Town of Baldwin
Planning Board Meeting 11/11/21

The meeting opened at 7:00p

Board members in attendance – Jo Pierce, Matt Fricker, Matt Sanborn, and David Strock

Agenda Item – Nature's Wilderness

Mr. Fricker stated that NWR would not be on the agenda. The potential buyer sent an email saying that the purchase was not certain, so he did not to approach the Board until he was sure that the deal would go through. The correspondence is appended below.

Agenda Item – Sebago Road Solar

Mr. Fricker said that he hoped the applicant would address the 11% grade during the winter and whether that would be an issue. He wants to make sure the applicant has a plan for winter access. The new submissions are attached.

Mr. Bastian and Mr. Keller were present on behalf of the applicant. Mr. Bastian describes the changes to the plan from the last version:

- The configuration of the array is slightly different, as shown on the plan.
- Vehicular traffic during construction – will be scheduled hour apart, using radio communication with trucks. If any trucks arrive early the trucks need to find area to wait, and agree not to be waiting on Carl Burnell Road (which would be part of the construction contract).
- Mr. Bastian said that he reached out to area contractors about the 10 or 11 percent grade an issue for construction and they said it should be fine if it is a well compacted gravel access road. In response to a question, he stated that the acces road will need to be well maintained during the winter with plowing and salt.
    - Mr. Fricker asks whether we need professional assistance on this application. Mr. Pierce says that he thinks we should focus on the performance standard at issue. Mr. Strock suggests something like "the applicant has to maintain to road such that an emergency vehicle can access the array at any time."
- Mr. Bastian notes that a gate is now shown on the plans and the shade management area. There was a short discussion of the need to have a right of way (60 feet if any property owners intend to have a house on the lot) to the back side of the property. Mr. Keller says that the green area of shade management is 100 feet.

- Mr. Bastian talked about the lease interest, which is 30-foot wide on the access road, then 10 feet outside of the fenced area for the leasehold interest. There are some easements for drainage and other types of stuff outside the actual leasehold interest.

- There was a question at a prior meeting about seeding mix? Mr. Bastian's noted the answer was already noted on Page 4 in the context of the erosion control plan.

- There were three additional pages regarding the battery storage, decommissioning and the sale of the property surrounding the leasehold interest. Mr. Bastian was not going to go into detail about those areas, but would defer Mr. Keller on those subjects.

Mr. Fricker indicates that the battery aspect of the project are really interesting. CMP assumes that all the solar projects will go forward, so the batteries allow the applicant to control the amount of power going into the lines at peak time, and the batteries would push power when the other projects are offline/non-producing. Mr. Fricker hoped that the fire chief and emergency management folks from Baldwin to come to the meeting, so they could raise questions, if any. Mr. Keller said that he could bring expert folks to discuss the batteries and the dry hydrant system.

Mr. Fricker asks whether we would put a notice in the Shopping Guide for a public hearing for the 12/9. The Board nodded in agreement.

Third Agenda – Firefly Ridge

Dick Easton, Surveyor. He is standing in for Bill and Nancy Harris.

The Board discussed the history of the Firefly project. The subdivision was amended awhile back to allow Mr. Pierce access to his property. Someone, about four years ago, bought a parcel and they added that parcel to Lot 7, which they already owned (5.4 acres). Another 6 or so acres were sold off about a year ago. Mr. Easton provided survey maps that show the 5.4 sold property and the 6 or so acre parcel.

Question – Why was this all done if the parcel was part of a subdivision? Mr. Easton stated that David Belais, the purchaser of the 6 acre lot, got permission from Saco River Coridor Commission. He also got a building permit from the CEO.

The Board discussed the issues presented and whether the Board can address it.

Mr. Fricker – seems like to issues (a) try to stop errors from happening again; (b) what do we have to do to fix it. Mr. Pierce wants to go to the MMA and/or David Lourie to ask them a question.

Proposed question for the MMA - If a seven parcel subdivisions exists, the owner subdivision divides one of the 7 parcels (which is 80 acre +/-) parcel into three new

parcels and sell two of them (one of which is sold to an owner of one of the six remaining parcels). The owner then comes to the Planning Board asking to create an amendment to the subdivision to allow the three lots to be created and then two of them sold. Can the Planning Board entertain the owner's application?

Mr. Strock asked whether a deed for a subdivision had to refer to the restrictions? The Board agreed to add this to the list of questions to the MMA.

Fourth Issue: Marry Irwin subdivision

Mr. Fricker noted that there was an issue about a different subdivision, which would be addressed at a future Board meeting.

Motion to Adjourn was made and approved at approximately 9:00p.

From: **Eric Stacy** <eric.stacy1@gmail.com>
Date: Thu, Nov 11, 2021 at 1:27 PM
Subject: Request for Planning Board Time
To: <mdfricker001@gmail.com>

Dear Matthew Fricker,

Thank you for putting me on the Board's agenda for tonight's meeting. Unfortunately, I won't be able to attend. It appeared that the deal was going to fall through so I decided to drive back to Arkansas. I believe Gerry has informed you of this, but I just received your email from my front desk and wanted to get back to you personally.

It's possible the deal is back on, but I won't be asking for your time again until the ink is dry on the contract--just in case. The project will be contingent on being able to bring the campground up to at least the contemplated 162 space capacity so I wanted to get off on the right foot with everyone involved to ensure that would be possible and probable. Wes and Gerry have made me aware of the general concerns of the community regarding traffic, and I think we'll make a good fit.

I'm coming at this from owning a business that's open 24/7/365, has a lot of traffic, and a lot of customer service requirements to go with it. Frankly, I'm tired of the pressure that goes with a constant stream of new people and will be designing this project to minimize those requirements as much as possible, i.e. focusing more on seasonal RVs rather than transient guests. Hopefully the sellers and I can work something out, and I look forward to meeting you under more certain circumstances.

Regards,

Eric Stacy
479-422-3003
(formerly) Beaver Lakefront Cabins
Eureka Springs, AR 72631
www.beaverlakefrontcabins.com.

SEBAGO ROAD SOLAR

BALDWIN, MAINE

PREPARED BY:

CIVIL ENGINEER:
TERRADYN CONSULTANTS, LLC
41 CAMPUS DR. SUITE 101
NEW GLOUCESTER, MAINE 04260
(207)926-5111

SURVEYOR:
WAYNE T. WOOD & CO.
20 WOOD DRIVE
GRAY, MAINE 04039
207-657-3330

WETLANDS EVALUATION:
MARK CENCI GEOLOGIC INC.
93 MILL ROAD
YARMOUTH, MAINE 04097
207-329-3524

APPLICANT:

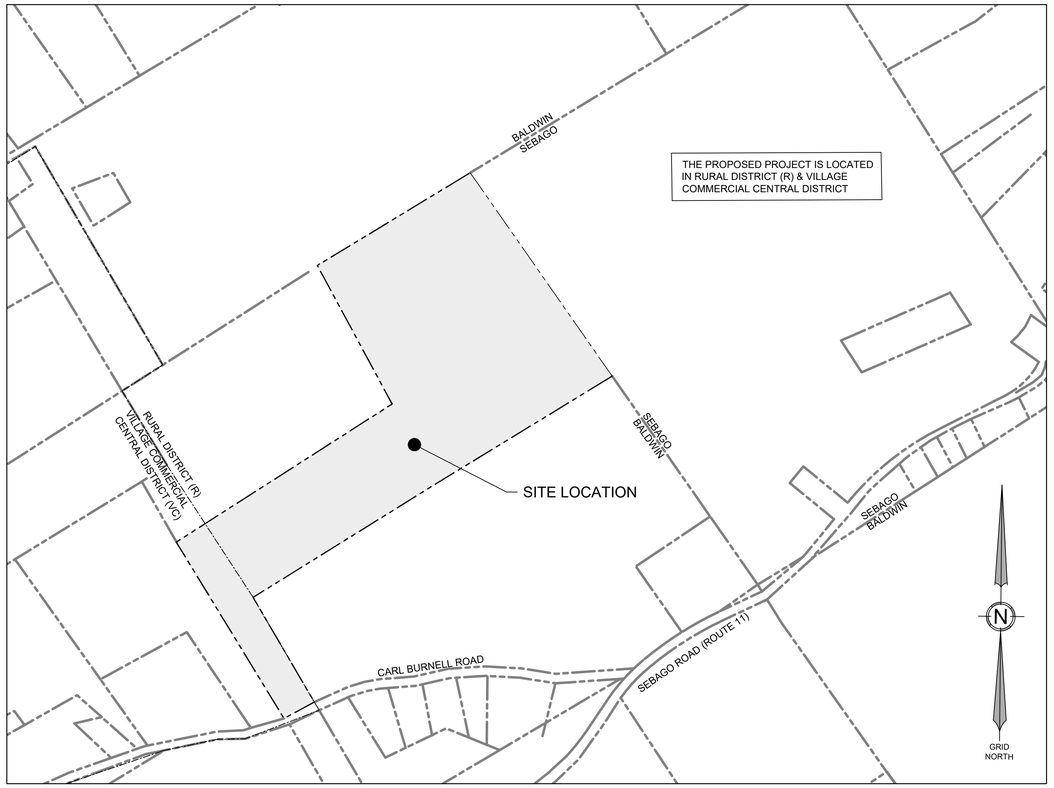
SEBAGO ROAD SOLAR, LLC
43 HOLMES CT
PORTSMOUTH, NEW HAMPSHIRE 03801

PROJECT PARCEL SITE

TOWN OF BALDWIN TAX ASSESSOR'S MAP & LOT NUMBERS

MAP	LOTS
3	4 & 6

SHEET INDEX



LOCATION MAP

SCALE: 1" = 500'

LEGEND

- EXISTING PROPERTY LINE
- PROPOSED PROPERTY LINE
- PROPOSED SETBACK LINE
- EXISTING SETBACK LINE
- EXISTING EASEMENT
- PROPOSED LEASE LINE
- PROPOSED CONSTRUCTION EASEMENT
- ROAD CENTERLINE
- 124 EXISTING MINOR CONTOUR
- 124 EXISTING MAJOR CONTOUR
- 124 PROPOSED CONTOUR
- SD EXISTING STORMDRAIN
- SD PROPOSED STORMDRAIN
- UD EXISTING UNDERDRAIN
- UD PROPOSED UNDERDRAIN
- OHE EXISTING OVERHEAD ELECTRIC & TELEPHONE
- OHE PROPOSED OVERHEAD ELECTRIC & TELEPHONE
- UGE EXISTING UNDERGROUND ELECTRIC & TELEPHONE
- UGE PROPOSED UNDERGROUND ELECTRIC & TELEPHONE
- EXISTING EDGE OF PAVEMENT
- EXISTING EDGE OF GRAVEL
- PROPOSED EDGE OF GRAVEL
- EXISTING CURB
- EDGE OF WATER
- EXISTING TREE LINE
- PROPOSED TREE LINE
- CHAIN LINK FENCE
- PROPOSED FENCE
- EXISTING GUARDRAIL
- PROPOSED GUARDRAIL
- SF SILT FENCE
- EXISTING VALVE
- PROPOSED VALVE
- EXISTING HYDRANT
- PROPOSED HYDRANT
- EXISTING TRANSFORMER
- PROPOSED TRANSFORMER
- EXISTING LIGHT POLE
- PROPOSED LIGHT POLE
- EXISTING UTILITY POLE
- PROPOSED UTILITY POLE
- 30.20 EXISTING SPOT GRADE
- ×30.20 PROPOSED SPOT GRADE
- EXISTING SIGN
- PROPOSED SIGN
- EXISTING BUILDING
- WETLAND AREA
- WETLAND FILL AREA
- SOLAR ARRAY
- VEGETATION MANAGEMENT EASEMENT

GENERAL NOTES:

1. THIS PROJECT WILL BE SUBJECT TO THE TERMS AND CONDITIONS OF ALL PERMITS ISSUED BY THE LOCAL UTILITY COMPANIES AND THE TOWN OF BALDWIN.
2. ALL REQUIRED AND NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY CODES AND/OR UTILITY SERVICE COMPANIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
3. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR THE ELEVATION OF THE EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AND DIG SAFE (DIAL 811) AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
4. ALL MATERIAL SCHEDULES SHOWN ON THE PLANS ARE FOR GENERAL INFORMATION ONLY. THE CONTRACTOR SHALL PREPARE HIS OWN MATERIAL SCHEDULES BASED UPON HIS PLAN REVIEW. ALL SCHEDULES SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO ORDERING MATERIALS OR PERFORMING WORK.
5. ALL MATERIALS AND CONSTRUCTION METHODS SHALL CONFORM TO MAINE DEPARTMENT OF TRANSPORTATION SPECIFICATIONS, THE PROJECT SPECIFICATIONS, THE LOCAL UTILITY COMPANIES AND THE TOWN OF BALDWIN REQUIREMENTS.
6. TEST PITS SHALL BE CONDUCTED PRIOR TO ANY OTHER SITE WORK AND THE DEPTH OF EXISTING UTILITIES SHALL BE REPORTED TO THE ENGINEER. ADJUSTMENTS MAY BE MADE TO THE INVERTS SHOWN ON THE PLANS BASED ON THE TEST PIT INFORMATION.

EROSION CONTROL NOTES:

1. LAND DISTURBING ACTIVITIES SHALL BE ACCOMPLISHED IN A MANNER AND SEQUENCE THAT CAUSES THE LEAST PRACTICAL DISTURBANCE OF THE SITE.
2. PRIOR TO BEGINNING ANY CLEARING/LAND DISTURBING ACTIVITIES, THE CONTRACTOR SHALL INSTALL SILTATION BARRIER AROUND THE PERIMETER OF DISTURBANCE AND SEDIMENT BARRIERS (SILT SACKS) IN CATCH BASINS RECEIVING RUNOFF FROM DISTURBED AREA.
3. ALL GROUND AREAS DISTURBED DURING CONSTRUCTION SHALL BE GRADED, LOAMED AND SEEDED AS SOON AS POSSIBLE.

GRADING & DRAINAGE NOTES:

1. ALL STORM DRAIN PIPE SHALL BE SMOOTH BORE INTERIOR PROVIDING A MANNINGS ROUGHNESS COEFFICIENT OF n = 0.012 UNLESS UNLESS OTHERWISE SPECIFIED.
2. THE LIMITS OF CLEARING AND THE PERMISSIBLE LIMITS OF DISTURBANCE ARE SHOWN ON THE SITE AND GRADING PLANS AND ARE INTENDED TO BE THE GRADING LIMITS UNLESS OTHERWISE SHOWN. SILT BARRIER LINES APPROXIMATELY DEPICT THE WORK LIMITS.
3. ELEVATIONS ARE REFERENCED TO NAVD 1988 DATUM.
4. ALL WASTE SOIL MATERIAL EXCAVATED FROM THE PROJECT SITE SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.
5. ALL LOAM SALVAGED FROM THE SITE DURING INITIAL SITE PREPARATION SHALL BE SCREENED AND STOCKPILED ON SITE. THE STOCKPILED LOAM SHALL BE USED TO RELOAM THE DISTURBED AREAS. SURPLUSS LOAM SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF OFF SITE.

LANDSCAPE NOTES:

1. LIMITS OF TREE AND SHRUB CLEARING TO BE FLAGGED BY THE SITE CONTRACTOR. THE LANDSCAPE ARCHITECT AND/OR THE OWNER'S REPRESENTATIVE SHALL APPROVE ALL CLEARING LIMITS AND SHALL FLAG AND MARK EXISTING TREES NEAR CLEARING LIMIT TO REMAIN. THIS LAYOUT AND OWNER'S REVIEW SHALL BE CONDUCTED PRIOR TO ANY TREE OR SHRUB CUTTING.
2. ALL DISTURBED AREAS ARE TO RECEIVE A MINIMUM OF 4" OF TOPSOIL PRIOR TO PERMANENT SEEDING. ALL LANDSCAPE ISLANDS AND PLANTING BEDS SHALL HAVE 12" OF LOAM PRIOR TO PLANTING.

SITE LAYOUT NOTES:

1. ALL DIMENSIONING, UNLESS NOTED OTHERWISE, IS TO THE EDGE OF GRAVEL.
2. EXISTING CONDITION INFORMATION IS BASED ON BOUNDARY SURVEY PERFORMED BY WAYNE T. WOOD & CO. OF GRAY, MAINE.
3. TOPOGRAPHIC INFORMATION IS BASED ON MAINE OFFICE OF GIS ELEVATION CONTOURS (2' INTERVAL FROM LIDAR) FOR THE TOWN OF BALDWIN AND LIMITED TOPOGRAPHIC SURVEY IN THE ACCESS ROAD RIGHT OF WAY.

UTILITY NOTES:

1. THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF UNDERGROUND ELECTRICAL SERVICE WITH CENTRAL MAINE POWER COMPANY. CONTRACTOR SHALL BE RESPONSIBLE FOR TOTAL INSTALLATION OF THE UNDERGROUND SERVICE INCLUDING, BUT NOT LIMITED TO, ALL TRENCHING, PRIMARY AND SECONDARY CABLES, TERMINATORS, CONNECTORS, PULL WIRES, ETC.

ZONING DISTRICT STANDARDS

MINIMUM LOT AREA.....2 ACRES
MINIMUM LOT AREA PER DWELLING UNIT.....2 ACRES
MINIMUM ROAD FRONTAGE.....200 FT

MINIMUM SETBACK REQUIREMENTS:

FRONT SETBACK
ROUTES 113, 5, 11 AND 107.....100 FT
ALL OTHER APPROVED WAYS.....75 FT

SIDE YARD.....10 FT

BACK YARD.....25 FT

FROM NORMAL HIGH WATER.....75 FT

STATE OF MAINE
JEFFREY D. AMOS
NO. 10167
REGISTERED PROFESSIONAL ENGINEER

DATE: 10/22/2021
P.E.: JEFFREY D. AMOS, PE 10167

NO.	DATE	REVISIONS	APP'D BY
3	11/5/2021	REVISE PER TOWN COMMENTS	JDA
2	10/22/2021	REVISE PER TOWN COMMENTS	
1	10/01/2021	SITE PLAN SUBMISSION	

41 CAMPUS DRIVE
SUITE 101
NEW GLOUCESTER, ME 04260

565 CONGRESS STREET
SUITE 201
PORTLAND, ME 04102

OFFICE: (207) 926-5111 FAX: (207) 221-1317
www.terradynconsultants.com

TERRADYN CONSULTANTS, LLC

Civil Engineering | Land Planning | Stormwater Design | Environmental Permitting

PERMIT DRAWING
NOT FOR CONSTRUCTION

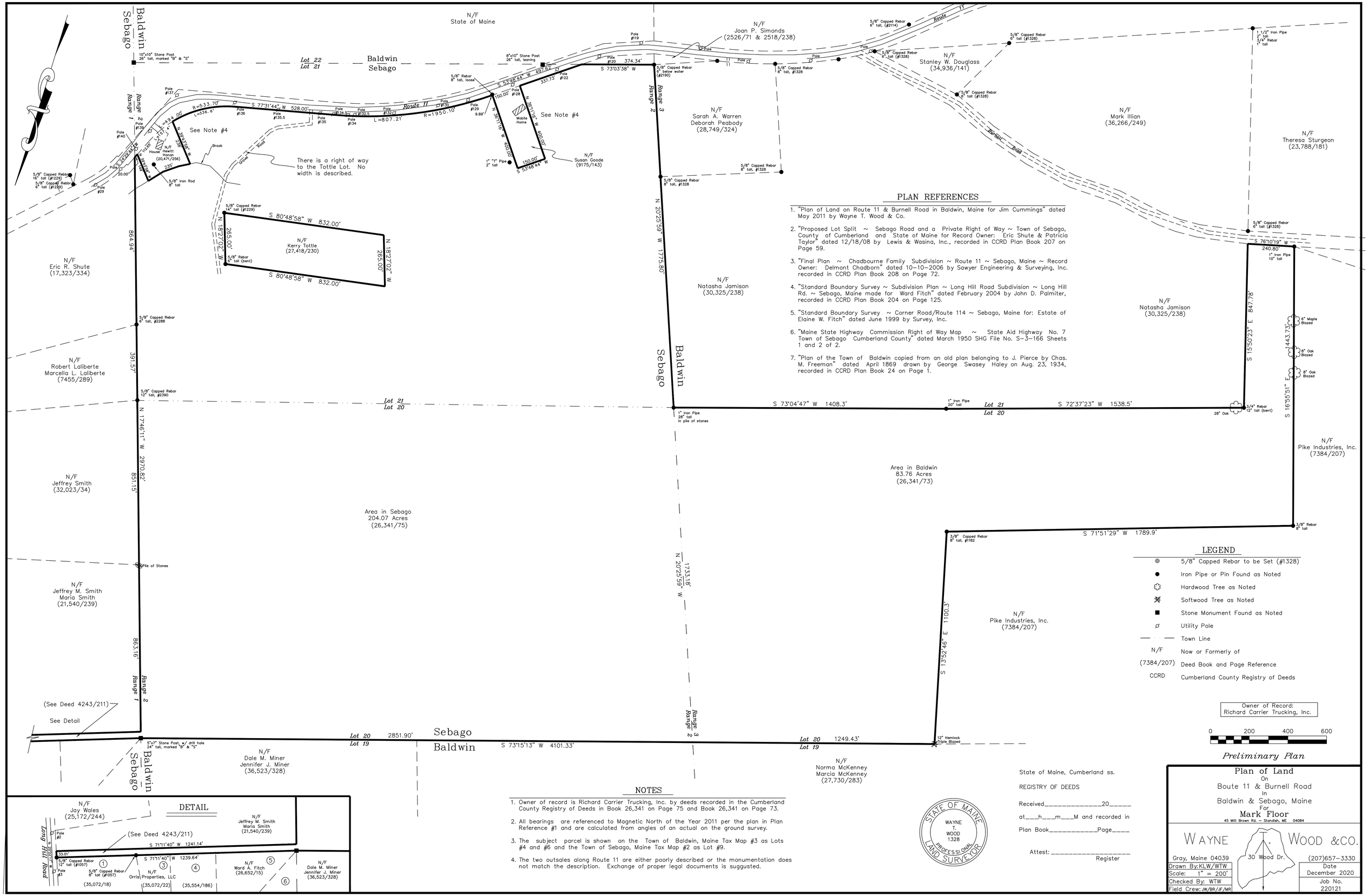
PROJECT:
SEBAGO ROAD SOLAR
BALDWIN, MAINE

SHEET TITLE:
COVER SHEET AND LOCATION MAP

CLIENT:
SEBAGO ROAD SOLAR, LLC
43 HOLMES COURT
PORTSMOUTH, NH 03810

DATE:	12/17/2020
SCALE:	1" = 500'
DESIGNED:	ARF/CRS
JOB NO:	2079
FILE:	2078 C.dwg

SHEET
C-1.0



PLAN REFERENCES

1. "Plan of Land on Route 11 & Burnell Road in Baldwin, Maine for Jim Cummings" dated May 2011 by Wayne T. Wood & Co.
2. "Proposed Lot Split ~ Sebago Road and a Private Right of Way ~ Town of Sebago, County of Cumberland and State of Maine for Record Owner: Eric Shute & Patricia Taylor" dated 12/18/08 by Lewis & Wasina, Inc., recorded in CCRD Plan Book 207 on Page 59.
3. "Final Plan ~ Chadbourne Family Subdivision ~ Route 11 ~ Sebago, Maine ~ Record Owner: Delmont Chadborn" dated 10-10-2006 by Sawyer Engineering & Surveying, Inc. recorded in CCRD Plan Book 208 on Page 72.
4. "Standard Boundary Survey ~ Subdivision Plan ~ Long Hill Road Subdivision ~ Long Hill Rd. ~ Sebago, Maine made for Ward Fitch" dated February 2004 by John D. Palmiter, recorded in CCRD Plan Book 204 on Page 125.
5. "Standard Boundary Survey ~ Corner Road/Route 114 ~ Sebago, Maine for: Estate of Elaine W. Fitch" dated June 1999 by Survey, Inc.
6. "Maine State Highway Commission Right of Way Map ~ State Aid Highway No. 7 Town of Sebago Cumberland County" dated March 1950 SHG File No. S-3-166 Sheets 1 and 2 of 2.
7. "Plan of the Town of Baldwin copied from an old plan belonging to J. Pierce by Chas. M. Freeman" dated April 1869 drawn by George Swasey Haley on Aug. 23, 1934, recorded in CCRD Plan Book 24 on Page 1.

LEGEND

◎	5/8" Capped Rebar to be Set (#1328)
●	Iron Pipe or Pin Found as Noted
✪	Hardwood Tree as Noted
✱	Softwood Tree as Noted
■	Stone Monument Found as Noted
⌀	Utility Pole
— · · —	Town Line
N/F	Now or Formerly of
(7384/207)	Deed Book and Page Reference
CCRD	Cumberland County Registry of Deeds

Owner of Record:
Richard Carrier Trucking, Inc.

0 200 400 600

Preliminary Plan

NOTES

1. Owner of record is Richard Carrier Trucking, Inc. by deeds recorded in the Cumberland County Registry of Deeds in Book 26,341 on Page 75 and Book 26,341 on Page 73.
2. All bearings are referenced to Magnetic North of the Year 2011 per the plan in Plan Reference #1 and are calculated from angles of an actual on the ground survey.
3. The subject parcel is shown on the Town of Baldwin, Maine Tax Map #3 as Lots #4 and #6 and the Town of Sebago, Maine Tax Map #2 as Lot #9.
4. The two outsales along Route 11 are either poorly described or the monumentation does not match the description. Exchange of proper legal documents is suggusted.

STATE OF MAINE
WAYNE T. WOOD 1328
PROFESSIONAL LAND SURVEYOR

State of Maine, Cumberland ss.

REGISTRY OF DEEDS

Received_____20_____

at____h____m____M and recorded in

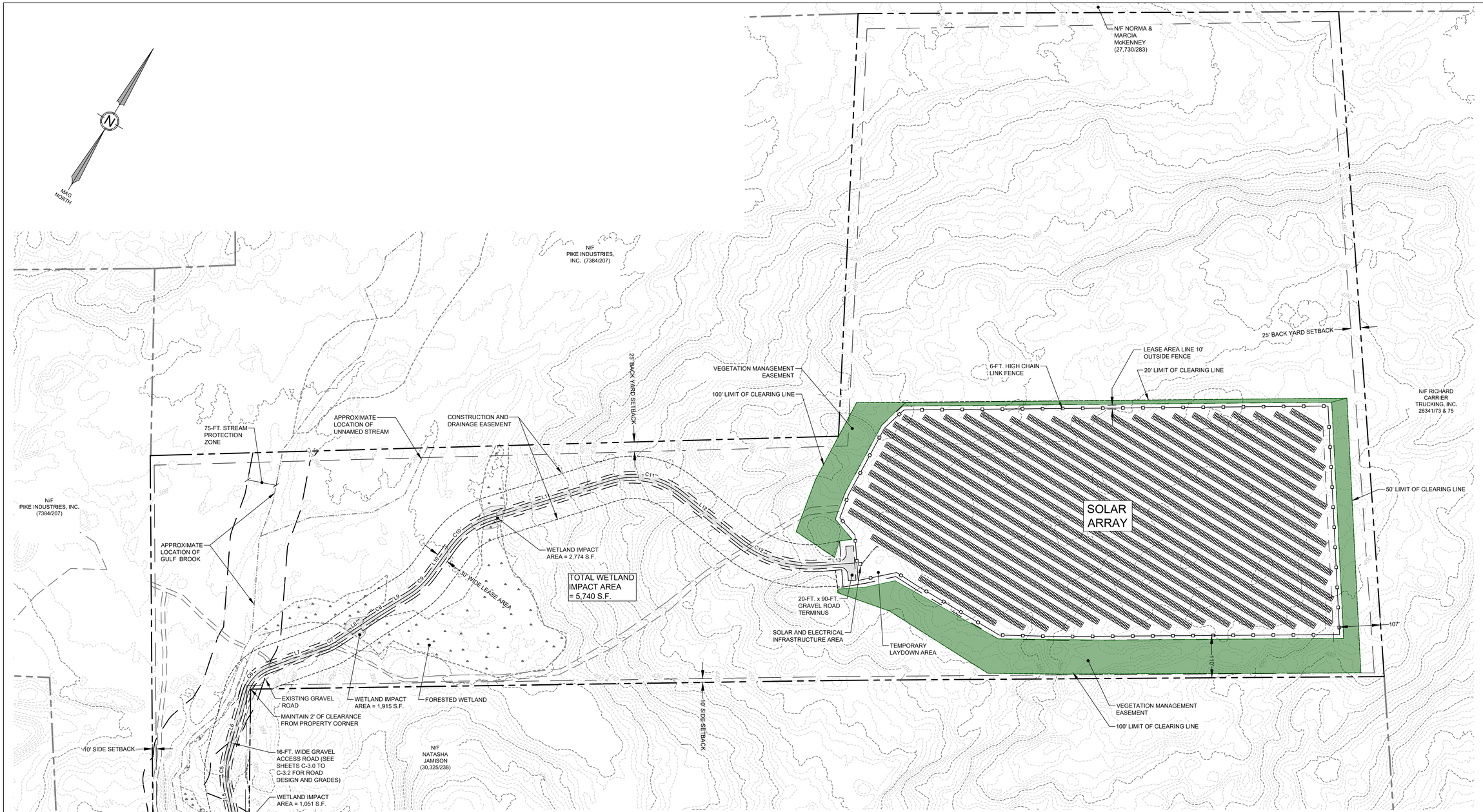
Plan Book_____Page_____

Attest: _____
Register

Plan of Land
On
Boute 11 & Burnell Road
In
Baldwin & Sebago, Maine
For
Mark Floor
45 Mill Brown Rd. ~ Standish, ME 04084

WAYNE WOOD &CO.
30 Wood Dr.
Gray, Maine 04039
(207)657-3330

Drawn By: KLW/WTW	Date
Scale: 1" = 200'	December 2020
Checked By: WTW	Job No.
Field Crew: JW/BR/JF/MR	220121



NOTES:

1. THE WETLAND DELINEATION IS PROVIDED BY MARK CENCI, INC. IN SPRING OF 2021, AND WAS COMPLETED IN ACCORDANCE WITH THE 1987 U.S. ARMY CORPS OF ENGINEERS WETLAND DELINEATION MANUAL AND THE REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL FOR THE NORTH CENTRAL AND NORTHEAST REGIONS, DATED JANUARY OF 2012.
2. TREES WITHIN THE SHADE MANAGEMENT AREA WILL BE CUT AND STUMPS LEFT IN PLACE. THERE WILL BE NO GROUND DISTURBANCE EXCEPT FROM CUTTING ACTIVITIES. AREA WILL BE MAINTAINED AS NEEDED DEPENDING ON NEW GROWTH.
3. THE AREA 10' OUTSIDE THE FENCE WILL BE MOWED TWICE YEARLY.

CENTERLINE TABLE

LINE	DIRECTION	DISTANCE
L2	N 2°51'47" E	130.71'
L3	N 12°23'52" W	152.40'
L4	N 1°29'35" E	41.76'
L5	N 28°54'43" W	54.43'
L6	N 1°05'14" W	162.23'
L7	N 53°44'48" E	152.34'
L8	N 39°42'30" E	111.72'
L9	N 41°51'10" E	72.33'
L10	N 19°40'28" E	92.83'
L11	N 56°11'37" E	325.13'
L12	S 67°44'36" E	192.38'
L13	N 69°09'45" E	91.28'

CENTERLINE CURVE TABLE

CURVE	LENGTH	RADIUS	CRD. BEARING	CRD. DIST.
C2	106.54'	400.00'	N 4°46'03" W	106.22'
C3	72.73'	300.00'	S 5°27'08" E	72.55'
C4	53.07'	100.00'	N 13°42'34" W	52.45'
C5	98.32'	200.06'	S 14°49'51" E	97.33'
C6	95.70'	100.00'	S 26°19'47" W	92.09'
C7	36.75'	150.00'	N 46°43'39" E	36.66'
C8	37.43'	1000.00'	S 40°46'50" W	37.43'
C9	77.42'	200.00'	N 30°45'49" E	76.94'
C10	127.48'	200.00'	S 37°56'02" W	125.33'
C11	195.70'	200.00'	S 84°13'31" W	187.98'
C12	225.64'	300.00'	S 89°17'25" E	220.36'

STATE OF MAINE
JEFFREY D. AMOS
10167
LICENSED PROFESSIONAL ENGINEER

DATE: 10/22/2021
P.E.: JEFFREY D. AMOS, PE 10167

NO.	DATE	REVISIONS	BY	APP'D
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2	10/22/2021	REVISE PER TOWN COMMENTS		
1	10/01/2021	SITE PLAN SUBMISSION		

TERRADYN CONSULTANTS, LLC
41 CAMPUS DRIVE, SUITE 101
NEW GLOUCESTER, ME 04260
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www.terradynconsultants.com
565 CONGRESS STREET
SUITE 201
PORTLAND, ME 04102
Civil Engineering | Land Planning | Stormwater Design | Environmental Permitting

PERMIT DRAWING
NOT FOR CONSTRUCTION

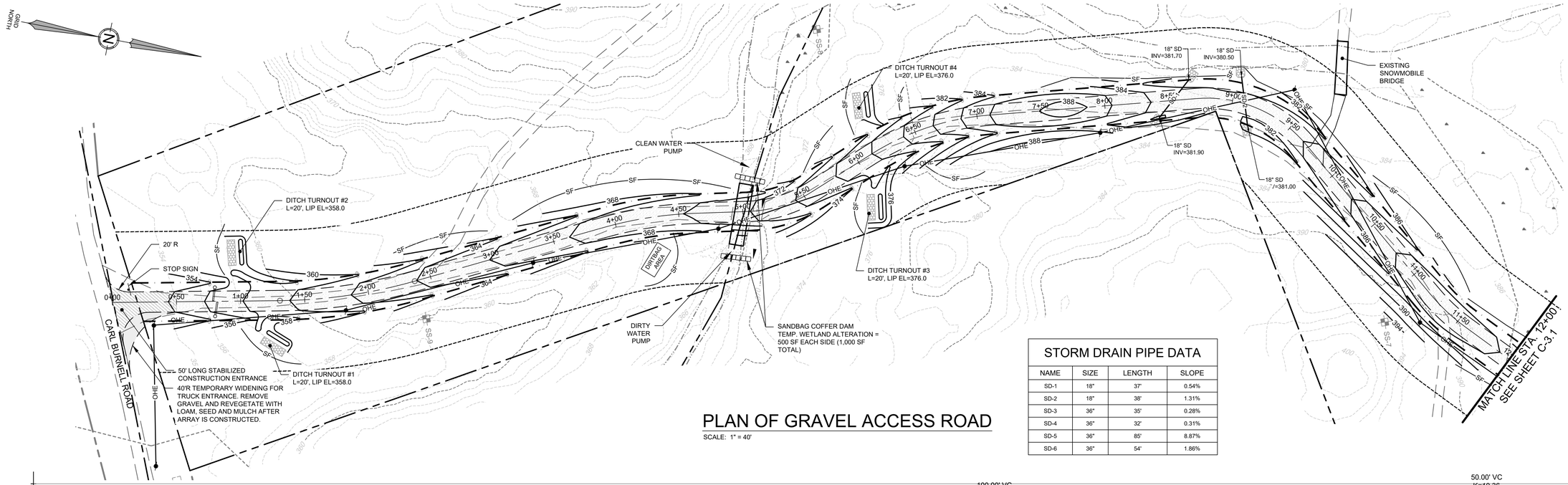
PROJECT: SEBAGO ROAD SOLAR
BALDWIN, MAINE

SHEET TITLE: SITE LAYOUT PLAN

CLIENT: SEBAGO ROAD SOLAR, LLC
43 HOLMES COURT
PORTSMOUTH, NH 03810

DATE:	12/17/2020
SCALE:	1" = 120'
DESIGNED:	ARF/CRS
JOB NO:	2079
FILE:	2079 S

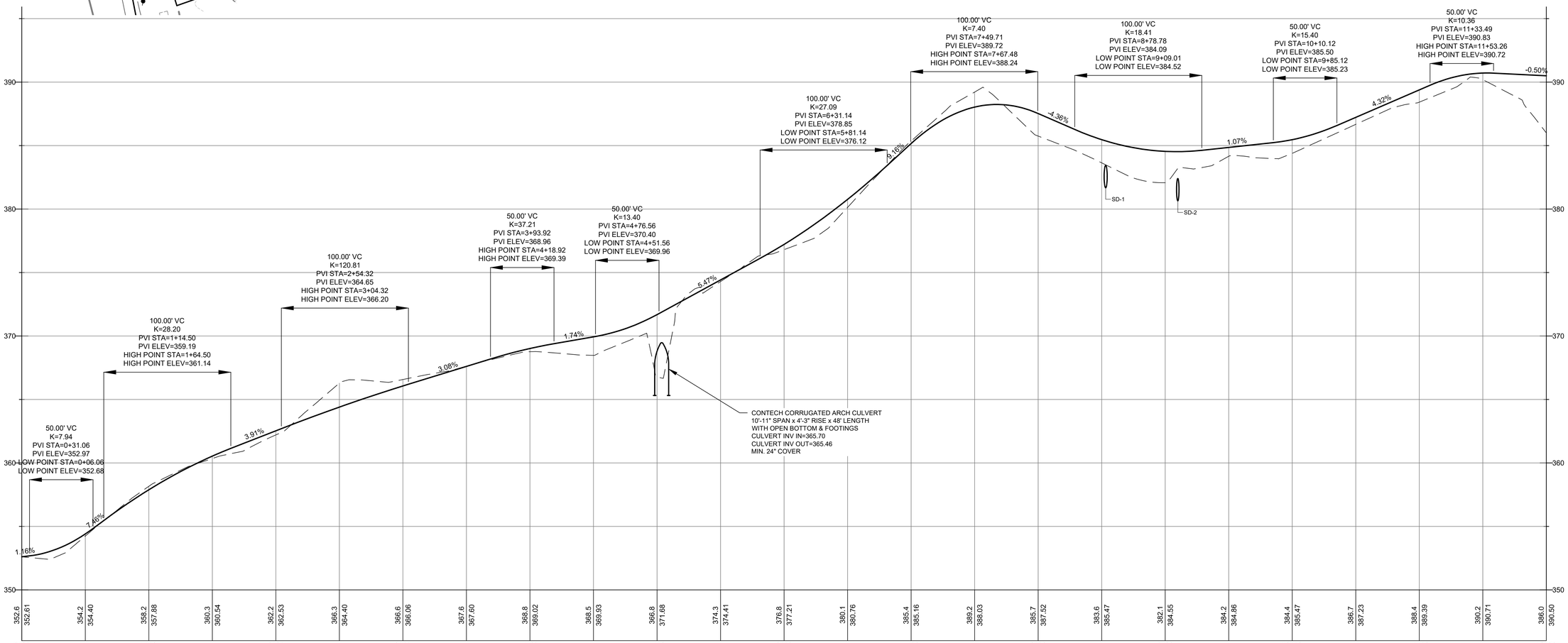
SHEET C-2.0



PLAN OF GRAVEL ACCESS ROAD

SCALE: 1" = 40'

STORM DRAIN PIPE DATA			
NAME	SIZE	LENGTH	SLOPE
SD-1	18"	37'	0.54%
SD-2	18"	38'	1.31%
SD-3	36"	35'	0.28%
SD-4	36"	32'	0.31%
SD-5	36"	85'	8.87%
SD-6	36"	54'	1.86%



PROFILE OF GRAVEL ACCESS ROAD

SCALE: 1" = 40' HORIZONTAL, 1" = 4' VERTICAL

STATE OF MAINE
JEFFREY D. AMOS
10167
REGISTERED PROFESSIONAL ENGINEER

DATE: 10/22/2021
P.E.: JEFFREY D. AMOS, PE 10167

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565 CONGRESS STREET
SUITE 201
PORTLAND, ME 04102

41 CAMPUS DRIVE
SUITE 111
NEW GLOUCESTER, ME 04260

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Civil Engineering | Land Planning | Stormwater Design | Environmental Permitting

PERMIT DRAWING
NOT FOR CONSTRUCTION

PROJECT:
SEBAGO ROAD SOLAR
BALDWIN, MAINE

SHEET TITLE:
CONCEPT PLAN & PROFILE

CLIENT:
SEBAGO ROAD SOLAR, LLC
43 HOLMES COURT
PORTSMOUTH, NH 03810

DATE:	12/17/2020
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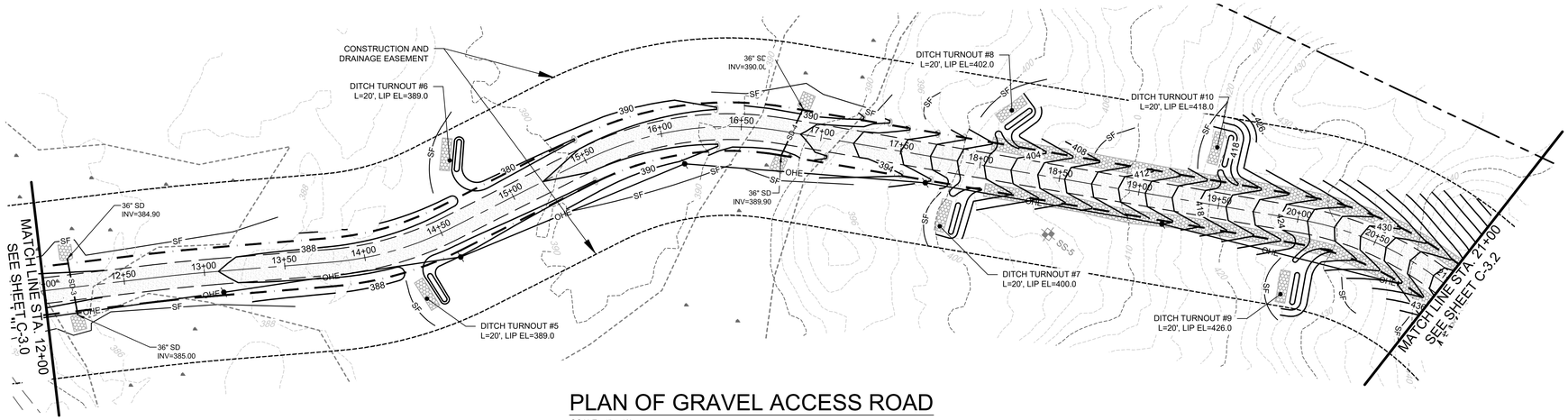

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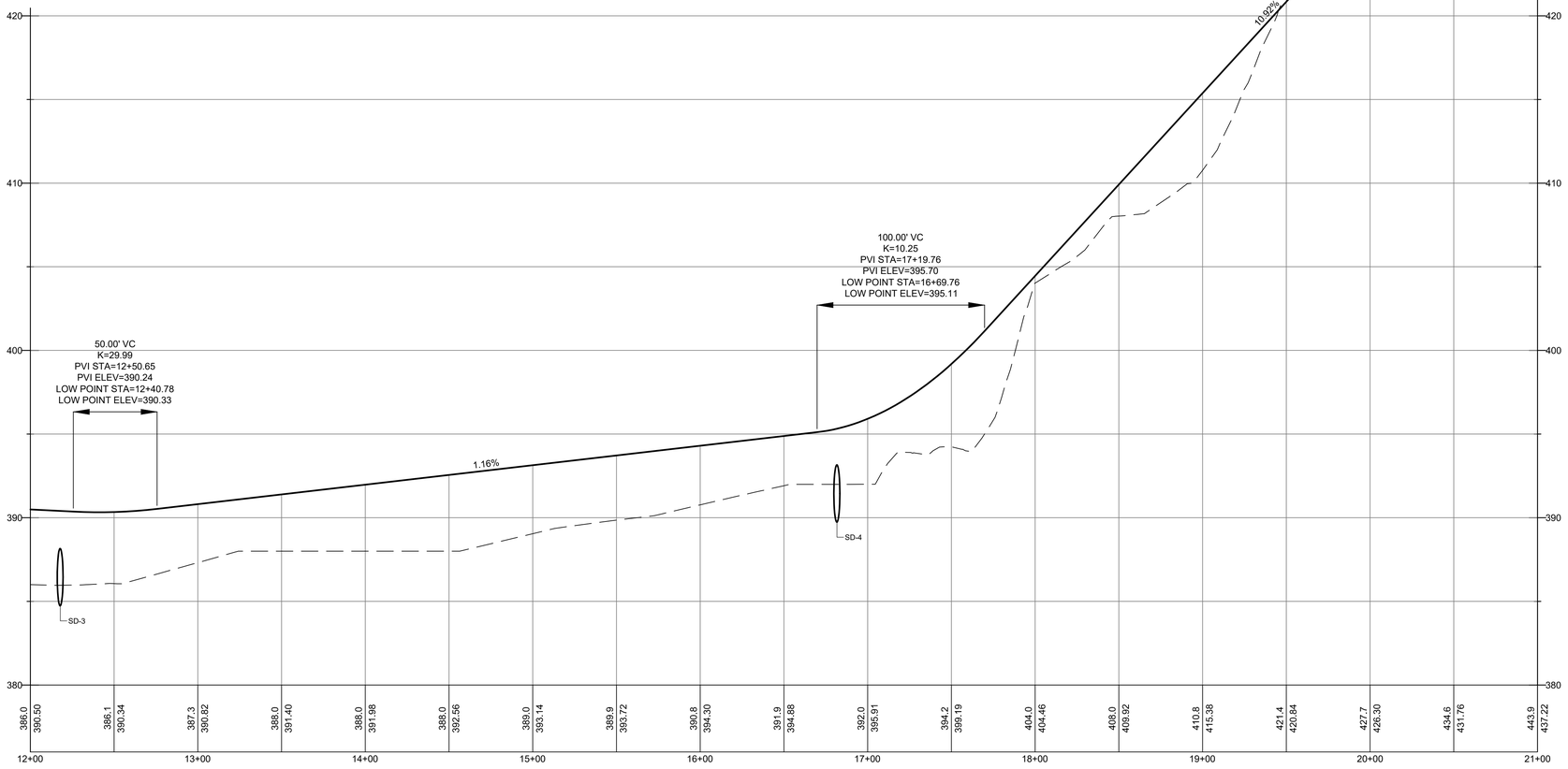
SD-5	36"	85'	8.87%
SD-6	36"	54'	1.86%



PROFILE OF GRAVEL ACCESS ROAD

SCALE: 1" = 40' HORIZONTAL
1" = 4' VERTICAL

STATE OF MAINE
JEFFREY D AMOS
10167
LICENSED PROFESSIONAL ENGINEER

DATE: 10/22/2021

P.E.: JEFFREY D. AMOS, PE 10167

NO.	DATE	REVISIONS	BY
3	11/5/2021	REVISE PER TOWN COMMENTS	JDA
2	10/22/2021	REVISE PER TOWN COMMENTS	APP'D
1	10/01/2021	SITE PLAN SUBMISSION	

41 CAMPUS DRIVE
SUITE 101
NEW GLOUCESTER, ME 04260

565 CONGRESS STREET
SUITE 201
PORTLAND, ME 04102

OFFICE: (207) 926-5111 FAX: (207) 221-1317
www.terradynconsultants.com

TERRADYN CONSULTANTS, LLC

Civil Engineering | Land Planning | Stormwater Design | Environmental Permitting

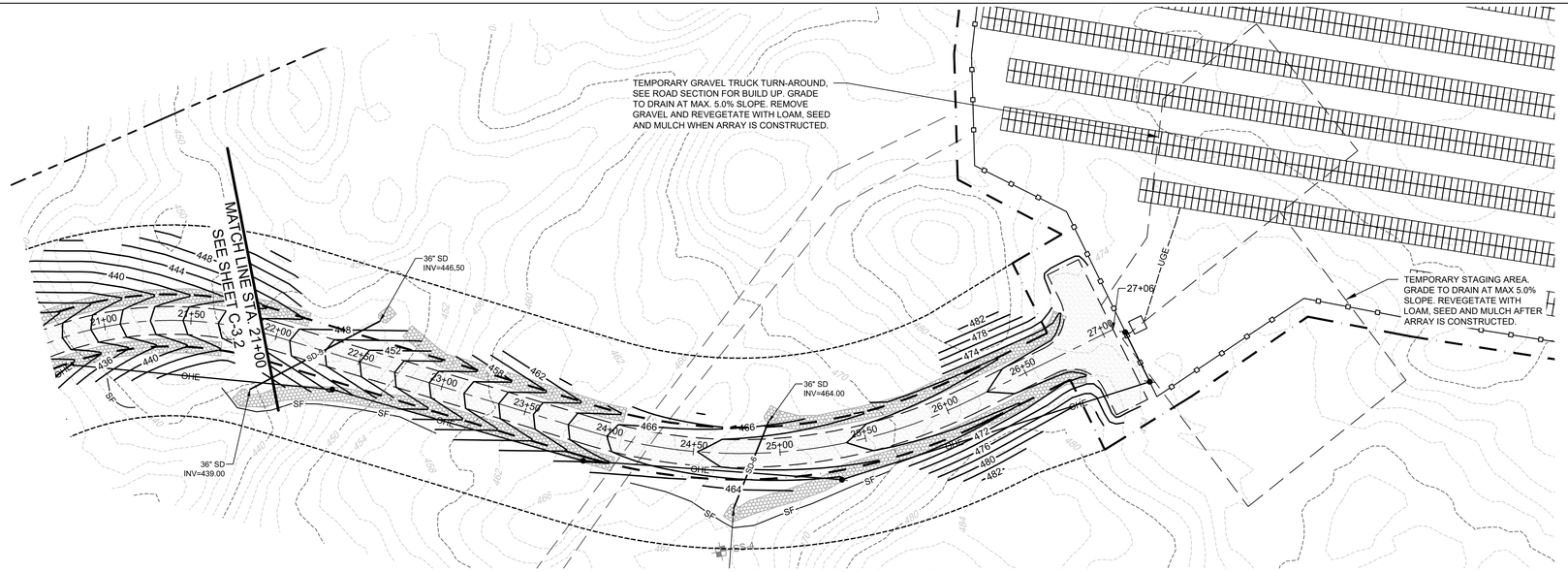
PERMIT DRAWING
NOT FOR CONSTRUCTION

PROJECT: SEBAGO ROAD SOLAR
BALDWIN, MAINE

SHEET TITLE: CONCEPT PLAN & PROFILE

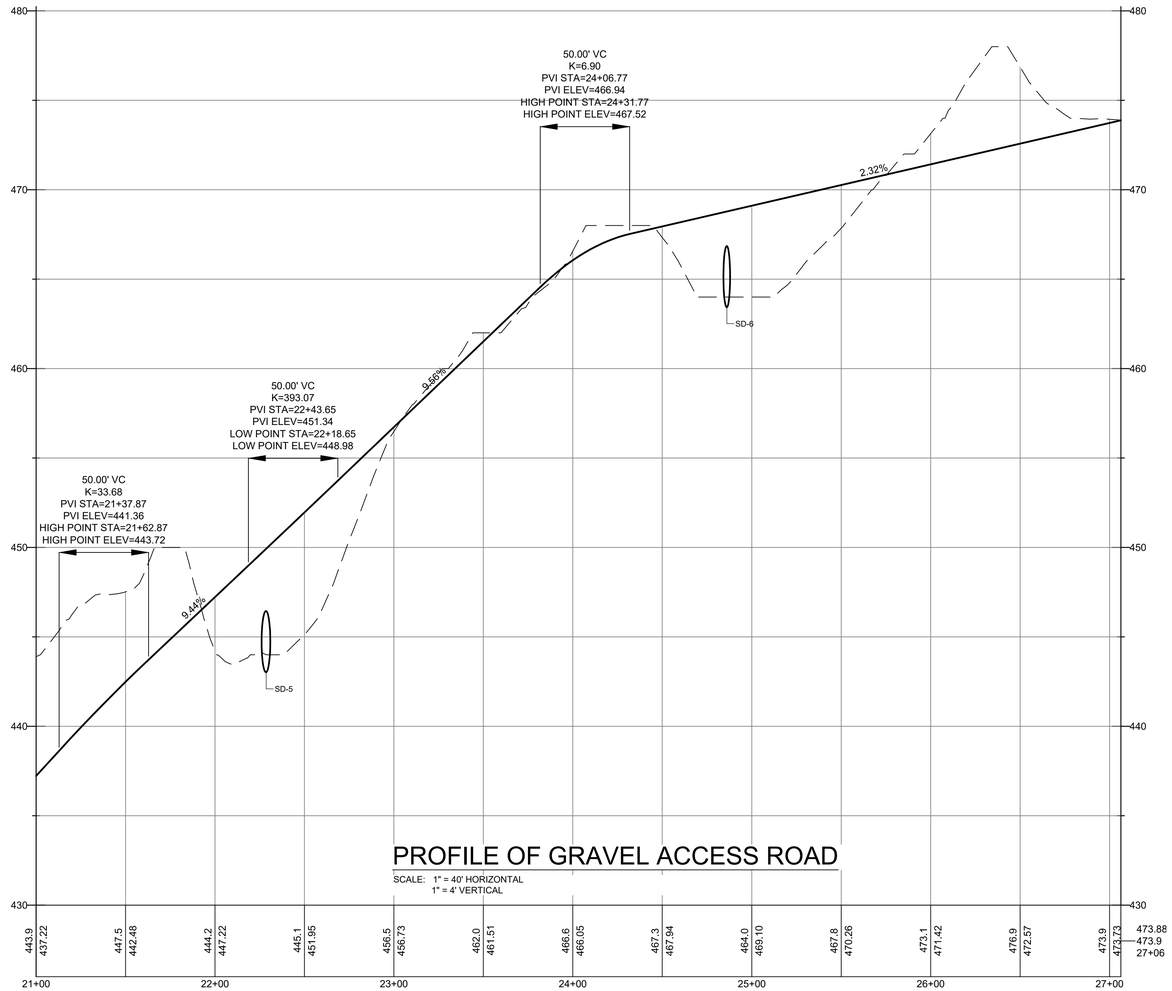
CLIENT: SEBAGO ROAD SOLAR, LLC
40 HOLMES COURT
PORTSMOUTH, NH 03810

DATE:	12/17/2020
SCALE:	1"=40'
DESIGNED:	ARF/CRS
JOB NO:	2079
FILE: 2079 G	
SHEET	C-3.1



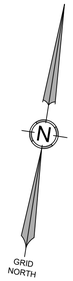
PLAN OF GRAVEL ACCESS ROAD

SCALE: 1" = 40'



PROFILE OF GRAVEL ACCESS ROAD

SCALE: 1" = 40' HORIZONTAL
1" = 4' VERTICAL



STORM DRAIN PIPE DATA

NAME	SIZE	LENGTH	SLOPE
SD-1	18"	37'	0.54%
SD-2	18"	38'	1.31%
SD-3	36"	35'	0.28%
SD-4	36"	32'	0.31%
SD-5	36"	85'	8.87%
SD-6	36"	54'	1.86%

STATE OF MAINE
JEFFREY D. AMOS
PE 10167
REGISTERED PROFESSIONAL ENGINEER

DATE: 10/22/2021

P.E.: JEFFREY D. AMOS, PE 10167

NO.	DATE	REVISIONS	APP'D BY
3	11/5/2021	REVISE PER TOWN COMMENTS	JDA
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PERMIT DRAWING
NOT FOR CONSTRUCTION

PROJECT:
SEBAGO ROAD SOLAR
BALDWIN, MAINE

SHEET TITLE:
CONCEPT PLAN & PROFILE

CLIENT:
SEBAGO ROAD SOLAR, LLC
43 HOLMES COURT
PORTSMOUTH, NH 03810

DATE:	12/17/2020
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JOB NO:	2079
FILE:	2079 G
SHEET	C-3.2

EROSION AND SEDIMENT CONTROL PLAN

PRE-CONSTRUCTION PHASE
A PERSON WHO CONDUCTS, OR CAUSES TO BE CONDUCTED, AN ACTIVITY THAT INVOLVES FILLING, DISPLACING OR EXPOSING SOIL OR OTHER EARTHEN MATERIALS SHALL TAKE MEASURES TO PREVENT UNREASONABLE EROSION OF SOIL OR SEDIMENT BEYOND THE PROJECT SITE OR INTO A PROTECTED NATURAL RESOURCE AS DEFINED IN 38 MRSA § 480-B. EROSION CONTROL MEASURES MUST BE IN PLACE BEFORE THE ACTIVITY BEGINS. MEASURES MUST REMAIN IN PLACE AND FUNCTIONAL UNTIL THE SITE IS PERMANENTLY STABILIZED. ADEQUATE AND TIMELY TEMPORARY AND PERMANENT STABILIZATION MEASURES MUST BE TAKEN. THE SITE MUST BE MAINTAINED TO PREVENT UNREASONABLE EROSION AND SEDIMENTATION. MINIMIZE DISTURBED AREAS AND PROTECT NATURAL DOWNGRADIENT BUFFER AREAS TO THE EXTENT PRACTICABLE.

BMP CONSTRUCTION PHASE
A. SEDIMENT BARRIERS. PRIOR TO THE BEGINNING OF ANY CONSTRUCTION, PROPERLY INSTALL SEDIMENT BARRIERS AT THE EDGE OF ANY DOWNGRADIENT DISTURBED AREA AND ADJACENT TO ANY DRAINAGE CHANNELS WITHIN THE PROPOSED DISTURBED AREA. MAINTAIN THE SEDIMENT BARRIERS UNTIL THE DISTURBED AREA IS PERMANENTLY STABILIZED.

B. CONSTRUCTION ENTRANCE: PRIOR TO ANY CLEARING OR GRUBBING, A CONSTRUCTION ENTRANCE SHALL BE CONSTRUCTED AT THE INTERSECTION WITH THE PROPOSED ACCESS DRIVE AND THE EXISTING ROADWAY TO AVOID TRACKING OF MUD, DUST AND DEBRIS FROM THE SITE.

C. RIPRAP: SINCE RIPRAP IS USED WHERE EROSION POTENTIAL IS HIGH, CONSTRUCTION MUST BE SEQUENCED SO THAT THE RIPRAP IS PUT IN PLACE WITH THE MINIMUM DELAY. DISTURBANCE OF AREAS WHERE RIPRAP IS TO BE PLACED SHOULD BE UNDERTAKEN ONLY WHEN FINAL PREPARATION AND PLACEMENT OF THE RIPRAP CAN FOLLOW IMMEDIATELY BEHIND THE INITIAL DISTURBANCE. WHERE RIPRAP IS USED FOR OUTLET PROTECTION, THE RIPRAP SHOULD BE PLACED BEFORE OR IN CONJUNCTION WITH THE CONSTRUCTION OF THE PIPE OR CHANNEL SO THAT IT IS IN PLACE WHEN THE PIPE OR CHANNEL BEGINS TO OPERATE. MAINTAIN TEMPORARY RIPRAP, SUCH AS TEMPORARY CHECK DAMS UNTIL THE DISTURBED AREA IS PERMANENTLY STABILIZED.

D. TEMPORARY STABILIZATION. STABILIZE WITH TEMPORARY SEEDING, MULCH, OR OTHER NON-ERODABLE COVER ANY EXPOSED SOILS THAT WILL REMAIN UNWORKED FOR MORE THAN 14 DAYS EXCEPT, STABILIZE AREAS WITHIN 100 FEET OF A WETLAND OR WATERBODY WITHIN 7 DAYS OR PRIOR TO A PREDICTED STORM EVENT, WHICHEVER COMES FIRST. IF HAY OR STRAW MULCH IS USED, THE APPLICATION RATE MUST BE 2 BALES (70-90 POUNDS) PER 1000 SF OR 1.5 TO 2 TONS (90-100 BALES) PER ACRE TO COVER 75 TO 90% OF THE GROUND SURFACE. HAY MULCH MUST BE KEPT MOIST OR ANCHORED TO PREVENT WIND BLOWING. AN EROSION CONTROL BLANKET OR MAT SHALL BE USED AT THE BASE OF GRASSED WATERWAYS, STEEP SLOPES (15% OR GREATER) AND ON ANY DISTURBED SOIL WITHIN 100 FEET OF LAKES, STREAMS AND WETLANDS. GRADING SHALL BE PLANNED SO AS TO MINIMIZE THE LENGTH OF TIME BETWEEN INITIAL SOIL EXPOSURE AND FINAL GRADING. ON LARGE PROJECTS THIS SHOULD BE ACCOMPLISHED BY PHASING THE OPERATION AND COMPLETING THE FIRST PHASE UP TO FINAL GRADING AND SEEDING BEFORE STARTING THE SECOND PHASE, AND SO ON.

E. VEGETATED WATERWAY. UPON FINAL GRADING, THE DISTURBED AREAS SHALL BE IMMEDIATELY SEEDED TO PERMANENT VEGETATION AND MULCHED AND WILL NOT BE USED AS OUTLETS UNTIL A DENSE, VIGOROUS VEGETATIVE COVER HAS BEEN OBTAINED. ONCE SOIL IS EXPOSED FOR WATERWAY CONSTRUCTION, IT SHOULD BE IMMEDIATELY SHAPED, GRADED AND STABILIZED. VEGETATED WATERWAYS NEED TO BE STABILIZED EARLY DURING THE GROWING SEASON (PRIOR TO SEPTEMBER 15). IF FINAL SEEDING OF WATERWAYS IS DELAYED PAST SEPTEMBER 15, EMERGENCY PROVISIONS SUCH AS SOD OR RIPRAP MAY BE REQUIRED TO STABILIZE THE CHANNEL. WATERWAYS SHOULD BE FULLY STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM.

PERMANENT STABILIZATION DEFINED
A. SEEDED AREAS. FOR SEEDED AREAS, PERMANENT STABILIZATION MEANS AN 90% COVER OF THE DISTURBED AREA WITH MATURE, HEALTHY PLANTS WITH NO EVIDENCE OF WASHING OR RILLING OF THE TOPSOIL.

B. SODDED AREAS. FOR SODDED AREAS, PERMANENT STABILIZATION MEANS THE COMPLETE BINDING OF THE SOD ROOTS INTO THE UNDERLYING SOIL WITH NO SLUMPING OF THE SOD OR DIE-OFF.

C. PERMANENT MULCH. FOR MULCHED AREAS, PERMANENT MULCHING MEANS TOTAL COVERAGE OF THE EXPOSED AREA WITH AN APPROVED MULCH MATERIAL. EROSION CONTROL MIX MAY BE USED AS MULCH FOR PERMANENT STABILIZATION ACCORDING TO THE APPROVED APPLICATION RATES AND LIMITATIONS.

D. RIPRAP. FOR AREAS STABILIZED WITH RIPRAP, PERMANENT STABILIZATION MEANS THAT SLOPES STABILIZED WITH RIPRAP HAVE AN APPROPRIATE BACKING OF A WELL-GRADED GRAVEL OR APPROVED GEOTEXTILE TO PREVENT SOIL MOVEMENT FROM BEHIND THE RIPRAP. STONE MUST BE SIZED APPROPRIATELY. IT IS RECOMMENDED THAT ANGULAR STONE BE USED.

E. AGRICULTURAL USE. FOR CONSTRUCTION PROJECTS ON LAND USED FOR AGRICULTURAL PURPOSES (E.G., PIPELINES ACROSS CROP LAND), PERMANENT STABILIZATION MAY BE ACCOMPLISHED BY RETURNING THE DISTURBED LAND TO AGRICULTURAL USE.

F. PAVED AREAS. FOR PAVED AREAS, PERMANENT STABILIZATION MEANS THE PLACEMENT OF THE COMPACTED GRAVEL SUBBASE IS COMPLETED.

G. DITCHES, CHANNELS, AND SWALES. FOR OPEN CHANNELS, PERMANENT STABILIZATION MEANS THE CHANNEL IS STABILIZED WITH MATURE VEGETATION AT LEAST THREE INCHES IN HEIGHT, WITH WELL-GRADED RIPRAP, OR WITH ANOTHER NON-EROSIVE LINING CAPABLE OF WITHSTANDING THE ANTICIPATED FLOW VELOCITIES AND FLOW DEPTHS WITHOUT RELIANCE ON CHECK DAMS TO SLOW FLOW. THERE MUST BE NO EVIDENCE OF SLUMPING OF THE LINING, UNDERCUTTING OF THE BANKS, OR DOWN-CUTTING OF THE CHANNEL.

GENERAL CONSTRUCTION PHASE
THE FOLLOWING EROSION CONTROL MEASURES SHALL BE FOLLOWED BY THE CONTRACTOR THROUGHOUT CONSTRUCTION OF THIS PROJECT:

A. ALL TOPSOIL SHALL BE COLLECTED, STOCKPILED, SEEDED WITH RYE AT 3 POUNDS/1,000 SF AND MULCHED, AND REUSED AS REQUIRED. SILT FENCING SHALL BE PLACED DOWN GRADIENT FROM THE STOCKPILED LOAM. STOCKPILE TO BE LOCATED BY DESIGNATION OF THE OWNER AND INSPECTING ENGINEER.

B. THE INSPECTING ENGINEER AT HIS/HER DISCRETION, MAY REQUIRE ADDITIONAL EROSION CONTROL MEASURES AND/OR SUPPLEMENTAL VEGETATIVE PROVISIONS TO MAINTAIN STABILITY OF EARTHWORKS AND FINISH GRADED AREAS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING ANY SUPPLEMENTAL MEASURES AS DIRECTED BY THE INSPECTING ENGINEER. FAILURE TO COMPLY WITH THE ENGINEER'S DIRECTIONS WILL RESULT IN DISCONTINUATION OF CONSTRUCTION ACTIVITIES.

C. EROSION CONTROL MESH SHALL BE APPLIED IN ACCORDANCE WITH THE PLANS OVER ALL FINISH SEEDED AREAS AS SPECIFIED ON THE DESIGN PLANS.

D. ALL GRADED OR DISTURBED AREAS INCLUDING SLOPES SHALL BE PROTECTED DURING CLEARING AND CONSTRUCTION IN ACCORDANCE WITH THE APPROVED EROSION AND SEDIMENT CONTROL PLAN UNTIL THEY ARE ADEQUATELY STABILIZED.

E. ALL EROSION, AND SEDIMENT CONTROL PRACTICES AND MEASURES SHALL BE CONSTRUCTED, APPLIED AND MAINTAINED IN ACCORDANCE WITH THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.

F. AREAS TO BE FILLED SHALL BE CLEARED, GRUBBED AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS OR OTHER OBJECTIONABLE MATERIALS.

G. AREAS SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 3 INCHES PRIOR TO PLACEMENT OF TOPSOIL.

H. ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS. FILL INTENDED TO SUPPORT BUILDINGS, STRUCTURES AND CONDUITS, ETC., SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS OR CODES.

I. ALL FILLS SHALL BE PLACED AND COMPACTED IN LAYERS NOT TO EXCEED 8 INCHES IN THICKNESS.

J. EXCEPT FOR APPROVED LANDFILLS OR NON-STRUCTURAL FILLS, FILL MATERIAL SHALL BE FREE OF BRUSH, RUBBISH, ROCKS, LOGS, STUMPS, BUILDING DEBRIS AND OTHER OBJECTIONABLE MATERIALS THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY LIFTS.

K. FROZEN MATERIAL OR SOFT, MUCKY OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED INTO FILL SLOPES OR STRUCTURAL FILLS.

L. FILL SHALL NOT BE PLACED ON A FROZEN FOUNDATION.

M. SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED APPROPRIATELY.

N. ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY FOLLOWING FINISHED GRADING.

O. REMOVE ANY TEMPORARY CONTROL MEASURES, SUCH AS SILT FENCE, WITHIN 30 DAYS AFTER PERMANENT STABILIZATION IS ATTAINED. REMOVE ANY ACCUMULATED SEDIMENTS AND STABILIZE.

PERMANENT VEGETATION
PERMANENT VEGETATIVE COVER SHOULD BE ESTABLISHED ON DISTURBED AREAS WHERE PERMANENT, LONG LIVED VEGETATIVE COVER IS NEEDED TO STABILIZE THE SOIL, TO REDUCE DAMAGES FROM SEDIMENT AND RUNOFF, AND TO ENHANCE THE ENVIRONMENT.

SEEDBED PREPARATION
A. GRADE AS FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION AND ANCHORING, AND MAINTENANCE.

B. APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TESTS SUCH AS THOSE OFFERED BY THE UNIVERSITY OF MAINE SOIL TESTING LABORATORY. SOIL SAMPLE MAILERS ARE AVAILABLE FROM THE LOCAL COOPERATIVE EXTENSION SERVICE OFFICE. IF SOIL TESTING IS NOT FEASIBLE ON SMALL OR VARIABLE SITES, OR WHERE TIMING IS CRITICAL, FERTILIZER MAY BE APPLIED AT THE RATE OF 800 POUNDS PER ACRE OR 18.4 POUNDS PER 1,000 SQUARE FEET USING 10-20-20 (N-P2O5-K2O) OR EQUIVALENT. APPLY GROUND LIMESTONE (EQUIVALENT TO 50% CALCIUM PLUS MAGNESIUM OXIDE) AT A RATE OF 3 TONS PER ACRE (138 LB. PER 1,000 SQ. FT).

C. WORK LIME AND FERTILIZER INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRING TOOTH HARROW OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLY UNIFORM, FINE SEEDBED IS PREPARED. ALL BUT CLAY OR SILTY SOILS AND COARSE SANDS SHOULD BE ROLLED TO FIRM THE SEEDBED WHEREVER FEASIBLE.D. REMOVE FROM THE SURFACE ALL STONES 2 INCHES OR LARGER IN ANY DIMENSION. REMOVE ALL OTHER DEBRIS, SUCH AS WIRE, CABLE, TREE ROOTS, CONCRETE, CLODS, LUMPS OR OTHER UNSUITABLE MATERIAL.

E. INSPECT SEEDBED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED; THE AREA MUST BE TILLED AND FIRMED AS ABOVE.

F. PERMANENT SEEDING SHOULD BE MADE 45 DAYS PRIOR TO THE FIRST KILLING FROST OR AS A DORMANT SEEDING WITH MULCH AFTER THE FIRST KILLING FROST AND BEFORE SNOWFALL. WHEN CROWN VETCH IS SEEDED IN LATER SUMMER, AT LEAST 35% OF THE SEED SHOULD BE HARD SEED (UNSCARIFIED). IF SEEDING CANNOT BE DONE WITHIN THE SEEDING DATES, MULCH ACCORDING TO THE TEMPORARY MULCHING BMP AND OVERWINTER STABILIZATION AND CONSTRUCTION TO PROTECT THE SITE AND DELAY SEEDING UNTIL THE NEXT RECOMMENDED SEEDING PERIOD.

G. FOLLOWING SEED BED PREPARTATION, SWALE AREAS, FILL AREAS AND BACK SLOPES SHALL BE SEEDED AT A RATE OF 3 LBS./1,000 S.F. WITH A MIXTURE OF 35% CREEPING RED H. FESCUE, 6% RED TOP, 24% KENTUCKY BLUEGRASS, 10% PERENNIAL RYEGRASS, 20% ANNUAL RYEGRASS AND 5% WHITE DUTCH CLOVER.

I. AREAS WHICH HAVE BEEN TEMPORARILY OR PERMANENTLY SEEDED SHALL BE MULCHED IMMEDIATELY FOLLOWING SEEDING.

J. AREAS WHICH CANNOT BE SEEDED WITHIN THE GROWING SEASON SHALL BE MULCHED FOR OVER-WINTER PROTECTION AND THE AREA SHOULD BE SEEDED AT THE BEGINNING OF THE GROWING SEASON.

WINTER CONSTRUCTION PHASE
IF AN AREA IS NOT STABILIZED WITH TEMPORARY OR PERMANENT MEASURES BY NOVEMBER 15, THEN THE SITE MUST BE PROTECTED WITH ADDITIONAL STABILIZATION MEASURES.

A. PERMANENT STABILIZATION CONSISTS OF AT LEAST 90% VEGETATION, PAVEMENT/GRAVEL BASE OR RIPRAP.

B. DO NOT EXPOSE SLOPES OR LEAVE SLOPES EXPOSED OVER THE WINTER OR FOR ANY OTHER EXTENDED TIME OF WORK SUSPENSION UNLESS FULLY PROTECTED WITH MULCH.

C. APPLY HAY MULCH AT TWICE THE STANDARD RATE (150 LBS. PER 1,000 SF). THE MULCH MUST BE THICK ENOUGH SUCH THAT THE GROUND SURFACE WILL NOT BE VISIBLE AND MUST BE ANCHORED.

D. USE MULCH AND MULCH NETTING OR AN EROSION CONTROL MULCH BLANKET OR ALL SLOPES GREATER THAN 8 % OR OTHER AREAS EXPOSED TO DIRECT WIND.

E. INSTALL AN EROSION CONTROL BLANKET IN ALL DRAINAGEWAYS (BOTTOM AND SIDES) WITH A SLOPE GREATER THAN 3 %.

F. SEE THE VEGETATION MEASURES FOR MORE INFORMATION ON SEEDING DATES AND TYPES.

G. WINTER EXCAVATION AND EARTHWORK SHALL BE COMPLETED SO THAT NO MORE THAN 1 ACRE OF THE SITE IS WITHOUT STABILIZATION AT ANY ONE TIME.

H. AN AREA WITHIN 100 FEET OF A PROTECTED NATURAL RESOURCE MUST BE PROTECTED WITH A DOUBLE ROW OF SEDIMENT BARRIER.

I. TEMPORARY MULCH MUST BE APPLIED WITHIN 7 DAYS OF SOIL EXPOSURE OR PRIOR TO ANY STORM EVENT, BUT AFTER EVERY WORKDAY IN AREAS WITHIN 100 FEET FROM A PROTECTED NATURAL RESOURCE.

J. AREAS THAT HAVE BEEN BROUGHT TO FINAL GRADE MUST BE PERMANENTLY MULCHED THAT SAME DAY.

K. IF SNOWFALL IS GREATER THAN 1 INCH (FRESH OR CUMULATIVE), THE SNOW SHALL BE REMOVED FROM THE AREAS DUE TO BE SEEDED AND MULCHED.

L. LOAM SHALL BE FREE OF FROZEN CLUMPS BEFORE IT IS APPLIED.

M. ALL VEGETATED DITCH LINES THAT HAVE NOT BEEN STABILIZED BY NOVEMBER 1, OR WILL BE WORKED DURING THE WINTER CONSTRUCTION PERIOD, MUST BE STABILIZED WITH AN APPROPRIATE STONE LINING BACKED BY AN APPROPRIATE GRAVEL BED OR GEOTEXTILE UNLESS SPECIFICALLY RELEASED FROM THIS STANDARD BY THE DEPARTMENT.

MAINTENANCE AND INSPECTION PHASE
A. MINIMUM EROSION CONTROL MEASURES WILL NEED TO BE IMPLEMENTED AND THE APPLICANT WILL BE RESPONSIBLE TO MAINTAIN ALL COMPONENTS OF THE EROSION CONTROL PLAN UNTIL THE SITE IS FULLY STABILIZED. HOWEVER, BASED ON SITE AND WEATHER CONDITIONS DURING CONSTRUCTION, ADDITIONAL EROSION CONTROL MEASURES MAY NEED TO BE IMPLEMENTED. ALL AREAS OF INSTABILITY AND EROSION MUST BE REPAIRED IMMEDIATELY DURING CONSTRUCTION AND NEED TO BE MAINTAINED UNTIL THE SITE IS FULLY STABILIZED OR VEGETATION IS ESTABLISHED. A CONSTRUCTION LOG MUST BE MAINTAINED FOR THE EROSION AND SEDIMENTATION CONTROL INSPECTIONS AND MAINTENANCE

B. A LOG (REPORT) MUST BE KEPT SUMMARIZING THE SCOPE OF THE INSPECTION, NAME(S) AND QUALIFICATIONS OF THE PERSONNEL MAKING THE INSPECTION, THE DATE(S) OF THE INSPECTION, AND MAJOR OBSERVATIONS RELATING TO OPERATION OF EROSION AND SEDIMENTATION CONTROLS AND POLLUTION PREVENTION MEASURES. MAJOR OBSERVATIONS MUST INCLUDE: BMPS THAT NEED TO BE MAINTAINED; LOCATION(S) OF BMPS THAT FAILED TO OPERATE AS DESIGNED OR PROVED INADEQUATE FOR A PARTICULAR LOCATION; AND LOCATION(S) WHERE ADDITIONAL BMPS ARE NEEDED THAT DID NOT EXIST AT THE TIME OF INSPECTION. FOLLOW-UP TO CORRECT DEFICIENCIES OR ENHANCE CONTROLS MUST ALSO BE INDICATED IN THE LOG AND DATED, INCLUDING WHAT ACTION WAS TAKEN AND WHEN.

DEWATERING
A DEWATERING PLAN IS NEEDED TO ADDRESS EXCAVATION DE-WATERING FOLLOWING HEAVY RAINFALL EVENTS OR WHERE THE EXCAVATION MAY INTERCEPT THE GROUNDWATER TABLE DURING CONSTRUCTION. THE COLLECTED WATER NEEDS TREATMENT AND A DISCHARGE POINT THAT WILL NOT CAUSE DOWNGRADIENT EROSION AND OFFSITE SEDIMENTATION OR WITHIN A RESOURCE. PLEASE FOLLOW THE DETAILS OF SUCH A PLAN.

HOUSEKEEPING

1. SPILL PREVENTION. CONTROLS MUST BE USED TO PREVENT POLLUTANTS FROM CONSTRUCTION AND WASTE MATERIALS STORED ON SITE TO ENTER STORMWATER, WHICH INCLUDES STORAGE PRACTICES TO MINIMIZE EXPOSURE OF THE MATERIALS TO STORMWATER. THE SITE CONTRACTOR OR OPERATOR MUST DEVELOP, AND IMPLEMENT AS NECESSARY, APPROPRIATE SPILL PREVENTION, CONTAINMENT, AND RESPONSE PLANNING MEASURES.

   NOTE: ANY SPILL OR RELEASE OF TOXIC OR HAZARDOUS SUBSTANCES MUST BE REPORTED TO THE DEPARTMENT. FOR OIL SPILLS, CALL 1-800-482-0777 WHICH IS AVAILABLE 24 HOURS A DAY. FOR SPILLS OF TOXIC OR HAZARDOUS MATERIAL, CALL 1-800-452-4664 WHICH IS AVAILABLE 24 HOURS A DAY. FOR MORE INFORMATION, VISIT THE DEPARTMENT'S WEBSITE AT : HTTP://WWW.MAINE.GOV/DEP/SPILLS/EMERGSPILLRESP/

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, BUT OTHER WATER ADDITIVES MAY BE CONSIDERED AS NEEDED. A STABILIZED CONSTRUCTION ENTRANCE (SCE) SHOULD BE INCLUDED TO MINIMIZE TRACKING OF MUD AND SEDIMENT. IF OFF-SITE TRACKING OCCURS, PUBLIC ROADS SHOULD BE SWEPT IMMEDIATELY AND NO LESS THAN ONCE A WEEK AND PRIOR TO SIGNIFICANT STORM EVENTS. OPERATIONS DURING DRY MONTHS, THAT EXPERIENCE FUGITIVE DUST PROBLEMS, SHOULD WET DOWN UNPAVED ACCESS ROADS ONCE A WEEK OR MORE FREQUENTLY AS NEEDED WITH A WATER ADDITIVE TO SUPPRESS FUGITIVE SEDIMENT AND DUST.

4. DEBRIS AND OTHER MATERIALS. MINIMIZE THE EXPOSURE OF CONSTRUCTION DEBRIS, BUILDING AND LANDSCAPING MATERIALS, TRASH, FERTILIZERS, PESTICIDES, HERBICIDES, DETERGENTS, SANITARY WASTE AND OTHER MATERIALS TO PRECIPITATION AND STORMWATER RUNOFF. THESE MATERIALS MUST BE PREVENTED FROM BECOMING A POLLUTANT SOURCE.

   NOTE: TO PREVENT THESE MATERIALS FROM BECOMING A SOURCE OF POLLUTANTS, CONSTRUCTION AND POST-CONSTRUCTION ACTIVITIES RELATED TO A PROJECT MAY BE REQUIRED TO COMPLY WITH APPLICABLE PROVISION OF RULES RELATED TO SOLID, UNIVERSAL, AND HAZARDOUS WASTE, INCLUDING, BUT NOT LIMITED TO, THE MAINE SOLID WASTE AND HAZARDOUS WASTE MANAGEMENT RULES; MAINE HAZARDOUS WASTE MANAGEMENT RULES; MAINE OIL CONVEYANCE AND STORAGE RULES; AND MAINE PESTICIDE REQUIREMENTS.

5. EXCAVATION DE-WATERING. EXCAVATION 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 REMOVED FROM THE PONDED AREA, EITHER THROUGH GRAVITY OR PUMPING, 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 ENGINEER AND OWNER.

   NOTE: DEWATERING CONTROLS ARE DISCUSSED IN THE "MAINE EROSION AND SEDIMENT CONTROL BMPS, MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION."

6. AUTHORIZED NON-STORMWATER DISCHARGES. IDENTIFY AND PREVENT CONTAMINATION BY NON-STORMWATER DISCHARGES. WHERE ALLOWED NON-STORMWATER DISCHARGES EXIST, THEY MUST BE IDENTIFIED AND STEPS SHOULD BE TAKEN TO ENSURE THE IMPLEMENTATION OF APPROPRIATE POLLUTION PREVENTION MEASURES FOR THE NON-STORMWATER COMPONENT(S) OF THE DISCHARGE. AUTHORIZED NON-STORMWATER DISCHARGES ARE:

   (a) DISCHARGES FROM FIREFIGHTING ACTIVITY;

   (b) FIRE HYDRANT FLUSHINGS;

   (c) VEHICLE WASHWATER IF DETERGENTS ARE NOT USED AND WASHING IS LIMITED TO THE EXTERIOR OF VEHICLES (ENGINE, UNDERCARRIAGE AND TRANSMISSION WASHING IS PROHIBITED);

   (d) DUST CONTROL RUNOFF IN ACCORDANCE WITH PERMIT CONDITIONS AND SECTION 3 ABOVE;

   (e) ROUTINE EXTERNAL BUILDING WASHDOWN, NOT INCLUDING SURFACE PAINT REMOVAL, THAT DOES NOT INVOLVE DETERGENTS;

   (f)PAVEMENT WASHWATER (WHERE SPILLS/LEAKS OF TOXIC OR HAZARDOUS MATERIALS HAVE NOT OCCURRED, UNLESS ALL SPILLED MATERIAL HAD BEEN REMOVED) IF DETERGENTS ARE NOT USED;

   (g) UNCONTAMINATED AIR CONDITIONING OR COMPRESSOR CONDENSATE;

   (h) UNCONTAMINATED GROUNDWATER OR SPRING WATER;

   (i)FOUNDATION OR FOOTER DRAIN-WATER WHERE FLOWS ARE NOT CONTAMINATED;

   (j)UNCONTAMINATED EXCAVATION DEWATERING (SEE REQUIREMENTS IN SECTION 5 ABOVE);

   (k) POTABLE WATER SOURCES INCLUDING WATERLINE FLUSHINGS; AND

   (l)LANDSCAPE IRRIGATION.

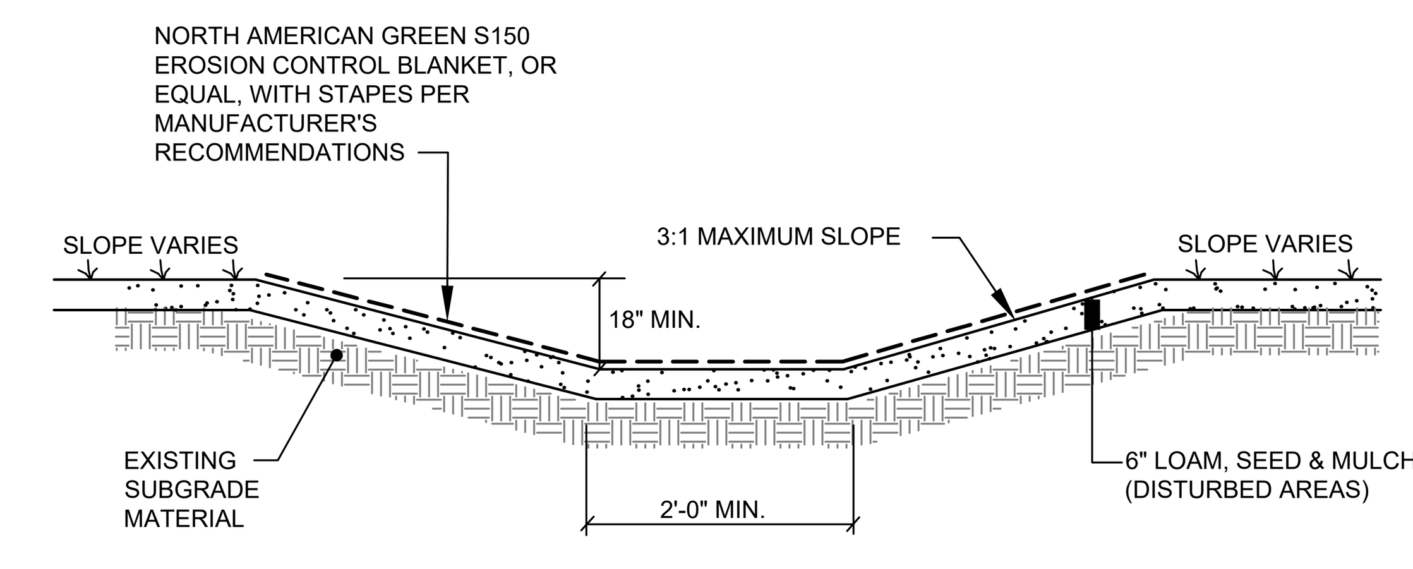
7. UNAUTHORIZED NON-STORMWATER DISCHARGES . THE FOLLOWING NON-STORMWATER DISCHARGES ARE PROHIBITED:

   (a) WASTEWATER FROM THE WASHOUT OR CLEANOUT OF CONCRETE, STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS OR OTHER CONSTRUCTION MATERIALS;

   (b) FUELS, OILS OR OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE;

   (c) SOAPS, SOLVENTS, OR DETERGENTS USED IN VEHICLE AND EQUIPMENT WASHING; AND

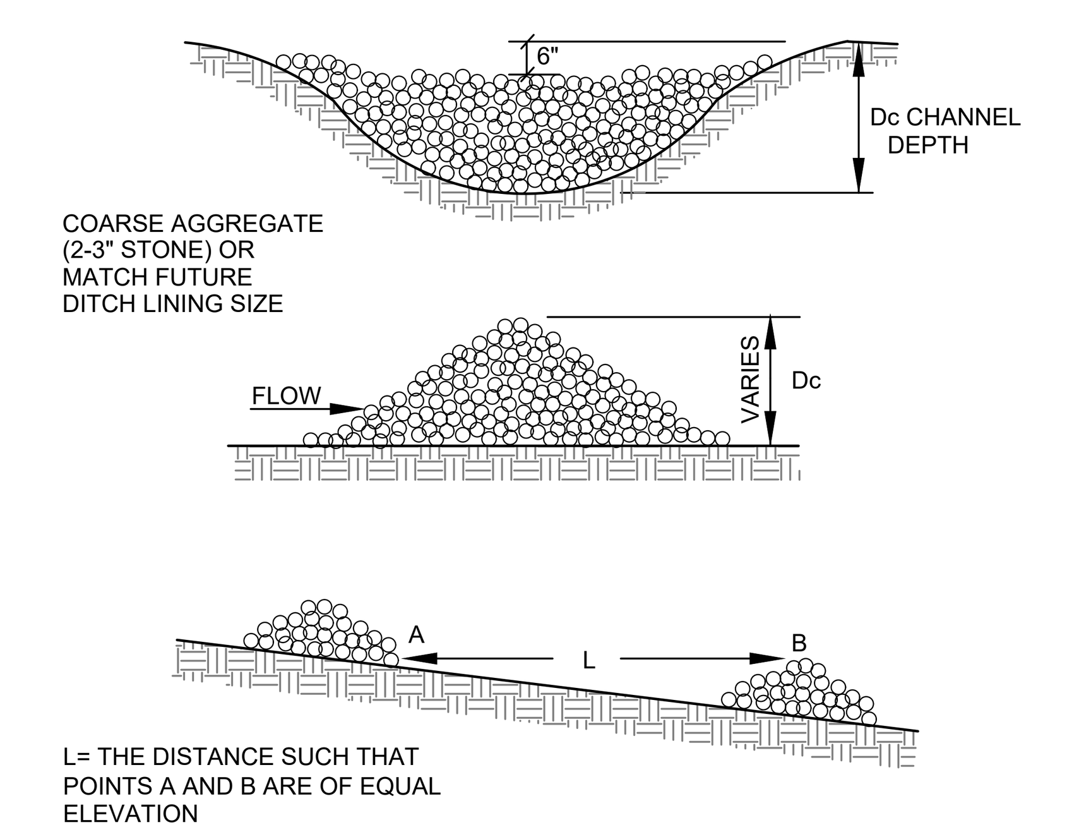
   (d) TOXIC OR HAZARDOUS SUBSTANCES FROM A SPILL OR OTHER RELEASE.



NOTE: REFER TO GRADING PLAN FOR DITCH WEDTH AND SIDE SLOPES

GRASSED SWALE

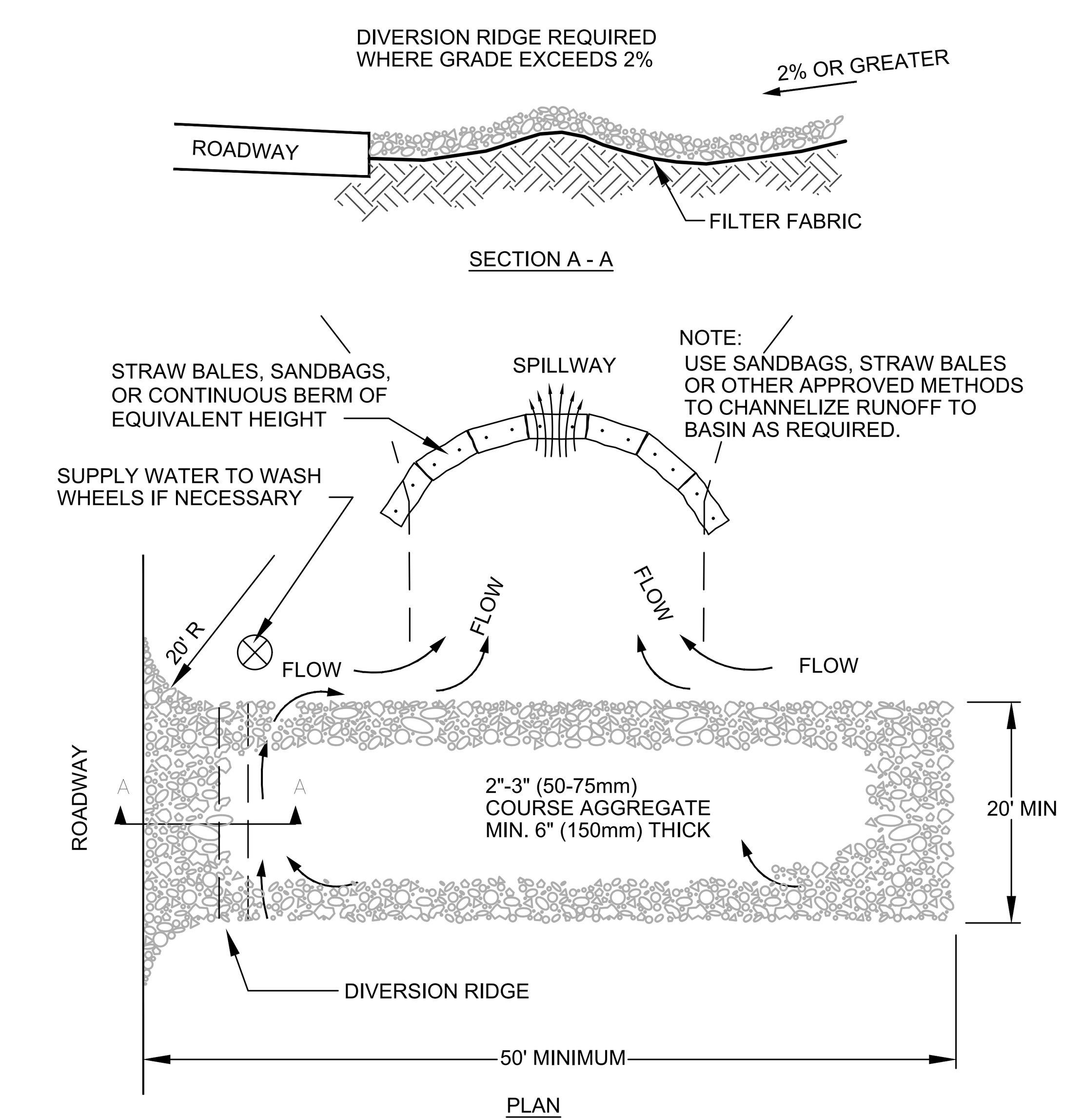
NOT TO SCALE



L= THE DISTANCE SUCH THAT POINTS A AND B ARE OF EQUAL ELEVATION

STONE CHECK DAM

NOT TO SCALE



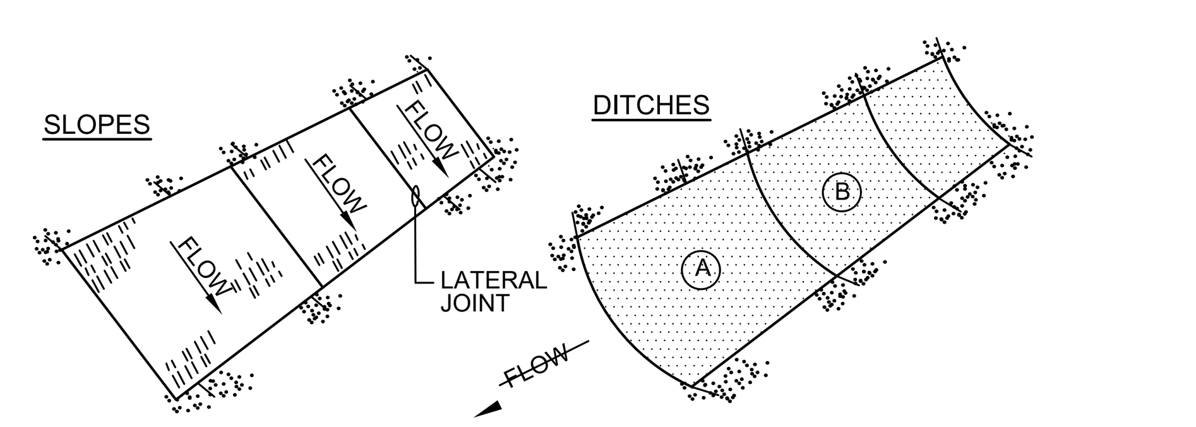
NOTES:
1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT.

2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.

3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

STABILIZED CONSTRUCTION ENTRANCE

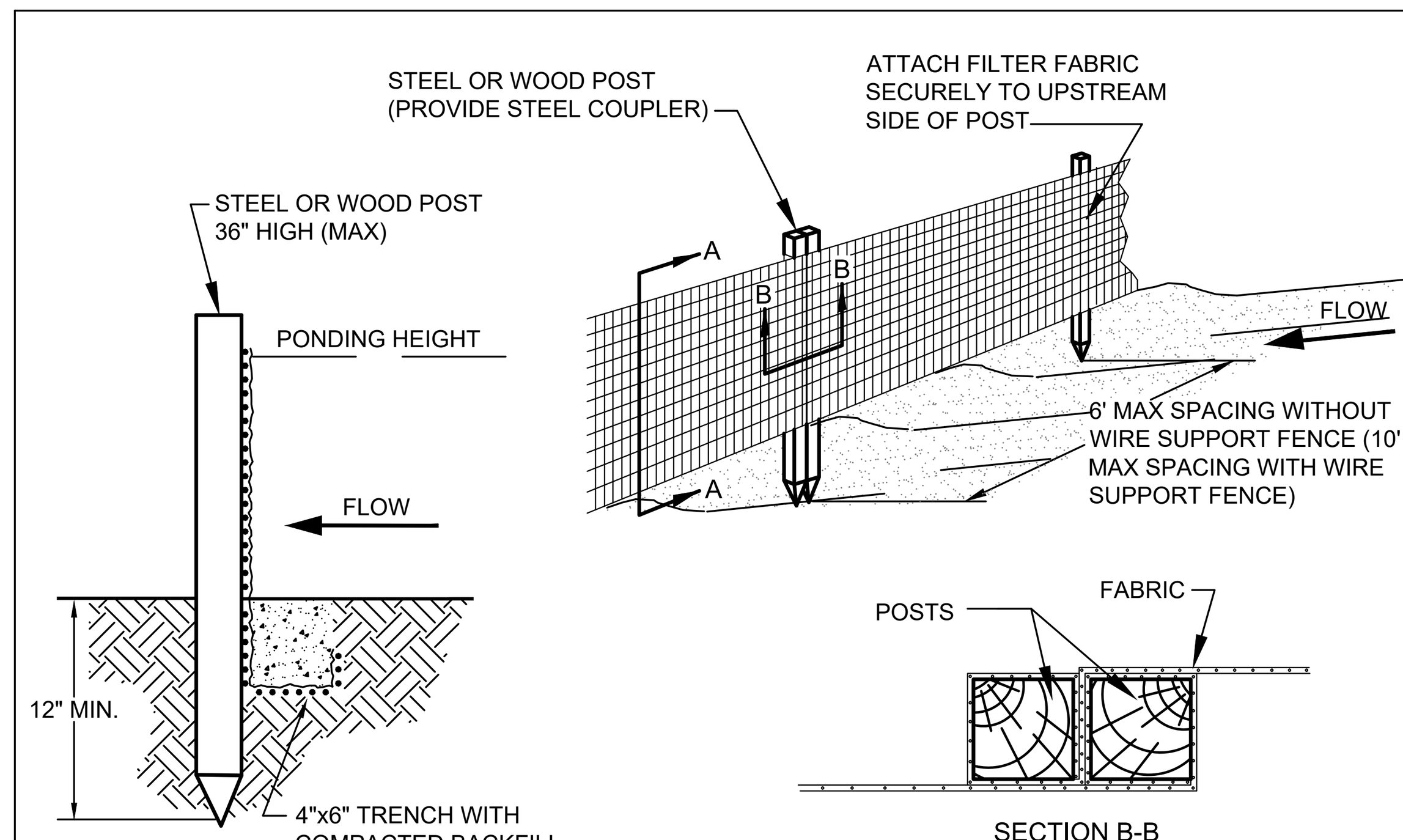
NOT TO SCALE



NOTES:
1. BURY THE TOP END OF THE MESH MATERIAL IN A 6" TRENCH AND BACKFILL AND TAMP TRENCHING SECURE END WITH STAPLES AT 6" SPACING, 4" DOWN FROM EXPOSED END.
2. FLOW DIRECTION JOINTS TO HAVE UPPER END OF LOWER STRIP BURIED WITH UPPER LAYERS OVERLAPPED 4" AND STAPLED. OVERLAP B OVER A.
3. LATERAL JOINTS TO HAVE 4" OVERLAP OF STRIPS. STAPLE 18" ON CENTER.
4. STAPLE OUTSIDE LATERAL EDGE 2' ON CENTER.
5. WIRE STAPLES TO BE MIN. OF #11 WIRE, 6" LONG & 1-1/2" WIDE.
6. USE NORTH AMERICAN GREEN DS 150 (OR APPROVED EQUAL) ON SLOPES BETWEEN 4:1-2:1. USE NORTH AMERICAN GREEN VMAX SC250 PERMANENT TURF REINFORCEMENT MAT (OR APPROVED EQUAL) ON SLOPES 2:1 AND STEEPER..

EROSION CONTROL BLANKET

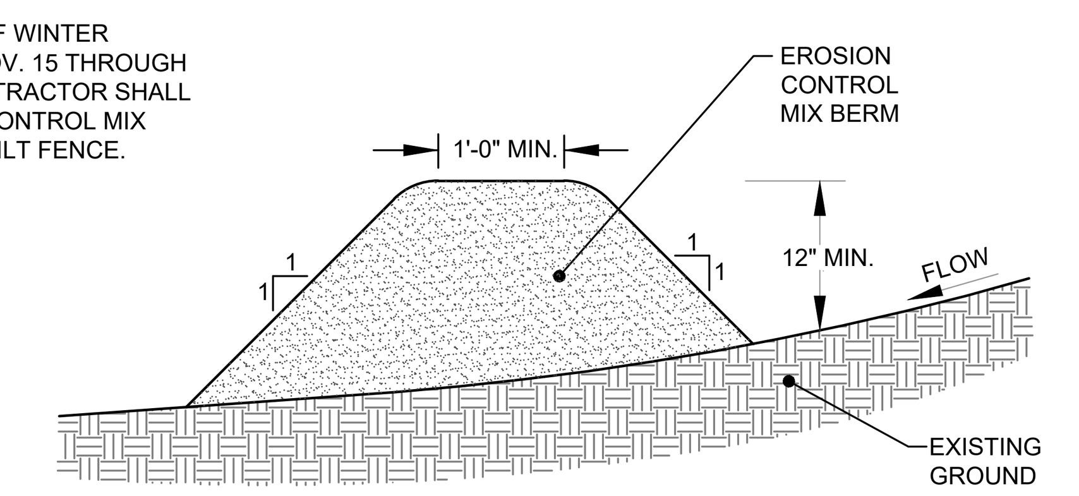
NOT TO SCALE



SILT FENCE

NOT TO SCALE

NOTE:
DURING PERIODS OF WINTER CONSTRUCTION (NOV. 15 THROUGH APRIL 15), THE CONTRACTOR SHALL INSTALL EROSION CONTROL MIX BERMS IN LIEU OF SILT FENCE.



EROSION CONTROL MIX:
EROSION CONTROL MIX SHALL CONTAIN A WELL-GRADED MIXTURE OF PARTICLE SIZES & 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:
- THE ORGANIC MATTER CONTENT SHALL BE BETWEEN 80% - 100% DRY WEIGHT BASIS
- PARTICLE SIZE BY WEIGHT SHALL BE 100% PASSING A 6" SCREEN AND A MINIMUM OF 70%, MAXIMUM OF 85% PASSING A 0.75" SCREEN
- THE ORGANIC PORTION NEEDS TO BE FIBROUS AND ELONGATED
- LARGE PORTIONS OF SILTS, CLAYS OR FINE SANDS ARE NOT ACCEPTABLE IN THE MIX.
- SOLUBLE SALTS CONTENT SHALL BE < 4.0 mmhos/cm.
- ph SHALL FALL BETWEEN 5.0 - 8.0.

EROSION CONTROL MIX BERM

NOT TO SCALE

STATE OF MAINE — JEFFREY D. AMOS — No. 10167 — LICENSED — PROFESSIONAL ENGINEER

DATE: 10/22/2021
P.E.: JEFFREY D. AMOS, PE 10167

NO.	DATE	REVISIONS	APP'D BY
3	11/5/2021	REVISE PER TOWN COMMENTS	
2	10/22/2021	REVISE PER TOWN COMMENTS	
1	10/01/2021	SITE PLAN SUBMISSION	JDA

TERRADYN CONSULTANTS, LLC
41 CAMPUS DRIVE
SUITE 101
NEW GLOUCESTER, ME 04260
565 CONGRESS STREET
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PORTLAND, ME 04102
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www.terradynconsultants.com
Civil Engineering | Land Planning | Stormwater Design | Environmental Permitting

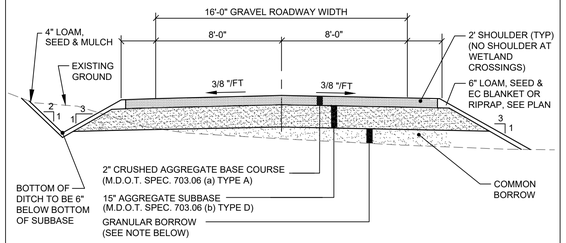
PERMIT DRAWING
NOT FOR CONSTRUCTION

PROJECT:
SEBAGO ROAD SOLAR
BALDWIN, MAINE

SHEET TITLE:
EROSION CONTROL NOTES & DETAILS

CLIENT:
SEBAGO ROAD SOLAR, LLC
43 HOLMES COURT
PORTSMOUTH, NH 03810

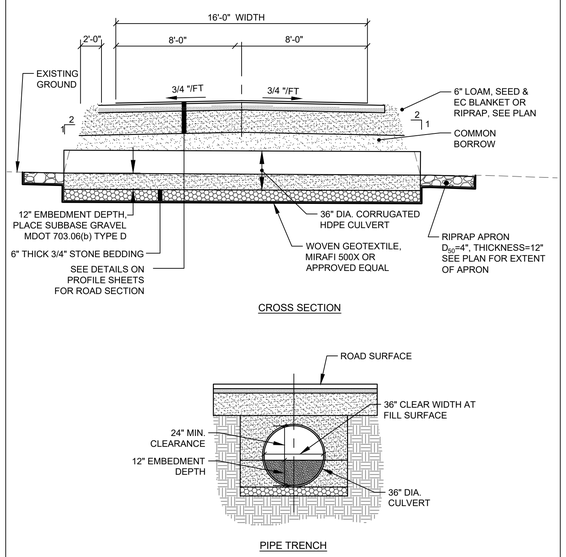
DATE:	12/17/2020
SCALE:	AS SHOWN
DESIGNED:	ARF/CRS
JOB NO:	2079
FILE: 2079-D.DWG	
SHEET	C-4.0



NOTE: FILL AREAS BENEATH DRIVING SURFACE SHALL BE GRANULAR BORROW. ALL OTHER FILL AREAS SHALL BE A COMMON BORROW MATERIAL SUITABLE FOR EMBANKMENT CONSTRUCTION, FREE FROM FROZEN MATERIAL, PERISHABLE RUBBLE, PEAT, ORGANICS, ROCKS LARGER THAN 12" IN DIAMETER, VEGETATION AND OTHER MATERIAL UNSUITABLE FOR ROADWAY AND SUB-GRADE CONSTRUCTION. EXCAVATED ONSITE MATERIALS MAY BE USED FOR FILL PROVIDED THE MATERIAL IS FREE FROM UNSUITABLE MATERIAL DESCRIBED IN THIS NOTE AND UPON APPROVAL OF THE ENGINEER. GRANULAR BORROW AND COMMON BORROW SHALL ADHERE TO MDOT SPECIFICATIONS 703.19 AND 703.18 RESPECTIVELY.

PRIVATE WAY SECTION

NOT TO SCALE



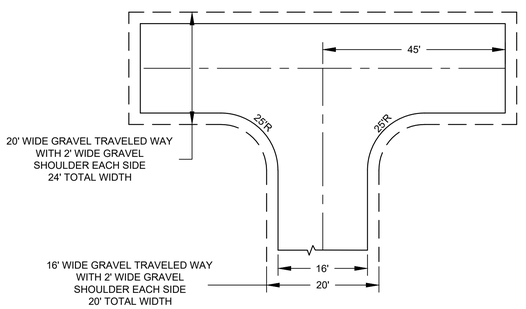
CROSS SECTION

PIPE TRENCH

NOTES:
1. THIS DETAIL TO BE USED WHERE THE ROAD CROSSES WETLAND AREAS.
2. SEE TYPICAL TRENCH DETAIL FOR BACKFILL REQUIREMENTS

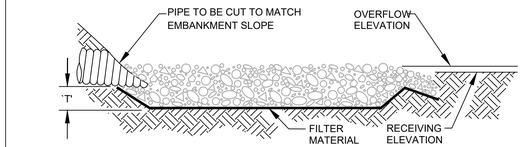
WETLAND CROSSING DETAIL

NOT TO SCALE



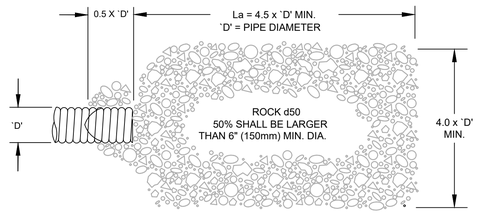
HAMMERHEAD TEE TURN AROUND DIMENSIONS

NOT TO SCALE



THICKNESS (`T') = 2.25 x D50 RIPRAP SIZING - 6" (150mm) MIN.

SECTION



PLAN

PIPE OUTLET PROTECTION SIZING TABLE

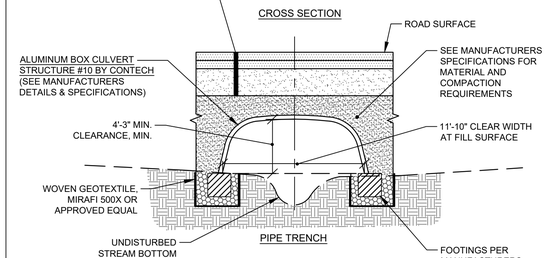
PIPE SIZE (IN)	RIP RAP SIZING (D50)	LENGTH (FT)	WIDTH (FT)
6	3	2.5	2.0
12	5	5.0	4.0
15	6	6.25	5.0
18	8	7.5	6.0
24	10	10.0	8.0
30	12	13.0	10.0
36	14	15.0	12.0

NOTES:
1. `La' = LENGTH OF APRON. DISTANCE `La' SHALL BE OF SUFFICIENT LENGTH TO DISSIPATE ENERGY.
2. APRON SHALL BE SET AT A ZERO GRADE AND ALIGNED STRAIGHT.
3. FILTER MATERIAL SHALL BE FILTER FABRIC (MIRAFI 600X OR APPROVED EQUAL) OR 6" (150mm) THICK MINIMUM GRADED GRAVEL LAYER.

PIPE OUTLET PROTECTION

NOT TO SCALE

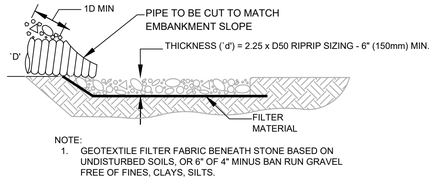
CROSS SECTION



NOTES:
1. THIS DETAIL TO BE USED AT STATION SHOWN.
2. SEE MANUFACTURERS SPECIFICATIONS FOR BACKFILL REQUIREMENTS

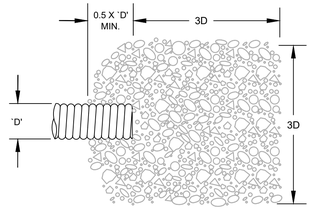
WETLAND CROSSING DETAIL AT STA:6+62.7

NOT TO SCALE



NOTE:
1. GEOTEXTILE FILTER FABRIC BENEATH STONE BASED ON UNDISTURBED SOILS, OR 6" OF 4" MINUS BAN RUN GRAVEL FREE OF FINES, CLAYS, SILTS.
2. GEOTEXTILE TO BE MIRAFI 600X OR APPROVED EQUAL.

SECTION



HARD ANGULAR ROCK D50 SELECTION PER CHART

PLAN

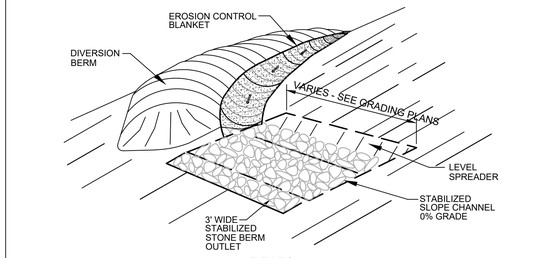
PIPE INLET PROTECTION SIZING TABLE

PIPE SIZE (IN)	RIRAP SIZING (D50)	LENGTH (FT)	WIDTH (FT)
6	3	2.0	1.5
12	5	3.5	3.0
15	6	4.5	3.75
18	8	5.25	4.5
24	10	7.0	6.0
30	12	8.75	7.5
36	14	10.5	9.0

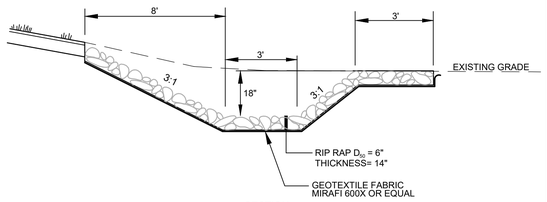
NOTES:
1. IN DEFINED CHANNELS, APRON SHALL EXTEND FULL WIDTH OF BOTTOM AND ONE FOOT ABOVE MAX. HEADWATER OR UP TO BANK FULL, WHICHEVER IS LESS.

PIPE INLET PROTECTION

NOT TO SCALE



ELEVATION



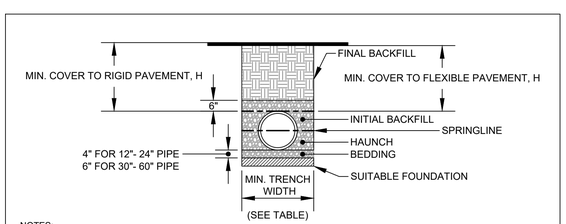
SECTION

CONSTRUCTION SPECIFICATIONS:

1. CONSTRUCT THE LEVEL SPREADER LIP ON A ZERO PERCENT GRADE TO ENSURE UNIFORM SPREADING OF RUNOFF.
2. LEVEL SPREADER SHALL BE CONSTRUCTED ON UNDISTURBED SOIL - NOT ON FILL MATERIAL.
3. DIVERSION BERM SHALL BE CONSTRUCTED OF COMMON BORROW MATERIAL MEETING M.D.O.T. spec 703.18. MATERIAL SHALL BE PLACED IN 12" LIFTS AND COMPACTED TO 90% MAX. DRY DENSITY.
4. THE ENTRANCE CHANNEL TO THE LEVEL SPREADER SHALL NOT EXCEED A ONE PERCENT GRADE AT LEAST 20 FEET BEFORE ENTERING INTO THE SPREADER.
5. THE FLOW FROM THE LEVEL SPREADER SHALL OUTLET ONTO STABILIZED AREAS. WATER SHOULD NOT RECONCENTRATE IMMEDIATELY BELOW THE SPREADER.
6. PERIODIC INSPECTION AND REQUIRED MAINTENANCE SHALL BE PERFORMED.

DITCH TURNOUT/ LEVEL SPREADER

NOT TO SCALE



NOTES:

1. ALL PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST ADDITION
2. MEASURES SHOULD BE TAKEN TO PREVENT MIGRATION OF NATIVE FINES INTO BACKFILL MATERIAL, WHEN REQUIRED.
3. FOUNDATION: WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER. AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.
4. BEDDING: SUITABLE MATERIAL SHALL BE CLASS I, II OR III. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 4" (100mm) FOR 4"-24" (100mm-600mm); 6" (150mm) FOR 30"-60" (750mm-900mm).
5. INITIAL BACKFILL: SUITABLE MATERIAL SHALL BE CLASS I, II OR III IN THE PIPE ZONE EXTENDING NOT LESS THAN 6" ABOVE CROWN OF PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.
6. MINIMUM COVER: MINIMUM COVER, H, IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 12" FROM THE TOP OF PIPE TO GROUND SURFACE. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLOATION. FOR TRAFFIC APPLICATIONS, MINIMUM COVER, H, IS 12" UP TO 48" DIAMETER PIPE AND 24" OF COVER FOR 54"-60" DIAMETER PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT.

RECOMMENDED MINIMUM TRENCH WIDTHS

PIPE DIAM.	MIN. TRENCH WIDTH
4"	21"
6"	23"
8"	26"
10"	28"
12"	30"
15"	34"
18"	39"
24"	48"
30"	56"
36"	64"
42"	72"
48"	80"
54"	88"
60"	96"

MINIMUM RECOMMENDED COVER BASED ON VECHICLE LOADING CONDITIONS

	SURFACE LIVE LOADING CONDITION	
PIPE DIAM.	H-25	HEAVY CONSTRUCTION (75T AXLE LOAD) *
12" - 48"	12"	48"
54" - 60"	24"	60"

* VEHICLES IN EXCESS OF 75T MAY REQUIRE ADDITIONAL COVER

TYPICAL TRENCH DETAIL

NOT TO SCALE

STATE OF MAINE
JEFFREY D. AMOS
10167
LICENSED
PROFESSIONAL ENGINEER

DATE: 10/22/2021
P.E.: JEFFREY D. AMOS, PE 10167

NO.	DATE	REVISIONS	APPD BY
3	11/5/2021	REVISE PER TOWN COMMENTS	JDA
2	10/22/2021	REVISE PER TOWN COMMENTS	JDA
1	10/01/2021	SITE PLAN SUBMISSION	JDA

TERRADYN CONSULTANTS, LLC
Civil Engineering | Land Planning | Stormwater Design | Environmental Permitting
41 CAMPUS DRIVE, SUITE 101, NEW GLOUCESTER, ME 04260
565 CONGRESS STREET, SUITE 201, PORTLAND, ME 04102
OFFICE: (207) 926-5111 FAX: (207) 221-1317
www.terradynconsultants.com

PERMIT DRAWING
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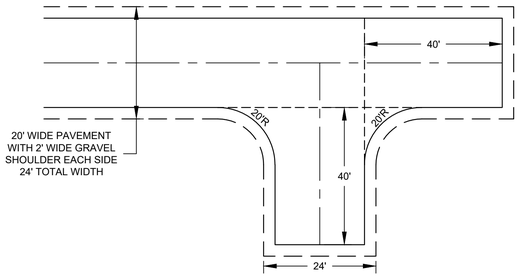
PROJECT:
SEBAGO ROAD SOLAR
BALDWIN, MAINE

SHEET TITLE:
STORMWATER DETAILS & NOTES

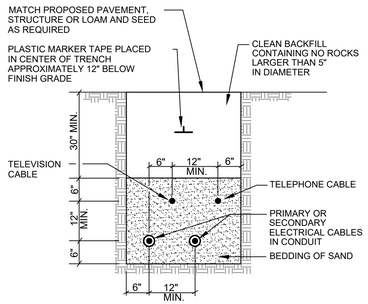
CLIENT:
SEBAGO ROAD SOLAR, LLC
43 HOLMES COURT
PORTSMOUTH, NH 03810

DATE:	12/17/2020
SCALE:	AS SHOWN
DESIGNED:	ARF/CRS
JOB NO:	2079
FILE: 2079 D.DWG	
SHEET	C-4.1



HAMMERHEAD TURN AROUND DIMENSIONS

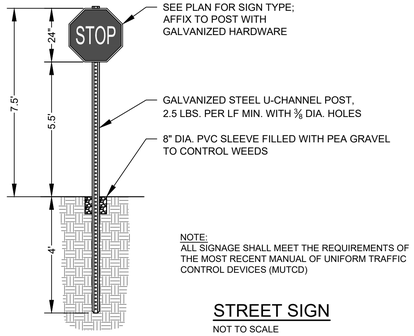
NOT TO SCALE



CABLES TO BE ENCASED IN SCHEDULE 40 PVC CONDUIT WHEN RUN BENEATH PAVED AREAS.

TYPICAL UNDERGROUND CABLE INSTALLATION

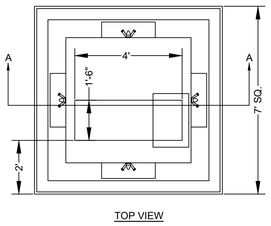
NOT TO SCALE



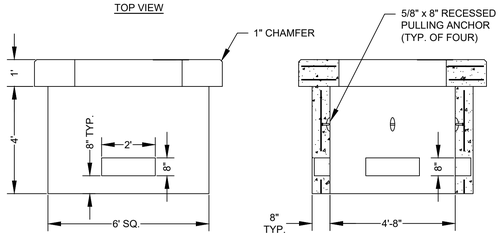
NOTE:
ALL SIGNAGE SHALL MEET THE REQUIREMENTS OF THE MOST RECENT MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD)

STREET SIGN

NOT TO SCALE



TOP VIEW

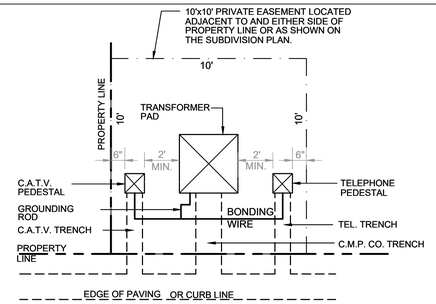


FRONT VIEW SECTION A-A

NOTES:
1. CONCRETE f'c=4000 psi. AT 28 DAYS.
2. REINF. PER CMP SPECIFICATIONS.
3. DUCT OPENINGS SHOWN ARE TYPICAL AND CAN BE MODIFIED PER REQUEST.
4. CENTRAL MAINE POWER CO. SPECIFICATION

7'X7' TRANSFORMER PAD (75-500 KVA)

NOT TO SCALE



NOTE:
TRANSFORMER PAD AND COVER TO BE FIBERGLASS MEETING CENTRAL MAINE POWER SPECIFICATIONS.

TRANSFORMER DETAIL

NOT TO SCALE

CONSTRUCTION NOTES

1. ALL WORK SHALL CONFORM TO THE APPLICABLE CODES AND ORDINANCES.

2. CONTRACTOR SHALL VISIT THE SITE AND FAMILIARIZE HIM OR HERSELF WITH ALL CONDITIONS AFFECTING THE PROPOSED WORK AND SHALL MAKE PROVISIONS AS TO THE COST THEREOF. CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING HIM OR HERSELF WITH ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED AS SHOWN PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE COMMENCEMENT OF WORK.

3. CONTRACTOR SHALL NOTIFY ENGINEER OF ALL PRODUCTS OR ITEMS NOTED AS "EXISTING" WHICH ARE NOT FOUND IN THE FIELD.

4. INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND OWNER'S REQUIREMENTS UNLESS SPECIFICALLY OTHERWISE INDICATED OR WHERE LOCAL CODES OR REGULATIONS TAKE PRECEDENCE.

5. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO FABRICATION AND ERECTION OF ANY MATERIAL. ANY UNUSUAL CONDITIONS SHALL BE REPORTED TO THE ATTENTION OF THE ENGINEER.

6. CONTRACTOR SHALL CLEAN AND REMOVE DEBRIS AND SEDIMENT DEPOSITED ON PUBLIC STREETS, SIDEWALKS, ADJACENT AREAS, OR OTHER PUBLIC WAYS DUE TO CONSTRUCTION.

7. CONTRACTOR SHALL INCORPORATE PROVISIONS AS NECESSARY IN CONSTRUCTION TO PROTECT EXISTING STRUCTURES, PHYSICAL FEATURES, AND MAINTAIN SITE STABILITY DURING CONSTRUCTION. CONTRACTOR SHALL RESTORE ALL AREAS TO ORIGINAL CONDITION AND AS DIRECTED BY DESIGN DRAWINGS.

8. SITE CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS PRIOR TO CONSTRUCTION.

9. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH "MAINE EROSION AND SEDIMENTATION CONTROL BMP'S" PUBLISHED BY THE MAINE DEP IN 2003.. A COPY OF THE MANUAL CAN BE FOUND AT HTTP://MAINE.GOV/DEP/BLWQ/DOCSTAND/ESCBMPS/INDEX.HTM. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO POSSESS A COPY OF THE EROSION CONTROL PLAN AT ALL TIMES.

10. THE CONTRACTOR IS HEREBY CAUTIONED THAT ALL SITE FEATURES SHOWN HEREON ARE BASED ON FIELD OBSERVATIONS BY THE SURVEYOR AND BY INFORMATION PROVIDED BY UTILITY COMPANIES. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR SHALL CONTACT DIG SAFE (1-888-DIGSAFE) AT LEAST THREE (3) BUT NOT MORE THAN THIRTY (30) DAYS PRIOR TO COMMENCEMENT OF EXCAVATION OR DEMOLITION TO VERIFY HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITIES. CONTRACTOR SHALL BE AWARE THAT DIG SAFE ONLY NOTIFIES ITS "MEMBER" UTILITIES ABOUT THE DIG. WHEN NOTIFIED, DIG SAFE WILL ADVISE CONTRACTOR OF MEMBER UTILITIES IN THE AREA. CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING AND CONTACTING NON-MEMBER UTILITIES DIRECTLY. NON-MEMBER UTILITIES MAY INCLUDE TOWN OR CITY WATER AND SEWER DISTRICTS AND SMALL LOCAL UTILITIES, AS WELL AS USG PUBLIC WORKS SYSTEMS.

11. CONTRACTORS SHALL BE RESPONSIBLE FOR COMPLIANCE WITH THE REQUIREMENTS OF 23 MRSA 3360-A. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH THE APPROPRIATE UTILITIES TO OBTAIN AUTHORIZATION PRIOR TO RELOCATION OF ANY EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THESE PLANS. IF A UTILITY CONFLICT ARISES, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER, THE MUNICIPALITY AND APPROPRIATE UTILITY COMPANY PRIOR TO PROCEEDING WITH ANY RELOCATION.

12. ALL PAVEMENT MARKINGS AND DIRECTIONAL SIGNAGE SHOWN ON THE PLAN SHALL CONFORM TO THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) STANDARDS.

13. ALL PAVEMENT JOINTS SHALL BE SAWCUT PRIOR TO PAVING TO PROVIDE A DURABLE AND UNIFORM JOINT.

14. NO HOLES, TRENCHES OR STRUCTURES SHALL BE LEFT OPEN OVERNIGHT IN ANY EXCAVATION ACCESSIBLE TO THE PUBLIC OR IN PUBLIC RIGHTS-OF-WAY.

15. ALL WORK WITHIN THE PUBLIC RIGHT-OF-WAY SHALL REQUIRE A M.D.O.T. PERMIT AS WELL AS PERMITS FROM THE TOWN AS APPLICABLE.

16. THE PROPOSED LIMITS OF CLEARING SHOWN HEREON ARE APPROXIMATE BASED UPON THE PROPOSED LIMITS OF SITE GRADING. THE APPLICANT RESERVES THE RIGHT TO PERFORM NORMAL FOREST MANAGEMENT ACTIVITIES OUTSIDE OF THE CLEARING LIMIT AS SHOWN. TREE REMOVAL OUTSIDE OF THE LIMITS OF CLEARING MAY BE NECESSARY TO REMOVE DEAD OR DYING TREES OR TREE LIMBS. THIS REMOVAL IS DUE TO POTENTIAL SAFETY HAZARDS AND TO PROMOTE PROPER FOREST GROWTH.

17. IMMEDIATELY UPON COMPLETION OF CUTS/FILLS, THE CONTRACTOR SHALL STABILIZE DISTURBED AREAS IN ACCORDANCE WITH EROSION CONTROL NOTES AND AS SPECIFIED ON PLANS.

18. THE CONTRACTOR SHALL BE FULLY AND SOLELY RESPONSIBLE FOR THE REMOVAL, REPLACEMENT AND RECTIFICATION OF ALL DAMAGED AND DEFECTIVE MATERIAL AND WORKMANSHIP IN CONNECTION WITH THE CONTRACT WORK. THE CONTRACTOR SHALL REPLACE OR REPAIR AS DIRECTED BY THE OWNER ALL SUCH DAMAGED OR DEFECTIVE MATERIALS WHICH APPEAR WITHIN A PERIOD OF ONE YEAR FROM THE DATE OF SUBSTANTIAL COMPLETION.

19. ALL WORK PERFORMED BY THE GENERAL CONTRACTOR AND/OR TRADE SUBCONTRACTOR SHALL CONFORM TO THE REQUIREMENTS OF LOCAL, STATE OR FEDERAL LAWS, AS WELL AS ANY OTHER GOVERNING REQUIREMENTS, WHETHER OR NOT SPECIFIED ON THE DRAWINGS.

21. WHERE THE TERMS "APPROVED EQUAL", "OTHER APPROVED", "EQUAL TO", "ACCEPTABLE" OR OTHER GENERAL QUALIFYING TERMS ARE USED IN THESE NOTES, IT SHALL BE UNDERSTOOD THAT REFERENCE IS MADE TO THE RULING AND JUDGMENT OF TERRADYN CONSULTANTS, LLC.

22. THE GENERAL CONTRACTOR SHALL PROVIDE ALL NECESSARY PROTECTION FOR THE WORK UNTIL TURNED OVER TO THE OWNER. BEFORE THE FINAL ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL REMOVE ALL EQUIPMENT AND MATERIALS, REPAIR OR REPLACE PRIVATE OR PUBLIC PROPERTY WHICH MAY HAVE BEEN DAMAGED OR DESTROYED DURING CONSTRUCTION, CLEAN THE AREAS WITHIN AND ADJACENT TO THE PROJECT WHICH HAVE BEEN OBSTRUCTED BY HIS/HER OPERATIONS, AND LEAVE THE PROJECT AREA NEAT AND PRESENTABLE.

23. THE GENERAL CONTRACTOR SHALL MAINTAIN A CURRENT AND COMPLETE SET OF CONSTRUCTION DRAWINGS ON SITE DURING ALL PHASES OF CONSTRUCTION FOR USE OF ALL TRADES.

24. THE CONTRACTOR SHALL TAKE FULL RESPONSIBILITY FOR ANY CHANGES AND DEVIATION OF APPROVED PLANS NOT AUTHORIZED BY THE ARCHITECT/ENGINEER AND/OR CLIENT/OWNER.

25. DETAILS ARE INTENDED TO SHOW END RESULT OF DESIGN. ANY MODIFICATION TO SUIT FIELD DIMENSION AND CONDITION SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO ANY WORK.

26. THE APPLICANT WILL RETAIN THE SERVICES OF A PROFESSIONAL ENGINEER TO INSPECT THE CONSTRUCTION AND STABILIZATION OF ALL STORMWATER MANAGEMENT STRUCTURES. IF NECESSARY, THE INSPECTING ENGINEER WILL INTERPRET THE POND'S CONSTRUCTION PLAN FOR THE CONTRACTOR. ONCE ALL STORMWATER MANAGEMENT STRUCTURES ARE CONSTRUCTED AND STABILIZED, THE INSPECTING ENGINEER WILL NOTIFY THE DEPARTMENT IN WRITING WITHIN 30 DAYS TO STATE THAT THE POND HAS BEEN COMPLETED. ACCOMPANYING THE ENGINEER'S NOTIFICATION MUST BE A LOG OF THE ENGINEER'S INSPECTIONS GIVING THE DATE OF EACH INSPECTION, THE TIME OF EACH INSPECTION, AND THE ITEMS INSPECTED ON EACH VISIT, AND INCLUDE ANY TESTING DATA OR SIEVE ANALYSIS DATA OF EVERY MINERAL SOIL AND SOIL MEDIA SPECIFIED IN THE PLANS AND USED ON SITE.

STATE OF MAINE
JEFFREY D. AMOS
10167
REGISTERED PROFESSIONAL ENGINEER

DATE: 10/22/2021
P.E.: JEFFREY D. AMOS, PE 10167

NO.	DATE	REVISIONS	APP'D BY
1	10/01/2021	SITE PLAN SUBMISSION	JDA
2	10/22/2021	REVISE PER TOWN COMMENTS	
3	11/5/2021	REVISE PER TOWN COMMENTS	

565 CONGRESS STREET
SUITE 303
PORTLAND, ME 04102

41 CAMPUS DRIVE
SUITE 15
NEW GLOUCESTER, ME 04260

OFFICE: (207) 926-5111 FAX: (207) 221-1317
www.terradynconsultants.com

TERRADYN CONSULTANTS, LLC
Civil Engineering | Land Planning | Stormwater Design | Environmental Permitting

PERMIT DRAWING
NOT FOR CONSTRUCTION

PROJECT:
SEBAGO ROAD SOLAR
BALDWIN, MAINE

SHEET TITLE:
SITE DETAILS & NOTES

CLIENT:
SEBAGO ROAD SOLAR, LLC
43 HOLMES COURT
PORTSMOUTH, NH 03810

DATE:	12/17/2020
SCALE:	AS SHOWN
DESIGNED:	ARF/CRS
JOB NO:	2079
FILE: 2079 D.DWG	
SHEET	C-4.2

TERRADYN
CONSULTANTS, LLC

Pineland
Cumberland Hall
41 Campus Drive, Suite 101
New Gloucester, ME 04260

Portland
565 Congress Street, Suite 201
Portland, ME 04101

November 5, 2021 Project #2079

Mr. Wes Sunderland, CEO
Town of Baldwin
534 Pequawket Trail
West Baldwin, ME 04091

CONDITIONAL USE APPLICATION FOR PLANNING BOARD REVIEW
SUPPLEMENTAL INFORMATION
Sebago Road Solar, LLC
6 Carl Burnell Road, Baldwin

Dear Wes:

On behalf of Sebago Road Solar, LLC of Portsmouth, New Hampshire, we are pleased to provide the following supplemental information in response to discussions at the October 28, 2021 Planning Board meeting:

1. Construction Traffic and Access – Board members asked how the contractor would manage delivery of construction materials to avoid truck traffic conflicts on the access road and Carl Burnell Road. The construction contract will require deliveries to be scheduled one (1) hour apart and require radio contact with incoming trucks to coordinated unloading and avoid conflicts with exiting trucks. Incoming trucks that arrive early will be required to wait off site in a legal parking location; it is the trucking company's responsibility to find appropriate parking locations. Trucks will not be permitted to wait on Burnell Road.
2. Access Road Grade – Board members asked whether loaded semi-trailer trucks will be able to negotiate the maximum 11% grade on the access road. Terradyn reached out to a New England general contractor who has constructed more than 25 solar array projects of all sizes, as well as many large wind energy projects, in Maine and New Hampshire. We were advised that a maximum road grade of 11% to 12% with a well-compacted gravel surface would be no problem for loaded semi-trailers.
3. Plan Revisions – The attached plan set has been updated to include items discussed at the October 28th meeting, including: gate on access road; lines and labels for vegetation management areas; boundary of solar development lease area; and drainage and construction easements outside of the lease area.
4. The seed mix is noted on Sheet C-4.0, Seedbed Preparation, note G.

NH Solar Garden provided a response to questions about sale of the property adjoining the solar lease area, battery storage and decommissioning. This information is included on the last three pages of the updated Powerpoint presentation (attached).

CLOSING

We look forward to discussing this information with the Planning Board at the upcoming November 11, 2021 Planning Board meeting and site walk on November 14. Thank you for your consideration, and please call us if you have any questions as you review the enclosed plans and information.

Prepared by,
Terradyn Consultants, LLC

Jeffrey D. Amos, P.E.

Enc.

cc: Andrew Kellar, Sebago Road Solar, LLC

Solar Development:

Baldwin Planning Board Meeting

November 11, 2021

For more information, go to:

www.nhsolargarden.com/baldwincommunitysolar

www.NhSolarGarden.com

Andrew Kellar
Founder & Developer
(603) 817-1175

Carrie Kellar
Chief Strategy Officer
(787) 900-4161

Development Team:

- Andrew Kellar – NHSG & Sebago Road Solar, developer/owner
- Carrie Kellar – NHSG, chief strategy office

- Larry Bastian, P.E. – Engineer at Terradyn Consultants
- Adrienne Fin, P.E. – Engineer at Terradyne Consultants
- Jeff Amos, P.E. – Owner of Terradyn Consultants

NHSG Current & Experience:

- Over 10 years of regional solar experience
- 24+ MWs in operation throughout New Hampshire & Massachusetts
- 1st & largest Community Solar Garden fully permitted & constructed in NH (images below)
- Largest rooftop projects on Cape Cod & in NH

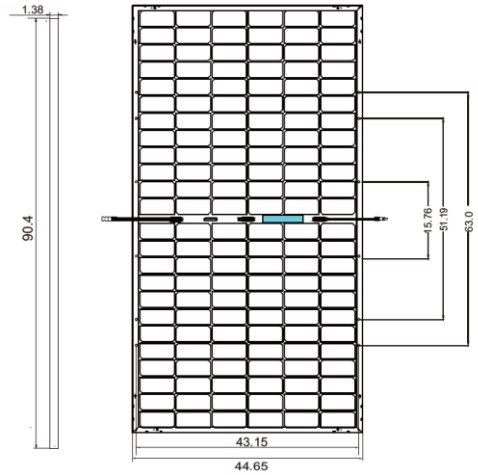
- 15 MWs of Community Solar Gardens in mid-stage development in Maine
- 14 MWs nearing construction or in late-stage development in MA
- 6 MWs of Community Solar Gardens under construction in NH
- ½ MWs of rooftop projects under construction in MA & NH
- 7 MWs of Community Solar Gardens in early to mid-stage development in NH
- 5 MWs of rooftop & ground mount projects in early to mid-stage development in Connecticut
- 58 MWs of solar farms in early-stage development in Puerto Rico

- $20,000,000 capital raise in 2021 for the MA market
- $30,000,000 capital raise in 2021 for the ME market
- $20,000,000 capital raise in 2021 for the CT market
- $20,000,000 capital raise in 2021 for the NH market

Sebago Road Solar: Project Components

The Project will include most, if not all, of the listed items:

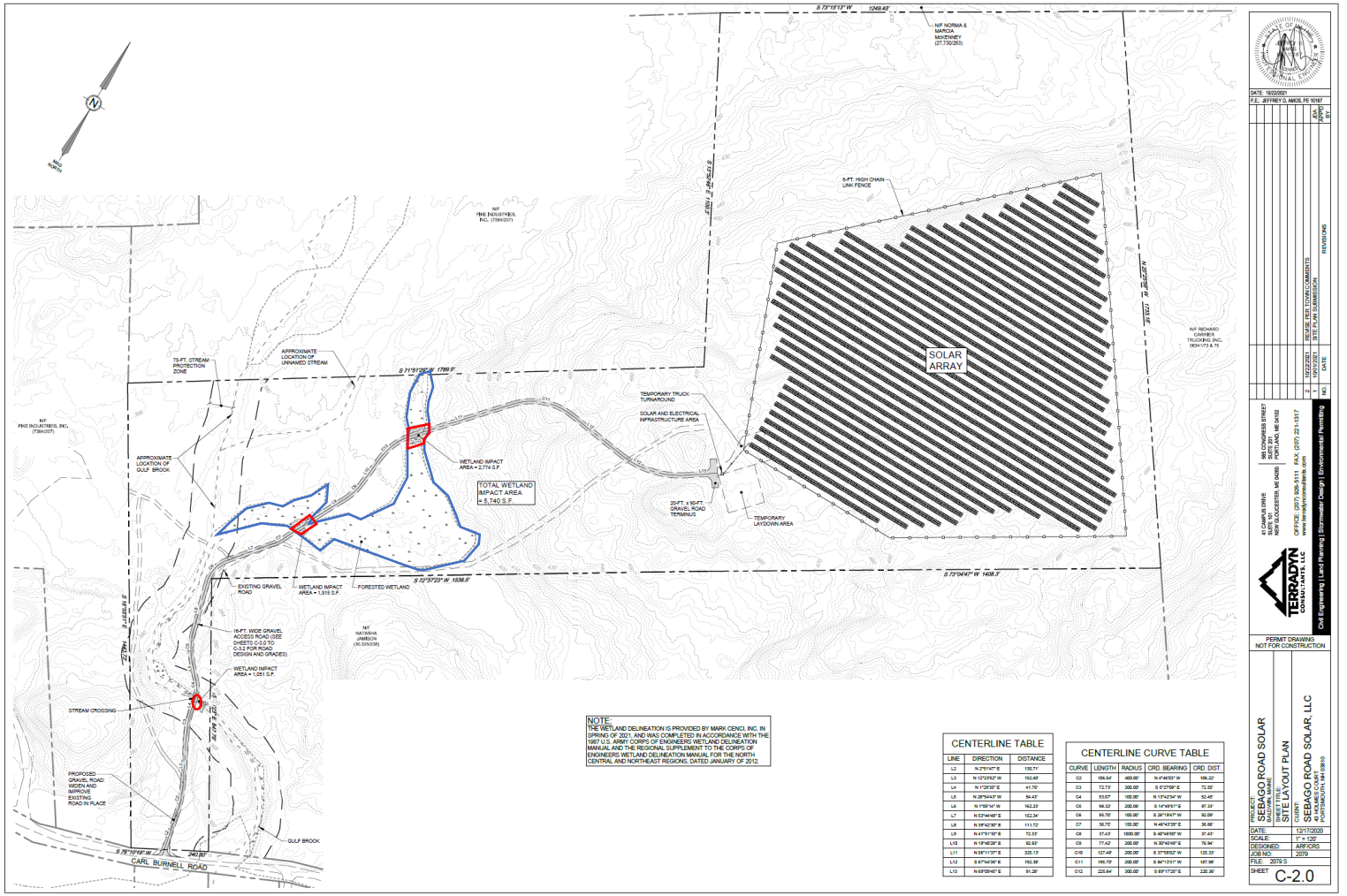
- Single Axis tracker racking, mounted on earth screws that penetrate the ground and into rocks, ledge and other materials found in Maine
- Solar PV panels typically 3.5 ft x 7.5 ft in size
- Inverters and areas to mount the inverters (pad or pole mounted)
- Battery Storage system & pads within the fenced area
- CMP utility poles and lines
- Access gravel road from Carl Burnell road
- Stormwater management & erosion control components



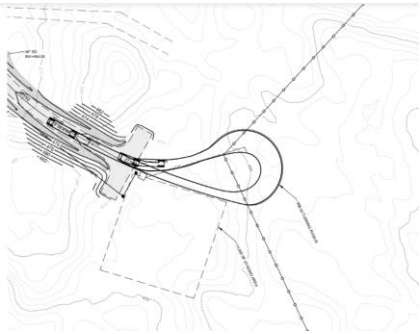
Sebago Road Solar: Overview

- 2 MW/Ac Community Solar Project connected to the CMP grid with battery back up to level out intermittent power and meet CMP initial study requirements
- Final Battery system is being reviewed and finalized by CMP and NHSG engineers (10x20ft systems footprints)
- Developed area: less than 20 acres, including access road
- Life of project: 20 years under the Maine Net Energy Billing (NEB) program. Equipment life is typically 35 years
- Point of Interconnection will be off of pole #115 on Baldwin Road
- The project will pay CMP to extend the line up Carl Burnell and to the solar array
- Maine State DEP permits expected in Q1 2022
- Final CMP 1.3.9 cluster study approval is expected in Q3 2022
- Construction is expected to begin in Q4 2022

Sebago Road Solar: Site plan, Wetland & Vernal Pool*



Construction laydown area



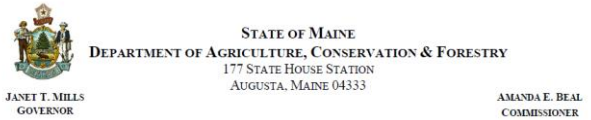
*No Vernal Pools were identified on the site

Sebago Road Solar: Fatal Flaw review

- State Agency: Terradyn worked with DEP to submit the appropriate pre-application documents and submitted site details to the appropriate Maine Natural Areas Programs for feedback, which are included in the packet


STATE OF MAINE
DEPARTMENT OF AGRICULTURE, CONSERVATION & FORESTRY
BUREAU OF AGRICULTURE, FOOD & RURAL RESOURCES
28 STATE HOUSE STATION
AUGUSTA, MAINE 04333
JANET T. MILLS
GOVERNOR
AMANDA E. BEAL
COMMISSIONER


STATE OF MAINE
DEPARTMENT OF AGRICULTURE, CONSERVATION & FORESTRY
177 STATE HOUSE STATION
AUGUSTA, MAINE 04333
JANET T. MILLS
GOVERNOR
AMANDA E. BEAL
COMMISSIONER


STATE OF MAINE
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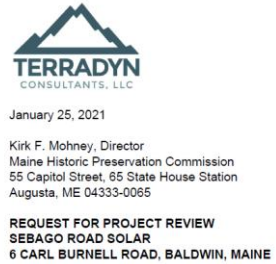

TERRADYN
CONSULTANTS, LLC

January 25, 2021

Kirk F. Mohney, Director
Maine Historic Preservation Commission
55 Capitol Street, 65 State House Station
Augusta, ME 04333-0065

REQUEST FOR PROJECT REVIEW
SEBAGO ROAD SOLAR
6 CARL BURNELL ROAD, BALDWIN, MAINE

- Local permitting: Terradyne spoke to the Baldwin planner to ensure the project met the planning & zoning requirements to move forward with the project

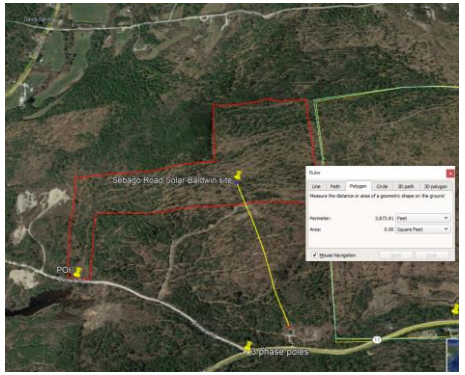
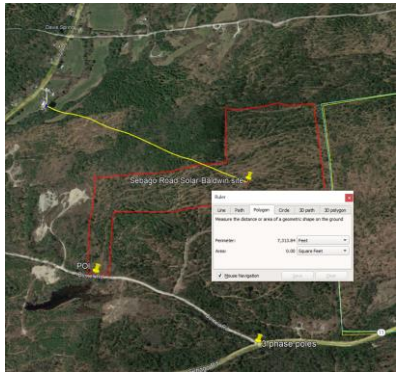
- Site evaluation: Terradyne completed the full list of environmental surveys (wetlands & stream delineations, vernal pool, wildlife, flora & soils) to ensure the project impacts to natural resources are minimized or not impacted at all. These details will be discussed during the meetings with the board

- Mitigation plans: The project made every attempt to design and site the project in the best location to avoid abutters viewing the array and on the flattest area of the property. We attempted to find the abutter to request an access easement to create a larger buffer from the Gulf Brook, but had not response and focused on the access staying within the property

Sebago Road Solar: Project Summary

- Sound: solar project have little to no sound, other than the hum of a commercial transformer that can not be heard at the property boundaries
- Site: the project will be, at a minimum, of 2000 ft away from the closest structure through a 50-75ft tall wooded buffer on the project site



- Smell: solar projects do not emit any smell
- Lighting: there will be no lighting for the solar project
- Impact: solar project construction does require earth work, but this project is sited in the best location for the least amount of earth moving & impact to wetlands
- Municipal Services: the project does not require water or sewer and little to no police or fire services and will pay $2,000 per MW/Ac for a PILOT payment or equivalent to a State mandated amount
- Decommissioning: the project will follow the newly announced State decommissioning guidelines that went live on October 18, 2021 to ensure the project is properly handled at its end-of-life milestone
  https://mainelegislature.org/legis/bills/getPDF.asp?paper=SP0113&item=3&snum=130

Sebago Road Solar: Hand Radio Operators

- NHSG reviewed the www.radiogth.net website to ensure the solar project is more than 1 miles away from the closest hand radio operators' location and has a supporting letter from another solar project that was within 200ft from radio towers & had no impact.

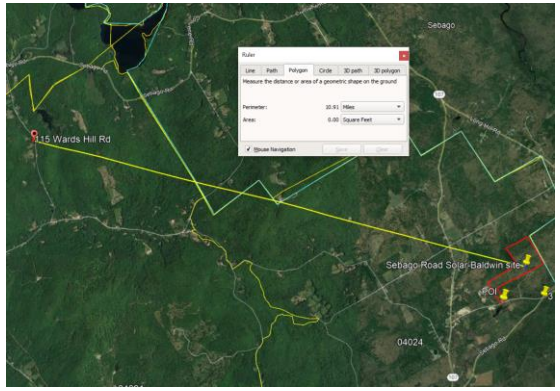
Display Options

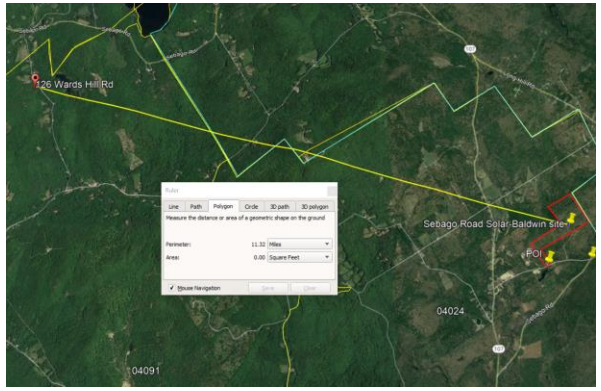
Enter Zip Code:	04091
Sort Ham List By:	Call Sign
Display Format:	Web Browser
	Show Hams

AMATEUR RADIO OPERATORS SORTED BY CALL SIGN

Call Sign	Name	Expiration Date	Operator Class	Zip Code
N1AO	LOCKHART JR, DONALD K	07/15/2028	Amateur Extra	04091
W1ITT	BLAKE, NORMAN B	02/28/2024	Amateur Extra	04091
W1PTO	Jordan, Allen B	11/20/2030	Amateur Extra	04091

Total Amateur Radio Operators: 3





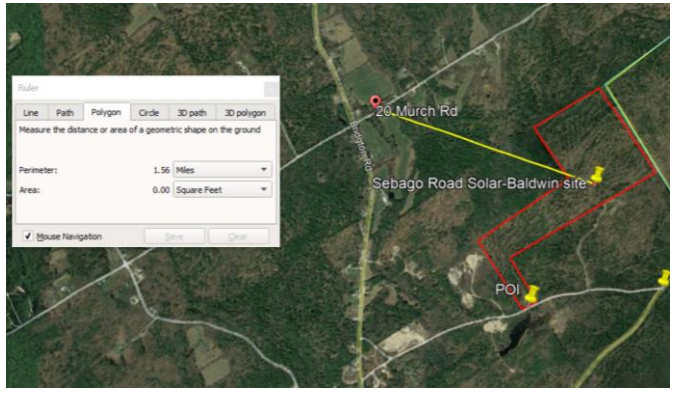
Display Options

Enter Zip Code:	04024
Sort Ham List By:	Call Sign
Display Format:	Web Browser
	Show Hams

AMATEUR RADIO OPERATORS SORTED BY CALL SIGN

Call Sign	Name	Expiration Date	Operator Class	Zip Code
KC1CS	SHEEHAN, JAMES F	11/02/2022	Advanced	04024

Total Amateur Radio Operators: 1



RDS

Renewable Design Solutions
Solar PV Design and LEED Consulting
10945 Estate Lane, Suite E-105
Dallas, TX 75238
Phone: 214.564.9535

Letter Concerning Possible Interference with Radio Tower

To Whom it May Concern,

It was recently brought to my attention that an existing neighboring radio tower tenant is concerned with possible radio frequency (RF) interference at a pending solar project [redacted]

RDS is a Solar Engineering Firm that has been incorporated for 8+ years and designed over ten-thousand solar photovoltaic power systems. Our firm has a combined experience of 45 years, regarding the design of electrical power systems. RDS has designed solar projects for fire stations, police stations, military installations, and other RF producing locations, and have yet to be called regarding an issue with RF interference. In addition, with our experience on various government projects, we have never seen a design requirement or specification in regards to solar photovoltaic projects and possible RF interference.

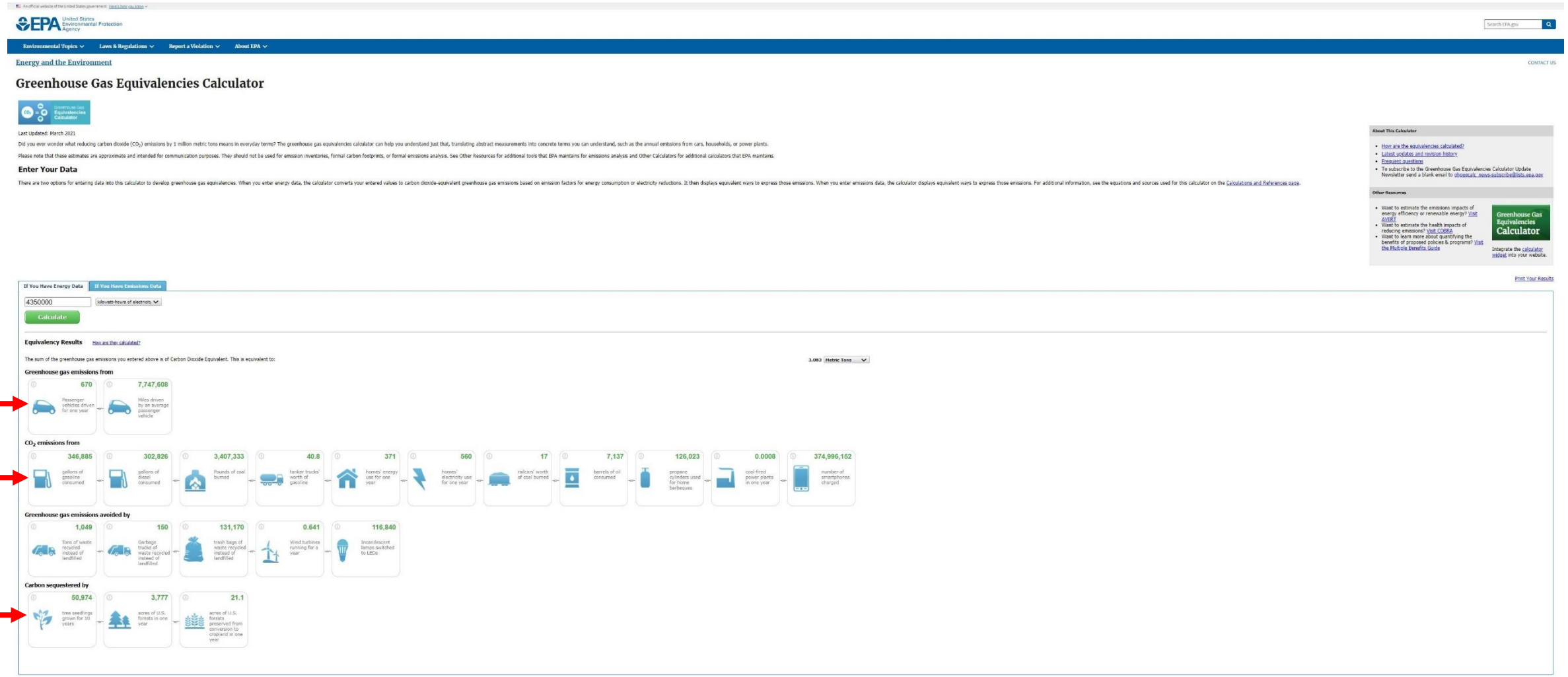
Further, the very nature of a UL listed solar inverter is to match the existing utility grid's voltage, frequency and phasing. Lastly, the entirety of the solar PV system is to be grounded to a standard of 25 ohms or less.

For the various reasons illustrated above, we believe the RF interference concerns to be invalid and unfounded.

Regards,

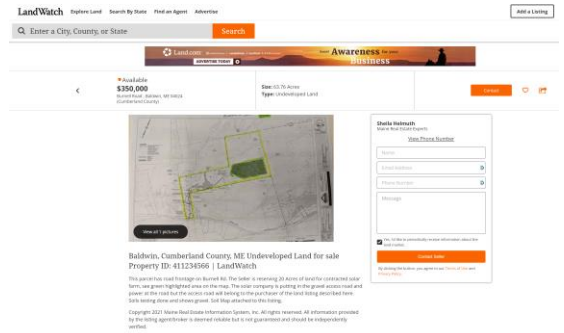
Michael LaBarba
Renewable Design Solutions
Founder, CEO
Solar PV Designer, NABCEP PV Installer
LEED-AP, NCI Charrette Manager

Sebago Road Solar: Environmental Impacts



Sebago Road Solar: Land For Sale Details

- The landowner is working to maximize the value of his land utilizing the solar project as a revenue stream or a tenant situation to sell the whole property or the remaining 45-50 acres for other uses
- Future uses have not been determined by the current landowner and would be at the discretion of a future buyer
- NHSG is the developer that has a construction and tax equity investor that provide the long-term resource to operate the array during the life of the project
- The land is being leased to the project entity and is not apart of the land sale
- If and when a sale occurred, a dual use access agreement and if sold before construction, will also include details about temporary construction laydown areas
- The landowner does not expect a sale before the completion of construction and is not putting a lot of marketing behind the sale



Sebago Road Solar: Why Battery Storage

- NHSG completed the necessary CMP permitting to find out that the other solar projects in Baldwin limit the amount of power produced by solar before having to spend $6,348,000 to upgrade the substation
- NHSG worked with their electrical engineer and battery supplier to produce a technical solution to reduce this impact to the lines and reduce the upgrades costs exponentially
- CMP engineering with this new solution is underway and final details will be forthcoming
- The DC coupled battery systems are self-contained units that meet UL9540 specs otherwise known as the "Standard for Safety of Energy Storage Systems and Equipment"
- Units are equipment with "dry pipe" systems that allow for fire personnel to attach a fire truck to the water pipe from a safe distance away to put out a fire if one ever occurred

Sebago Road Solar: Project Decommissioning

New Hampshire Solar Garden prepares a Decommissioning Plan for all its solar array facilities prior to performing the activities. The Plan is developed under the supervision of a professional engineer and all permits are obtained before beginning work. Our lease agreement with the landowner requires us to completely remove the array and all its associated facilities (i.e., concrete pads). Below is a summary of the typical decommissioning tasks:

- *Remove Rack Wiring*
- *Remove Cable*
- *Remove Panels*
- *Dismantle Racks*
- *Remove and Load Racks*
- *Remove Electrical Equipment*
- *Breakup and Remove Concrete Pads and Ballasts*
- *Remove Power Poles*
- *Remove Fence*
- *Grading and*
- *Hydroseed and Restore Vegetated surfaces*

An estimate of probable cost for decommissioning is $25,000 per megawatt MW/Ac and the project can provide a form of surety to support the decommissioning plan. As of October 18, 2021, Maine law requires developers of solar power projects that occupy 3 or more acres to have an approved decommissioning plan and accompanying financial assurance sufficient to cover the cost decommissioning as outlined in the plan. *More information can be found here (https://www.maine.gov/dep/land/solar-decommissioning/index.html)*