not be required. As an alternative, the prospective permittee may submit a conceptual or detailed mitigation plan.

(7) For non-Federal permittees, if any listed species or designated critical habitat might be affected or is in the vicinity of the activity, or if the activity is located in designated critical habitat, the PCN must include the name(s) of those endangered or threatened species that might be affected by the proposed activity or utilize the designated critical habitat that might be affected by the proposed activity. For NWP activities that require pre-construction notification, Federal permittees must provide documentation demonstrating compliance with the Endangered Species Act;

(8) For non-Federal permittees, if the NWP activity might have the potential to cause effects to a historic property listed on, determined to be eligible for listing on, or potentially eligible for listing on, the National Register of Historic Places, the PCN must state which historic property might have the potential to be affected by the proposed activity or include a vicinity map indicating the location of the historic property. For NWP activities that require pre-construction notification, Federal permittees must provide documentation demonstrating compliance with section 106 of the National Historic Preservation Act;

(9) For an activity that will occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, the PCN must identify the Wild and Scenic River or the "study river" (see general condition 16); and

(10) For an activity that requires permission from the Corps pursuant to 33 U.S.C. 408 because it will alter or temporarily or permanently occupy or use a U.S. Army Corps of Engineers federally authorized civil works project, the pre-construction notification must include a statement confirming that the project proponent has submitted a written request for section 408 permission from the Corps office having jurisdiction over that USACE project.

(c) Form of Pre-Construction Notification: The standard individual permit application form (Form ENG 4345) may be used, but the completed application form must clearly indicate that it is an NWP PCN and must include all of the applicable information required in paragraphs (b)(1) through (10) of this general condition. A letter containing the required information may also be used. Applicants may provide electronic files of PCNs and supporting materials if the district engineer has established tools and procedures for electronic submittals.

(d) Agency Coordination: (1) The district engineer will consider any comments from Federal and state agencies concerning the proposed activity's compliance with the terms and conditions of the NWP's and the need for mitigation to reduce the activity's adverse environmental effects so that they are no more than minimal.

(2) Agency coordination is required for: (i) All NWP activities that require pre-construction notification and result in the loss of greater than 1/2-acre of waters of the United States; (ii) NWP 21, 29, 39, 40, 42, 43, 44, 50, 51, and 52 activities that require pre-construction notification and will result in the loss of greater than 300 linear feet of stream bed; (iii) NWP 13 activities in excess of 500 linear feet, fills greater than one cubic yard per running foot, or involve discharges of dredged or fill material into special aquatic sites; and (iv) NWP 54 activities in excess of 500 linear feet, or that extend into the waterbody more than 30 feet from the mean low water line in tidal waters or the ordinary high water mark in the Great Lakes.

(3) When agency coordination is required, the district engineer will immediately provide (e.g., via email, facsimile transmission, overnight mail, or other expeditious manner) a copy of the complete PCN to the appropriate Federal or state offices (FWS, state natural resource or water quality agency, EPA, and, if appropriate, the NMFS). With the exception of NWP 37, these agencies will have 10 calendar days from the date the material is transmitted to notify the district engineer via telephone, facsimile transmission, or email that they intend to provide substantive, site-specific comments. The comments must explain why the agency believes the adverse environmental effects will be more than minimal. If so contacted by an agency, the district engineer will wait an additional 15 calendar days before making a decision on the preconstruction notification. The district engineer will fully consider agency comments received within the specified time frame concerning the proposed activity's compliance with the terms and conditions of the NWP's, including the need for mitigation to ensure the net adverse environmental effects of the proposed activity are no more than minimal. The district engineer will provide no response to the resource agency, except as provided below. The district engineer will indicate in the administrative record associated with each pre-construction notification that the resource agencies' concerns were considered. For NWP 37, the emergency watershed protection and rehabilitation activity may proceed immediately in cases where there is an unacceptable hazard to life or a significant loss of property or economic hardship will occur. The district engineer will consider any comments received to decide whether the NWP 37 authorization should be modified, suspended, or revoked in accordance with the procedures at 33 CFR 330.5.

(4) In cases of where the prospective permittee is not a Federal agency, the district engineer will provide a response to NMFS within 30 calendar days of receipt of any Essential Fish Habitat conservation recommendations, as required by section 305(b)(4)(B) of the Magnuson-Stevens Fishery Conservation and Management Act.

(5) Applicants are encouraged to provide the Corps with either electronic files or multiple copies of preconstruction notifications to expedite agency coordination.

## **B. District Engineer's Decision.**

1. In reviewing the PCN for the proposed activity, the district engineer will determine whether the activity authorized by the NWP will result in more than minimal individual or cumulative adverse environmental effects or may be contrary to the public interest. If a project proponent requests authorization by a specific NWP, the district engineer should issue the NWP verification for that activity if it meets the terms and conditions of that NWP, unless he or she determines, after considering mitigation, that the proposed activity will result in more than minimal individual and cumulative adverse effects on the aquatic environment and other aspects of the public interest and exercises discretionary authority to require an individual permit for the proposed activity. For a linear project, this determination will include an evaluation of the individual crossings of waters of the United States to determine whether they individually satisfy the terms and conditions of the NWP(s), as well as the cumulative effects caused by all of the crossings authorized by NWP. If an applicant requests a waiver of the 300 linear foot limit on impacts to streams or of an otherwise applicable limit, as provided for in NWP's 13, 21, 29, 36, 39, 40, 42, 43, 44, 50, 51, 52, or 54, the district engineer will only grant the waiver upon a written determination that the NWP

activity will result in only minimal individual and cumulative adverse environmental effects. For those NWP's that have a waivable 300 linear foot limit for losses of intermittent and ephemeral stream bed and a 1/2-acre limit (i.e., NWP's 21, 29, 39, 40, 42, 43, 44, 50, 51, and 52), the loss of intermittent and ephemeral stream bed, plus any other losses of jurisdictional waters and wetlands, cannot exceed 1/2- acre.

2. When making minimal adverse environmental effects determinations the district engineer will consider the direct and indirect effects caused by the NWP activity. He or she will also consider the cumulative adverse environmental effects caused by activities authorized by NWP and whether those cumulative adverse environmental effects are no more than minimal. The district engineer will also consider site specific factors, such as the environmental setting in the vicinity of the NWP activity, the type of resource that will be affected by the NWP activity, the functions provided by the aquatic resources that will be affected by the NWP activity, the degree or magnitude to which the aquatic resources perform those functions, the extent that aquatic resource functions will be lost as a result of the NWP activity (e.g., partial or complete loss), the duration of the adverse effects (temporary or permanent), the importance of the aquatic resource functions to the region (e.g., watershed or ecoregion), and mitigation required by the district engineer. If an appropriate functional or condition assessment method is available and practicable to use, that assessment method may be used by the district engineer to assist in the minimal adverse environmental effects determination. The district engineer may add case-specific special conditions to the NWP authorization to address site-specific environmental concerns.

3. If the proposed activity requires a PCN and will result in a loss of greater than 1/10-acre of wetlands, the prospective permittee should submit a mitigation proposal with the PCN. Applicants may also propose compensatory mitigation for NWP activities with smaller impacts, or for impacts to other types of waters (e.g., streams). The district engineer will consider any proposed compensatory mitigation or other mitigation measures the applicant has included in the proposal in determining whether the net adverse environmental effects of the proposed activity are no more than minimal. The compensatory mitigation proposal may be either conceptual or detailed. If the district engineer determines that the activity complies with the terms and conditions of the NWP and that the adverse environmental effects are no more than minimal, after considering mitigation, the district engineer will notify the permittee and include any activity specific conditions in the NWP verification the district engineer deems necessary. Conditions for compensatory mitigation requirements must comply with the appropriate provisions at 33 CFR 332.3(k). The district engineer must approve the final mitigation plan before the permittee commences work in waters of the United States, unless the district engineer determines that prior approval of the final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation. If the prospective permittee elects to submit a compensatory mitigation plan with the PCN, the district engineer will expeditiously review the proposed compensatory mitigation plan. The district engineer must review the proposed compensatory mitigation plan within 45 calendar days of receiving a complete PCN and determine whether the proposed mitigation would ensure the NWP activity results in no more than minimal adverse environmental effects. If the net adverse environmental effects of the NWP activity (after consideration of the mitigation proposal) are determined by the district engineer to be no more than minimal, the district engineer will provide a timely written response to the applicant. The response will state that the NWP activity can proceed under the terms and conditions of the NWP, including any activity-specific conditions added to the NWP authorization by the district engineer.

4. If the district engineer determines that the adverse environmental effects of the proposed activity are more than minimal, then the district engineer will notify the applicant either: (a) That the activity does not qualify for authorization under the NWP and instruct the applicant on the procedures to seek authorization under an individual permit; (b) that the activity is authorized under the NWP subject to the applicant's submission of a mitigation plan that would reduce the adverse environmental effects so that they are no more than minimal; or (c) that the activity is authorized under the NWP with specific modifications or conditions. Where the district engineer determines that mitigation is required to ensure no more than minimal adverse environmental effects, the activity will be authorized within the 45-day PCN period (unless additional time is required to comply with general conditions 18, 20, and/or 31, or to evaluate PCNs for activities authorized by NWP's 21, 49, and 50), with activity specific conditions that state the mitigation requirements. The authorization will include the necessary conceptual

or detailed mitigation plan or a requirement that the applicant submit a mitigation plan that would reduce the adverse environmental effects so that they are no more than minimal. When compensatory mitigation is required, no work in waters of the United States may occur until the district engineer has approved a specific mitigation plan or has determined that prior approval of a final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation.

### **C. Further Information**

1. District Engineers have authority to determine if an activity complies with the terms and conditions of an NWP.
2. NWPs do not obviate the need to obtain other federal, state, or local permits, approvals, or authorizations required by law.
3. NWPs do not grant any property rights or exclusive privileges.
4. NWPs do not authorize any injury to the property or rights of others.
5. NWPs do not authorize interference with any existing or proposed Federal project (see general condition 31).

### **D. Definitions**

**Best management practices (BMPs):** Policies, practices, procedures, or structures implemented to mitigate the adverse environmental effects on surface water quality resulting from development. BMPs are categorized as structural or non-structural.

**Compensatory mitigation:** The restoration (re-establishment or rehabilitation), establishment (creation), enhancement, and/or in certain circumstances preservation of aquatic resources for the purposes of offsetting unavoidable adverse impacts which remain after all appropriate and practicable avoidance and minimization has been achieved.

**Currently serviceable:** Useable as is or with some maintenance, but not so degraded as to essentially require reconstruction.

**Direct effects:** Effects that are caused by the activity and occur at the same time and place.

**Discharge:** The term “discharge” means any discharge of dredged or fill material into waters of the United States.

**Ecological reference:** A model used to plan and design an aquatic habitat and riparian area restoration, enhancement, or establishment activity under NWP 27. An ecological reference may be based on the structure, functions, and dynamics of an aquatic habitat type or a riparian area type that currently exists in the region where the proposed NWP 27 activity is located. Alternatively, an ecological reference may be based on a conceptual model for the aquatic habitat type or riparian area type to be restored, enhanced, or established as a result of the proposed NWP 27 activity. An ecological reference takes into account the range of variation of the aquatic habitat type or riparian area type in the region.

**Enhancement:** The manipulation of the physical, chemical, or biological characteristics of an aquatic resource to heighten, intensify, or improve a specific aquatic resource function(s). Enhancement results in the gain of selected aquatic resource function(s), but may also lead to a decline in other aquatic resource function(s). Enhancement does not result in a gain in aquatic resource area.

**Ephemeral stream:** An ephemeral stream has flowing water only during, and for a short duration after, precipitation events in a typical year. Ephemeral stream beds are located above the water table year-round. Groundwater is not a source of water for the stream. Runoff from rainfall is the primary source of water for stream flow.

**Establishment (creation):** The manipulation of the physical, chemical, or biological characteristics present to develop an aquatic resource that did not previously exist at an upland site. Establishment results in a gain in aquatic resource area.

**High Tide Line:** The line of intersection of the land with the water's surface at the maximum height reached by a rising tide. The high tide line may be determined, in the absence of actual data, by a line of oil or scum along shore objects, a more or less continuous deposit of fine shell or debris on the foreshore or berm, other physical markings or characteristics, vegetation lines, tidal gages, or other suitable means that delineate the general height reached by a rising tide. The line encompasses spring high tides and other high tides that occur with periodic frequency but does not include storm surges in which there is a departure from the normal or predicted reach of the tide due to the piling up of water against a coast by strong winds such as those accompanying a hurricane or other intense storm.

**Historic Property:** Any prehistoric or historic district, site (including archaeological site), building, structure, or other object included in, or eligible for inclusion in, the National Register of Historic Places maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria (36 CFR part 60).

**Independent utility:** A test to determine what constitutes a single and complete non-linear project in the Corps Regulatory Program. A project is considered to have independent utility if it would be constructed absent the construction of other projects in the project area. Portions of a multi-phase project that depend upon other phases of the project do not have independent utility. Phases of a project that would be constructed even if the other phases were not built can be considered as separate single and complete projects with independent utility.

**Indirect effects:** Effects that are caused by the activity and are later in time or farther removed in distance, but are still reasonably foreseeable.

**Intermittent stream:** An intermittent stream has flowing water during certain times of the year, when groundwater provides water for stream flow. During dry periods, intermittent streams may not have flowing water. Runoff from rainfall is a supplemental source of water for stream flow.

**Loss of waters of the United States:** Waters of the United States that are permanently adversely affected by filling, flooding, excavation, or drainage because of the regulated activity. Permanent adverse effects include permanent discharges of dredged or fill material that change an aquatic area to dry land, increase the bottom elevation of a waterbody, or change the use of a waterbody. The acreage of loss of waters of the United States is a threshold measurement of the impact to jurisdictional waters for determining whether a project may qualify for an NWP; it is not a net threshold that is calculated after considering compensatory mitigation that may be used to offset losses of aquatic functions and services. The loss of stream bed includes the acres or linear feet of stream bed that are filled or excavated as a result of the regulated activity. Waters of the United States temporarily filled, flooded, excavated, or drained, but restored to pre-construction contours and elevations after construction, are not included in the measurement of loss of waters of the United States. Impacts resulting from activities that do not require Department of the Army authorization, such as activities eligible for exemptions under section 404(f) of the Clean Water Act, are not considered when calculating the loss of waters of the United States.

**Navigable waters:** Waters subject to section 10 of the Rivers and Harbors Act of 1899. These waters are defined

at 33 CFR part 329.

**Non-tidal wetland:** A non-tidal wetland is a wetland that is not subject to the ebb and flow of tidal waters. Non-tidal wetlands contiguous to tidal waters are located landward of the high tide line (i.e., spring high tide line).

**Open water:** For purposes of the NWP, an open water is any area that in a year with normal patterns of precipitation has water flowing or standing above ground to the extent that an ordinary high water mark can be determined. Aquatic vegetation within the area of flowing or standing water is either non-emergent, sparse, or absent. Vegetated shallows are considered to be open waters. Examples of “open waters” include rivers, streams, lakes, and ponds.

**Ordinary High Water Mark:** An ordinary high water mark is a line on the shore established by the fluctuations of water and indicated by physical characteristics, or by other appropriate means that consider the characteristics of the surrounding areas.

**Perennial stream:** A perennial stream has flowing water year-round during a typical year. The water table is located above the stream bed for most of the year. Groundwater is the primary source of water for stream flow. Runoff from rainfall is a supplemental source of water for stream flow.

**Practicable:** Available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.

**Pre-construction notification:** A request submitted by the project proponent to the Corps for confirmation that a particular activity is authorized by nationwide permit. The request may be a permit application, letter, or similar document that includes information about the proposed work and its anticipated environmental effects. Preconstruction notification may be required by the terms and conditions of a nationwide permit, or by regional conditions. A pre-construction notification may be voluntarily submitted in cases where preconstruction notification is not required and the project proponent wants confirmation that the activity is authorized by nationwide permit.

**Preservation:** The removal of a threat to, or preventing the decline of, aquatic resources by an action in or near those aquatic resources. This term includes activities commonly associated with the protection and maintenance of aquatic resources through the implementation of appropriate legal and physical mechanisms. Preservation does not result in a gain of aquatic resource area or functions.

**Protected tribal resources:** Those natural resources and properties of traditional or customary religious or cultural importance, either on or off Indian lands, retained by, or reserved by or for, Indian tribes through treaties, statutes, judicial decisions, or executive orders, including tribal trust resources.

**Re-establishment:** The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former aquatic resource. Reestablishment results in rebuilding a former aquatic resource and results in a gain in aquatic resource area and functions.

**Rehabilitation:** The manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural/historic functions to a degraded aquatic resource. Rehabilitation results in a gain in aquatic resource function, but does not result in a gain in aquatic resource area.

**Restoration:** The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former or degraded aquatic resource. For the purpose of tracking net gains in aquatic resource area, restoration is divided into two categories: Reestablishment and rehabilitation.

**Riffle and pool complex:** Riffle and pool complexes are special aquatic sites under the 404(b)(1) Guidelines.

Riffle and pool complexes sometimes characterize steep gradient sections of streams. Such stream sections are recognizable by their hydraulic characteristics. The rapid movement of water over a coarse substrate in riffles results in a rough flow, a turbulent surface, and high dissolved oxygen levels in the water. Pools are deeper areas associated with riffles. A slower stream velocity, a streaming flow, a smooth surface, and a finer substrate characterize pools.

**Riparian areas:** Riparian areas are lands next to streams, lakes, and estuarine-marine shorelines. Riparian areas are transitional between terrestrial and aquatic ecosystems, through which surface and subsurface hydrology connects riverine, lacustrine, estuarine, and marine waters with their adjacent wetlands, non-wetland waters, or uplands. Riparian areas provide a variety of ecological functions and services and help improve or maintain local water quality. (See general condition 23.)

**Shellfish seeding:** The placement of shellfish seed and/or suitable substrate to increase shellfish production. Shellfish seed consists of immature individual shellfish or individual shellfish attached to shells or shell fragments (i.e., spat on shell). Suitable substrate may consist of shellfish shells, shell fragments, or other appropriate materials placed into waters for shellfish habitat.

**Single and complete linear project:** A linear project is a project constructed for the purpose of getting people, goods, or services from a point of origin to a terminal point, which often involves multiple crossings of one or more waterbodies at separate and distant locations. The term “single and complete project” is defined as that portion of the total linear project proposed or accomplished by one owner/developer or partnership or other association of owners/developers that includes all crossings of a single water of the United States (i.e., a single waterbody) at a specific location. For linear projects crossing a single or multiple waterbodies several times at separate and distant locations, each crossing is considered a single and complete project for purposes of NWP authorization. However, individual channels in a braided stream or river, or individual arms of a large, irregularly shaped wetland or lake, etc., are not separate waterbodies, and crossings of such features cannot be considered separately.

**Single and complete non-linear project:** For non-linear projects, the term “single and complete project” is defined at 33 CFR 330.2(i) as the total project proposed or accomplished by one owner/developer or partnership or other association of owners/developers. A single and complete non-linear project must have independent utility (see definition of “independent utility”). Single and complete non-linear projects may not be “piecemealed” to avoid the limits in an NWP authorization. Stormwater management: Stormwater management is the mechanism for controlling stormwater runoff for the purposes of reducing downstream erosion, water quality degradation, and flooding and mitigating the adverse effects of changes in land use on the aquatic environment.

**Stormwater management facilities:** Stormwater management facilities are those facilities, including but not limited to, stormwater retention and detention ponds and best management practices, which retain water for a period of time to control runoff and/or improve the quality (i.e., by reducing the concentration of nutrients, sediments, hazardous substances and other pollutants) of stormwater runoff.

**Stream bed:** The substrate of the stream channel between the ordinary high water marks. The substrate may be bedrock or inorganic particles that range in size from clay to boulders. Wetlands contiguous to the stream bed, but outside of the ordinary high water marks, are not considered part of the stream bed.

**Stream channelization:** The manipulation of a stream’s course, condition, capacity, or location that causes more than minimal interruption of normal stream processes. A channelized stream remains a water of the United States.

**Structure:** An object that is arranged in a definite pattern of organization. Examples of structures include, without limitation, any pier, boat dock, boat ramp, wharf, dolphin, weir, boom, breakwater, bulkhead, revetment, riprap, jetty, artificial island, artificial reef, permanent mooring structure, power transmission line, permanently moored

floating vessel, piling, aid to navigation, or any other manmade obstacle or obstruction.

**Tidal wetland:** A tidal wetland is a jurisdictional wetland that is inundated by tidal waters. Tidal waters rise and fall in a predictable and measurable rhythm or cycle due to the gravitational pulls of the moon and sun. Tidal waters end where the rise and fall of the water surface can no longer be practically measured in a predictable rhythm due to masking by other waters, wind, or other effects. Tidal wetlands are located channelward of the high tide line.

**Tribal lands:** Any lands title to which is either: (1) Held in trust by the United States for the benefit of any Indian tribe or individual; or (2) held by any Indian tribe or individual subject to restrictions by the United States against alienation.

**Tribal rights:** Those rights legally accruing to a tribe or tribes by virtue of inherent sovereign authority, unextinguished aboriginal title, treaty, statute, judicial decisions, executive order or agreement, and that give rise to legally enforceable remedies.

**Vegetated shallows:** Vegetated shallows are special aquatic sites under the 404(b)(1) Guidelines. They are areas that are permanently inundated and under normal circumstances have rooted aquatic vegetation, such as seagrasses in marine and estuarine systems and a variety of vascular rooted plants in freshwater systems.

**Waterbody:** For purposes of the NWPs, a waterbody is a jurisdictional water of the United States. If a wetland is adjacent to a waterbody determined to be a water of the United States, that waterbody and any adjacent wetlands are considered together as a single aquatic unit (see 33 CFR 328.4(c)(2)). Examples of “waterbodies” include streams, rivers, lakes, ponds, and wetlands.

#### **ADDITIONAL INFORMATION**

Information about the U.S. Army Corps of Engineers regulatory program, including nationwide permits, may also be accessed at <http://www.swt.usace.army.mil/Missions/Regulatory.aspx> or <http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits.aspx>




# NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Water, Bureau of Water Permits  
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## MEMORANDUM

**TO:** Regional Water Engineers

**FROM:** Robert Wither, Chief, South Permit Section 

**SUBJECT:** Solar Panel Construction Stormwater Permitting/SWPPP Guidance

**DATE:** April 5, 2018

### Issue

The Department is seeing an increase in the number of solar panel construction projects across New York State. This has resulted in an increase in the number of questions on Construction General Permit (CGP) and Stormwater Pollution Prevention Plan (SWPPP) requirements from design professionals because the current CGP (GP-0-15-002) does not include a specific reference to the SWPPP requirements for solar panel projects in Tables 1 and 2 of Appendix B. To address this issue, the Division of Water (DOW) has developed the following guidance on CGP/SWPPP requirements for the different types of solar panel projects.

### Scenario 1

The DOW considers solar panel projects designed and constructed in accordance with the following criteria to be a “*Land clearing and grading for the purposes of creating vegetated open space (i.e. recreational parks, lawns, meadows, fields)*” type project as listed in Table 1, Appendix B of the CGP. Therefore, the SWPPP for this type of project will typically just need to address erosion and sediment controls.

1. Solar panels are constructed on post or rack systems and elevated off the ground surface,
2. The panels are spaced apart so that rain water can flow off the down gradient side of the panel and continue as sheet flow across the ground surface\*,
3. For solar panels constructed on slopes, the individual rows of solar panels are generally installed along the contour so rain water sheet flows down slope\*,
4. The ground surface below the panels consist of a well-established vegetative cover (see “Final Stabilization” definition in Appendix A of the CGP),
5. The project does not include the construction of any traditional impervious areas (i.e. buildings, substation pads, gravel access roads or parking areas, etc.),
6. Construction of the solar panels will not alter the hydrology from pre-to post development conditions (see Appendix A of the CGP, for definition of “Alter the hydrology...”). Note: The design professional shall perform the necessary site assessment/hydrology analysis to make this determination.



\*Refer to Maryland's "Stormwater Design Guidance- Solar Panel Installations" attached for guidance on panel installation.

\*\*See notes below for additional criteria.

## **Scenario 2**

If the design and construction of the solar panels meets all the criteria above, except for item 6, the project will fall under the "*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*" project type as listed in Table 2, Appendix B of the CGP. Therefore, the SWPPP for this type of project must address post-construction stormwater practices designed in accordance with the sizing criteria in Chapter 4 of the NYS Stormwater Management Design Manual, dated January 2015 (Note: Chapter 10 for projects in NYC EOH Watershed). The Water Quality Volume (WQv)/Runoff Reduction Volume (RRv) sizing criteria can be addressed by designing and constructing the solar panels in accordance with the criteria in items 1 – 4 above, however, the quantity control sizing criteria (Cpv, Qp and Qf) from Chapter 4 (or 10) of the Design Manual must still be addressed, unless one of the waiver criteria from Chapter 4 can be applied. \*\*See notes below for additional criteria.

## **\*\* Notes**

- **Item 1:** For solar panel projects where the panels are mounted directly to the ground (i.e. no space below panel to allow for infiltration of runoff), the SWPPP must address post-construction stormwater management controls designed in accordance with the sizing criteria in Chapter 4 of the NYS Stormwater Management Design Manual, dated January 2015 (Note: Chapter 10 for projects in NYC EOH Watershed).

- **Item 5:** For solar panel projects that include the construction of traditional impervious areas (i.e. buildings, substation pads, gravel access roads or parking areas, etc.), the SWPPP must address post-construction stormwater management controls for those areas of the project. This applies to both Scenario 1 and 2 above.

cc: Carol Lamb-Lafay, BWP  
Dave Gasper, BWP



## Stormwater Design Guidance – Solar Panel Installations

Revisions to Maryland's stormwater management regulations in 2010 require that environmental site design (ESD) be used to the maximum extent practicable (MEP) to mimic natural hydrology, reduce runoff to reflect forested wooded conditions, and minimize the impact of land development on water resources. This applies to any residential, commercial, industrial, or institutional development where more than 5,000 square feet of land area is disturbed. Consequently, stormwater management must be addressed even when permeable features like solar panel installations exceed 5,000 square feet of land disturbance.

Depending on local soil conditions and proposed imperviousness, the amount of rainfall that stormwater requirements are based on varies from 1.0 to 2.6 inches. However, addressing stormwater management does not mean that structural or micro-scale practices must be constructed to capture and treat large volumes of runoff. Using nonstructural techniques like disconnecting impervious cover reduces runoff by promoting overland filtering and infiltration. Commonly used with smaller or narrower impervious areas like driveways or open roads, the Disconnection of Non-Rooftop Runoff technique (see pp. 5.61 to 5.65 of the **2000 Maryland Stormwater Design Manual**<sup>1</sup>) is a low cost alternative for treating runoff in situations like rows of solar panels.

When non-rooftop disconnection is used to treat runoff, the following factors should be considered:

- The vegetated area receiving runoff must be equal to or greater in length than the disconnected surface (e.g., width of the row of solar panels)
- Runoff must sheet flow onto and across vegetated areas to maintain the disconnection
- Disconnections should be located on gradual slopes ( $\leq 5\%$ ) to maintain sheetflow. Level spreaders, terraces, or berms may be used to maintain sheetflow conditions if the average slope is steeper than 5%. However, installations on slopes greater than 10% will require an engineered plan that ensures adequate treatment and the safe and non-erosive conveyance of runoff to the property line or downstream stormwater management practice.
- Disconnecting impervious surfaces works best in undisturbed soils. To minimize disturbance and compaction, construction vehicles and equipment should avoid areas used for disconnection during installation of the solar panels.
- Groundcover vegetation must be maintained in good condition in those areas receiving disconnected runoff. Typically this maintenance is no different than other lawn or landscaped areas. However, areas receiving runoff should be protected (e.g., planting shrubs or trees along the perimeter) from future compaction.

Depending on the layout and number of panels installed, the disconnection of non-rooftop runoff technique may address some or all of the stormwater management requirements for an individual project. Where the imperviousness is high or there is other infrastructure (e.g., access roads, transformers), additional runoff may need to be treated. In these situations, other ESD techniques or micro-scale practices may be needed to provide stormwater management for these features.

### Example 1 – Using Non-Rooftop Disconnection Where the Average Slope $\leq 5\%$

Several rows of solar panels will be installed in an existing meadow. The soils within the meadow are hydrologic soil group (HSG) B and the average slope does not exceed 5%. Each row of panels is 10 feet wide and the distance between rows is 20 feet. The rows of solar panels will be installed according to Figure 1 below. In this scenario, the disconnection length is the same as the distance between rows (20 feet) and is greater than the width of each row (10 feet). Therefore, each row of panels is adequately disconnected and the runoff from 1.0 inch of rainfall is treated.

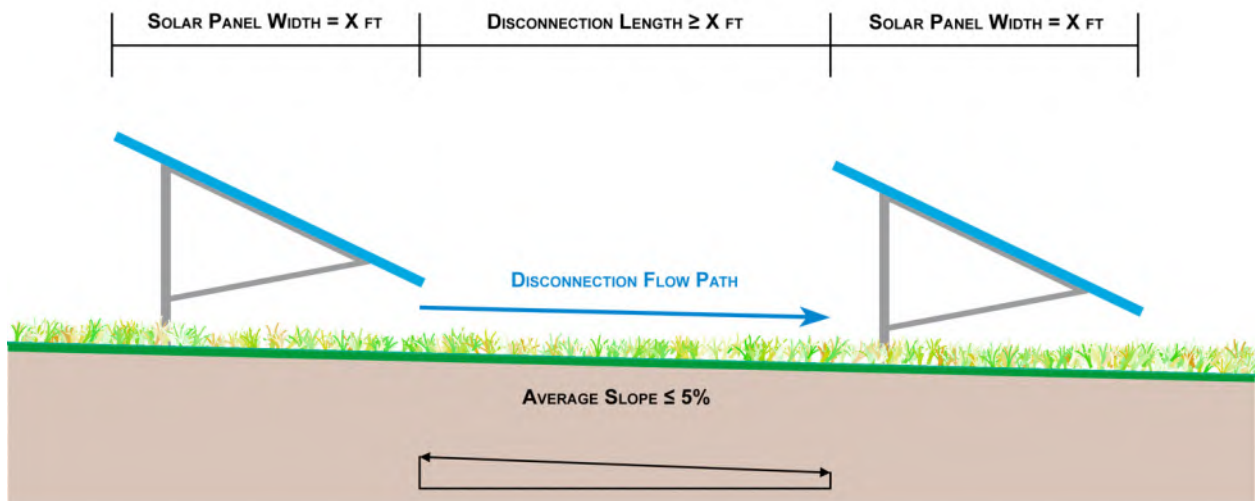


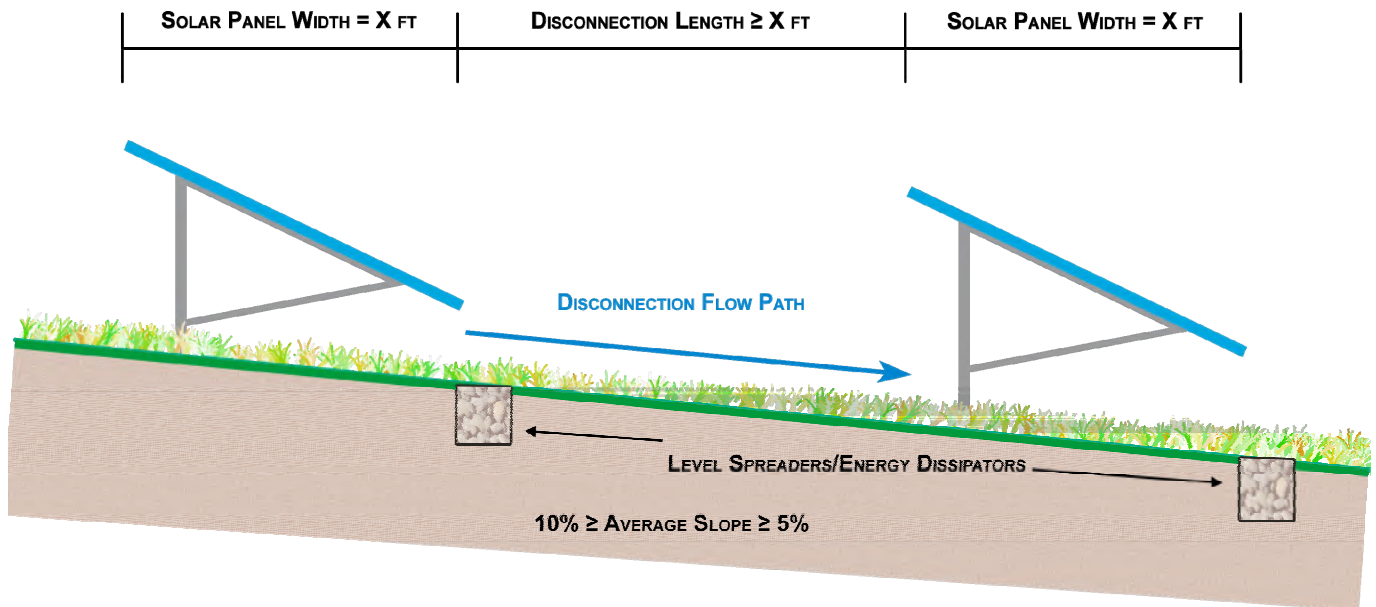
Figure 1. Typical Installation - Slope  $\leq 5\%$

### Example 2 – Using Non-Rooftop Disconnection Where the Average Slope $\geq 5\%$ but $\leq 10\%$

Several rows of solar panels will be installed in an existing meadow. The soils within the meadow are hydrologic soil group (HSG) B and the average slope is greater than 5% but less than 10%. Each row of panels is 10 feet wide and the distance between rows is 20 feet. The rows of solar panels will be installed as shown in Figure 2 below. The disconnection length is the same as the distance between rows (20 feet) and is greater than the width of each row (10 feet). However, in this example, a level spreader (typically 1 to 2-foot wide and 1 foot deep) has been located at the drip edge of each row of panels to dissipate energy and maintain sheetflow.

### Discussion

To meet State and local stormwater management requirements, ESD must be used to the MEP to reduce runoff to reflect forested conditions. While all reasonable options for implementing ESD must be investigated, minimally, the runoff from 1 inch of rainfall must be treated. In each of the examples above, there may be additional opportunities to implement ESD techniques or practices and reduce runoff that should be explored. However, simply disconnecting the runoff from the solar panel arrays captures and treats the runoff from 1.0 inch of rainfall. Where imperviousness is low and soil conditions less optimal (e.g., HSG C or D), this may be sufficient to completely address stormwater management requirements. In more dense applications or in sandy soils, additional stormwater management may be required.



**Figure 2. Typical Installation – Slope  $\geq 5\%$  but  $\leq 10\%$**

## Conclusion

The primary purpose of Maryland's stormwater management program is to mimic natural hydrologic runoff characteristics and minimize the impact of land development on water resources. Any land development project that exceeds 5,000 square feet of disturbance, including solar panel projects, must address stormwater management. However, for solar panels, stormwater management may be provided in a cost-effective manner by disconnecting each row of panels and directing runoff over the vegetated areas between the individual rows.

## Resources

<sup>1</sup> [2000 Maryland Stormwater Design Manual, Volumes I and II](http://www.mde.state.md.us/programs/Water/StormwaterManagementProgram/MarylandStormwaterDesignManual/Pages/Programs/WaterPrograms/SedimentandStormwater/stormwater_design/index.aspx), MDE, October 2000  
 ([http://www.mde.state.md.us/programs/Water/StormwaterManagementProgram/MarylandStormwaterDesignManual/Pages/Programs/WaterPrograms/SedimentandStormwater/stormwater\\_design/index.aspx](http://www.mde.state.md.us/programs/Water/StormwaterManagementProgram/MarylandStormwaterDesignManual/Pages/Programs/WaterPrograms/SedimentandStormwater/stormwater_design/index.aspx))



# APPENDIX G: CORRECTIVE ACTIONS AND SWPPP REVISIONS LOG

## Corrective Action Log SWPPP Revisions







# APPENDIX H: CONTRACTOR CERTIFICATIONS

## **Contractor Certifications Contractor Stormwater Training Cards**





**Stormwater Pollution Prevention Plan  
Statement of Certification**

Project: Genesee 1  
Owner: BW Solar  
Location: Elba, NY

**Contractor/ Subcontractor Certification Statements**

**CONTRACTORS' CERTIFICATION**

The following individuals certify under penalty of law that they understand and agree to comply with the terms and conditions of the SWPPP for the construction site identified in such SWPPP as a condition of authorization to discharge stormwater. They also understand that the operator must comply with the terms and conditions 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.

1. Name (please print) \_\_\_\_\_  
**Site contractor, President (or print title)**

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

\_\_\_\_\_  
For (Company Name and Address)                      Responsible For

2. Name (please print) \_\_\_\_\_  
**Subcontractor, President (or print title)**

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

\_\_\_\_\_  
For (Company Name and Address)                      Responsible For

3. Name (please print) \_\_\_\_\_  
**Subcontractor, President (or print title)**

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

\_\_\_\_\_  
For (Company Name and Address)                      Responsible For

**Stormwater Pollution Prevention Plan  
Statement of Certification**

**Contractor/ Subcontractor Certification Statements**

**CONTRACTORS' CERTIFICATION**

The following individuals certify under penalty of law that they understand and agree to comply with the terms and conditions of the SWPPP for the construction site identified in such SWPPP as a condition of authorization to discharge stormwater. They also understand that the operator must comply with the terms and conditions 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.

1. Name (please print) \_\_\_\_\_  
**Electrical Contractor, President (or print title)**

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

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For (Company Name and Address)

## Contractor Stormwater Training Cards

A Trained Contractor from each Contractor's company and Subcontractor's company is responsible for implementation of the SWPPP. At least one Trained Contractor is required to be on site on a daily basis when soil disturbance activities are being performed.

The Trained Contractors for this project are as follows:

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Name No.	Company	Phone No.	Stormwater Training Card
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Name No.	Company	Phone No.	Stormwater Training Card
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Name No.	Company	Phone No.	Stormwater Training Card
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Photocopies of the Trained Contractor's Stormwater Training Cards will be added to Appendix F upon receipt.

**Date: July 31, 2023**

## **State Environmental Quality Review**

### **NOTICE OF INTENT TO BECOME LEAD AGENCY**

This Notice is issued pursuant to 6 NYCRR §617.6 of the Implementing Regulations that pertain to Article 8 (State Environmental Quality Review Act – SEQRA) of the Environmental Conservation Law.

The Planning Board of the Town of Elba, Genesee County, New York (the “Elba Planning Board”), intends to become the lead agency in the environmental review of the application to amend the special permit and site plan approval, granted May 20, 2021, of NY CDG Genesee 1 LLC for the construction and operation of a 5-megawatt (AC) ground-mounted solar array and associated electrical appurtenances at 7209 Oak Orchard Road in the Town of Elba, a proposed Type I action which is described below.

Enclosed is a copy of the Full Environmental Assessment Form prepared by the applicant. The accompanying application for a special use permit and site plan review from the Elba Planning Board is available for download from the following site:

<https://www.dropbox.com/scl/fo/oowc6jvteprx7x1e2obe1/h?rlkey=f1o1lax6ai5osep8pr4di0hh4&dl=0>.

Pursuant to 6 NYCRR §617.6, a lead agency must be designated within thirty (30) days of the date of this letter. If the Elba Planning Board does not receive a written reply from an interested or involved agency within this time period, the Planning Board will assume that it has the agency’s consent to become the lead agency. However, in order to expedite the process, the Planning Board requests that all interested or involved agencies reply as soon as possible about whether or not they agree with the designation of the Planning Board as lead agency for this application.

**NAME OF ACTION:** **NY CDG Genesee 1 LLC Solar Project  
Amendment Application**  
c/o Catalyze Holdings  
6325 Gunpark Drive  
Suite C-2  
Boulder, Colorado 80301

**DESCRIPTION OF ACTION:** The proposed project is construction of a 5-megawatt (AC) ground-mounted solar photovoltaic array on approximately 23.5 acres of agricultural land on a 55.8 acre parcel located at 7209 Oak Orchard Road in the Town of Elba. The installation will include associated electrical equipment, a gravel access road, concrete pads for equipment, fencing, and landscaping. The Project activities will be located within an existing agricultural field, adjacent to roadways, other agricultural fields, residences and forested areas.

The amendment application provides for the following changes to the originally approved project:

- Project Area decreased from 28 to 23.5 acres
- Impervious surface acreage increased from 0.5 acres to 0.9 acres
- Potential height increased from +/-10ft to +/-18ft

If you do not object to the Elba Planning Board acting as lead agency in this project, please sign, date and return this letter to the contact listed below:

Date: 8/1/2023



\_\_\_\_\_  
Signature

\_\_\_\_\_  
Genesee County Planning

\_\_\_\_\_  
Department/Agency

**CONTACT:** Trisha Werth  
Town Clerk, Town of Elba  
7133 Oak Orchard Road  
Elba, New York 14058  
Phone: (585) 757-6889  
Fax: (585) 757-9064  
E-Mail: [townclerk@elbanewyork.com](mailto:townclerk@elbanewyork.com)  
Website: <http://elbanewyork.com/>

**DISTRIBUTION:**

Genesee County Planning Board  
Genesee County Department of Planning  
3837 West Main Street Road  
Batavia, NY14020-9404  
[planning@co.genesee.ny.us](mailto:planning@co.genesee.ny.us)

Regional Permit Administrator  
NYS Department of Environmental Conservation  
Region 8  
6274 East Avon-Lima Road  
Avon, New York 14414-9519

NYSDEC-DFW  
NY Natural Heritage Program  
625 Broadway, 5th Floor  
Albany, New York 12233-4757

NYS Office of Parks, Recreation, and Historic Preservation  
P.O. Box 189  
Waterford, New York 12188

NYSERDA  
726 Exchange Street  
Suite 821  
Buffalo, New York 14210-1484

At a Meeting of the Town of Elba Planning Board held on the 20th day of May, 2021, at 7:00 pm, at the Elba Town Hall, 7 Maple Avenue, in the Town of Elba, County of Genesee and State of New York.

STATE OF NEW YORK COUNTY OF GENESEE  
TOWN OF ELBA PLANNING BOARD

In the Matter of the Application of  
NY CDG Genesee 1 LLC

**RESOLUTION**

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**UPON MOTION OF Mindy Stempin, SECONDED BY DAVID SCOTT II, IT IS UNANIMOUSLY RESOLVED THAT:**

**WHEREAS**, the Town of Elba Planning Board (the “Board”) has received an application (the “Application”) from NY CDG Genesee LLC (the “Applicant”) for a Special Use Permit and Site Plan Approval to construct and operate a 5-megawatt (AC) ground-mounted solar array with associated electrical equipment, access road, fencing, and landscaping on a portion of an existing agricultural field located at 7209 Oak Orchard Road in Elba, New York (Tax ID 11.-1-5.12, the “Property”) within an approximate 55.8-acre site (the “Project”); and

**WHEREAS**, the original Application, dated March 11, 2021 (the “Original Application”) consisted of the following documents:

1. Letter of Intent from LaBella Associates
2. Petition to the Planning Board with Special Use Permit and Site Plan Review Application
3. A Full State Environmental Quality Review Act (“SEQRA”), Environmental Assessment Form (“EAF”) Part 1, subsequently dated April 12, 2021, with the following attachments:
  - a. USGS Location Map
  - b. Site Plan C201, dated February 10, 2021
4. Agricultural Data Statement, dated March 9, 2021
5. Subgrow SG125HV Inverter data sheet
6. Eagle 72HM G3 Solar Module data sheet
7. Memorandum of Option to Lease, last acknowledged October 22, 2020
8. NYS Standard Site Control Certification Form, dated September 17, 2020
9. Decommissioning Plan, dated March 11, 2021
10. US Fish and Wildlife Service Consultation, dated March 8, 2021
11. Genesee 1 Drawing Set, dated March 10, 2021, including:
  - a. Location Plan, dated March 11, 2021
  - b. General Notes, Legend, and Drawing Index C001, dated March 11, 2021
  - c. Existing Conditions C101, dated March 11, 2021
  - d. Site Plan C201, dated March 11, 2021
  - e. Grading and Erosion Control Plan C401, dated March 11, 2021
  - f. Construction Details Dwgs. C501, C502, and C503, dated March 11, 2021

- g. Landscape Plan L100, dated March 11, 2021
12. AC 3 Line Diagram E101 Rev. #2, sealed December 4, 2020

**WHEREAS**, the Original Application was amended and supplemented by the following documents (collectively, the “Amended and Supplemental Submittals”):

1. Storm Water Pollution Prevention Plan, dated March 2021
2. Overall Line of Site Locations (undated)
3. Line of Site Profiles, dated April 2, 2021
4. Property Operation and Maintenance Plan (undated)
5. Vegetation Management and Monitoring Plan (undated)
6. Decommissioning Plan, Version 2
7. Wetland and Stream Delineation Survey, 1 Genesee Solar, Oak Orchard Road, Elba, New York, LaBella Associates, November 2020
8. Revised Site Plan C201, revised May 20, 2021
9. Construction Details Dwgs. C501, C502, and C503, revised May 20, 2021
10. Letter from LaBella Associates to Planning Board Chair, dated May 20, 2021 (the “Response Letter”)

**WHEREAS**, comments on the Original Application and the Amended and Supplemental Submittals, which together or as amended constitute the “Application,” were made by CPL, engineers for the Town (the “Town Engineer”), on behalf of the Board by letter dated May 18, 2021 (the “Town Engineer Comments”); and

**WHEREAS**, responses to the Town Engineer Comments were provided by LaBella Associates on behalf of the Applicant in the Response Letter; and

**WHEREAS**, the Project is a Type I Project under the State Environmental Quality Review Act (“SEQRA”), and the regulations promulgated thereunder; and

**WHEREAS**, on March 18, 2021, the Board asserted SEQRA lead agency, undertook coordinated review, and subsequently issued a Notice of Intent to Become Lead Agency to the involved agencies listed in the EAF on April 12, 2021; and

**WHEREAS**, no involved agency objected to the Board’s assertion of SEQRA lead agency; and

**WHEREAS**, comments were received concerning the Project from New York State Department of Agriculture and Markets (“Ag and Markets”), which determined that the proposed Project would not have an unreasonably adverse effect on the continuing viability of farm enterprises within the Genesee County Agricultural District No. 2 or on New York State environmental plans, policies, and objectives, noting that Applicant had committed to adhere to Ag and Markets *Guidelines for Solar Energy Projects-Construction Mitigation for Agricultural Lands* (10/18/2019) (the “Ag & Markets Solar Energy Project Mitigation Guidelines”); and

**WHEREAS**, the Application and EAF were deemed complete at the Board meeting held April 15, 2021; and

**WHEREAS**, a public hearing was held on the Application and the EAF on May 20, 2021, where the public was given the opportunity to be heard; and c

**WHEREAS**, at the public hearing, no comments were received from the public; and

**WHEREAS**, the Application and EAF were referred to the Genesee County Planning Board (“County Planning”) pursuant to General Municipal Law § 239-m; and

**WHEREAS**, on May 13, 2021, County Planning approved the Original Application with the modifications (the “County Planning Modifications”) that, because the Project site will be located primarily on prime agricultural soils and active farmland, the Applicant minimize impacts to future farming of the site by relocating the portion of the driveway and equipment pad currently proposed through the middle of the array to the edge of the field or on existing laneways or, alternatively, modify the site restoration plan to include, among other things, decompaction of soil to a depth of two feet below the 12-inch stone layer of the driveway followed by the replacement of 12 inches of topsoil to match existing grade, and post-decommissioning monitoring; and

**WHEREAS**, the Applicant has agreed to adopt the County Planning Modification to relocate the portion of the driveway and equipment pad currently proposed through the middle of the field to the edge of the field; and

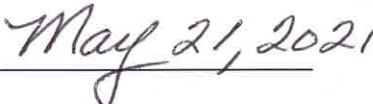
**WHEREAS**, a draft Part 2 and Part 3 of a Full Environmental Assessment Form (“EAF”), with accompanying narrative, was prepared for the Project, which the Board has reviewed; and

**NOW, THEREFORE, IT IS RESOLVED** that, that the Board has considered the proposed Project and its potential for environmental impacts; reviewed and considered the EAF, the criteria contained in 6 N.Y.C.R.R. §617.7(c), and other supporting information to identify the relevant areas of environmental concern; and thoroughly analyzed the identified relevant areas of environmental concern to determine if the proposed Project may have a significant adverse impact on the environment, and finds that the proposed Project would not have a significant impact on the environment because of the reasons discussed in the narrative to Part 3 of the EAF, which is incorporated in full herein and attached hereto; and

**IT IS FURTHER RESOLVED**, that pursuant to the State Environmental Quality Review Act, a Negative Declaration shall be made and duly filed, and an environmental impact statement need not be prepared; and it is

**NOW, THEREFORE, IT IS FURTHER RESOLVED** that the Special Use Permit and Site Plan Approval requested in the Application is approved, subject to the conditions listed in Exhibit “A” annexed hereto.

  
\_\_\_\_\_  
**Planning Board Chair**

  
\_\_\_\_\_  
**Date**



## Exhibit A

### Conditions to Approval

1. Prior to construction, the Applicant must obtain a Building Permit for the Project from the Town Code Enforcement Officer (“CEO”).
2. The Project shall be constructed and operated in a manner consistent with the materials included in the approved Application, as modified by these Conditions.
3. The Applicant will provide a CESIR study and any subsequent agreement for the Project from the electric utility, National Grid, to the Town for the public record.
4. The Project will comply with the State Pollutant Discharge Elimination System (SPDES) General Permit for Storm Water Discharges from Construction Activities (GP-0-10-001).
5. The Applicant will comply with NYSDEC requirements for on-site surveys, if any, to fully assess impacts on biological resources from the Project.
6. Revisions to drawings previously submitted with the Application should be dated and clouded to graphically clarify the changes that have been made.
7. The Applicant shall confirm that it has consulted with and incorporated the recommendations of the Genesee County Soil and Water Conservation District into the Vegetation Management and Monitoring plan.
8. Prior to final signatures being placed on the site plan, the Applicant will satisfactorily address the May 18, 2021 Town Engineer Comments and provide the following to the CEO and Town Engineer:
  - a. The viewshed simulations will be updated to confirm the proposed screening to the north of the Project meets the requirements of the Solar Law.
  - b. The Vegetation Management and Monitoring Plan shall be updated to require to the following:
    - i. That planted tree and shrub survivorship of less than 75% after two growing seasons or visual screening survivorship of less than 75% after five growing seasons as viewed from adjacent non-participating residences will require replacement with additional plantings or a size and species as originally specified, or equivalent, at the expense of the owner/operator.
    - ii. That mowing be limited to two mowings over the course of the growing season unless such frequency interferes with the operation of the Project.
  - c. All on-site utility lines are to be placed underground to the extent feasible with the exceptions for the main service connection at the utility right of way and new interconnection equipment. Up to five (5) above ground utility poles will be allowed for the utility lines for the Project.
  - d. The Property Operation and Maintenance Plan shall be updated to provide that site access shall be maintained, including snow removal at a level acceptable to the local fire departments and ambulance corps.

- e. The Decommissioning Plan will be updated to Photo documentation of predevelopment conditions and/or a detailed description of predevelopment land use/conditions at the Project site.
  - f. A General Note shall be added to provide that the Project will be constructed, to the maximum extent practicable, in accordance with the Ag & Markets Solar Energy Project Mitigation Guidelines, and that any excavated topsoil removed for the construction of the Project will not be transported off site.
  - g. A copy of the SWPPP as approved by the NYSDEC will be provided.
  - h. Documentation demonstrating compliance with the noise standard of Section 413(F)(5)(b) of the Solar Law.
9. As required by National Electric Code (NEC), disconnect and other emergency shutoff information shall be clearly displayed on a light reflective surface. A clearly visible warning sign concerning voltage shall be placed at the base of all pad-mounted transformers and substations.
  10. A signature block will be added on each drawing of the plan set for the Planning Board Chair to sign and date, and the site plan drawing to be presented for final signature to the Planning Board Chair will be signed and sealed by a New York State Licensed Professional Engineer.
  11. A copy of the annual inspection reports for the facility will be provided to the CEO.
  12. Prior to the commencement of operations, financial security for the expected life of the facility will be provided by the Applicant in the form of a bond, cash collateral, security deposit, escrow account, letter of credit or other form of acceptable financial surety, approved by the Town Attorney, in an amount (the "Security Amount"), to be approved by the Town Engineer, equal to 125% of the net cost estimate to implement the Decommissioning Plan with an escalator of 2% annually. Such estimate shall be professionally prepared and include a detailed schedule of values, will not claim any offset claimed for salvage value, and a line item for the Town to engage their consulting engineer to review and approve the completed restoration including any damage or necessary cleaning of Town and County roadways. The financial security shall remain active until the facility is fully decommissioned. The financial security shall be irrevocable and state on its face that it is expressly held by and for the sole benefit of Town. The financial security and the Security Amount shall be renewed every five (5) years based on same methodology as the original Security Amount, shall include an escalator of 2% annually, and shall be subject to the approval of the Town Engineer. Once the decommissioning and restoration of the site has been completed, any unused portion of the financial surety will be returned to the Special Use Permit holder.
  13. Prior to the issuance of a building permit, the Applicant shall submit an 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.
  14. The Applicant shall submit the Application documents to the local Fire Chief for their review and for developing a local emergency response plan. A record of submittal will need to be provided prior to issuance of a building permit. A copy of the final drawing that show the location of all disconnects for the solar energy system shall be provided to

the local Fire Chief to be kept on file with the local Fire Department. All comments and concerns of the local Fire Department shall be addressed

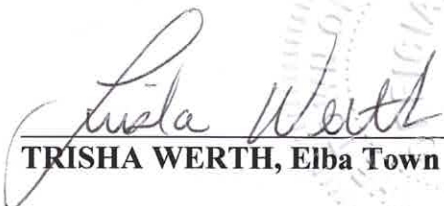
15. The Applicant, its successors and/or assigns, shall file annually with the Town, on the anniversary date of the granting of the Special Permit, a written report certifying that the Applicant, its successors and/or assigns are complying with maintenance and inspection procedures, and that the facility is not a hazard or a threat of a hazard to the health and safety of the public.
16. Prior to the commencement of facility operations, a payment-in-lieu-of taxes (PILOT) for the facility will be executed.
17. Prior to the commencement of operations and in a manner consistent with the escrow agreement between the Applicant and the Town, the Applicant shall have funded the escrow account set up by the Board to pay for legal and engineering services for review of the Application in an amount sufficient to pay all invoices of said consultants to the Board.

### CERTIFICATION OF TOWN CLERK

STATE OF NEW YORK)  
COUNTY OF ELBA ) s.s:

TRISHA WERTH, Town Clerk of the Town of Elba, Genesee County, New York, DOES HEREBY CERTIFY that she has compared the above Resolution duly adopted by the Planning Board of the Town of Elba on the 1<sup>st</sup> day of JUNE, 2021 with the original Resolution now on file in her office, and she certifies that it is a correct and true copy of that Resolution.

Dated: JUNE 1, 2021

  
\_\_\_\_\_  
**TRISHA WERTH, Elba Town Clerk**

