

XII. ILLUSTRATION No. 25

PAGE	DESCRIPTION	MACRO
364-9	LARGE (9'x9') THREE PHASE TRANSFORMER FOUNDATION	

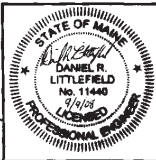
NOTES:

1. * FRONT denotes the side on which the access doors are located. The concrete base shall be set on a suitable gravel base and located so the FRONT is accessible by truck and suitably protected from plow and traffic damage.
2. Before installing or requiring any active drainage structure (e.g., drain pipe) into the foundation or pad, the contractor, CMP Line Supervisor, or CMP Distribution Engineer must contact Central Maine Power Company's Environmental Services Department at 623-3521 ext. 3479 to request a site inspection.
3. Finish grade shall be graded in such a manner to allow surface water to flow away from the pad.
4. Provide 8' X 24' cable holes (bond outs) 8' up the wall from the base. Locate one cable hole per wall, more if necessary. Line up cable holes with trench.
5. Conduits entering concrete structures shall be set back from the inside wall 1 to 2 inches and the space within the knockout surrounding the conduits completely filled with mortar to prevent soil from entering structure. Inside the structure the mortar shall be finished and beveled from the conduit ends to the inside wall face to cover and smooth the edges of the knockouts.
6. A 3/4" x 8' galvanized ground rod is to be installed six inches in front of the left FRONT corner of the foundation. The top of the ground rod is to be 6 inches below final grade.
7. A ground wire shall be installed from the ground rod through the cable hole at the bottom of the pad. 20 Feet of ground wire shall be provided so that it can be installed through the two grounding lugs and connected to the neutral spade.
8. Concrete compressive strength shall be 4000 PSI @ 28 days. For cast-in-place early high strength may be used with a minimum of seven day cure time.
9. Reinforcing steel to have: FY = 60 KSI.
10. For precast units: The precast supplier shall provide lifting lugs in the slab (foundation) and base; the precast supplier shall assemble the slab to the base prior to shipping to the site to ensure that the slab and base fit properly (with no rocking of the slab evident).
11. Use a 24" x 24" x 1/4" galvanized steel plate to cover a portion of the cable hole when the transformer does not completely cover it. Cut the steel plate to fit, if necessary.

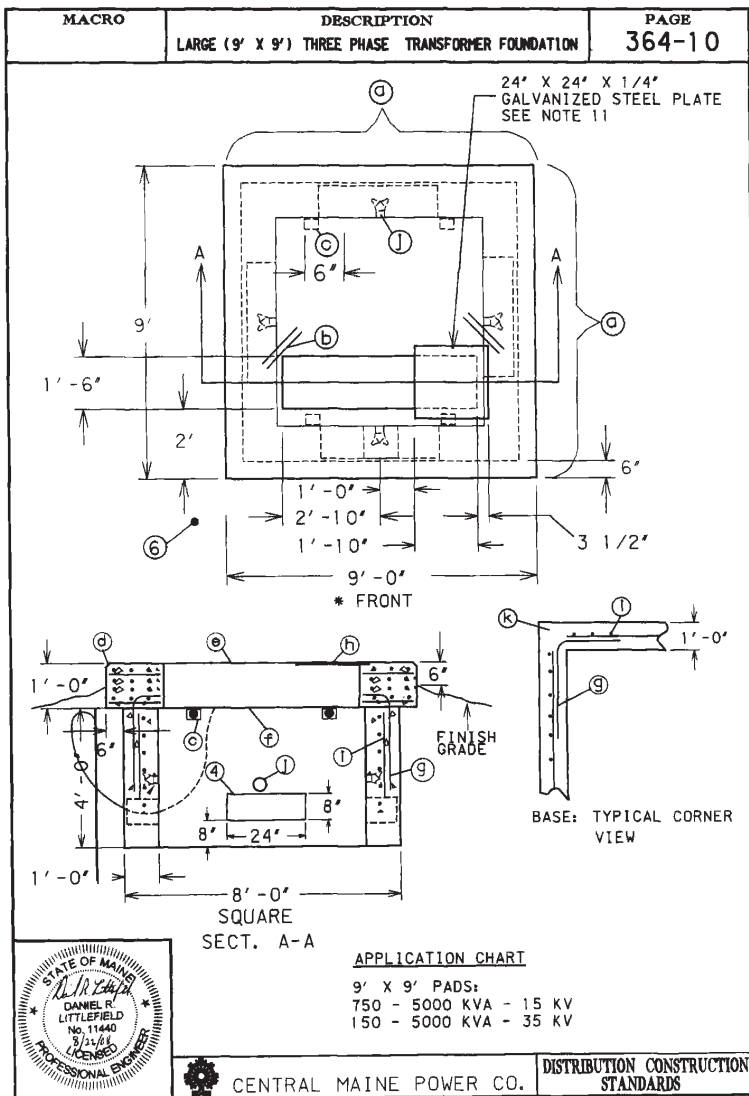
- a. 9-*5 Rebar evenly spaced each way top to bottom.
- b. 2-*4 Corner diagonal rebar 2'-0" long top and bottom.
- c. 4" x 4" x 1/2" angle 6' long with 2-3/4" diameter expansion anchors typical - 4 places (two piece precast only).
- d. Chamfer typical
- e. 2' Concrete cover over top rebar.
- f. 3' Concrete cover over bottom rebar.
- g. #5 L-Bar @ 12" (cast-in-place only)
- h. 24" x 24" x 1/4" galvanized steel plate. MID#6000621795
- i. #5 Rebar on 12" centers.
- j. Pulling eye Insert, for use with 3/4" national course thread eye-bolt, (Richmond LCB-1 or equivalent). Located opposite each cable hole and 2' (two feet) from the bottom.
- k. All rebar ends to be covered by 1' of concrete, minimum.

**DISTRIBUTION CONSTRUCTION
STANDARDS**

CENTRAL MAINE POWER CO.



XII. ILLUSTRATION No. 25



March 30, 2020

VIA EMAIL

Ms. Danielle Obery, MEDEP

Email: Danielle.Obery@maine.gov

Subject: Evaluation of Potential Settlement
504 kW Solar Array, Closed Landfill, Windham, Maine

Dear Ms. Obery:

Sevee & Maher Engineers, Inc. (SME) has prepared this letter on behalf of ReVision Energy (ReVision) to provide an evaluation of the potential for settlement to occur relative to a proposed solar array planned for construction on the surface of the closed municipal waste landfill located off Enterprise Drive in Windham, Maine.

Based on the Maine Department of Environmental Protection (MEDEP) Closure Order for the landfill dated June 24, 1992, SME understands the landfill is approximately 60 years old and was capped in approximately 1992 using a cover system consisting of the following components (from the bottom up): 6 inches of gas migration sand; 18 inches of compacted till; a 30-mil PVC geomembrane; 12 inches of drainage sand; a layer of geotextile, 8 inches of select borrow; and 4 inches of vegetative cover (top soil and/or compost mix).

SME understands the solar panels for the proposed array will be supported on individual concrete footings founded on a 2-inch thick layer of crushed stone. The footings will have a typical size of 4 feet by 11 feet and will be approximately 15 inches thick. To place the crushed stone, ReVision plans to excavate the top two inches vegetative soil to form an 11-foot wide strip of continuous length. The strip will then be backfilled with crushed stone to a level consistent with the surrounding cover surface grade. A separation layer of geotextile will be placed over the base of the strip prior to placing the stone.

Three questions have been raised relative to potential settling of the cover system due to the weight of the solar panels

- Are the solar panels compatible with the bearing capacity of the cover system and will the cover system compress under the footing loads?
- Will the solar panels cause settlement of the underlying waste?
- Will the solar panels settle due to self-weight consolidation of the underlying waste?

Bearing capacity of cover system and footing settlement due to compression of cover soils

Revision has indicated the contact pressure for each of the footings (and attached solar panels) will be on the order of 514 psf. When the cover system was constructed the till layer was likely compacted with a drum roller of some type. The technical literature indicates the range of contact stress for roller type compacters varies from approximately 10 to 20 tons per square meter (approximately 2,000 to 3000 psf) depending on size of compactor (Ebid, 2018). Design guidance for densely compacted soil (like the till portion of the cover) indicates typical allowable bearing pressures of 3,000 psf, or more (Hough, 1969). The sand layers in the cover system were likely not compacted with the same intensity as the till. Design guidance for the allowable bearing capacity of loose sand is typically in the range of 1,500 to 4,000 psf. By comparison, the contact stress exhibited by the footings (i.e., 514 psf) is significantly less than the available bearing capacity of the cover system. Accordingly, only minimal compression of the cover system is expected due to the footing loads.

Settlement of underlying waste due to footing loads

Contact stresses exhibited by footings dissipate incrementally with respect to increasing depth. Typically, a 90 percent reduction of stress is accepted as the zone/depth of no stress increase causing settlement. Using the Newmark's simplified solution for estimating stress reduction with respect to depth (Hough, 1969) with a 4-foot-wide footing and a contact stress of 514 psf results in a 90 percent stress reduction at an approximate 10-foot depth into the landfill (i.e., approximately 6 feet into the waste). The technical literature indicates the modified compression index (C_c') for municipal solid waste (MSW) varies from approximately 0.1 to 0.25 (Rakic et al, 2015 and Bareither et al, 2012). Using the average stress increment caused by the footing load, the thickness of waste affected, and the range of C_c' from the literature results in calculated waste settlements ranging from ½ to 1-inch. Accordingly, only minimal settlement of the waste is expected due to the footing loads.

Settlement of the waste due to self-weight compression

Post-closure waste settlement occurs with time due to the organic nature of the waste constituents and in-place microbial decomposition. The technical literature indicates the amount of post closure settlement typically slows with the time at a logarithmic scale and occurs over the full waste depth. The post closure settlement calculation for MSW uses a modified secondary compression index (C_a') that typically ranges from approximately 0.005 to 0.02 for old MSW (Rakic, 2018). Although the waste depths for the subject landfill are not known, an example calculation assuming a 50-foot waste thickness and a 30-year time of interest following the 30 years which have passed since the landfill was covered results in post-closure settlements in the range of 1 to 4-inches (over the next 30 years).

In summary, SME expects the following relative to placement of the solar array on the subject landfill as planned by ReVision:

- Placement of the footings on the landfill cover system will have no significant effect on the existing cover performance:
- Minimal settlement of the landfill cover system and underlying waste will occur due to the loads associated with the planned footings and associated solar panels: and

- Post-closure settlement of the landfill waste will not be affected by the loads associated with the planned footings and associated solar panels.

SME does recognize that the landfill waste deposit is a heterogeneous mass and may tend to behave differently on a spatial basis and as such some differential movement of the footings is possible.

If you have any questions of if SME can be of further assistance, please do not hesitate to contact me.

Sincerely,

SEVEE & MAHER ENGINEERS, INC.



Matthew W. Muzzy, P.E.
Principal

cc: Brian Beneski, MEDEP
Josh Baston, ReVision Energy

References

1. Hough, 1969 - Basic Soils Engineering.
2. Rakic, Caki, Hadzi, and Basaric, 2015 – Compressibility parameters of old municipal waste from two landfills in Serbia.
3. Bareither, Benson and Edil, 2012 – Compression Behavior of Municipal Solid Waste: Immediate Compression.
4. Ebid, 2018 – Mathematical Approach to Simulate Soil

**STORMWATER MANAGEMENT ASSESSMENT
437.5 kW (AC) SOLAR ARRAY
ENTERPRISE DRIVE, WINDHAM, MAINE**

ReVision Energy (ReVision) proposes to construct a 437.5 kW (AC) solar array on a closed municipal landfill located off Enterprise Drive in Windham, Maine. The existing solid waste boundary includes approximately 9 acres. ReVision plans to construct the solar array on approximately 2 acres of the existing landfill cover. The existing composite landfill cap is impervious by design. The cover material includes 18 inches of impermeable soil and a 30-mil PVC synthetic membrane.

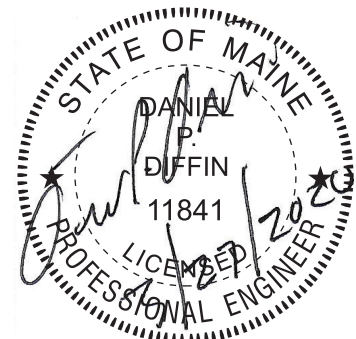
The property is bordered by US-Route 302 to the south, Enterprise Drive and property owned by Sappi North America to the east, property owned by Windham Excavating to the west, and property owned by RJGF LLC to the north. The landfill is bordered to the north and west by wetlands and portions of streams. These features were determined from National Wetland Inventory data and available LIDAR topographic data. Locations of these resources are outlined in the project plan set attached to this permit amendment.

Proposed development will include the construction of the solar array, including panels, racking, footer block supports, and electric conduit. The solar array will be enclosed by chain link fence and accessed by double leaf gates for security. Water and sewer utilities are not proposed.

As established on previous projects, solar panels are not viewed as impervious surface by MEDEP. The composite landfill cap itself is impervious by design to minimize infiltration of rainfall into the closed landfill. Concrete footer blocks and stone bedding will result in approximately 8,900 square feet (sf) of non-vegetated surface on top of the existing impervious landfill cap. SME does not anticipate significant increases in peak flow runoff from the proposed development.

Proposed construction will comply with the *Maine Erosion and Sedimentation Control Best Management Practices (BMPs) Manual for Designers and Engineers* dated October 2016 (or as currently revised). Erosion Control Notes and Details are provided on Drawing C-300 in the project plan set.

Given the nature of the proposed development, the fact that surface runoff patterns are not altered, and stormwater management devices remain unchanged, SME does not anticipate the project will have any adverse impact to the downstream drainage or abutting properties.



437.5 KW AC SOLAR ARRAY

REVISION ENERGY

WINDHAM, MAINE

TITLE	DWG NO
COVER SHEET	
GENERAL NOTES, LEGEND, AND ABBREVIATIONS	C-100
EXISTING CONDITIONS PLAN	C-101
SITE OVERVIEW PLAN	C-102
SITE PLAN	C-103
EROSION CONTROL NOTES AND DETAILS	C-300
SECTIONS AND DETAILS	C-301

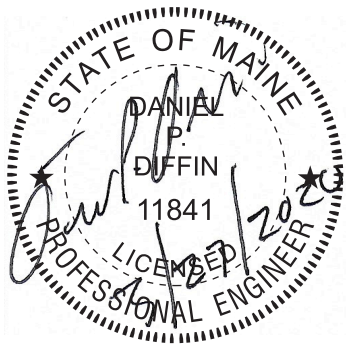
LOCATION MAP



SME
SEVEE & MAHER
ENGINEERS

ENVIRONMENTAL • CIVIL • GEOTECHNICAL • WATER • COMPLIANCE

4 Blanchard Road, PO Box 85A, Cumberland, Maine 04021
Phone 207.829.5016 • Fax 207.829.5692 • smemaine.com



1. DRAWING DATUM:
HORIZONTAL DATUM: STATE PLAN NAD83 MAINE, WEST
VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM 1988
2. PROPERTY BOUNDARIES FROM MAINE GIS DATABASE, DATED JANUARY 8, 2020.
3. LIDAR DERIVED TOPOGRAPHY FROM MAINE GIS DATABASE, DATED 2006-2013. THE TOPOGRAPHY WAS GATHERED BETWEEN 2006 AND 2013. THE LANDFILL CAP HAS LIKELY SETTLED SINCE THAT TIME. IF PRECISE SURFACE CONTOURS ARE CRITICAL TO THE PROPOSED SOLAR ARRAY INSTALLATION, ADDITIONAL SURVEY MAY BE REQUIRED PRIOR TO CONSTRUCTION.
4. WETLAND AND STREAM LOCATIONS FROM THE NATIONAL WETLANDS INVENTORY. THE SERVICE'S OBJECTIVE OF MAPPING WETLANDS AND DEEPWATER HABITATS IS TO PRODUCE RECONNAISSANCE LEVEL INFORMATION ON THE LOCATION, TYPE AND SIZE OF THESE RESOURCES. THE MAPS ARE PREPARED FROM THE ANALYSIS OF HIGH ALTITUDE IMAGERY. WETLANDS ARE IDENTIFIED BASED ON VEGETATION, VISIBLE HYDROLOGY AND GEOGRAPHY. A MARGIN OF ERROR IS INHERENT IN THE USE OF IMAGERY, THUS, DETAILED ON-THE-GROUND INSPECTION OF ANY PARTICULAR SITE MAY RESULT IN REVISION OF THE WETLAND BOUNDARIES OR CLASSIFICATION ESTABLISHED THROUGH IMAGE ANALYSIS.
5. EXISTING GAS VENT LOCATED BY GPS SURVEY BY SME ON MARCH 10, 2020.
6. APPROXIMATE LIMITS OF LANDFILL AND MONITORING WELL LOCATIONS WERE DIGITIZED BASED ON RECORD DRAWING TITLED "LANDFILL CLOSING GRADING PLAN" BY WOODARD & CURRAN INC., DATED NOVEMBER 1, 1993. THIS PLAN WAS ALIGNED AND SCALED BASED ON GAS VENT LOCATIONS PROVIDED TO SME BY REVISION ENERGY.
7. STANDARD PRACTICE DICTATES THAT PLANS COMPILED IN THIS MANNER SHOULD BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. REPORT ANY DISCREPANCIES TO ENGINEER. THE ACCURACY AND COMPLETENESS OF SUBSURFACE INFORMATION IS NOT GUARANTEED. VERIFY SITE CONDITIONS INCLUDING TEST PITS FOR LOCATIONS AND INVERTS OF UTILITIES AND REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO PROCEEDING WITH THAT PORTION OF THE WORK.
8. EXCAVATE AND STOCKPILE ON-SITE TOPSOIL. TOPSOIL IS TO REMAIN THE PROPERTY OF THE OWNER DURING CONSTRUCTION, AND SHALL NOT BE REMOVED FROM THE SITE. AFTER FINAL LOAM AND SEED, EXCESS TOPSOIL SHALL BE REMOVED FROM SITE BY CONTRACTOR.

1. OWNER/DEVELOPER: REVISION ENERGY
758 WESTBROOK ST
SOUTH PORTLAND, MAINE 04106
2. PROJECT: 437.5 KW AC SOLAR ARRAY
WINDHAM LANDFILL
3. ZONING DISTRICT: COMMERCIAL 1 (C1), COMMERCIAL 3 (C3), ENTERPRISE DEVELOPMENT (ED)
4. ZONE STANDARDS:

C1 REQUIRED	C1 PROVIDED	C3 REQUIRED	C3 PROVIDED	ED REQUIRED	ED PROVIDED
MINIMUM LOT SIZE	NONE	6.8/411 AC	20,000 SQFT	6.8/411 AC	6.8/411 AC
SETBACKS					
FRONT	10-20 FT (RT 302) 0-20 FT (OTHER)	477 FEET 137 FEET	60 FT (ARTERIAL) 40 FT (NON-ARTERIAL)	192 FEET 40 FEET	192 FEET
SIDE	6 FEET	0 FEET	10 FEET	0 FEET	30 FEET
REAR	6 FEET	0 FEET	10 FEET	0 FEET	30 FEET
5. TAX MAP 21, LOT 19 AND MAP 21, LOT 15.
6. PROPOSED USE: UTILITY FACILITY - SOLAR ARRAY
7. PARKING SUMMARY:

EXISTING PARKING	0 SPACES
PROPOSED PARKING	0 SPACES
8. THE PROPERTY IS OUTSIDE OF THE 100 YEAR FLOODPLAIN AS REFERENCED ON FEMA COMMUNITY PANEL NO. 230189 0015 B, DATED SEPTEMBER 2, 1981.

PRIOR TO EXCAVATION, VERIFY THE UNDERGROUND UTILITIES, PIPES, STRUCTURES AND FACILITIES. PROVIDE THE FOLLOWING MINIMUM MEASURES:

1. PRE-MARK THE BOUNDARIES OF YOUR PLANNED EXCAVATION WITH WHITE PAINT, FLAGS OR STAKES, SO UTILITY CREWS KNOW WHERE TO MARK THEIR LINES.
2. CALL DIG SAFE, AT 811, AT LEAST THREE BUSINESS DAYS - BUT NO MORE THAN 30 CALENDAR DAYS - BEFORE STARTING WORK. DO NOT ASSUME SOMEONE ELSE WILL MAKE THE CALL.
3. IF BLASTING, NOTIFY DIG SAFE AT LEAST ONE BUSINESS DAY IN ADVANCE.
4. WAIT THREE BUSINESS DAYS FOR LINES TO BE LOCATED AND MARKED WITH COLOR-CODED PAINT, FLAGS OR STAKES. NOTE THE COLOR OF THE MARKS AND THE TYPE OF UTILITIES THEY INDICATE. TRANSFER THESE MARKS TO THE AS-BUILT DRAWINGS.
5. CONTACT THE LANDOWNER AND OTHER "NON-MEMBER" UTILITIES (WATER, SEWER, GAS, ETC.). FOR THEM TO MARK THE LOCATIONS OF THEIR UNDERGROUND FACILITIES. TRANSFER THESE MARKS TO THE AS-BUILT DRAWINGS.
6. RE-NOTIFY DIG SAFE AND THE NON-MEMBER UTILITIES IF THE DIGGING, DRILLING OR BLASTING DOES NOT OCCUR WITHIN 30 CALENDAR DAYS, OR IF THE MARKS ARE LOST DUE TO WEATHER CONDITIONS, SITE WORK ACTIVITY OR ANY OTHER REASON.
7. HAND DIG WITHIN 18 INCHES IN ANY DIRECTION OF ANY UNDERGROUND LINE UNTIL THE LINE IS EXPOSED. MECHANICAL METHODS MAY BE USED FOR INITIAL SITE PENETRATION, SUCH AS REMOVAL OF PAVEMENT OR ROCK.
8. DIG SAFE REQUIREMENTS ARE IN ADDITION TO TOWN, CITY AND/OR STATE DOT STREET OPENING PERMIT REQUIREMENTS.
9. FOR COMPLETE DIG SAFE REQUIREMENTS, CALL THE PUBLIC UTILITIES COMMISSION (PUC) AT 1-800-452-4699 OR VISIT WWW.STATE.ME.US/MPUC
10. IF YOU DAMAGE, DISLOCATE OR DISTURB ANY UNDERGROUND UTILITY LINE, IMMEDIATELY NOTIFY THE AFFECTED UTILITY. IF DAMAGE CREATES SAFETY CONCERNS, CALL THE FIRE DEPARTMENT AND TAKE IMMEDIATE STEPS TO SAFEGUARD HEALTH AND PROPERTY.
11. ANY TIME AN UNDERGROUND LINE IS DAMAGED OR DISTURBED OR IF LINES ARE IMPROPERLY MARKED, YOU MUST FILE AN INCIDENT REPORT WITH THE PUC FOR AN INCIDENT REPORT FORM VISIT WWW.STATE.ME.US/MPUC OR CALL THE PUC AT 1-800-452-4699.

1. ADD 6" LOAM, SEED AND MULCH TO DISTURBED AREAS UNLESS OTHERWISE NOTED. PROVIDE EROSION CONTROL MESH ON ALL SLOPES 6:1 OR STEEPER, AND ALONG DITCH CHANNELS.
2. MAINTAIN TEMPORARY EROSION CONTROL MEASURES FOR THE FULL DURATION OF CONSTRUCTION. INSPECT WEEKLY AND AFTER EACH STORM TO REPAIR AND RESEED ANY EROSION IN AREA OF LOW EROSION POTENTIAL, AND STABILIZE WITH SEED AND MULCH. REMOVE SEDIMENTS FROM THE SITE.
3. PLACE TEMPORARY SOIL STABILIZATION WITHIN 14 DAYS OF INITIAL DISTURBANCE. PLACE PERMANENT SOIL STABILIZATION WITHIN 7 DAYS OF FINAL GRADING.

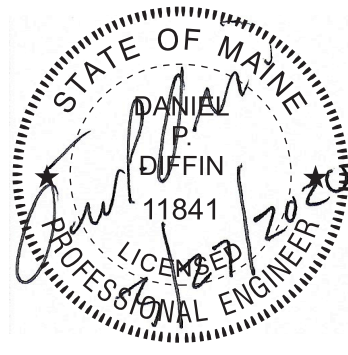
1. EXISTING UTILITIES IN ENTERPRISE DRIVE INCLUDE:
PUBLIC WATER
UNDERGROUND ELECTRIC
UNDERGROUND COMMUNICATIONS
STORM DRAIN
2. EXISTING UNDERGROUND AND ABOVE GROUND UTILITIES ARE NOT SHOWN ON THIS PLAN. PRIOR TO WORK THE CONTRACTOR SHALL USE PRIVATE UTILITY LOCATION SERVICE TO LOCATE ALL UNDERGROUND AND ABOVE GROUND UTILITIES WITHIN THE LIMITS OF WORK. LOCATION AND ELEVATION OF ALL UTILITIES SHALL BE SURVEYED BY THE CONTRACTOR AND PROVIDED TO THE OWNER ON AS-BUILT DRAWINGS PRIOR TO PROJECT COMPLETION.
3. THE ACCURACY AND COMPLETENESS OF SUBSURFACE INFORMATION IS NOT GUARANTEED. VERIFY SITE CONDITIONS INCLUDING TEST PITS OUTSIDE THE LANDFILL LIMIT FOR LOCATIONS AND INVERTS OF UTILITIES AND REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO PROCEEDING WITH THAT PORTION OF THE WORK.
4. COORDINATE WORK ON UTILITY LINES WITH THE TOWN OF WINDHAM.

ACCPM	ASPHALT COATED CMP	D	DEGREE OF CURVE	HDPE
ACP	ASBESTOS CEMENT PIPE	DBL	DOUBLE	HORIZ
AC	ACRE	DEG OR °	DEGREE	HP
AGG	AGGREGATE	DEPT	DEPARTMENT	HYD
ALUM	ALUMINUM	DI	DUCTILE IRON	
APPD	APPROVED	DIA OR	DIAMETER	ID
APPROX	APPROXIMATE	DIM	DIMENSION	IN OR
ARMH	AIR RELEASE MANHOLE	DIST	DISTANCE	INV
ASB	ASBESTOS	DN	DOWN	INV EL
ASP	ASPHALT	DR	DRAIN	
AUTO	AUTOMATIC	DWG	DRAWING	
AUX	AUXILIARY			LC
AVE	AVENUE	EA	EACH	LD
AZ	AZIMUTH	EG	EXISTING GROUND OR GRADE	LF
		ELEC	ELECTRIC	LOC
		EL	ELEVATION	LT
BCCMP	BITUMINOUS COATED CMP	ELB	ELBOW	
BM	BENCH MARK	EOP	EDGE OF PAVEMENT	MH
BIT	BITUMINOUS	EQUIP	EQUIPMENT	MJ
BLDG	BUILDING	EST	ESTIMATED	MATL
BOT	BOTTOM	EXC	EXCAVATE	MAX
BRG	BEARING	EXIST	EXISTING	MFR
BV	BALL VALVE			MIN
CB	CATCH BASIN	FI	FIELD INLET	MISC
CEN	CENTER	FG	FINISH GRADE	MON
CEM LIN	CEMENT LINED	FBRGL	FIBERGLASS	
CMP	CORRUGATED METAL PIPE	FDN	FOUNDATION	NITC
CO	CLEAN OUT	FLEX	FLEXIBLE	NTS
CF	CUBIC FEET	FLG	FLANGE	N/F
CFS	CUBIC FEET PER SECOND	FLR	FLOOR	NO OR #
CI	CAST IRON	FPS	FEET PER SECOND	
CL	CLASS	FT OR '	FEET	QC
CONC	CONCRETE	FTG	FOOTING	OD
CONST	CONSTRUCTION			
CONTR	CONTRACTOR	GA	GAUGE	PC
CS	CURB STOP	GAL	GALLON	PD
CTR	CENTER	GALV	GALVANIZED	PI
CU	COPPER	GPD	GALLONS PER DAY	PIV
CY	CUBIC YARD	GPM	GALLONS PER MINUTE	PT

HIGH DENSITY POLYETHYLENE	PERF	PERFORATED
HORIZONTAL	PP	POWER POLE
HORSEPOWER	PSI	POUNDS PER SQUARE INCH
HYDRANT	PVC	POLYVINYL CHLORIDE
	PVMT	PAVEMENT
INSIDE DIAMETER		
INCHES		
INVERT	QTY	QUANTITY
INVERT ELEVATION		
	RCP	REINFORCED CONCRETE PIPE
POUND	ROW	RIGHT OF WAY
LEACHATE COLLECTION	RAD	RADIUS
LEAK DETECTION	REQD	REQUIRED
LINEAR FEET	RT	RIGHT
LOCATION	RTE	ROUTE
LEACHATE TRANSPORT		
	S	SLOPE
MANHOLE	SCH	SCHEDULE
MECHANICAL JOINT	SF	SQUARE FEET
MATERIAL	SHT	SHEET
MAXIMUM	SMH	SANITARY MANHOLE
MANUFACTURE	ST	STREET
MINIMUM	STA	STATION
MISCELLANEOUS	SY	SQUARE YARD
MONUMENT	TAN	TANGENT
	TDH	TOTAL DYNAMIC HEAD
NOT IN THIS CONTRACT	TEMP	TEMPORARY
NOT TO SCALE	TYP	TYPICAL
NOW OR FORMERLY		
NUMBER	UD	UNDERDRAIN
	V	VOLTS
ON CENTER	VA TEE	VALVE ANCHORING TEE
OUTSIDE DIAMETER	VERT	VERTICAL
POINT OF CURVE	WG	WATER GATE
PERIMETER DRAIN	WJ	WITH
POINT OF INTERSECTION	W/O	WITHOUT
POST INDICATOR VALVE		
POINT OF TANGENT	YD	YARD


EXISTING		PROPOSED
	PROPERTY LINE	
	BUILDING	
	EDGE OF PAVEMENT	
	CURB	
	CONTOUR	
	SPOT GRADE	
	FENCE	
	UTILITY POLE	
	OVERHEAD ELECTRIC	
	UNDERGROUND ELECTRIC	
	TRANSFORMER	
	TREELINE	
	CONCRETE	
	GAS VENT	
	NWI WETLANDS	
	NWI STREAM	
	STREAM SETBACK	

	DPD	3/2020	ISSUED TO TOWN AND MEDEP FOR PERMIT REVIEW
REV.	BY	DATE	STATUS



437.5 KW AC SOLAR ARRAY REVISION ENERGY WINDHAM, MAINE

GENERAL NOTES, LEGEND, AND ABBREVIATIONS



**SVEE & MAHER
ENGINEERS**

ENVIRONMENTAL • CIVIL • GEOTECHNICAL • WATER • COMPLIANCE

4 Blanchard Road, PO Box 85A, Cumberland, Maine 04021
Phone 207.829.5016 • Fax 207.829.5692 • smemaine.com

DESIGN BY:	JTR
DRAWN BY:	JRL
DATE:	1/2020
CHECKED BY:	BDP
LMN:	NONE
CTB:	SME-STD

JOB NO. 19391
DWG FILE GEN-NOTES-LGND
C-100



NOTE:

1. SEE DRAWING C-100 FOR GENERAL SITE NOTES AND PLAN REFERENCES.

REV.	BY	DATE	STATUS
	DPD	3/2020	ISSUED TO TOWN AND MEDEP FOR PERMIT REVIEW

**437.5 KW AC SOLAR ARRAY
REVISION ENERGY
WINDHAM, MAINE**

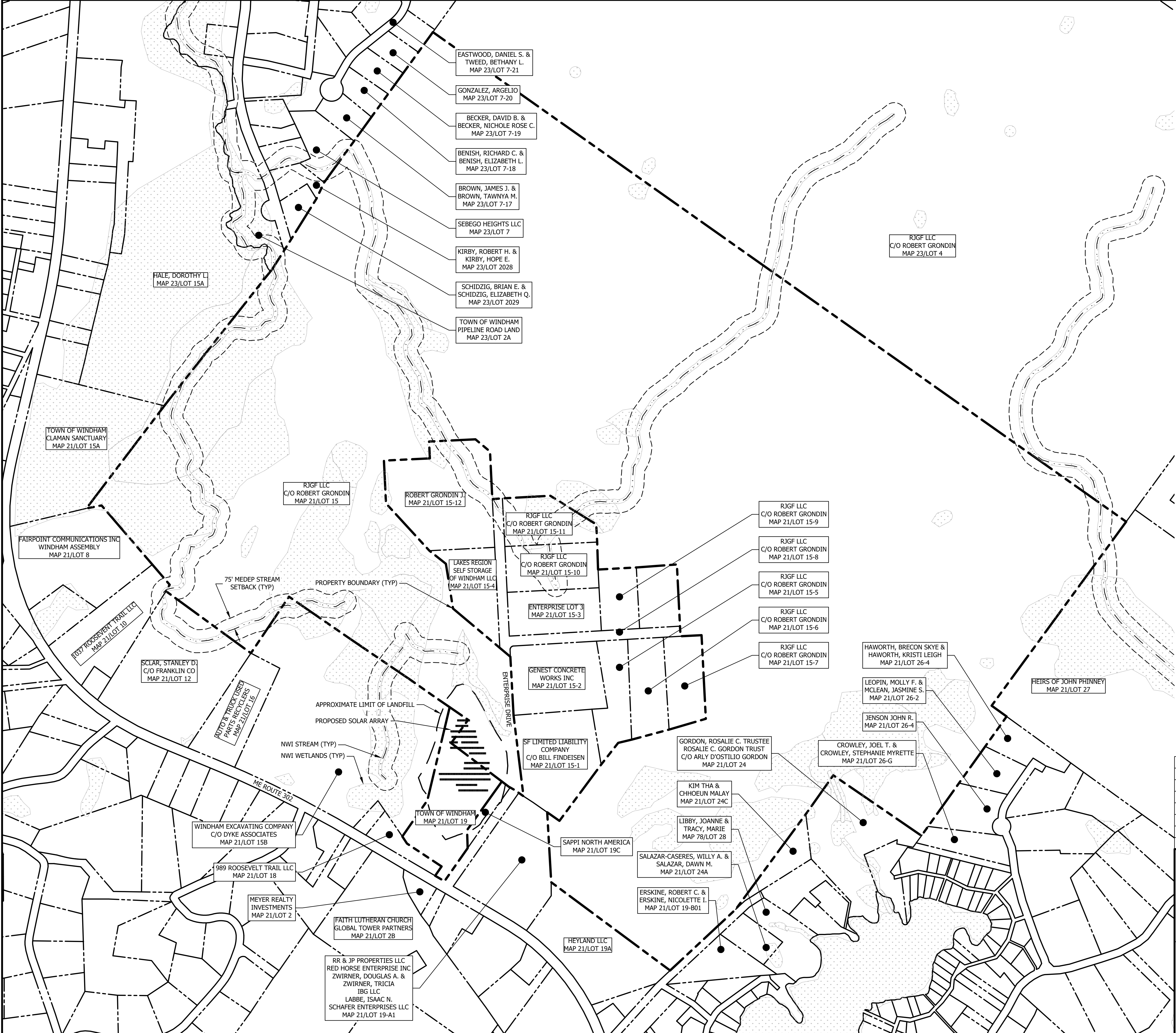
EXISTING CONDITIONS PLAN

ENVIRONMENTAL • CIVIL • GEOTECHNICAL • WATER • COMPLIANCE
4 Blanchard Road, PO Box 85A, Cumberland, Maine 04021
Phone 207.829.5016 • Fax 207.829.5692 • smemaine.com

DESIGN BY: JTR
DRAWN BY: JRL
DATE: 1/2020
CHECKED BY: BDP
LMN: EXCON
CTB: SME-STD

JOB NO. 19391 DWG FILE BASE

C-101



NOTE:

1. SEE DRAWING C-100 FOR GENERAL SITE NOTES AND PLAN REFERENCES.

REV.	BY	DATE	STATUS
	DPD	3/2020	ISSUED TO TOWN AND MEDEP FOR PERMIT REVIEW

437.5 KW AC SOLAR ARRAY REVISION ENERGY WINDHAM, MAINE

SITE OVERVIEW PLAN

SME
SEVEE & MAHER
ENGINEERS

ENVIRONMENTAL • CIVIL • GEOTECHNICAL • WATER • COMPLIANCE

4 Blanchard Road, PO Box 85A, Cumberland, Maine 04021
Phone 207.829.5016 • Fax 207.829.5692 • smemaine.com

JOB NO. 19391 DWG FILE BASE

DESIGN BY: JTR

DRAWN BY: JRL

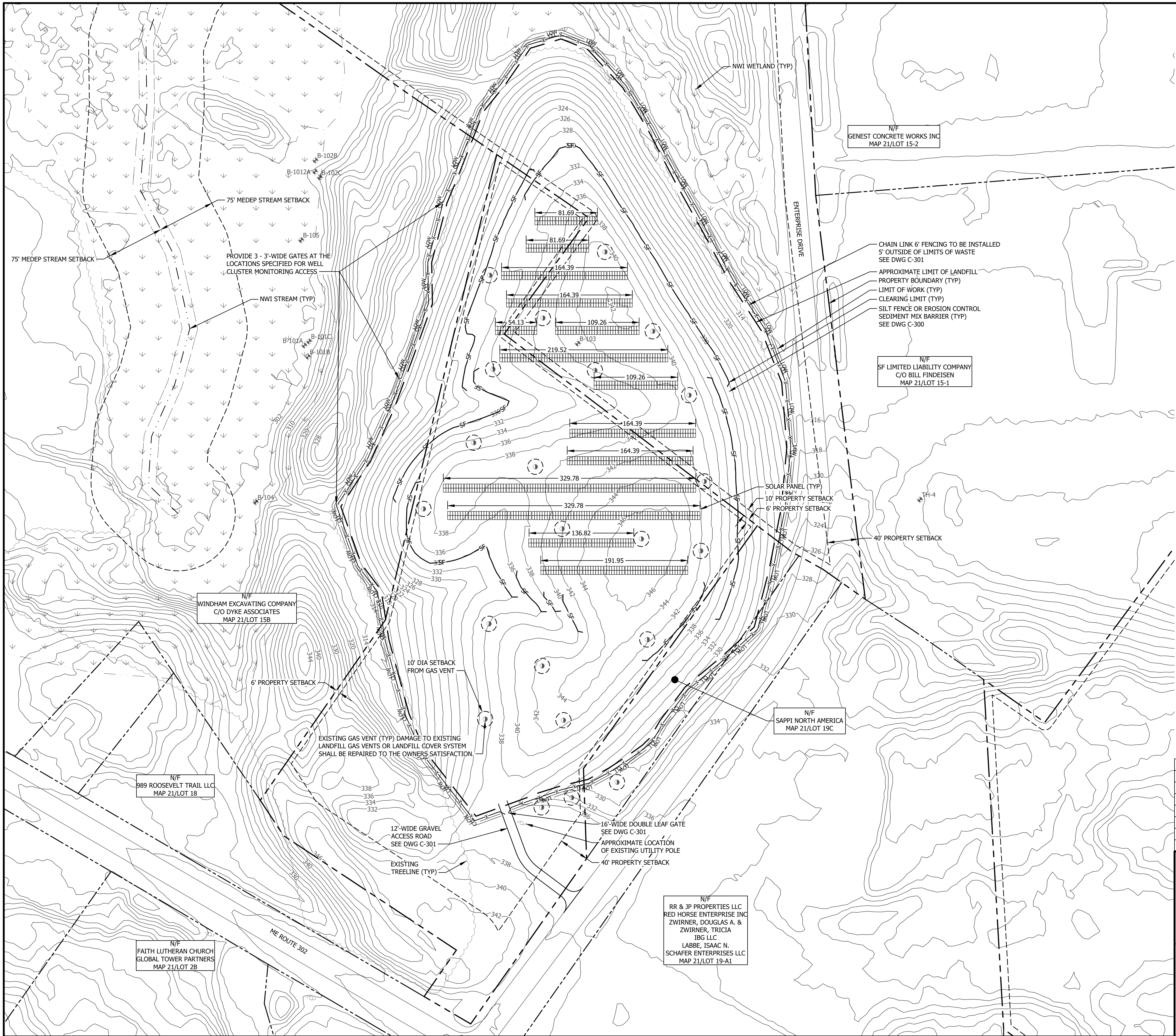
DATE: 1/2020

CHECKED BY: BDP

LMN: SITEOVER

CTB: SME-STD

C-102



NOTE:
1. SEE DRAWING C-100 FOR GENERAL SITE NOTES AND PLAN REFERENCES.

30 0 60 120 FEET

REV.	BY	DATE	STATUS
	DPD	3/2020	ISSUED TO TOWN AND MEDEP FOR PERMIT REVIEW

STATE OF MAINE
DANIEL DUFFIN
11841
LICENSED PROFESSIONAL ENGINEER

437.5 KW AC SOLAR ARRAY
REVISION ENERGY
WINDHAM, MAINE

SITE PLAN

SME
SEVEE & MAHER
ENGINEERS

ENVIRONMENTAL • CIVIL • GEOTECHNICAL • WATER • COMPLIANCE

4 Blanchard Road, PO Box 85A, Cumberland, Maine 04021
Phone 207.829.5016 • Fax 207.829.5692 • smemaine.com

DESIGN BY: JTR
DRAWN BY: JRL
DATE: 1/2020
CHECKED BY: BDP
LMN: SITEPLAN
CTB: SME-STD

JOB NO. 19391

DWG FILE BASE

C-103

EROSION CONTROL NOTES:

A. GENERAL

1. All soil erosion and sediment control will be done in accordance with: (1) the Maine Erosion and Sediment Control Handbook: Best Management Practices, Maine Department of Environmental Protection (MEDEP), October 2016.
2. The site Contractor (to be determined) will be responsible for the repair/replacement/maintenance of all erosion control measures until all disturbed areas are stabilized.
3. Disturbed areas will be permanently stabilized within 7 days of final grading. Disturbed areas not to be worked upon within 14 days of disturbance will be temporarily stabilized within 7 days of the disturbance.
4. In all areas, removal of trees, bushes and other vegetation, as well as disturbance of topsoil will be kept to a minimum while allowing proper site operations.
5. Any suitable topsoil will be stripped and stockpiled for reuse as directed by the Owner. Topsoil will be stockpiled in a manner such that natural drainage is not obstructed and no off-site sediment damage will result. In any event, stockpiles will not be located within 100 feet of wetlands and will be at least 50 feet upgradient of the stockpile's perimeter silt fence. The sideslopes of the topsoil stockpile will not exceed 2:1. Silt fence will be installed around the perimeter of all topsoil stockpiles. Topsoil stockpiles will be surrounded with siltation fencing and will be temporarily seeded with Aroostook rye, annual or perennial ryegrass within 7 days of formation, or temporarily mulched.

B. TEMPORARY MEASURES

1. STABILIZED CONSTRUCTION ENTRANCE/EXIT

A crushed stone stabilized construction entrance/exit will be placed at any point of vehicular access to the site, in accordance with the detail shown on this sheet.

2. SILT FENCE

- a. Silt fence will be installed prior to all construction activity, where soil disturbance may result in erosion. Silt fence will be erected at locations shown on the plans and/or downgradient of all construction activity.
- b. Silt fences will be removed when they have served their useful purpose, but not before the upgradient areas have been permanently stabilized.
- c. Silt fences will be inspected immediately after each rainfall and at least daily during prolonged rainfall. They will be inspected if there are any signs of erosion or sedimentation below them. Any required repairs will be made immediately. If there are signs of undercutting at the center or the edges, or impounding of large volumes of water behind them, they will be replaced with a temporary crushed stone check dam.
- d. Sediment deposits will be removed after each storm event if significant build-up has occurred or if deposits exceed half the height of the barrier.

3. STONE CHECK DAMS

Stone check dams will be installed in grass-lined swales and ditches during construction.

4. EROSION CONTROL MIX SEDIMENT BARRIER

- a. Where approved, erosion control mix sediment barriers may be used as a substitute for silt fence. See the details in this drawing set for specifications.
- b. Rock Filter Berms: To provide more filtering capacity or to act as a velocity check dam, a berm's center can be composed of clean crushed rock ranging in size from the french drain stone to riprap.

5. TEMPORARY SEEDING

Stabilize disturbed areas that will not be brought to final grade and reduce problems associated with mud and dust production from exposed soil surface during construction with temporary vegetation.

6. TEMPORARY MULCHING

Use temporary mulch in the following locations and/or circumstances:

- In sensitive areas (within 100 feet of streams, wetlands and in lake watersheds) temporary mulch will be applied within 7 days of exposing spill or prior to any storm event.
- Apply temporary mulch within 14 days of disturbance or prior to any storm event in all other areas.
- Areas which have been temporarily or permanently seeded will be mulched immediately following seeding.
- Areas which cannot be seeded within the growing season will be mulched for over-winter protection and the area will be seeded at the beginning of the growing season.
- Mulch can be used in conjunction with tree, shrub, vine, and ground cover plantings.
- Mulch anchoring will be used on slopes greater than 5 percent in late fall (past October 15), and over-winter (October 15 - April 15).

The following materials may be used for temporary mulch:

- a. Hay or Straw material shall be air-dried, free of seeds and coarse material. Apply 2 bales/1,000 sf or 2 tons/acre to cover 90% of ground surface.
- b. Erosion Control Mix: It can be used as a stand-alone reinforcement:
- on slopes 2 horizontal to 1 vertical or less;
 - on frozen ground or forested areas; and
 - at the edge of gravel parking areas and areas under construction.
- c. Erosion control mix alone is not suitable:
- on slopes with groundwater seepage;
 - at low points with concentrated flows and in gullies;
 - at the bottom of steep perimeter slopes exceeding 100 feet in length;
 - below culvert outlet aprons; and around catch basins and closed storm systems.
- d. Chemical Mulches and Soil Binders: Wide ranges of synthetic spray-on materials are marketed to protect the soil surface. These are emulsions that are mixed with water and applied to the soil. They may be used alone, but most often are used to hold wood fiber, hydro-mulches or straw to the soil surface.
- e. Erosion Control Blankets and Mats: Mats are manufactured combinations of mulch and netting designed to retain soil moisture and modify soil temperature. During the growing season (April 15 to October 15) use mats indicated on drawings or North American Green (NAG) S75 (or mulch and netting) on:
- the base of grassed waterways;
 - steep slopes (15 percent or greater); and
 - any disturbed soil within 100 feet of lakes, streams, or wetlands.

During the late fall and winter (October 15 to April 15) use heavy grade mats indicated on drawings for NAG SC250 on all areas noted above plus use lighter grade mats NAG S75 (or mulch and netting) on:

- sideslopes of grassed waterways; and moderate slopes (between 8 and 15 percent).

C. TEMPORARY DUST CONTROL

To prevent the blowing and movement of dust from exposed soil surfaces, and reduce the presence of dust, use water or calcium chloride to control dusting by preserving the moisture level in the road surface materials.

D. CONSTRUCTION DE-WATERING

1. Water from construction de-watering operations shall be cleaned of sediment before reaching wetlands, water bodies, streams or site boundaries. Utilize temporary sediment basins, erosion control soil filter berms backed by staked hay bales, A Dirt Bag 55" sediment filter bag by ACF Environmental, or other approved Best Management Practices (BMP's).
2. In sensitive areas near streams or ponds, discharge the water from the de-watering operation into a temporary sediment basin created by a surrounding filter berm of uncompacted erosion control mix immediately backed by staked hay bales (see the site details). Locate the temporary sediment basin at least 100 feet from the nearest water body, such that the filtered water will flow through undisturbed vegetated soil areas prior to reaching the water body or property line.

E. PERMANENT MEASURES

1. Riprapped Aprons: All storm drain pipe outlets and the inlet and outlet of culverts will have riprap aprons to protect against scour and deterioration.
2. Topsoil, Seed, and Mulch: All areas disturbed during construction, but not subject to other restoration (paving, riprap, etc.) will be loamed, limed, fertilized, seeded, and mulched.

Seeded Preparation: Use stockpiled materials spread to the depths shown on the plans, if available. Approved topsoil substitutes may be used. Grade the site as needed.

- a. Seeding will be completed by August 15 of each year. Late season seeding may be done between August 15 and October 15. Areas not seeded or which do not obtain satisfactory growth by October 15, will be seeded with Aroostook Rye or mulched. After November 1, or the first killing frost, disturbed areas will be seeded at double the specified application rates, mulched, and anchored.

PERMANENT SEEDING SPECIFICATIONS

Mixture:	Roadside (lbs/acre)	Landfill (lbs/acre)
Kentucky Bluegrass	20	110
White Clover	5	0
Creeping Red Fescue	20	110
Perennial Ryegrass	5	30

- b. Mulch in accordance with specifications for temporary mulching.
- c. If permanent vegetated stabilization cannot be established due to the season of the year, all exposed and disturbed areas not to undergo further disturbance are to have dormant seeding applied and be temporarily mulched to protect the site.

3. Ditches and Channels: All ditches on-site will be lined with North American Green S75 erosion control mesh (or an approved equal) upon installation of loam and seed.

F. WINTER CONSTRUCTION AND STABILIZATION

1. Winter excavation and earthwork will be completed to minimize exposed areas while satisfactorily completing the project. Limit exposed areas to those areas in which work is to occur during the following 15 days and that can be mulched in one day prior to any snow event. All areas will be considered denuded until the subbase gravel is installed in roadway areas or the areas of future loam and seed have been loamed, seeded, and mulched.

Install any added measures necessary to control erosion/sedimentation. The particular measure used will be dependent upon site conditions, the size of the area to be protected, and weather conditions.

To minimize areas without erosion control protection, continuation of earthwork operations on additional areas will not begin until the exposed soil surface on the area being worked has been stabilized.

2. Natural Resource Protection: During winter construction, a double-row of sediment barriers (i.e., silt fence backed with hay bales or erosion control mix) will be placed between any natural resource and the disturbed area. Projects crossing the natural resource will be protected a minimum distance of 100 feet on either side from the resource.

3. Sediment Barriers: During frozen conditions, sediment barriers may consist of erosion control mix berms or any other recognized sediment barriers as frozen soil prevents the proper installation of hay bales or silt fences.

4. Mulching:

- All areas will be considered to be denuded until seeded and mulched. Hay and straw mulch will be applied at a rate of twice the normal accepted rate.
- Mulch will not be spread on top of snow.
- After each day of final grading, the area will be properly stabilized with anchored hay or straw or erosion control matting.
- Between the dates of November 1 and April 15, all mulch will be anchored by either mulch netting, emulsion chemical, tracking or wood cellulose fiber.

5. Soil Stockpiling: Stockpiles of soil or subsoil will be mulched for over-winter protection with hay or straw at twice the normal rate or with a 4-inch layer of erosion control mix. This will be done within 24 hours of stocking and re-established prior to any rainfall or snowfall. Any soil stockpiles shall not be placed (even covered with mulch) within 100 feet from any natural resources.

6. Seeding: Dormant seeding may be placed prior to the placement of mulch or erosion control blankets. If dormant seeding is used for the site, all disturbed areas will receive 4 inches of loam and seed at an application rate of three times the rate for permanent seeding. All areas seeded during the winter will be inspected in the spring for adequate catch. All areas insufficiently vegetated (less than 75 percent catch) will be revegetated by replacing loam, seed, and mulch.

If dormant seeding is not used for the site, all disturbed areas will be revegetated in the spring.

7. Maintenance: Maintenance measures will be applied as needed during the entire construction season. After each rainfall, snow storm, or period of thawing and runoff, the site Contractor will perform a visual inspection of all installed erosion control measures and perform repairs as needed to ensure their continuous function.

Following the temporary and/or final seeding and mulching, the Contractor will, in the spring, inspect and repair any damages and/or bare spots. An established vegetative cover means a minimum of 85 to 90 percent of areas vegetated with vigorous growth.

G. OVER-WINTER CONSTRUCTION EROSION CONTROL MEASURES

1. Stabilization of Disturbed Soil: By October 15, all disturbed soils on areas having a slope less than 15 percent will be seeded and mulched. If the Contractor fails to stabilize these soils by this date, then the Contractor shall stabilize the soil for late fall and winter, by using either temporary seeding or mulching.

2. Stabilization of Disturbed Slopes: All slopes to be vegetated will be completed by October 15. The Owner will consider any area having a grade greater than 15 percent (6.5H:1V) to be a slope. Slopes not vegetated by October 15 will receive one of the following actions to stabilize the slope for late fall and winter:

- Stabilize the soil with temporary vegetation and erosion control mesh.
- Stabilize the slope with erosion control mix.
- Stabilize the slope with stone riprap.

3. Stabilization of Ditches and Channels: All stone-lined ditches and channels to be used to convey runoff through the winter will be constructed and stabilized by November 15. Grass-lined ditches and channels will be complete by September 15. Grass-lined ditches not stabilized by September 15 shall be lined with either sod or riprap.

H. MAINTENANCE PLAN

1. Routine Maintenance: Inspection will be performed as outlined in the project's Erosion Control Plan. Inspection will be by a qualified person during wet weather to ensure that the facility performs as intended. Inspection priorities will include checking erosion controls for accumulation of sediments.

I. Housekeeping

1. Spill prevention. Controls must be used to prevent pollutants from being discharged from materials on site, including storage practices to minimize exposure of the materials to stormwater, and appropriate spill prevention, containment, and response planning and implementation.

2. Groundwater protection. During construction, liquid petroleum products and other hazardous materials with the potential to contaminate groundwater may not be stored or handled in areas of the site draining to an infiltration area. An "infiltration area" is any area of the site that by design or as a result of soils, topography and other relevant factors accumulates runoff that infiltrates into the soil. Dikes, berms, sumps, and other forms of secondary containment that prevent discharge to groundwater may be used to isolate portions of the site for the purposes of storage and handling of these materials.

3. Fugitive sediment and dust. Actions must be taken to ensure that activities do not result in noticeable erosion of soils or fugitive dust emissions during or after construction. Oil may not be used for dust control.

4. Debris and other materials. Litter, construction debris, and chemicals exposed to stormwater must be prevented from becoming a pollutant source.

5. Trench or foundation de-watering. Trench de-watering is the removal of water from trenches, foundations, coffer dams, ponds, and other areas within the construction area that retain water after excavation. In most cases the collected water is heavily silted and hinders correct and safe construction practices. The collected water must be removed from the ponded area, either through gravity or pumping, and must be spread through natural wooded buffers or removed to areas that are specifically designed to collect the maximum amount of sediment possible, like a cofferdam sedimentation basin. Avoid allowing the water to flow over disturbed areas of the site. Equivalent measures may be taken if approved by the department.

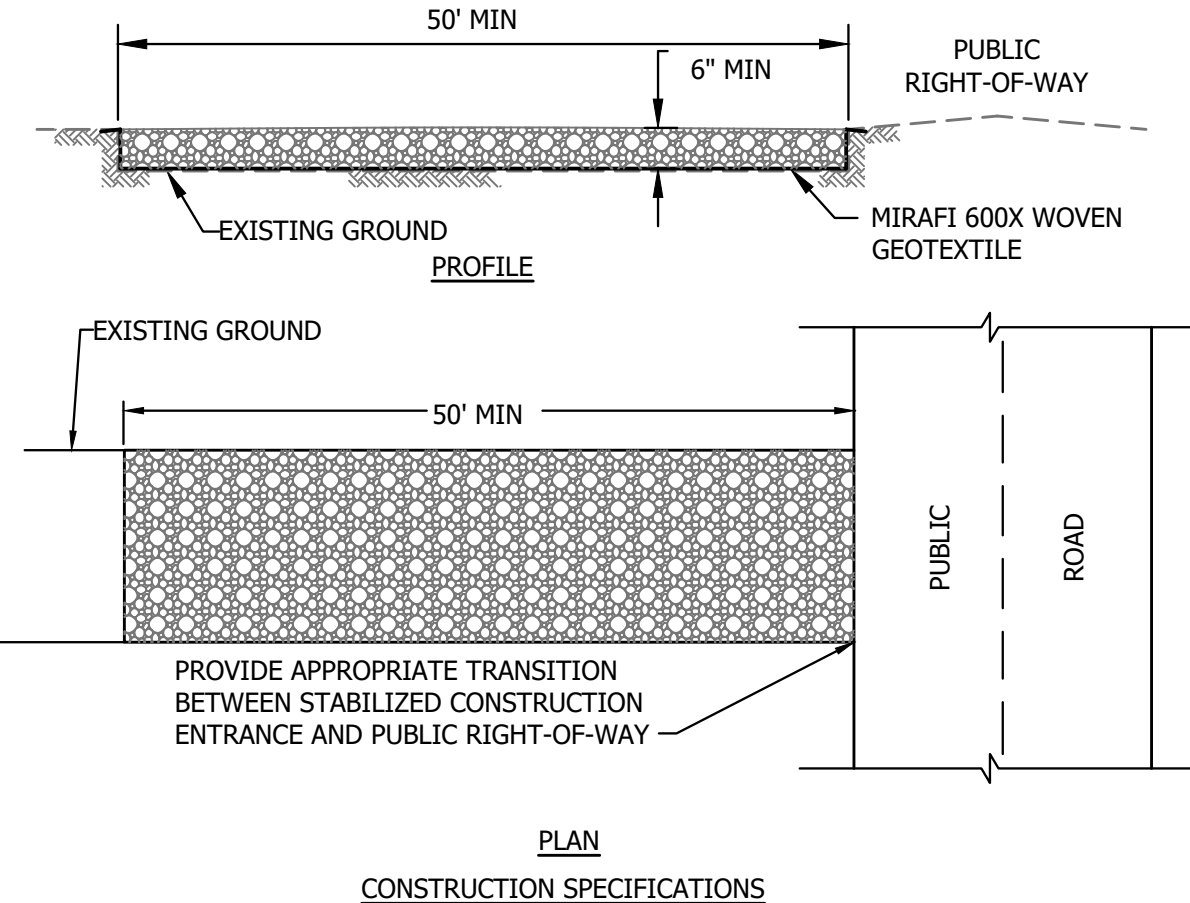
6. Non-stormwater discharges. Identify and prevent contamination by non-stormwater discharges.

7. Additional requirements. Additional requirements may be applied on a site-specific basis.

J. CONSTRUCTION SEQUENCE

In general, the expected sequence of construction for each phase is provided below. Construction is proposed to start in Spring 2020 and be complete in Summer 2020.

- Site preparation.
- Install temporary erosion control measures.
- Install timber mats.
- Construct footings, install racking, solar arrays and underground electric.
- Install fence.
- Remove temporary erosion control measures after all disturbed areas are stabilized.



NOTES:
1. STONE SIZE - 2" TO 3" STONE OR RECLAIMED OR RECYCLED CONCRETE, OR EQUIVALENT.

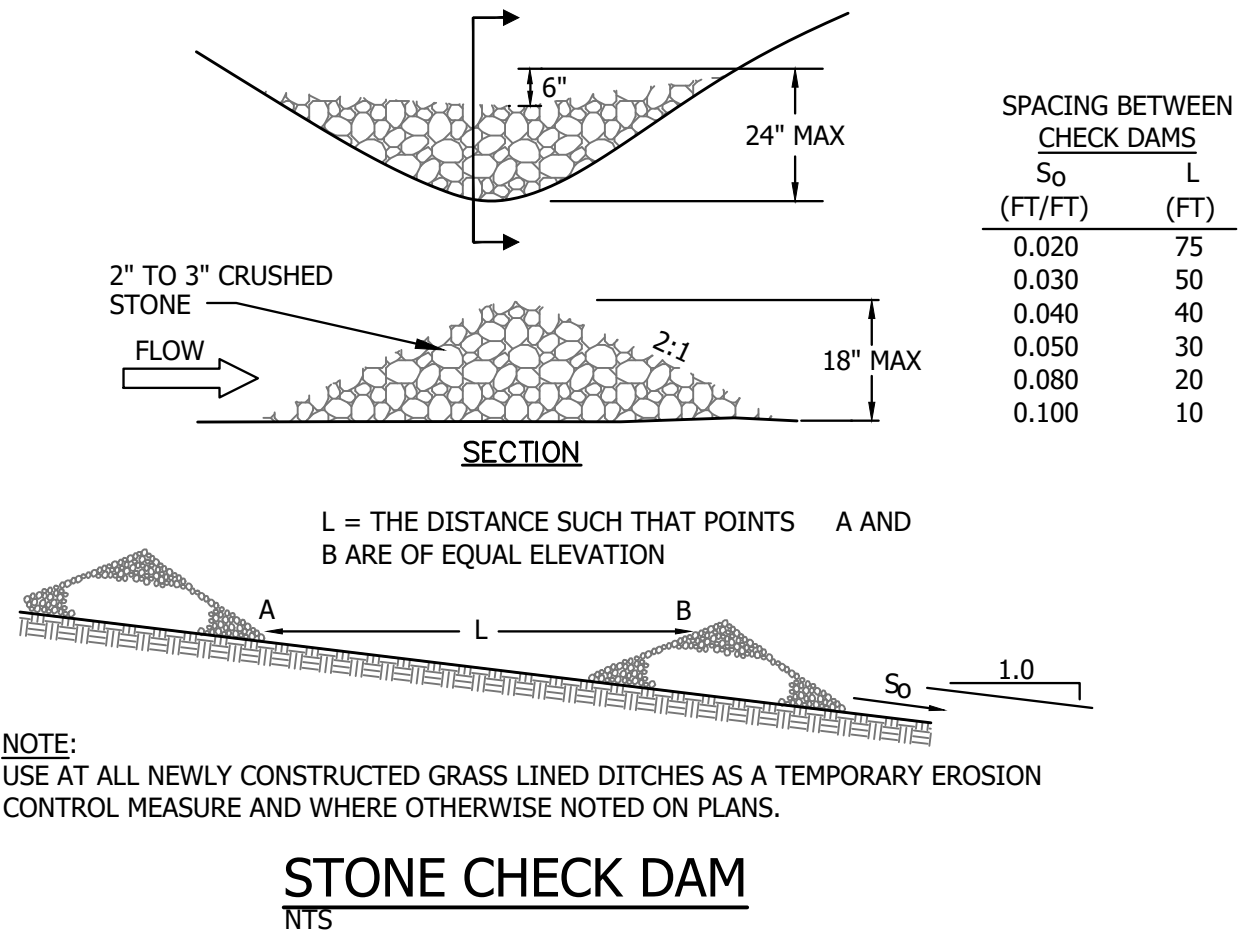
2. LENGTH - AS EFFECTIVE, BUT NOT LESS THAN 50 FEET.

3. THICKNESS - NOT LESS THAN SIX (6) INCHES.

4. WIDTH - 10 FEET MINIMUM, OR NOT LESS THAN FULL WIDTH OF ALL POINTS OF INGRESS OR EGRESS.

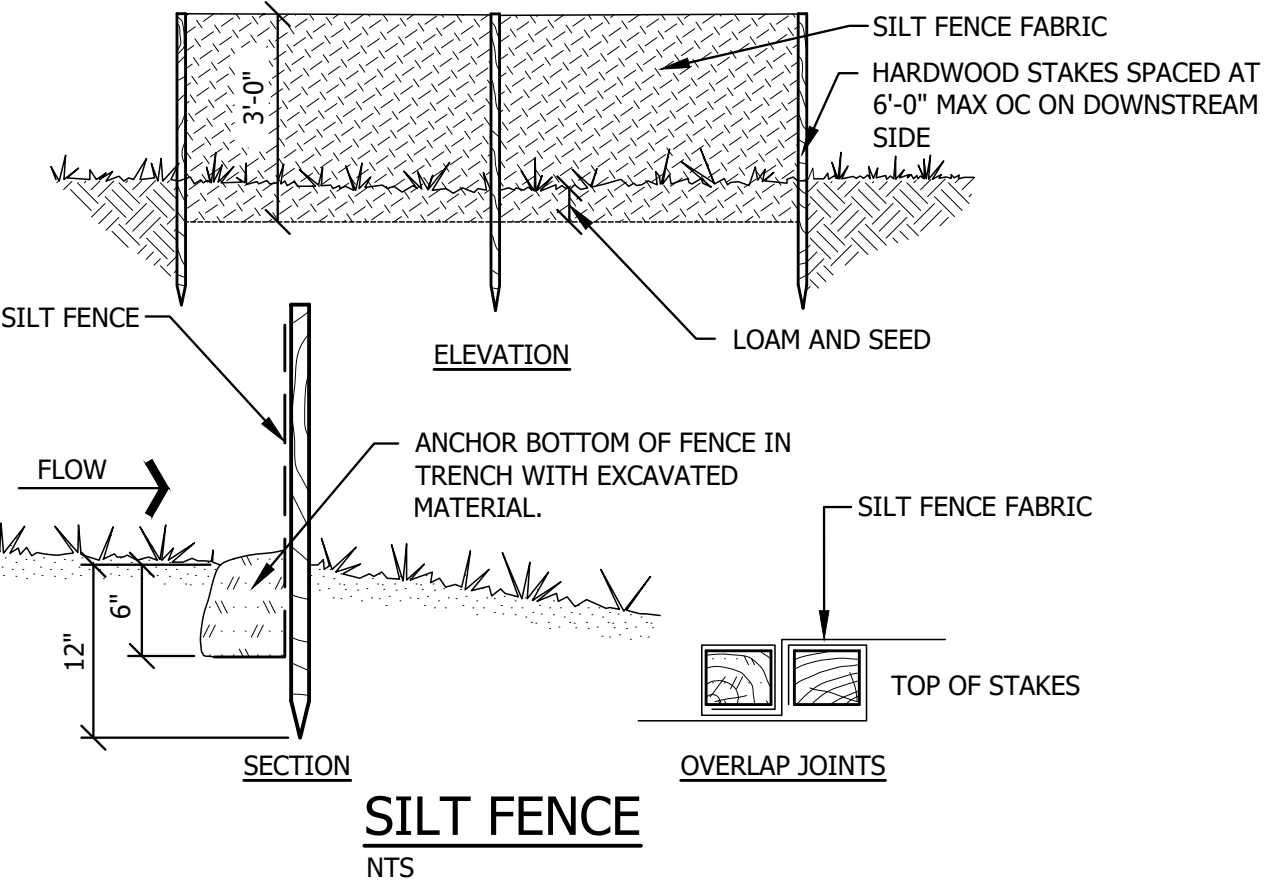
5. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC REPAIR AND TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.

STABILIZED CONSTRUCTION ENTRANCE/EXIT
NTS

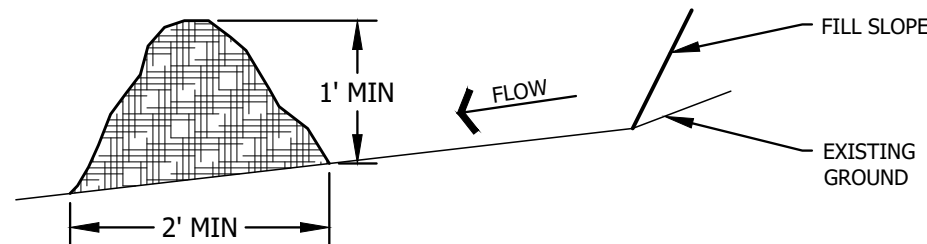


NOTE:
USE AT ALL NEWLY CONSTRUCTED GRASS LINED DITCHES AS A TEMPORARY EROSION CONTROL MEASURE AND WHERE OTHERWISE NOTED ON PLANS.

STONE CHECK DAM
NTS



SILT FENCE
NTS



NOTES:

1. EROSION CONTROL MIX CAN BE MANUFACTURED ON OR OFF THE SITE. IT MUST CONSIST PRIMARILY OF ORGANIC MATERIAL SEPARATED AT THE POINT OF GENERATION, AND MAY INCLUDE: SHREDDED BARK, STUMP GRINDINGS, COMPOSTED BARK, OR FLUME GRIT AND FRAGMENTED WOOD GENERATED FROM WATER-FLUME LOG HANDLING SYSTEMS. WOOD CHIPS, GROUND CONSTRUCTION DEBRIS, REPROCESSED WOOD PRODUCTS OR BARK CHIPS WILL NOT BE ACCEPTABLE AS THE ORGANIC COMPONENT OF THE MIX.
- EROSION CONTROL MIX SHALL CONTAIN A WELL-GRADED MIXTURE OF PARTICLE SIZES AND MAY CONTAIN ROCKS LESS THAN 4" IN DIAMETER. EROSION CONTROL MIX MUST BE FREE OF REFUSE, PHYSICAL CONTAMINANTS, AND MATERIAL TOXIC TO PLANT GROWTH. THE MIX COMPOSITION SHALL MEET THE FOLLOWING STANDARDS:
- A. ORGANIC MATERIAL: BETWEEN 20% - 100% (DRY WEIGHT BASIS)
 - B. PARTICLE SIZE: BY WEIGHT, 100% PASSING 6" SCREEN, 70-85% PASSING 0.75" SCREEN
 - C. THE ORGANIC PORTION NEEDS TO BE FIBROUS AND ELONGATED.
 - D. LARGE PORTIONS OF SILTS, CLAYS OR FINE SANDS ARE NOT ACCEPTABLE IN THE MIX.
 - E. SOLUBLE SALTS CONTENT SHALL BE LESS THAN 4.0 MMHOS/CM.
 - F. PH: 5.0 - 8.0
2. ON SLOPES LESS THAN 5% OR AT THE BOTTOM OF SLOPES 2:1 OR LESS UP TO 20 FEET LONG, THE BARRIER MUST CONFORM TO THE ABOVE DIMENSIONS. ON THE LONGER OR STEEPER SLOPES, THE BARRIER SHOULD BE WIDER TO ACCOMMODATE THE ADDITIONAL FLOW.
3. THE BARRIER MUST BE PLACED ALONG A RELATIVELY LEVEL ELEVATION. IT MAY BE NECESSARY TO CUT TALL GRASSES OR WOODY VEGETATION TO AVOID CREATING VOIDS AND BRIDGES THAT WOULD ENABLE FINES TO WASH UNDER THE BARRIER THROUGH THE GRASS BLADES OR PLANT STEMS.
4. LOCATIONS WHERE OTHER BMP'S SHOULD BE USED:
- A. AT LOW POINTS OF CONCENTRATED FLOW
 - B. BELOW CULVERT OUTLET APRONS
 - C. WHERE A PREVIOUS STAND-ALONE EROSION CONTROL MIX APPLICATION HAS FAILED
 - D. AT THE BOTTOM OF STEEP PERIMETER SLOPES THAT ARE MORE THAN 50 FEET FROM TOP TO BOTTOM (LARGE UPGRADIENT WATERSHED)
 - E. AROUND CATCH BASINS AND CLOSED STORM DRAIN SYSTEMS.
5. THE EROSION CONTROL MIX BARRIERS SHOULD BE INSPECTED REGULARLY AND AFTER EACH LARGE RAINFALL. REPAIR ALL DAMAGED SECTIONS OF BERM IMMEDIATELY BY REPLACING OR ADDING ADDITIONAL MATERIAL PLACED ON THE BERM TO THE DESIRED HEIGHT AND WIDTH.
6. IT MAY BE NECESSARY TO REINFORCE THE BARRIER WITH SILT FENCE OR STONE CHECK DAMS IF THERE ARE SIGNS OF UNDERCUTTING OR THE IMPOUNDMENT OF LARGE VOLUMES OF WATER.
7. SEDIMENT DEPOSITS SHOULD BE REMOVED WHEN THEY REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.
8. REPLACE SECTIONS OF BERM THAT DECOMPOSE, BECOME CLOGGED WITH SEDIMENT OR OTHERWISE BECOME INEFFECTIVE. THE BARRIER SHOULD BE RESHAPED AS NEEDED.
9. EROSION CONTROL MIX BARRIERS CAN BE LEFT IN PLACE AFTER CONSTRUCTION. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER BARRIER IS NO LONGER REQUIRED SHOULD BE SPREAD TO CONFORM TO THE EXISTING GRADE AND BE SEEDED AND MULCHED. WOODY VEGETATION CAN BE PLANTED INTO THE BARRIERS, OR THEY CAN BE OVER-SEEDDED WITH LEGUMES. IF THE BARRIER NEEDS TO BE REMOVED, IT CAN BE SPREAD OUT INTO THE LANDSCAPE.

EROSION CONTROL MIX SEDIMENT BARRIER
NTS

	DPD	3/2020	ISSUED TO TOWN AND MEDEP FOR PERMIT REVIEW
REV.	BY	DATE	STATUS
<div><div><div>STATE OF MAINE</div><div>MAHAR</div><div>OFFICIAL SEAL</div><div>OFFICIAL</div><div>11841</div><div>2020</div><div>PROFESSIONAL ENGINEER</div></div><div>437.5 KW AC SOLAR ARRAY REVISION ENERGY WINDHAM, MAINE</div></div>			
EROSION CONTROL NOTES AND DETAILS			
<div><div><div>SME</div><div>SEVEE & MAHER ENGINEERS</div><div>ENVIRONMENTAL • CIVIL • GEOTECHNICAL • WATER • COMPLIANCE</div><div>4 Blanchard Road, PO Box 85A, Cumberland, Maine 04021 Phone 207.829.5016 • Fax 207.829.5692 • smemaine.com</div></div><div>JOB NO. 19391 DWG FILE DETAILS</div></div>			DESIGN BY: JTR DRAWN BY: JRL DATE: 12/2019 CHECKED BY: BDP LMN: NONE CTB: SME-STD C-300

