

STONYBROOK SOLAR PROJECT PROPOSED 6.9 MW AC SOLAR ARRAY

327 MOODY ST, LUDLOW, HAMPDEN COUNTY, MASSACHUSETTS

**DEVELOPER: EDF RENEWABLES DISTRIBUTED SOLUTIONS, INC.
STONYBROOK SOLAR PARTNERS, LLC
WEST LEBANON, NH 04102**

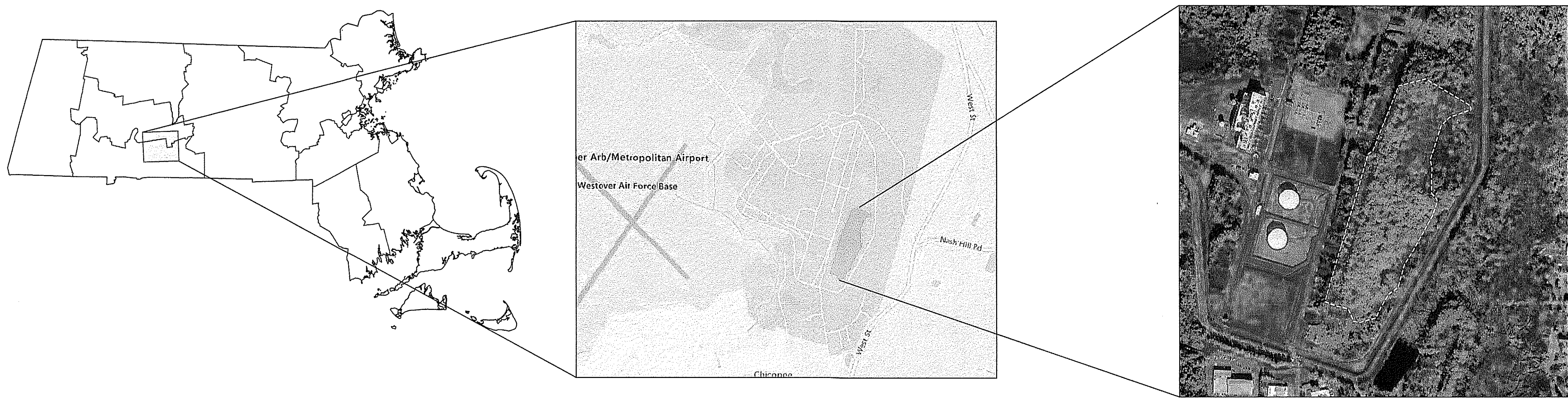
**SITE OWNER: MASSACHUSETTS MUNICIPAL WHOLESALE
ENERGY COMPANY (MMWEC)
327 MOODY ST
LUDLOW, MA 01056**

**PREPARED BY: TRC
LOWELL, MA 01854**

DATE: JULY 2021

APPROVED: TOWN OF LUDLOW PLANNING BOARD		
SIGNATURE	DATE	APPROVED
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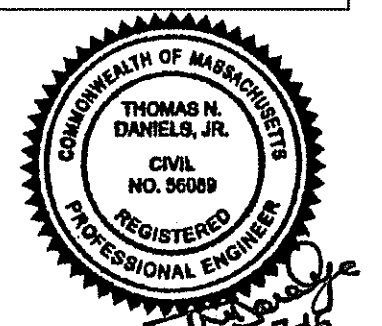
SHEET INDEX	
SHEET NUMBER	SHEET TITLE
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MASSACHUSETTS

LUDLOW

SITE LOCATOR



PERMITTING

NOTE: THESE PLANS ARE ACCOMPANIED BY PERMIT APPLICATIONS OF THE SAME TITLE. THESE DOCUMENTS ARE INTERRELATED AND ARE INTENDED TO BE USED TOGETHER. THESE DOCUMENTS ARE INTENDED TO BE USED FOR REGULATORY PURPOSES ONLY.

NOT FOR CONSTRUCTION

Job: 2021-07-15 - 11:54AM - LAYOUT.COV
 DRAWING NAME: Ludlow_Municipal_Wholesale_Energy_Company_Solar_Array_Permitting
 PROJECT: Ludlow_Municipal_Wholesale_Energy_Company_Solar_Array_Permitting
 DATE: 2021-07-15 11:54AM
 USER: sm-0602

GENERAL NOTES

- THE PROJECT HORIZONTAL COORDINATES SYSTEM IS BASED ON NAD83 MASSACHUSETTS STATE PLANE (US SURVEY FEET, MAINLAND ZONE, MAB3F). ELEVATIONS ARE BASED ON NAVD83 (US SURVEY FEET).
- PROJECT PROPERTY BOUNDARIES AND SITE TOPOGRAPHIC INFORMATION ARE BASED UPON ON-THE-GROUND FIELD SURVEY COMPLETED BY LAND PLANNING, INC. IN JUNE 2021 AS PROVIDED IN A PLAN ENTITLED "EXISTING CONDITIONS PLAN COLORADO STREET AND TEXAS DRIVE, LUDLOW, MA" AND DATED JUNE 2, 2021. SURVEY PLANS SEALED BY A LICENSED PROFESSIONAL LAND SURVEYOR ARE PROVIDED UNDER SEPARATE COVER.
- UTILITY INFORMATION DEPICTED IS COMPILED USING PHYSICAL SURFACE EVIDENCE LOCATED IN THE FIELD IN CONJUNCTION WITH ANY RECORD INFORMATION AVAILABLE AT THE TIME OF THE FIELD SURVEY AND MAY NOT NECESSARILY REPRESENT ALL EXISTING UTILITIES. THEREFORE ALL UTILITY LOCATIONS SHOULD BE CONSIDERED APPROXIMATE AND BE VERIFIED BY THE CONTRACTOR. DIGSAFE SHALL BE NOTIFIED A MINIMUM OF 72-HOURS PRIOR TO COMMENCING ANY EXCAVATION. FULL UTILITY COORDINATION WITH NON-MEMBER UTILITIES AND USE OF GROUND-PENETRATING RADAR TO LOCATE UTILITIES SHOULD BE PERFORMED AS NECESSARY.
- WETLAND DELINEATION WAS PERFORMED BY TRC IN APRIL OF 2021 AND LOCATED USING MAPPING GRADE GPS UNITS.
- 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. ELECTRICAL EQUIPMENT LAYOUT, INCLUDING SOLAR ARRAY, EQUIPMENT PADS, UTILITY POLES, ETC. WERE PROVIDED BY EDF RENEWABLES IN A PLAN ENTITLED "MA - MMWEC LUDLOW 327 MOODY STREET, LUDLOW, MA 01056 SHEET E101: SITE PLAN" REVISION ISSUE E, DATED JUNE 21, 2021.
- ALL WORK DETAILED ON THESE PLANS AND PERFORMED UNDER THIS CONTRACT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, THE PROJECT GEOTECHNICAL REPORT, PERMIT CONDITIONS, AND ANY OTHER APPLICABLE TECHNICAL REPORTS. WHERE INDICATED, STATE AND/OR LOCAL STANDARD SPECIFICATIONS SHALL APPLY. ALL WORK SHALL COMPLY WITH THE ASSOCIATED STANDARDS SET FORTH IN THE TOWN OF LUDLOW ZONING BYLAWS.
- 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.
- THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING ALL EXISTING UTILITY LINES AND SITE INFRASTRUCTURE 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.
- 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.
- 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.
- THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH THE LANDOWNER FOR SITE ACCESS AND USE AND SHALL COMPLETE WORK IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THE ACCESS AGREEMENT.
- 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 MASSACHUSETTS.
- CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE, AND LOCAL LAWS AND REGULATIONS CONTROLLING THE POLLUTION OF THE ENVIRONMENT.
- CONTRACTOR TO ENSURE ALL WORK PERFORMED IS IN ACCORDANCE WITH EXISTING PROJECT PERMITS, STUDIES, AND REPORTS PROVIDED IN THE CONTRACT DOCUMENTS INCLUDING STATE SOLID WASTE PROJECT MINOR REVISION, CLOSURE ORDER AND LOCAL ORDINANCES.
- IT IS THE INTENT OF THESE PLANS THAT THE CONTRACTOR SHALL NOT PERFORM ANY WORK OUTSIDE THE IDENTIFIED PROJECT BOUNDARIES AND CLEARING LIMITS.
- 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.
- 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 BETWEEN 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.
- CONTRACTOR IS RESPONSIBLE FOR MAINTAINING DRAINAGE THROUGHOUT THE CONSTRUCTION OF THE PROJECT.
- EXISTING ACCESS ROADS TO BE MAINTAINED SHALL BE SMOOTHED AND RESURFACED AS NECESSARY TO PROVIDE AN ACCEPTABLE SURFACE.
- THE CONTRACTOR SHALL SECURE PERMITS FROM THE STATE AND TOWN OF LUDLOW AS NECESSARY BEFORE DRIVING CONSTRUCTION EQUIPMENT OVER AND ACROSS STATE AND TOWN MAINTAINED ROADS.
- ALL WORK IN THE PUBLIC RIGHTS OF WAY SHALL CONFORM WITH THE MASSACHUSETTS DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES".
- WHERE APPROVAL OR DIRECTION BY AN ENGINEER IS SPECIFIED, THIS INCLUDES A QUALIFIED ENGINEER OR PROFESSIONAL (MASSACHUSETTS REGISTERED PROFESSIONAL ENGINEER (PE), CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENTATION CONTROL (CPESC), OR SIMILAR SPECIALIST).

HOUSEKEEPING NOTES

- CONTRACTOR SHALL MAINTAIN THE PROJECT SITE IN ACCORDANCE WITH THE FOLLOWING PERFORMANCE STANDARDS:
- 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.
 - 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 DICES, BERMS, SLUMPS, 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.
 - 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 WATER. CALCIUM CHLORIDE AND 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. PAVED SURFACES SHALL BE VACUUM SWEEP WHEN DRY. IF OFF-SITE TRACKING OCCURS ON PUBLIC ROADS, THEY SHOULD BE SWEEP 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.
 - DEBRIS AND OTHER MATERIALS:** CONTRACTOR SHALL MANAGE ALL LITTER, CONSTRUCTION DEBRIS, CONSTRUCTION CHEMICALS, AND BUILDING AND LANDSCAPING MATERIALS EXPOSED TO STORMWATER TO PREVENT MATERIALS FROM BECOMING A SOURCE OF POLLUTION.
 - TRENCH OR FOUNDATION DEWATERING:** TRENCH DEWATERING IS THE REMOVAL OF WATER FROM TRENCHES, FOUNDATIONS, COFFER DAMS, PONDS, SLUMPS, 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.
 - 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, DUST CONTROL RUNOFF IN ACCORDANCE WITH PERMIT CONDITIONS, ROUTINE EXTERNAL PAVEMENT WASHWATER EXCLUDING AREAS OF SPILLS OR LEAKS OF TOXIC/HAZARDOUS MATERIALS AND USE OF DETERGENTS), UNCONTAMINATED GROUNDWATER OR SPRING WATER, FOUNDATION OR FOOTING DRAIN-WATER WHERE FLOWS ARE NOT CONTAMINATED, UNCONTAMINATED EXCAVATION DEWATERING, POTABLE WATER SOURCES INCLUDING WATERLINE FLUSHING, AND LANDSCAPE IRRIGATION.
 - 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.
 - 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

- SURVEYED PROPERTY BOUNDARY
- - - - - APPROXIMATE ABUTTING PROPERTY BOUNDARY
- RIGHT-OF-WAY LINE
- EXISTING EDGE OF PAVEMENT/CONCRETE
- EXISTING GRAVEL
- EXISTING OVERHEAD ELECTRIC & POLES
- EXISTING SEWERLINE
- EXISTING BUILDING
- EXISTING TREES AND/OR BRUSH
- DELINEATED WETLAND
- WETLAND FLAG & I.D.
- 25' NO-DISTURBANCE BUFFER
- 100' WETLAND BUFFER
- 300' EXISTING MAJOR CONTOUR
- 298' EXISTING MINOR CONTOUR
- x 299.7' EXISTING SPOT ELEVATION
- PROPOSED GRAVEL ACCESS
- PROPOSED EQUIPMENT PAD
- (298) PROPOSED MAJOR CONTOUR
- (300) PROPOSED MINOR CONTOUR
- PROPOSED TREE LINE
- PROPOSED CHAIN LINK FENCE
- PROPOSED OVERHEAD ELECTRIC LINE AND POLE
- PROPOSED MV UNDERGROUND ELECTRIC LINE
- PROPOSED FIXED-TILT ARRAY RACKING
- SF --- SF --- PROPOSED SEDIMENT BARRIER

ZONING REQUIREMENTS

ZONING DISTRICTS SUMMARY TABLE			
GENERAL ZONING DISTRICT		OVERLAY ZONING DISTRICTS	
INDUSTRIAL C (IC)		N/A	
DIMENSIONAL STANDARDS INDUSTRIAL C (IC)			
APPLICABLE ZONING STANDARD	REQUIREMENTS OF SECTION IV	APPLICABLE SUPPLEMENTAL STANDARDS FOR SOLAR (SECTION 6.10)	PROPOSED
FRONT SETBACK, MIN. (FEET)	25	50	500
REAR SETBACK, MIN. (FEET)	25	50	2075
SIDE SETBACK, MIN. (FEET)	25	50	189
BUILDING COVERAGE, MAX. (% OF LOT AREA)	N/A	NONE	N/A
STRUCTURE HEIGHT, MAX. (FEET)	BUILDING HEIGHT = 35 FEET	ARRAY HEIGHT = 20 FEET	NO BUILDING PROPOSED ARRAY HEIGHT = 12 FEET

SITE SPECIFIC SOILS TABLE

ID	NAME	SLOPE RANGE	TEXTURE	HYDROLOGIC SOIL GROUP
S2A	FREETOWN MUCK	0 - 1%	MUCKY PEAT	B/D
254A	MERRIMAC	0 - 3%	FINE SANDY LOAM	A
255B	WINDSOR	3 - 8%	LOAMY SAND	A
275A	AGAWAM	0 - 3%	FINE SANDY LOAM	B
340B	BROADBROOK	3 - 8%	GRAVELLY SILT LOAM	C
739C	HINCKLEY-WINDSOR	0 - 15%	URBAN LAND / FILL	A

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 LIME 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 600 POUNDS PER ACRE USING 0-10-10 ANALYSIS OR EQUIVALENT. GROUND LIMESTONE (EQUIVALENT TO 40 PERCENT CALCIUM PLUS MAGNESIUM OXIDES) WILL BE APPLIED AT A RATE OF 2.5 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 1000 LB./ACRE OF WOOD FIBER MULCH OVER STRAWHAY MULCH; AND
- COMMERCIALLY AVAILABLE TACKIFIERS (EXCEPT WITHIN 100 FEET OF WATERBODIES OR WETLANDS).

ABUTTERS LIST

PARCEL ID	OWNER	LOCATION	MAILING STREET	MAILING CITY	ST	ZIP CODE
3-10500-103-0	MFB REALTY LLC	280 MOODY STREET	280 MOODY STREET	LUDLOW	MA	01056
3-10500-108-0	VITER INC	305 MOODY STREET	305A MOODY STREET	LUDLOW	MA	01056
3-10500-109-0	O'LEARY FAMILY PROPERTIES, LLC	321 MOODY STREET	321 MOODY STREET	LUDLOW	MA	01056
3-10500-103B-0	PHYSICAL PROPERTIES I LLC	290 MOODY STREET	18 STRONG FARM LANE	SOUTH HADLEY	MA	01075
3-17925-100-0	WESTOVER ROAD ASSOCIATES LLC	65 WESTOVER ROAD	65 WESTOVER ROAD	LUDLOW	MA	01056
4-8625-10-0	COMMONWEALTH OF MASSACHUSETTS DIVISION OF CAPITAL PLANNING	0 MAINE AVENUE	1 ASHBURTON PLACE	BOSTON	MA	02108
4-12260-9-0	COMMONWEALTH OF MASSACHUSETTS DIVISION OF CAPITAL PLANNING	0 RANDALL ROAD	1 ASHBURTON PLACE	BOSTON	MA	02108
4-18850-4-0	ADVANCED DRAINAGE SYSTEMS, INC	0 WYOMING STREET	4640 TRUMAN ROAD	HILLIARD	OH	43026
4-18850-5-0	ADVANCED DRAINAGE SYSTEMS, INC	0 WYOMING STREET	4640 TRUMAN ROAD	HILLIARD	OH	43026
4-18850-7-0	ADVANCED DRAINAGE SYSTEMS, INC	58 WYOMING STREET	4640 TRUMAN ROAD	HILLIARD	OH	43026
4-18850-8-0	ADVANCED DRAINAGE SYSTEMS, INC	0 WYOMING STREET	4640 TRUMAN ROAD	HILLIARD	OH	43026
5-8860-8-0	KING, RONALD J & GARCIA, JOHN	37 LETOURNEAU LANE	P O BOX 468	LUDLOW	MA	01056
5-11320-6-0	ORDYNOWICZ, MARYANN - TRUSTEE OF THE RMR REALTY TRUST	10 PERIMETER ROAD	10 PERIMETER ROAD	LUDLOW	MA	01056
5-11320-10-0	MACKIN, MICHAEL T	25 PERIMETER ROAD	P O BOX 250	SOUTH HADLEY	MA	01075
5-12260-7-0	D & W TIRE INC	730 RANDALL ROAD	P O BOX 458	LUDLOW	MA	01056
MAP 3 - LOT 96	United States of America Westover Airforce Base ATTN: Col. Martin Mazick	Moody St	100 Lloyd St	Chicopee	MA	01022
MAP 4 - LOT 1	Massachusetts Municipal Wholesale Electric Company of Massachusetts		P O Box 426 /327 Moody	Ludlow	MA	01056
MAP 4 - LOT 3	WGBY Channel 57 Division of WGBY Educ.	Wyoming & Oregon Sts	44 Hampden St	Springfield	MA	01103
MAP 5 - LOT 1	United States of America Westover Airforce Base ATTN: Col. Martin Mazick		100 Floyd St	Chicopee	MA	01022
MAP 5 - LOT 2	Westover Metropolitan Development Corporation Westover Industrial Airpark		255 Padgette St	Chicopee	MA	01022
MAP 8 - LOT 59	Massachusetts Municipal Wholesale Electric Company		P O Box 426 /327 Moody	Ludlow	MA	01056

SEED AND MULCH SPECIFICATIONS

SEED MIX SPECIFICATIONS		
SEED MIX NAME	SEED MIX COMPONENTS	LB./ACRE ¹
TEMPORARY SEED MIX	ANNUAL RYEGRASS	40
PERMANENT SEED MIX	ROUNDSEED RYE (PART III, EASC PRACTICES (OR APPROVED EQUAL))	25
SUPPLEMENTAL WINTER SEED MIX ²	WINTER RYEGRASS	120

NOTES:
 1. INCREASE SEEDING RATES 10% WHEN HYDROSEEDING
 2. WINTER RYE WILL BE ADDED TO PERMANENT SEED MIX AT A RATE OF 120 LB./ACRE BETWEEN AUGUST 15 AND OCTOBER 15

SUMMARY OF TEMPORARY AND PERMANENT MULCH APPLICATION REQUIREMENTS			
CONDITION	TIMING	MULCH TYPE	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	1000 LB./ACRE 1000 LB./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	1000 LB./ACRE
ALL WORK AREAS EXPOSED ARE TO BE MULCHED DAILY EACH TIME SOIL IS DISTURBED ³	NOVEMBER 1 - APRIL 15	STRAW MULCH OR WOOD FIBER MULCH	1000 LB./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	1000 LB./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. PAPER MULCH IS ACCEPTABLE FOR USE DURING THE GROWING SEASON. ON SLOPES >30 PERCENT AND IN AREAS WHERE VEGETATION HAS NOT ESTABLISHED WELL, ADDITIONAL WOOD MULCH WILL BE ADDED AS A WINTERIZING MEASURE.
 4. MULCH MAY NOT BE SPREAD ON TOP OF SNOW.

SUMMARY OF SEEDING REQUIREMENTS		
CONDITION	TIMING ²	SEED MIX
TEMPORARY SEEDING ³	TEMPORARY SEED BETWEEN APRIL 1 AND JUNE 30 OR SEPTEMBER 1 AND SEPTEMBER 30. DISTURBED AREAS OR SOIL STOCKPILES WILL BE SEEDED IMMEDIATELY IF FURTHER DISTURBANCE IS NOT EXPECTED FOR 30 DAYS OR MORE.	TEMPORARY SEED MIX
PERMANENT SEEDING ^{3,4}	SEED BETWEEN APRIL 1 AND MAY 31 OR AUGUST 1 AND SEPTEMBER 10	PERMANENT SEED MIX
UPLAND PORTIONS OF THE CONSTRUCTION AREA	DISTURBED AREA WILL BE SEEDED WITHIN 7 DAYS OF FINAL GRADING.	PERMANENT SEED MIX
SLOPES > 3:1	DISTURBED AREA WILL BE SEEDED IMMEDIATELY AFTER SEEDBED PREPARATION.	PERMANENT SEED MIX
WINTER DORMANT SEEDING	DORMANT SEED BETWEEN NOVEMBER 1 AND DECEMBER 15 ONLY. NO SEEDING WILL OCCUR IF SNOW DEPTHS EXCEED 1 INCH.	PERMANENT SEED MIX PLUS SUPPLEMENTAL WINTER SEED MIX

NOTES:
 1. WEATHER CONDITIONS PERMITTING.
 2. AREAS THAT DO NOT SUCCESSFULLY REVEGETATE WITHIN APPROPRIATE PERIOD OF TIME WILL BE RESEDED AS NECESSARY.
 3. LOOSEN COMPACTED SOIL TO A MINIMUM DEPTH OF 2 TO 4 INCHES.
 4. TOP DRESS WITH 4 TO 6 INCHES LOAM, AS NEEDED. A MINIMUM 6-INCH LAYER OF TOPSOIL SHOULD BE ACHIEVED ON THE LANDFILL COVER IN DISTURBED AREAS AND AREAS THAT ARE REGRADED.

Area of Lot	308.55 Acres
Area and size of Building	N/A
Maximum area of building to be used for selling, offices, business, industrial, or other uses, if applicable	N/A
Maximum number of employees	N/A
Maximum seating capacity	N/A
Maximum sleeping capacity	N/A
Number of parking spaces required for the intended use, based on Section 6.4	1
Number of parking spaces existing at the site (including street parking adjacent to site)	1
Number of trees and/or shrubs	Wooded
Number of trees and/or shrubs shown on plan	N/A

PERMITTING
NOT FOR CONSTRUCTION

SEAL: [Professional Engineer Seal for Thomas N. Daniels, Jr., No. 55069]

PROFESSIONAL ENGINEER:
THOMAS N. DANIELS, JR.

DATE:
JULY 16, 2021

0	TRC	07/16/21	ISSUED FOR PERMITTING	TND
NO.	BY	DATE	REVISION	APP'D.

PROJECT: EDF RENEWABLES STONYBROOK SOLAR PARTNERS, LLC MMWEC - PROPOSED SOLAR PROJECT 327 MOODY ST, LUDLOW, MA

TITLE: **PERMITTING**

DRAWN BY: TRC/JD PROJ. NO.: 421921.0000

CHECKED BY: TND

APPROVED BY: TND **G2**

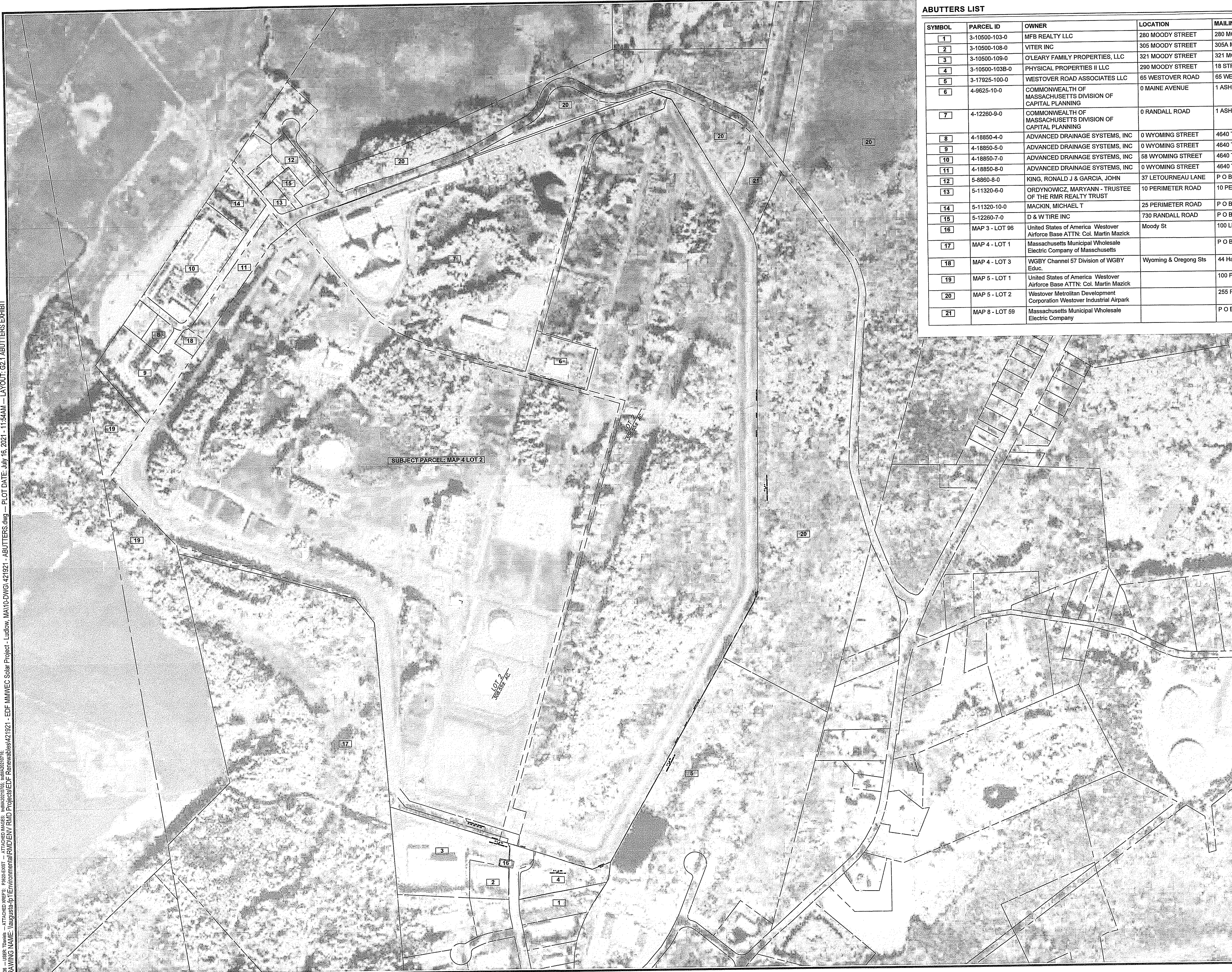
DATE: JULY 2021

650 Suffolk Street Suite 200 Lowell, MA 01854 Phone: 978.970.5600

FILE NO.: 421921 - G SHEETS.dwg

2408 - USER: TND\td - ATTACHED: MMWEC - STONYBROOK SOLAR PARTNERS, LLC - PERMITTING - G SHEETS.dwg - PLOT DATE: July 16, 2021 - 11:54AM - LAYOUT: G2
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 2021.09.21

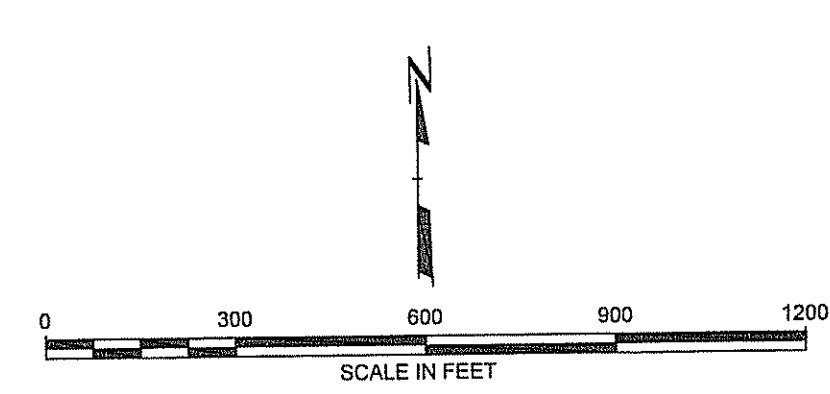
0624 - 10505 TRAILS - ATTACHED SHEETS: PLOTS EXIST - ATTACHED IMAGES: MA04201921 - ABUTTERS.dwg - Ludlow, MA10-DWG-421921 - EDF MMWEC Solar Project - Ludlow, MA10-DWG-421921 - ABUTTERS.dwg -- PLOT DATE: July 16, 2021 - 11:54AM -- LAYOUT: G2.1 ABUTTERS EXHIBIT
 DRAWING NAME: laugusta-fp1EnvironmentalRMD/ENV RMD Projects/EDF Renewables/421921 - EDF MMWEC Solar Project - Ludlow, MA10-DWG-421921 - ABUTTERS.dwg



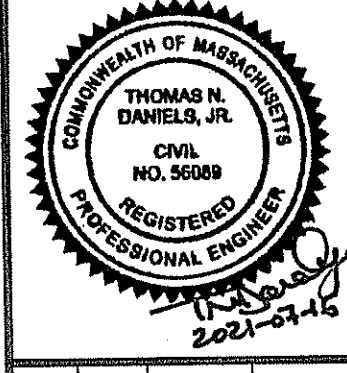

ABUTTERS LIST							
SYMBOL	PARCEL ID	OWNER	LOCATION	MAILING STREET	MAILING CITY	ST	ZIP CODE
1	3-10500-103-0	MFB REALTY LLC	280 MOODY STREET	280 MOODY STREET	LUDLOW	MA	01056
2	3-10500-108-0	VITER INC	305 MOODY STREET	305A MOODY STREET	LUDLOW	MA	01056
3	3-10500-109-0	O'LEARY FAMILY PROPERTIES, LLC	321 MOODY STREET	321 MOODY STREET	LUDLOW	MA	01056
4	3-10500-103B-0	PHYSICAL PROPERTIES II LLC	290 MOODY STREET	18 STRONG FARM LANE	SOUTH HADLEY	MA	01075
5	3-17925-100-0	WESTOVER ROAD ASSOCIATES LLC	65 WESTOVER ROAD	65 WESTOVER ROAD	LUDLOW	MA	01056
6	4-9625-10-0	COMMONWEALTH OF MASSACHUSETTS DIVISION OF CAPITAL PLANNING	0 MAINE AVENUE	1 ASHBURTON PLACE	BOSTON	MA	02108
7	4-12260-9-0	COMMONWEALTH OF MASSACHUSETTS DIVISION OF CAPITAL PLANNING	0 RANDALL ROAD	1 ASHBURTON PLACE	BOSTON	MA	02108
8	4-18850-4-0	ADVANCED DRAINAGE SYSTEMS, INC	0 WYOMING STREET	4640 TRUMAN ROAD	HILLIARD	OH	43026
9	4-18850-5-0	ADVANCED DRAINAGE SYSTEMS, INC	0 WYOMING STREET	4640 TRUMAN ROAD	HILLIARD	OH	43026
10	4-18850-7-0	ADVANCED DRAINAGE SYSTEMS, INC	58 WYOMING STREET	4640 TRUMAN ROAD	HILLIARD	OH	43026
11	4-18850-8-0	ADVANCED DRAINAGE SYSTEMS, INC	0 WYOMING STREET	4640 TRUMAN ROAD	HILLIARD	OH	43026
12	5-8860-8-0	KING, RONALD J & GARCIA, JOHN	37 LETOURNEAU LANE	P O BOX 468	LUDLOW	MA	01056
13	5-11320-6-0	ORDYNOWICZ, MARYANN - TRUSTEE OF THE RMR REALTY TRUST	10 PERIMETER ROAD	10 PERIMETER ROAD	LUDLOW	MA	01056
14	5-11320-10-0	MACKIN, MICHAEL T	25 PERIMETER ROAD	P O BOX 250	SOUTH HADLEY	MA	01075
15	5-12260-7-0	D & W TIRE INC	730 RANDALL ROAD	P O BOX 458	LUDLOW	MA	01056
16	MAP 3 - LOT 96	United States of America Westover Airforce Base ATTN: Col. Martin Mazick	Moody St	100 Lloyd St	Chicopee	MA	01022
17	MAP 4 - LOT 1	Massachusetts Municipal Wholesale Electric Company of Massachusetts		P O Box 426 /327 Moody	Ludlow	MA	01056
18	MAP 4 - LOT 3	WGBY Channel 57 Division of WGBY Educ.	Wyoming & Oregon Sts	44 Hampden St	Springfield	MA	01103
19	MAP 5 - LOT 1	United States of America Westover Airforce Base ATTN: Col. Martin Mazick		100 Floyd St	Chicopee	MA	01022
20	MAP 5 - LOT 2	Westover Metropolitan Development Corporation Westover Industrial Airpark		255 Padgette St	Chicopee	MA	01022
21	MAP 6 - LOT 59	Massachusetts Municipal Wholesale Electric Company		P O Box 426 /327 Moody	Ludlow	MA	01056

NOTES

- PROPERTY LINES AND PARCEL OWNERSHIP SHOWN ON THIS SHEET ARE BASED ON INFORMATION OBTAINED FROM MASSGIS ONLINE DATABASE.



PERMITTING
 NOT FOR CONSTRUCTION

	PROFESSIONAL ENGINEER: THOMAS N. DANIELS, JR. DATE: JULY 16, 2021
PROJECT: EDF RENEWABLES STONYBROOK SOLAR PARTNERS, LLC MMWEC - PROPOSED SOLAR PROJECT 327 MOODY ST, LUDLOW, MA	
TITLE: PERMITTING ABUTTERS EXHIBIT	
DRAWN BY: TRC/JD CHECKED BY: TND APPROVED BY: TND DATE: JULY 2021	PROJ. NO.: 421921.0000 <div style="text-align: center; font-weight: bold; font-size: 1.2em;">G2.1</div>
	
650 Suffolk Street Suite 200 Lowell, MA 01854 Phone: 978.970.5600 FILE NO.: 421921 - ABUTTERS.dwg	

EROSION CONTROL NOTES

PROJECT DESCRIPTION

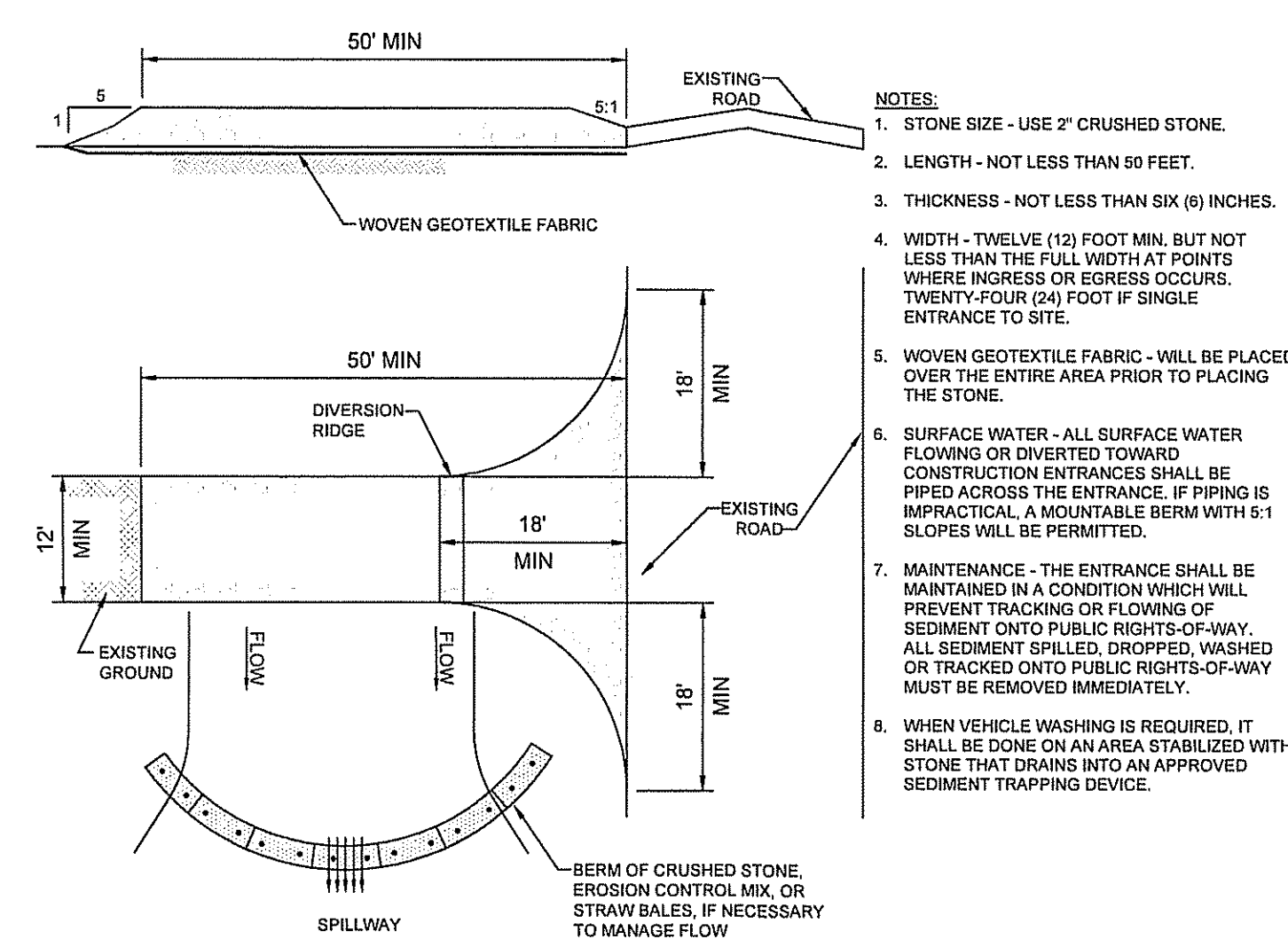
THE PROJECT INVOLVES THE CONSTRUCTION OF A GROUND-MOUNTED PHOTOVOLTAIC SOLAR MODULE SYSTEM AND ALL RELATED ACCESS ROADS, UTILITIES, SITE PREPARATION, CLEARING & GRUBBING, EROSION & SEDIMENTATION CONTROL MEASURES, AND TEMPORARY ACCESS ROADS.

CONSTRUCTION SEQUENCE

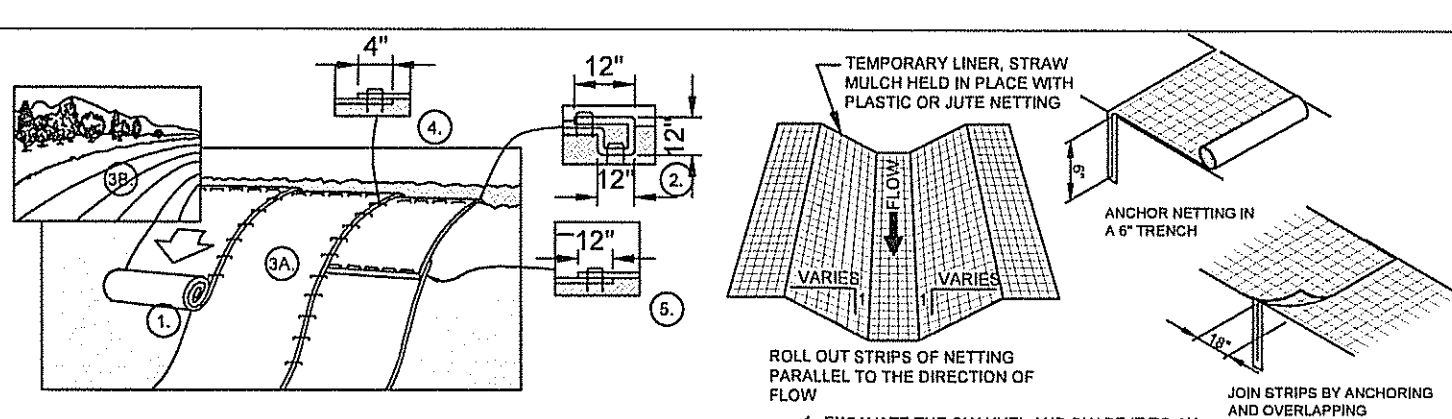
- ESTABLISH CONSTRUCTION WORKSPACE LIMITS; IDENTIFY AND MARK SENSITIVE RECEPTORS INCLUDING NATURAL RESOURCES AND DOWNGRADED DRAINAGE INFRASTRUCTURE.
- INSTALLATION OF ALL EROSION AND SEDIMENT CONTROL MEASURES AND ASSOCIATED WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE "MASSACHUSETTS EROSION AND SEDIMENT CONTROL GUIDELINES FOR URBAN AND SUBURBAN AREAS".
- PRIOR TO USAGE, CONSTRUCT AND STABILIZE THE CONSTRUCTION ENTRANCES IN THE LOCATIONS INDICATED ON THE EROSION CONTROL PLAN SHEET. AT A MINIMUM, A STABILIZED CONSTRUCTION ENTRANCE SHALL BE PROVIDED AT EACH POINT OF ACCESS/EGRESS ON GREEN ROAD.
- 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.
- 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 TIED-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.
- 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.
- CONCURRENT WITH INITIATION OF SITE GRADING, CONSTRUCT CHECK DAMS AND HAYBALES TO MINIMIZE SEDIMENT IN SITE RUNOFF DURING CONSTRUCTION. DEWATERING SHALL BE IN ACCORDANCE WITH THE DEWATERING NOTES.
- INSTALL PROPERLY SPACED STONE CHECK DAMS IN ANY SECTION OF DITCH WITHIN 24-HOURS OF FORMING, SHAPING, OR ROUGH GRADING THAT SECTION OF DITCH.
- 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. OPEN AREA SHALL BE LIMITED TO 5-ACRES OR NO MORE THAN CAN BE MULCHED IN A SINGLE DAY, WHICHEVER IS LESS.
- 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.
- DUST CONTROL METHODS SHALL BE EMPLOYED AFTER GRADING AND PRIOR TO FINAL STABILIZATION TO PREVENT THE BLOWING AND MOVEMENT OF NUISANCE DUST THROUGHOUT THE APPLICATION OF WATER. CALCIUM CHLORIDE SHALL NOT BE USED.
- 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.
- 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.
- 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 1/2 OF THE HEIGHT OF THE BARRIER.
- MONITOR PUBLIC ROADS FOR SIGNS OF TRACKING OR SPILLING OF SPOIL MATERIAL AND CLEAN-UP AS NECESSARY.
- COMPLETE FINAL GRADING AND STABILIZATION OF EARTHEN STRUCTURES SUCH AS DIVERSION BERMS, LEVEL SPREADERS, AND SWALES THAT WILL CONTROL POST-CONSTRUCTION RUNOFF.
- 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.
- 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.
- REMOVE AND PROPERLY DISPOSE OF ALL TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES ONCE THE SITE IS PERMANENTLY STABILIZED.

DEWATERING NOTES

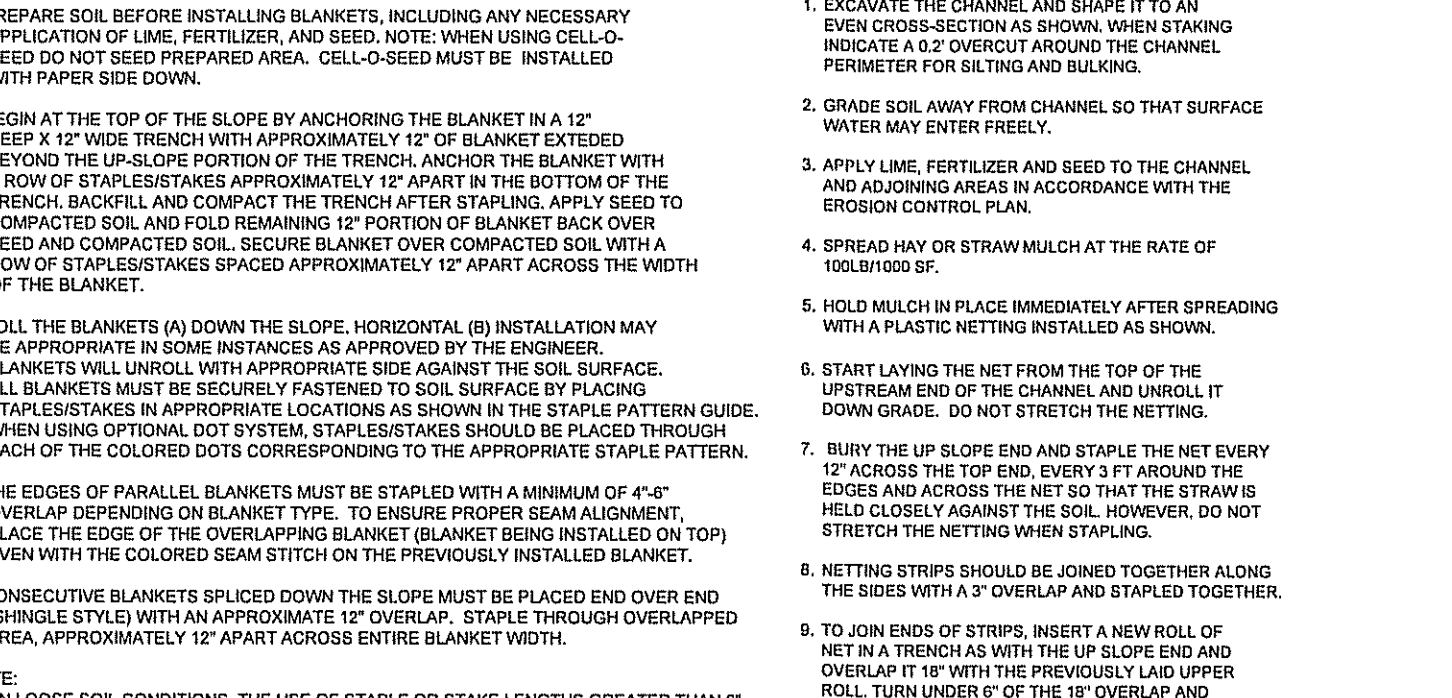
- THE CONTRACTOR SHALL INSTALL, MAINTAIN, AND OPERATE ALL CHANNELS, SLUMPS, AND OTHER TEMPORARY DIVERSION AND PROTECTIVE WORKS NEEDED TO DIVERT STREAM FLOW AND OTHER SURFACE WATER THROUGH OR AROUND THE CONSTRUCTION SITE. CONTROL OF SURFACE WATER SHALL BE CONTINUOUS DURING THE PERIOD THAT DAMAGE TO CONSTRUCTION WORK COULD OCCUR.
- 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 GRAINS, SLUMPS 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.
- INSTALL DIVERSION DITCHES OR BERMS IF NECESSARY TO MINIMIZE THE AMOUNT OF CLEAN STORMWATER RUNOFF ALLOWED INTO THE EXCAVATION AREA.
- REMOVAL OF WATER FROM THE CONSTRUCTION SITE SHALL BE ACCOMPLISHED SO THAT EROSION AND TRANSPORTATION OF SEDIMENT AND OTHER POLLUTANTS ARE MINIMIZED.
- DISCHARGE DEWATERING EFFLUENT TO AREAS AS INDICATED ON THE SITE GRADING PLAN. DISCHARGE SHALL BE MANAGED TO ENSURE SHEET FLOW.
- 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.
- FLOW TO THE SEDIMENT REMOVAL STRUCTURE MAY NOT EXCEED THE STRUCTURE'S CAPACITY TO SETTLE AND FILTER FLOW OR THE STRUCTURE'S VOLUME CAPACITY.
- 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.



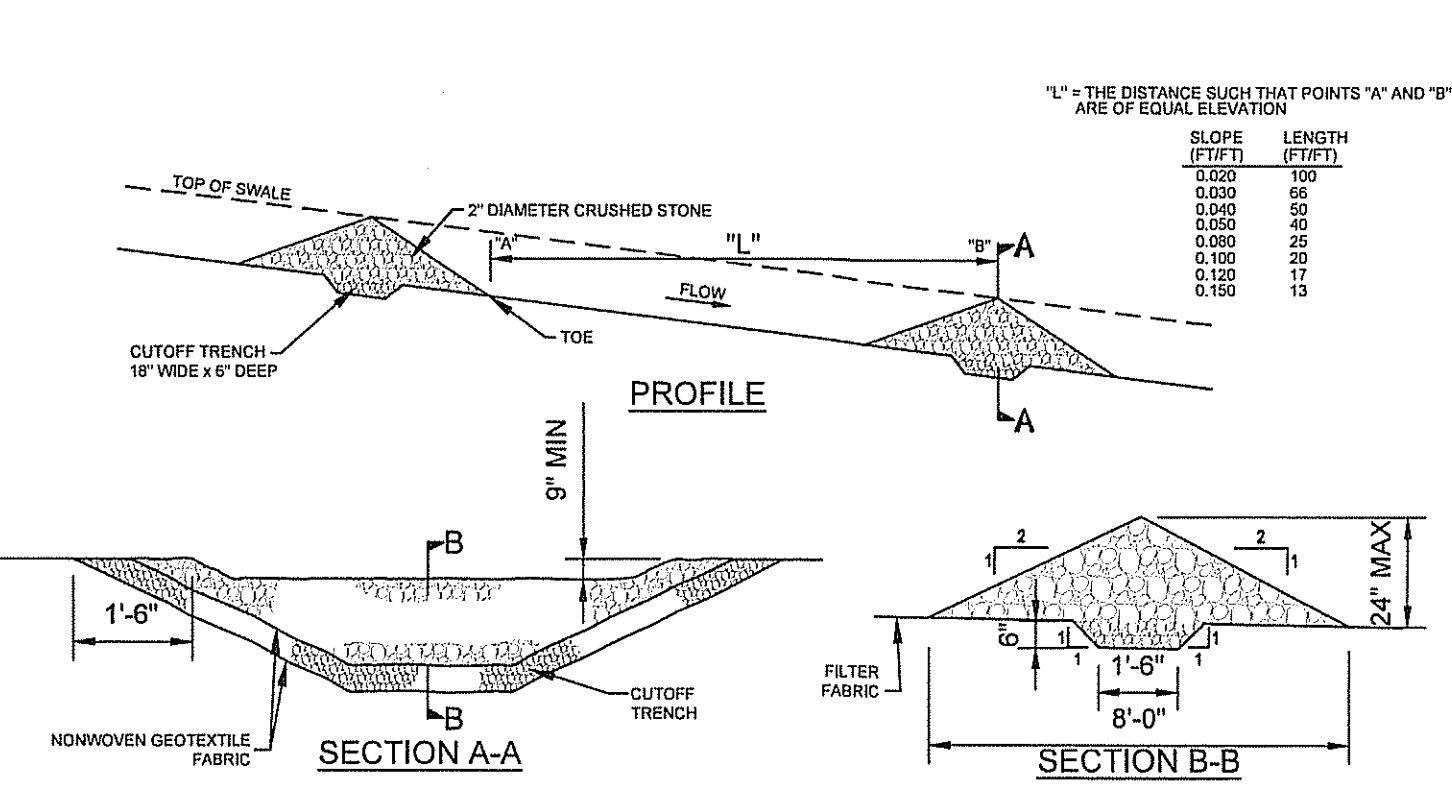
STABILIZED CONSTRUCTION ENTRANCE
NOT TO SCALE



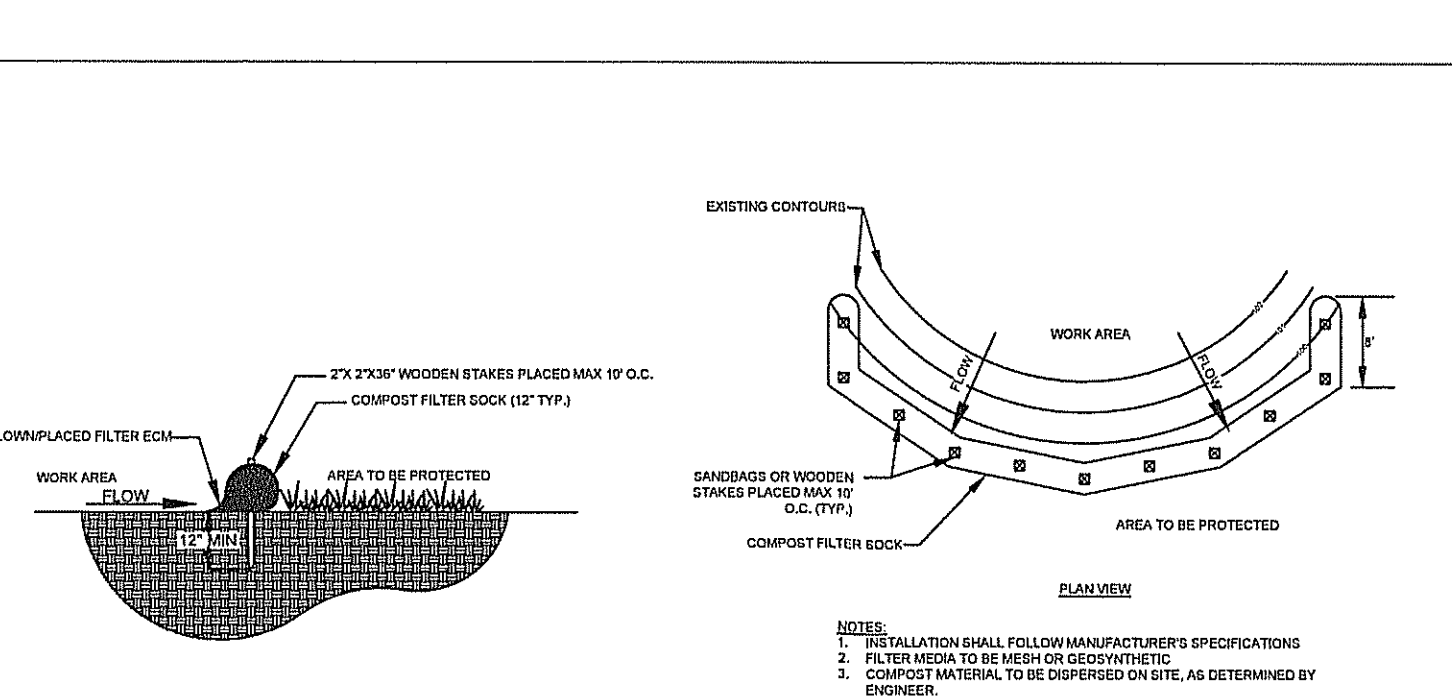
TYPICAL SOIL STOCKPILE
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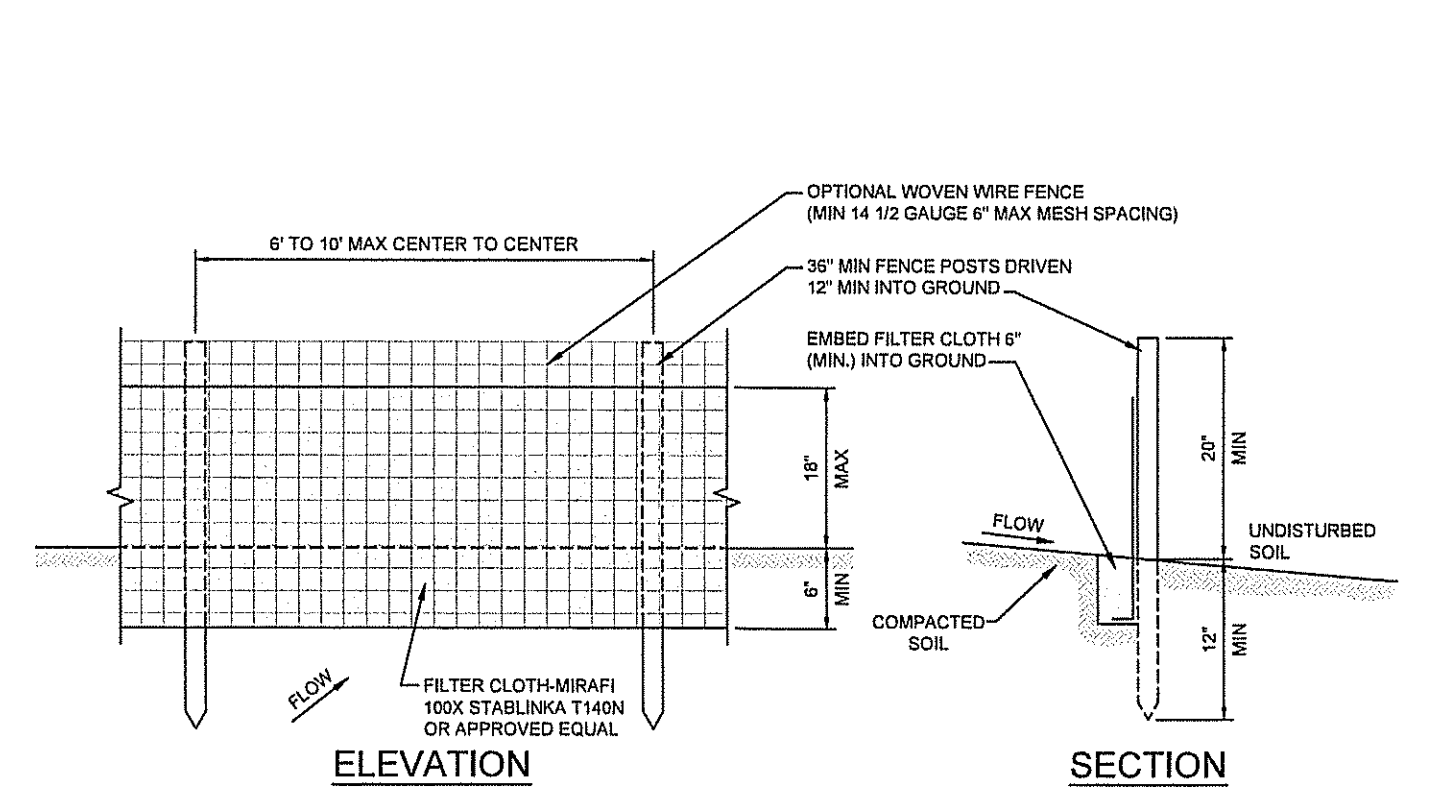
EROSION CONTROL BLANKET
NOT TO SCALE



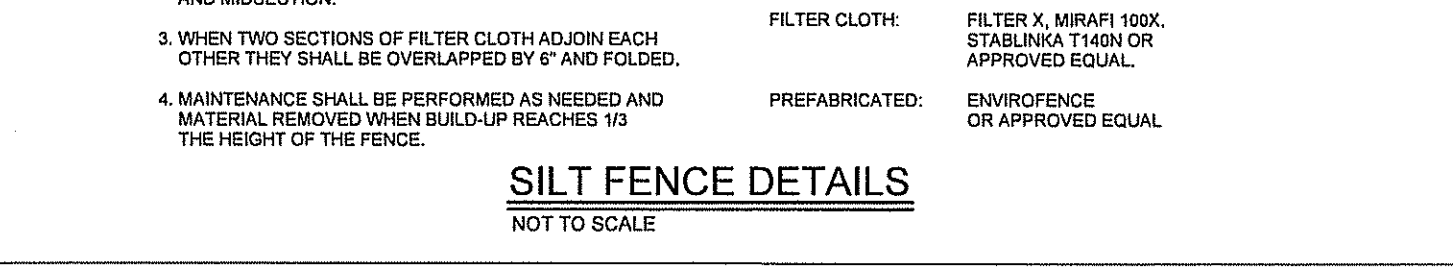
CHECK DAM DETAILS
NOT TO SCALE



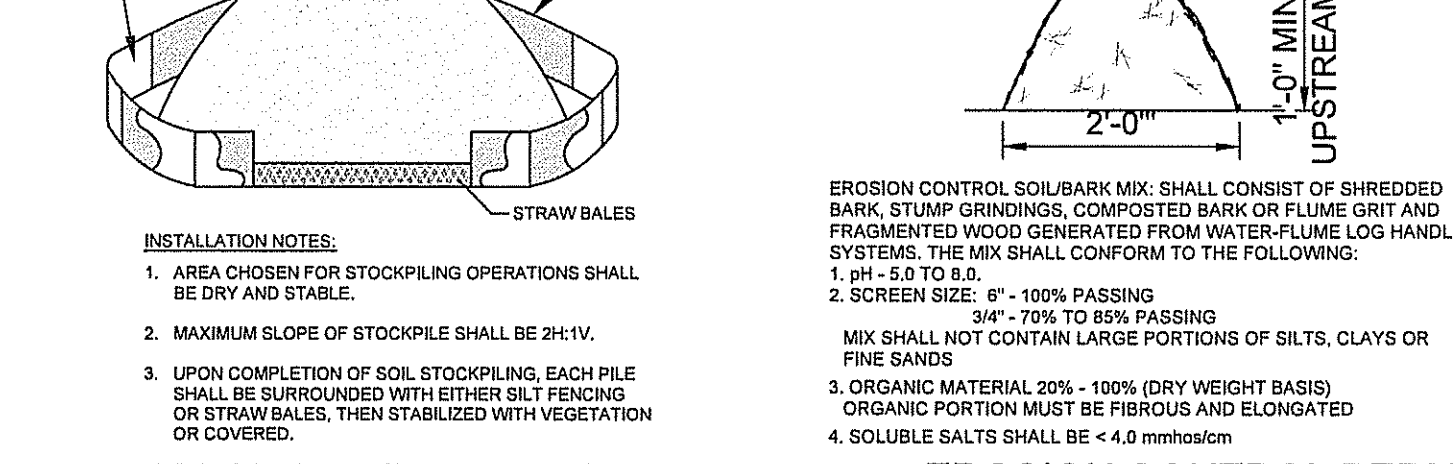
COMPOST FILTER SOCK
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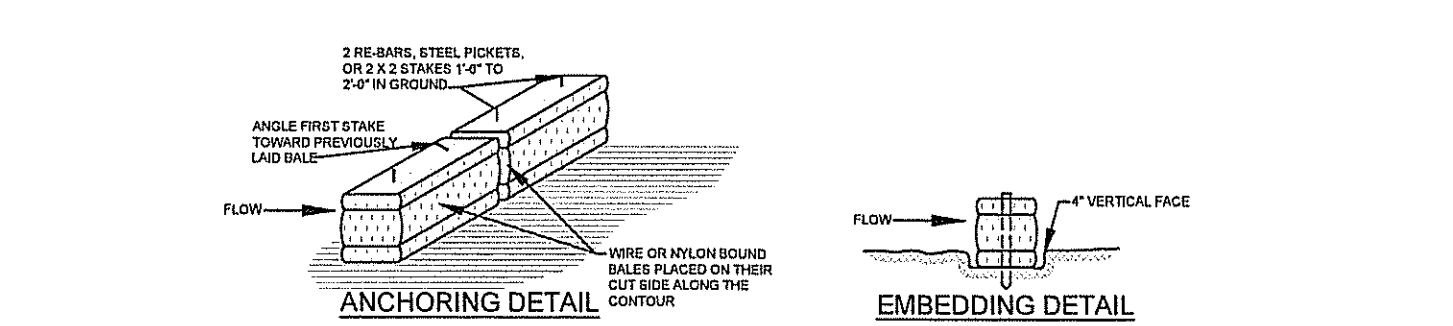
SILT FENCE DETAILS
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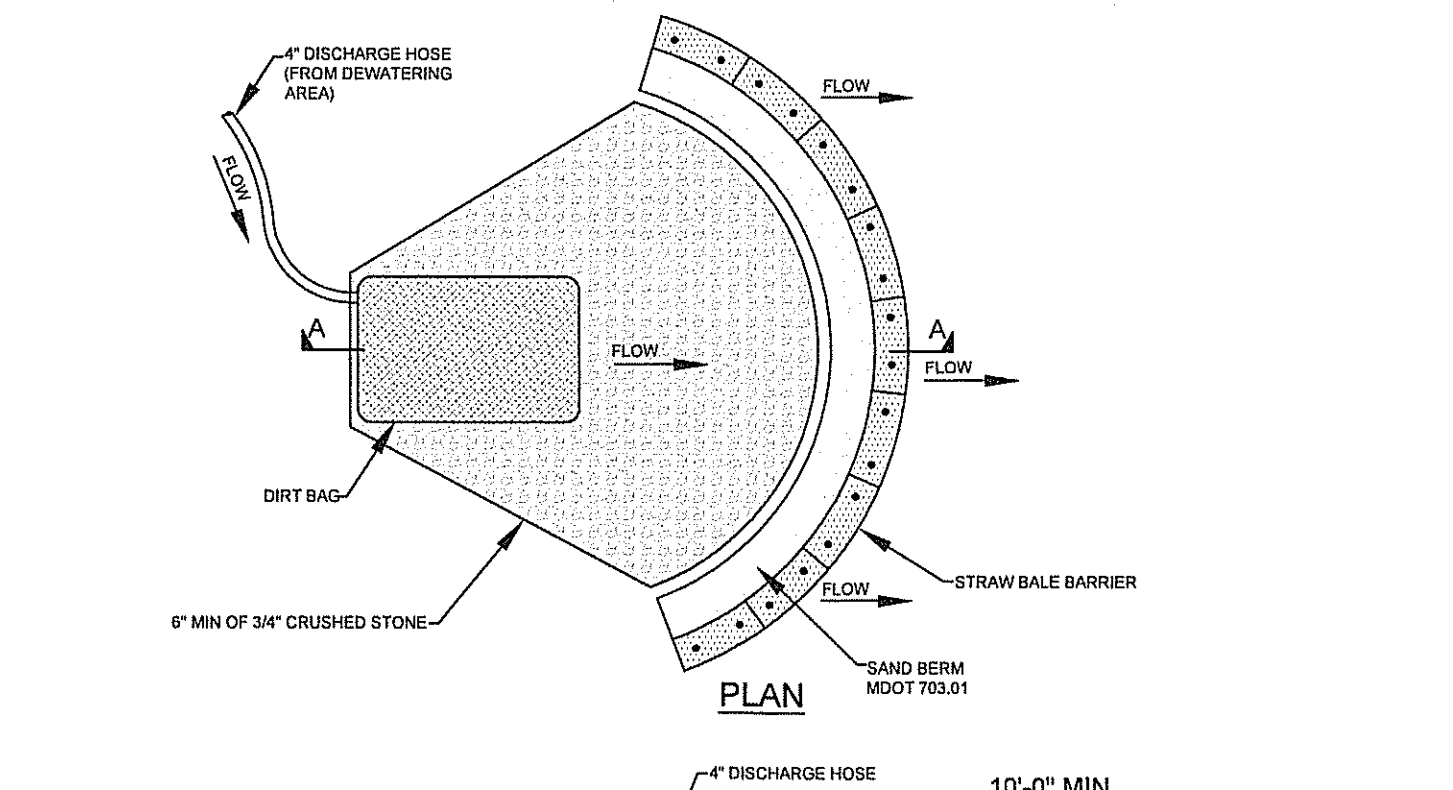
TYPICAL SOIL STOCKPILE
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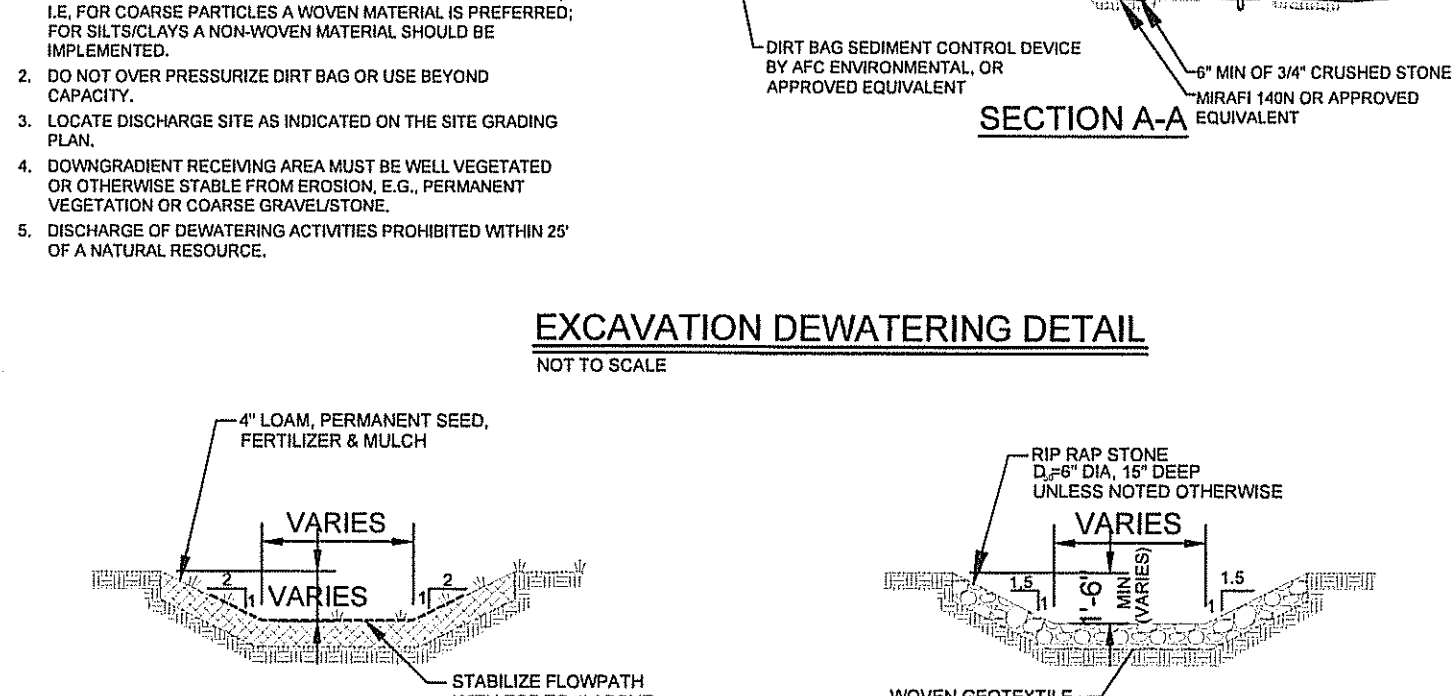
EROSION CONTROL BERM
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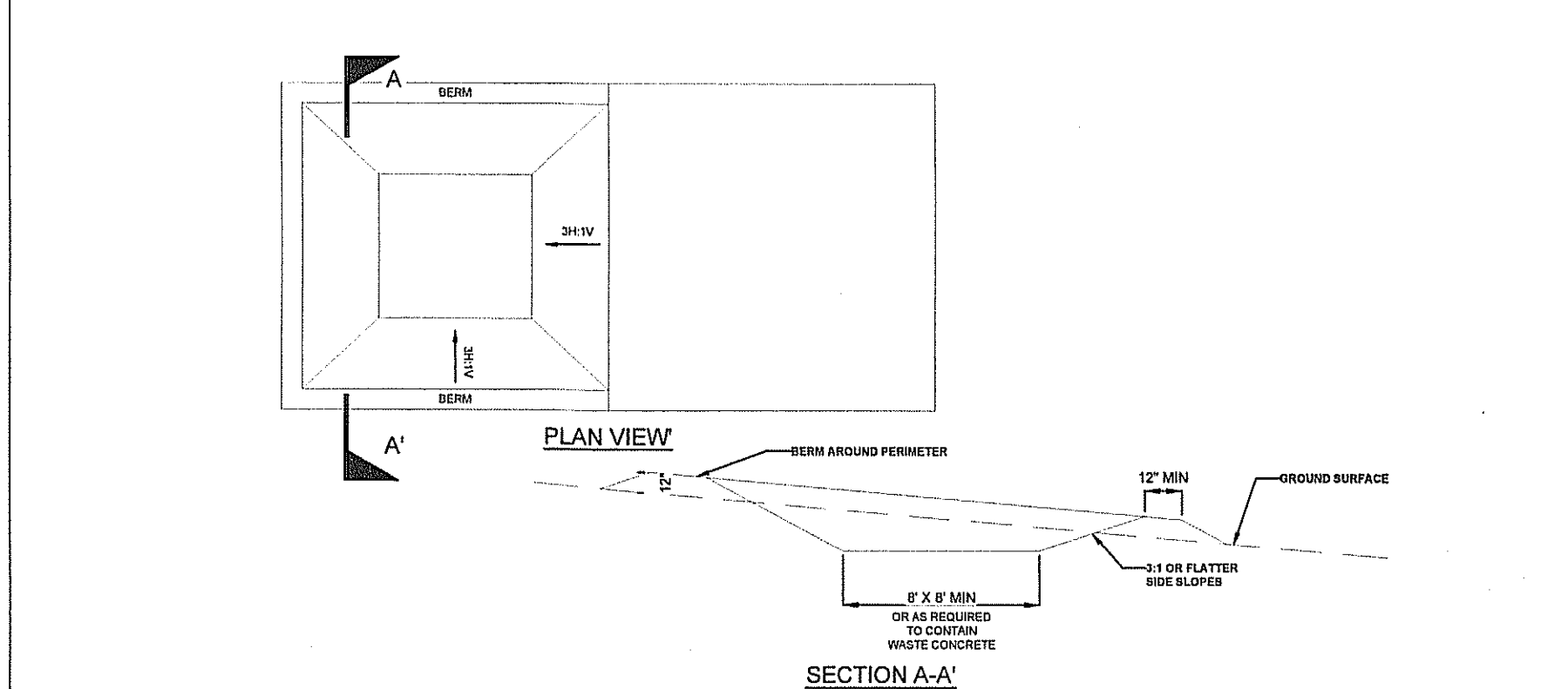
STRAW BALE BARRIER
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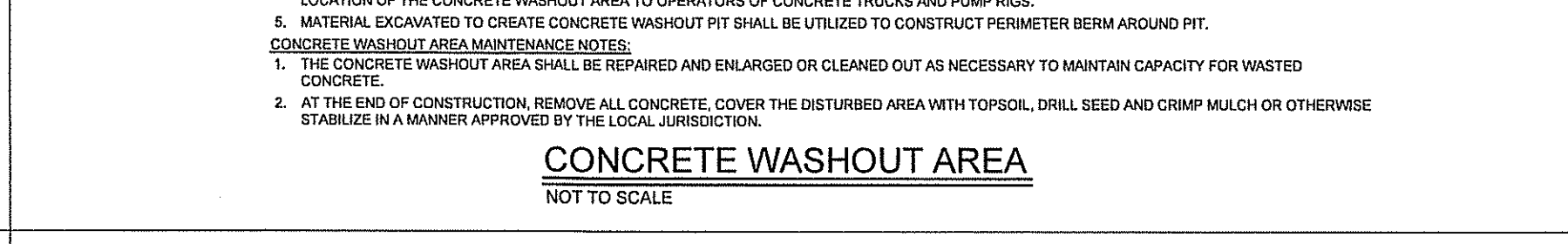
EXCAVATION DEWATERING DETAIL
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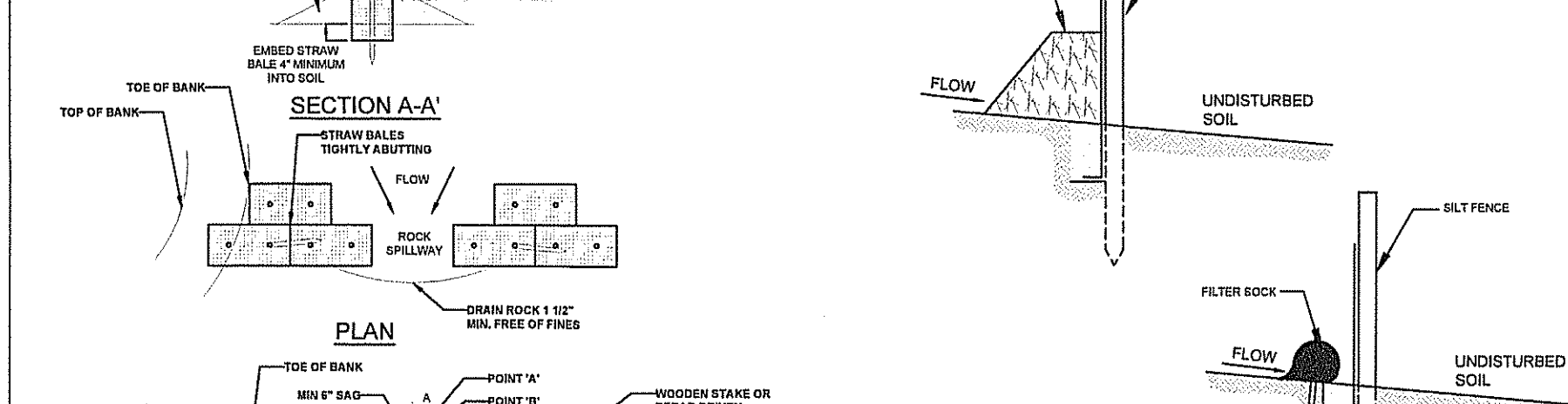
VEGETATED SWALE DETAIL
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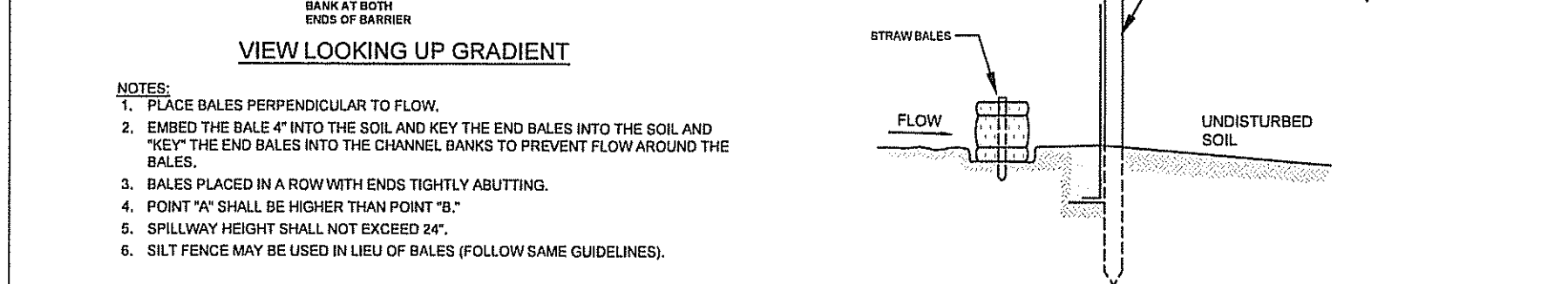
CONCRETE WASHOUT AREA
NOT TO SCALE



PAIRED PERIMETER CONTROLS FOR CRITICAL AREAS
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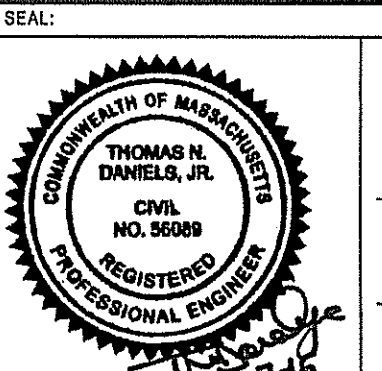


SEMI-PERVIOUS SEDIMENT BARRIER
NOT TO SCALE



VIEW LOOKING UP GRADIENT
NOT TO SCALE

PERMITTING
NOT FOR CONSTRUCTION

SEAL: 
PROFESSIONAL ENGINEER:
THOMAS N. DANIELS, JR.
DATE:
JULY 16, 2021

NO.	BY	DATE	ISSUED FOR PERMITTING	TND
0	TRC	07/16/21	ISSUED FOR PERMITTING	TND

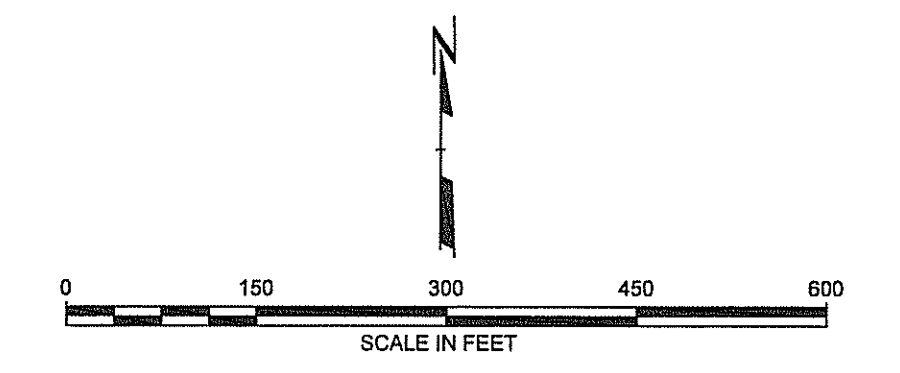
PROJECT: **EDF RENEWABLES STONYBROOK SOLAR PARTNERS, LLC MMWEC - PROPOSED SOLAR PROJECT 327 MOODY ST, LUDLOW, MA**

TITLE: **EROSION CONTROL NOTES & DETAILS**
DRAWN BY: TRC/JD PRGJ. NO.: 421921.0000
CHECKED BY: TND
APPROVED BY: TND
DATE: JULY 2021

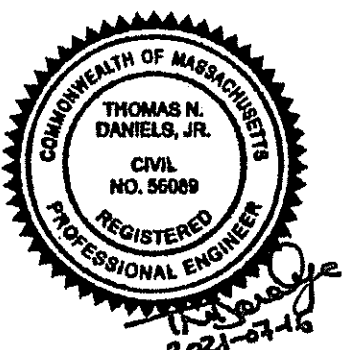

TRC 650 Suffolk Street Suite 200 Lowell, MA 01854 Phone: 978.970.5600
FILE NO.: 421921 - G SHEETS.dwg

DRAWING NAME: \\gpc\p1\Environmental\RM\ENV\RD\Projects\EDF Renewables\421921 - EDF MMWEC Solar Project - Ludlow, MA\10DWG\421921 - G SHEETS.dwg - PLOT DATE: July 16, 2021 - 11:54AM - LAYOUT: G3 EROSION CONTROL NOTES & DETAILS

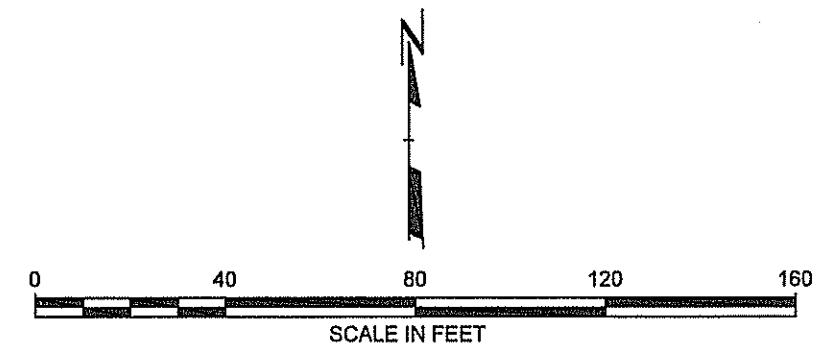
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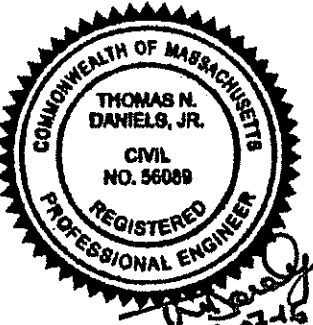
PERMITTING
NOT FOR CONSTRUCTION

		PROFESSIONAL ENGINEER: THOMAS N. DANIELS, JR.		
		DATE: JULY 16, 2021		
0	TRC	07/16/21	ISSUED FOR PERMITTING	TND
NO.	BY	DATE	REVISION	APP'D.
PROJECT: EDF RENEWABLES STONYBROOK SOLAR PARTNERS, LLC MMWEC - PROPOSED SOLAR PROJECT 327 MOODY ST, LUDLOW, MA				
TITLE: PERMITTING DRAWING INDEX SHEET				
DRAWN BY:		TRC/CJD		PROJ. NO.: 421921.0000
CHECKED BY:		TND		
APPROVED BY:		TND		G4
DATE:		JULY 2021		
		650 Suffolk Street Suite 200 Lowell, MA 01854 Phone: 978.970.5600		
FILE NO.:		421921 - INDEX.dwg		

2408 - USGS Topographic Map - ATTACHED IMAGES - P10301001 - ATTACHED IMAGES - P10301001 - ATTACHED IMAGES - P10301001 - EXCOND.DWG -- LAYOUT: C1.01
 DRAWING NAME: \\augustis-p01\Environmental\RM\EDV RMD Projects\EDF Renewables\421921 - EDF MMWEC Solar Project - Ludlow, MA\10-DWG\421921 - EXCOND.dwg -- PLOT DATE: July 16, 2021 - 11:55AM -- LAYOUT: C1.01



PERMITTING
 NOT FOR CONSTRUCTION


	PROFESSIONAL ENGINEER: THOMAS N. DANIELS, JR. DATE: JULY 16, 2021
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NO.	BY	DATE	REVISION	APP'D.
0	TRC	07/16/21	ISSUED FOR PERMITTING	TND

PROJECT: **EDF RENEWABLES**
STONYBROOK SOLAR PARTNERS, LLC
MMWEC - PROPOSED SOLAR PROJECT
327 MOODY ST, LUDLOW, MA

TITLE: **EXISTING CONDITIONS - NORTH**

DRAWN BY:	TRC/CJD	PRJ. NO.:	421921.0000
CHECKED BY:	TND		
APPROVED BY:	TND		C1.01
DATE:	JULY 2021		



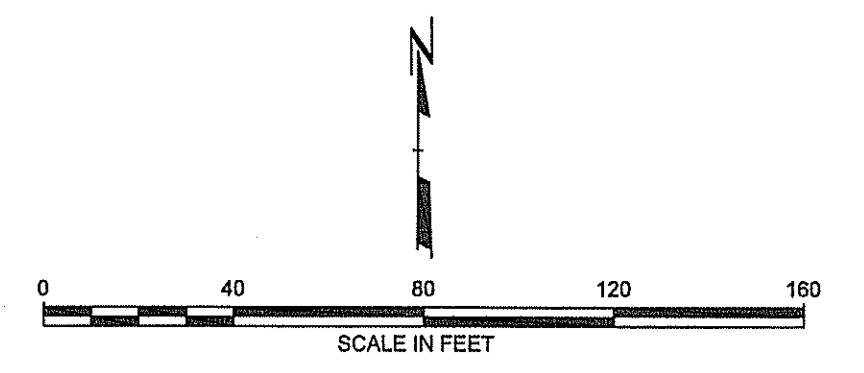
650 Suffolk Street
 Suite 200
 Lowell, MA 01854
 Phone: 978.970.5600

FILE NO: 421921 - EXCOND.dwg

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STONE WALL WITHIN LIMITS OF DISTURBANCE TO BE DEMOLISHED AND REMOVED AS DIRECTED BY OWNER

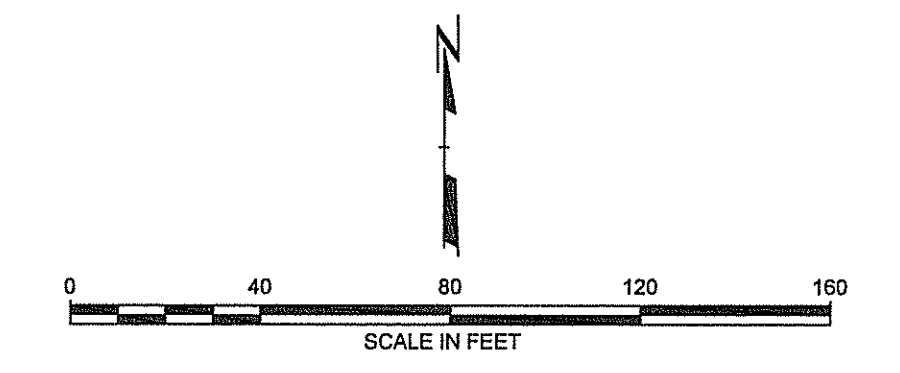
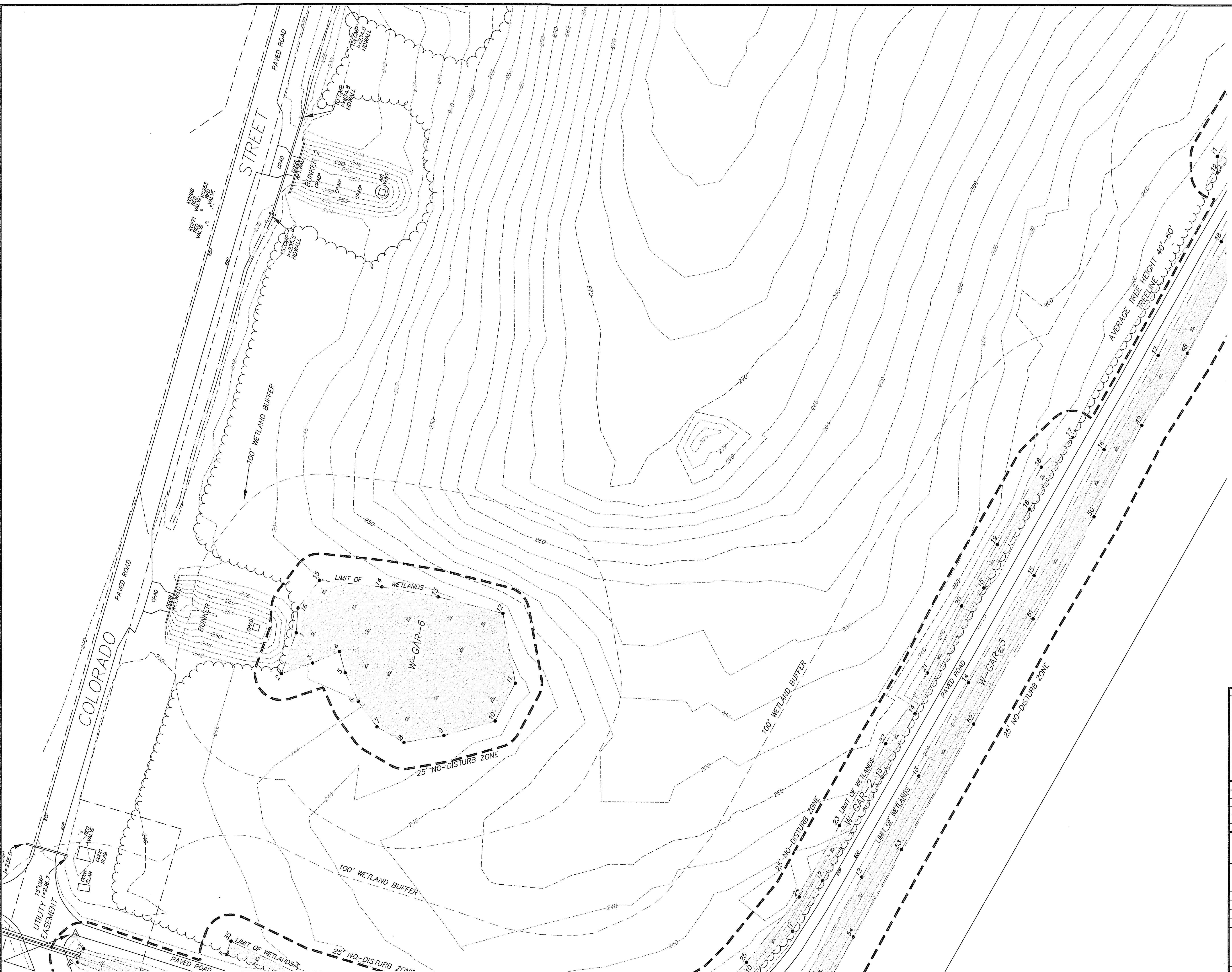


PERMITTING
 NOT FOR CONSTRUCTION



	PROFESSIONAL ENGINEER:	THOMAS N. DANIELS, JR.
	DATE:	JULY 16, 2021
	SEAL: _____ DATE: _____	

0	TRC	07/16/21	ISSUED FOR PERMITTING	TND
NO.	BY	DATE	REVISION	APPD.
PROJECT: EDF RENEWABLES				
STONYBROOK SOLAR PARTNERS, LLC				
MMWEC - PROPOSED SOLAR PROJECT				
327 MOODY ST, LUDLOW, MA				
TITLE: EXISTING CONDITIONS CENTER				
DRAWN BY:	TRC/CJD	PROJ. NO.:	421921.0000	
CHECKED BY:	TND			
APPROVED BY:	TND	C1.02		
DATE:	JULY 2021			
		650 Suffolk Street Suite 200 Lowell, MA 01854 Phone: 978.970.5600		
FILE NO.:	421921 - EXCOND.dwg			

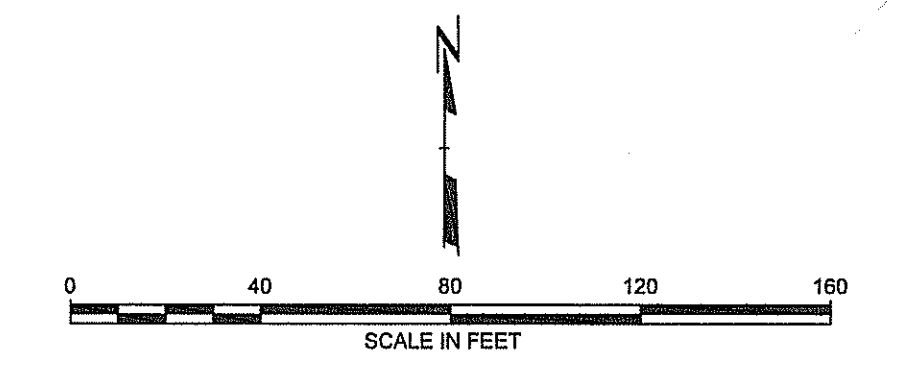
2021 - 11:56AM - LAYOUT: C1.03
 EXCOND.DWG - EXCOND.DWG - EXCOND.DWG - EXCOND.DWG - EXCOND.DWG - EXCOND.DWG - EXCOND.DWG - EXCOND.DWG - EXCOND.DWG - EXCOND.DWG
 EDf Renewables
 Project: Ludlow, MA 01024
 Drawing Name: Environmental Remedial RMD Project
 Date: July 16, 2021



PERMITTING
 NOT FOR CONSTRUCTION

		PROFESSIONAL ENGINEER: THOMAS N. DANIELS, JR. DATE: JULY 16, 2021	
STONYBROOK SOLAR PARTNERS, LLC MMWEC - PROPOSED SOLAR PROJECT 327 MOODY ST, LUDLOW, MA			
EXISTING CONDITIONS - SOUTH			
DRAWN BY: TRC/JD CHECKED BY: TND APPROVED BY: TND DATE: JULY 2021		PROJ. NO.: 421921.0000 C1.03	
		650 Suffolk Street Suite 200 Lowell, MA 01854 Phone: 978.970.5600	
FILE NO.:		421921 - EXCOND.dwg	

421921 - EXCOND.dwg - LAYOUT: C1.04
 PLOT DATE: July 16, 2021 - 11:56AM
 EXCOND.dwg - LAYOUT: C1.04
 EDf Renewables
 327 Moody St, Ludlow, MA 01854
 978.970.5600
 www.edf.com



PERMITTING
 NOT FOR CONSTRUCTION

	PROFESSIONAL ENGINEER:
	THOMAS N. DANIELS, JR.
	DATE: JULY 16, 2021

NO.	BY	DATE	REVISION	APPD.
0	TRC	07/16/21	ISSUED FOR PERMITTING	TND

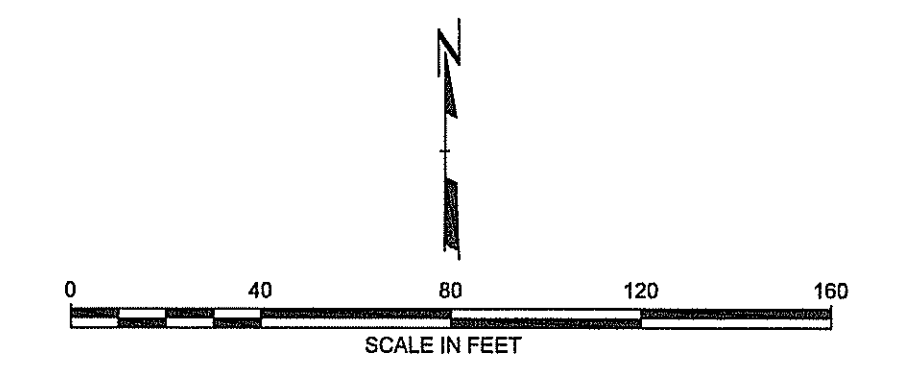
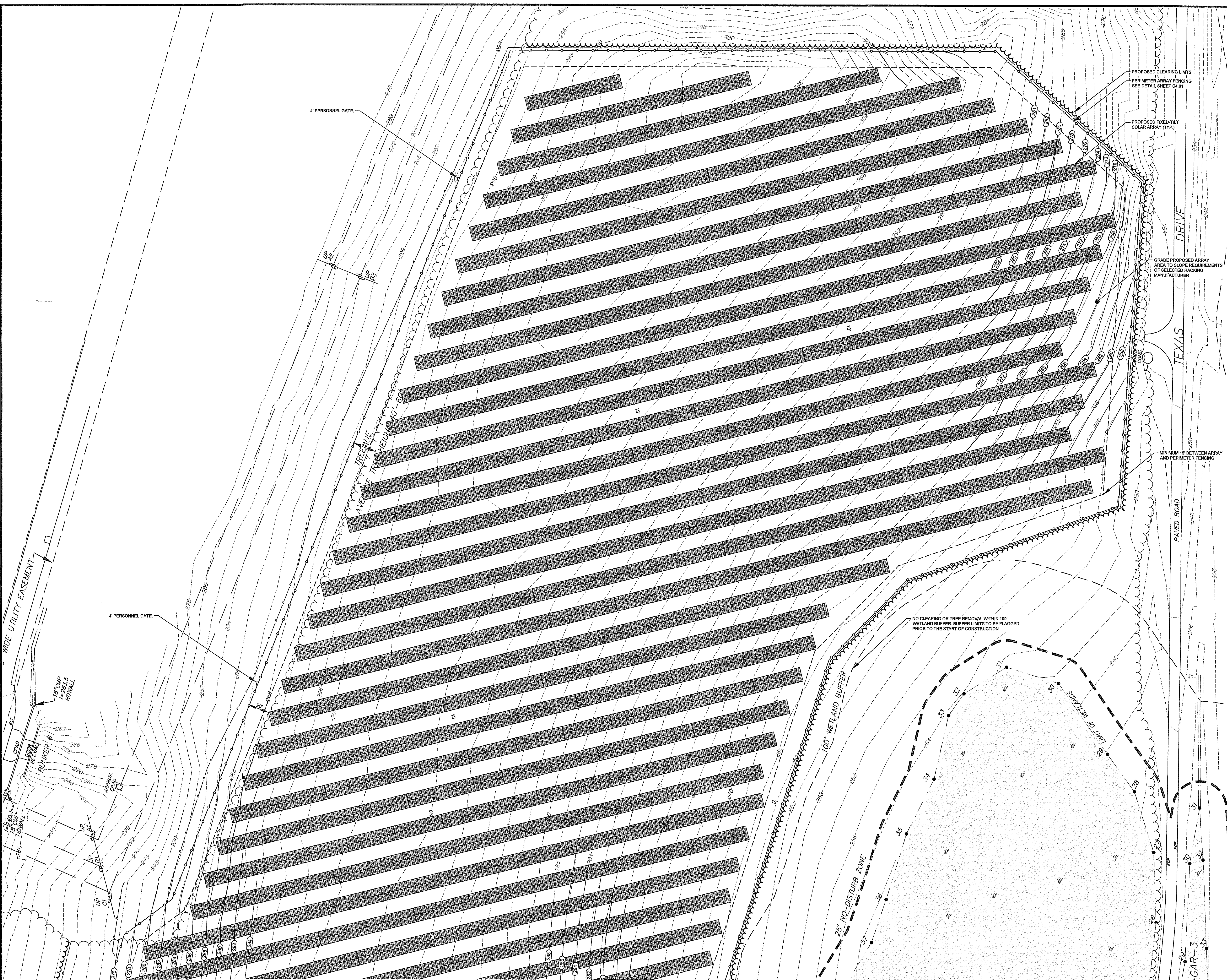
PROJECT: **EDF RENEWABLES**
STONYBROOK SOLAR PARTNERS, LLC
MMWEC - PROPOSED SOLAR PROJECT
327 MOODY ST, LUDLOW, MA

TITLE: **EXISTING CONDITIONS - INTERCONNECTION**


DRAWN BY:	TRC/CJD	PROJ. NO.:	421921.0000
CHECKED BY:	TND		
APPROVED BY:	TND		C1.04
DATE:	JULY 2021		

	650 Suffolk Street Suite 200 Lowell, MA 01854 Phone: 978.970.5600
	FILE NO.: 421921 - EXCOND.dwg

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PERMITTING
 NOT FOR CONSTRUCTION

SEAL: 

PROFESSIONAL ENGINEER:
 THOMAS N. DANIELS, JR.
 DATE:
 JULY 16, 2021


NO.	BY	DATE	REVISION	APPR.
0	TRC	07/16/21	ISSUED FOR PERMITTING	TND

PROJECT: EDF RENEWABLES
 STONYBROOK SOLAR PARTNERS, LLC
 MMWEC - PROPOSED SOLAR PROJECT
 327 MOODY ST, LUDLOW, MA

TITLE: **PERMITTING**
 SITE LAYOUT PLAN - NORTH

DRAWN BY: TRC/CJD PROJ. NO.: 421921.0000
 CHECKED BY: TND
 APPROVED BY: TND
 DATE: JULY 2021

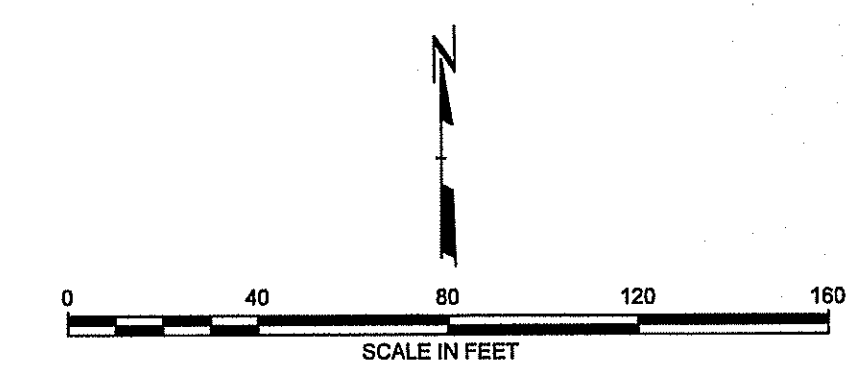
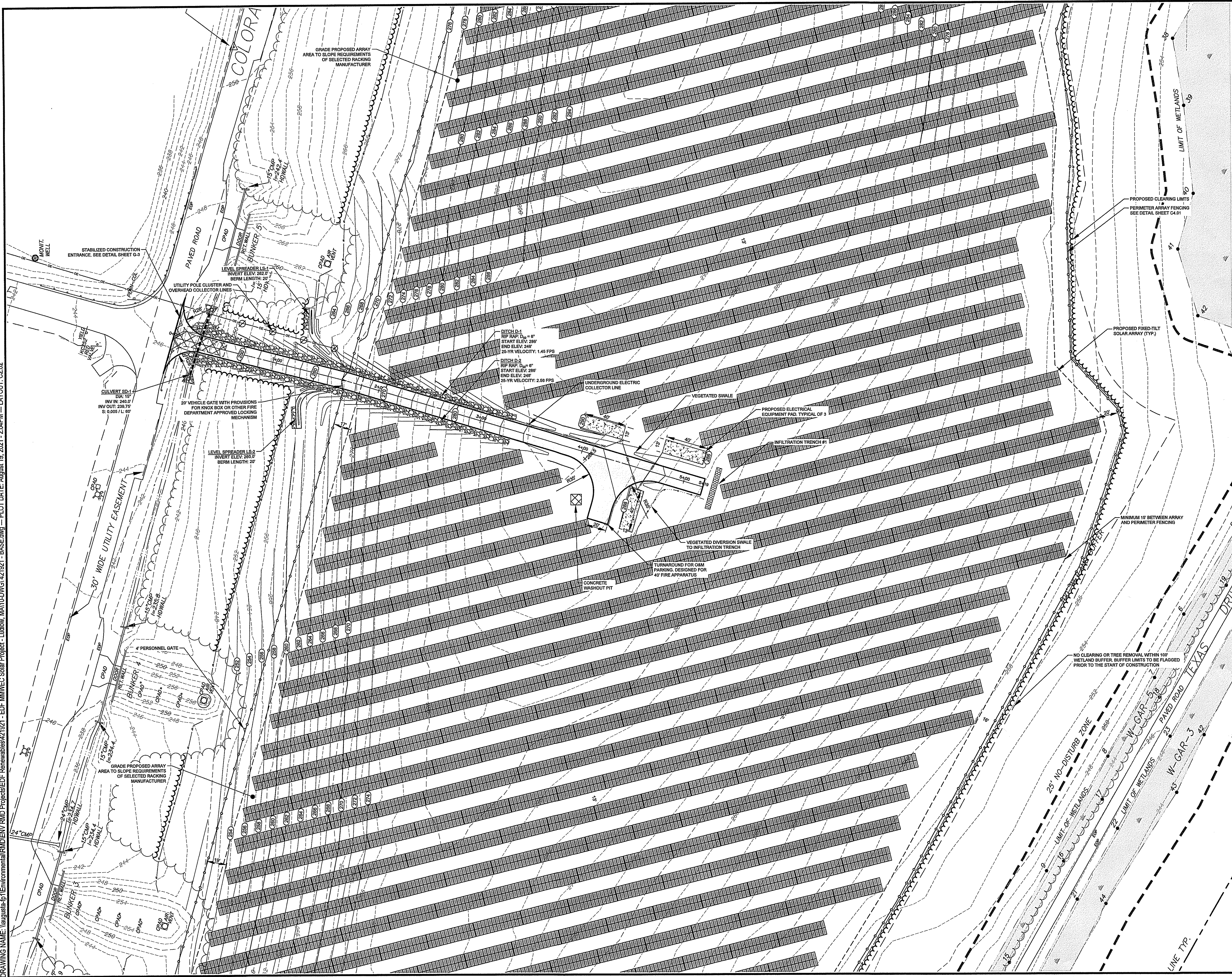
C2.01

 TRC

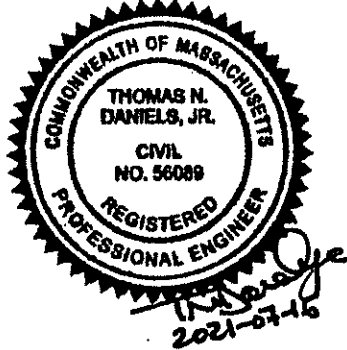
650 Suffolk Street
 Suite 200
 Lowell, MA 01854
 Phone: 978.970.5600

FILE NO.: 421921 - BASE.dwg

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PERMITTING
 NOT FOR CONSTRUCTION

SEAL: 

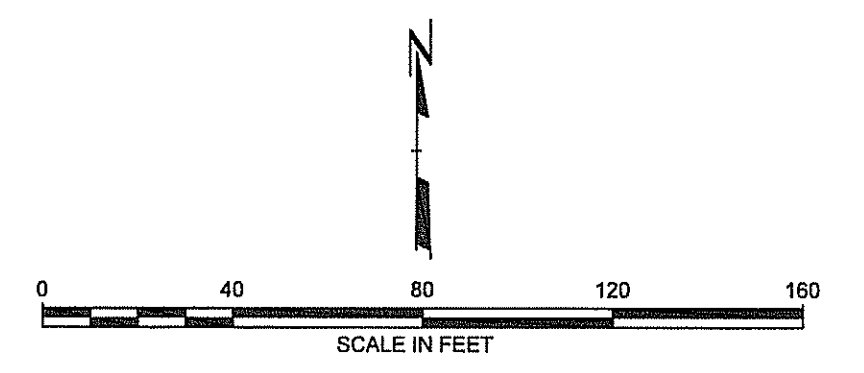
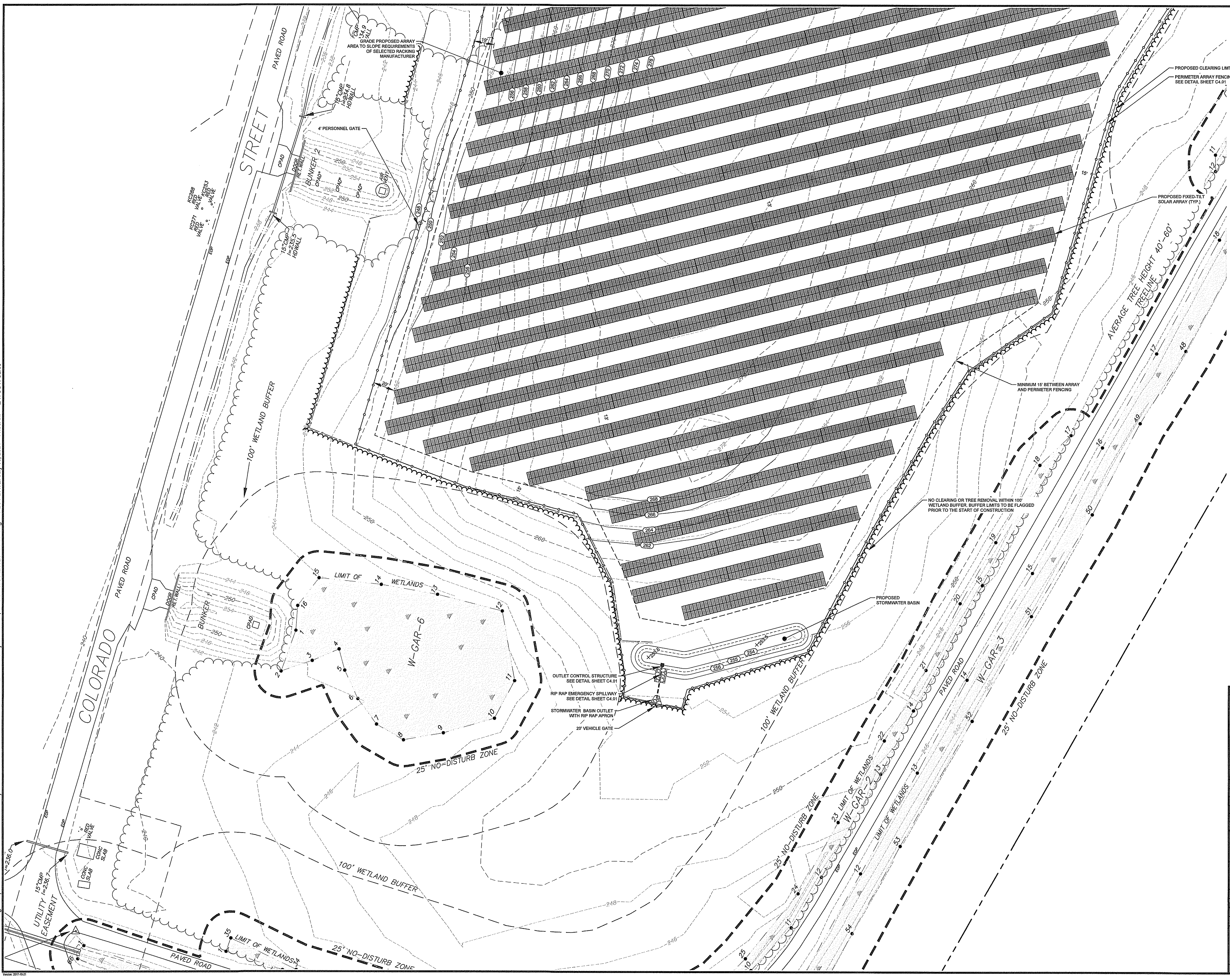
PROFESSIONAL ENGINEER:
 THOMAS N. DANIELS, JR.
 DATE:
 JULY 16, 2021

NO.	BY	DATE	ISSUED FOR PERMITTING	REVISION	TND	APPD.
0	TRC	07/16/21	ISSUED FOR PERMITTING		TND	
PROJECT: EDF RENEWABLES STONYBROOK SOLAR PARTNERS, LLC MMWEC - PROPOSED SOLAR PROJECT 327 MOODY ST, LUDLOW, MA						
TITLE: SITE LAYOUT PLAN - CENTER						
DRAWN BY:	TRC/CJD	PROJ. NO.:	421921.0000			
CHECKED BY:	TND	DATE:	JULY 2021			
APPROVED BY:	TND	DATE:	JULY 2021			
FILE NO.:			421921 - BASE.dwg			

 **TRC**

650 Suffolk Street
 Suite 200
 Lowell, MA 01854
 Phone: 978.970.6500

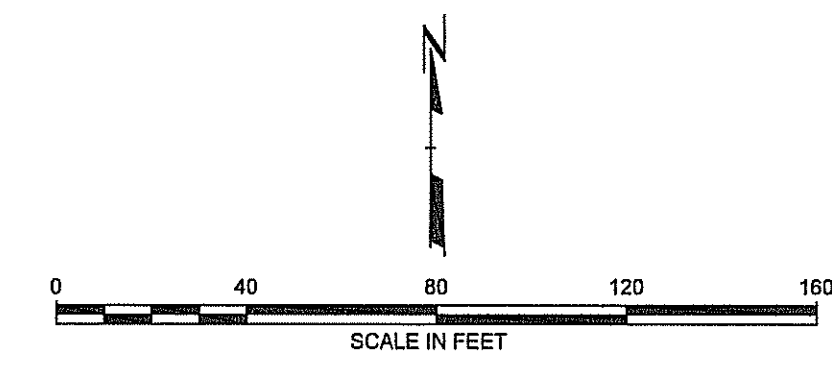
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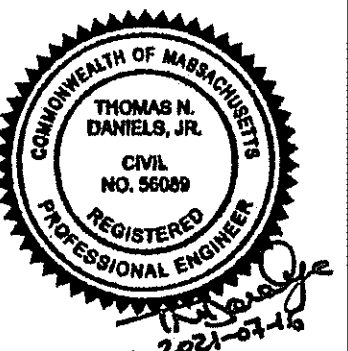

PERMITTING
 NOT FOR CONSTRUCTION

		PROFESSIONAL ENGINEER: THOMAS N. DANIELS, JR. DATE: JULY 16, 2021
PROJECT: EDF RENEWABLES STONYBROOK SOLAR PARTNERS, LLC MMWEC - PROPOSED SOLAR PROJECT 327 MOODY ST, LUDLOW, MA		
<h1>PERMITTING</h1>		
DRAWN BY: TRC/CJD CHECKED BY: TND APPROVED BY: TND DATE: JULY 2021	PROJ. NO.: 421921.0000 C2.03	TRC 650 Suffolk Street Suite 200 Lowell, MA 01854 Phone: 978.970.5600
FILE NO:	421921 - BASE.dwg	

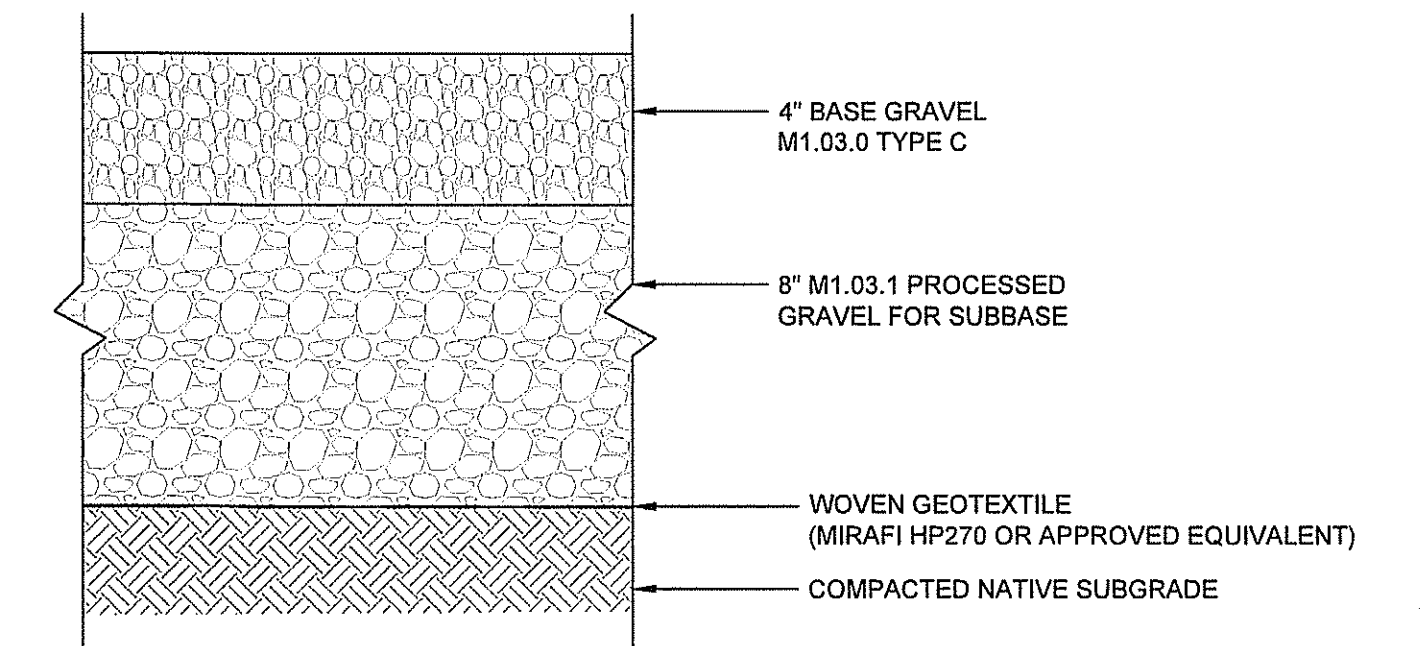
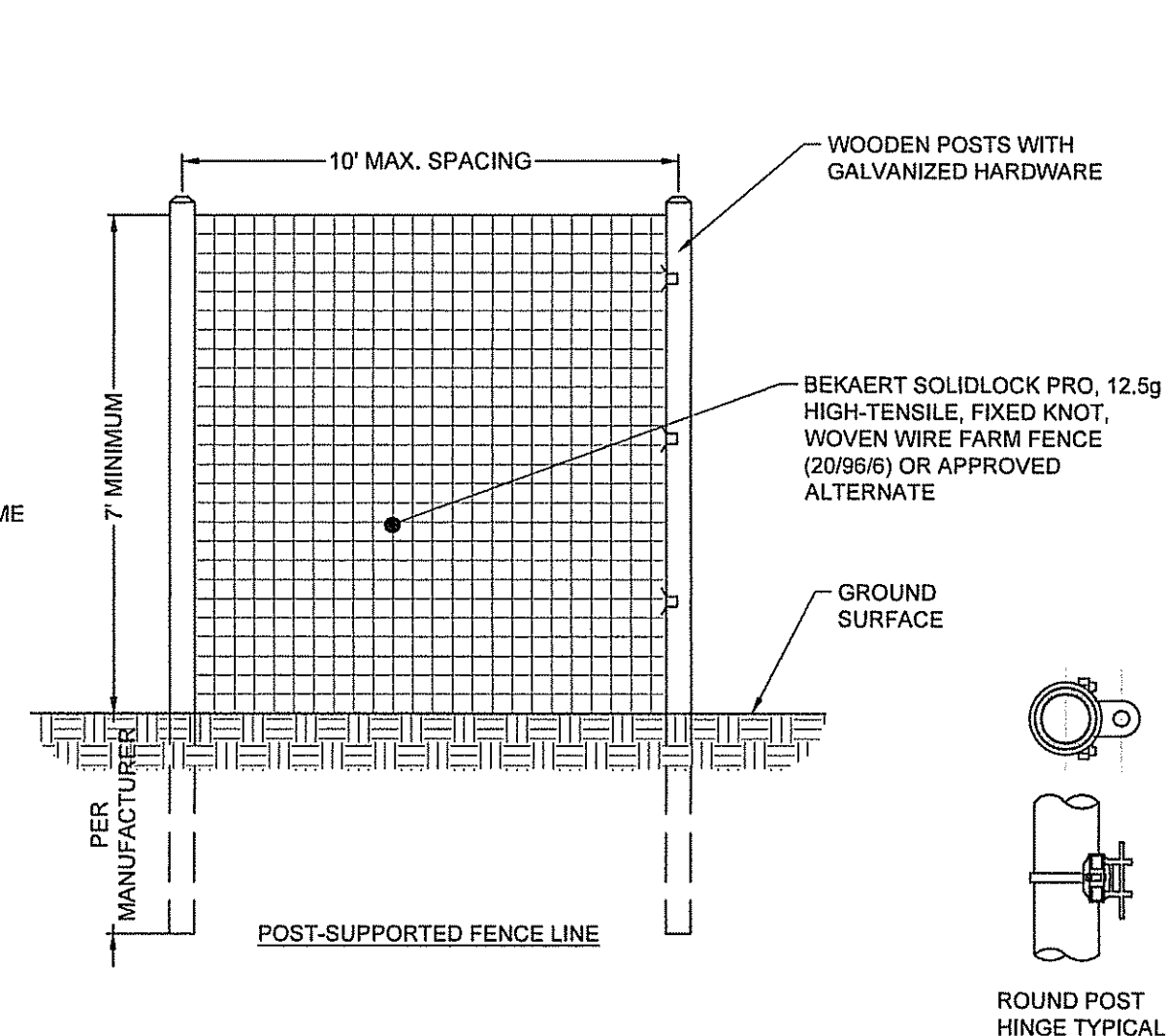
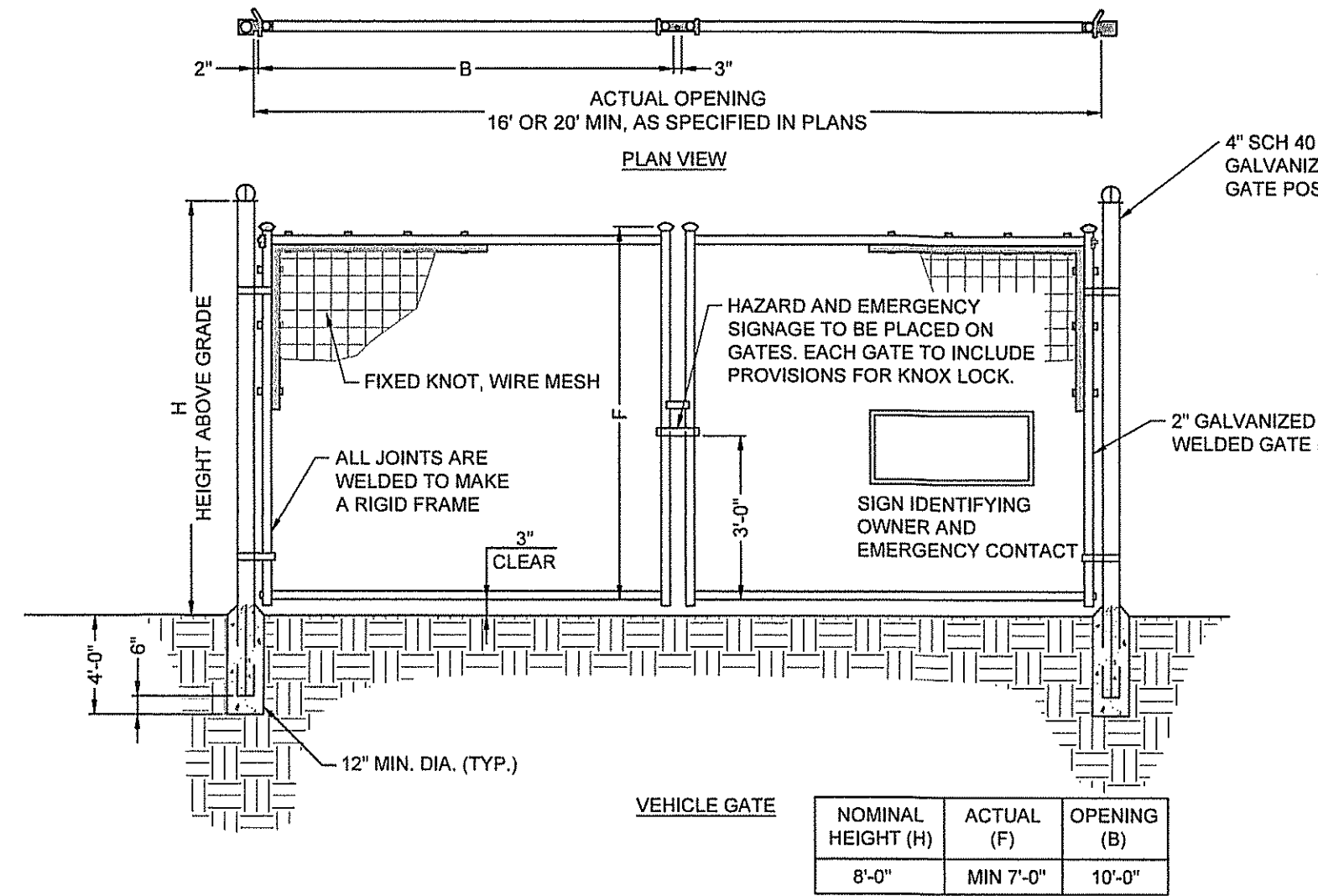
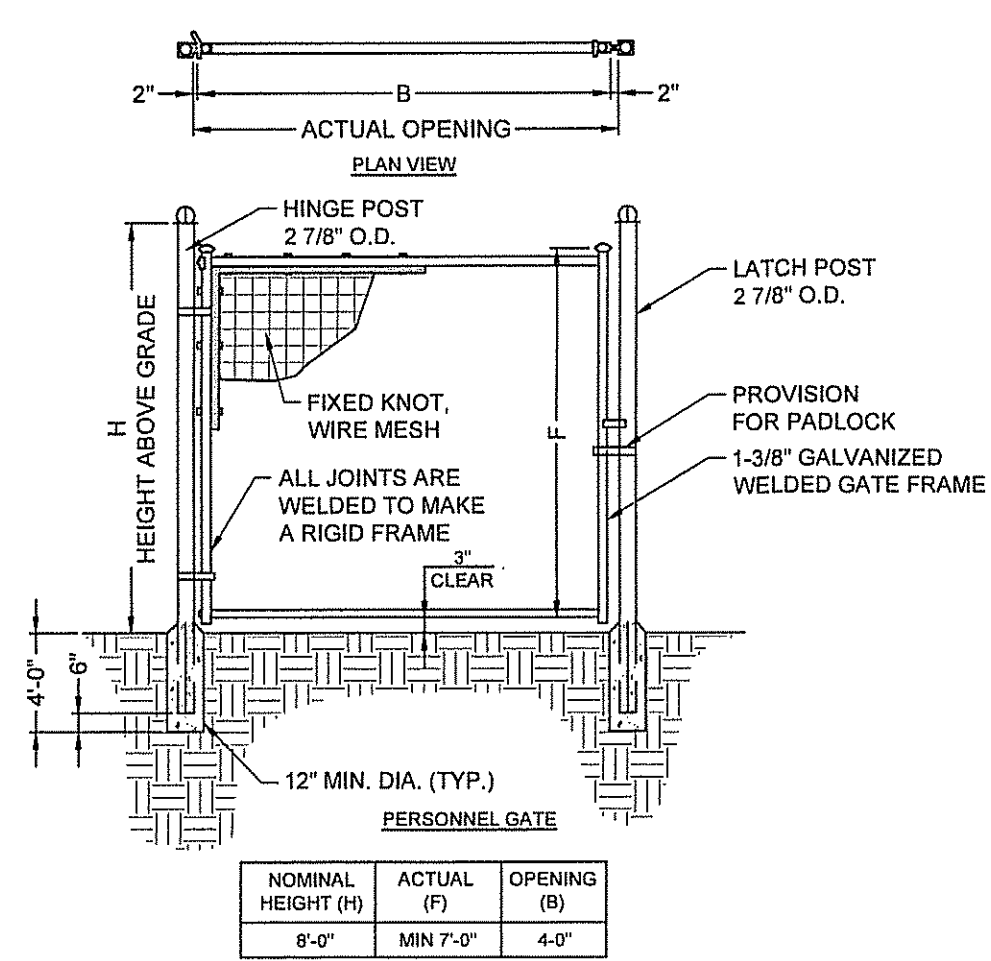
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PERMITTING
NOT FOR CONSTRUCTION

		PROFESSIONAL ENGINEER: THOMAS N. DANIELS, JR. DATE: JULY 16, 2021	
0 TRC 07/16/21 ISSUED FOR PERMITTING TND		NO. BY DATE REVISION APPD.	
PROJECT: EDF RENEWABLES STONYBROOK SOLAR PARTNERS, LLC MMWEC - PROPOSED SOLAR PROJECT 327 MOODY ST. LUDLOW, MA			
TITLE: SITE LAYOUT PLAN - INTERCONNECTION			
DRAWN BY: TRC/CJD		PROJ. NO.: 421921.0000	
CHECKED BY: TND		C2.04	
APPROVED BY: TND			
DATE: JULY 2021			
		650 Suffolk Street Suite 200 Lowell, MA 01854 Phone: 978.970.5600	
FILE NO.:		421921 - BASE.dwg	

24x5 - Users Think - ATTACHED FILES - ATTACHED FILES - Environmental/PM/REV RVD Projects/EDF Renewables/421921 - DT.dwg - PLOT DATE: July 16, 2021 - 11:57AM - LAYOUT: C4.01
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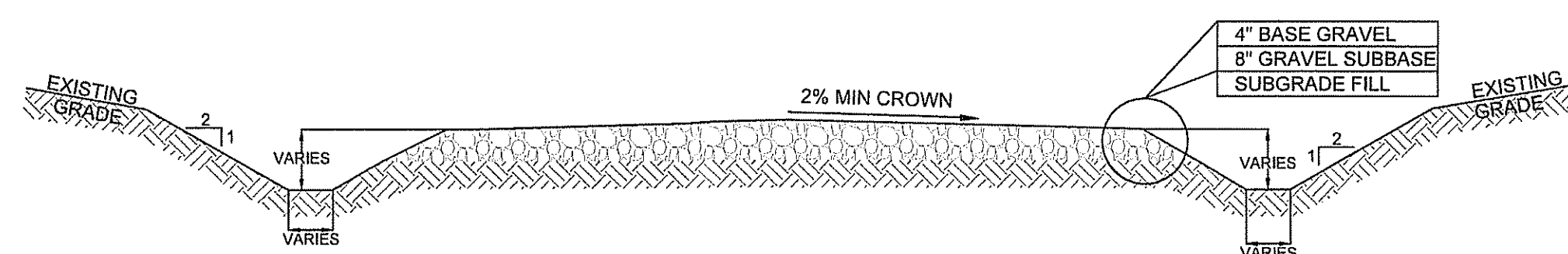


- CONSTRUCTION NOTES:**
- BASE GRAVEL AND GRAVEL SUBBASE SHALL BE M1.03.1 AGGREGATE BACKFILL. AGGREGATE SHALL BE DURABLE CRUSHED ROCK SHALL CONSISTING OF THE ANGULAR FRAGMENTS OBTAINED BY BREAKING AND CRUSHING SOLID OR SHATTERED NATURAL ROCK, AND FREE FROM A DETRIMENTAL QUANTITY OF THIN, FLAT, ELONGATED, OR OTHER OBJECTIONABLE PIECES.
 - BASE GRAVEL AND GRAVEL SUBBASE, SHALL BE COMPACTED TO 95% OF ASTM D1557 AND PLACED IN MAXIMUM COMPACTED LIFTS OF 9-INCHES.
 - VEGETATION AND TOPSOIL WITHIN LIMITS OF ACCESS ROAD CONSTRUCTION SHALL BE STRIPPED PRIOR TO PLACEMENT OF GEOTEXTILE. SUBGRADE SHALL BE COMPACTED TO 95% OF ASTM D1557 TO A DEPTH OF 12-INCHES.

- NOTES:**
- ALL FENCING AND HARDWARE SHALL BE GALVANIZED.
 - CONCRETE ENCASUREMENT AT END AND GATE POSTS ONLY
 - FIXED KNOT WIRE MESH TO BE BAKAERT SOLIDLOCK PRO (20/96/6), (17/96/6) OR APPROVED ALTERNATE
 - WIRE FENCING SHALL BE SECURED AND KEPT CLOSE TO THE GROUND SURFACE TO PREVENT WILDLIFE ACCESS. DEPRESSIONS ALONG SLOPES ARE TO BE FILLED WITH SUITABLE MATERIAL AS NECESSARY.
 - FENCING DETAILS ARE FOR ILLUSTRATIVE PURPOSES ONLY. FINAL FENCE AND GATE DESIGN SUBJECT TO DETAILED ENGINEERING REVIEW, AHJ APPROVAL, AND CONTRACTOR SUBMITTAL.

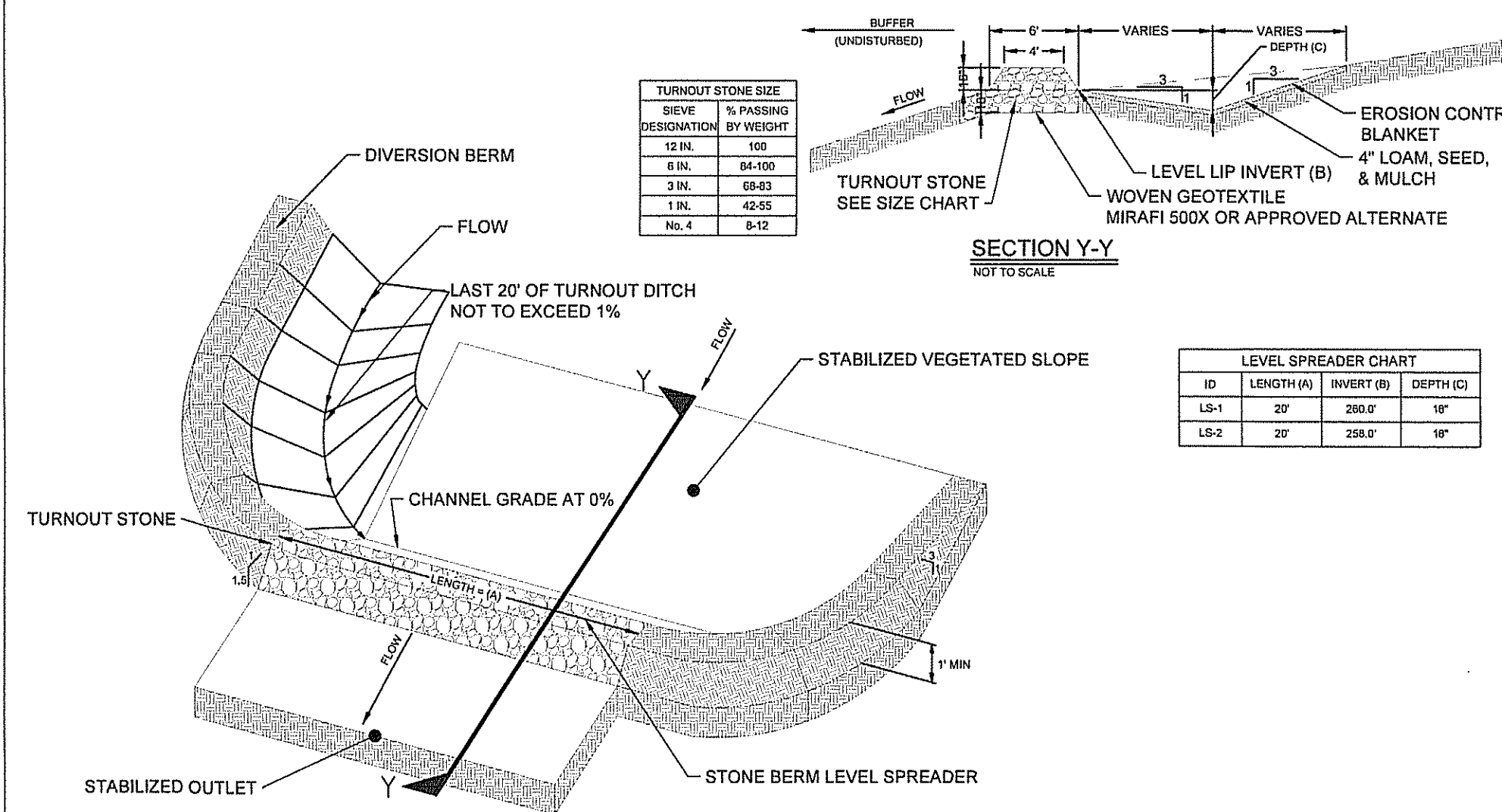
PERIMETER ARRAY FIXED KNOT FENCE & GATE DETAILS
NOT TO SCALE

ACCESS ROAD BUILD-UP
NOT TO SCALE

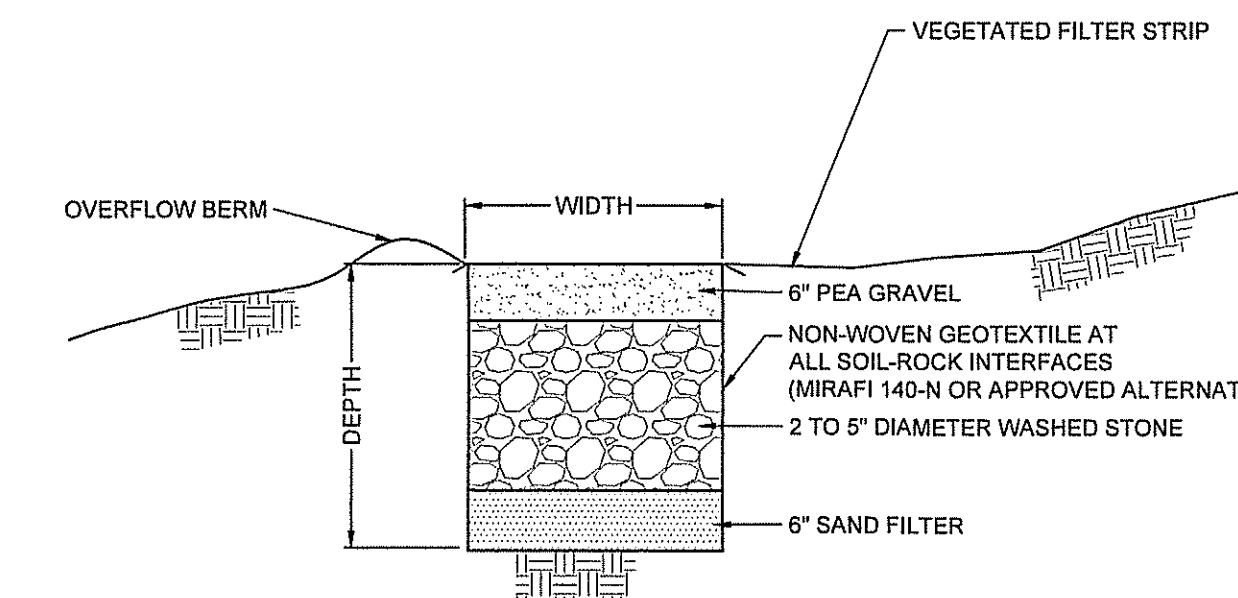


- CONSTRUCTION NOTES:**
- GRAVEL SURFACE SHALL BE SUPERELEVATED OR CROWNED A MINIMUM OF 2% AS INDICATED IN PLAN VIEW. CROSS SLOPE SHALL NOT EXCEED 4%.
 - DITCH DIMENSIONS VARY. DITCHES SHALL BE TRAPEZOIDAL WITH MINIMUM 2-FOOT FLAT BOTTOM AND A MINIMUM DEPTH OF 18-INCHES.
 - DITCH SECTIONS SHALL BE STABILIZED IN ACCORDANCE WITH CONDITIONS SHOWN ON THE SITE GRADING & DRAINAGE PLAN.
 - SUBGRADE FILL REQUIRED TO ACHIEVE DESIGN GRADES, BEYOND DEPTH OF BASE GRAVEL AND GRAVEL SUBBASE, SHALL CONFORM TO THE REQUIREMENTS OF M1.02.0. SPECIAL BORROW MATERIAL EXCEPT THAT IT SHALL CONTAIN NO STONE LARGER THAN 6-INCHES AND SHALL BE PLACED AND COMPACTED IN LAYERS NOT EXCEEDING 8-INCHES IN DEPTH, COMPACTED MEASURE.

TYPICAL SECTION: ACCESS ROAD
NOT TO SCALE

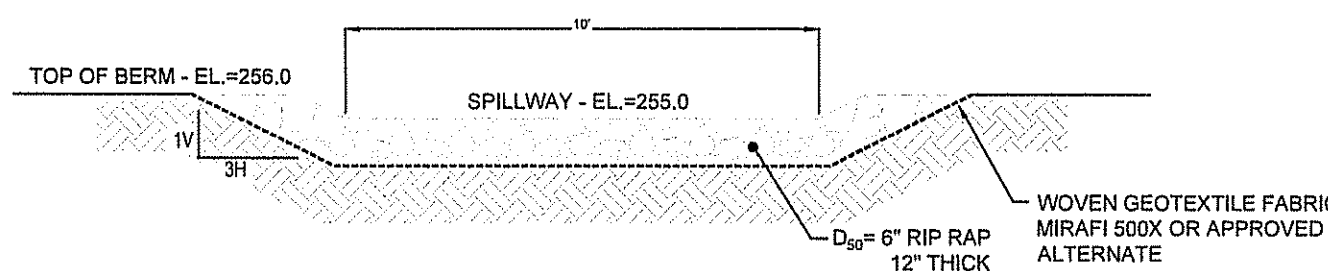


DITCH TURNOUT LEVEL SPREADER
NOT TO SCALE

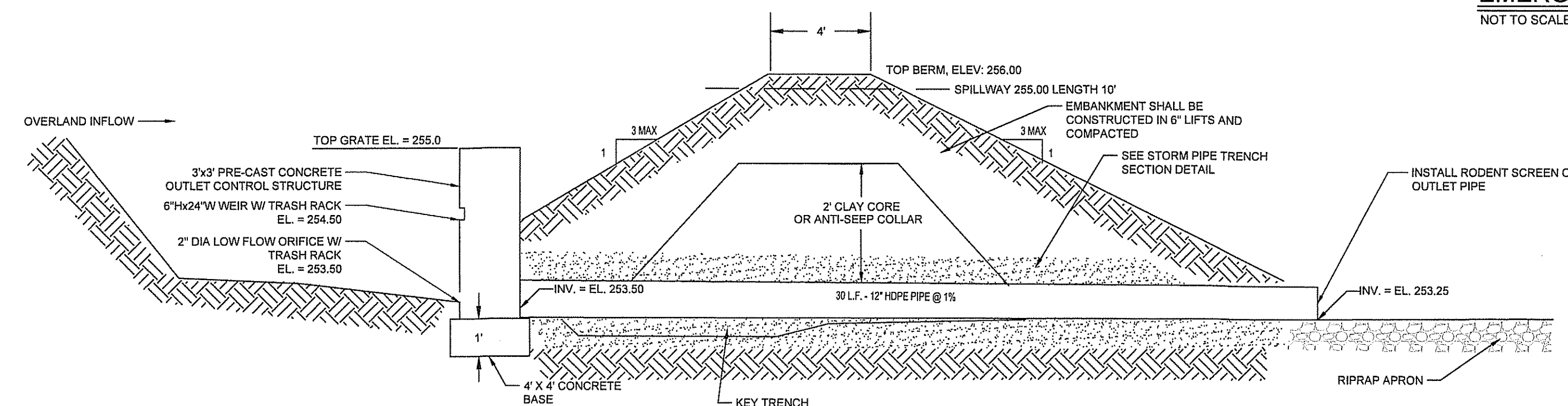


INFILTRATION TRENCH #	LENGTH (FT)	WIDTH (W) (FT)	DEPTH (D) (FT)
1	40	5	2
2	30	3	2

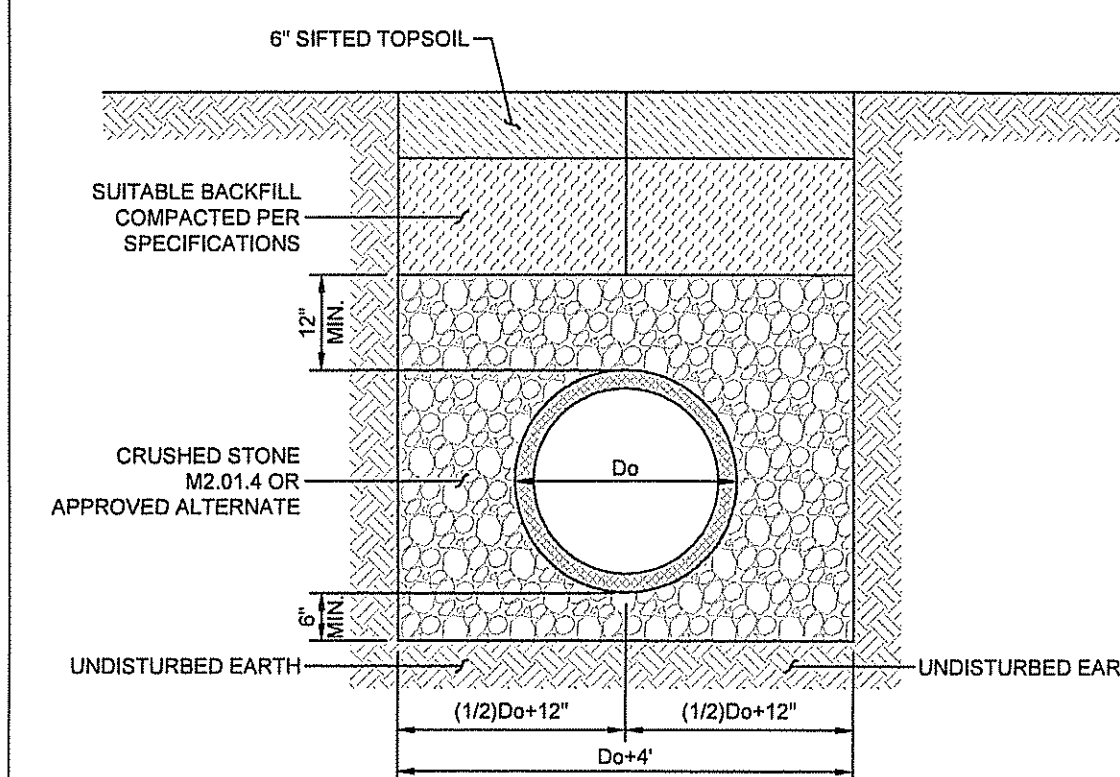
INFILTRATION TRENCH
NOT TO SCALE



EMERGENCY SPILLWAY DETAIL
NOT TO SCALE



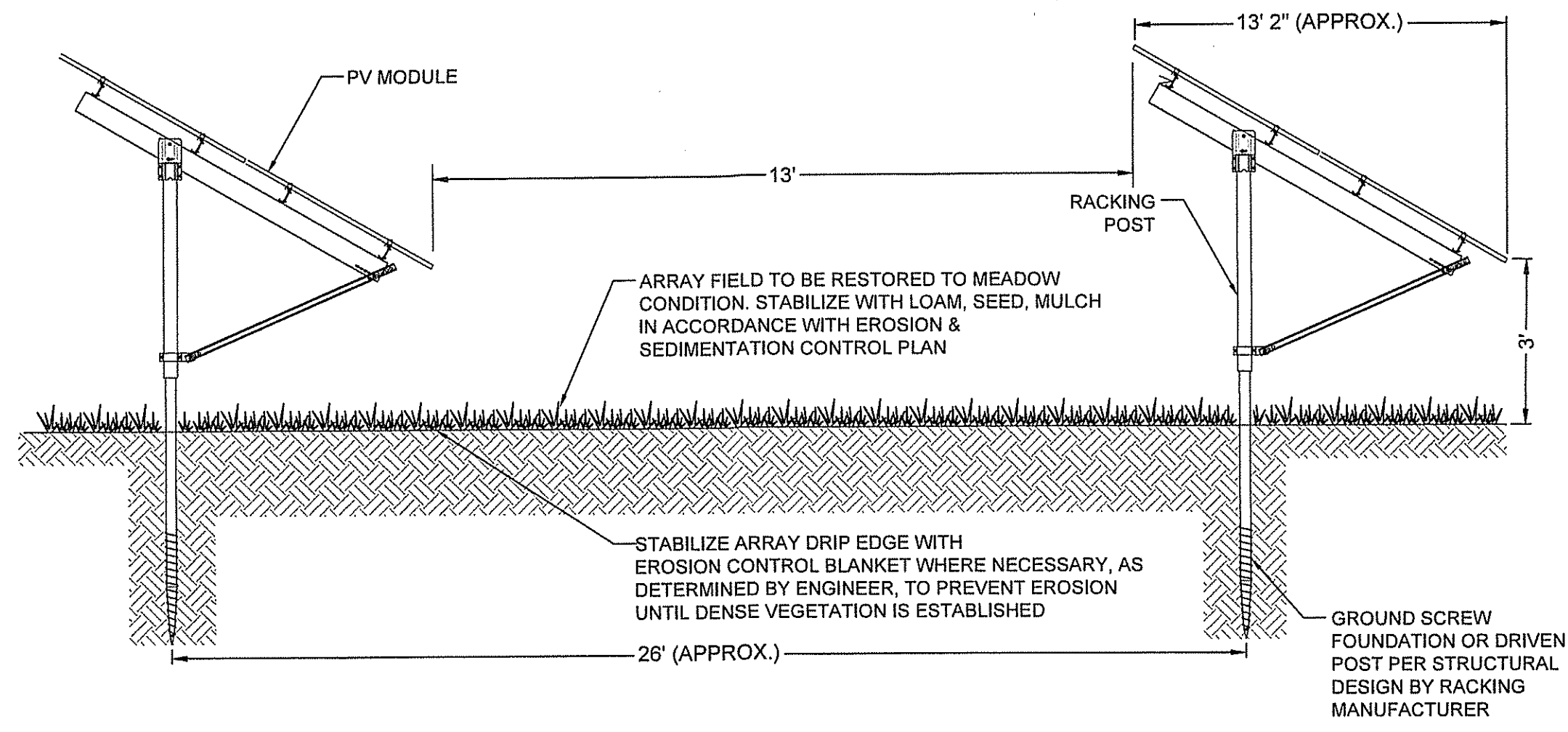
STORMWATER BASIN DETAIL
NOT TO SCALE



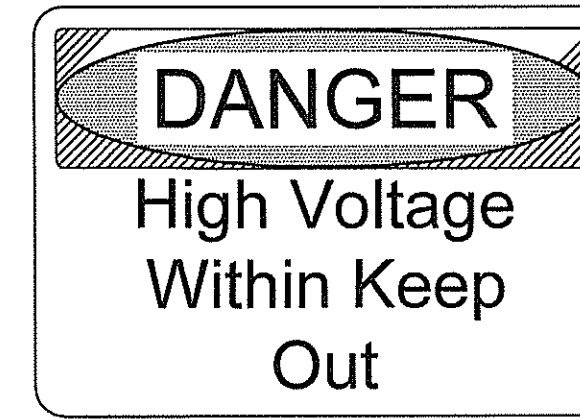
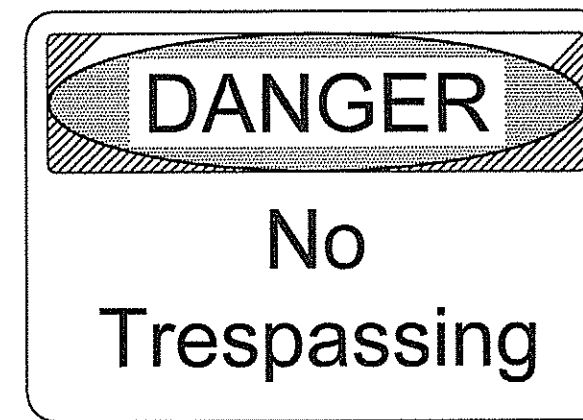
STORM PIPE TRENCH DETAIL
NOT TO SCALE

		PROFESSIONAL ENGINEER: THOMAS N. DANIELS, JR. DATE: JULY 16, 2021		
0	TRC	07/16/21	ISSUED FOR PERMITTING	TND
NO.	BY	DATE	REVISION	APPD.
PROJECT: EDF RENEWABLES STONBROOK SOLAR PARTNERS, LLC MMWEC - PROPOSED SOLAR PROJECT 327 MOODY ST, LUDLOW, MA				
<h1>PERMITTING</h1>				
DRAWN BY: TRC/JD		PROJ. NO.: 421921.0000		
CHECKED BY: TND		<h2>C4.01</h2>		
APPROVED BY: TND				
DATE: JULY 2021				
		650 Suffolk Street Suite 200 Lowell, MA 01854 Phone: 978.970.5600		
FILE NO:		421921 - DT.dwg		

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 DRAWING NAME: \\augusta-01\Environmental\RM\EDF\Projects\EDF Renewables\421921 - DT.dwg - PLOT DATE: July 16, 2021 - 11:57 AM - LAYOUT: C4.02
 2021-07-16



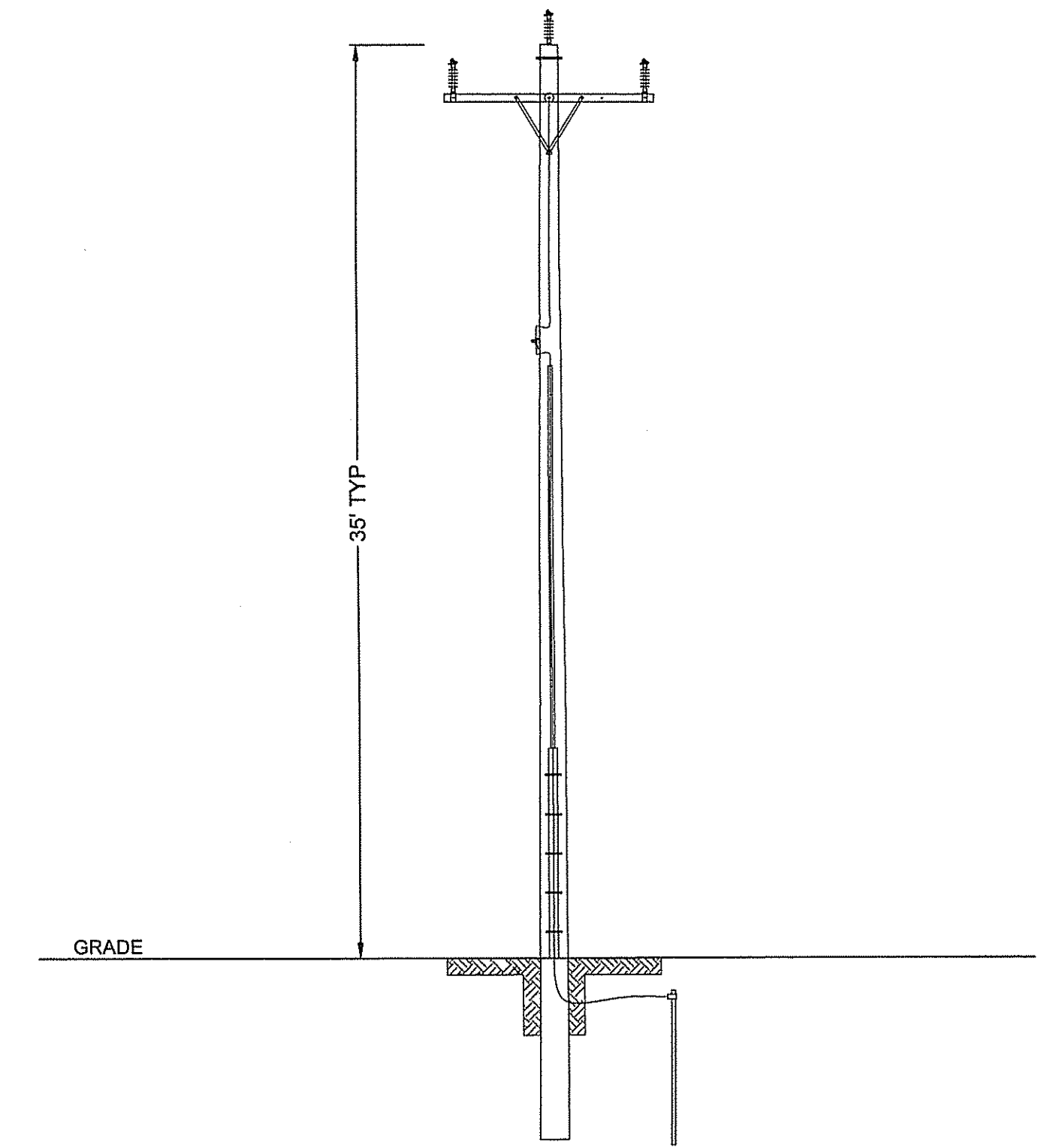
TYPICAL FIXED TILT POST SUPPORTED SOLAR RACKING - SIDE ELEVATION
NOT TO SCALE



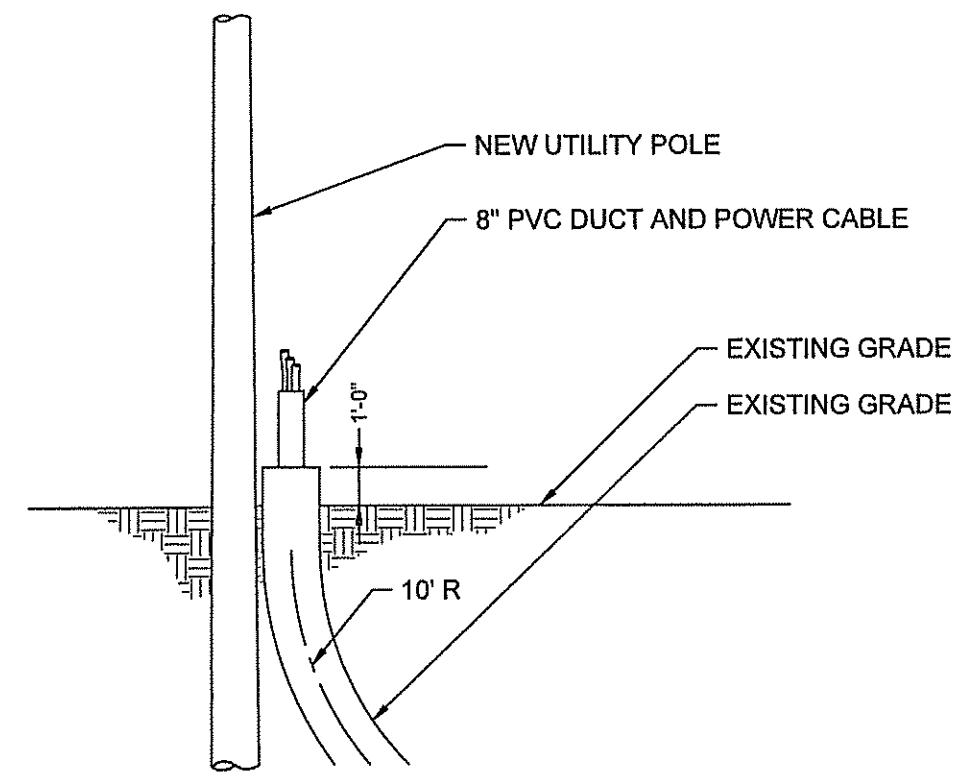
NOTES

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

HAZARD & EMERGENCY SIGNAGE
NOT TO SCALE



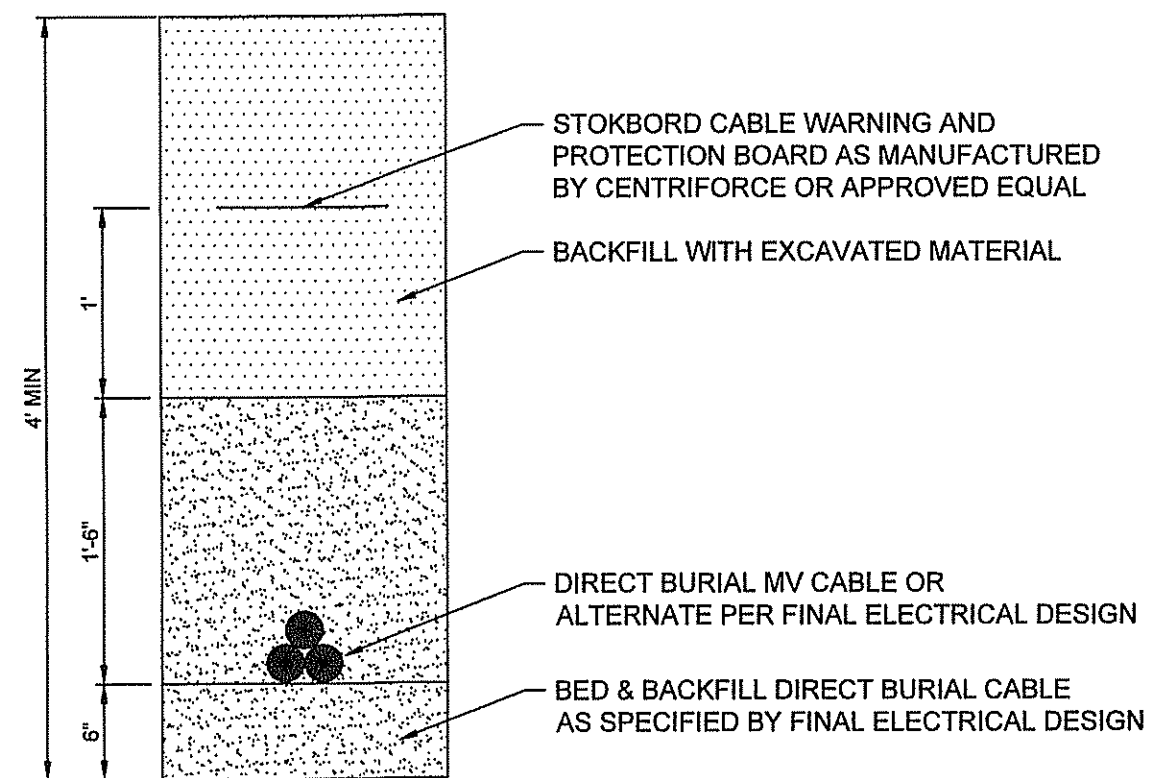
TYPICAL UTILITY POLE
NOT TO SCALE



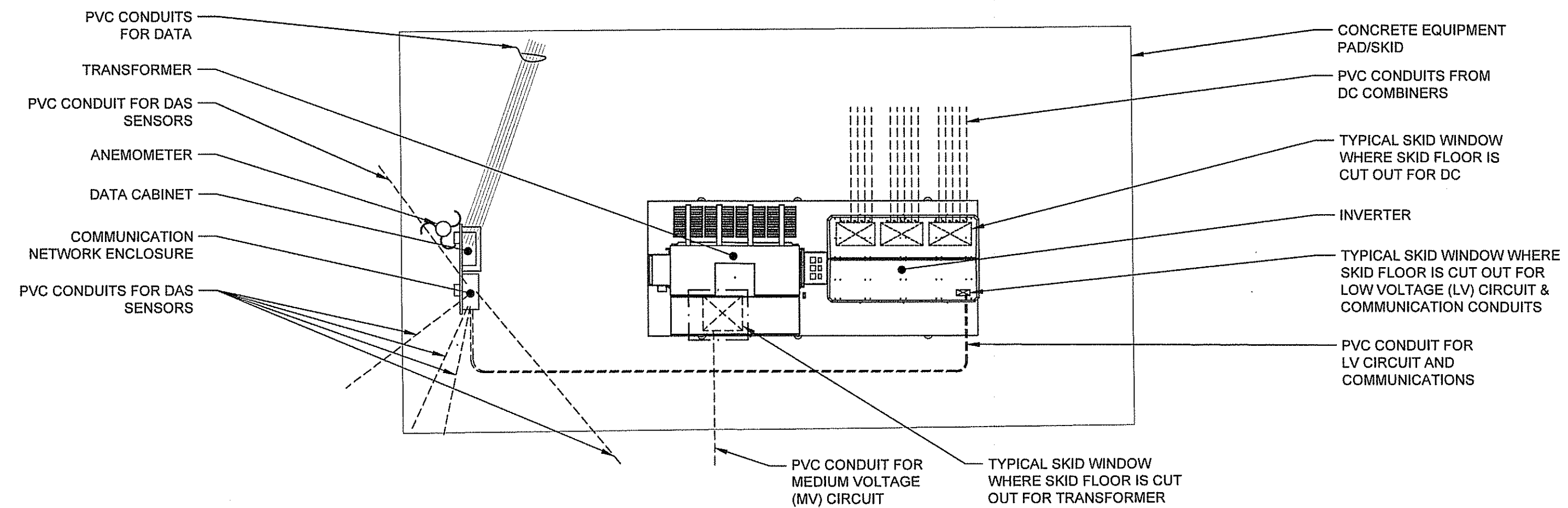
NOTES:

1. EXTEND CONCRETE ENCASED DUCTBANK TO APPROXIMATELY 1'-0" ABOVE GRADE. CONTINUE PVC DUCT BANK TO TERMINATION / TRIFURCATION.
2. TOP OF DUCT SHALL BE SEALED WITH APPROVED FIRE RETARDANT SEALER TERMINATION FITTING SUCH AS CONDULATOR BY ROBERT'S ELECTRIC PRODUCTS.

UNDERGROUND TO OVERHEAD TRANSITION DETAIL
NOT TO SCALE



MV UNDERGROUND COLLECTION LINE DETAIL
NOT TO SCALE



NOTES

1. EQUIPMENT SHOWN FOR REFERENCE ONLY. ACTUAL EQUIPMENT SIZE, LAYOUT, AND CONFIGURATION WILL DEPEND ON COMPLETED SYSTEM IMPACT STUDY AND LARGE GENERATOR INTERCONNECTION AGREEMENT.

TYPICAL MEDIUM VOLTAGE POWER STATION LAYOUT
NOT TO SCALE

	PROFESSIONAL ENGINEER:
	THOMAS N. DANIELS, JR.
	DATE:
	JULY 16, 2021

NO.	BY	DATE	REVISION	APPD.
0	TRC	07/16/21	ISSUED FOR PERMITTING	TND

PROJECT: **EDF RENEWABLES**
STONYBROOK SOLAR PARTNERS, LLC
MMWEC - PROPOSED SOLAR PROJECT
327 MOODY ST, LUDLOW, MA

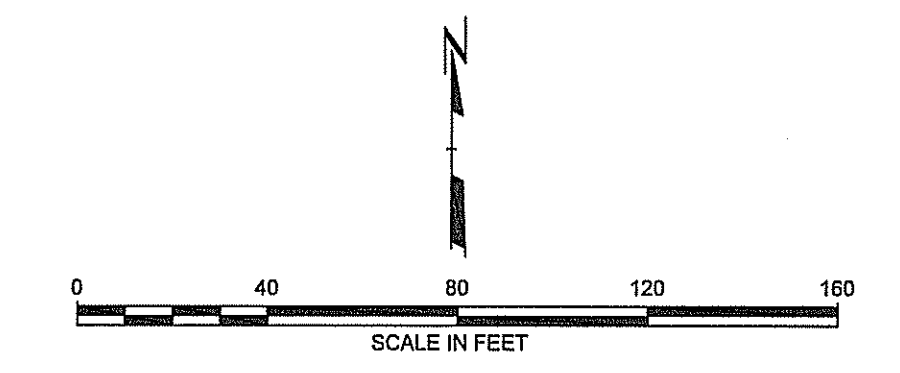
TITLE: **PERMITTING ELECTRICAL DETAILS**

DRAWN BY: TRC/JD PROJ. NO.: 421921.0000
 CHECKED BY: TND
 APPROVED BY: TND
 DATE: JULY 2021

TRC 650 Suffolk Street
 Suite 200
 Lowell, MA 01854
 Phone: 978.970.5600

FILE NO.: 421921 - DT.dwg

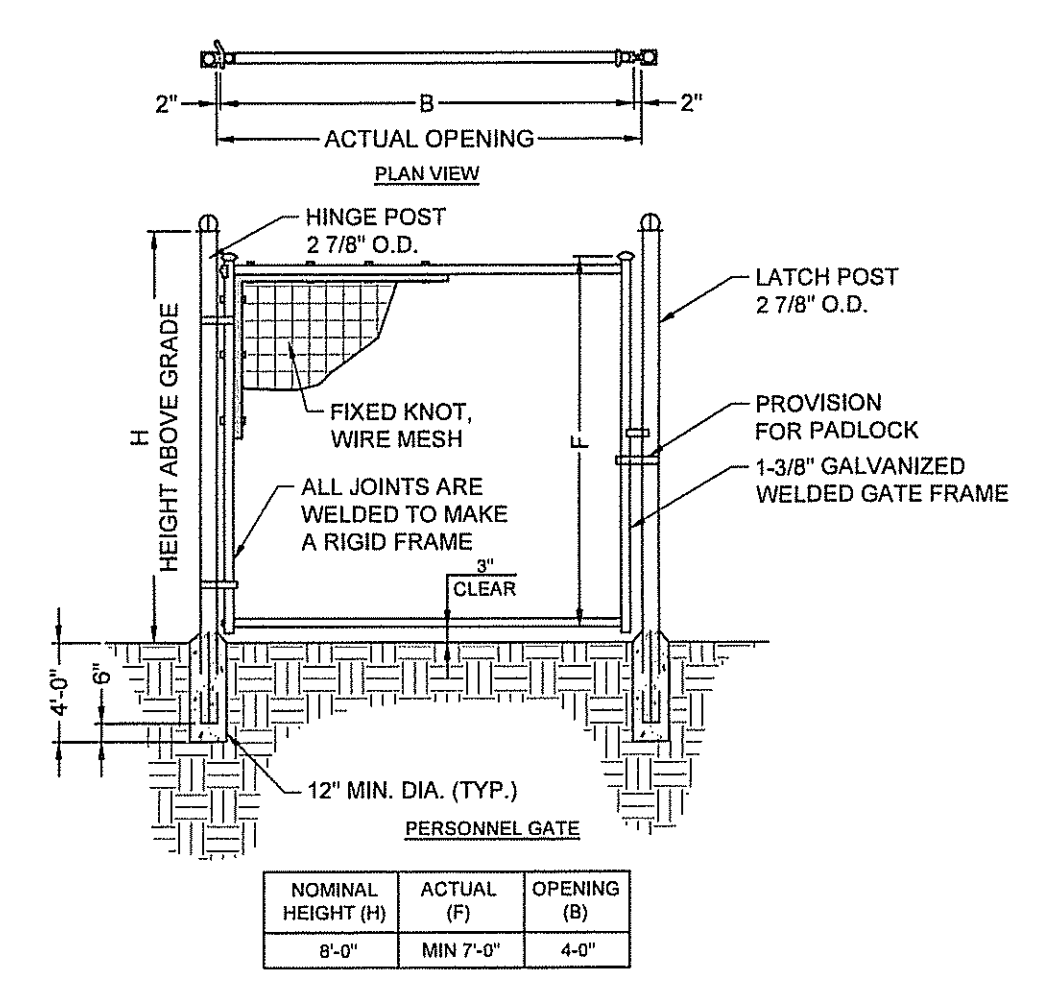
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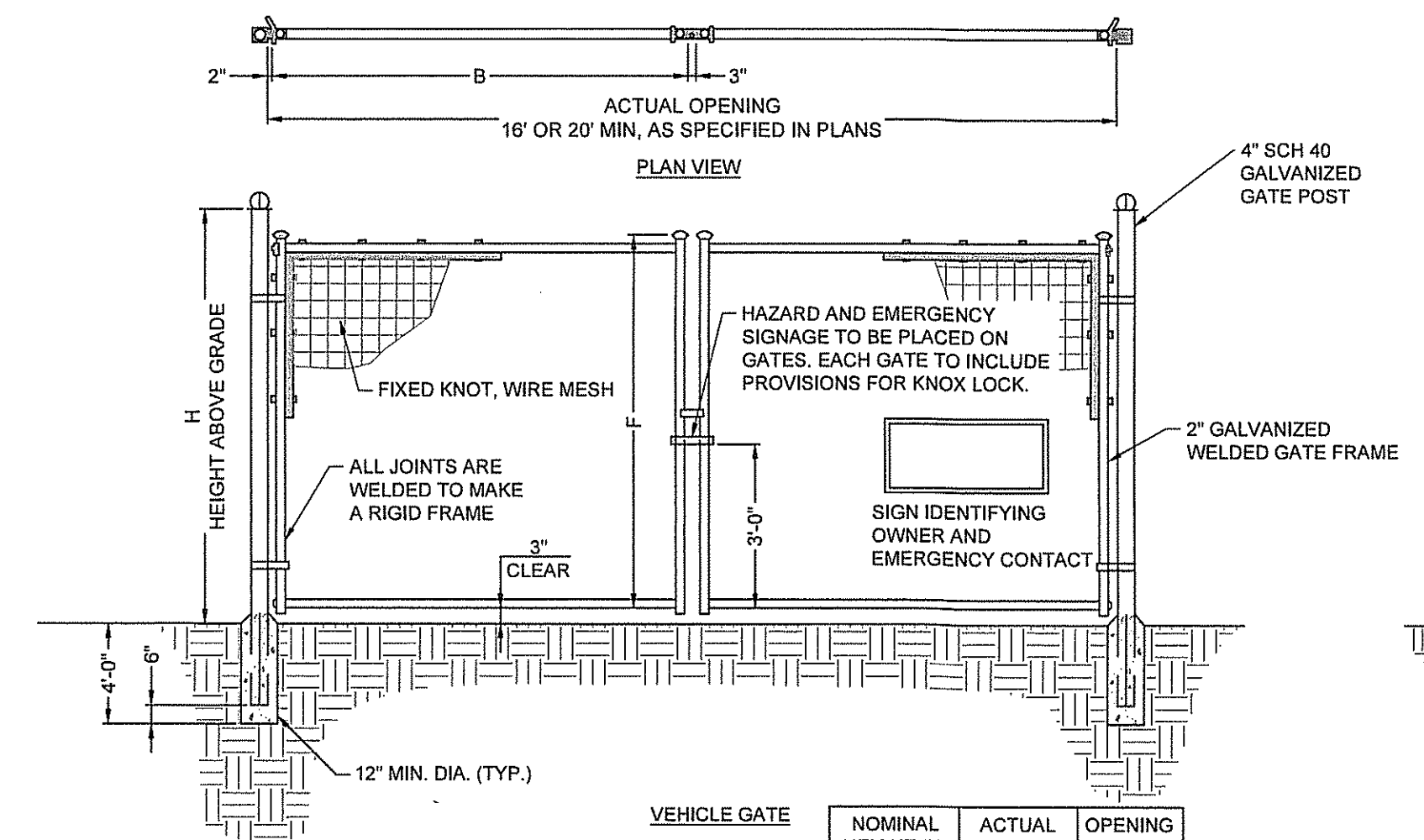
PERMITTING
 NOT FOR CONSTRUCTION

		PROFESSIONAL ENGINEER: THOMAS N. DANIELS, JR. DATE: JULY 16, 2021		
0	TRC	07/16/21	ISSUED FOR PERMITTING	TND
NO.	BY	DATE	REVISION	APPD.
PROJECT: EDF RENEWABLES STONYBROOK SOLAR PARTNERS, LLC MMWEC - PROPOSED SOLAR PROJECT 327 MOODY ST, LUDLOW, MA				
TITLE: SEE LAYOUT PLAN - INTERCONNECTION PERMITTING				
DRAWN BY:	TRC/CJD	PRJ. NO.:	421921.0000	
CHECKED BY:	TND			
APPROVED BY:	TND	C2.04		
DATE:	JULY 2021			
		650 Suffolk Street Suite 200 Lowell, MA 01854 Phone: 978.970.5800		
FILE NO.:	421921 - BASE.dwg			

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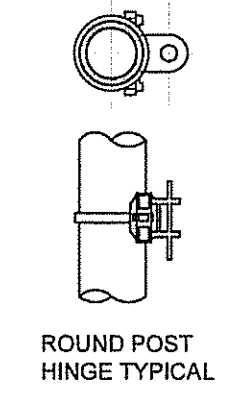
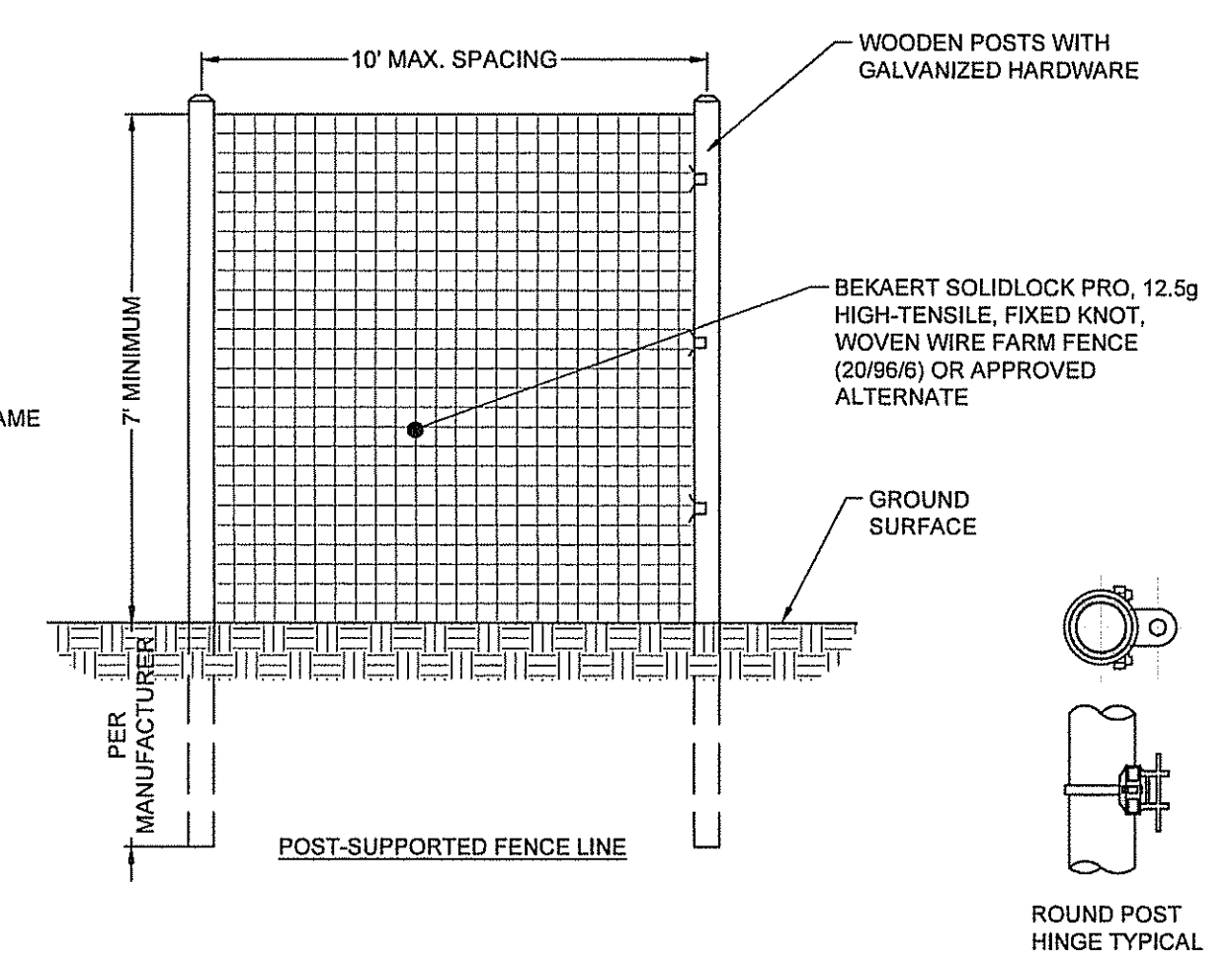


NOMINAL HEIGHT (H)	ACTUAL (F)	OPENING (B)
8'-0"	MIN 7'-0"	4'-0"

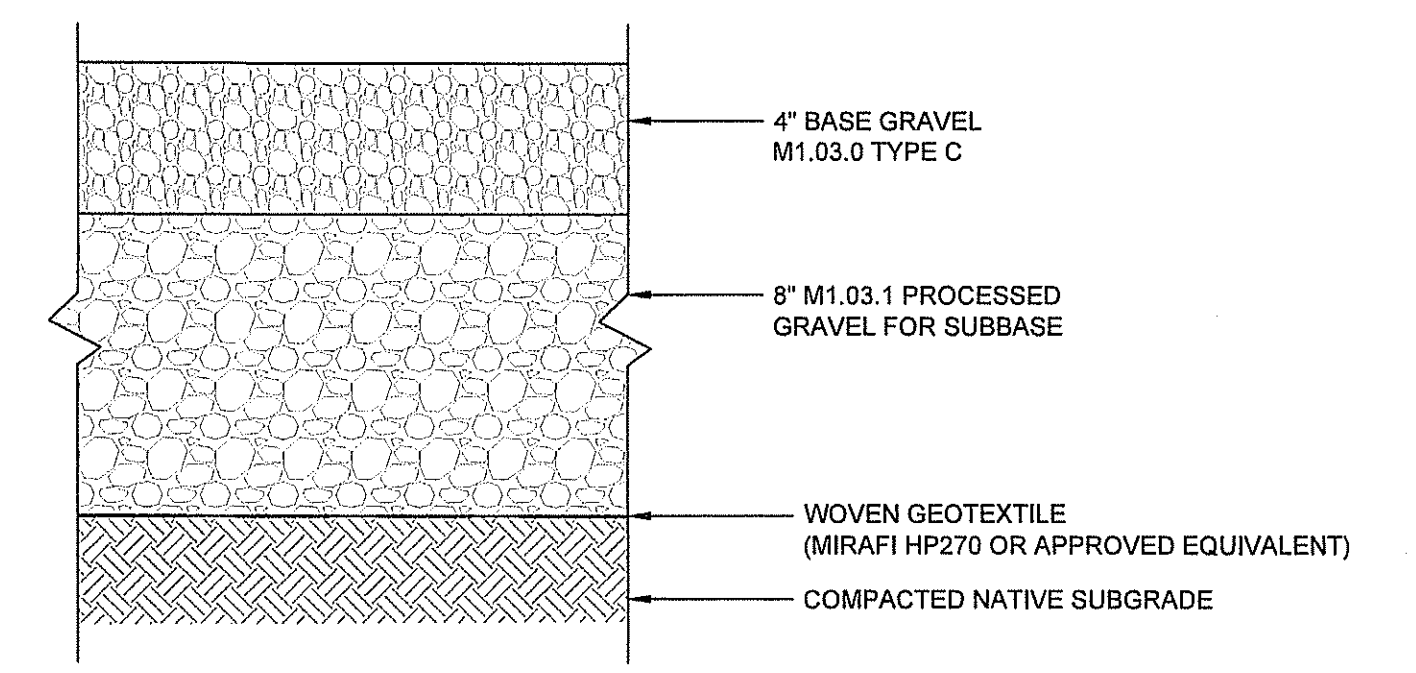


NOMINAL HEIGHT (H)	ACTUAL (F)	OPENING (B)
8'-0"	MIN 7'-0"	10'-0"

PERIMETER ARRAY FIXED KNOT FENCE & GATE DETAILS
NOT TO SCALE

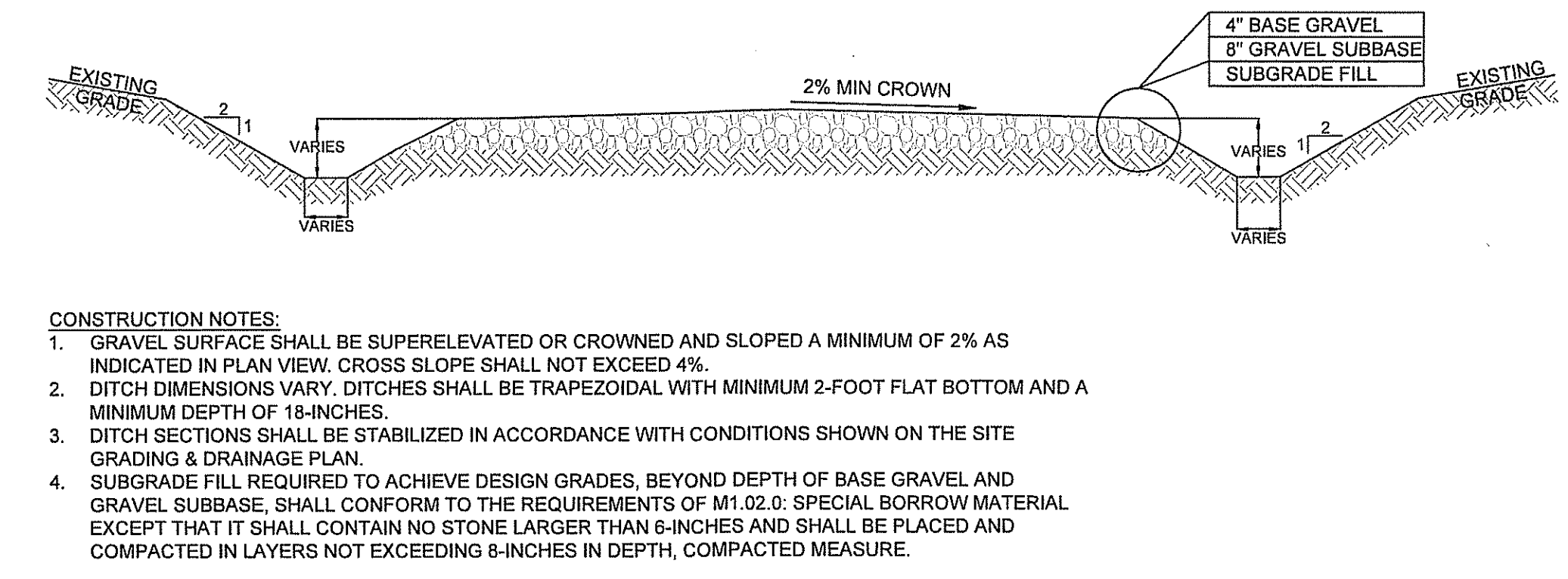


- NOTES:**
- ALL FENCING AND HARDWARE SHALL BE GALVANIZED.
 - CONCRETE ENCASMENT AT END AND GATE POSTS ONLY.
 - FIXED KNOT WIRE MESH TO BE BAKAERT SOLIDLOCK PRO (20/6/6), (17/6/6) OR APPROVED ALTERNATE.
 - WIRE FENCING SHALL BE SECURED AND KEPT CLOSE TO THE GROUND SURFACE TO PREVENT WILDLIFE ACCESS. DEPRESSIONS ALONG SLOPES ARE TO BE FILLED WITH SUITABLE MATERIAL AS NECESSARY.
 - FENCING DETAILS ARE FOR ILLUSTRATIVE PURPOSES ONLY. FINAL FENCE AND GATE DESIGN SUBJECT TO DETAILED ENGINEERING REVIEW, AHJ APPROVAL, AND CONTRACTOR SUBMITTAL.



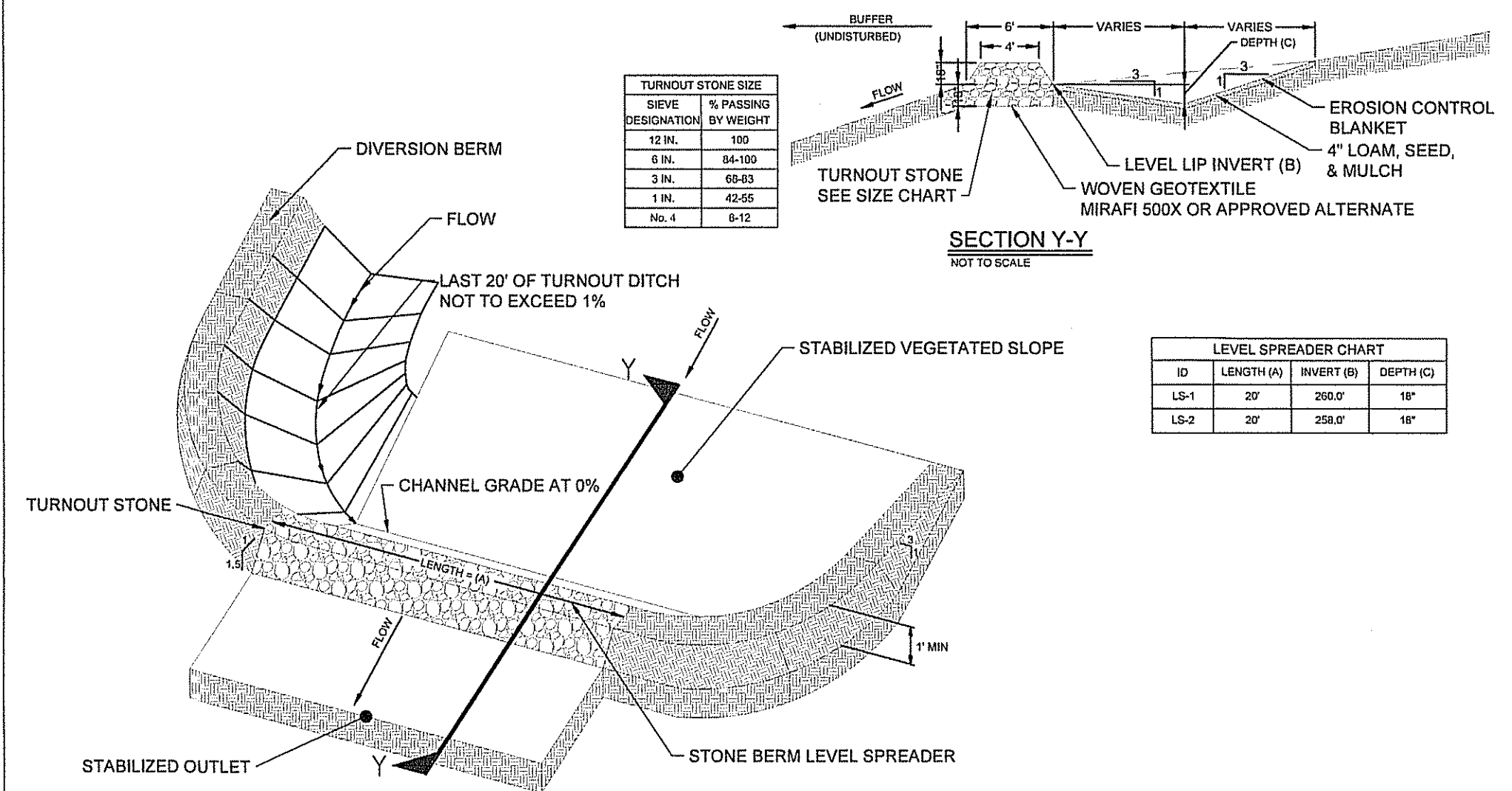
- CONSTRUCTION NOTES:**
- BASE GRAVEL AND GRAVEL SUBBASE SHALL BE M1.03.1 AGGREGATE BACKFILL. AGGREGATE SHALL BE DURABLE CRUSHED ROCK SHALL CONSISTING OF THE ANGULAR FRAGMENTS OBTAINED BY BREAKING AND CRUSHING SOLID OR SHATTERED NATURAL ROCK, AND FREE FROM A DETRIMENTAL QUANTITY OF THIN, FLAT, ELONGATED, OR OTHER OBJECTIONABLE PIECES.
 - BASE GRAVEL AND GRAVEL SUBBASE, SHALL BE COMPACTED TO 95% OF ASTM D1557 AND PLACED IN MAXIMUM COMPACTED LIFTS OF 9-INCHES.
 - VEGETATION AND TOPSOIL WITHIN LIMITS OF ACCESS ROAD CONSTRUCTION SHALL BE STRIPPED PRIOR TO PLACEMENT OF GEOTEXTILE. SUBGRADE SHALL BE COMPACTED TO 95% OF ASTM D1557 TO A DEPTH OF 12-INCHES.

ACCESS ROAD BUILD-UP
NOT TO SCALE

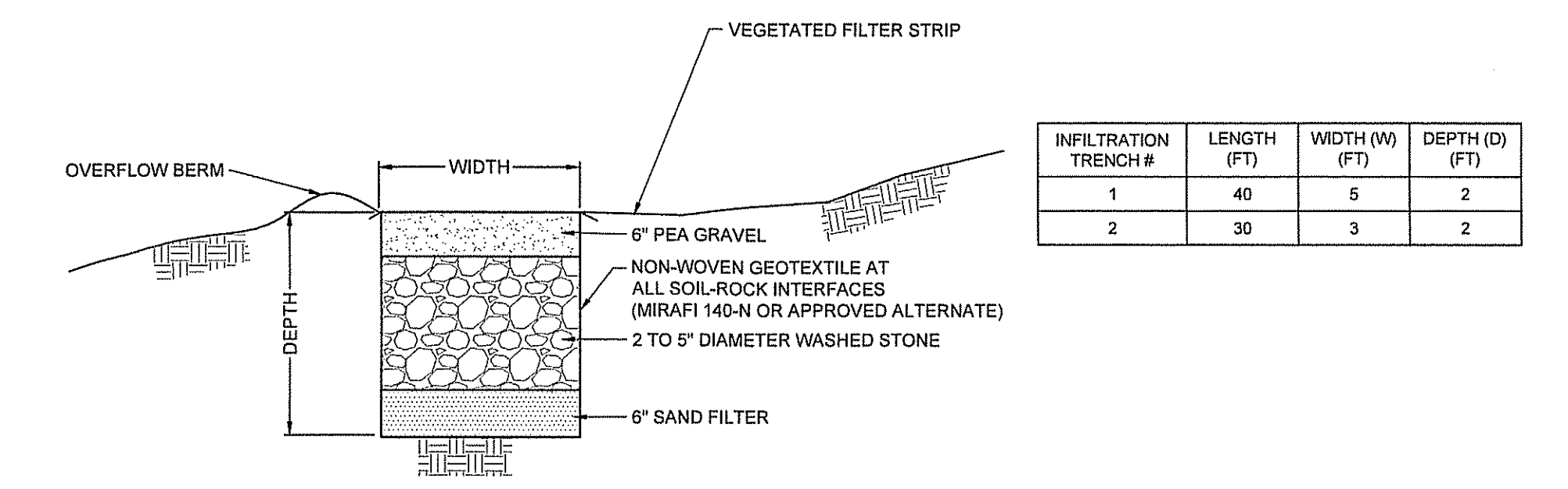


- CONSTRUCTION NOTES:**
- GRAVEL SURFACE SHALL BE SUPERELEVATED OR CROWNED AND SLOPED A MINIMUM OF 2% AS INDICATED IN PLAN VIEW. CROSS SLOPE SHALL NOT EXCEED 4%.
 - DITCH DIMENSIONS VARY. DITCHES SHALL BE TRAPEZOIDAL WITH MINIMUM 2-FOOT FLAT BOTTOM AND A MINIMUM DEPTH OF 18-INCHES.
 - DITCH SECTIONS SHALL BE STABILIZED IN ACCORDANCE WITH CONDITIONS SHOWN ON THE SITE GRADING & DRAINAGE PLAN.
 - SUBGRADE FILL REQUIRED TO ACHIEVE DESIGN GRADES, BEYOND DEPTH OF BASE GRAVEL AND GRAVEL SUBBASE, SHALL CONFORM TO THE REQUIREMENTS OF M1.02.0. SPECIAL BORROW MATERIAL EXCEPT THAT IT SHALL CONTAIN NO STONE LARGER THAN 6-INCHES AND SHALL BE PLACED AND COMPACTED IN LAYERS NOT EXCEEDING 8-INCHES IN DEPTH, COMPACTED MEASURE.

TYPICAL SECTION: ACCESS ROAD
NOT TO SCALE

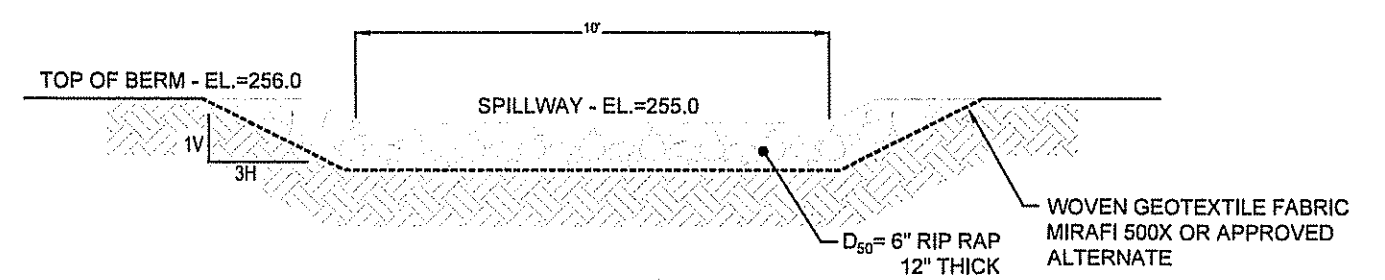


DITCH TURNOUT LEVEL SPREADER
NOT TO SCALE

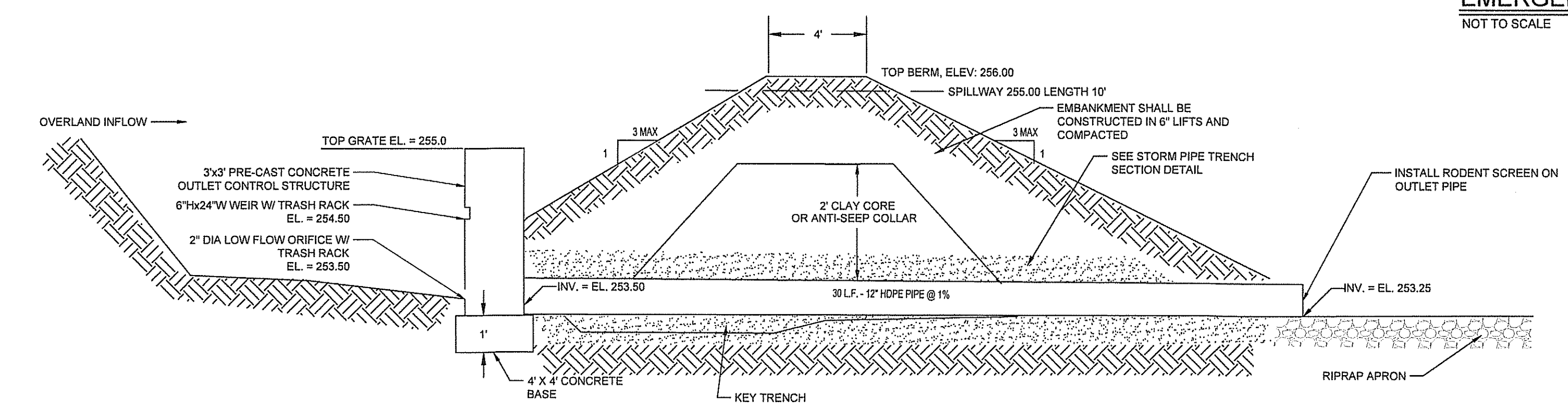


INFILTRATION TRENCH #	LENGTH (FT)	WIDTH (W) (FT)	DEPTH (D) (FT)
1	40	5	2
2	30	3	2

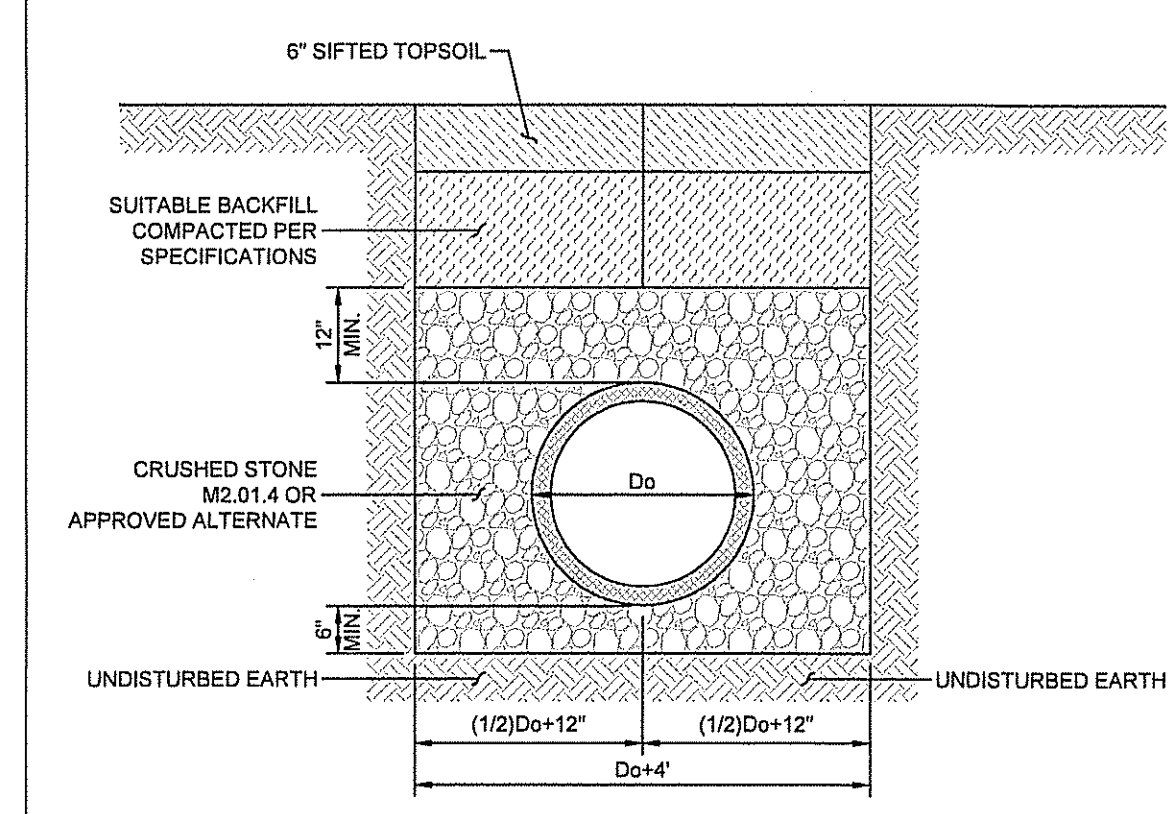
INFILTRATION TRENCH
NOT TO SCALE



EMERGENCY SPILLWAY DETAIL
NOT TO SCALE



STORMWATER BASIN DETAIL
NOT TO SCALE



STORM PIPE TRENCH DETAIL
NOT TO SCALE

SEAL:

PROFESSIONAL ENGINEER:
THOMAS N. DANIELS, JR.
DATE:
JULY 16, 2021

NO.	BY	DATE	REVISION	APPD.
0	TRC	07/16/21	ISSUED FOR PERMITTING	TND

PROJECT: **EDF RENEWABLES**
STONYBROOK SOLAR PARTNERS, LLC
MMWEC - PROPOSED SOLAR PROJECT
327 MOODY ST., LUDLOW, MA

TITLE: **CIVIL CONSTRUCTION DETAILS**

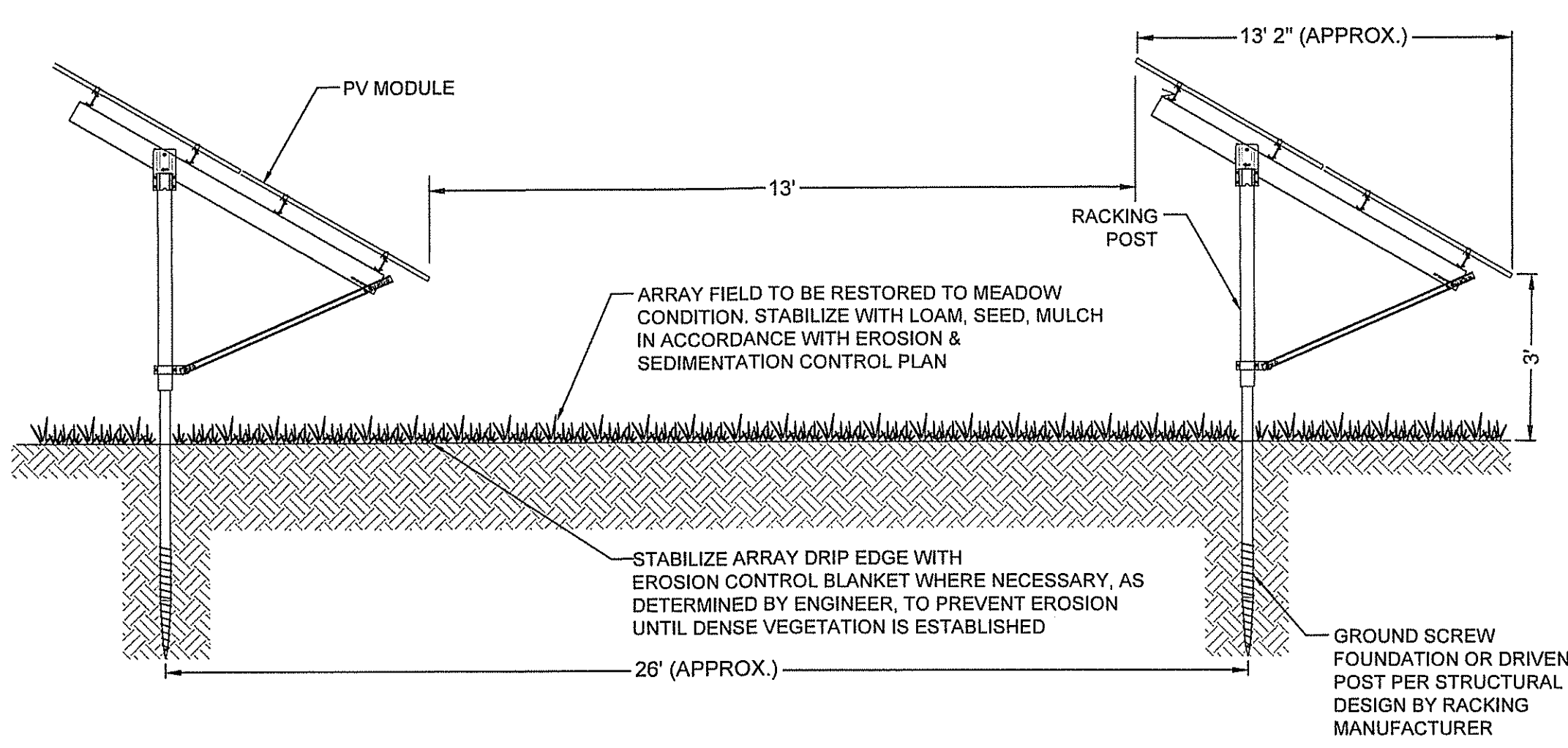
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CHECKED BY: TND
APPROVED BY: TND
DATE: JULY 2021

C4.01

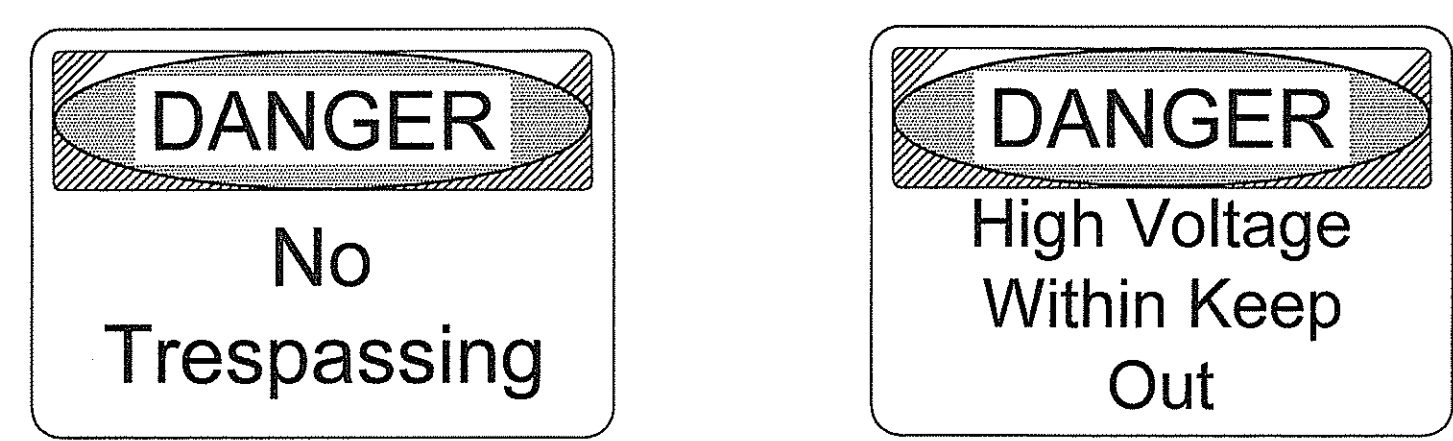
650 Suffolk Street
Suite 200
Lowell, MA 01854
Phone: 978.970.5500

FILE NO.: 421921 - DT.dwg

2x45 - USER: Tdaniel - ATTACHED XREFS - ATTACHED IMAGES: 11/15/2021 11:57AM - LAYOUT: C4.02
 DRAWING NAME: \\augustis-p11\environmental\RD\EDF\Renewables\421921 - DT.dwg - PLOT DATE: July 16, 2021 - 11:57AM - LAYOUT: C4.02

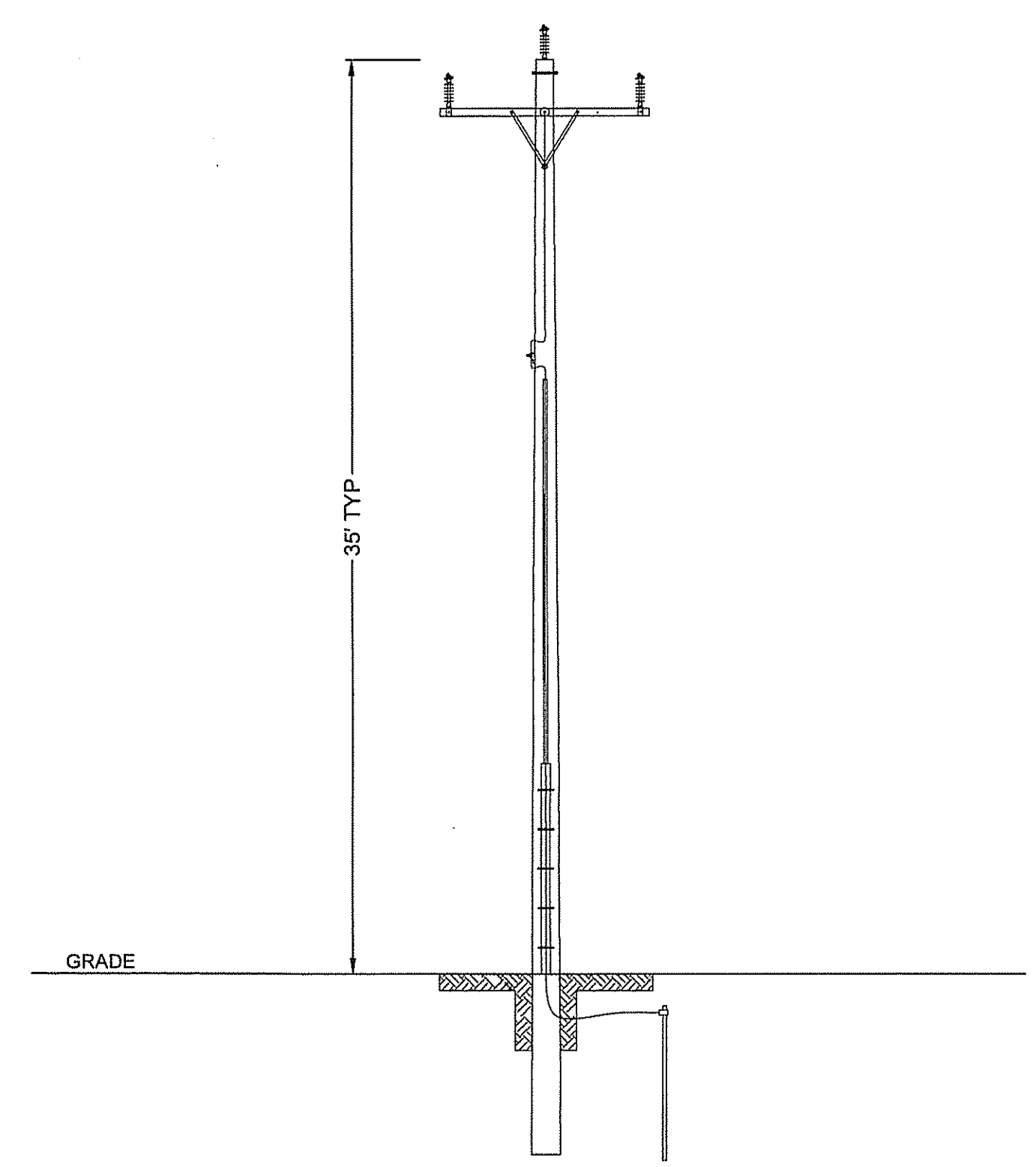


TYPICAL FIXED TILT POST SUPPORTED SOLAR RACKING - SIDE ELEVATION
NOT TO SCALE

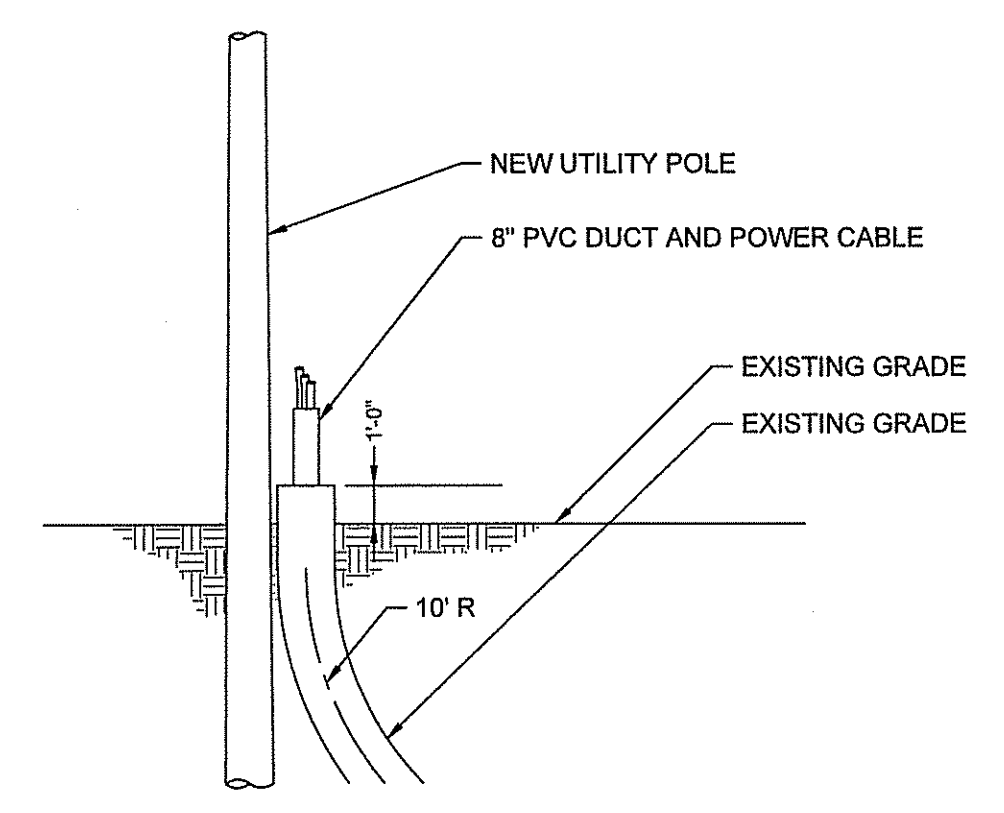


- NOTES**
- SIGNS SHALL BE PLACED ON GATES AND ALONG PERIMETER FENCING.
 - SIGNS SHALL CONFORM TO THE 2013 OSHA AND ANSI REQUIREMENTS.
 - SIGNS SHALL BE 20" WIDE BY 14" HIGH.
 - SIGNS SHALL HAVE A MOUNTING HEIGHT OF BETWEEN 45 TO 66 INCHES.
 - SIGN PANELS SHALL BE 10 GAUGE ALUMINUM WITH HIGH VISIBILITY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

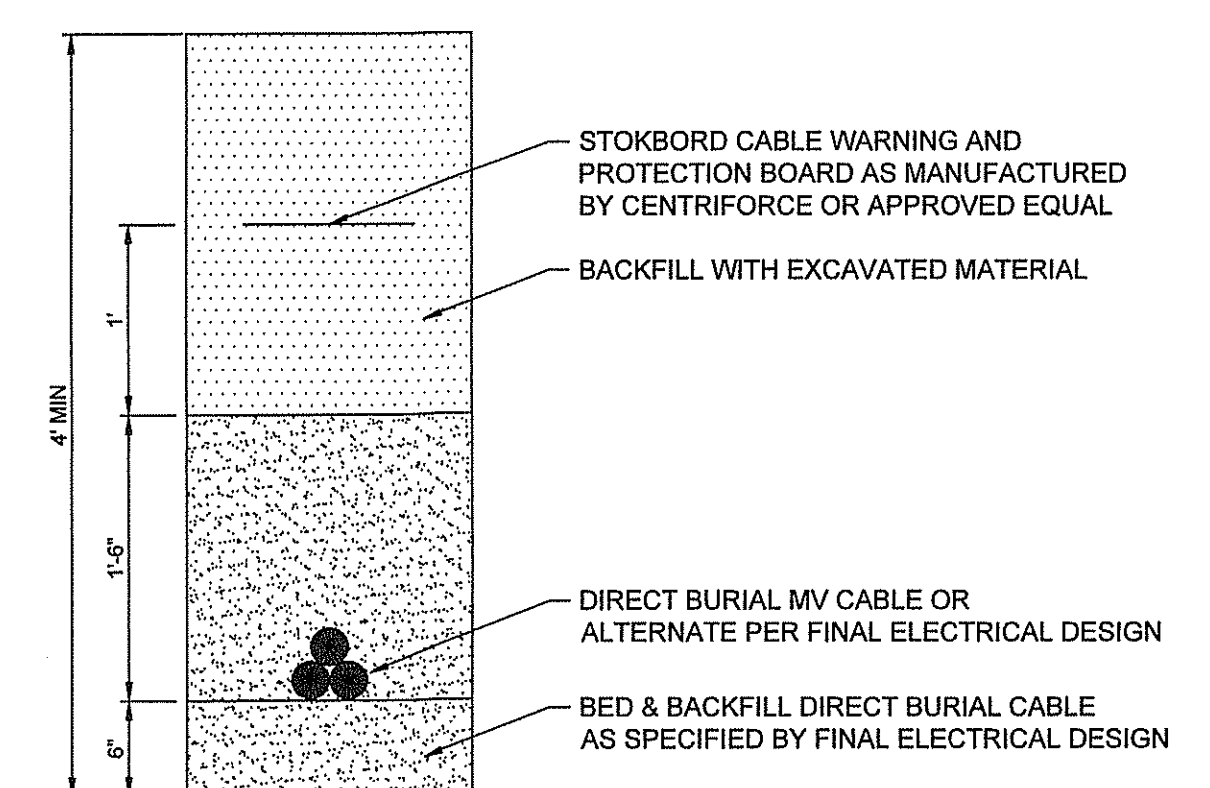
HAZARD & EMERGENCY SIGNAGE
NOT TO SCALE



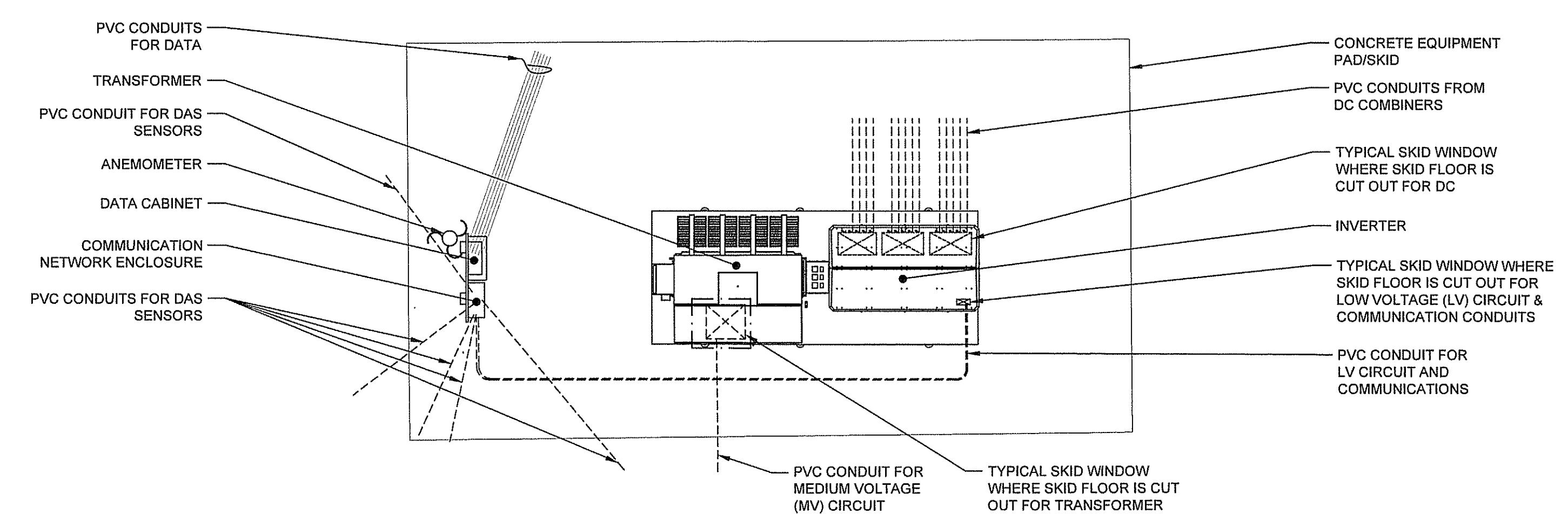
TYPICAL UTILITY POLE
NOT TO SCALE



- NOTES:**
- EXTEND CONCRETE ENCASED DUCTBANK TO APPROXIMATELY 1'-0" ABOVE GRADE. CONTINUE PVC DUCT BANK TO TERMINATION / TRIFURCATION.
 - TOP OF DUCT SHALL BE SEALED WITH APPROVED FIRE RETARDANT SEALER TERMINATION FITTING SUCH AS CONDULATOR BY ROBERT'S ELECTRIC PRODUCTS.
- UNDERGROUND TO OVERHEAD TRANSITION DETAIL**
NOT TO SCALE



MV UNDERGROUND COLLECTION LINE DETAIL
NOT TO SCALE



- NOTES**
- EQUIPMENT SHOWN FOR REFERENCE ONLY. ACTUAL EQUIPMENT SIZE, LAYOUT, AND CONFIGURATION WILL DEPEND ON COMPLETED SYSTEM IMPACT STUDY AND LARGE GENERATOR INTERCONNECTION AGREEMENT.

TYPICAL MEDIUM VOLTAGE POWER STATION LAYOUT
NOT TO SCALE

		PROFESSIONAL ENGINEER: THOMAS N. DANIELS, JR. DATE: JULY 16, 2021		
0	TRC	07/16/21	ISSUED FOR PERMITTING	TND
NO.	BY	DATE	REVISION	APPD.
PROJECT: EDF RENEWABLES STONYBROOK SOLAR PARTNERS, LLC MMWEC - PROPOSED SOLAR PROJECT 327 MOODY ST, LUDLOW, MA				
PRELIMINARY ELECTRICAL DETAILS				
DRAWN BY:		TRC/CJD	PROJ. NO.:	421921.0000
CHECKED BY:		TND		
APPROVED BY:		TND	C4.02	
DATE:		JULY 2021		
		650 Suffolk Street Suite 200 Lowell, MA 01854 Phone: 978.970.5600		
FILE NO.:		421921 - DT.dwg		