

Inspection Report for North Sturbridge Road Solar Facility

NPDES ID No.: MAR10031G

Inspection Date: 08/24/2021

General Information					
Weather conditions during inspection	78* F, Mostly Sunny	Inspection start time	11:35 AM	Inspection end time	12:10 PM
Inspector Name, Title & Contact Information	Jonathan Niro, Environmental Scientist (BETA Group, Inc.) jniro@beta-inc.com (774)-573-9694				
Present Phase of Construction	Phase 1. NOTE: The access road and stabilized construction entrance has been established pursuant to the Phase 1 scope of work. However, the entirety of the Site has been cleared of trees. No grubbing/stumping has occurred other than that required to establish the Site access road.				
Inspection Location	North Sturbridge Road Solar Facility – Entirety of Site (0 North Sturbridge Road, Charlton, MA 01507)				
Inspection Frequency <i>(Note: you may be subject to different inspection frequencies in different areas of the site. Check all that apply)</i> Standard Frequency: <input type="checkbox"/> Every 7 days <input checked="" type="checkbox"/> Every 14 days and within 24 hours of a 0.25" rain or the occurrence of runoff from snowmelt sufficient to cause a discharge Increased Frequency: <input type="checkbox"/> Every 7 days and within 24 hours of a 0.25" rain (for areas of sites discharging to sediment or nutrient-impaired waters or to waters designated as Tier 2, Tier 2.5, or Tier 3) Reduced Frequency: <input type="checkbox"/> Twice during first month, no more than 14 calendar days apart; then once per month after first month; (for stabilized areas) <input type="checkbox"/> Twice during first month, no more than 14 calendar days apart; then once more within 24 hours of a 0.25" rain (for stabilized areas on "linear construction sites") <input type="checkbox"/> Once per month and within 24 hours of a 0.25" rain (for arid, semi-arid, or drought-stricken areas during seasonally dry periods or during drought) <input type="checkbox"/> Once per month (for frozen conditions where earth-disturbing activities are being conducted)					
Was this inspection triggered by a 0.25" storm event? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, how did you determined whether a 0.25" storm event has occurred? <input type="checkbox"/> Rain gauge on site <input checked="" type="checkbox"/> Weather station representative of site. Specify weather station source: Worcester Regional Airport Total rainfall amount that triggered the inspection (inches): 0.55" Was this inspection triggered by the occurrence of runoff from snowmelt sufficient to cause a discharge? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					

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				fencing. At the location of Discharge 2, the contractor installed straw bales and siltation fencing, and spread straw and seed over the disturbed soils beyond the limits of work. <u>These maintenance items have been sufficiently addressed.</u>
2. Stabilized Construction Entrance (Site Entrance – Access Road)	No (As of 8/24/2021)	No	8/23/2021	Exposed soils are present at the western side of the stabilized construction entrance and have begun to erode. Exposed soils around the construction entrance should be stabilized. This can be completed through application of seed or placement of additional crushed stone to ensure that vehicle access does not cause erosion.
			8/24/2021	Exposed soils have been covered with crushed stone and straw bales have been implemented downgradient of the southwestern corner of the construction entrance. <u>This maintenance item has been addressed.</u>
3. Stump and Soil Stockpile Area	No (As of 7/22/2021)	No		Hydroseed was applied to exposed soil in this area and continues to germinate.
4. Dust Controls	N/A	N/A		
5. Jute Mesh (Steep Slopes)	N/A	N/A		
6. Temporary Seeding	No (As of 8/24/2021)	No	7/22/2021	Hydroseed has been applied to the earthen access road and hand-application of seed was performed within the area beyond the limit of work that was subjected to Discharge 1. Germination was observed within areas of disturbed soils within the limits of work; however, little to no germination was observed within the disturbed area downgradient of the limit of work. Additional seed should be hand-applied in this area.
			8/24/2021	The areas downgradient of Discharges 1 and 2 have been stabilized with straw and seed. These areas will be monitored for germination and stabilization.
7. Topsoil Re-Use	N/A	N/A		
8. Storm Drain Inlets (North Brookfield Road)	N/A	N/A		
9. Temporary Drainage Swales (Throughout Site)	N/A	N/A		

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10. Temporary Sediment Basins (Throughout Site)	N/A	N/A		
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Condition and Effectiveness of Pollution Prevention (P2) Practices (CGP Part 2.3)

Type/Location of P2 Practices [insert additional rows if applicable]	Maintenance Needed?*	Corrective Action Required?*	Date on Which Maintenance or Corrective Action First Identified?	Notes
1. Equipment Refueling Staging Area	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	[Enter date]	
2. Hydraulic Lines Staging/Work Areas	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	[Enter date]	
3. Equipment Maintenance Staging Area	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	[Enter date]	
4. Sanitary Toilets Staging Area	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	[Enter date]	
5. Vehicle Accident Entire Site	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	[Enter date]	
6. Dumpsters Staging Area	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	[Enter date]	
7. Solar Panel Installation Staging/Work Areas	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	[Enter date]	
8. Concrete Washout	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	[Enter date]	

*** Note:** The permit differentiates between conditions requiring routine maintenance, and those requiring corrective action. The permit requires maintenance in order to keep controls in effective operating condition. Corrective actions are triggered only for specific conditions, which include: 1) A stormwater control needs repair or replacement (beyond routine maintenance) if it is not operating as intended; 2) A stormwater control necessary to comply with the permit was never installed or was installed incorrectly; 3) You become aware that the stormwater controls you have installed and are maintaining are not effective enough for the discharge to meet applicable water quality standards or applicable requirements in Part 3.1; 4) One of the prohibited discharges in Part 1.3 is occurring or has occurred; or 5) EPA requires corrective actions as a result of a permit violation found during an inspection carried out under Part 4.8. If a condition on your site requires a corrective action, you must also fill out a corrective action form found at <https://www.epa.gov/npdes/stormwater-discharges-construction-activities#resources>. See Part 5 of the permit for more information.

Stabilization of Exposed Soil (CGP Part 2.2.14)

Stabilization Area [insert additional rows if applicable]	Stabilization Method	Have You Initiated Stabilization?	Notes
1. Earthen access road leading to stockpile area	Straw mulch or hydroseed	<input checked="" type="checkbox"/> Yes 7/30/2021 <input type="checkbox"/> No	The stockpile area and associated access road have been hydroseeded. Germination has begun and the area will be monitored for successful establishment.
2. Informal access road along northern portion of the Site	Straw mulch or hydroseed	<input type="checkbox"/> Yes [Enter date] <input checked="" type="checkbox"/> No	Erosion channels are beginning to form within upgradient portions of the informal access road (Figure 1). The contractor indicated that stabilization by smoothing out soils and seeding or spreading mulch would occur on 7/30/2021. Stabilization of this area has not been initiated. After inspection of the area on 8/24/2021, it was determined that temporary swales would likely alleviate the issue of channelization in this area; however, these swales will not be constructed until work resumes at the Site in October (pending local approval). This area will continue to be monitored; however, stabilization is not required since the area is not discharging sediment beyond the limits of work.
3. Area beyond the limits of work at Discharge 1	Hand application of seed	<input checked="" type="checkbox"/> Yes 8/24/2021 <input type="checkbox"/> No	The sediment deposit previously observed has been removed from beyond the limits of work and the area has been seeded. No sediment migrated within 50 feet of a "water of the US". Straw and additional seed was applied on 8/24/2021 and will be monitored for successful establishment.
4. Area beyond limits of work at Discharge 2	Hand application of seed	<input checked="" type="checkbox"/> Yes 8/24/2021 <input type="checkbox"/> No	Scour beyond the limits of work resulting from runoff undercutting siltation fencing has been stabilized with straw and seed. This area will be monitored for successful establishment.

Description of Discharges (CGP Part 4.6.6)

Was a stormwater discharge or other discharge occurring from any part of your site at the time of the inspection? Yes No

If "yes", provide the following information for each point of discharge:

Discharge Location	Observations
N/A – No discharges observed.	Describe the discharge: N/A At points of discharge and the channels and banks of surface waters in the immediate vicinity, are there any visible signs of erosion and/or sediment accumulation that can be attributed to your discharge? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, describe what you see, specify the location(s) where these conditions were found, and indicate whether modification, maintenance, or corrective action is needed to resolve the issue: N/A

Contractor or Subcontractor Signature and 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 have no personal knowledge that the information submitted is other than true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Signature of Contractor or Subcontractor: _____ Date: _____

Printed Name and Affiliation: _____

Operator Signature and 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 have no personal knowledge that the information submitted is other than true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Signature of Operator or "Duly Authorized Representative": _____  _____ Date: 8/24/2021

Printed Name and Affiliation: Jonathan Niro (BETA Group, Inc.)

Photo 1



View of the repaired erosion control measures associated with Discharge 1—facing north-west.

Photo 2



View of stabilization measures implemented beyond the limits of work at the location of Discharge 1—facing south.

PHOTOGRAPHIC DOCUMENTATION

North Sturbridge Road Solar Facility

Charlton, Massachusetts

Photographs Documented 08.24.2021

Photo 3



View of the repaired erosion control breach associated with Discharge 2; note the stabilization of exposed soils beyond the limits of work—facing northeast.

Photo 4



View of exposed soils stabilized at the construction entrance; note the implementation of straw bales—facing south.

PHOTOGRAPHIC DOCUMENTATION

North Sturbridge Road Solar Facility

Charlton, Massachusetts

Photographs Documented 08.24.2021

CONCEPTUAL CONSTRUCTION SEQUENCE

- PHASE 0**
- INSTALL SITEWIDE PERIMETER EROSION CONTROLS AND STABILIZED CONSTRUCTION ENTRANCE
 - CONFIRM AND MARK LIMITS OF PROPERTY LINES AND RESOURCE AREA BUFFER ZONES.
- FOR EACH OF THE FOLLOWING PHASES 1 THROUGH 5: COMPLETE THE LISTED WORK WITHIN THE ASSOCIATED "ZONE."
- PHASE 1:**
- VERIFY INTEGRITY OF PERIMETER CONTROLS WITHIN ZONE
 - CLEAR AND GRUB (SEE NOTE 2)
 - ESTABLISH STOCKPILE AND STAGING AREAS (UTILIZE TEMPORARY AREAS AS NEEDED PRIOR TO ACCESS ROAD INSTALLATION)
 - INSTALL GRASSSED SEDIMENT CONTROL SWALES
 - INSTALL UPGRADIENT SWALE, CULVERT, AND LEVEL SPREADER.
 - INSTALL GRAVEL ACCESS ROAD AND UTILITY POLES.
 - STABILIZE/RESTORE ZONE (SEE NOTES 3 THROUGH 5)
- PHASES 2 - 5**
- VERIFY INTEGRITY OF PERIMETER CONTROLS WITHIN ZONE
 - INSTALL SEDIMENT FOREBAYS, EARTHEN SWALES, GRASSSED SEDIMENT CONTROL SWALES, AND CHECK DAMS (CLEAR AND GRUB AS NEEDED)
 - CLEAR AND GRUB ZONE
 - INSTALL ACCESS/PERIMETER ROAD
 - INSTALL SOLAR ARRAY COMPONENTS, EXCEPT WITHIN FOOTPRINT OF TEMPORARY BASINS.
 - STABILIZE/RESTORE ZONE.
 - FOR ZONES 2 AND 5, WHEN ZONE IS STABILIZED, CONVERT SWALES/BASINS TO FINAL STORMWATER BMPs.
 - FOR ZONES 3 AND 4, RETAIN SWALES/BASINS UNTIL DOWNGRADIENT SWALES/BASINS ARE CONSTRUCTED FOR SUBSEQUENT PHASE. THEN, REMOVE THE UPGRADIENT SWALES/BASINS AND INSTALL SOLAR ARRAY COMPONENTS WITHIN FOOTPRINT.
- PHASE 6 (SITEWIDE)**
- CONVERT ZONE 2 AND ZONE 5 BASINS/SWALES INTO FINAL DESIGN (SEE SHEETS 6-8 AND SHEET 13). RETAIN GRASSSED SEDIMENT CONTROL SWALES, REMOVE (BACKFILL) REMAINING EXTRANEOUS SEDIMENT FOREBAYS, EARTHEN SWALES, AND CHECK DAMS.
 - INSTALL REMAINING BASIN COMPONENTS, GRASSSED SWALES, AND OTHER STORMWATER MANAGEMENT SYSTEMS.
 - INSTALL ANY REMAINING COMPONENTS OF ARRAY AND ELECTRICAL SYSTEMS.
 - INSTALL PERIMETER FENCE, GATES, KNOX BOX, AND APPROPRIATE SIGNAGE.
 - INSTALL LANDSCAPE PLANTINGS, ADJUST STONE WALL NEAR SITE ENTRANCE.
 - COMPLETE PERMANENT STABILIZATION OF ALL AREAS NOT YET RESTORED.
 - REMOVE EROSION CONTROLS ONCE FINAL STABILIZATION IS ACHIEVED.

PREPARED BY



www.BETA-Inc.com

PREPARED FOR:



Nextera Energy, Inc.
700 Universe Blvd.
Juno Beach, FL, 33408

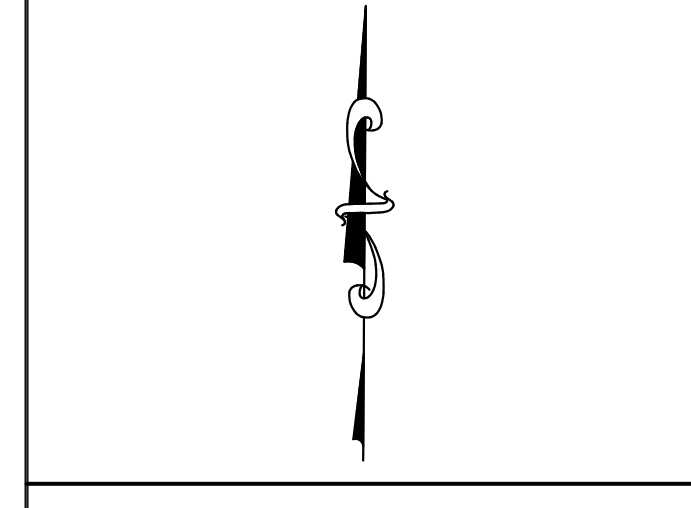
NORTH STURBRIDGE ROAD SOLAR FACILITY

North Sturbridge Road
Charlton, MA

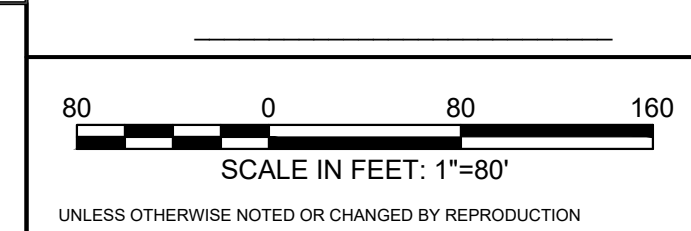
**FIGURE 1:
SWPPP
INSPECTION
SKETCH
8/26/2021**

NO.	REVISIONS	DATE
9	ADJUSTED BASIN DESIGN	8/17/2021
8	ADJUSTED NOTES	7/23/2021
7	ADJUSTED ARRAY LAYOUT	4/9/2021
6	ADJUSTED ARRAY LAYOUT	3/10/2021
5	REVISED ARRAY LIMITS, ADDED SEQUENCING INFORMATION	1/6/2021
4	ADDED PERIMETER ACCESS ROAD AND REVISED ARRAY LIMITS	3/5/2020
3	ADDED STONE BERM AND LEVEL SPREADER	9/19/2018
2	ADDED BAR GATE AT ROAD ENTRANCE AND CULVERT BENEATH ACCESS ROAD, ADJUSTED FRONT GATE DESCRIPTION	10/31/2018
1	ADJUSTED FENCE, ADDED RELOCATED STONE WALL TO SITE ENTRANCE	9/19/2018

DRAWN BY: SLB
DESIGNED BY: SLB
CHECKED BY: DPR
ISSUE DATE: SEPTEMBER 12, 2018
BETA JOB NO.: 5989

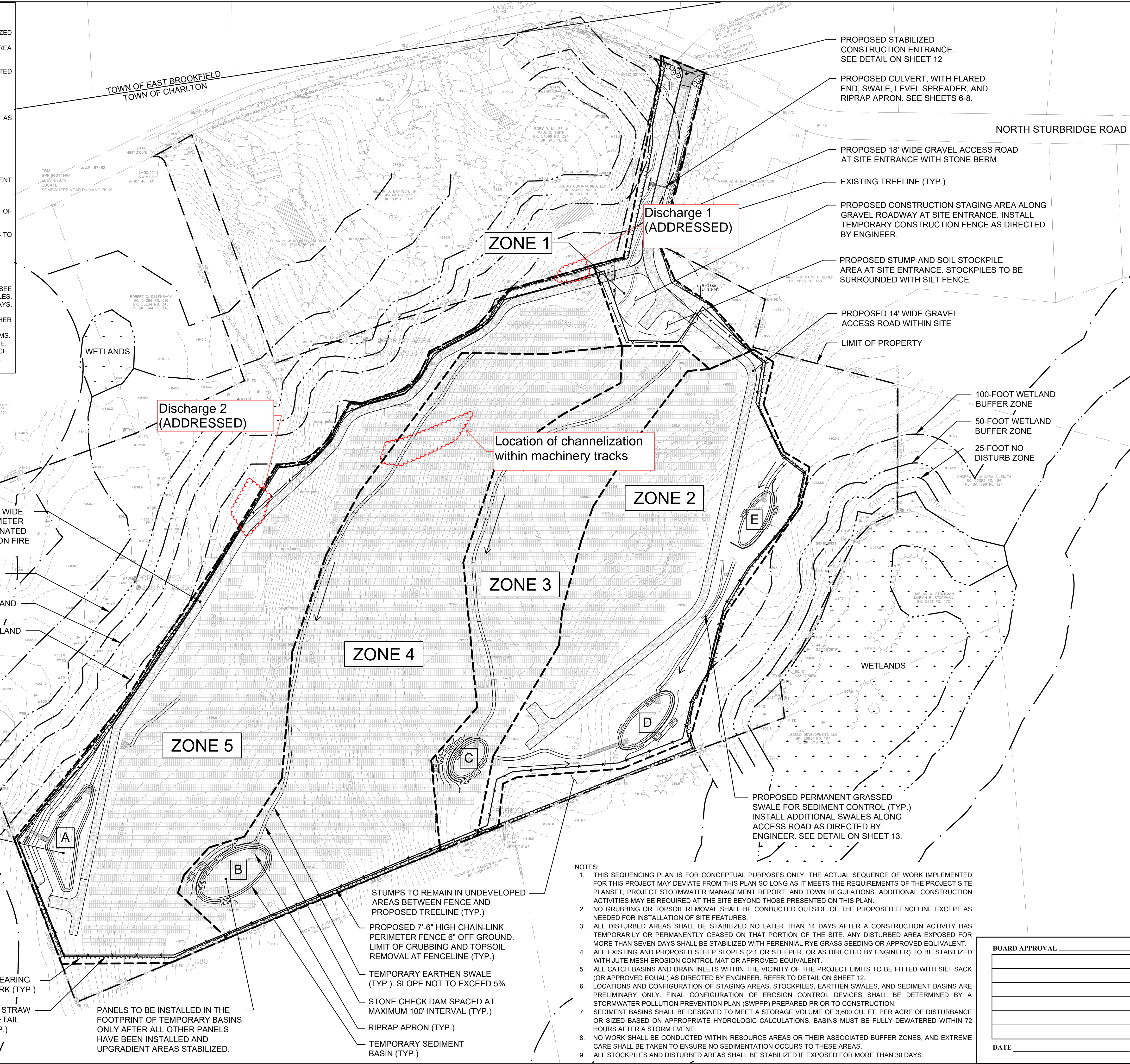


Owner:
Sturbridge Road Solar Farm, LLC.
Land Development Permit Number:



UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

SHEET NO. **4**



PROPOSED STABILIZED CONSTRUCTION ENTRANCE. SEE DETAIL ON SHEET 12

PROPOSED CULVERT, WITH FLARED END, SWALE, LEVEL SPREADER, AND RIPRAP APRON. SEE SHEETS 6-8.

PROPOSED 18' WIDE GRAVEL ACCESS ROAD AT SITE ENTRANCE WITH STONE BERM

EXISTING TREELINE (TYP.)

PROPOSED CONSTRUCTION STAGING AREA ALONG GRAVEL ROADWAY AT SITE ENTRANCE. INSTALL TEMPORARY CONSTRUCTION FENCE AS DIRECTED BY ENGINEER.

PROPOSED STUMP AND SOIL STOCKPILE AREA AT SITE ENTRANCE. STOCKPILES TO BE SURROUNDED WITH SILT FENCE

PROPOSED 14' WIDE GRAVEL ACCESS ROAD WITHIN SITE

LIMIT OF PROPERTY

100-FOOT WETLAND BUFFER ZONE

50-FOOT WETLAND BUFFER ZONE

25-FOOT NO DISTURB ZONE

PROPOSED 14' WIDE GRAVEL PERIMETER ROAD COORDINATED WITH CHARLTON FIRE DEPARTMENT

25-FOOT NO DISTURB ZONE

50-FOOT WETLAND BUFFER ZONE

100-FOOT WETLAND BUFFER ZONE

ALL SEDIMENT TO BE REMOVED FROM BASINS PRIOR TO TRANSITIONING TEMPORARY SEDIMENT BASIN TO PERMANENT DETENTION BASIN (TYP.)

LIMIT OF TREE CLEARING AND LIMIT OF WORK (TYP.)

SILT FENCE WITH STRAW WATTLES. SEE DETAIL ON SHEET 12 (TYP.)

PANELS TO BE INSTALLED IN THE FOOTPRINT OF TEMPORARY BASINS ONLY AFTER ALL OTHER PANELS HAVE BEEN INSTALLED AND UPGRADIENT AREAS STABILIZED.

STUMPS TO REMAIN IN UNDEVELOPED AREAS BETWEEN FENCE AND PROPOSED TREELINE (TYP.)

PROPOSED 7'-6" HIGH CHAIN-LINK PERIMETER FENCE 6" OFF GROUND. LIMIT OF GRUBBING AND TOPSOIL REMOVAL AT FENCELINE (TYP.)

TEMPORARY EARTHEN SWALE (TYP.). SLOPE NOT TO EXCEED 5%

STONE CHECK DAM SPACED AT MAXIMUM 100' INTERVAL (TYP.)

RIPPRAP APRON (TYP.)

TEMPORARY SEDIMENT BASIN (TYP.)

PROPOSED PERMANENT GRASSSED SWALE FOR SEDIMENT CONTROL (TYP.)

INSTALL ADDITIONAL SWALES ALONG ACCESS ROAD AS DIRECTED BY ENGINEER. SEE DETAIL ON SHEET 13.

- NOTES:
- THIS SEQUENCING PLAN IS FOR CONCEPTUAL PURPOSES ONLY. THE ACTUAL SEQUENCE OF WORK IMPLEMENTED FOR THIS PROJECT MAY DEVIATE FROM THIS PLAN SO LONG AS IT MEETS THE REQUIREMENTS OF THE PROJECT SITE PLANSET, PROJECT STORMWATER MANAGEMENT REPORT, AND TOWN REGULATIONS. ADDITIONAL CONSTRUCTION ACTIVITIES MAY BE REQUIRED AT THE SITE BEYOND THOSE PRESENTED ON THIS PLAN.
 - NO GRUBBING OR TOPSOIL REMOVAL SHALL BE CONDUCTED OUTSIDE OF THE PROPOSED FENCELINE EXCEPT AS NEEDED FOR INSTALLATION OF SITE FEATURES.
 - ALL DISTURBED AREAS SHALL BE STABILIZED NO LATER THAN 14 DAYS AFTER A CONSTRUCTION ACTIVITY HAS TEMPORARILY OR PERMANENTLY CEASED ON THAT PORTION OF THE SITE. ANY DISTURBED AREA EXPOSED FOR MORE THAN SEVEN DAYS SHALL BE STABILIZED WITH PERENNIAL RYE GRASS SEEDING OR APPROVED EQUIVALENT.
 - ALL EXISTING AND PROPOSED STEEP SLOPES (2:1 OR STEEPER, OR AS DIRECTED BY ENGINEER) TO BE STABILIZED WITH JUTE MESH EROSION CONTROL MAT OR APPROVED EQUIVALENT.
 - ALL CATCH BASINS AND DRAIN INLETS WITHIN THE VICINITY OF THE PROJECT LIMITS TO BE FITTED WITH SILT SACK (OR APPROVED EQUAL) AS DIRECTED BY ENGINEER. REFER TO DETAIL ON SHEET 12.
 - LOCATIONS AND CONFIGURATION OF STAGING AREAS, STOCKPILES, EARTHEN SWALES, AND SEDIMENT BASINS ARE PRELIMINARY ONLY. FINAL CONFIGURATION OF EROSION CONTROL DEVICES SHALL BE DETERMINED BY A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) PREPARED PRIOR TO CONSTRUCTION.
 - SEDIMENT BASINS SHALL BE DESIGNED TO MEET A STORAGE VOLUME OF 3,600 CU. FT. PER ACRE OF DISTURBANCE OR SIZED BASED ON APPROPRIATE HYDROLOGIC CALCULATIONS. BASINS MUST BE FULLY DEWATERED WITHIN 72 HOURS AFTER A STORM EVENT.
 - NO WORK SHALL BE CONDUCTED WITHIN RESOURCE AREAS OR THEIR ASSOCIATED BUFFER ZONES, AND EXTREME CARE SHALL BE TAKEN TO ENSURE NO SEDIMENTATION OCCURS TO THESE AREAS.
 - ALL STOCKPILES AND DISTURBED AREAS SHALL BE STABILIZED IF EXPOSED FOR MORE THAN 30 DAYS.

BOARD APPROVAL

DATE