SOLAR FIELDS, LLC

PROPOSED 2.0MWAC SOLAR ARRAY

242 MANCHESTER RD (ROUTE 135), BELGRADE, KENNEBEC COUNTY, MAINE

PREPARED FOR: Solar Fields

SOLAR FIELDS, LLC
376 WEST ROAD
BELGRADE, ME 04917

PREPARED BY: TRC COMPANIES, INC.
AUGUSTA, ME 04330

DATE: MAY 2020
REVISED: JUNE 2020

APPROVED: TOWN OF BELGRADE PLANNING BOARD		
SIGNATURE	DATE	APPROVED
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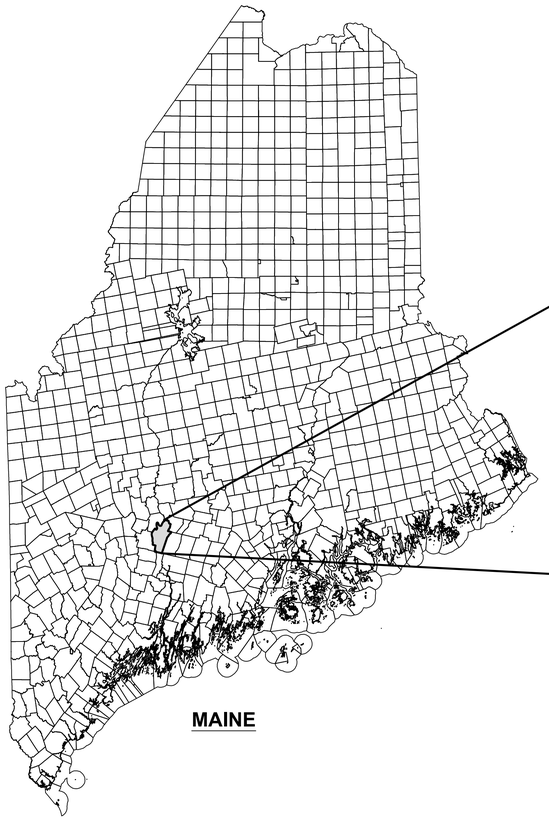
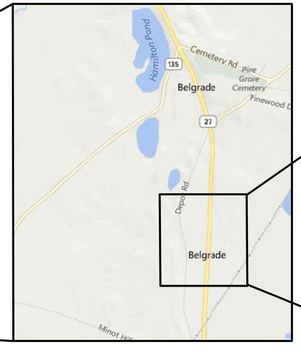


MAINE



BELGRADE

SITE LOCATOR

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STATE OF MAINE
THOMAS N. DANIELS JR.
21060
2020-06-10
LICENSED PROFESSIONAL ENGINEER

PERMITTING

NOTE: THESE PLANS ARE ACCOMPANIED BY COMMERCIAL DEVELOPMENT REVIEW AND STORMWATER MANAGEMENT APPLICATIONS OF THE SAME TITLE. THESE DOCUMENTS ARE INTERRELATED AND ARE INTENDED TO BE USED TOGETHER FOR PERMITTING PURPOSES ONLY

NOT FOR CONSTRUCTION

TRC
14 Gabriel Drive
Augusta, ME 04330
Phone: 207.620.3800
www.trcsolutions.com

GENERAL NOTES

1. THE PROJECT HORIZONTAL COORDINATES SYSTEM IS BASED ON NAD83 MAINE STATE PLANE (US SURVEY FEET, WESTERN ZONE, ME83-WF). ELEVATIONS ARE BASED ON NAVD88 (US SURVEY FEET).
2. TOPOGRAPHIC SURVEY INFORMATION DATA IS COMPILED FROM AERIAL MAPPING (LIDAR) PROVIDED BY THE MAINE OFFICE OF GIS AND SHOULD BE CONSIDERED TO BE APPROXIMATE.
3. PROJECT PROPERTY BOUNDARIES ARE BASED ON INFORMATION PROVIDED IN A SURVEY PLAN BY GARBACICK SURVEYORS OF AUGUSTA, ME AS WELL AS TOWN OF BELGRADE TAX MAPS.
4. EXISTING UTILITIES ARE APPROXIMATE AND SHOULD BE VERIFIED BY CONTRACTOR. DIGSAFE SHALL BE NOTIFIED A MINIMUM OF 72-HOURS PRIOR TO COMMENCING ANY EXCAVATION.
5. THIS IS A PRELIMINARY DESIGN PLAN. FINAL DESIGN SHALL BE MODIFIED BY CONTRACTOR TO MATCH FINAL ELECTRICAL INTERCONNECTION STUDIES, EQUIPMENT PURCHASED, AND POSSIBLE PERMIT CONSTRAINTS REVEALED DURING PROJECT'S REVIEW.
6. ALL WORK DETAILED ON THESE PLANS AND PERFORMED UNDER THIS CONTRACT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, THE PROJECT GEOTECHNICAL REPORT, AND ANY OTHER APPLICABLE TECHNICAL REPORTS. WHERE INDICATED, STATE AND/OR LOCAL STANDARD SPECIFICATIONS SHALL APPLY.
7. THE CONTRACTOR SHALL ABIDE BY ALL LOCAL, STATE, AND FEDERAL LAWS, RULES AND REGULATIONS WHICH APPLY TO THE CONSTRUCTION OF THESE IMPROVEMENTS, INCLUDING STATE AND FEDERAL REQUIREMENTS WITH RESPECT TO STORMWATER DISCHARGE.
8. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING ALL EXISTING UTILITY LINES WITHIN OR ADJACENT TO THE CONSTRUCTION AREA. ANY DAMAGE TO EXISTING FACILITIES CAUSED BY CONSTRUCTION ACTIVITY SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE.
9. CONSTRUCTION SHALL NOT OCCUR IN ANY PUBLIC RIGHTS OF WAY, PUBLIC OR PRIVATE EASEMENTS, BEYOND THE LIMITS OF DISTURBANCE, OR OUTSIDE THE PROPERTY LIMITS WITHOUT NECESSARY PERMITS. ANY PUBLIC OR PRIVATE PROPERTY OR IMPROVEMENTS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED TO THE SATISFACTION OF THE OWNER AT THE COST OF THE CONTRACTOR.
10. OVERNIGHT PARKING OF CONSTRUCTION EQUIPMENT SHALL NOT OBSTRUCT DRIVEWAYS OR DESIGNATED TRAFFIC LANES. THE CONTRACTOR SHALL NOT STORE ANY EQUIPMENT OR MATERIAL WITHIN THE PUBLIC RIGHT OF WAY. OVERNIGHT PARKING OF CONSTRUCTION VEHICLES ON PRIVATE PROPERTY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
11. ALL PROPERTY CORNERS OR MONUMENTS DESTROYED DURING CONSTRUCTION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. ALL PROPERTY CORNERS MUST BE RESET BY A PROFESSIONAL LAND SURVEYOR LICENSED IN THE STATE OF MAINE.
12. CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE, AND LOCAL LAWS AND REGULATIONS CONTROLLING THE POLLUTION OF THE ENVIRONMENT.
13. CONTRACTOR TO ENSURE ALL WORK PERFORMED IS IN ACCORDANCE WITH EXISTING PROJECT PERMITS, STUDIES, AND REPORTS PROVIDED IN THE CONTRACT DOCUMENTS INCLUDING STATE STORMWATER MANAGEMENT PERMIT AND LOCAL ORDINANCE.
14. IT IS THE INTENT OF THESE PLANS THAT THE CONTRACTOR SHALL NOT PERFORM ANY WORK OUTSIDE THE IDENTIFIED PROJECT BOUNDARIES AND CLEARING LIMITS.
15. IT IS THE INTENT OF THESE PLANS THAT THE CONTRACTOR AVOID "FILLING" WETLANDS AT ALL COSTS. CONTRACTOR TO AVOID THE DELINEATED WETLAND AREAS AND NATURAL RESOURCES ONSITE.
16. WHENEVER PRACTICABLE, NO DISTURBANCE ACTIVITIES SHOULD TAKE PLACE WITHIN 50 FEET OF ANY PROTECTED NATURAL RESOURCE. IF DISTURBANCE ACTIVITIES SHOULD TAKE PLACE UPGRADIENT TO AND BETWEEN 30 FEET AND 50 FEET OF ANY PROTECTED NATURAL RESOURCE, PERIMETER EROSION CONTROLS MUST BE DOUBLED. IF DISTURBANCE ACTIVITIES TAKE PLACE UPGRADIENT TO AND LESS THAN 30 FEET FROM ANY PROTECTED NATURAL RESOURCE, PERIMETER EROSION CONTROLS MUST BE DOUBLED AND DISTURBED AREAS MUST BE TEMPORARILY OR PERMANENTLY STABILIZED WITHIN 7 DAYS. ALL AREAS WITHIN 75 FEET OF A PROTECTED NATURAL RESOURCE MUST BE PROTECTED WITH A DOUBLE ROW OF SEDIMENT BARRIERS NOVEMBER 1 THROUGH APRIL 15.
17. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING DRAINAGE THROUGHOUT THE CONSTRUCTION OF THE PROJECT.
18. CONTRACTOR SHALL FIELD FIT ALL PROPOSED CULVERT INVERTS TO PROVIDE POSITIVE DRAINAGE IN THE DIRECTION OF EXISTING SLOPES. ALL CULVERTS TO BE INSTALLED AT ADEQUATE DEPTHS AND TO DAYLIGHT. INLETS AND OUTLETS OF ALL CULVERTS TO BE STABILIZED WITH RIP RAP IN ACCORDANCE WITH THE SITE GRADING & DRAINAGE PLAN.
19. EXISTING ACCESS ROADS TO BE MAINTAINED SHALL BE PROOF ROLLED, SMOOTHED, AND RESURFACED AS NECESSARY TO PROVIDE AN ACCEPTABLE SURFACE.
20. THE CONTRACTOR SHALL SECURE PERMITS FROM THE STATE AND TOWN OF BELGRADE AS NECESSARY BEFORE DRIVING CONSTRUCTION EQUIPMENT OVER AND ACROSS STATE AND TOWN MAINTAINED ROADS.
21. ALL WORK IN THE PUBLIC RIGHTS OF WAY SHALL CONFORM WITH THE MAINE DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS".
22. WETLANDS AND NATURAL RESOURCES WERE DELINEATED BY BURMAN LAND & TREE COMPANY, LLC IN APRIL OF 2020.

HOUSEKEEPING NOTES

CONTRACTOR SHALL MAINTAIN THE PROJECT SITE IN ACCORDANCE WITH THE FOLLOWING PERFORMANCE STANDARDS:

1. *SPILL PREVENTION:* CONTROLS SHALL BE IN PLACE TO PREVENT POLLUTANTS FROM BEING DISCHARGED FROM MATERIALS USED AND STORED ONSITE. APPROPRIATE CONTROLS INCLUDE, BUT ARE NOT LIMITED TO, PROPER STORAGE PRACTICES THAT MINIMIZE EXPOSURE OF MATERIALS TO STORMWATER, AND APPROPRIATE SPILL PREVENTION, CONTAINMENT, AND RESPONSE PLANNING AND IMPLEMENTATION.
2. *GROUNDWATER PROTECTION:* DURING CONSTRUCTION, THE CONTRACTOR MAY NOT STORE OR HANDLE LIQUID PETROLEUM PRODUCTS AND OTHER HAZARDOUS MATERIALS WITH THE POTENTIAL TO CONTAMINATE GROUNDWATER IN AREAS OF THE PROJECT SITES DRAINING TO AN INFILTRATION AREA OR WITHIN 100 FEET OF A CRITICAL RESOURCE AREA OR STREAM. 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 STORING AND HANDLING LIQUID HAZARDOUS MATERIALS.
3. *FUGITIVE SEDIMENT AND DUST:* CONTRACTOR SHALL TAKE ALL NECESSARY ACTIONS TO ENSURE THAT ACTIVITIES DO NOT RESULT IN NOTICEABLE EROSION OF SOILS OR FUGITIVE DUST EMISSIONS DURING OR AFTER CONSTRUCTION. 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. OIL MAY NOT BE USED FOR DUST CONTROL. CONTRACTOR SHALL MONITOR VEHICLES ENTERING AND EXITING THE PROJECT SITE FOR EVIDENCE OF TRACKING MUD ONTO PUBLIC OR PRIVATE ROADWAYS OUTSIDE THE WORK AREA. IF NECESSARY, CONTRACTOR SHALL PROVIDE MEANS FOR SWEEPING AND CLEANING ROAD AREAS EXPERIENCING TRACKING. IF OFF-SITE TRACKING OCCURS ON PUBLIC ROADS, THEY SHOULD BE SWEPT IMMEDIATELY AND NO LESS THAN ONCE A WEEK AND PRIOR TO SIGNIFICANT STORM EVENTS. DURING THE MUD SEASON IT MAY BE NECESSARY TO INCREASE THE SIZE OF STABILIZED CONSTRUCTION ENTRANCES OR PROVIDE A WHEEL WASHING STATION.
4. *DEBRIS AND OTHER MATERIALS:* CONTRACTOR SHALL MANAGE ALL LITTER, CONSTRUCTION DEBRIS, AND CONSTRUCTION CHEMICALS EXPOSED TO STORMWATER TO PREVENT MATERIALS FROM BECOMING A SOURCE OF POLLUTION.CONTRACTOR SHALL MINIMIZE THE EXPOSURE OF CONSTRUCTION DEBRIS, BUILDING AND LANDSCAPING MATERIALS TO PRECIPITATION AND STORMWATER RUNOFF. THESE MATERIALS MUST BE PREVENTED FROM BECOMING A POLLUTANT SOURCE.
5. *TRENCH OR FOUNDATION DEWATERING:* TRENCH DEWATERING IS THE REMOVAL OF WATER FROM TRENCHES, FOUNDATIONS, COFFER DAMS, PONDS, SUMPS, BASINS, 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 CONTRACTOR SHALL REMOVE COLLECTED WATER FROM THE PONDED AREAS, EITHER THROUGH GRAVITY OR PUMPING, IN A MANNER THAT SPREADS IT THROUGH NATURAL WOODED BUFFERS OR TO AREAS THAT ARE SPECIFICALLY DESIGNED TO COLLECT THE MAXIMUM AMOUNT OF SEDIMENT POSSIBLE (E.G. COFFERDAM SEDIMENT BASIN). THE CONTRACTOR SHALL AVOID PRACTICES THAT ALLOW SEDIMENT LADEN WATER FROM DEWATERING TO FLOW OVER DISTURBED AREAS OF THE PROJECT SITES. OTHER MEASURES OR METHODS MAY BE UTILIZED AS REVIEWED AND APPROVED BY THE ENGINEER AND, IF NECESSARY, THE MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION.
6. *AUTHORIZED NON-STORMWATER DISCHARGES:* THE CONTRACTOR SHALL IDENTIFY AND PREVENT CONTAMINATION BY NON-STORMWATER DISCHARGES. WHERE ALLOWED NON-STORMWATER DISCHARGES EXIST, THEY MUST BE IDENTIFIED AND STEPS SHALL BE TAKEN TO ENSURE IMPLEMENTATION OF APPROPRIATE POLLUTION PREVENTION MEASURES FOR THE NON-STORMWATER COMPONENTS OF THE DISCHARGE. AUTHORIZED NON-STORMWATER DISCHARGES ARE: DISCHARGES FROM FIREFIGHTING ACTIVITY, FIRE HYDRANT FLUSHING, VEHICLE WASHING IF DETERGENTS ARE NOT USED AND WASHING IS LIMITED TO THE EXTERIOR OF VEHICLES, DUST CONTROL RUNOFF IN ACCORDANCE WITH PERMIT CONDITIONS AND APPENDIX C(3) OF CHAPTER 500, ROUTINE EXTERNAL BUILDING WASHDOWN (EXCLUDING PAINT REMOVAL AND USE OF DETERGENTS), PAVEMENT WASHWATER (EXCLUDING AREAS OF SPILLS OR LEAKS OF TOXIC/HAZARDOUS MATERIALS AND USE OF DETERGENTS), UNCONTAMINATED AIR CONDITIONING OR COMPRESSOR CONDENSATE, UNCONTAMINATED GROUNDWATER OR SPRING WATER, FOUNDATION OR FOOTING DRAIN-WATER WHERE FLOWS ARE NOT CONTAMINATED, UNCONTAMINATED EXCAVATION DEWATERING PER APPENDIX C(6) OF CHAPTER 500, POTABLE WATER SOURCES INCLUDING WATERLINE FLUSHING, AND LANDSCAPE IRRIGATION.
7. *UNAUTHORIZED NON-STORMWATER DISCHARGES:* THE CONTRACTOR SHALL IDENTIFY AND PREVENT CONTAMINATION BY UNAUTHORIZED NON-STORMWATER DISCHARGES. UNAUTHORIZED STORMWATER DISCHARGES INCLUDE, BUT ARE NOT LIMITED TO, WASTEWATER FROM CONCRETE WASHOUT, FUELS OR HAZARDOUS SUBSTANCES, AND DETERGENTS USED IN VEHICLE AND EQUIPMENT WASHING.
8. *ADDITIONAL REQUIREMENTS:* COMPLETION OF THE WORK WILL REQUIRE FREQUENT ACCESS TO VARIOUS PORTIONS OF THE PROJECT AREA FROM STATE AND LOCAL ROADWAYS. CONTRACTOR SHALL MONITOR PUBLIC ROADWAYS AND SHALL CLEAN PAVEMENT BY MEANS NECESSARY IN THE EVENT THAT SEDIMENT OR TRACKING IS OBSERVED. SIGNAGE SHALL BE POSTED AT INTERSECTIONS OF PROJECT ACCESS ROADS AND PUBLIC WAYS, STATING COMPANY NAME AND 24-HOUR CONTACT PHONE NUMBER.

LEGEND

- SUBJECT PROPERTY BOUNDARY
- APPROXIMATE ABUTTING PROPERTY BOUNDARY
- APPROXIMATE RIGHT-OF-WAY
- EXISTING UNPAVED ROAD
- EXISTING FENCE
- EXISTING WATERLINE
- EXISTING BUILDING
- 390 EXISTING MAJOR CONTOUR
- 388 EXISTING MINOR CONTOUR
- x 815.7 EXISTING SPOT ELEVATION
- EXISTING TREES AND/OR BRUSH
- DELINEATED WETLAND
- EXISTING POND
- DELINEATED STREAM
- NON-JURISDICTIONAL DRAINAGE
- LIMIT OF FEMA 100YR 24HR FLOOD ZONE
- 12" CMP EXISTING CULVERT
- OHP EXISTING OVERHEAD ELECTRIC
- EXISTING UTILITY POLE
- LOD LIMITS OF DISTURBANCE
- PROPOSED CULVERT
- PROPOSED ACCESS ROAD
- 392 PROPOSED MINOR CONTOUR
- 395 PROPOSED MAJOR CONTOUR
- PROPOSED TREE LINE
- PROPOSED CHAIN LINK FENCE
- KrA / HSG D NRCS SOILS DATA
- SF PROPOSED SILT FENCE
- OE PROPOSED OVERHEAD ELECTRIC LINE AND POLE
- 75' STREAM BUFFER
- 25' STREAM BUFFER
- VEGETATED WATER QUALITY BUFFER

ZONING REQUIREMENTS

DIMENSIONAL STANDARDS								
DISTRICT	MIN. FRONT YARD SETBACK		MIN. SIDE YARD SETBACK		MIN. REAR YARD SETBACK		BUILDING MAX. HEIGHT	
	REQUIRED	PROVIDED	REQUIRED	PROVIDED	REQUIRED	PROVIDED	REQUIRED	PROVIDED
NONE	NA	118'	NA	27'	NA	83'	NA	20'

SITE SPECIFIC SOILS TABLE

ID	NAME	SLOPE RANGE	TEXTURE	HYDROLOGIC SOIL GROUP
HfC	HARTLAND	8 - 15%	SANDY LOAM	B
HfD	HARTLAND	15 - 25%	SANDY LOAM	B
PsC2	PACTON-CHARLTON	8 - 15%	SANDY LOAM	C/D
RdA	RIDGEBURY	0 - 5%	SANDY LOAM	C/D
SkB	SCIO	3 - 8%	SANDY LOAM	C
SkC2	SCIO	8 - 15%	SANDY LOAM	C
WrB	WOODBRIDGE	3 - 8%	SANDY LOAM	C/D

PROJECT SCHEDULE

SPECIFICS OF HOW WORK IS TO BE COMPLETED SHALL ALSO BE BASED ON ENVIRONMENTAL CONSIDERATIONS ASSOCIATED WITH SEASONAL CHANGES. THE FOLLOWING DATES ARE PROVIDED TO ESTABLISH A GENERAL GUIDELINE FOR THESE SEASONS:

- WINTER: NOVEMBER 1 TO MARCH 19
- MUD SEASON: MARCH 20 TO APRIL 30
- SPRING: MAY 1 TO JUNE 21
- SUMMER: JUNE 22 TO SEPTEMBER 21
- FALL: SEPTEMBER 22 TO OCTOBER 31

FERTILIZER AND LIMESTONE REQUIREMENTS

IN GENERAL, FERTILIZER AND LIME APPLICATION RATES WILL FOLLOW THE GUIDELINES IDENTIFIED BELOW UNLESS SITE SPECIFIC SOIL TESTS IDENTIFY THE NEED FOR ALTERNATIVE FERTILIZER/LIME APPLICATION RATES. FERTILIZER WILL BE APPLIED TO UPLAND AREAS PRIOR TO SEEDING AT A RATE OF 800 POUNDS PER ACRE USING 10-0-0 (N-P205-K20) OR EQUIVALENT. GROUND LIMESTONE (EQUIVALENT TO 50 PERCENT CALCIUM PLUS MAGNESIUM OXIDE) WILL BE APPLIED AT A RATE OF 3 TONS PER ACRE. AN EQUIVALENT MIXTURE OF FERTILIZER AND LIME MAY BE APPLIED USING THE HYDROSEEDING METHOD. NO LIME OR FERTILIZER WILL BE APPLIED TO WETLANDS.

MULCH ANCHORING REQUIREMENTS

ON SLOPES GREATER THAN 3 PERCENT, STRAW MULCH WILL BE FIRMLY ANCHORED INTO THE SOIL UTILIZING ONE OF THE FOLLOWING METHODS:

-CRIMPING WITH A STRAIGHT OR NOTCHED MULCH CRIMPING TOOL (FARM DISCS WILL NOT BE ALLOWED);
-TRACK WALKING WITH DEEP-CLEATED EQUIPMENT OPERATING UP AND DOWN THE SLOPE (MULCH CRIMPED PERPENDICULAR TO THE SLOPE) ON SLOPES <25 PERCENT;
-APPLICATION OF MULCH NETTING;
-APPLICATION OF 500 LB./ACRE OF WOOD FIBER MULCH OVER STRAW/HAY MULCH; AND
-COMMERCIALLY AVAILABLE TACKIFIERS (EXCEPT WITHIN 100 FEET OF WATERBODIES OR WETLANDS).

PHOSPHORUS CONTROL PLAN NOTES

LAKE WATERSHED: MESSALONSKEE LAKE
WATERSHED PER ACRE PHOSPHORUS BUDGET: 0.068 LBS P/ACRE/YEAR
PROJECT PHOSPHORUS BUDGET: 1.646 LBS P/ACRE/YEAR
PROJECT PHOSPHORUS EXPORT: 0.589 LBS P/YEAR

SEED AND MULCH SPECIFICATIONS

SEED MIX SPECIFICATIONS		
SEED MIX NAME[2]	SEED MIX COMPONENTS	LB./ACRE[1]
TEMPORARY SEED MIX	ANNUAL RYEGRASS	40
PERMANENT SEED MIXES		
UPLANDS	NEW ENGLAND LOGGING ROAD MIX (OR APPROVED EQUAL)	20
WOODCHIP APPLICATION SEED MIX	NEW ENGLAND LOGGING ROAD MIX (OR APPROVED EQUAL)	20
SUPPLEMENTAL WINTER SEED MIX[2]	WINTER RYEGRASS	120

NOTES:
1. INCREASE SEEDING RATES 10% WHEN HYDROSEEDING
2. WINTER RYE WILL BE ADDED TO CONSERVATION MIX AT A RATE OF 120 LB./ACRE BETWEEN OCTOBER 1 AND APRIL 15
3. PERMANENT SEED MIXES TO CONSIST OF NATIVE GRASSES, RUSHES, FORBS, AND WILDFLOWERS

SUMMARY OF TEMPORARY AND PERMANENT MULCH APPLICATION REQUIREMENTS

CONDITION	TIMING	MULCH TYPE[2]	APPLICATION RATES
TEMPORARY			
INACTIVE AREAS	IF NO ACTIVITY IN EXPOSED AREAS FOR 7 DAYS, OR PRIOR TO A STORM EVENT	STRAW MULCH OR WOOD FIBER MULCH OR EROSION CONTROL MIX	2 TONS/ACRE 1 TON/ACRE 2" THICK OVER AREA
ALL DISTURBED AREAS OF THE CONSTRUCTION WORKSPACE	APPLY MULCH TO ALL EXPOSED AREAS IF NO ACTIVITY OCCURS WITHIN 30 DAYS. APPLY MULCH AND TEMPORARY SEEDING SOONER WHEN IT CAN BE ANTICIPATED THAT ACTIVITY IS NOT GOING TO OCCUR WITHIN 30 DAYS.	STRAW MULCH OR WOOD FIBER MULCH	2 TONS/ACRE 1 TON/ACRE[3]
ALL WORK AREAS EXPOSED ARE TO BE MULCHED DAILY EACH TIME SOIL IS DISTURBED[5]	NOVEMBER 1 - APRIL 15	STRAW MULCH OR WOOD FIBER MULCH	4 TONS/ACRE 2 TONS/ACRE
PERMANENT			
ON ALL EXPOSED AREAS AFTER SEEDING TO STABILIZE THE SOIL SURFACE	PERMANENT GRASS AND/OR LEGUME SEEDING COVERED BY STRAW MULCH ON ALL AREAS THAT HAVE BEEN RESTORED TO FINAL GRADE. THIS DOES NOT APPLY TO AREAS STABILIZED BY OTHER MEANS SUCH AS JUTE MATTING OR PERMANENT EROSION CONTROL MIX.	CRIMPED STRAW MULCH OR PAPER MULCH OR WOOD FIBER MULCH	2 TONS/ACRE 1500 LB./ACRE[4] 1 TON/ACRE
WOOD CHIP APPLICATION AREAS[6]	PERMANENT GRASS AND/OR LEGUME SEEDING COVERED BY STRAW MULCH ON ALL AREAS THAT HAVE BEEN RESTORED TO FINAL GRADE. THIS DOES NOT APPLY TO AREAS STABILIZED BY OTHER MEANS SUCH AS JUTE MATTING OR PERMANENT EROSION CONTROL MIX.	CRIMPED STRAW MULCH OR PAPER MULCH OR WOOD FIBER MULCH	2 TONS/ACRE 1500 LB./ACRE[4] 1 TON/ACRE

NOTES:
1. IN ALL CASES, SUFFICIENT MULCH SHALL BE APPLIED SUCH THAT NO SOIL IS VISIBLE THROUGH THE MULCH.
2. DOUBLE RATE OF WOOD FIBER MULCH WHEN USED IN OR ADJACENT TO CRITICAL AREAS. INCREASE MULCH RATE BY HALF UNDER SOLAR ARRAY DRIP EDGE.
3. STRAW, HAY, OR HYDROMULCH (WOOD FIBER OR PAPER MULCH AS APPROPRIATE) SHALL PROVIDE MINIMUM 90 PERCENT GROUND COVERAGE.
4. PAPER MULCH IS ACCEPTABLE FOR USE DURING THE GROWING SEASON. ON SLOPES >30 PERCENT AND IN AREAS WHERE VEGETATION HAS NOT ESTABLISHED WELL, ADDITIONAL HAY MULCH WILL BE ADDED AS A WINTERIZING MEASURE.
5. MULCH MAY NOT BE SPREAD ON TOP OF SNOW.
6. WOODCHIPS SHALL BE APPLIED AT A MAXIMUM THICKNESS OF 4-INCHES AND ONLY IN UPLAND AREAS.

SUMMARY OF SEEDING REQUIREMENTS

CONDITION	TIMING[1,2]	SEED MIX
TEMPORARY SEEDING[3]	TEMPORARY SEED BETWEEN APRIL 15 AND OCTOBER 1 ONLY. DISTURBED AREAS OR SOIL STOCKPILES WILL BE SEEDED IMMEDIATELY IF FURTHER DISTURBANCE IS NOT EXPECTED FOR 30 DAYS OR MORE.	ANNUAL RYEGRASS
PERMANENT SEEDING[3,4]		
UPLAND PORTIONS OF THE CONSTRUCTION AREA	DISTURBED AREA WILL BE SEEDED WITHIN 7 DAYS OF FINAL GRADING.	UPLAND MIX
SLOPES > 3:1	DISTURBED AREA WILL BE SEEDED IMMEDIATELY AFTER SEEDBED PREPARATION.	UPLAND MIX
AS DIRECTED	DISTURBED AREAS DESIGNATED FOR STABILIZATION WITH THE POLLINATOR MIX SHALL BE SEEDED WITHIN 7 DAYS OF FINAL GRADING.	POLLINATOR SEED MIX
WOODCHIP APPLICATION AREAS	DISTURBED AREA WILL BE SEEDED WITHIN 7 DAYS OF FINAL GRADING.	WOODCHIP APPLICATION SEED MIX
WINTER DORMANT SEEDING	DORMANT SEED BETWEEN OCTOBER 1 AND APRIL 15 ONLY. NO SEEDING WILL OCCUR IF SNOW DEPTHS EXCEED 1 INCH.	CONSERVATION MIX PLUS WINTER RYEGRASS

NOTES:
1. WEATHER CONDITIONS PERMITTING.
2. AREAS THAT DO NOT SUCCESSFULLY REVEGETATE WITHIN APPROPRIATE PERIOD OF TIME WILL BE RESEEDED AS NECESSARY.
3. LOOSEN COMPACTED SOIL TO A MINIMUM DEPTH OF 4 INCHES.
4. TOP DRESS WITH 4 to 6 INCHES LOAM, AS NEEDED.

PERMITTING
NOT FOR CONSTRUCTION

811 DigSafe

SEAL:

STATE OF MAINE — THOMAS N. DANIELS JR. — 21080 — 2020-06-16 — LICENSED PROFESSIONAL ENGINEER

PROFESSIONAL ENGINEER: THOMAS N. DANIELS, JR.

DATE: JUNE 16, 2020

NO.	BY	DATE	REVISION	APP'D
02	TRC	6/16/20	REVISED PER TOWN COMMENTS	TND
01	TRC	5/12/20	ISSUED FOR LOCAL PERMITTING	TND

PROJECT:
SOLAR FIELDS LLC
PROPOSED 2MW SOLAR ARRAY
242 MANCHESTER RD, BELGRADE, MAINE

TITLE:
GENERAL NOTES & LEGEND

DRAWN BY:	TRC/ARD
CHECKED BY:	TND
APPROVED BY:	TND
DATE:	MAY 2020
PROJ. NO.:	389694

G-2

TRC
14 Gabriel Drive
Augusta, ME 04330
Phone: 207.620.3800
www.trcsolutions.com

FILE NO.: 389694-G-SHEETS.dwg

EROSION CONTROL NOTES

PROJECT DESCRIPTION

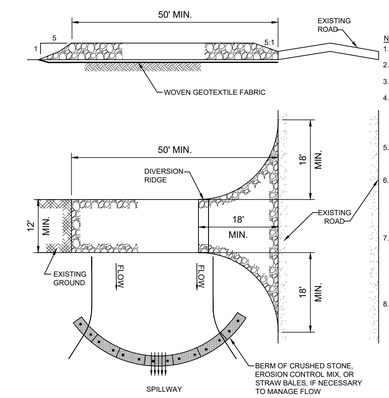
THE PROJECT INVOLVES THE CONSTRUCTION OF A GROUND-MOUNTED PHOTOVOLTAIC SOLAR MODULE SYSTEM AND ALL RELATED ACCESS ROADS, UTILITIES, SITE PREPARATION, CLEARING & GRUBBING, EROSION & SEDIMENTATION CONTROL MEASURES, AND TEMPORARY ACCESS ROADS.

CONSTRUCTION SEQUENCE

1. ALL CONTRACTORS ENGAGED IN SOIL DISTURBANCE SHALL BE CERTIFIED IN BASIC AND ADVANCED EROSION CONTROL PRACTICES BY MDEP UNLESS OTHERWISE APPROVED BY THE OWNER, ENGINEER, AND TOWN OF BELGRADE.
2. ESTABLISH CONSTRUCTION WORKSPACE LIMITS; IDENTIFY AND MARK SENSITIVE RECEPTORS INCLUDING NATURAL RESOURCES AND DOWNGRADIENT DRAINAGE INFRASTRUCTURE.
3. INSTALLATION OF ALL EROSION AND SEDIMENT CONTROL MEASURES AND ASSOCIATED WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE "MAINE EROSION AND SEDIMENT CONTROL PRACTICES FIELD GUIDE FOR CONTRACTORS" (REVISED 2014).
4. PRIOR TO USAGE, CONSTRUCT AND STABILIZE THE CONSTRUCTION ENTRANCE IN THE LOCATIONS INDICATED ON THE EROSION CONTROL PLAN SHEET.
5. CLEAR TIMBER, BRUSH, AND COMPLETE TREE REMOVAL; GRUBBING SHALL NOT BE COMPLETED UNTIL JUST PRIOR TO PRELIMINARY GRADING AND ESTABLISHMENT AND STABILIZATION OF TEMPORARY OR PERMANENT DRAINAGE CONVEYANCES.
6. INSTALL AND MAINTAIN PERIMETER SEDIMENT BARRIERS SUCH AS SILT FENCING AND/OTHER APPROVED EROSION CONTROL BARRIERS ALONG THE DOWNHILL LIMIT OF DISTURBANCE AS SHOWN ON THE DRAWINGS. SEDIMENT BARRIER LOCATIONS MAY BE ADJUSTED IN THE FIELD BASED ON ACTUAL SITE CONDITIONS AS DEEMED NECESSARY TO ENSURE PROPER FUNCTION. WHERE SILT FENCE CANNOT BE TOED-IN PROPERLY DUE TO TREE ROOTS, ROCKS, OR FROZEN GROUND, HAY BALES OR AN EROSION CONTROL MIX BERM MAY BE SUBSTITUTED. PERIMETER SEDIMENT BARRIERS SHALL BE INSTALLED AS SOON AS POSSIBLE BUT MAY FOLLOW INITIAL SITE PREPARATION. EROSION OR SEDIMENTATION ISSUES DEVELOPING DURING INITIAL SITE PREPARATION SHALL BE TEMPORARILY STABILIZED AS NECESSARY.
7. STABILIZE PERMANENT ACCESS ROAD SURFACES, PARKING AREAS, AND EQUIPMENT STORAGE AND LAYDOWN AREAS WITH MATTING, CRUSHED STONE, OR GRAVEL SUBBASE AS NECESSARY TO MINIMIZE RUTTING AND AVOID PONDING OF STORMWATER.
8. CONCURRENT WITH INITIATION OF SITE GRADING, CONSTRUCT AND STABILIZE TEMPORARY DRAINAGE SWALES, DIVERSION BERMS, CHECK DAMS, AND CULVERTS WITH TEMPORARY INLET AND OUTLET PROTECTION TO MINIMIZE SEDIMENT IN SITE RUNOFF DURING CONSTRUCTION. DEWATERING SHALL BE IN ACCORDANCE WITH THE DEWATERING NOTES.
9. INSTALL PROPERLY SPACED STONE CHECK DAMS IN ANY SECTION OF DITCH WITHIN 24-HOURS OF FORMING, SHAPING, OR ROUGH GRADING THAT SECTION DITCH.
10. MINIMIZE THE AMOUNT OF DISTURBANCE AT ANY ONE TIME BY STAGING CONSTRUCTION AS MUCH AS PRACTICAL FOR EFFICIENT CONSTRUCTION OF THE FACILITY. NATURAL VEGETATIVE BUFFERS SHOULD BE LEFT IN PLACE WHERE FEASIBLE TO AID IN SEDIMENT RETENTION AND REDUCE THE POTENTIAL FOR EROSION.
11. STABILIZE ANY NEWLY GRADED SLOPE GREATER THAN EIGHT PERCENT AND ANY SECTION OF NEWLY CONSTRUCTED DITCH USING ANCHORED EROSION CONTROL BLANKETS OR OTHER APPROVED MULCHING TECHNIQUES WITHIN 24-HOURS. ALL VEGETATED DITCHES THAT HAVE NOT BEEN STABILIZED BY NOVEMBER 1, OR WILL BE WORKED ON BETWEEN NOVEMBER 1 AND APRIL 15, MUST BE STABILIZED WITH STONE LINING BACKED BY GRAVEL BED OR GEOTEXTILE AS SPECIFIED BY THE ENGINEER.
12. DUST CONTROL METHODS SHALL BE EMPLOYED AFTER GRADING AND PRIOR TO FINAL STABILIZATION TO PREVENT THE BLOWING AND MOVEMENT OF NUISANCE DUST THROUGH THE APPLICATION OF WATER AND/OR CALCIUM CHLORIDE.
13. APPLY TEMPORARY SEED AND MULCH TO EXPOSED AREAS WHERE ACTIVITY IS NOT ANTICIPATED FOR 30-DAYS/ TEMPORARILY MULCH ANY EXPOSED AREAS WITHIN 100-FEET OF A WETLAND OR NATURAL RESOURCE WHERE WORK IS NOT ANTICIPATED OR HAS NOT OCCURRED IN 7 DAYS.
14. REMOVE EXCESS SPOILS FROM THE SITE THAT WILL NOT BE USED FOR THE FINAL DESIGN AND STABILIZATION. STOCKPILED SOILS THAT REMAIN IN PLACE FOR 48-HOURS OR MORE SHALL BE CONTAINED WITH SEDIMENT BARRIERS. THE SEDIMENT BARRIERS SHALL BE REINFORCED TO HANDLE A SIGNIFICANT RAIN EVENT AND THE POTENTIAL SLUMPING OF THE PILE. BETWEEN APRIL 15 AND OCTOBER 1, APPLY TEMPORARY SEED AND MULCH TO A STOCKPILE THAT IS NOT ANTICIPATED TO BE DISTURBED WITHIN 30-DAYS. APPLY ANCHORED MULCH DAILY AND/OR AS NEEDED DURING WINTER CONSTRUCTION.
15. INSPECT AND REPAIR EROSION CONTROL MEASURES DAILY IN AREAS OF ACTIVE CONSTRUCTION; OTHERWISE WEEKLY AND AFTER A RAINFALL EVENT OF 0.5-INCHES OR GREATER WITHIN A 24-HOUR PERIOD. REMOVE ACCUMULATED SEDIMENT WHEN IT REACHES ½ OF THE HEIGHT OF THE BARRIER.
16. MONITOR PUBLIC ROADS FOR SIGNS OF TRACKING OR SPILLING OF SPOIL MATERIAL AND CLEAN-UP AS NECESSARY.
17. COMPLETE FINAL GRADING AND STABILIZATION OF EARTHEN STRUCTURES SUCH AS DIVERSION BERMS, LEVEL SPREADERS, AND SWALES THAT WILL CONTROL POST-CONSTRUCTION RUNOFF.
18. FINISH GRADE AND REPLACE TOPSOIL OR LOAM IN DISTURBED AREAS. SEED AND MULCH DISTURBED AREAS WITHIN 6 DAYS OF FINAL GRADING. BETWEEN NOVEMBER 1 AND APRIL 15, STABILIZE AREAS THAT ARE FINAL GRADED AT THE END OF EACH DAY.
19. MAINTAIN ALL TEMPORARY EROSION CONTROLS AND SEDIMENT BARRIERS UNTIL VEGETATION HAS BEEN ESTABLISHED OVER 90% OF THE AREA TO BE REVEGETATED. RESEED SPARSELY VEGETATED AREAS AS NECESSARY.
20. REMOVE AND PROPERLY DISPOSE OF ALL TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES ONCE THE SITE IS PERMANENTLY STABILIZED.

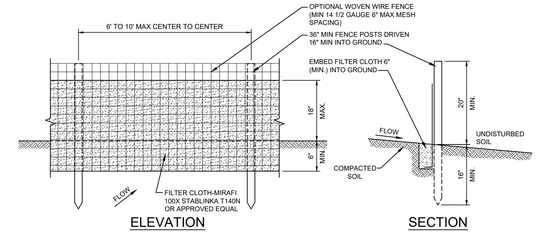
DEWATERING NOTES

1. THE CONTRACTOR SHALL INSTALL, MAINTAIN, AND OPERATE ALL CHANNELS, SUMPS, AND ALL OTHER TEMPORARY DIVERSION AND PROTECTIVE WORKS NEEDED TO DIVERT STREAM FLOW AND OTHER SURFACE WATER THROUGH OR AROUND THE CONSTRUCTION SITE. CONTROL OF SURFACE WATER SHALL BE CONTINUOUS DURING THE PERIOD THAT DAMAGE TO CONSTRUCTION WORK COULD OCCUR.
2. OPEN EXCAVATIONS SHALL BE DEWATERED AND KEPT FREE OF STANDING WATER AND MUDDY CONDITIONS AS NECESSARY FOR THE PROPER EXECUTION OF THE WORK. THE CONTRACTOR SHALL FURNISH, INSTALL, OPERATE, AND MAINTAIN ALL DRAINS, SUMPS AND ALL OTHER EQUIPMENT REQUIRED TO PROPERLY DEWATER THE SITE. DEWATERING SYSTEMS THAT CAUSE A LOSS OF SOIL FINES FROM THE FOUNDATION AREAS WILL NOT BE PERMITTED.
3. INSTALL DIVERSION DITCHES OR BERMS IF NECESSARY TO MINIMIZE THE AMOUNT OF CLEAN STORMWATER RUNOFF ALLOWED INTO THE EXCAVATION AREA.
4. REMOVAL OF WATER FROM THE CONSTRUCTION SITE SHALL BE ACCOMPLISHED SO THAT EROSION AND TRANSPORTATION OF SEDIMENT AND OTHER POLLUTANTS ARE MINIMIZED.
5. DISCHARGE DEWATERING EFFLUENT TO AREAS AS INDICATED ON THE SITE GRADING PLAN. DISCHARGE SHALL BE MANAGED TO ENSURE SHEET FLOW.
6. DEWATERING IN PERIODS OF INTENSE HEAVY RAIN OR WHEN THE INFILTRATIVE CAPACITY OF THE SOIL IS EXCEEDED, SHALL BE AVOIDED TO THE MAXIMUM EXTENT PRACTICABLE.
7. FLOW TO THE SEDIMENT REMOVAL STRUCTURE MAY NOT EXCEED THE STRUCTURE'S CAPACITY TO SETTLE AND FILTER FLOW OR THE STRUCTURE'S VOLUME CAPACITY.
8. WHEN TEMPORARY WORKS ARE NO LONGER NEEDED, THE CONTRACTOR SHALL REMOVE AND RETURN THE AREA TO A CONDITION SIMILAR TO THAT WHICH EXISTED BEFORE CONSTRUCTION. AREAS WHERE TEMPORARY WORKS WERE LOCATED SHALL BE GRADED FOR SIGHTLY APPEARANCE WITH NO OBSTRUCTION TO NATURAL SURFACE WATER FLOWS OR THE PROPER FUNCTIONING AND ACCESS TO THE WORKS OF IMPROVEMENTS INSTALLED. THE CONTRACTOR SHALL EXERCISE EXTREME CARE DURING THE REMOVAL STAGES TO MINIMIZE THE LOSS OF SOIL SEDIMENT AND DEBRIS THAT WAS COLLECTED DURING CONSTRUCTION.



NOTES:
1. STONE SIZE - USE 2" CRUSHED STONE.
2. LENGTH - NOT LESS THAN 50 FEET.
3. THICKNESS - NOT LESS THAN SIX (6) INCHES.
4. WIDTH - TWELVE (12) FOOT MIN. BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY-FOUR (24) FOOT IF SINGLE ENTRANCE TO SITE.
5. WOVEN GEOTEXTILE FABRIC - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING THE STONE.
6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WHEN VEHICLE WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.

STABILIZED CONSTRUCTION ENTRANCE
NOT TO SCALE

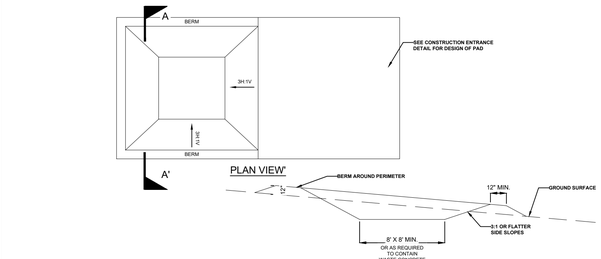


ELEVATION
SECTION

1. WOVEN WIRE FENCE TO BE FASTENED TO FENCE POSTS WITH WIRE TIES OR STAPLES.
2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MIDSECTION.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY 6" AND FOLDED.
4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN BUILD-UP REACHES 1/3 THE HEIGHT OF THE FENCE.

POSTS:	STEEL "T" OR "U" TYPE OR 2" HARDWOOD.
FENCE:	WOVEN WIRE. 14 1/2 GA 6" MAX MESH OPENING.
FILTER CLOTH:	FILTER X, MIRAFI 100X, STABLINKA T140N OR APPROVED EQUAL.
PREFABRICATED:	ENVIROFENCE OR APPROVED EQUAL

SILT FENCE DETAILS
NOT TO SCALE

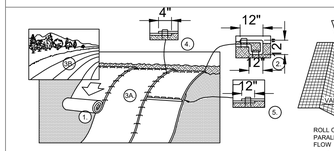


SECTION A-A'

CONCRETE WASHOUT AREA INSTALLATION AREA:
1. CONCRETE WASHOUT AREAS ARE TO BE INSTALLED AT SUBSTATION SITE, LAYDOWN AREA AND WHEREVER ELSE CONCRETE IS USED FOR THE PROJECT.
2. THE CONCRETE WASHOUT AREA SHALL BE INSTALLED PRIOR TO ANY CONCRETE PLACEMENT ON THE SITE.
3. VEHICLE TRACKING CONTROL IS REQUIRED AT THE ACCESS POINT.
4. SIGNS SHALL BE PLACED AT THE CONSTRUCTION ENTRANCE, AT THE WASHOUT AREA, AND ELSEWHERE AS NECESSARY TO CLEARLY INDICATE THE LOCATION OF THE CONCRETE WASHOUT AREA TO OPERATORS OF CONCRETE TRUCKS AND PUMP RIGS.
5. MATERIAL EXCAVATED TO CREATE CONCRETE WASHOUT PIT SHALL BE UTILIZED TO CONSTRUCT PERIMETER BERM AROUND PIT.

CONCRETE WASHOUT AREA MAINTENANCE NOTES:
1. THE CONCRETE WASHOUT AREA SHALL BE REPAIRED AND ENLARGED OR CLEANED OUT AS NECESSARY TO MAINTAIN CAPACITY FOR WASTED CONCRETE.
2. AT THE END OF CONSTRUCTION, REMOVE ALL CONCRETE, COVER THE DISTURBED AREA WITH TOPSOIL, DRILL SEED AND CRIMP MULCH OR OTHERWISE STABILIZE IN A MANNER APPROVED BY THE LOCAL JURISDICTION.

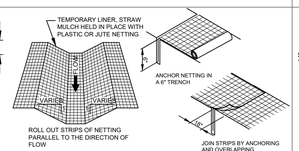
CONCRETE WASHOUT AREA
NOT TO SCALE



1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 12" DEEP X 12" WIDE TRENCH WITH APPROXIMATELY 12" OF BLANKET EXTEDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE BLANKET.
3. ROLL THE BLANKETS (A) DOWN THE SLOPE. HORIZONTAL (B) INSTALLATION MAY BE APPROPRIATE IN SOME INSTANCES AS APPROVED BY THE ENGINEER. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING OPTIONAL DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH A MINIMUM OF 4"-6" OVERLAP DEPENDING ON BLANKET TYPE. TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE COLORED SEAM STITCH ON THE PREVIOUSLY INSTALLED BLANKET.
5. CONSECUTIVE BLANKETS SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 12" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS ENTIRE BLANKET WIDTH.

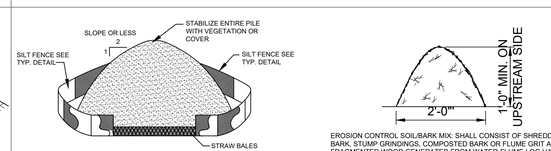
NOTE:
*IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS.

EROSION CONTROL BLANKET
NOT TO SCALE



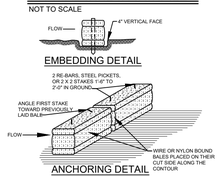
1. EXCAVATE THE CHANNEL AND SHAPE IT TO AN EVEN CROSS-SECTION AS SHOWN. WHEN STAKING INDICATE A 0.2' OVERCUT AROUND THE CHANNEL PERIMETER FOR SILTING IN BULKING.
2. GRADE SOIL AWAY FROM CHANNEL SO THAT SURFACE WATER MAY ENTER FREELY.
3. APPLY LIME, FERTILIZER AND SEED TO THE CHANNEL AND ADJOINING AREAS IN ACCORDANCE WITH THE EROSION CONTROL PLAN.
4. SPREAD HAY OR STRAW MULCH AT THE RATE OF 100LB/1000 SF.
5. HOLD MULCH IN PLACE IMMEDIATELY AFTER SPREADING WITH A PLASTIC NETTING INSTALLED AS SHOWN.
6. START LAYING THE NET FROM THE TOP OF THE UPSTREAM END OF THE CHANNEL AND UNROLL IT DOWN GRADE. DO NOT STRETCH THE NETTING.
7. BURY THE UP-SLOPE END AND STAPLE THE NET EVERY 12" ACROSS THE TOP END. EVERY 3 FT AROUND THE EDGES AND ACROSS THE NET SO THAT THE STRAW IS HELD CLOSELY AGAINST THE SOIL. HOWEVER, DO NOT STRETCH THE NETTING WHEN STAPLING.
8. NETTING STRIPS SHOULD BE JOINED TOGETHER ALONG THE SIDES WITH A 3" OVERLAP AND STAPLED TOGETHER.
9. TO JOIN ENDS OF STRIPS, INSERT A NEW ROLL OF NET IN A TRENCH AS WITH THE UP SLOPE END AND OVERLAP IT 18" WITH THE PREVIOUSLY LAID UPPER ROLL. TURN UNDER 6" OF THE 18" OVERLAP AND STAPLE EVERY 12" ACROSS THE END.

GRASS LINED DITCH
NOT TO SCALE

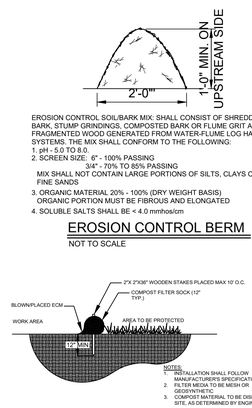


INSTALLATION NOTES:
1. AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
2. MAXIMUM SLOPE OF STOCKPILE SHALL BE 2H:1V.
3. UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE SURROUNDED WITH EITHER SILT FENCING OR STRAW BALES, THEN STABILIZED WITH VEGETATION OR COVERED.

TYPICAL SOIL STOCKPILE
NOT TO SCALE

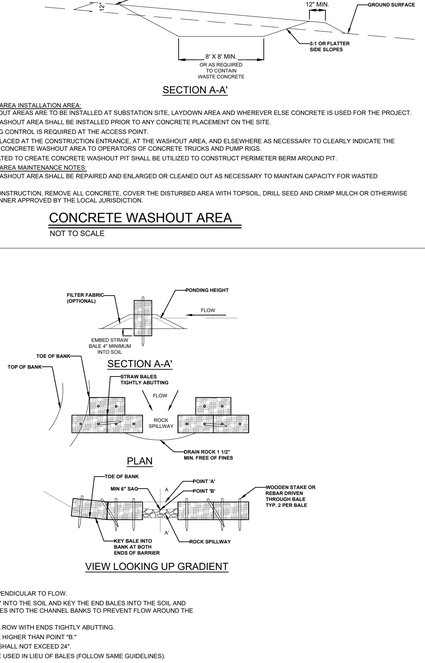


STRAW BALE BARRIER
NOT TO SCALE



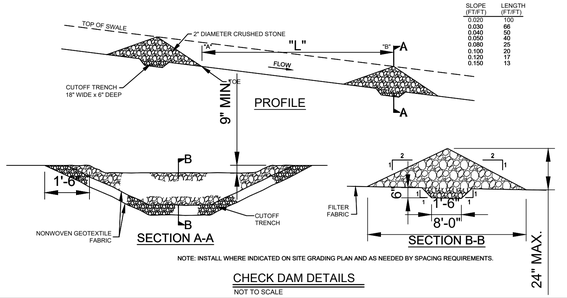
EROSION CONTROL BERM
NOT TO SCALE

COMPOST FILTER SOCK
NOT TO SCALE



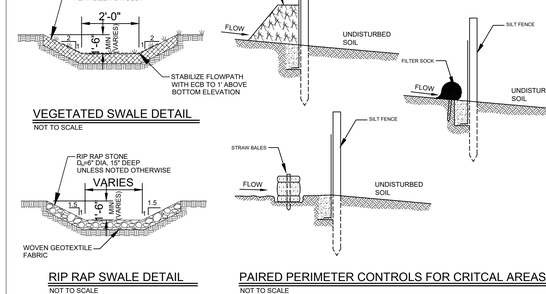
NOTES:
1. PLACE BALES PERPENDICULAR TO FLOW.
2. EMBED THE BALE 4" INTO THE SOIL AND KEY THE END BALES INTO THE SOIL AND "KEY" THE END BALES INTO THE CHANNEL BANKS TO PREVENT FLOW AROUND THE BALES.
3. BALES PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING.
4. POINT "A" SHALL BE HIGHER THAN POINT "B."
5. SPILLWAY HEIGHT SHALL NOT EXCEED 24".
6. SILT FENCE MAY BE USED IN LIEU OF BALES (FOLLOW SAME GUIDELINES).

SEMI-PERVIOUS SEDIMENT BARRIER
NOT TO SCALE



NOTE: INSTALL WHERE INDICATED ON SITE GRADING PLAN AND AS NEEDED BY SPACING REQUIREMENTS.

CHECK DAM DETAILS
NOT TO SCALE



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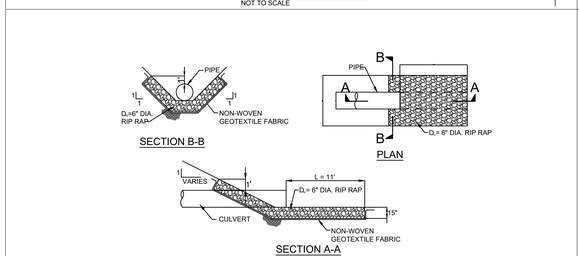


DEWATERING DETAIL NOTES:
1. DIRT BAG MATERIAL BASED ON PARTICLE SIZE IN DIRTY WATER, I.E. FOR COARSE PARTICLES A WOVEN MATERIAL IS PREFERRED; FOR SILTS/CLAYS A NON-WOVEN MATERIAL SHOULD BE IMPLEMENTED.
2. DO NOT OVER PRESSURIZE DIRT BAG OR USE BEYOND CAPACITY.
3. LOCATE DISCHARGE SITE AS INDICATED ON THE SITE GRADING PLAN.
4. DOWNGRADIENT RECEIVING AREA MUST BE WELL VEGETATED OR OTHERWISE STABLE FROM EROSION, E.G., PERMANENT VEGETATION OR COARSE GRAVEL/STONE.
5. DISCHARGE OF DEWATERING ACTIVITIES PROHIBITED WITHIN 25' OF A NATURAL RESOURCE.

EXCAVATION DEWATERING DETAIL
NOT TO SCALE

CULVERT INLET/OUTLET PROTECTION
NOT TO SCALE

PERMITTING
NOT FOR CONSTRUCTION

811 DigSafe

SEAL:

STATE OF MAINE — THOMAS N. DANIELS JR. — 21080 — 2020-06-16 — LICENSED PROFESSIONAL ENGINEER

PROFESSIONAL ENGINEER: THOMAS N. DANIELS, JR.

DATE: JUNE 16, 2020

NO.	BY	DATE	REVISION	APP'D
02	TRC	6/16/20	REVISED PER TOWN COMMENTS	TND
01	TRC	5/12/20	ISSUED FOR LOCAL PERMITTING	TND

PROJECT:
SOLAR FIELDS LLC
PROPOSED 2MW SOLAR ARRAY
242 MANCHESTER RD, BELGRADE, MAINE

TITLE:
EROSION CONTROL NOTES & DETAILS

DRAWN BY:	TRC/ARD	PROJ. NO.:	389694
CHECKED BY:	TND		G-3
APPROVED BY:	TND		
DATE:	MAY 2020		

TRC
14 Gabriel Drive
Augusta, ME 04330
Phone: 207.620.3800
www.trcsolutions.com

FILE NO.: 389694-G-SHEETS.dwg

LEGEND

EXISTING SLOPE EXCEEDS 15%

N

0 60 120 180 240

SCALE IN FEET

PERMITTING

NOT FOR CONSTRUCTION

811 DigSafe

SEAL:

STATE OF MAINE — THOMAS N. DANIELS JR. — 21060 — 2020-06-16 — LICENSED PROFESSIONAL ENGINEER

PROFESSIONAL ENGINEER:

THOMAS N. DANIELS, JR.

DATE:

JUNE 16, 2020

NO.	BY	DATE	REVISION	APP'D
02	TRC	6/16/20	REVISED PER TOWN COMMENTS	TND
01	TRC	5/12/20	ISSUED FOR LOCAL PERMITTING	TND

PROJECT:

SOLAR FIELDS LLC
PROPOSED 2MW SOLAR ARRAY
242 MANCHESTER RD, BELGRADE, MAINE

TITLE:

EXISTING CONDITIONS PLAN

DRAWN BY:	TRC	PROJ NO.:	389694
CHECKED BY:	TND		
APPROVED BY:	TND		C-1
DATE:	MAY 2020		

TRC
14 Gabriel Drive
Augusta, ME 04330
Phone: 207.620.3800
www.trcsolutions.com

FILE NO.: 389694 - EXISTING_recover.dwg

POINT OF INTERCONNECTION INTO DISTRIBUTION GRID EXTENSION OF 3-PHASE TO BE COMPLETED BY CENTRAL MAINE POWER

UPGRADE EXISTING POINT OF ACCESS CONTRACTOR TO REFER TO CONDITIONS OF MDOT DRIVEWAY/ENTRANCE PERMIT

CULVERT SD-1
DIA: 15"
S: 0.01 / L: 30'
PROVIDE RIP-RAP INLET/OUTLET PROTECTION AND RE-GRADE DITCH FOR POSITIVE DRAINAGE 25' ON EITHER END OF CULVERT

MANCHESTER RD (RT. 135)

STABILIZED CONSTRUCTION ENTRANCE SEE DETAIL SHEET G-3

35' WIDE VISUAL SCREENING LANDSCAPE BUFFER

25' WIDE VISUAL SCREENING LANDSCAPE BUFFER

CONCRETE WASHOUT AREA SEE DETAIL SHEET G-3

POWER STATION FENCE & GATE WITH KNOX LOCK SEE DETAIL SHEET C-4

POWER STATION ON CRUSHED STONE PAD IMPERVIOUS AREA: 345 SF

EXISTING EVERGREENS TO REMAIN FOR VISUAL SCREENING

BUFFER B-1
STA: 0+50 TO 3+80
TYPE: ROADSIDE MEADOW

16' WIDE GRAVEL ACCESS ROAD
IMPERVIOUS AREA: 17,367 SF

20' SECURITY GATE W/ KNOX LOCK

20' SECURITY GATE W/ KNOX LOCK

25' WIDE * 300' LONG VISUAL SCREENING LANDSCAPE BUFFER

20' SECURITY GATE W/ KNOX LOCK

PERIMETER ARRAY SECURITY FENCE

FIXED-TILT ARRAY(TYP)

ROAD WIDTH TO BE ADJUSTED AS NECESSARY TO STAY WITHIN EXISTING UPLAND AREA BETWEEN WETLANDS

TOPSOIL STOCKPILE

PANELBOARD W/ 8 INVERTERS (TYP)

20' SECURITY GATE W/ KNOX LOCK

95' DIA. NFPA COMPLIANT TURNING PAD

CULVERT SD-2(REPLACES EXISTING)
DIA: 24"
INV IN: 305'
INV OUT: 304.5'
S: 0.025 / L: 20'

DUAL-AXIS TRACKER ARRAY

20' SECURITY GATE W/ KNOX LOCK

PROPOSED GRADING TO MEET RACKING SLOPE TOLERANCE WITH MAX SLOPE OF 15%

20' SECURITY GATE W/ KNOX LOCK

PERIMETER ARRAY SECURITY FENCE

20' SECURITY GATE W/ KNOX LOCK

FIXED-TILT ARRAY (TYP)

20' SECURITY GATE W/ KNOX LOCK
PANELBOARD W/ 8 INVERTERS (TYP)

20' SECURITY GATE W/ KNOX LOCK

20' SECURITY GATE W/ KNOX LOCK

0 60 120 180 240
SCALE IN FEET

PERMITTING
NOT FOR CONSTRUCTION

811 DigSafe

SEAL:

STATE OF MAINE
THOMAS N. DANIELS, JR.
20080
2020-06-16
LICENSED PROFESSIONAL ENGINEER

PROFESSIONAL ENGINEER:
THOMAS N. DANIELS, JR.

DATE:
JUNE 16, 2020

NO.	BY	DATE	REVISION	APP'D
02	TRC	6/16/20	REVISED PER TOWN COMMENTS	TND
01	TRC	5/12/20	ISSUED FOR LOCAL PERMITTING	TND

LANDSCAPING & VISUAL BUFFER SCHEDULE

SYMBOL	BOTANICAL NAME/ COMMON PLANT NAME	QUANTITY	SIZE	ROOT
	ABIES BALSAMEA BALSAM FIR	25	5'-6' HT.	B&B
	HAMAMELIS VIRGINIANA COMMON WITCH HAZEL	18	3'-4' HT.	B&B
	VIBURNUM TRILOBUM CRANBERRYBUSH VIBURNUM	36	24"-30" HT.	#3/5 CONT.

NOTES

1. A QUALIFIED LANDSCAPE PROFESSIONAL SHALL BE CONTRACTED TO CONDUCT LAYOUT AND INSTALLATION OF PROPOSED LANDSCAPING FEATURES.
2. FINAL LANDSCAPING IS SUBJECT TO VARIATION BASED ON ACTUAL EQUIPMENT LAYOUT AND DESIGN AS WELL AS MATERIAL AVAILABILITY. FINAL LANDSCAPING PLAN TO BE SUBMITTED WITH APPLICATION FOR BUILDING PERMIT.

PROJECT:
SOLAR FIELDS LLC
PROPOSED 2MW SOLAR ARRAY
242 MANCHESTER RD, BELGRADE, MAINE

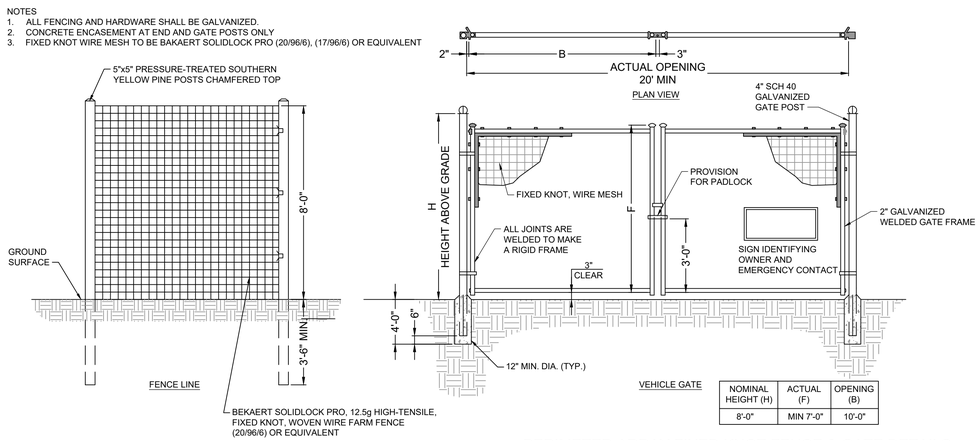
TITLE:
SITE GRADING & DRAINAGE PLAN

DRAWN BY:	TRC	PROJ. NO.:	389694
CHECKED BY:	TND		
APPROVED BY:	TND		C-2
DATE:	MAY 2020		

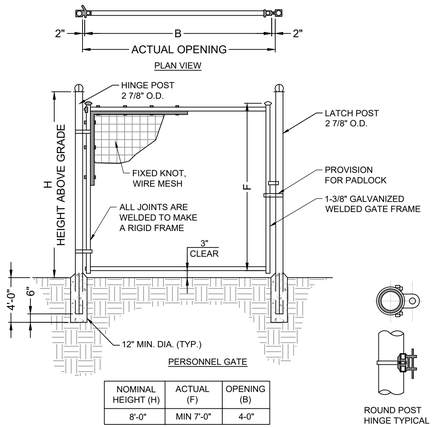
TRC
14 Gabriel Drive
Augusta, ME 04330
Phone: 207.620.3800
www.trcsolutions.com

FILE NO.: 389694 - BASE-rev01.dwg

NOTES
1. ALL FENCING AND HARDWARE SHALL BE GALVANIZED.
2. CONCRETE ENCASEMENT AT END AND GATE POSTS ONLY
3. FIXED KNOT WIRE MESH TO BE BAKAERT SOLIDLOCK PRO (20/96/6), (17/96/6) OR EQUIVALENT

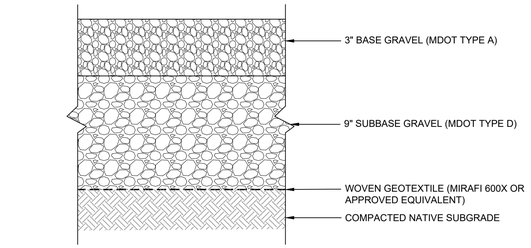


NOMINAL HEIGHT (H)	ACTUAL (F)	OPENING (B)
8'-0"	MIN 7'-0"	10'-0"



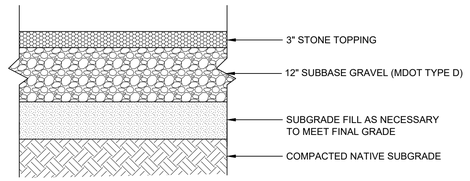
NOMINAL HEIGHT (H)	ACTUAL (F)	OPENING (B)
8'-0"	MIN 7'-0"	4-0"

PERIMETER ARRAY FIXED KNOT FENCE & GATE DETAILS
NOT TO SCALE



CONSTRUCTION NOTES:
1. BASE AND SUBBASE GRAVEL SHALL CONFORM TO MDOT 703.06. AGGREGATE SHALL BE DURABLE CRUSHED ROCK CONSISTING OF THE ANGULAR FRAGMENTS OBTAINED BY BREAKING AND CRUSHING SOLID OR SHATTERED NATURAL ROCK, AND FREE FROM, A DETRIMENTAL QUANTITY OF THIN, FLAT, ELONGATED, OR OTHER OBJECTIONABLE PIECES.
2. BASE GRAVEL AND SUBBASE GRAVEL SHALL BE COMPACTED TO 95% OF ASTM D1557 AND PLACED IN MAXIMUM COMPACTED LIFTS OF 9-INCHES.
3. VEGETATION AND TOPSOIL WITHIN LIMIT OF ROAD FILL SHALL BE STRIPPED PRIOR TO PLACEMENT OF SUBGRADE FILL.
4. SUBGRADE SHALL BE COMPACTED TO 95% OF ASTM D1557 TO A DEPTH OF 12-INCHES.

ACCESS DRIVE BUILD-UP
NOT TO SCALE

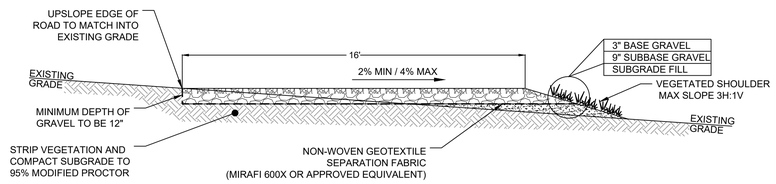


CONSTRUCTION NOTES:
1. STONE TOPPING, ASTM C33, SIZE NUMBER 4. CRUSHED STONE TOPPING SHALL BE OBTAINED FROM ROCK OF UNIFORM QUALITY AND CONSIST OF CLEAN, ANGULAR FRAGMENTS OF QUARRIED ROCK, FREE FROM SOFT DISINTEGRATED PIECES OR OBJECTIONABLE MATTER. STONE TOPPING SHALL BE SPECIFIED CRUSHED STONE BLENDED TO BE A 50:50 MIX OF 1-1/2 INCH AND 3/4-INCH STONE.THE FOLLOWING GRADATION IS PROVIDED:

SIEVE DESIGNATION	PERCENTAGE BY WEIGHT PASSING SQUARE MESH SIEVES
2 INCH	100
1-1/2 INCH	90-100
1 INCH	20-55
3/4 INCH	0-15
#4 INCH	0-5

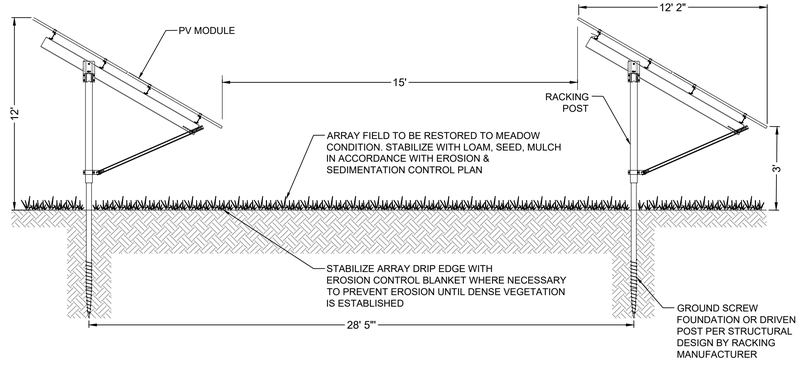
2. SUBBASE GRAVEL SHALL CONFORM TO MDOT 703.06. AGGREGATE SHALL BE DURABLE CRUSHED ROCK CONSISTING OF THE ANGULAR FRAGMENTS OBTAINED BY BREAKING AND CRUSHING SOLID OR SHATTERED NATURAL ROCK, AND FREE FROM A DETRIMENTAL QUANTITY OF DELETERIOUS MATERIALS.
3. VEGETATION SHALL BE STRIPPED FROM FOOTPRINT OF CRUSHED STONE PAD PRIOR TO PLACEMENT OF SUBGRADE FILL.
4. NATIVE SUBGRADE SHALL BE COMPACTED AND PROOF ROLLED PRIOR TO PLACEMENT OF SUBGRADE FILL.

POWER STATION CRUSHED STONE PAD BUILD-UP
NOT TO SCALE

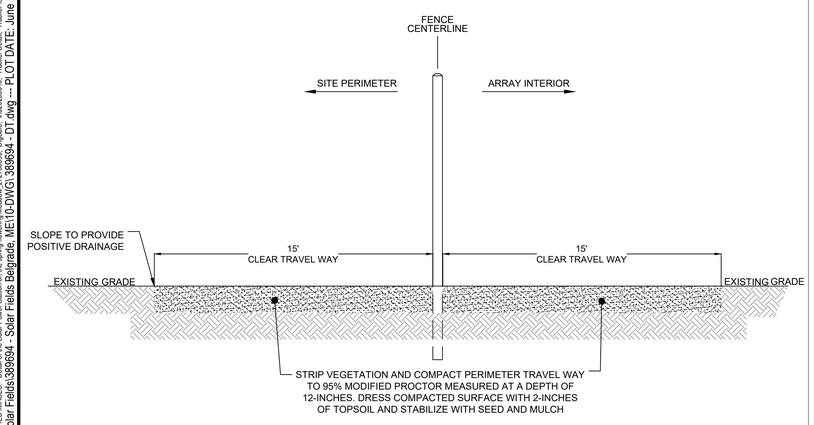


CONSTRUCTION NOTES:
1. SUBGRADE FILL SHALL BE GRANULAR BORROW (MDOT 703.19) OR AS SPECIFIED IN PROJECT GEOTECHNICAL REPORT.
2. GRAVEL SURFACE SHALL BE SUPERELEVATED AND SLOPED A MINIMUM OF 2% AS INDICATED IN PLAN VIEW. CROSS SLOPE SHALL NOT EXCEED 4%.
3. ROADWAY SHOULDER SHALL BE VEGETATED AND PREPARED TO DIRECT RUNOFF AS SHEETFLOW TO IDENTIFIED BUFFER AREAS.

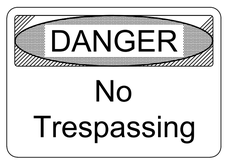
PROPOSED ACCESS ROAD DETAIL
NOT TO SCALE

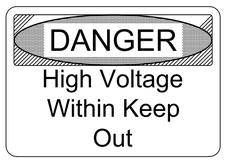


TYPICAL SOLAR RACKING - SIDE ELEVATION
NOT TO SCALE



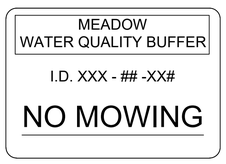
PERIMETER ACCESS TRAVEL WAY DETAIL
NOT TO SCALE





NOTES
1. SIGNS SHALL CONFORM TO THE 2013 OSHA AND ANSI REQUIREMENTS.
2. SIGNS SHALL BE 20" WIDE BY 14" HIGH.
3. SIGNS SHALL HAVE A MOUNTING HEIGHT OF BETWEEN 45 TO 66 INCHES.
4. SIGN PANELS SHALL BE 10 GAUGE ALUMINUM WITH HIGH VISIBILITY REFLECTIVE SHEETING.
5. SIGNAGE SHALL INCLUDE 24-HR EMERGENCY CONTACT INFORMATION FOR FACILITY OPERATOR.

HAZARD & EMERGENCY SIGNAGE
NOT TO SCALE



NOTES
1. WATER QUALITY BUFFERS SHALL BE PERMANENTLY MARKED IN THE FIELD AND REGISTERED WITH THE KENNEBEC COUNTY REGISTRY OF DEEDS.
2. SIGNS SHALL BE 20" WIDE BY 14" HIGH.
3. SIGNS SHALL HAVE A MOUNTING HEIGHT OF BETWEEN 24 TO 48 INCHES.
4. SIGN PANELS SHALL BE 10 GAUGE ALUMINUM OR OTHER APPROVED WEATHER RESISTANT MATERIAL.

STORMWATER BUFFER SIGNAGE DETAIL
NOT TO SCALE

PERMITTING
NOT FOR CONSTRUCTION

811 DigSafe MAINE BEFORE YOU DIG

SEAL:

STATE OF MAINE THOMAS N. DANIELS 21060 LICENSED PROFESSIONAL ENGINEER 2020-06-16

PROFESSIONAL ENGINEER:
THOMAS N. DANIELS, JR.

DATE:
JUNE 16, 2020

NO.	BY	DATE	REVISION	APP'D
02	TRC	6/16/20	REVISED PER TOWN COMMENTS	TND
01	TRC	5/12/20	ISSUED FOR LOCAL PERMITTING	TND

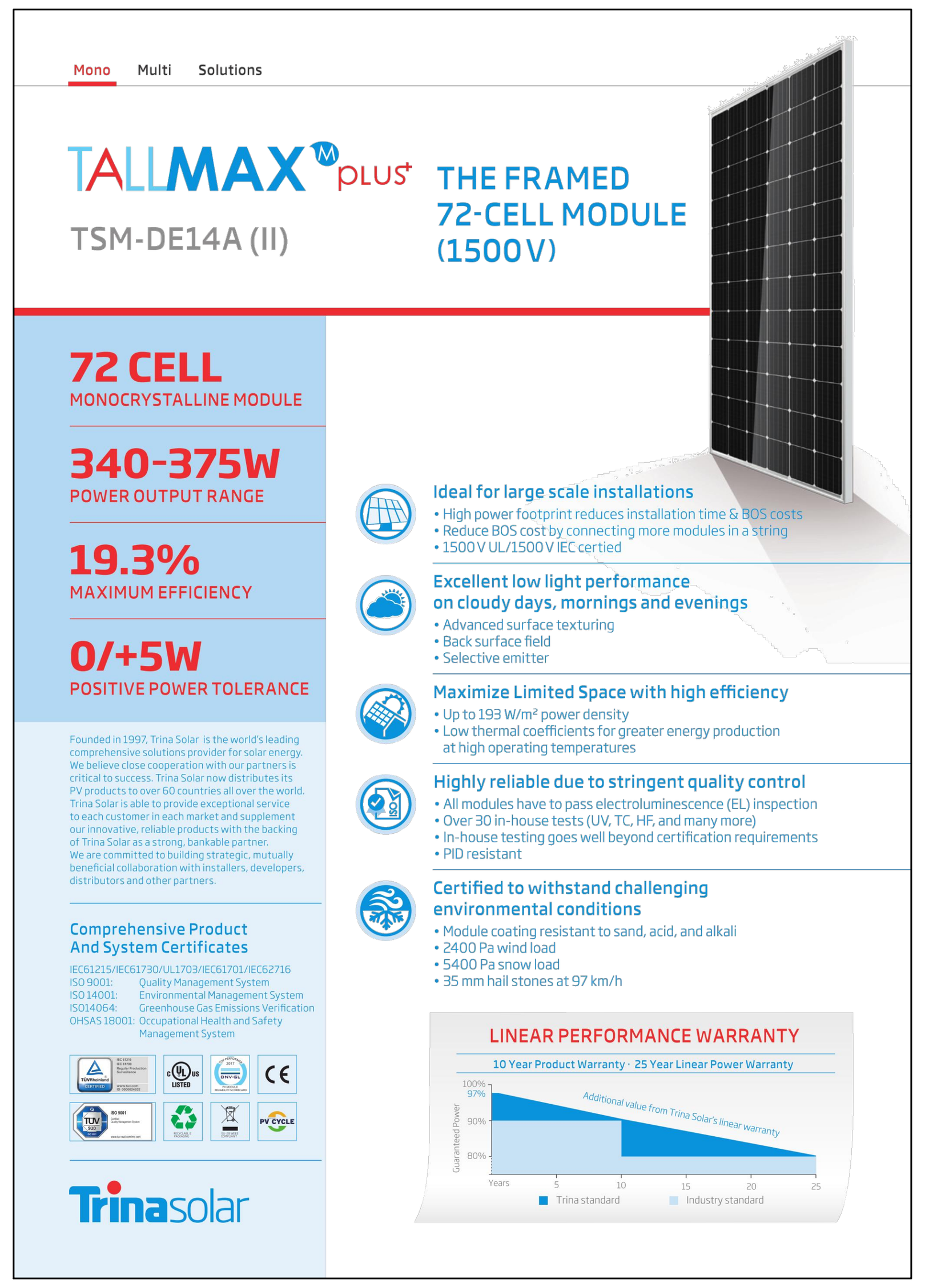
PROJECT:
SOLAR FIELDS LLC
PROPOSED 2MW SOLAR ARRAY
242 MANCHESTER RD, BELGRADE, MAINE

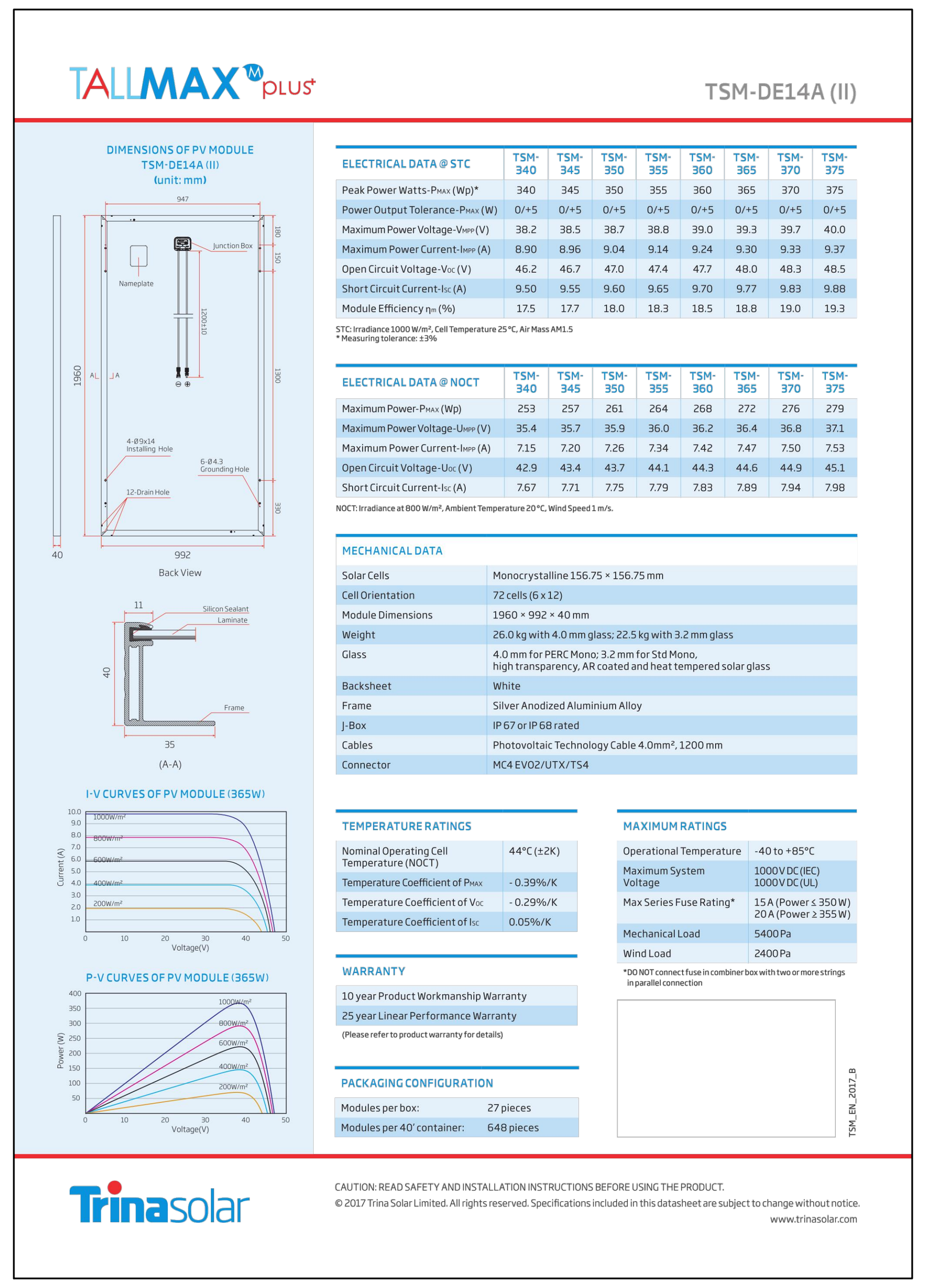
TITLE:
CIVIL CONSTRUCTION DETAILS

DRAWN BY:	TRC	PROJ. NO.:	389694
CHECKED BY:	TND		
APPROVED BY:	TND		C-3
DATE:	MAY 2020		

TRC
14 Gabriel Drive
Augusta, ME 04330
Phone: 207.620.3800
www.trcsolutions.com

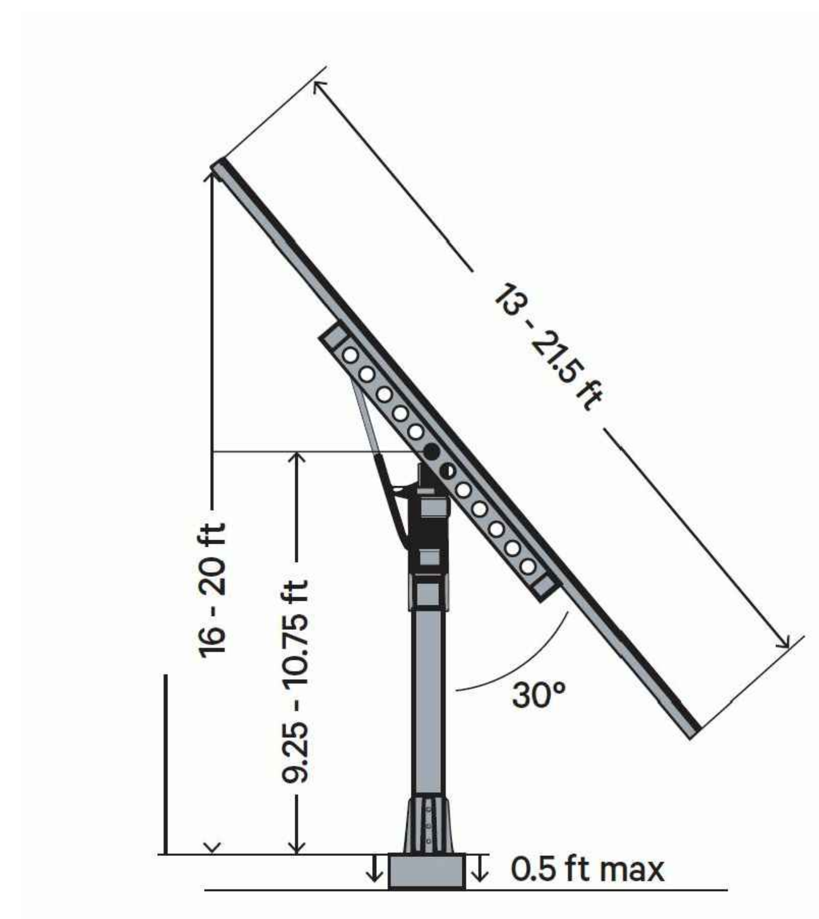
FILE NO.: 389694 - DT.dwg





PV MODULE SPECIFICATION SHEET

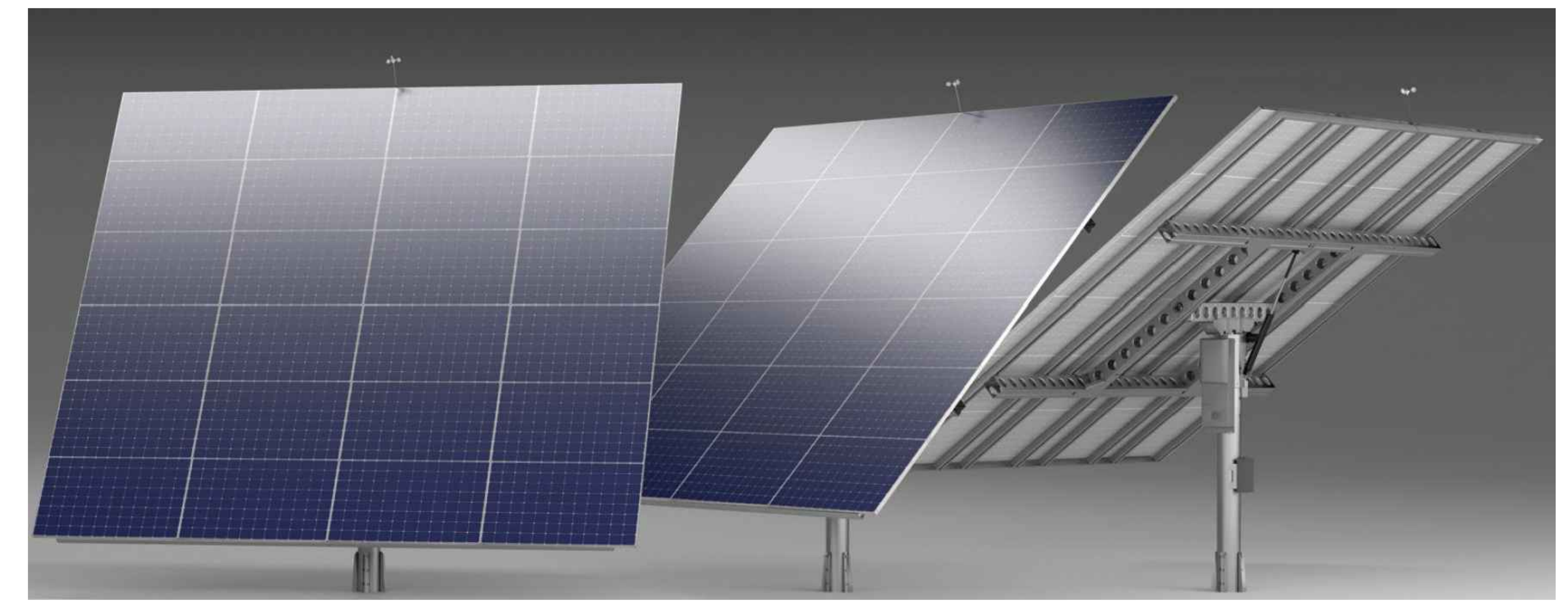
NOT TO SCALE



DUAL-AXIS TRACKER DETAIL

NOT TO SCALE

NOTES:
1. DETAIL PROVIDED BY ALLEARTH SOLAR OF WILLISTON, VT.

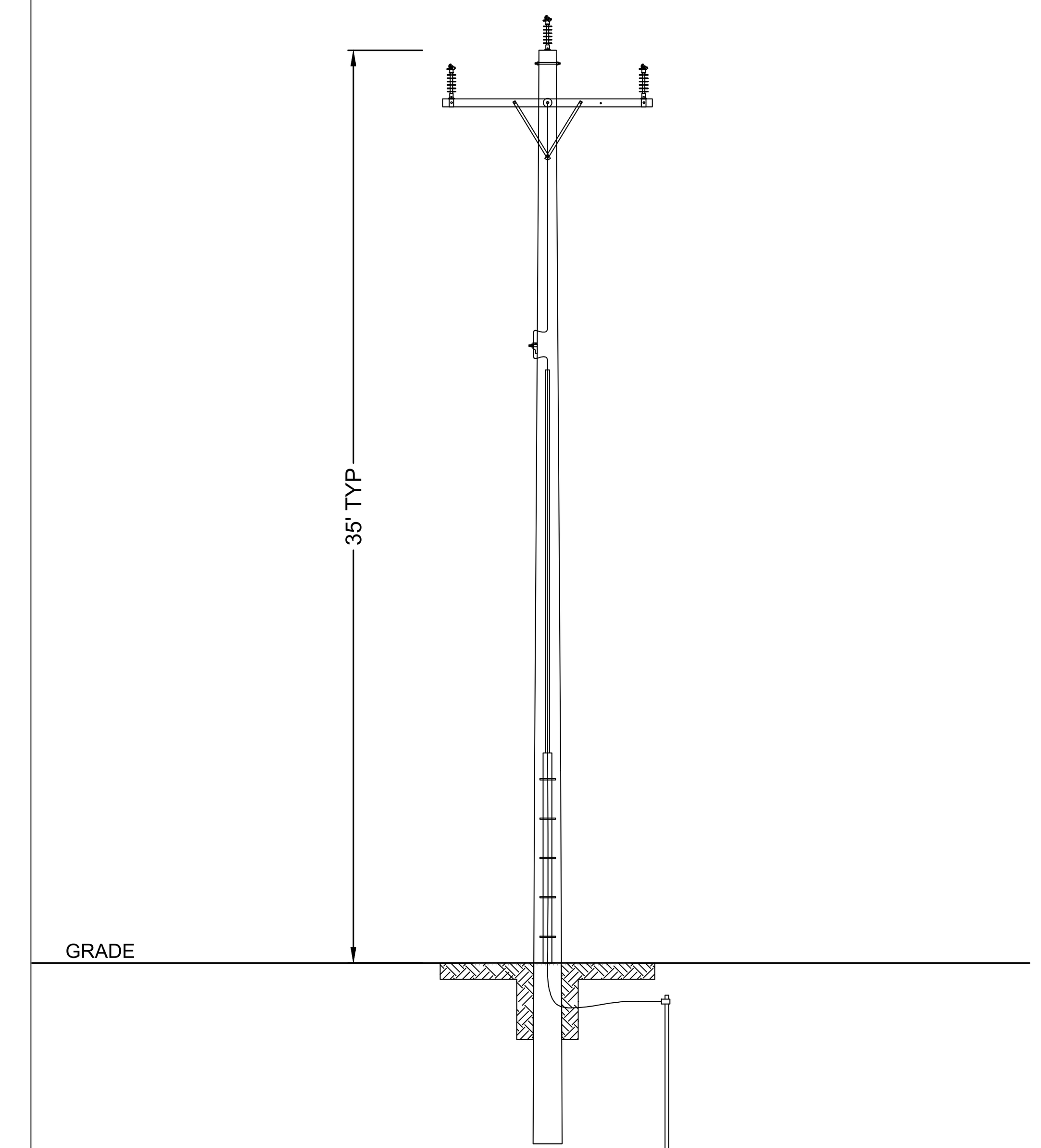


DUAL-AXIS TRACKER

FIXED TILT ARRAY

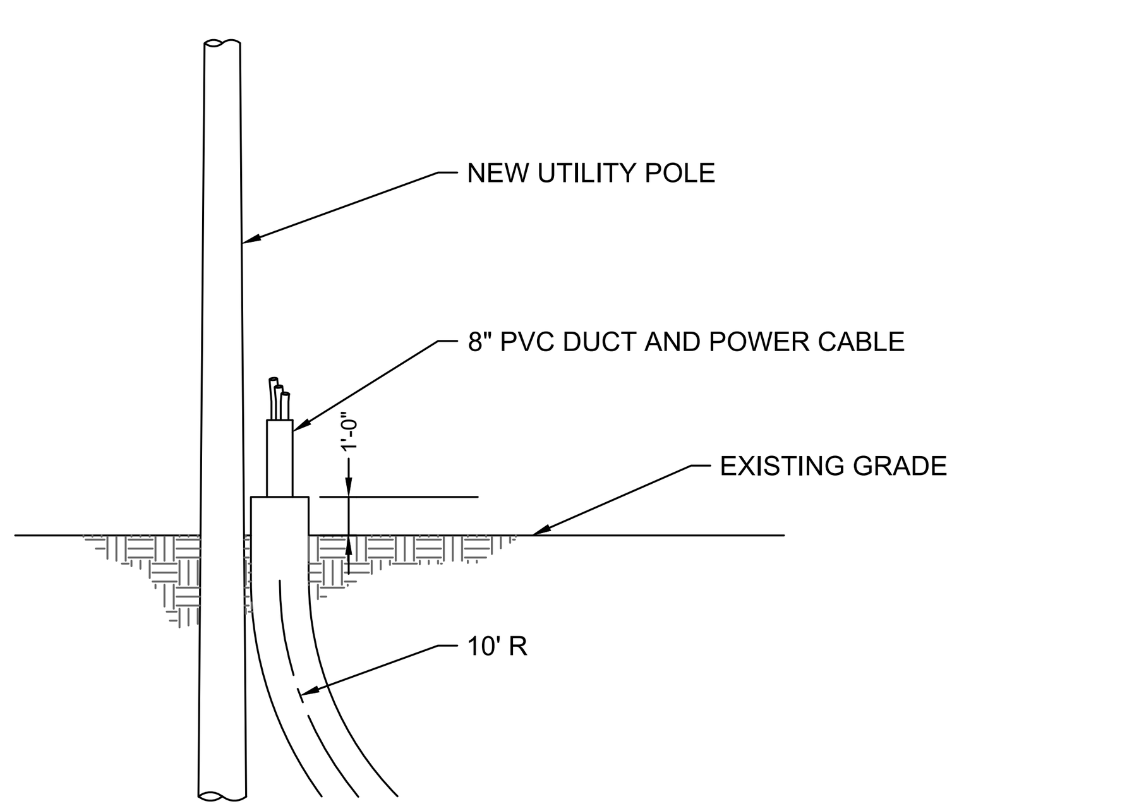
TYPICAL SOLAR ARRAY ISOMETRIC VISUALS

NOT TO SCALE



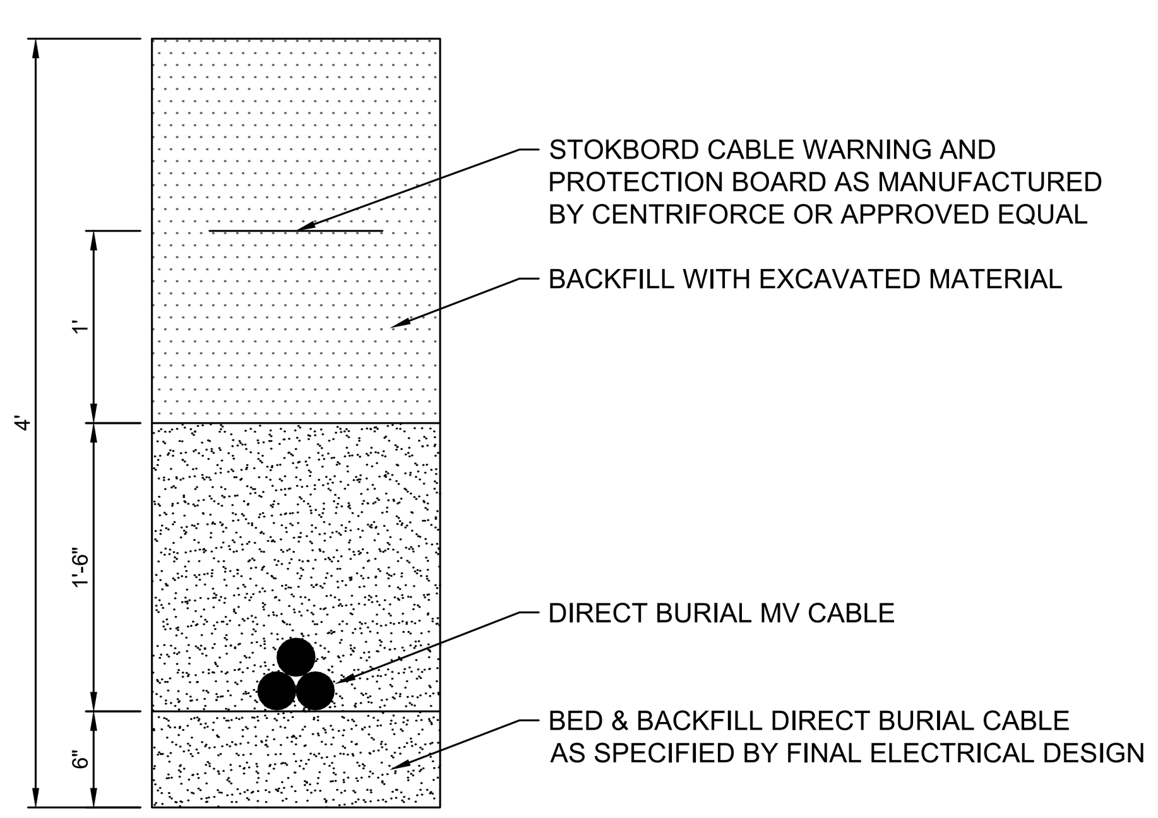
TYPICAL UTILITY POLE

NOT TO SCALE



UNDERGROUND TO OVERHEAD TRANSITION DETAIL

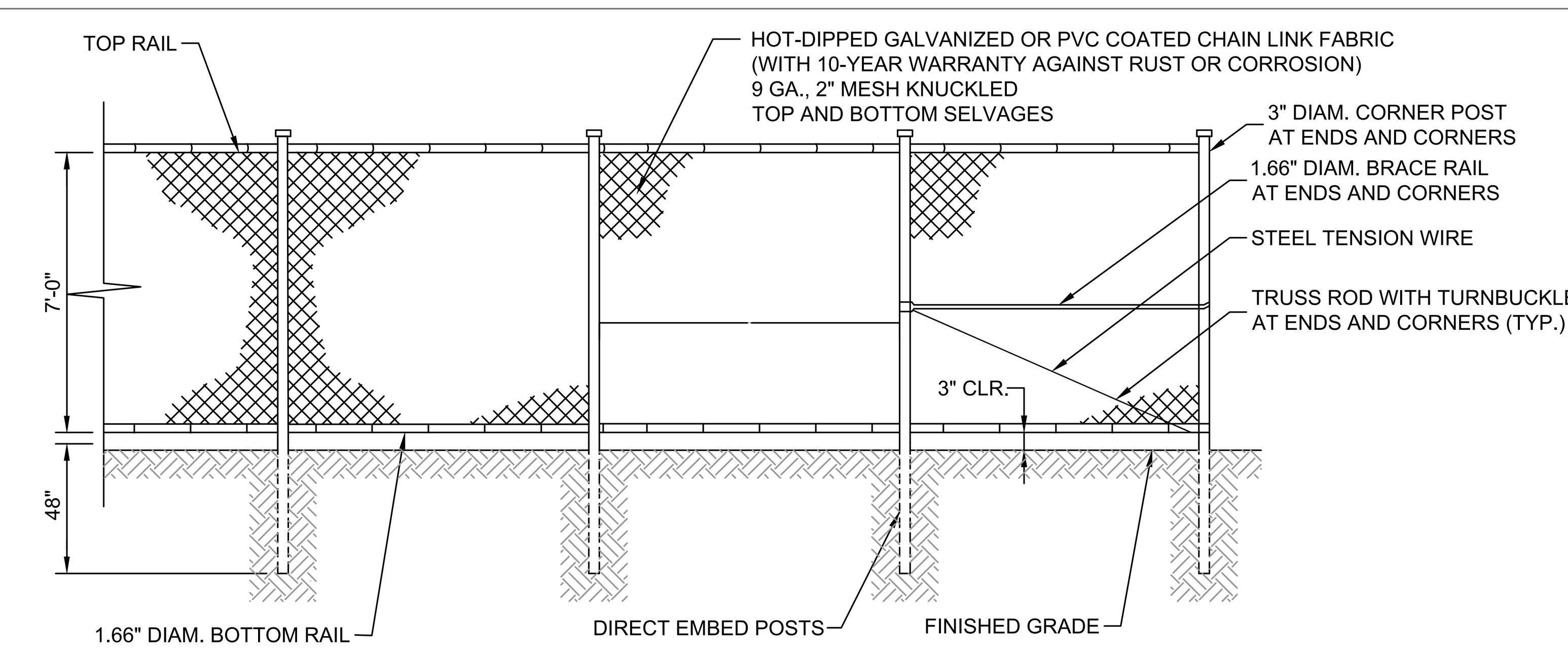
NOT TO SCALE



MV UNDERGROUND COLLECTION LINE DETAIL

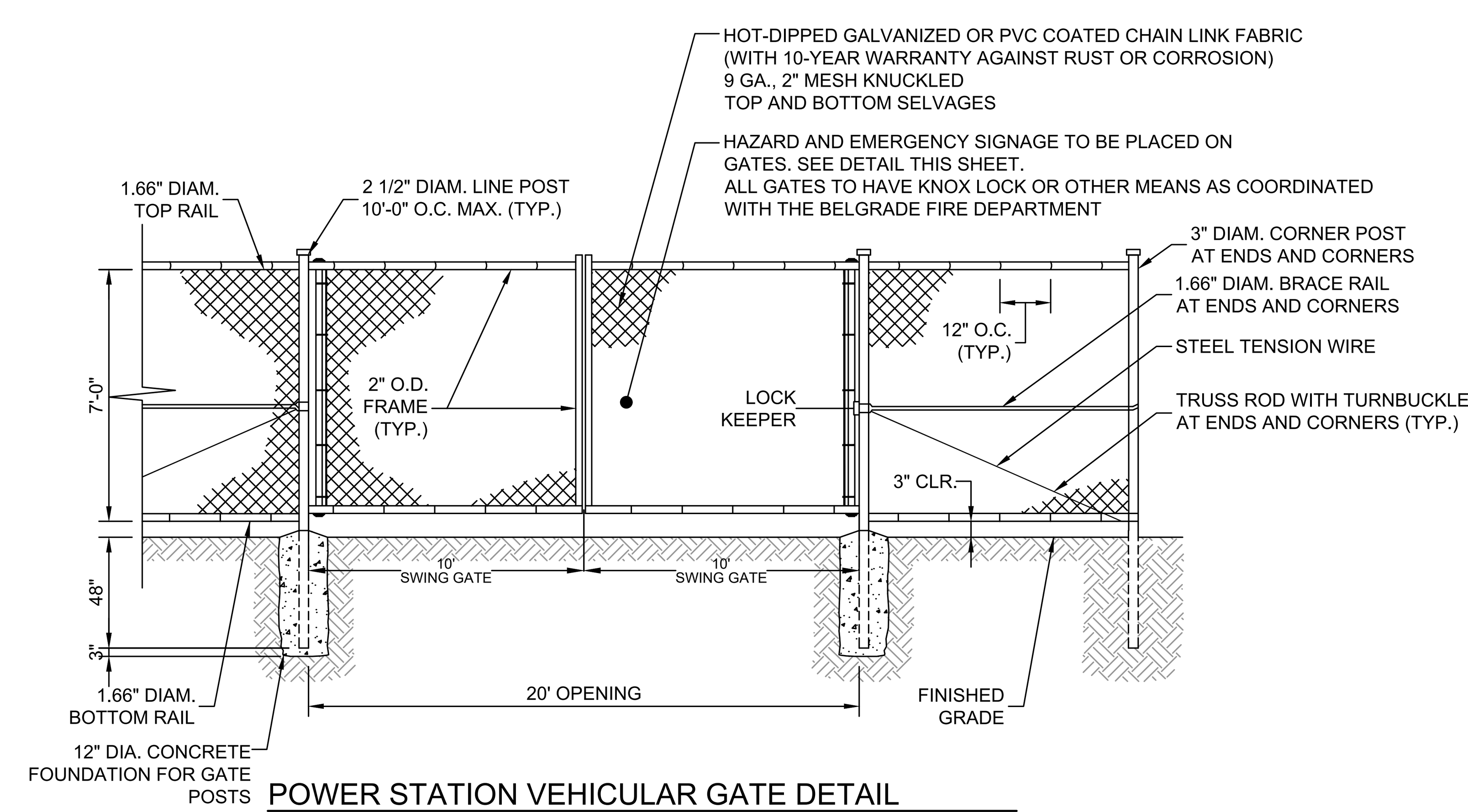
NOT TO SCALE

NOTES:
1. DETAIL IS FOR ILLUSTRATIVE PURPOSES ONLY. FINAL GATE DESIGN AND LAYOUT SUBJECT TO DETAILED ENGINEER, AHJ APPROVAL, AND CONTRACTOR SUBMITTAL. ALTERNATIVE DESIGN FOR GATE IS 20FT CANTILEVERED SLIDING GATE.



POWER STATION FENCE DETAIL

NOT TO SCALE



POWER STATION VEHICULAR GATE DETAIL

NOT TO SCALE

NOTES

1. DETAILS THIS SHEET ARE FOR CONCEPTUAL AND ILLUSTRATIVE PURPOSES ONLY. FINAL LAYOUT AND CONFIGURATION IS SUBJECT TO DETAILED ENGINEERING DESIGN, INTERCONNECTION AGREEMENT, AND FINAL AHJ APPROVAL.
2. POLE DETAILS ARE DIAGRAMMATIC AND MAY BE CHANGED BASED ON SITE CONDITIONS AND UTILITY REQUIREMENTS.
3. FINAL EQUIPMENT CLEARANCES ARE SUBJECT TO AHJ APPROVAL AND NEC CODE COMPLIANCE.

PERMITTING
NOT FOR CONSTRUCTION

811 DigSafe

SEAL:
STATE OF MAINE
THOMAS N. DANIELS
14060
2020-06-16
LICENSED PROFESSIONAL ENGINEER

PROFESSIONAL ENGINEER: THOMAS N. DANIELS, JR.
DATE: JUNE 16, 2020

NO.	BY	DATE	REVISION	APP'D.
02	TRC	6/16/20	REVISED PER TOWN COMMENTS	TND
01	TRC	5/12/20	ISSUED FOR LOCAL PERMITTING	TND

PROJECT:
SOLAR FIELDS LLC
PROPOSED 2MW SOLAR ARRAY
242 MANCHESTER RD, BELGRADE, MAINE

TITLE:
ELECTRICAL DETAILS

DRAWN BY:	TRC	PROJ. NO.:	389694
CHECKED BY:	TND		C-4
APPROVED BY:	TND		
DATE:	MAY 2020		

TRC
14 Gabriel Drive
Augusta, ME 04330
Phone: 207.620.3800
www.trcsolutions.com

FILE NO.: 389694 - DT.dwg

DRAWING NAME: R:\ENV\RMD Projects\Solar Fields\389694 - Solar Fields Belgrade, ME\10-DWG\389694 - DT.dwg — PLOT DATE: June 16, 2020 - 1:44PM — LAYOUT: C-4

Version: 2017-10-21

GENERAL LANDSCAPING NOTES AND VEGETATION MANAGEMENT RECOMMENDATIONS

1. THE LANDSCAPE PLAN AND DETAILS ARE FOR LANDSCAPING INFORMATION ONLY. PLEASE REFER TO THE SITE GRADING AND DRAINAGE PLAN FOR ALL OTHER INFORMATION.

2. THE CONTRACTOR SHALL MONITOR AND GUARANTEE THAT ALL PLANTS, TREES, AND SHRUBS SHALL BE HEALTHY AND FREE OF DISEASE FOR A PERIOD OF (2) TWO YEARS AFTER SUBSTANTIAL COMPLETION AND ACCEPTANCE BY THE OWNER. CONTRACTOR SHALL REPLACE ANY DEAD OR UNHEALTHY PLANTS AT CONTRACTOR'S EXPENSE. FINAL ACCEPTANCE SHALL BE MADE IF ALL PLANTS MEET THE GUARANTEE REQUIREMENTS INCLUDING MAINTENANCE. MAINTENANCE RESPONSIBILITIES INCLUDE INVASIVE SPECIES MONITORING, REMOVAL, AND SUPPLEMENTATION. MONITORING OF THE PROJECT SITE SHALL OCCUR IN THE SPRING AND THE FALL TO DETERMINE THE PRESENCE OF INVASIVE SPECIES. SHOULD ANY INVASIVE SPECIES BE IDENTIFIED WITHIN THE PROJECT SITE, THE INVASIVE SPECIES SHALL BE REMOVED ACCORDING TO METHODS MOST LIKELY TO BE EFFECTIVE IN CONTROLLING THAT SPECIES AND SUPPLEMENTING ITS REPLACEMENT WITH APPROPRIATE VEGETATION AND SEED MIX IDENTIFIED (AND APPROVED) ON THIS PLAN AND/OR AN APPROVED EQUAL. ADDITIONAL MAINTENANCE RESPONSIBILITIES INCLUDE: APPROVED CULTIVATING, SPRAYING, WEEDING, WATERING, TIGHTENING OF TREE STRAP GUYS, PRUNING, FERTILIZING, MULCHING, AND ANY OTHER OPERATIONS NECESSARY TO MAINTAIN PLANT VIABILITY. MAINTENANCE SHALL BEGIN IMMEDIATELY AFTER PLANTING AND CONTINUE UNTIL 90 DAYS AFTER FINAL ACCEPTANCE.

3. PLANTS SHALL BE INSPECTED ANNUALLY FOR (5) FIVE YEARS POST-CONSTRUCTION AND REPLACED AS NEEDED TO ENSURE A CONTINUOUS SCREEN BECOMES ESTABLISHED.

4. WITHIN 24-HOURS OF PLANTING, AND CONTINUING THROUGHOUT ESTABLISHMENT (TWO MONTHS OR LONGER IN DROUGHT CONDITIONS), PLANTS SHALL BE WATERED WEEKLY UNLESS 0.5-INCHES OF RAIN OR GREATER FALLS WITHIN A GIVEN WEEK.

5. THE CONTRACTOR SHALL SUPPLY ALL LABOR, PLANTS, APPROVED SEEDING MIX, AND MATERIALS IN QUANTITIES SUFFICIENT TO COMPLETE THE WORK SHOWN ON THE DRAWING(S) AND LISTED IN THE PLANT SCHEDULE(S) AND/OR SEEDING TABLE(S). IN THE EVENT OF A DISCREPANCY BETWEEN QUANTITIES SHOWN IN THE PLANT SCHEDULE AND/OR SEEDING TABLE AND THOSE REQUIRED BY THE DRAWINGS, THE LARGER SHALL APPLY. ALL PLANTS SHALL BE ACCLIMATED BY THE SUPPLY NURSERY TO THE LOCAL HARDINESS ZONE AND BE CERTIFIED THAT THE PLANTING MATERIAL HAS BEEN GROWN FOR A MINIMUM OF (2) TWO YEARS AT THE SOURCE AND OBTAINED WITHIN 100 MILES OF PROJECT SITE UNLESS OTHERWISE APPROVED BY OWNER, CERTIFIED LANDSCAPE INSPECTOR, OR LANDSCAPE ARCHITECT.

6. THE LOCATIONS FOR PLANT MATERIAL ARE APPROXIMATE AND ARE SUBJECT TO FIELD ADJUSTMENT DUE TO SLOPE, VEGETATION, AND SITE FACTORS SUCH AS THE LOCATION OF ROCK OUTCROPS. PRIOR TO PLANTING THE CONTRACTOR SHALL ACCURATELY STAKE OUT THE LOCATIONS FOR ALL PLANTS. THE OWNER, CERTIFIED LANDSCAPE INSPECTOR, OR LANDSCAPE ARCHITECT SHALL APPROVE THE FIELD LOCATIONS OR ADJUSTMENTS OF THE PLANT MATERIAL.

7. ALL SHRUB MASSING SHALL BE MULCHED TO A DEPTH OF 2" AND SHREDDED HARDWOOD BARK MULCH SHALL BE USED FOR SHRUB MASSING AREAS.

8. NO PLANT SHALL BE PLACED IN THE GROUND BEFORE ROUGH GRADING HAS BEEN COMPLETED AND APPROVED BY THE OWNER, CERTIFIED LANDSCAPE INSPECTOR, OR LANDSCAPE CONTRACTOR. STAKING THE LOCATION OF ALL TREES AND SHRUBS SHALL BE COMPLETED PRIOR TO PLANTING FOR APPROVAL BY THE OWNER, CERTIFIED LANDSCAPE INSPECTOR, OR LANDSCAPE ARCHITECT. STAKING OF THE INSTALLED TREE MUST BE COMPLETED THE SAME DAY AS IT IS INSTALLED. ALL TREES SHALL BE STAKED OR GUYED AS PER THE DETAIL. SEE LANDSCAPING PLAN(S) FOR PLANTING DETAILS.

9. COORDINATE PLANT MATERIAL LOCATIONS WITH SITE UTILITIES. SEE SITE GRADING AND DRAINAGE PLAN. UTILITY LOCATIONS ARE APPROXIMATE. EXERCISE CARE WHEN DIGGING IN AREAS OF POTENTIAL CONFLICT WITH UNDERGROUND OR OVERHEAD UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE DUE TO CONTRACTOR'S NEGLIGENCE AND SHALL REPLACE OR REPAIR ANY DAMAGE AT CONTRACTOR'S EXPENSE.

10. LANDSCAPE PLANTING PITS MUST BE FREE DRAINING. PAVEMENT, COMPACTED SUBGRADE, AND BLASTED ROCK SHALL BE REMOVED TO A DEPTH OF 2' OR TO A GREATER DEPTH IF REQUIRED BY PLANTING DETAILS OR SPECIFICATIONS. REPLACE SOIL WITH MODERATELY COMPACTED LOAM OR SANDY LOAM FREE FROM STONES AND RUBBISH 1" OR GREATER IN DIAMETER AND ANY OTHER MATERIAL HARMFUL TO PLANT GROWTH AND DEVELOPMENT. PLANTING INSTALLATION SHALL BE AS DETAILED AND CONTAIN PLANTING MIX AS SPECIFIED UNLESS RECOMMENDED OTHERWISE BY SOIL ANALYSIS.
    PLANTING SOIL MIXTURE:
    - 2 PARTS PEAT MOSS
    - 5 PARTS TOPSOIL
    - MYCORHIZA INOCULANT - "TRANSPLANT 1-STEP" AS MANUFACTURED BY ROOTS, INC. OR APPROVED EQUAL. USE PER MANUFACTURER'S RECOMMENDATIONS FOR TREES AND SHRUBS. FERTILIZER/LIME APPLY AS RECOMMENDED BY SOIL ANAYLSIS

9. TREES, AND SHRUBS: TREES AND SHRUBS SHALL BE NURSERY GROWN UNLESS OTHERWISE NOTED AND HARDY UNDER CLIMATIC CONDITIONS SIMILAR TO THOSE IN THE LOCATION OF THE PROJECT. THEY SHALL BE TYPICAL OF THEIR SPECIES OR VARIETY, WITH NORMAL HABIT OF GROWTH. THEY SHALL BE SOUND, HEALTHY, VIGOROUS, WELL-BRANCHED AND DENSELY FOLIATED WHEN IN LEAF. THEY SHALL BE FREE OF DISEASE, INSECT PESTS, EGGS OR LARVAE. THEY SHALL HAVE HEALTHY AND WELL-DEVELOPED ROOT SYSTEMS. ALL TREES SHALL HAVE STRAIGHT SINGLE TRUNKS WITH THEIR MAIN LEADER INTACT UNLESS OTHERWISE STATED. THE OWNER, CERTIFIED LANDSCAPE INSPECTOR, OR LANDSCAPE ARCHITECT SHALL ONLY PERMIT SUBSTITUTIONS UPON WRITTEN APPROVAL. THEIR SIZES SHALL CONFORM TO THE MEASUREMENT SPECIFIED ON THE DRAWINGS. PLANTS LARGER THAN SPECIFIED ON THE DRAWINGS MAY BE USED IF APPROVED. THE USE OF SUCH PLANTS SHALL NOT INCREASE THE CONTRACT PRICE. ALL TREES AND SHRUBS SHALL BE MULCHED IN ACCORDANCE WITH THE RESPECTIVE PLANTING DETAIL(S) PROVIDED IN THE LANDSCAPING PLAN.

10. ALL PRUNING SHALL CONFORM TO THE TREE CARE INDUSTRY ASSOCIATION (TCIA) ANSI A300 (PART 1) - 2017 PRUNING STANDARDS. PRUNING STANDARDS SHALL RECOGNIZE BUT, ARE NOT LIMITED TO, THE FOLLOWING PRUNING OBJECTIVES: MANAGE RISK, MANAGE HEALTH, DEVELOP STRUCTURE, PROVIDE CLEARANCE, MANAGE SIZE OR SHAPE, IMPROVE AESTHETICS, MANAGE PRODUCTION OF FRUIT, FLOWERS, OR OTHER PRODUCTS, AND/OR MANAGE WILDLIFE HABITAT. DEVELOPING STRUCTURE SHALL IMPROVE BRANCH AND TRUNK ARCHITECTURE, PROMOTE OR SUBORDINATE CERTAIN LEADERS, STEMS, OR BRANCHES; PROMOTE DESIRABLE BRANCH SPACING; PROMOTE OR DISCOURAGE GROWTH IN A PARTICULAR DIRECTION (DIRECTIONAL PRUNING); MINIMIZE FUTURE INTERFERENCE WITH TRAFFIC, LINES OF SIGHT, INFRASTRUCTURE, OR OTHER PLANTS; RESTORE PLANTS FOLLOWING DAMAGE; AND/OR REJUVENATE SHRUBS. PROVIDING CLEARANCE SHALL ENSURE SAFE AND RELIABLE UTILITY SERVICES; MINIMIZE CURRENT INTERFERENCE WITH TRAFFIC, LINES OF SITE, INFRASTRUCTURE, OR OTHER PLANTS; RAISE CROWN(S) FOR MOVEMENT OF TRAFFIC OR LIGHT PENETRATION; ENSURE LINES OF SIGHT OR DESIRED VIEWS; PROVIDE ACCESS TO SITES, BUILDINGS, OR OTHER STRUCTURES; AND/OR COMPLY WITH REGULATIONS.

11. TOPSOIL SURROUNDING LANDSCAPING FEATURES SHALL BE INSTALLED AT A MINIMUM DEPTH OF 4 INCHES. CONTRACTOR SHALL SUBMIT TOPSOIL TO A CERTIFIED TESTING LABORATORY TO DETERMINE PH, FERTILITY, ORGANIC CONTENT AND MECHANICAL COMPOSITION. THE CONTRACTOR SHALL SUBMIT THE TEST RESULTS FROM REGIONAL EXTENSION OFFICE OF USDA TO THE OWNER, CERTIFIED LANDSCAPE INSPECTOR, OR LANDSCAPE ARCHITECT FOR REVIEW AND APPROVAL. CONTRACTOR SHALL INCORPORATE AMENDMENTS FOR GOOD PLANT GROWTH AND PROPER SOIL ACIDITY RECOMMENDED FROM THE TOPSOIL TEST.

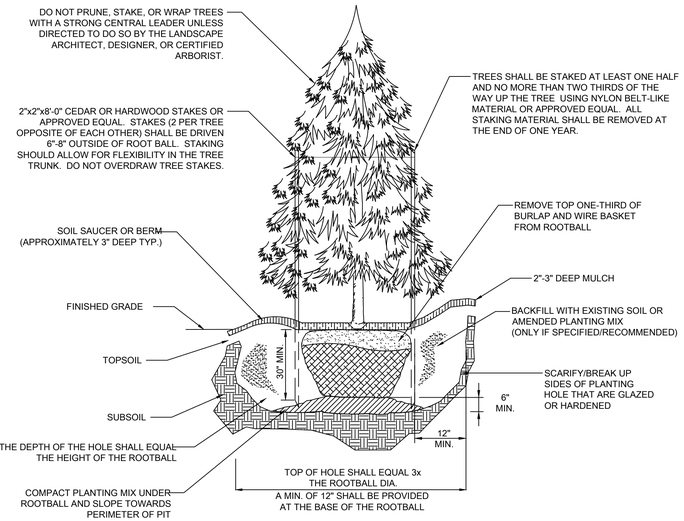
12. NO PHOSPHOROUS SHALL BE USED AT PLANTING TIME UNLESS SOIL TESTING HAS BEEN COMPLETED AND TESTED BY A HORTICULTURAL TESTING LAB AND SOIL TESTS SPECIFICALLY INDICATE A PHOSPHOROUS DEFICIENCY THAT IS HARMFUL, OR WILL PREVENT NEW LAWNS/GRASSES AND PLANTINGS FROM ESTABLISHING PROPERLY.

13. IF SOIL TESTS INDICATE A PHOSPHOROUS DEFICIENCY THAT WILL IMPACT PLANT AND LAWN ESTABLISHMENT, PHOSPHOROUS SHALL BE APPLIED AT THE MINIMUM RECOMMENDED LEVEL PRESCRIBED IN THE SOIL TEST FOLLOWING ALL APPLICABLE STANDARDS, REQUIREMENTS, AND/OR REGULATIONS.

14. ALL WILDFLOWERS AND GRASSES SOWED SHALL BE ALLOWED TO GROW TO THEIR NATURALLY OCCURRING HEIGHTS WHENEVER POSSIBLE. NATIVE WILDFLOWERS AND/OR GRASSES CAN BE MOWED/MAINTAINED (WITHIN ACCEPTABLE AREAS IDENTIFIED AND/OR APPROVED BY APPROPRIATE REGULATORY AGENCIES) AS OFTEN AS NEEDED TO KEEP THE VEGETATION AT A DESIRED AND/OR MANAGEABLE/MANICURED HEIGHT.

15. INVASIVE SPECIES SHALL NOT BE PERMITTED.

16. ALL PLANT MATERIAL SHALL CONFORM TO THE PLAN SIZE SPECIFICATIONS AS ESTABLISHED BY THE AMERICAN STANDARD FOR NURSERY STOCK LATEST EDITION.

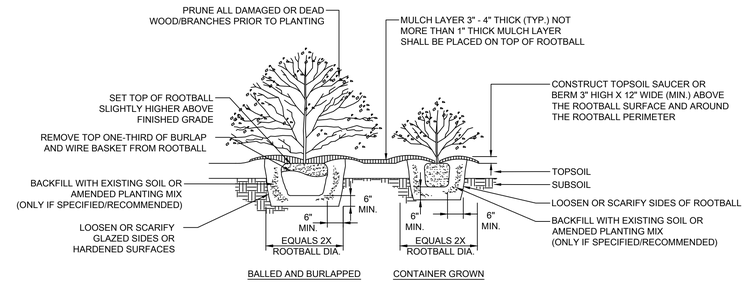


EVERGREEN TREE PLANTING DETAIL

N.T.S.

NOTES

1. TREE PLANTING SHALL BEAR SAME RELATIONSHIP TO FINISH GRADE AS IT WAS PRE-DUG IN THE NURSERY.
2. NEVER CUT THE PRIMARY LEADER.
3. IT IS NOT RECOMMENDED TO AMEND THE EXISTING SOIL BEFORE BACKFILLING THE HOLE UNLESS SOIL CONDITIONS ARE POOR FOR PLANTING.
4. WATER THOROUGHLY TO HELP ENSURE THE REMOVAL OF AIR POCKETS AND PROPERLY SET THE TREE.



SHRUB PLANTING DETAIL

N.T.S.

DETAIL NOTES

1. IN AREAS WITH MASS PLANTINGS, CONTINUOUS EXCAVATION AND MULCHING PRACTICES SHALL BE IMPLEMENTED WHENEVER POSSIBLE.
2. IT IS NOT RECOMMENDED TO AMEND THE EXISTING SOIL BEFORE BACKFILLING THE HOLE UNLESS SOIL CONDITIONS ARE POOR FOR PLANTING.
3. WATER THOROUGHLY TO HELP ENSURE THE REMOVAL OF AIR POCKETS.

PERMITTING
NOT FOR CONSTRUCTION

811 DigSafe

SEAL:

STATE OF MAINE THOMAS N. DANIELS JR. 11080 2020-06-16 LICENSED PROFESSIONAL ENGINEER

PROFESSIONAL ENGINEER:
THOMAS N. DANIELS, JR.
DATE:
JUNE 16, 2020

NO.	BY	DATE	REVISION	APP'D
02	TRC	6/16/20	REVISED PER TOWN COMMENTS	TND
01	TRC	5/12/20	ISSUED FOR LOCAL PERMITTING	TND

PROJECT:
SOLAR FIELDS LLC
PROPOSED 2MW SOLAR ARRAY
242 MANCHESTER RD, BELGRADE, MAINE

TITLE:
LANDSCAPING NOTES & DETAILS

DRAWN BY:	TRC	PROJ. NO.:	389694
CHECKED BY:	TND		
APPROVED BY:	TND		C-5
DATE:	MAY 2020		

TRC
14 Gabriel Drive
Augusta, ME 04330
Phone: 207.620.3800
www.trcsolutions.com

FILE NO.: 389694 - DT.dwg

LEGEND

- DP-1 — ANALYSIS POINT
- 1S — SUBCATCHMENT
- PROPERTY BOUNDARY
- TC FLOW PATH
- SUBCATCHMENT BOUNDARY
- SOILS

SITE SPECIFIC SOILS TABLE

ID	NAME	SLOPE RANGE	TEXTURE	HYDROLOGIC SOIL GROUP
HfC	HARTLAND	8 - 15%	SANDY LOAM	B
HfD	HARTLAND	15 - 25%	SANDY LOAM	B
PdC2	PACTON-CHARLTON	8 - 15%	SANDY LOAM	C/D
RdA	RIDGEBURY	0 - 5%	SANDY LOAM	C/D
SkB	SCIO	3 - 8%	SANDY LOAM	C
SkC2	SCIO	8 - 15%	SANDY LOAM	C
WrB	WOODBRIDGE	3 - 8%	SANDY LOAM	C/D

PERMITTING
NOT FOR CONSTRUCTION

SEAL: STATE OF MAINE — THOMAS N. DANIELS, JR. — 14060 — 2020-06-16 — LICENSED PROFESSIONAL ENGINEER

PROFESSIONAL ENGINEER: THOMAS N. DANIELS, JR.

DATE: JUNE 16, 2020

NO.	BY	DATE	REVISION	APP'D.
02	TRC	6/16/20	REVISED PER TOWN COMMENTS	TND
01	TRC	5/12/20	ISSUED FOR LOCAL PERMITTING	TND

PROJECT:
SOLAR FIELDS LLC
PROPOSED 2MW SOLAR ARRAY
242 MANCHESTER RD, BELGRADE, MAINE

TITLE:
PRE-DEVELOPMENT DRAINAGE PLAN

DRAWN BY: ARD	PROJ. NO.: 389694
CHECKED BY: TND	SW-1
APPROVED BY: TND	
DATE: MAY 2020	

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Augusta, ME 04330
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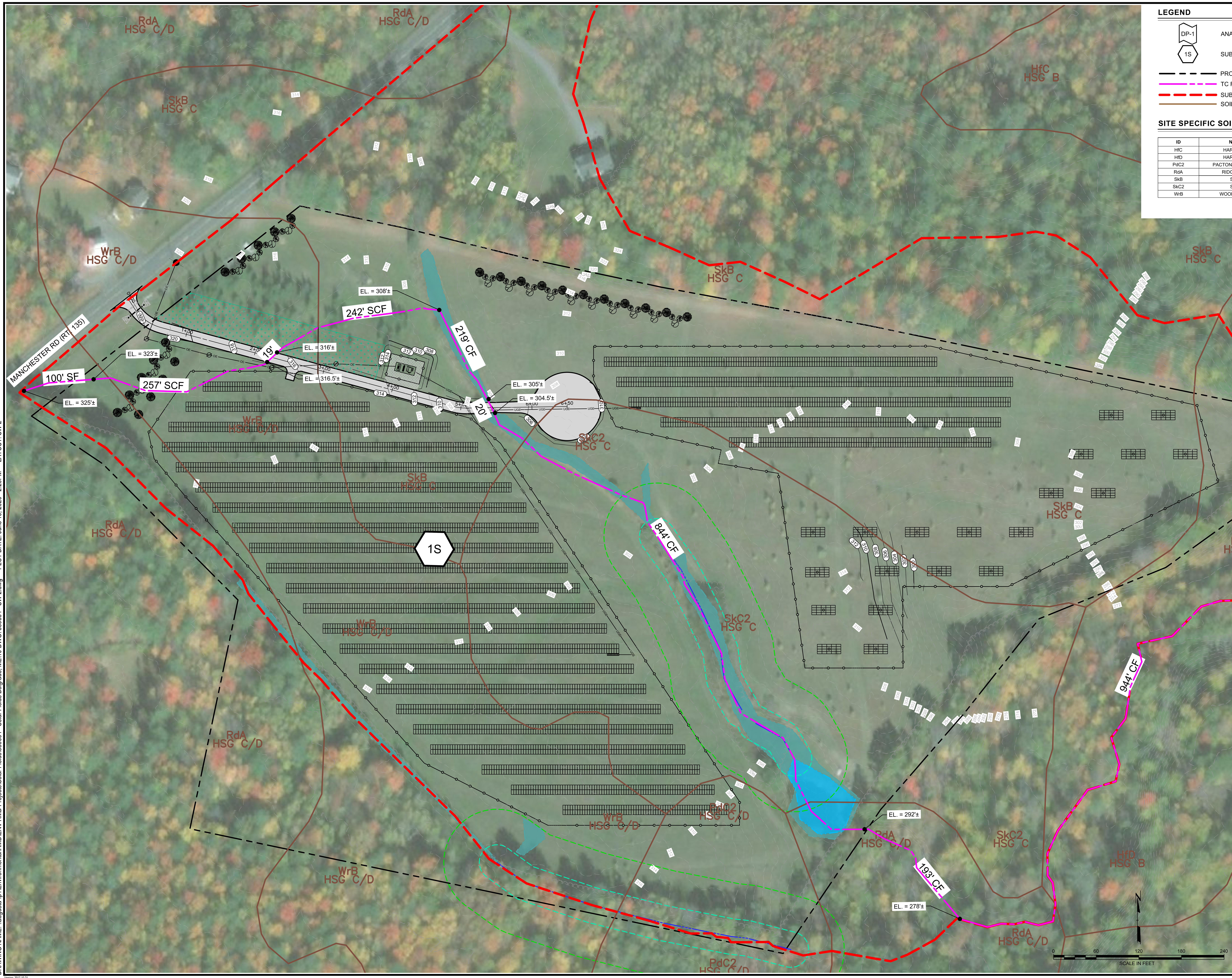

LEGEND

- DP-1 — ANALYSIS POINT
- 1S — SUBCATCHMENT
- PROPERTY BOUNDARY
- TC FLOW PATH
- SUBCATCHMENT BOUNDARY
- SOILS

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WrB	WOODBRIDGE	3 - 8%	SANDY LOAM	C/D

PERMITTING
NOT FOR CONSTRUCTION

SEAL:
STATE OF MAINE
THOMAS N. DANIELS, JR.
14060
2020-06-16
LICENSED
PROFESSIONAL ENGINEER

PROFESSIONAL ENGINEER: THOMAS N. DANIELS, JR.
DATE: JUNE 16, 2020

NO.	BY	DATE	REVISION	APP'D.
02	TRC	6/16/20	REVISED PER TOWN COMMENTS	TND
01	TRC	5/12/20	ISSUED FOR LOCAL PERMITTING	TND

PROJECT:
SOLAR FIELDS LLC
PROPOSED 2MW SOLAR ARRAY
242 MANCHESTER RD, BELGRADE, MAINE

TITLE:
POST-DEVELOPMENT DRAINAGE PLAN

DRAWN BY:	ARD	PROJ. NO.:	389694
CHECKED BY:	TND		SW-2
APPROVED BY:	TND		
DATE:	MAY 2020		

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