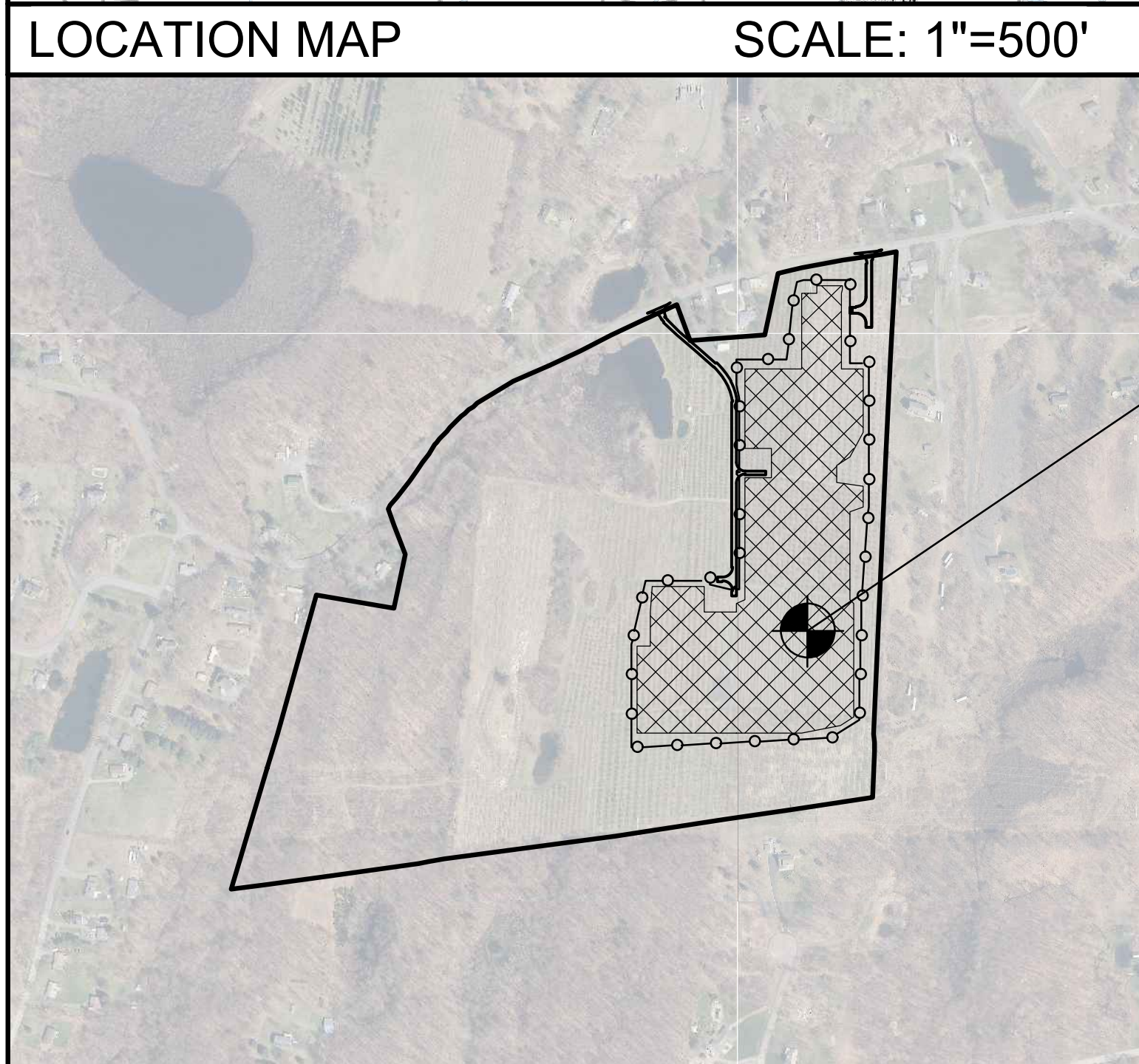


SITE LOCATION



ARRAY LOCATION

ELP MARLBOROUGH SOLAR

SITE ADDRESS: 335 BINGHAM ROAD, MARLBOROUGH, NY 12542
TAX MAP ID: 108.3-3-21
PROPOSED USE: LARGE SCALE SOLAR ENERGY SYSTEM (5MW-AC)

DEVELOPER:

ELP MARLBOROUGH SOLAR LLC
14 ARROW STREET, SUITE 22
CAMBRIDGE, MA 02138

ENGINEER:

CRAWFORD & ASSOCIATES
ENGINEERING & LAND SURVEYING, PC
4411 Route 9, Suite 200, Hudson New York 12534 tel: (518) 828-2700
www.crawfordandassociates.com fax: (518) 828-2723

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C&A #: 4996.26

DATE: APRIL 5, 2024
REVISED: JULY 3, 2024

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DRAWINGS:

C-001 TITLE SHEET
C-002 LEGEND & NOTES

C-101 SITE PLAN - EXISTING CONDITIONS
C-102 SITE PLAN - PROPOSED SITE PLAN
C-103 SITE PLAN - PROPOSED GRADING & UTILITIES - 1
C-104 SITE PLAN - PROPOSED GRADING & UTILITIES - 2
C-105 SITE PLAN - PROPOSED GRADING & UTILITIES - 3
C-106 SITE PLAN - TEMPORARY EROSION & SEDIMENT CONTROL PLAN

C-501 CIVIL DETAILS - SHEET 1
C-502 CIVIL DETAILS - SHEET 2

E-501 ELECTRICAL DETAILS - SHEET 1
E-502 ELECTRICAL DETAILS - SHEET 2
E-503 ELECTRICAL DETAILS - SHEET 3
E-504 ELECTRICAL DETAILS - SHEET 4

LEGEND

	EXISTING PROPERTY LINE		EXISTING/PROPOSED RAILROAD TRACK
	PROPOSED LOT LINE		EXISTING/PROPOSED ROAD EDGE
	EXISTING/PROPOSED EASEMENT / RIGHT OF WAY		EXISTING/PROPOSED ROAD CENTERLINE
	EXISTING/PROPOSED ZONING SETBACK		EXISTING/PROPOSED ROAD FOGLINE
	EXISTING/PROPOSED ZONING / JURISDICTIONAL BOUNDARY		EXISTING/PROPOSED PARKING LOT EDGE
	PROPOSED LIMITS OF DISTURBANCE		EXISTING/PROPOSED PARKING LOT STRIPING
	EXISTING SURVEY STATION (HORIZONTAL DATUM)		EXISTING/PROPOSED DRIVEWAY
	EXISTING SURVEY BENCHMARK (VERTICAL DATUM)		EXISTING/PROPOSED PAVEMENT HATCH
	EXISTING CONTOUR MINOR INTERVAL		EXISTING/PROPOSED SIDEWALK
	EXISTING CONTOUR MAJOR INTERVAL		EXISTING/PROPOSED CURB
	PROPOSED CONTOUR MINOR INTERVAL		EXISTING/PROPOSED SIGN
	PROPOSED CONTOUR MAJOR INTERVAL		EXISTING/PROPOSED FENCE
	EXISTING/PROPOSED SPOT ELEVATION		EXISTING/PROPOSED BOLLARD
	EXISTING SOILS		EXISTING/PROPOSED UTILITY MARKER
	EXISTING SOIL PERCOLATION TEST		EXISTING/PROPOSED STONE WALL
	EXISTING SOIL DEEP TEST PIT		EXISTING/PROPOSED CONCRETE
	EXISTING SOIL BORING		EXISTING BUILDING
	EXISTING WATERBODY		PROPOSED BUILDING
	PROPOSED WATERBODY		EXISTING/PROPOSED RAW WATER LINE
	EXISTING FLOODWAY		EXISTING/PROPOSED WATER LINE
	EXISTING 100 YEAR FLOODPLAIN		EXISTING/PROPOSED WATER WELL
	EXISTING 500 YEAR FLOODPLAIN		EXISTING/PROPOSED WATER HYDRANT
	EXISTING FEDERAL WETLAND BOUNDARY		EXISTING/PROPOSED SANITARY SEWER LINE
	EXISTING STATE WETLAND BOUNDARY		EXISTING/PROPOSED SANITARY FORCEMAIN
	EXISTING STATE WETLAND 100' ADJACENT AREA		EXISTING/PROPOSED SANITARY SEWER MANHOLE
	EXISTING STATE WETLAND 500' CHECKZONE		EXISTING/PROPOSED SANITARY SEWER CLEANOUT
	EXISTING WETLAND HATCH		EXISTING/PROPOSED ELECTRIC
	PROPOSED WETLAND/100' ADJACENT AREA IMPACT HATCH		EXISTING/PROPOSED DIRECT CURRENT ELECTRIC
	PROPOSED WETLAND MITIGATION HATCH		EXISTING/PROPOSED OVERHEAD ELECTRIC
	PRE/POST- DEVELOPMENT DRAINAGE AREAS		EXISTING/PROPOSED UNDERGROUND ELECTRIC
	PRE/POST- DEVELOPMENT TIME OF CONCENTRATION		EXISTING/PROPOSED DATA/COMM ELECTRIC
	EXISTING/PROPOSED SWALE CENTERLINE		EXISTING/PROPOSED UTILITY POLE
	EXISTING/PROPOSED CULVERT W/ FLARED END SECTION		EXISTING/PROPOSED ELECTRIC TRANSFORMER
	EXISTING/PROPOSED STORMWATER LINE		EXISTING/PROPOSED ELECTRIC PULL BOX
	EXISTING/PROPOSED STORMWATER CATCH BASIN		EXISTING/PROPOSED NATURAL GAS LINE
	EXISTING/PROPOSED STORMWATER MANHOLE		EXISTING/PROPOSED PROPANE LINE
	EXISTING/PROPOSED STORMWATER YARD DRAIN		EXISTING/PROPOSED UNDERGROUND UTILITY
	PROPOSED SILT FENCE		EXISTING/PROPOSED UTILITY METER
	PROPOSED FILTER SOCK		EXISTING/PROPOSED UTILITY REGULATOR
	EXISTING/PROPOSED TREELINE		EXISTING/PROPOSED UTILITY VALVE
	EXISTING/PROPOSED CONIFER TREE		EXISTING/PROPOSED UTILITY CHECK VALVE
	EXISTING/PROPOSED DECIDUOUS TREE		PROPOSED SCREENING STRIP HATCH

- SITE PLAN NOTES:
1. ORTHOGRAPHIC IMAGERY DOWNLOADED FROM NYS GIS CLEARINGHOUSE. IMAGERY PUBLISHED SEPTEMBER 2023, ACCESSED BY C&A NOVEMBER 2023.
 2. BACKGROUND DRAWING & TOPOGRAPHIC CONTOURS TAKEN FROM SURVEY TITLED "MAP OF A PORTION OF LANDS OF TRUNCALI PREPARED FOR ELP MARLBOROUGH SOLAR LLC, SBL108.3-3-21, ULSTER COUNTY, STATE OF NY" DATED APRIL 22, 2024, PREPARED BY CONTROL POINT ASSOCIATES, INC., P.C.
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 6. FEMA NFHL CHECKED IN JANUARY 2024 AND NO FLOOD HAZARDS WERE IDENTIFIED WITHIN THE PROJECT AREA. PROJECT FALLS WITHIN FIRM PANEL #36111C0900F.
 7. PROPOSED SOLAR FACILITY LAYOUT FROM DRAWING TITLED "PRELIMINARY PV SITE PLAN" PREPARED BY CS ENERGY DATED MARCH 2, 2023, AMENDED BY C&A PER VCR INSTRUCTION.

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1. THE PROPOSED SOLAR ENERGY SYSTEM INSTALLATION SHALL BE PERFORMED BY A QUALIFIED SOLAR INSTALLER.
 2. THE PROPOSED SOLAR ENERGY SYSTEM WILL MEET NEW YORK'S UNIFORM FIRE PREVENTION AND BUILDING CODE AND NATIONAL ELECTRICAL CODE STANDARDS.
 3. PRIOR TO OPERATION OF THE SOLAR ENERGY SYSTEM, WRITTEN PROOF THAT ELECTRICAL CONNECTIONS HAVE BEEN INSPECTED AND APPROVED BY AN APPROPRIATE ELECTRICAL INSPECTION PERSON OR AGENCY, AS DETERMINED BY THE TOWN OF MARLBOROUGH WILL BE PROVIDED.
 4. A MAP SHOWING THE LOCATIONS OF THE MAJOR COMPONENTS OF THE SOLAR SYSTEM INCLUDING THE LOCATION OF THE ARRAY, EQUIPMENT PADS, MAIN TRENCH LOCATIONS, AND DISCONNECTS SHALL BE POSTED AT THE FACILITIES ENTRANCE AND PROVIDED TO THE LOCAL FIRE DEPARTMENT OBLIGATED TO RESPOND TO A CALL AT THE FACILITY.
 5. THE SOLAR PANELS SHALL NOT EXCEED 15' IN HEIGHT.
 6. BUILDING SETBACK REQUIREMENTS SHALL BE AS STATED FOR THE RAG-1 (RURAL AGRICULTURAL DISTRICT) AS SHOWN IN THE ZONING TABLE BELOW. INVERTERS SHALL BE SET BACK THE LESSER OF 100 FEET OR UNTIL THE ELECTROMAGNETIC FIELD (EMF) MEETS BACKGROUND LEVEL, AS DETERMINED BY THE WORLD HEALTH ORGANIZATION (WHO).
 7. COMMERCIAL SOLAR FACILITY'S AREA OF USE, AS DEFINED IN CODE SECTION 155-32.2 (B) EQUATES TO APPROXIMATELY 15.7 ACRES.
 8. NONINVASIVE GROUND COVER UNDER AND BETWEEN THE ROWS OF SOLAR PANELS SHALL BE LOW-MAINTENANCE, DROUGHT-RESISTANT, AND NON-FERTILIZER-DEPENDENT. SEE SEEDING PLAN ON C-501 FOR MORE DETAILS.
 9. THE SOLAR ENERGY SYSTEM SHALL BE ENCLOSED BY A MINIMUM 8' TALL PERIMETER FENCE AND SHALL BE AN AGRICULTURAL STYLE FENCE CONSISTING OF WOODEN POSTS AND WOVEN WIRE. WARNING SIGNS WITH THE OWNER'S CONTACT INFORMATION WILL BE PLACED ON THE ENTRANCE AND PERIMETER OF THE FENCING.
 10. A SIGN NO GREATER THAN TWO SQUARE FEET INDICATING THE NAME OF THE FACILITY OWNER(S) AND A TWENTY-FOUR-HOUR EMERGENCY TELEPHONE NUMBER SHALL BE POSTED. IN ADDITION, "NO TRESPASSING" OR OTHER WARNING SIGNS MAY BE POSTED.
 11. THE OWNER WILL BE RESPONSIBLE FOR UPKEEP OF THE SOLAR FACILITY, INCLUDING ALL NECESSARY MAINTENANCE OF THE SYSTEM & PROPERTY INCLUDING MOWING AND TRIMMING IN AND AROUND THE FACILITY.
 12. THE OWNER SHALL PREPARE AND COMPLY WITH A DECOMMISSIONING PLAN AS DETAILED IN THE TOWN OF MARLBOROUGH, NY SUPPLEMENTARY REGULATIONS SECTION 155-32.2J.
 13. ALL TEMPORARILY STOCKPILED MATERIAL GENERATED BY CONSTRUCTION OF THE FACILITY WILL BE REMOVED FROM THE SITE IN A TIMELY MANNER.

E&SC PLAN AND CONSTRUCTION NOTES:

1. CONSTRUCTION SHALL NOT COMMENCE UNTIL APPROPRIATE PERMIT COVERAGE HAS BEEN OBTAINED UNDER NYSDEC SPDES GENERAL PERMIT FOR STORMWATER DISCHARGES FROM CONSTRUCTION ACTIVITY, GP-0-20-001.
2. TOTAL LIMITS OF DISTURBANCE (LOD) INCLUDES LAND CLEARING/GRUBBING, MINOR GRADING FOR ACCESS DRIVE AND EQUIPMENT PADS, TRENCHING, AND TEMPORARY E&SC MEASURES.
3. CONSTRUCTION SHALL BE COMMENCED IN ACCORDANCE WITH A PHASING PLAN TO LIMIT DISTURBANCE OF GREATER THAN 5 ACRES PER PHASE.
4. EACH PHASE SHALL BE TEMPORARILY STABILIZED BEFORE PROCEEDING TO A SUBSEQUENT PHASE.
5. THE TEMPORARY E&SC PLAN MEASURES SHOWN HEREIN, SHALL BE PUT IN PLACE AT THE BEGINNING OF CONSTRUCTION AND REMOVED UPON FINAL STABILIZATION OF THE SITE.
6. CONSTRUCTION OF THE PANEL ARRAYS SHALL BE COMPLETED IN SUCH A WAY THAT NULLIFIES DISTURBANCE AND/OR COMPACTION OF THE IN-SITU LAND COVER (I.E. TRACKED VEHICLE TRAVELING IN AND OUT OF ROWS IS RECOMMENDED). EXISTING GROUND COVER IN THE AREA OF THE PANEL ARRAY SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION.
7. ALL DISTURBED AREAS SHALL BE SEEDDED AND MULCHED AS DETAILED IN THE SEEDING PLAN ON DRAWING C-501.
8. THE TEMPORARY PARKING AND STAGING AREA FOR CONSTRUCTION EQUIPMENT AND MATERIALS SHALL CONSISTS OF STONE DUST OR A SIMILAR MATERIAL. UPON COMPLETION OF CONSTRUCTION, THE STONE DUST, OR SIMILAR, SHALL BE REMOVED UP TO BUT NOT INCLUDING REMOVAL OF THE COVERED TOPSOIL. THE AREA SHALL BE SEEDDED AND MULCHED ACCORDING TO THE SEED AND MULCH SPECIFICATIONS DETAILED ON THE E&SC NOTES SHEET.
9. IN HIGH TRAFFIC AREAS, THE AREA SHALL BE DE-COMPACTED PRIOR TO SEEDING TO ENSURE GROWTH OF VEGETATIVE COVER. THE AREA(S) SHALL BE DE-COMPACTED ACCORDING TO NYSDEC EROSION AND SEDIMENT CONTROL DE-COMPACTION GUIDELINES.
10. IN AREAS OF TREE TRIMMING, NO DISTURBANCE SHALL COMMENCE WITHOUT APPROPRIATE PERMITTING FROM NYSDEC OR USACE. TREES SHALL BE TRIMMED AND/OR FLUSH CUT AS NEEDED FOR SHADING PURPOSES AND OVERALL CONSTRUCTION OF THE PROJECT. IT SHOULD BE NOTED THAT IN THESE AREAS, TREE STUMPS SHALL NOT BE REMOVED AND WASTE MATERIALS SHALL BE REMOVED WITH EQUIPMENT THAT DOES NOT RESULT IN DISTURBANCE.

SITE DATA / ZONING SUMMARY		
TAX ID NUMBER: 108.3-3-21 (+/- 80 ACRES)		
ZONING DISTRICT	RAG-1 (RURAL AGRICULTURAL DISTRICT)	
USE CLASSIFICATION	LARGE SCALE SOLAR ENERGY SYSTEM (5 MW-AC)	
	REQUIRED	PROPOSED
MINIMUM LOT SIZE	1 ACRE	+/- 80 ACRES
LOT COVERAGE, MAX.	50% ¹	10.5% ³
LOT WIDTH (FT)	150'	1845'
LOT DEPTH (FT)	200'	1480'
BUILDING HEIGHT (FT), MAX	15' ¹	<15'
YARD SETBACKS - MINIMUM (FT)		
FRONT	50'	50' ²
SIDE (ONE)	35'	35'
SIDE (BOTH)	80'	80'
REAR	75'	>100'
¹ REQUIREMENT ALTERED FROM ZONING SCHEDULE I "LOT, YARD, AND HEIGHT REGULATIONS" PER TOWN OF MARLBOROUGH CODE 155-32.2I "STANDARDS FOR LARGE-SCALE SOLAR SYSTEMS AS A SPECIAL USE".		
² AN EXISTING, NON-CONFORMING, BUILDING TO REMAIN IS LOCATED APPROXIMATELY 24' FROM THE BOUNDARY LINE. THE PROPOSED SOLAR PROJECT SHALL RESPECT THE 50' ZONING SETBACK.		
³ PROPOSED LOT COVERAGE CALCULATION INCLUDES PROPOSED DRIVEWAYS, CONCRETE EQUIPMENT PADS & MODULE AREA		

1	UPDATES PER PLANNING BOARD COMMENT	7/3/24	TSB
REV #	DESCRIPTION	DATE	BY

ELP MARLBOROUGH SOLAR
335 BINGHAM ROAD
TOWN OF MARLBOROUGH ULSTER COUNTY, NY

LEGEND & NOTES



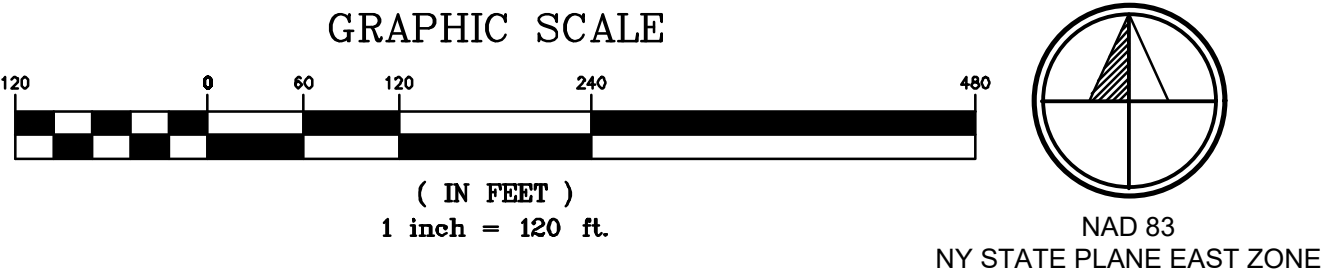
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	SCALE AS SHOWN	CHECKED BY: CJK APPROVED BY: CJK	C&A JOB# 4996.26	DRAWING: C-002



EXISTING CONDITIONS & DEMO
SCALE: 1"=120'



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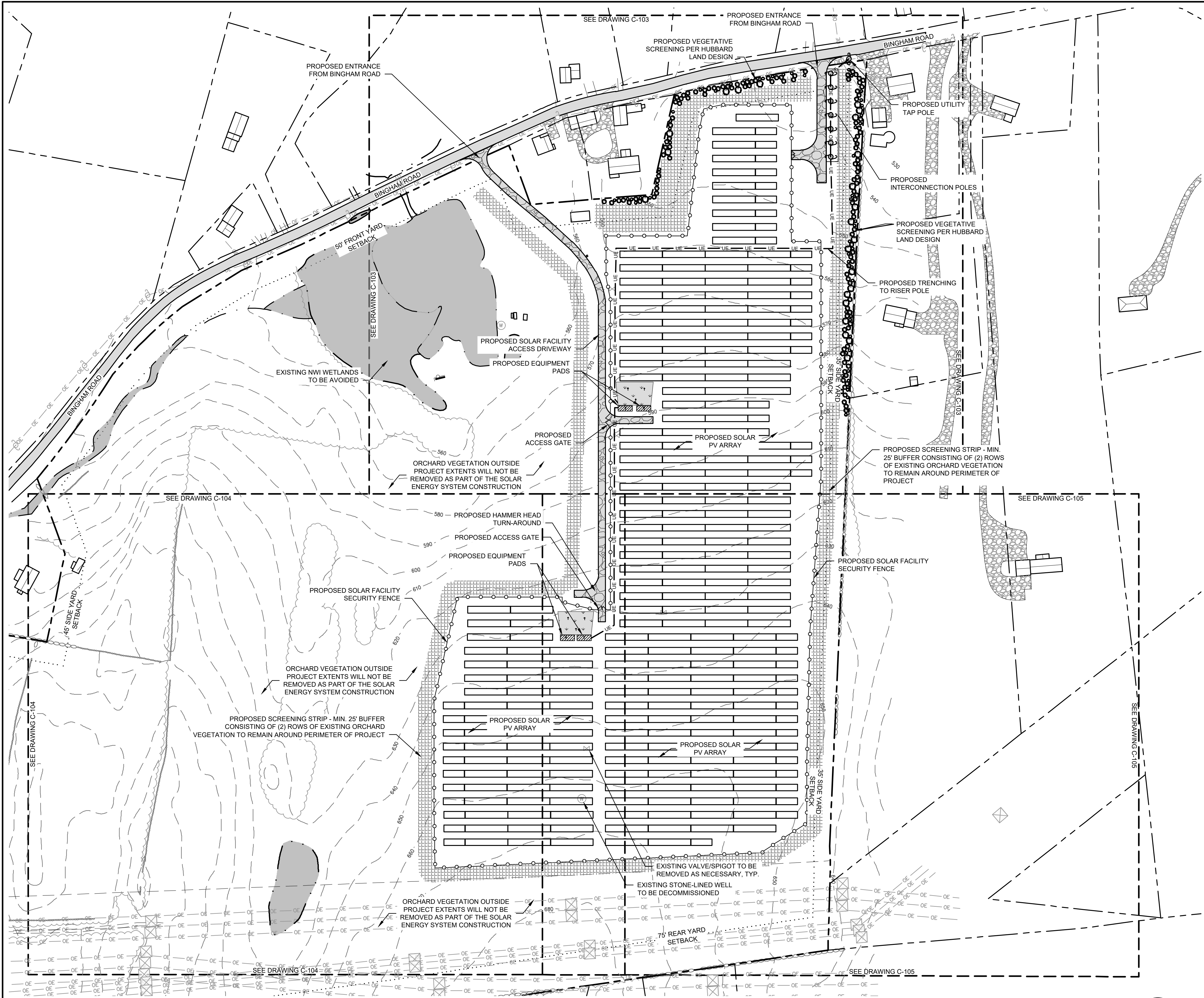
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SITE PLAN
EXISTING CONDITIONS & DEMO

DATE 4/5/2024	DRAWN BY: TSD/DPB	141\WORK\4996.26 Marlborough [PAC] 4996.26 SITE.dwg	C&A JOB# 4996.26	DRAWING: C-101
SCALE AS SHOWN	DESIGNED BY: TSD/DPB			
CHECKED BY: CJK	APPROVED BY: CJK			

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335 BINGHAM ROAD
TOWN OF MARLBOROUGH ULSTER COUNTY, NY

SITE PLAN PROPOSED OVERALL LAYOUT



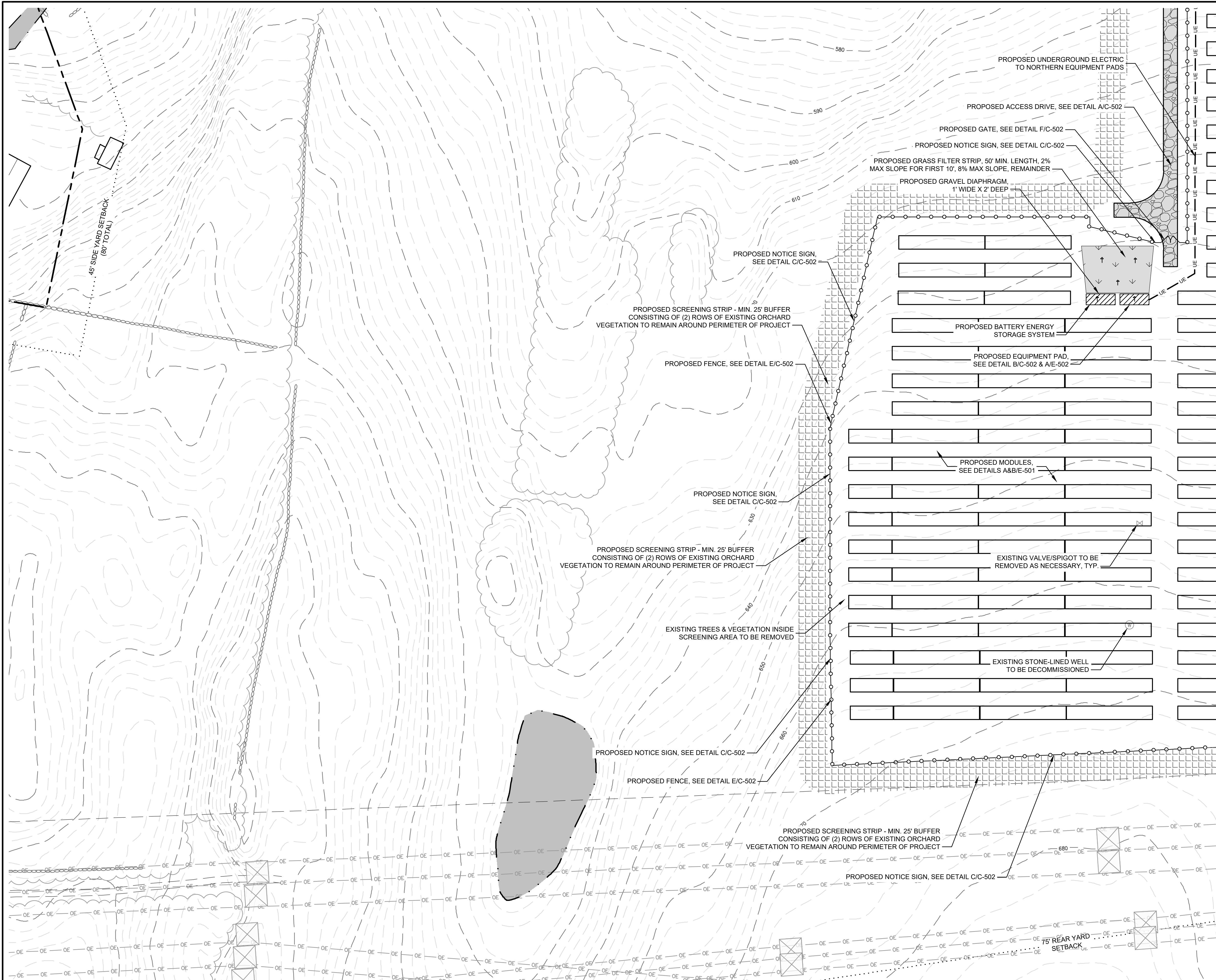
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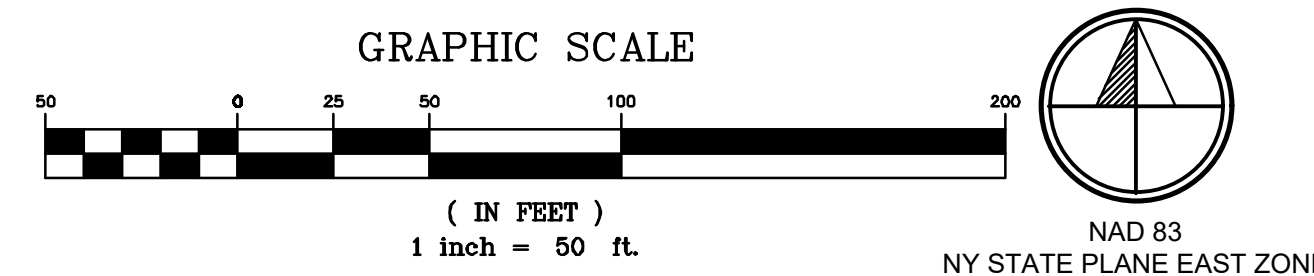
DATE 4/5/2024	DRAWN BY: TSD/DPB	DESIGNED BY: TSD/DPB	SCALE AS SHOWN	APPROVED BY: C&A JOB# 4996.26	DRAWING: C-102
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1. THE PROPOSED SOLAR ENERGY SYSTEM INSTALLATION SHALL BE PERFORMED BY A QUALIFIED SOLAR INSTALLER.
 2. THE PROPOSED SOLAR ENERGY SYSTEM WILL MEET NEW YORK'S UNIFORM FIRE PREVENTION AND BUILDING CODE AND NATIONAL ELECTRICAL CODE STANDARDS.
 3. PRIOR TO OPERATION OF THE SOLAR ENERGY SYSTEM, WRITTEN PROOF THAT ELECTRICAL CONNECTIONS HAVE BEEN INSPECTED AND APPROVED BY AN APPROPRIATE ELECTRICAL INSPECTION PERSON OR AGENCY, AS DETERMINED BY THE TOWN OF MARLBOROUGH WILL BE PROVIDED.
 4. A MAP SHOWING THE LOCATIONS OF THE MAJOR COMPONENTS OF THE SOLAR SYSTEM INCLUDING THE LOCATION OF THE ARRAY, EQUIPMENT PADS, MAIN TRENCH LOCATIONS, AND DISCONNECTS SHALL BE POSTED AT THE FACILITIES ENTRANCE AND PROVIDED TO THE LOCAL FIRE DEPARTMENT OBLIGATED TO RESPOND TO A CALL AT THE FACILITY.
 5. THE SOLAR PANELS SHALL NOT EXCEED 15' IN HEIGHT.
 6. BUILDING SETBACK REQUIREMENTS SHALL BE AS STATED FOR THE RAG-1 (RURAL AGRICULTURAL DISTRICT) AS SHOWN IN THE ZONING TABLE BELOW. INVERTERS SHALL BE SET BACK THE LESSER OF 100 FEET OR UNTIL THE ELECTROMAGNETIC FIELD (EMF) MEETS BACKGROUND LEVEL, AS DETERMINED BY THE WORLD HEALTH ORGANIZATION (WHO).
 7. COMMERCIAL SOLAR FACILITY'S AREA OF USE, AS DEFINED IN CODE SECTION 155-32.2 (B) EQUATES TO APPROXIMATELY 15.7 ACRES.
 8. NONINVASIVE GROUND COVER UNDER AND BETWEEN THE ROWS OF SOLAR PANELS SHALL BE LOW-MAINTENANCE, DROUGHT-RESISTANT, AND NON-FERTILIZER-DEPENDENT. SEE SEEDING PLAN ON C-501 FOR MORE DETAILS.
 9. THE SOLAR ENERGY SYSTEM SHALL BE ENCLOSED BY A MINIMUM 8' TALL PERIMETER FENCE AND SHALL BE AN AGRICULTURAL STYLE FENCE CONSISTING OF WOODEN POSTS AND WOVEN WIRE. WARNING SIGNS WITH THE OWNER'S CONTACT INFORMATION WILL BE PLACED ON THE ENTRANCE AND PERIMETER OF THE FENCING.
 10. A SIGN NO GREATER THAN TWO SQUARE FEET INDICATING THE NAME OF THE FACILITY OWNER(S) AND A TWENTY-FOUR-HOUR EMERGENCY TELEPHONE NUMBER SHALL BE POSTED. IN ADDITION, "NO TRESPASSING" OR OTHER WARNING SIGNS MAY BE POSTED.
 11. THE OWNER WILL BE RESPONSIBLE FOR UPKEEP OF THE SOLAR FACILITY, INCLUDING ALL NECESSARY MAINTENANCE OF THE SYSTEM & PROPERTY INCLUDING MOWING AND TRIMMING IN AND AROUND THE FACILITY.
 12. THE OWNER SHALL PREPARE AND COMPLY WITH A DECOMMISSIONING PLAN AS DETAILED IN THE TOWN OF MARLBOROUGH, NY SUPPLEMENTARY REGULATIONS SECTION 155-32.2.J.
 13. ALL TEMPORARILY STOCKPILED MATERIAL GENERATED BY CONSTRUCTION OF THE FACILITY WILL BE REMOVED FROM THE SITE IN A TIMELY MANNER.


PROPOSED GRADING & UTILITIES - 2
SCALE: 1"=40'



1	UPDATES PER PLANNING BOARD COMMENT	7/3/24	TSB
REV #	DESCRIPTION	DATE	BY

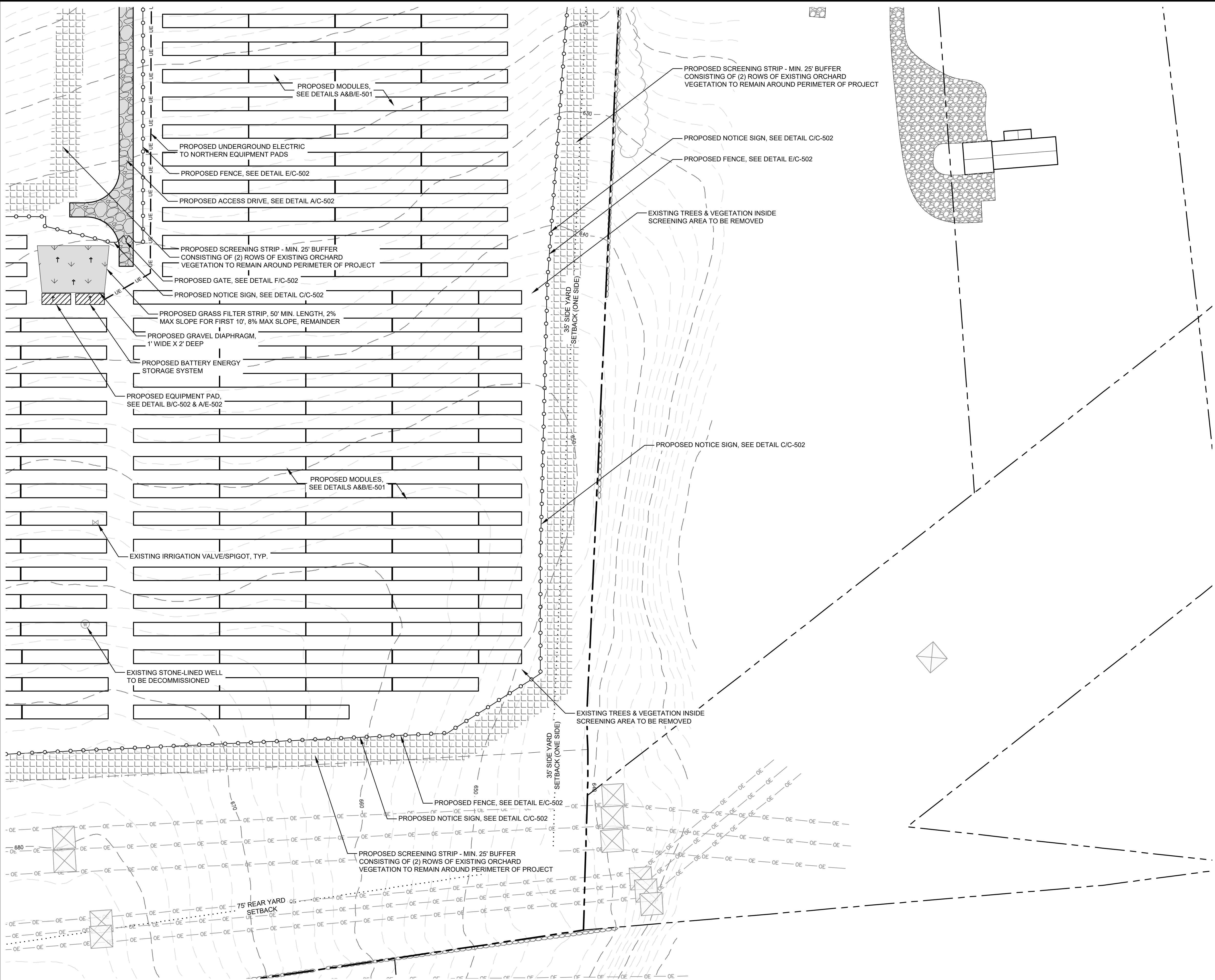
ELP MARLBOROUGH SOLAR
335 BINGHAM ROAD
TOWN OF MARLBOROUGH ULSTER COUNTY, NY

SITE PLAN
PROPOSED GRADING & UTILITIES - 2

 CRAWFORD & ASSOCIATES ENGINEERING & LAND SURVEYING, PC 4411 Route 9, Suite 200, Hudson New York 12534 tel: (518) 828-2700 www.crawfordandassociates.com fax: (518) 828-2723 © COPYRIGHT	DATE 4/5/2024	DRAWN BY: TSB/DPB DESIGNED BY: TSB/DPB	C&A JOB# 4996.26	DRAWING: C-104
	SCALE AS SHOWN	CHECKED BY: CJK APPROVED BY: CJK		

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SITE PLAN NOTES:

1. ORTHOGRAPHIC IMAGERY DOWNLOADED FROM NYS GIS CLEARINGHOUSE. IMAGERY PUBLISHED SEPTEMBER 2023, ACCESSED BY C&A NOVEMBER 2023.
2. BACKGROUND DRAWING & TOPOGRAPHIC CONTOURS TAKEN FROM SURVEY TITLED "MAP OF A PORTION OF LANDS OF TRUNCALI PREPARED FOR ELP MARLBOROUGH SOLAR LLC, SBL:108.3-3-21, ULSTER COUNTY, STATE OF NY" DATED APRIL 22, 2024, PREPARED BY CONTROL POINT ASSOCIATES, INC., P.C.
3. ADJACENT PROPERTY BOUNDARIES DOWNLOADED FROM ULSTER COUNTY GIS DATABASE IN AUGUST 2023. SELECT BOUNDARIES ADJUSTED BY C&A TO REFLECT EXPECTED LOCATIONS OF INTERSECTION WITH SURVEYED BOUNDARY LINE.
4. EXISTING SITE FEATURES SUCH AS BUILDING LOCATIONS, DRIVEWAYS, ROADS, OVERHEAD UTILITIES, AND TREELINES OUTSIDE SURVEY AREA ESTIMATED FROM ORTHOGRAPHIC IMAGERY.
5. NWI POTENTIAL WETLAND BOUNDARIES DOWNLOADED FROM NATIONAL WETLANDS INVENTORY, ACCESSED NOVEMBER 2023.
6. FEMA NFHL CHECKED IN JANUARY 2024 AND NO FLOOD HAZARDS WERE IDENTIFIED WITHIN THE PROJECT AREA. PROJECT FALLS WITHIN FIRM PANEL #36111C0900F.
7. PROPOSED SOLAR FACILITY LAYOUT FROM DRAWING TITLED "PRELIMINARY PV SITE PLAN" PREPARED BY CS ENERGY DATED MARCH 2, 2023, AMENDED BY C&A PER VCR INSTRUCTION.

PROPOSED SITE PLAN NOTES:

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1	UPDATES PER PLANNING BOARD COMMENT	7/3/24	TSB
REV #	DESCRIPTION	DATE	BY

ELP MARLBOROUGH SOLAR
335 BINGHAM ROAD
TOWN OF MARLBOROUGH ULSTER COUNTY, NY

SITE PLAN
PROPOSED GRADING & UTILITIES - 3

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ENGINEERING & LAND SURVEYING, PC
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www.crawfordandassociates.com fax: (518) 828-2723
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SCALE AS SHOWN	CHECKED BY: CJK	APPROVED BY: CJK		

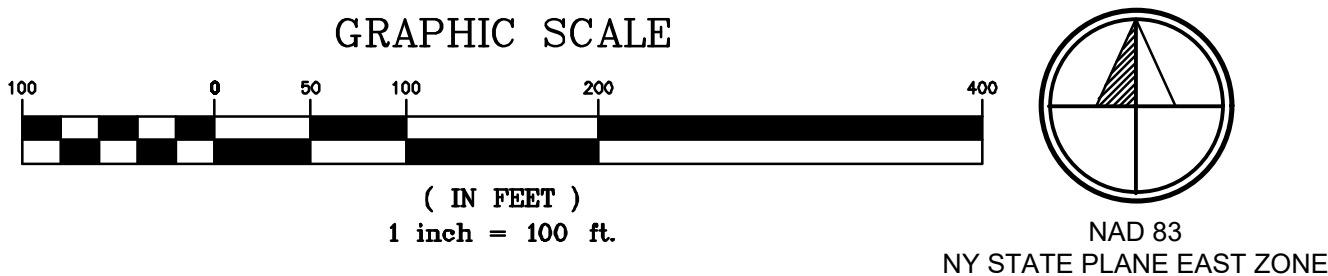
GRAPHIC SCALE

(IN FEET)
1 inch = 50 ft.

NAD 83
NY STATE PLANE EAST ZONE



PROPOSED EROSION & SEDIMENT CONTROL PLAN
SCALE: 1"=100'



- EROSION & SEDIMENT CONTROL GENERAL NOTES:**
- ALL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST VERSION OF THE NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL. (REFERRED TO IN REMAINING TEXT AS "THE NEW YORK GUIDELINES".)
 - THE SEDIMENT MEASURES DETAILED ON THE EROSION AND SEDIMENT CONTROL PLAN SHALL BE IN PLACE PRIOR TO CONSTRUCTION STARTUP OF CONSTRUCTION. ONCE MEASURES ARE IN PLACE, ALL MEASURES SHALL BE PROPERLY MAINTAINED AND/OR REPLACED AS NECESSARY, AND THEN REMOVED FROM THE SITE BY THE CONTRACTOR ONCE SITE IS STABILIZED.
 - FOLLOWING THE COMMENCEMENT OF CONSTRUCTION, INSPECTIONS SHALL BE CONDUCTED PER THE FOLLOWING SCHEDULE. CONTRACTORS AND SUB CONTRACTORS ARE RESPONSIBLE FOR HAVING A "TRAINED INDIVIDUAL(S)" ON SITE DAILY WHEN SOIL DISTURBANCE ACTIVITIES ARE BEING PERFORMED TO INSPECT EROSION AND SEDIMENT CONTROL MEASURES. "TRAINED INDIVIDUAL" MEANING AN EMPLOYEE FROM A CONSTRUCTION FIRM THAT HAS RECEIVED FOUR (4) HOURS OF TRAINING, WHICH HAS BEEN ENDORSED BY THE NYS DEC. SOIL AND WATER CONSERVATION DISTRICT, CPESC INC. THE TRAINED INDIVIDUAL SHALL RECEIVE FOUR (4) HOURS OF TRAINING EVERY THREE (3) YEARS.
 - FOR CONSTRUCTION SITES WHERE SOIL DISTURBANCE ACTIVITIES ARE ON-GOING, THE QUALIFIED INSPECTOR SHALL CONDUCT A SITE INSPECTION AT LEAST ONCE EVERY SEVEN (7) CALENDAR DAYS.
 - FOR CONSTRUCTION SITES WHERE SOIL DISTURBANCE ACTIVITIES ARE ON-GOING AND THE OWNER OR OPERATOR HAS RECEIVED AUTHORIZATION IN ACCORDANCE WITH PART II.C.3 TO DISTURB GREATER THAN FIVE (5) ACRES OF SOIL AT ANY ONE TIME, THE QUALIFIED INSPECTOR SHALL CONDUCT AT LEAST TWO (2) SITE INSPECTIONS EVERY SEVEN (7) CALENDAR DAYS.
 - THE TWO (2) INSPECTIONS SHALL BE SEPARATED BY A MINIMUM OF TWO (2) FULL CALENDAR DAYS.
 - BASED ON THE BI-WEEKLY SITE INSPECTIONS, THE EROSION AND SEDIMENT CONTROL MEASURES IDENTIFIED IN THE SHALL BE REVISED AS SITE CONDITIONS WARRANT. THE CONTRACTOR SHALL IMPLEMENT THESE REVISIONS AS SOON AS PRACTICABLE.
 - THE EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED BY THE CONTRACTOR UNTIL THE FINAL SURFACE TREATMENTS ARE INSTALLED AND THE VEGETATED AREAS HAVE BEEN STABILIZED WITH AT LEAST 80% VEGETATIVE COVER. THE PROPERTY OWNER WILL ASSUME RESPONSIBILITY FOR MAINTAINING THE EROSION AND SEDIMENT SYSTEM(S) THEREAFTER.
 - INLET PROTECTION MEASURES SHALL BE INSTALLED AROUND STORM DRAIN INLETS TO PREVENT SEDIMENT LADEN WATER FROM ENTERING.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL TEMPORARY EROSION AND SEDIMENT CONTROL PRACTICES ONCE THE CONSTRUCTION PHASE HAS BEEN STABILIZED AND FUNCTIONING PROPERLY AS ACCEPTED BY THE ENGINEER.
 - DUST CONTROL AT DRIVING AREAS - THE SITE MAY BE SPRAYED WITH WATER UNTIL THE SURFACE IS WET. THIS IS ESPECIALLY EFFECTIVE ON HAUL ROADS AND ACCESS ROUTES.
 - THE LOCAL AHJ, NYSDEC, NYSDEP, OR THE SITE ENGINEER MAY REQUEST ADDITIONAL MEASURES TO MINIMIZE THE POTENTIAL FOR ONSITE OR OFFSITE EROSION PROBLEMS THAT MAY OCCUR DURING CONSTRUCTION.
 - COPIES OF THE SOIL EROSION AND SEDIMENT CONTROL PLANS AND SWPPP, IF APPLICABLE, MUST BE MAINTAINED ON SITE UNTIL THE SITE HAS BEEN STABILIZED.

- MAINTENANCE PLAN:**
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL OPERATION AND MAINTENANCE OF THE NEW DEVELOPMENT PROJECT AND PROJECT ACCESS DURING CONSTRUCTION.
 - NO EARTHWORK ACTIVITIES SHALL COMMENCE UNTIL SILT FENCES AND SILT SOCKS HAVE BEEN INSTALLED AS SHOWN ON DRAWINGS.
 - AREAS TO BE LEFT EXPOSED TO EROSION FOR MORE THAN 14 DAYS SHALL BE TEMPORARILY STABILIZED.
 - PAVED AREAS SHALL BE KEPT FREE OF SEDIMENT, AND SHALL BE CLEANED PERIODICALLY AS REQUIRED BY CONSTRUCTION ACTIVITIES.
 - CATCH BASINS, IF ANY, SHALL BE PERIODICALLY INSPECTED FOR ACCUMULATION OF SEDIMENT. ALL CATCH BASINS WITHIN THE PROJECT SHALL BE CLEANED.
 - THE CONTRACTOR IS RESPONSIBLE TO INSPECT AND REPAIR EROSION AND SEDIMENT CONTROL MEASURES AS REQUIRED TO PREVENT DAMAGE OR SEDIMENTATION.
 - UPON COMPLETION OF CONSTRUCTION AND ESTABLISHMENT OF PERMANENT GROUND COVER, REMOVE AND DISPOSE OF TEMPORARY EROSION CONTROL MEASURES, CLEAN SEDIMENT AND DEBRIS FROM TEMPORARY MEASURES AND FROM PERMANENT STORM DRAIN AND SANITARY SEWER SYSTEMS.

- E&SC PLAN AND CONSTRUCTION NOTES:**
- CONSTRUCTION SHALL NOT COMMENCE UNTIL APPROPRIATE PERMIT COVERAGE HAS BEEN OBTAINED UNDER NYSDEC SPDES GENERAL PERMIT FOR STORMWATER DISCHARGES FROM CONSTRUCTION ACTIVITY, GP-0-20-001.
 - TOTAL LIMITS OF DISTURBANCE (LOD) INCLUDES LAND CLEARING/GRUBBING, MINOR GRADING FOR ACCESS DRIVE AND EQUIPMENT PADS, TRENCHING, AND TEMPORARY E&SC MEASURES.
 - CONSTRUCTION SHALL BE COMMENCED IN ACCORDANCE WITH A PHASING PLAN TO LIMIT DISTURBANCE OF GREATER THAN 5 ACRES PER PHASE:
 - EACH PHASE SHALL BE TEMPORARILY STABILIZED BEFORE PROCEEDING TO A SUBSEQUENT PHASE.
 - THE TEMPORARY E&SC PLAN MEASURES SHOWN HEREIN, SHALL BE PUT IN PLACE AT THE BEGINNING OF CONSTRUCTION AND REMOVED UPON FINAL STABILIZATION OF THE SITE.
 - CONSTRUCTION OF THE PANEL ARRAYS SHALL BE COMPLETED IN SUCH A WAY THAT NULLIFIES DISTURBANCE AND/OR COMPACTION OF THE IN-SITU LAND COVER (I.E. TRACKED VEHICLE TRAVELING IN AND OUT OF ROWS IS RECOMMENDED). EXISTING GROUND COVER IN THE AREA OF THE PANEL ARRAY SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION.
 - ALL DISTURBED AREAS SHALL BE SEEDED AND MULCHED AS DETAILED IN THE SEEDING PLAN ON DRAWING C-501.
 - THE TEMPORARY PARKING AND STAGING AREA FOR CONSTRUCTION EQUIPMENT AND MATERIALS SHALL CONSIST OF STONE DUST OR A SIMILAR MATERIAL. UPON COMPLETION OF CONSTRUCTION, THE STONE DUST, OR SIMILAR, SHALL BE REMOVED UP TO BUT NOT INCLUDING REMOVAL OF THE COVERED TOPSOIL. THE AREA SHALL BE SEEDED AND MULCHED ACCORDING TO THE SEED AND MULCH SPECIFICATIONS DETAILED ON THE E&SC NOTES SHEET.
 - IN HIGH TRAFFIC AREAS, THE AREA SHALL BE DE-COMPACTED PRIOR TO SEEDING TO ENSURE GROWTH OF VEGETATIVE COVER. THE AREA(S) SHALL BE DE-COMPACTED ACCORDING TO NYSDEC EROSION AND SEDIMENT CONTROL DE-COMPACTATION GUIDELINES.
 - IN AREAS OF TREE TRIMMING, NO DISTURBANCE SHALL COMMENCE WITHOUT APPROPRIATE PERMITTING FROM NYSDEC OR USACE. TREES SHALL BE TRIMMED AND/OR FLUSH CUT AS NEEDED FOR SHADING PURPOSES AND OVERALL CONSTRUCTION OF THE PROJECT. IT SHOULD BE NOTED THAT IN THESE AREAS, TREE STUMPS SHALL NOT BE REMOVED AND WASTE MATERIALS SHALL BE REMOVED WITH EQUIPMENT THAT DOES NOT RESULT IN DISTURBANCE.

1	UPDATES PER PLANNING BOARD COMMENT	7/3/24	TSB
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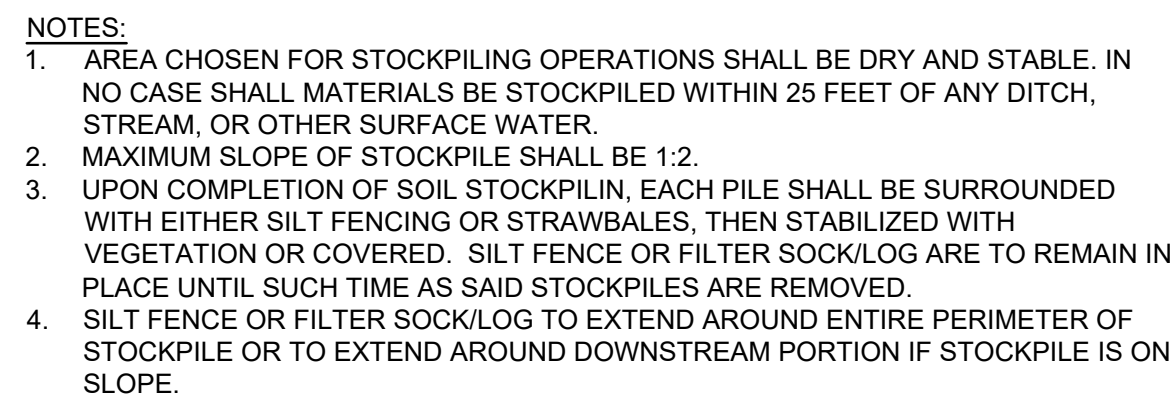
ELP MARLBOROUGH SOLAR
335 BINGHAM ROAD
TOWN OF MARLBOROUGH ULSTER COUNTY, NY

PROPOSED EROSION & SEDIMENT
CONTROL PLAN



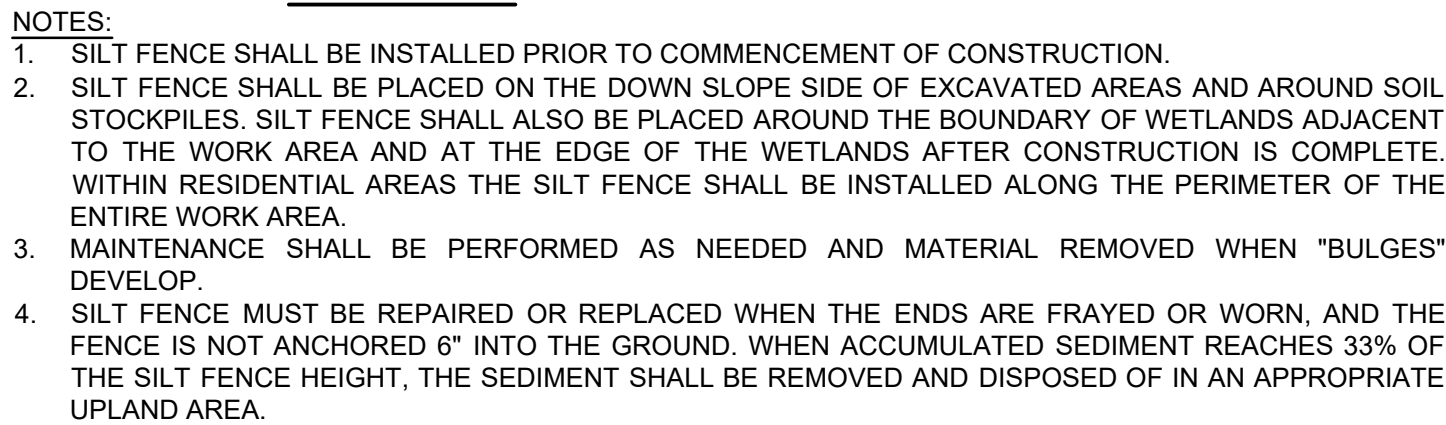
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		CHECKED BY: CJL		
		APPROVED BY: CJL		



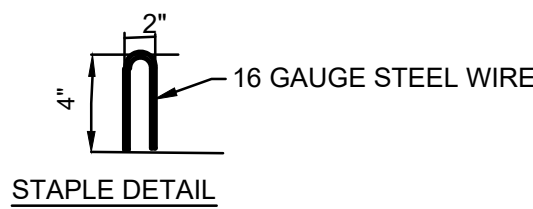
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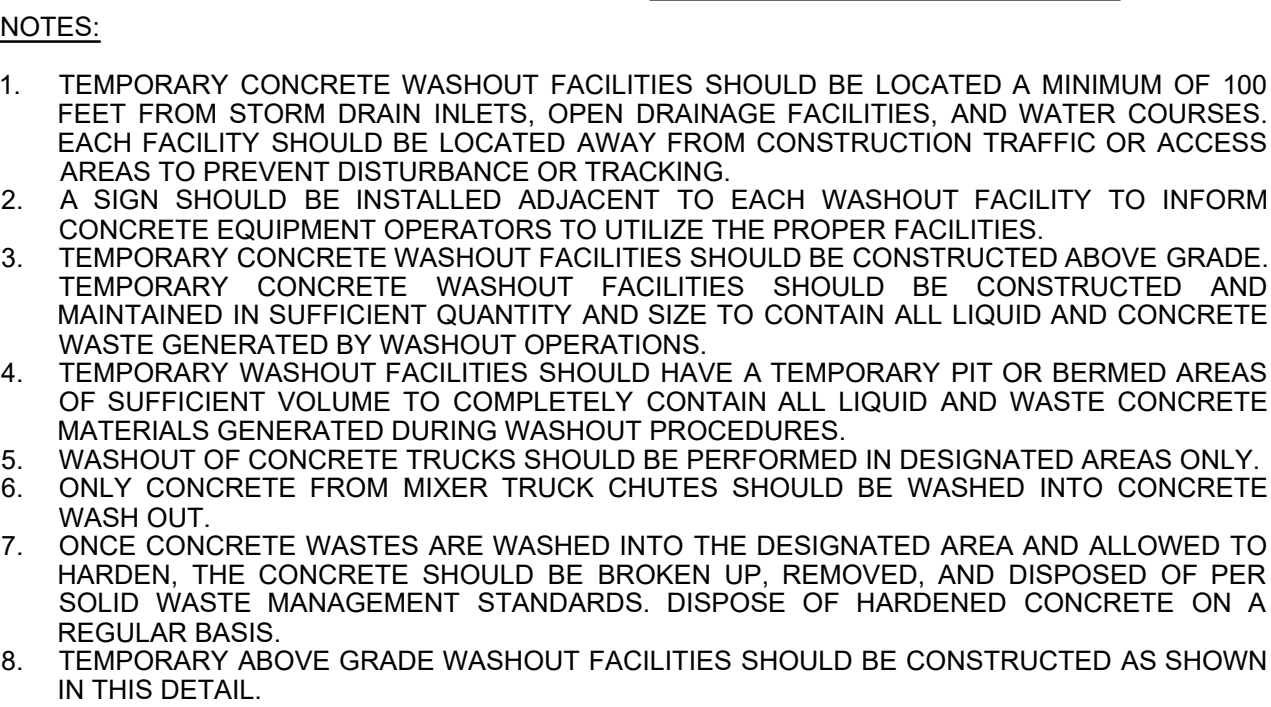
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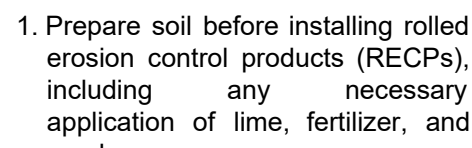


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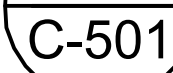


1. Prepare soil before installing rolled erosion control products (RECPs), including any necessary application of lime, fertilizer, and

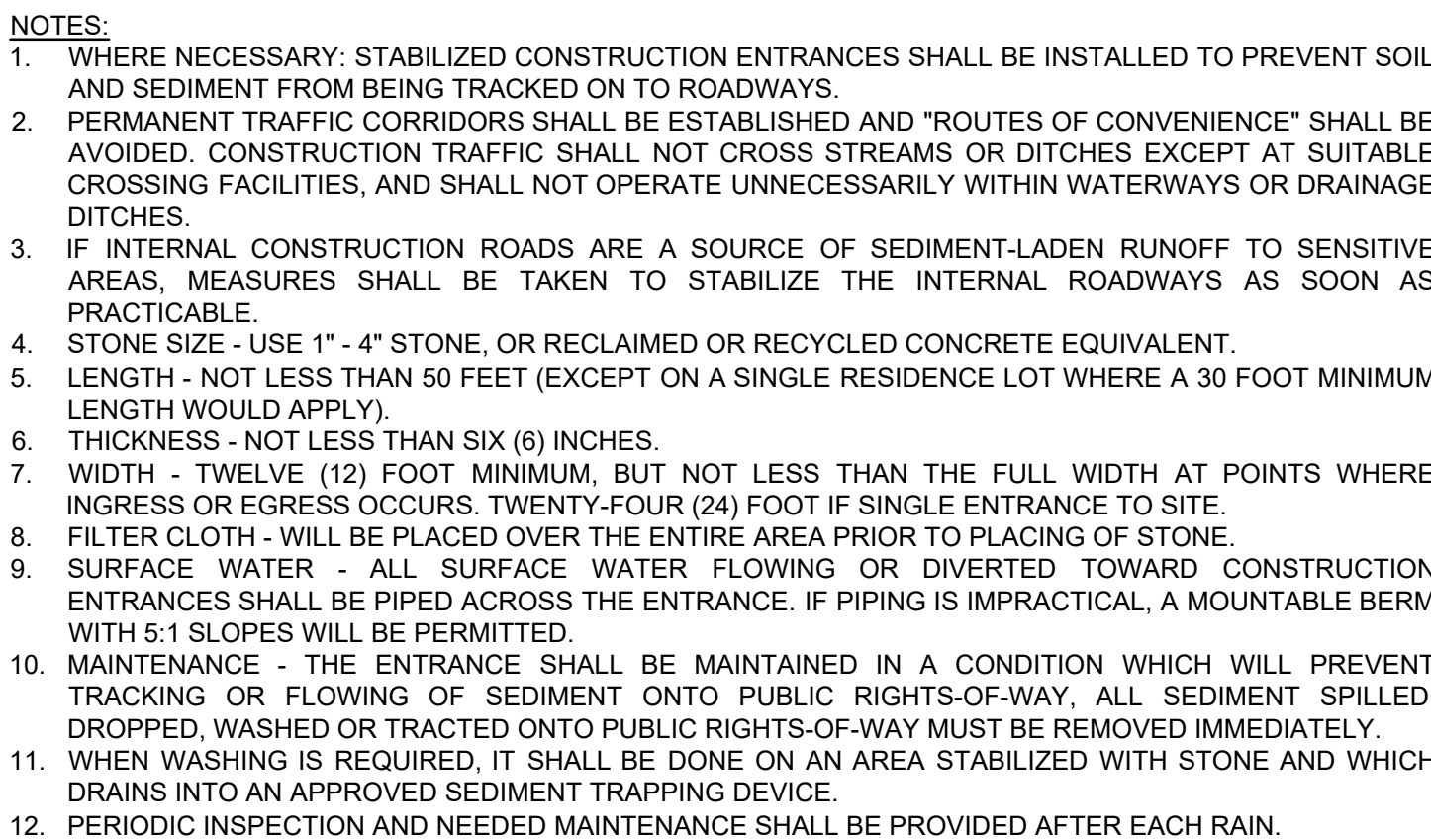


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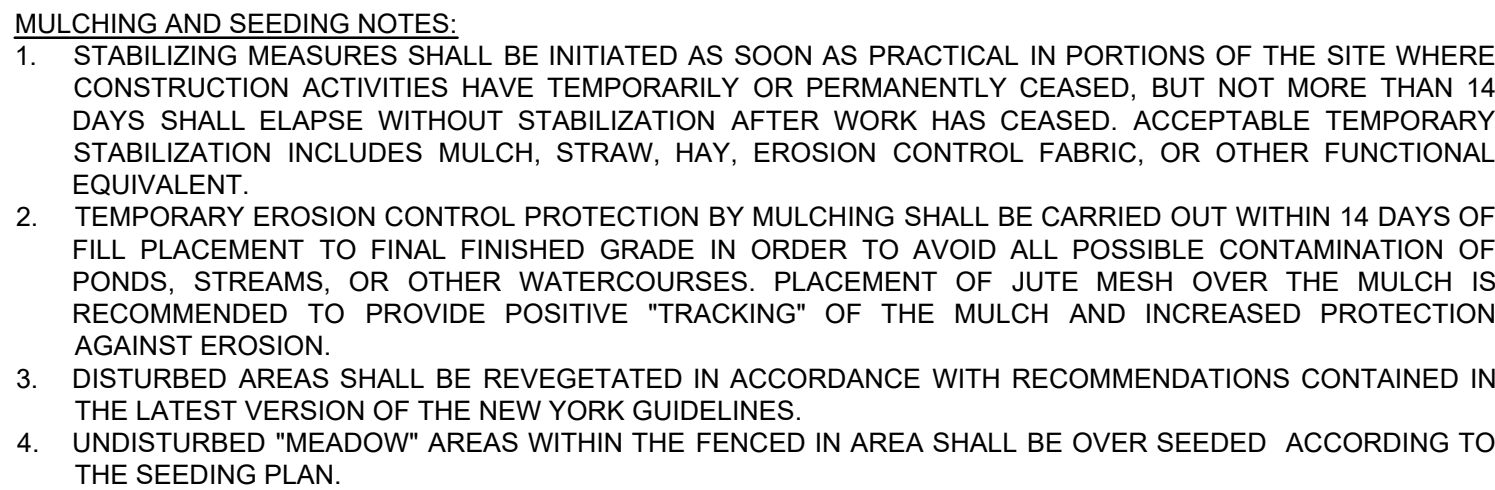


SCALE: N.T.S



(C-501)

SCALE: N.T.S.



SEEDING PLAN:
SEEDING TO REDUCE EROSION AND SEDIMENT TRANSPORT AFTER CONSTRUCTION COMPLETION

SEED APPLICATION: 260 LBS. PER ACRE MINIMUM.
ERNST SOLAR FARM SEED MIX:
35% FESTUCA RUBRA (CREEPING RED FESCUE)
35% FESTUCA RUBRA SSP. COMMUTATA (CHEWINGS FESCUE)
10% FESTUCA BREVIPILA, 'BEACON' (HARD FESCUE, 'BEACON')
10% FESTUCA OVINA VAR. DIURUSCULA (F. LONGIFOLIA), 'JETTY' (HARD FESCUE, 'JETTY')
5% POA PRATENSIS, 'CORSAIR' (KENTUCKY BLUEGRASS, 'CORSAIR')
5% POA PRATENSIS, 'SHAMROCK' (KENTUCKY BLUEGRASS, 'SHAMROCK')

TEMPORARY SEEDING:
PER THE LATEST VERSION OF THE NEW YORK STANDARDS AND SPECIFICATION FOR EROSION AND SEDIMENT CONTROL, "SPRING OR LATE SUMMER OR FALL, THEN SEED THE AREA WITH RYEGRASS AT THIRTY (30) LBS. PER ACRE. LATE FALL OR EARLY WINTER, THEN SEED CERTIFIED "AROSTOCK" WINTER RYE AT ONE HUNDRED (100) LBS PER ACRE. MULCH AREA WITH HAY OR STRAW AT TWO (2) TONS PER ACRE.

TURF ESTABLISHMENT:

1. TOP SOIL (4 INCHES MINIMUM) SHALL CONSIST OF NATURAL LOAM TOPSOIL, FREE FROM SUBSOIL. TOPSOIL SHALL BE OF UNIFORM QUALITY, FREE FROM HARD CLODS, STIFF CLAY, HARD PAN, SODS, PARTIALLY DISINTEGRATED STONE, OR ANY OTHER UNDESIRABLE MATERIAL.

2. THE CONTRACTOR SHALL PROVIDE NECESSARY WATERING, FERTILIZER, MULCHING, ETC., REQUIRED TO ESTABLISH AND MAINTAIN SEEDED AREAS UNTIL SAME ARE ACCEPTED BY THE OWNER'S FIELD REPRESENTATIVE.

[illegible]

CIVIL DETAILS - SHEET 1



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	4/5/2024	DESIGNED BY:	TSB/DPB		
	SCALE	CHECKED BY:	CJK	C&A JOB#	DRAWING:
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1. THIS DETAIL IS LIMITED TO CONSTRUCTION AND OCCASIONAL MAINTENANCE FOR SOLAR FACILITY PROJECTS IN NEW YORK STATE.
2. THE DRIVE SHALL NOT BE CONSTRUCTED ON NYSDOT SUBBASE MATERIAL OR EQUIVALENT.
3. CLEAN STONE SHALL NOT BE COMPACTED WITH A VIBRATORY ROLLER, PLATE COMPACTOR, OR EQUIVALENT. STONE MAY BE DEPOSITED AND SPREAD BY A TRACKED VEHICLE. COMPACTION FOR ALL COURSES MAY BE PROVIDED BY A NON-VIBRATORY VEHICLE.
4. DO NOT OIL, WATER BIND, SEALCOAT, CHOKE STONE, OR OVERLAY WITH CONCRETE, ASPHALT PAVEMENT, OR ANY MATERIAL THAT WILL CREATE AN IMPERVIOUS SURFACE.
5. APPROPRIATE EROSION AND SEDIMENT CONTROL TECHNIQUES SHALL BE USED DURING CONSTRUCTION TO ENSURE THAT SEDIMENT FINES ARE NOT DEPOSITED WITHIN THE VOIDS OF THE CLEAN STONE.
6. INSTALL ALL GEOTEXTILE AND GEOWEB COMPONENTS PER MANUFACTURER. CAREFULLY PLACE MATERIAL ATOP GEOTEXTILE AND/OR FOR INFILL OF GEOWEB TO PREVENT DISTORTION AND/OR COLLAPSE OF CELLS. UTILIZE KEY CONNECTORS TO JOIN ALL GEOWEB SECTIONS. UTILIZE ANCHORS TO STABILIZE GEOWEB DURING INFILL.
7. ALL CLEAN STONE TO BE WASHED, NO FINES, SHARP-ANGLED, UNIFORM QUALITY, CRUSHED STONE PER NYSDOT SPECIFICATIONS SECTION 703-02, TABLE 703-4, SIZE DESIGNATION AS INDICATED.

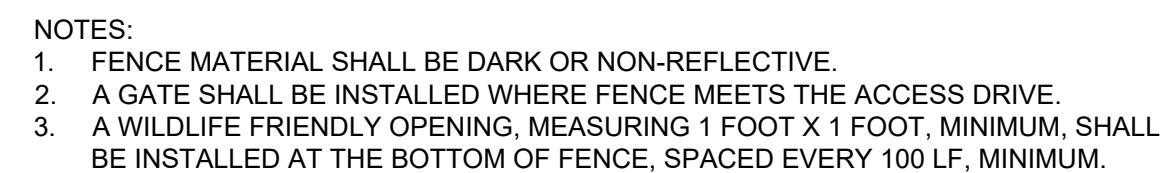
CONSTRUCTION NOTES:

1. THE DRIVE SECTION SHALL BE CUT INTO UN-COMPACTED IN-SITU SOIL MATERIAL. IN AREAS OF EVEN EXISTING GRADE, CUT IN SHALL BE OPTIONAL AND LIMITED TO 4" MAXIMUM. WHERE REQUIRED FOR LEVELING UNEVEN AREAS TO PROVIDE 2% CROSS SLOPE, A NATIVE SOIL OR ROB GRAVEL WEDGE, COMPACTED TO 80% MDD, MAY BE INSTALLED. WHERE DRIVE SECTION IS TO BE BUILT UP FROM EXISTING GRADE (SUCH AS FOR ATOP CULVERT CROSSINGS), NATIVE SOIL OR ROB GRAVEL FILL, COMPACTED TO 80% MDD, MAY BE INSTALLED BENEATH BASE / SUBBASE. COMPACTION FOR ALL COURSES MAY BE PROVIDED BY A NON-VIBRATORY VEHICLE.
2. AT LOW POINTS, ALIGNED AND UNALIGNED, AT LOCATIONS INDICATED BY THE SITE PLAN, THE DRIVE SHALL BE CONSTRUCTED WITH A ROB GRAVEL FILL WEDGE ON THE DOWNSLOPE SIDE FOR DRAINAGE OF THE DRIVE SECTION.
3. GEOTEXTILE SHALL BE MIRAFI TENCATE RS 280i (OR APPROVED EQUAL) ALONG THE ENTIRE DRIVE ALIGNMENT.
4. BASE COURSE SHALL BE AS FOLLOWS:
 - 4.1. IN AREAS OF STRAIGHT ALIGNMENT AND RUNNING SLOPES LESS THAN 5%,
 - 4.1.1. PROVIDE 6" THICKNESS NYSDOT #3 CLEAN STONE WHERE EXISTING SOILS EXHIBIT ADEQUATE DRAINAGE AND/OR STABILITY.
 - 4.1.2. PROVIDE 4 THICKNESS CLEAN GABION STONE, SIZE 4"-6" WHERE EXISTING SOILS EXHIBIT FREQUENT SATURATION, SETTling, AND/OR HEAVING.
 - 4.1.3. GEOGRID MAY BE ADDED TO EITHER OF THE ABOVE BASE COURSE OPTIONS AT LOCATIONS OF DESIRED INCREASED STABILIZATION. GEOGRID SHALL BE ADS BX1242GD (OR APPROVED EQUAL). GEOGRID SHALL BE PLACED APPROXIMATELY MID-BASE COURSE DEPTH (APPROXIMATELY 3" THICKNESS BASE MATERIAL BELOW AND ABOVE GEOGRID, MINIMUM 4" TOTAL MATERIAL COVER ABOVE GEOGRID).
- 4.2. IN AREAS OF CURVED ALIGNMENT, TURNAROUNDS, RUNNING SLOPES GREATER THAN 5%, AT LOCATIONS OF DESIRED INCREASED STABILIZATION, AND/OR AT LOCATIONS INDICATED BY THE SITE PLAN, PROVIDE 6" THICKNESS PRESTO GEOSYSTEMS GEOWEB GW30V6 (OR APPROVED EQUAL) AND FILL WITH 6" THICKNESS NYSDOT #2 CLEAN STONE.
5. SURFACE COURSE SHALL BE 2" THICKNESS NYSDOT #1 CLEAN STONE.
6. IN AREAS WHERE EXISTING SOILS EXHIBIT FREQUENT SATURATION, SETTling, AND/OR HEAVING, AN OPTIONAL SUBBASE COURSE MAY BE IMPLEMENTED TO IMPROVE STABILITY. OPTIONAL SUBBASE COURSE SHALL BE 12" THICKNESS CLEAN GABION STONE, SIZE 6" - 12".

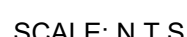
SCALE: N.T.S.



SCALE: N.T.S



SCALE: N.T.S.



- NOTES:**
1. COORDINATE KNOX BOX OR SIMILAR WITH LOCAL FIRE DEPARTMENT AS NEEDED.

ELP MARLBOROUGH SOLAR
335 BINGHAM ROAD

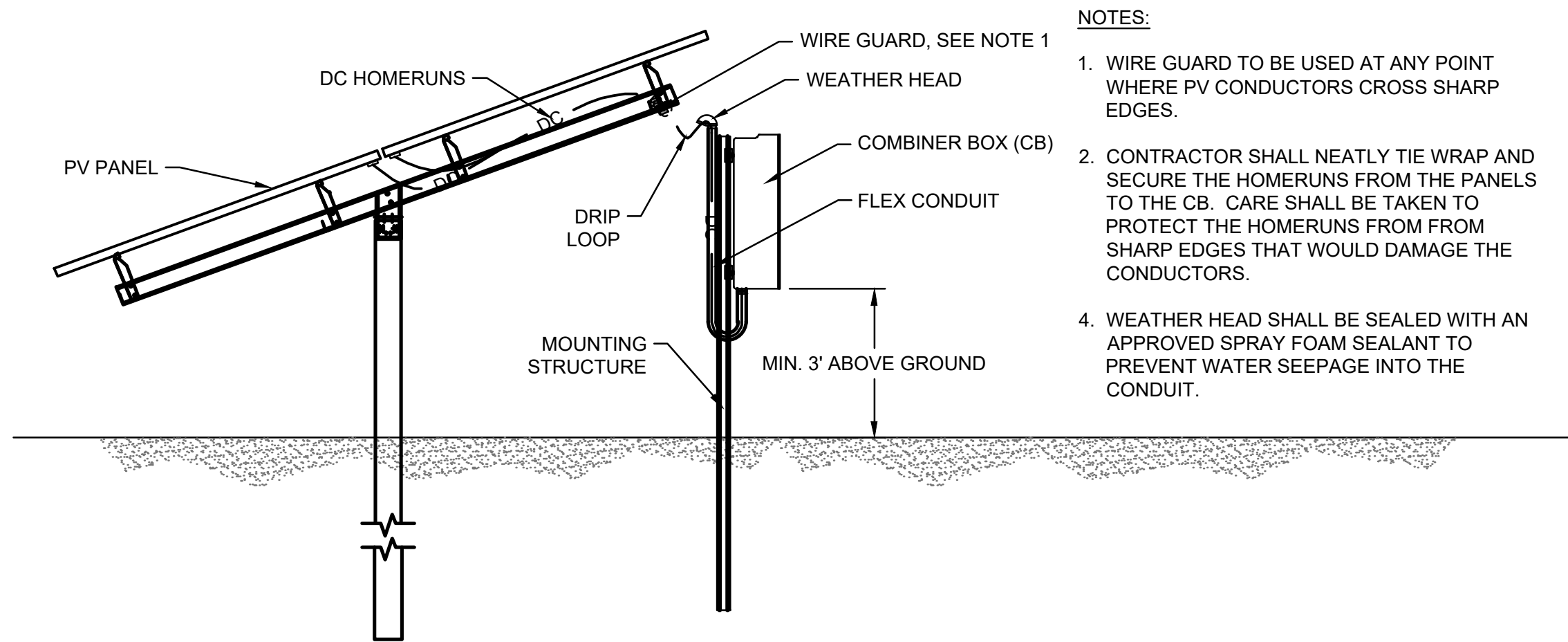
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4/5/2024	DESIGNED BY: TSB/DPB	C&A JOB# 4996.26	DRAWING: C-502
SCALE	CHECKED BY: CJK		
AS SHOWN	APPROVED BY: CJK		

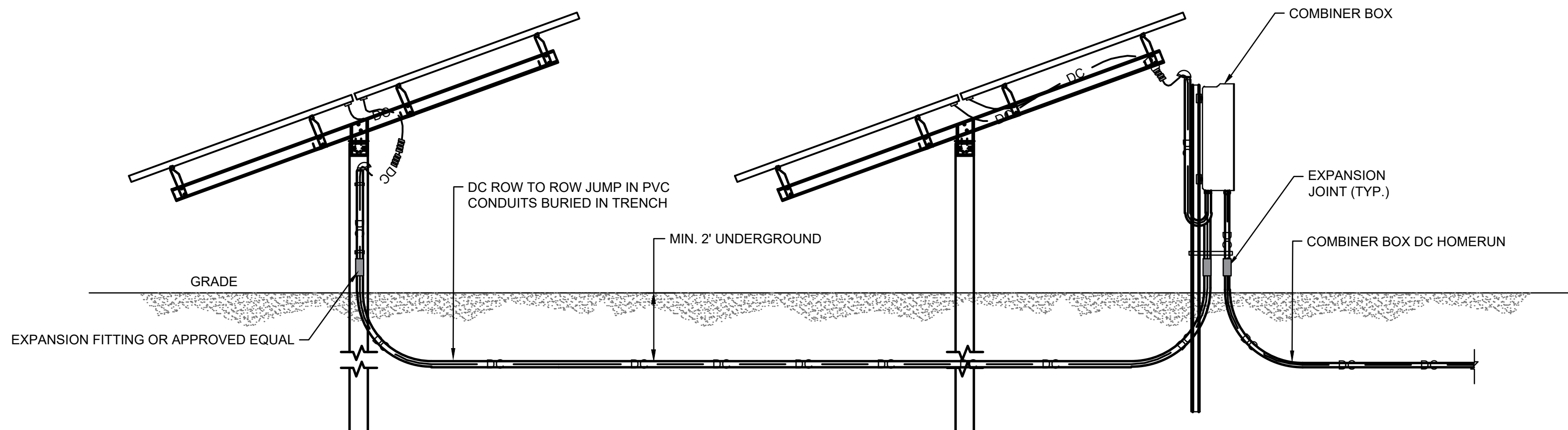


NOTES:

1. WIRE GUARD TO BE USED AT ANY POINT WHERE PV CONDUCTORS CROSS SHARP EDGES.
2. CONTRACTOR SHALL NEATLY TIE WRAP AND SECURE THE HOMERUNS FROM THE PANELS TO THE CB. CARE SHALL BE TAKEN TO PROTECT THE HOMERUNS FROM FROM SHARP EDGES THAT WOULD DAMAGE THE CONDUCTORS.
4. WEATHER HEAD SHALL BE SEALED WITH AN APPROVED SPRAY FOAM SEALANT TO PREVENT WATER SEEPAGE INTO THE CONDUIT.

A
E-501
FIXED TILT DC CONDUCTORS WIRE MANAGEMENT DETAIL

SCALE: N.T.S.

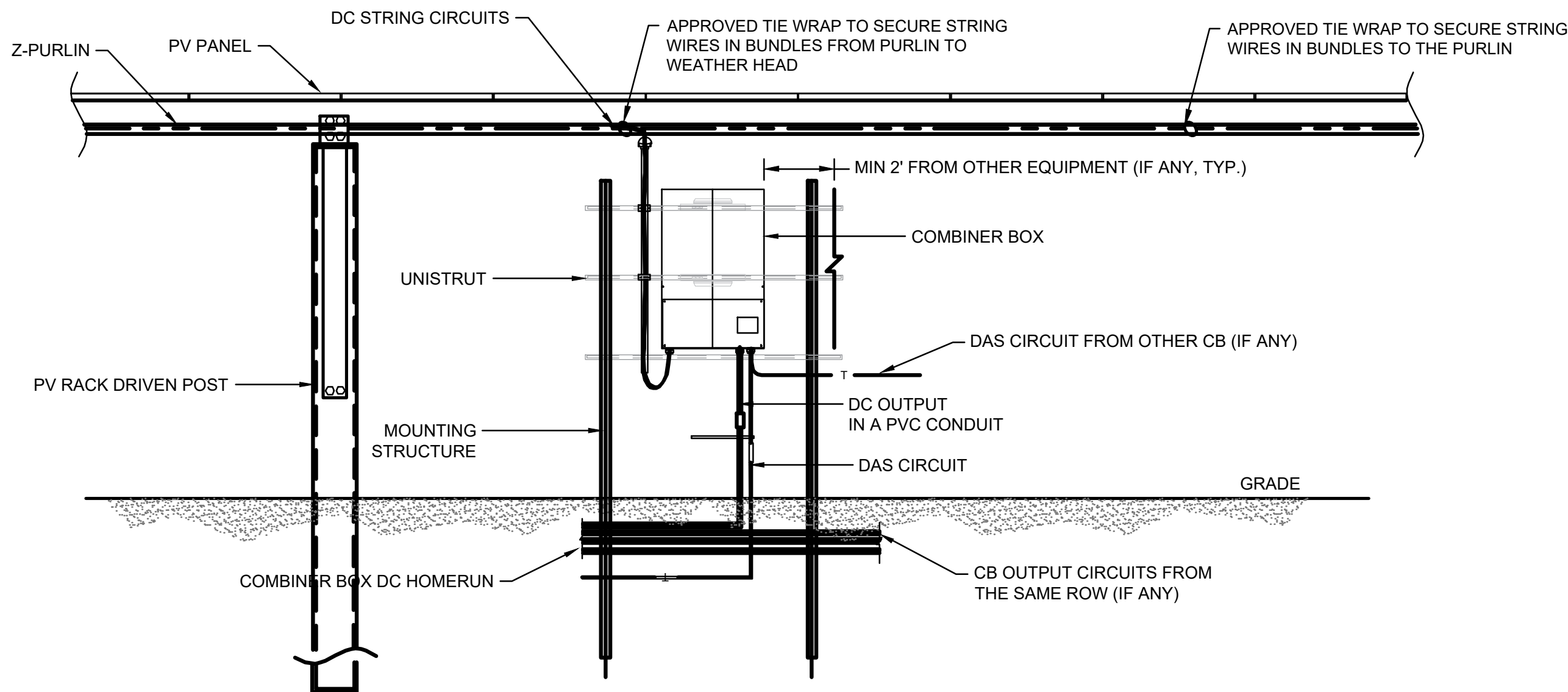


NOTE:

1. ELECTRICIANS TO PROVIDE CONDUIT FITTINGS, EXPANSION FITTINGS, AND PROTECTIVE BUSHINGS AS REQUIRED
2. A WIRE MANAGEMENT TRAY OR APPROVED EQUIVALENT SHALL BE PROVIDED TO HOUSE THE EXPOSED DC CONDUCTORS AT THE COMBINER BOX RACKING STRUCTURE
3. SPLIT-WIRE LOOM SHALL BE PROVIDED WHERE CABLES COME IN CONTACT WITH SHARP EDGES, IN CASE OF LARGER GAPS BETWEEN RACKING TABLES, AND FOR ADDITIONAL PROTECTION OF EXPOSED PV WIRES AT THE COMBINER BOX MOUNTING STRUCTURE
4. COMMUNICATION CONDUITS SHALL BE PLACED AT LEAST 1' FROM EITHER AC OR DC CIRCUITS

B
E-501
ROW TO ROW JUMPING DETAIL

SCALE: N.T.S.



C
E-501
EQUIPMENT MOUNTING DETAIL FRONT VIEW

SCALE: N.T.S.

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1. ALL ELECTRICAL DETAILS SHOWN HAVE BEEN INCLUDED FOR GENERAL REFERENCE AND DOES NOT REPRESENT THE SPECIFIC DESIGN OF ALL ELECTRICAL AND/OR RACKING COMPONENTS. THE ELECTRICAL DESIGN AND CONSTRUCTION DRAWINGS SHALL BE REFERENCED FOR ALL ELECTRICAL COMPONENTS DURING CONSTRUCTION OF THIS PROJECT.

1	UPDATES PER PLANNING BOARD COMMENT	7/3/24	TSB
REV #	DESCRIPTION	DATE	BY

ELP MARLBOROUGH SOLAR
335 BINGHAM ROAD
TOWN OF MARLBOROUGH ULSTER COUNTY, NY

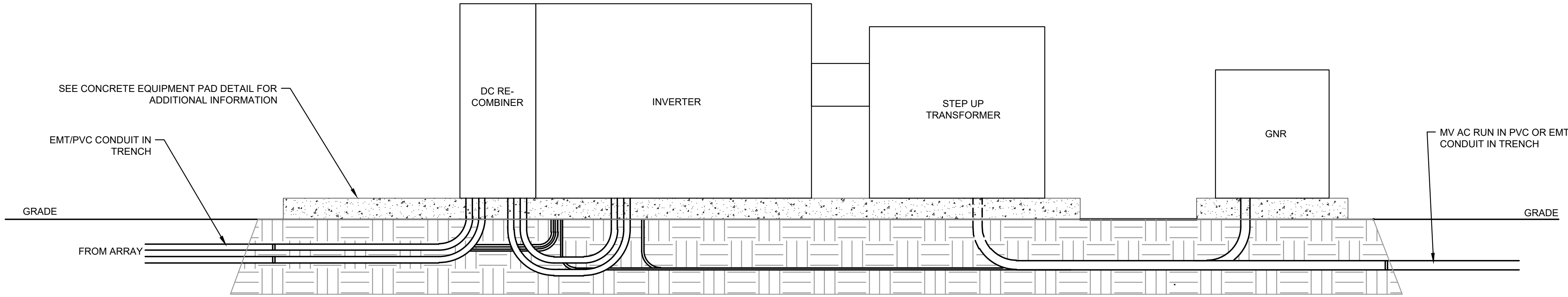
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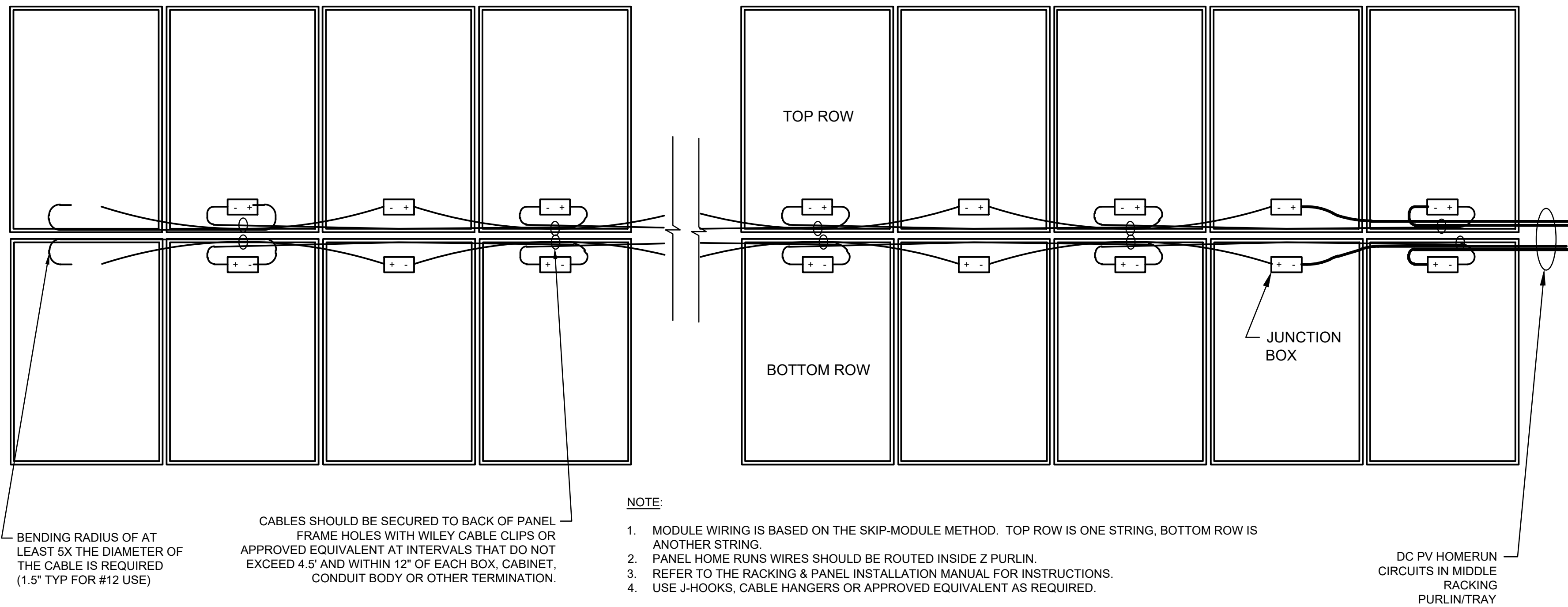
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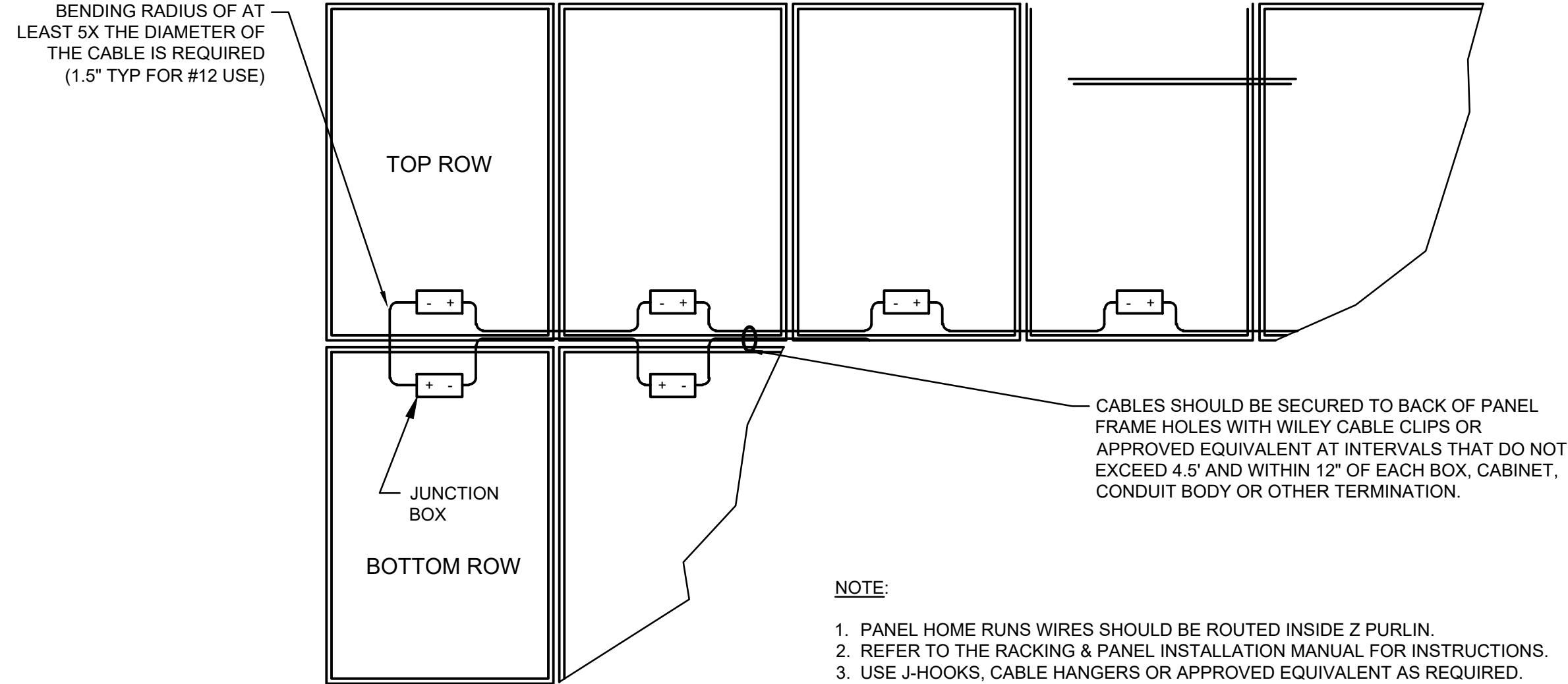
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A
E-502 EQUIPMENT PAD WIRING MANAGEMENT
SCALE: N.T.S.




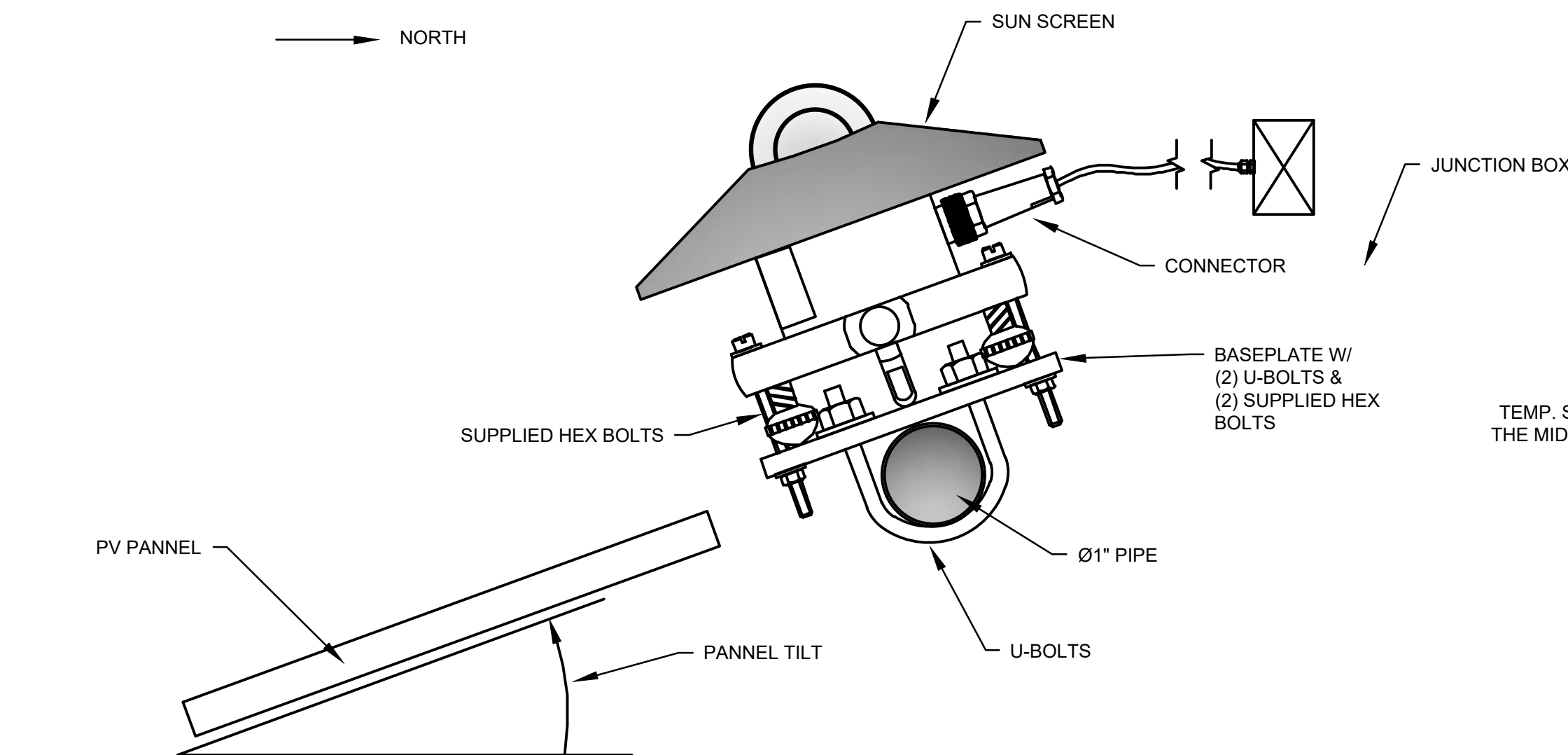
B
E-502 PANEL WIRING MANAGEMENT DETAIL (FULL RACK WITH SKIP WIRING)
SCALE: N.T.S.



C
E-502 PANEL WIRING MANAGEMENT DETAIL (HALF RACK)
SCALE: N.T.S.

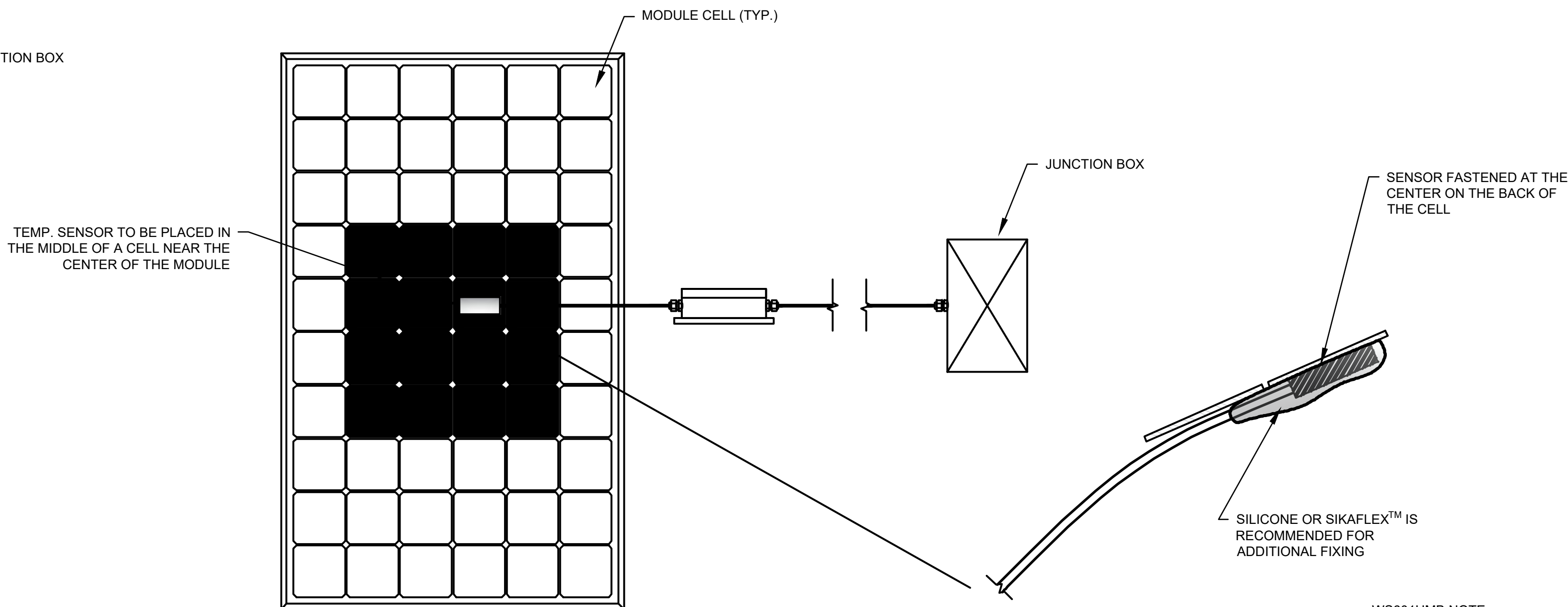
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	TOWN OF MARLBOROUGH					ULSTER COUNTY, NY
ELECTRICAL DETAILS - SHEET 2						
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- PYRANOMETER NOTE:**
1. FOR POA PYRANOMETERS, ROTATE ASSEMBLY SO THAT THE BASEPLATE IS PARALLEL TO THE PV ARRAY AND FASTEN SNUGLY. FOR GHI PYRANOMETER, ROTATE ASSEMBLY SO THAT THE BASEPLATE IS PARALLEL TO THE GROUND.
 2. PLACE PYRANOMETER ONTO THE MOUNTING BRACKET BASEPLATE AND ENSURE THEY ARE PARALLEL TO EACH OTHER USING THE LEVELING METER.
 3. ELECTRICAL DETAILS REFERS TO DAS INFORMATION. IF THE SENSOR IS THE LAST DEVICE IN A MODBUS CHAIN WHICH CONSISTS OF 3 OR MORE DEVICES, THEN ADD A 120Ω RESISTOR BETWEEN THE DATA+ AND DATA- WIRES

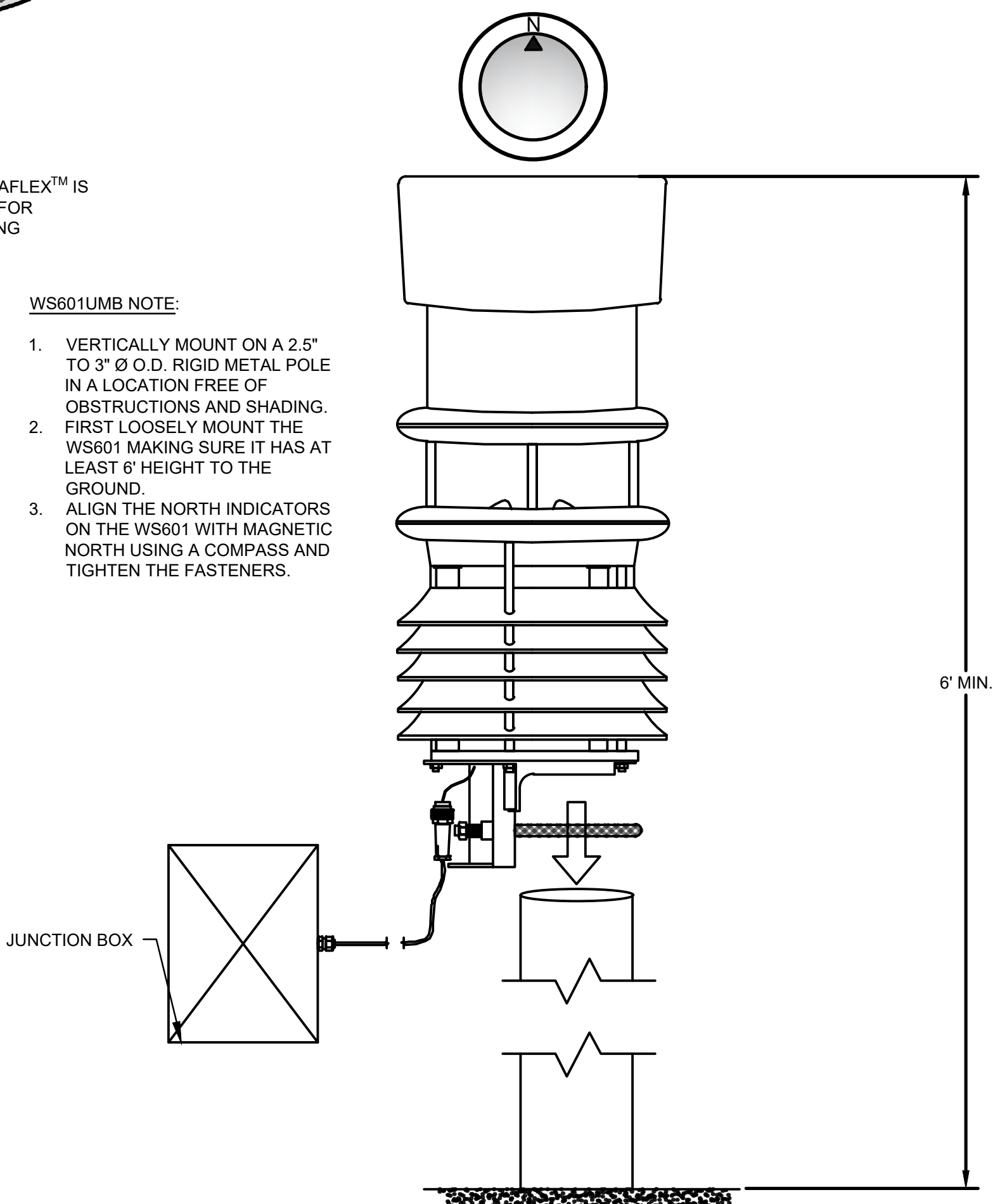
A PYRANOMETER (POA) INSTALLATION
E-503
SCALE: N.T.S.



- TEMPERATURE SENSOR NOTE:**
1. THE SENSOR SHALL BE PLACED ON A MODULE THAT IS AT LEAST 1 MODULE FROM THE EDGE OF THE ARRAY ON ALL SIDES WHEN POSSIBLE.
 2. CLEAN THE CELL BEFORE ATTACHING A SENSOR ONTO IT.

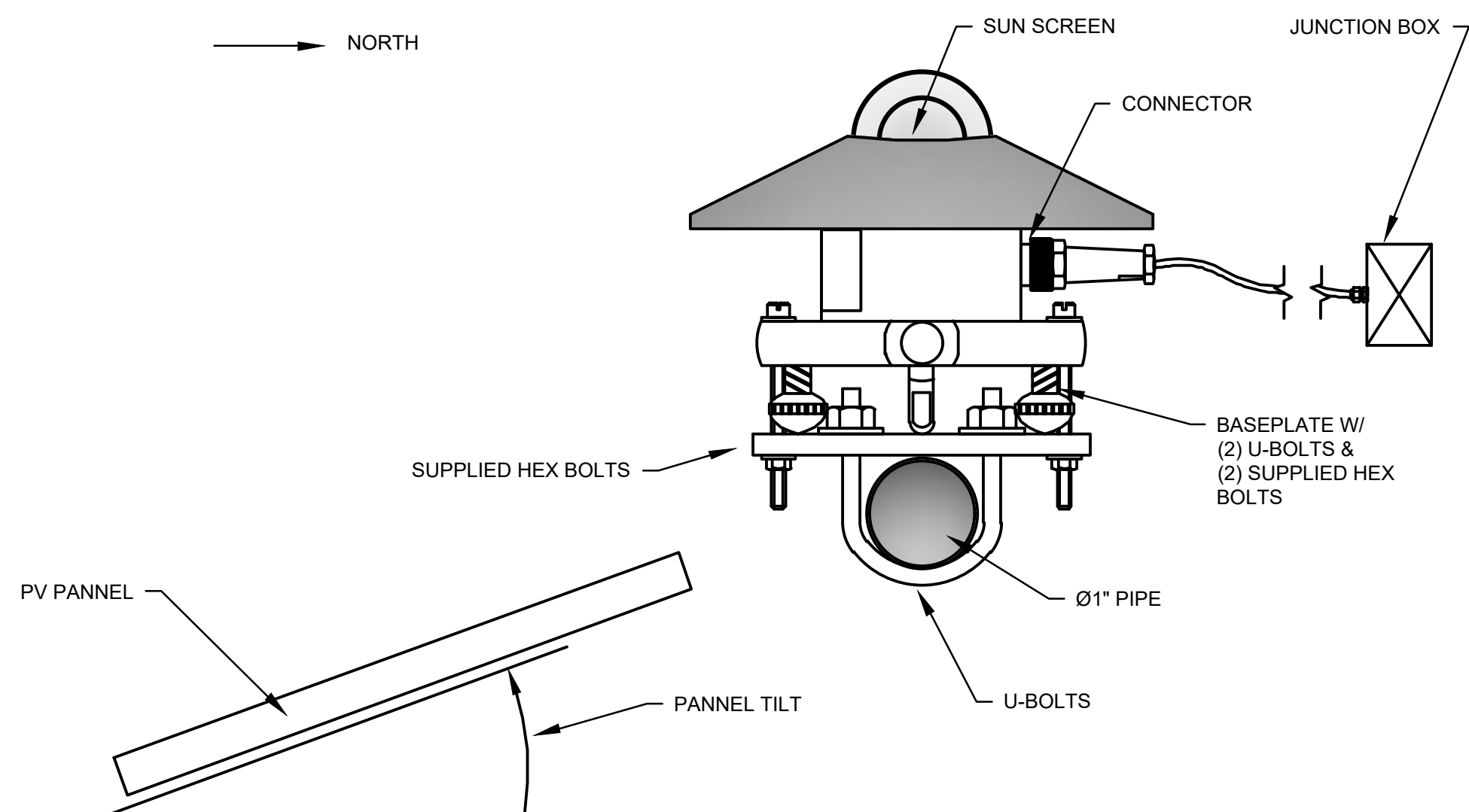
C MODULE TEMPERATURE SENSOR INSTALLATION
E-503
SCALE: N.T.S.

- WS601UMB NOTE:**
1. VERTICALLY MOUNT ON A 2.5" TO 3" Ø O.D. RIGID METAL POLE IN A LOCATION FREE OF OBSTRUCTIONS AND SHADING.
 2. FIRST LOOSELY MOUNT THE WS601 MAKING SURE IT HAS AT LEAST 6' HEIGHT TO THE GROUND.
 3. ALIGN THE NORTH INDICATORS ON THE WS601 WITH MAGNETIC NORTH USING A COMPASS AND TIGHTEN THE FASTENERS.

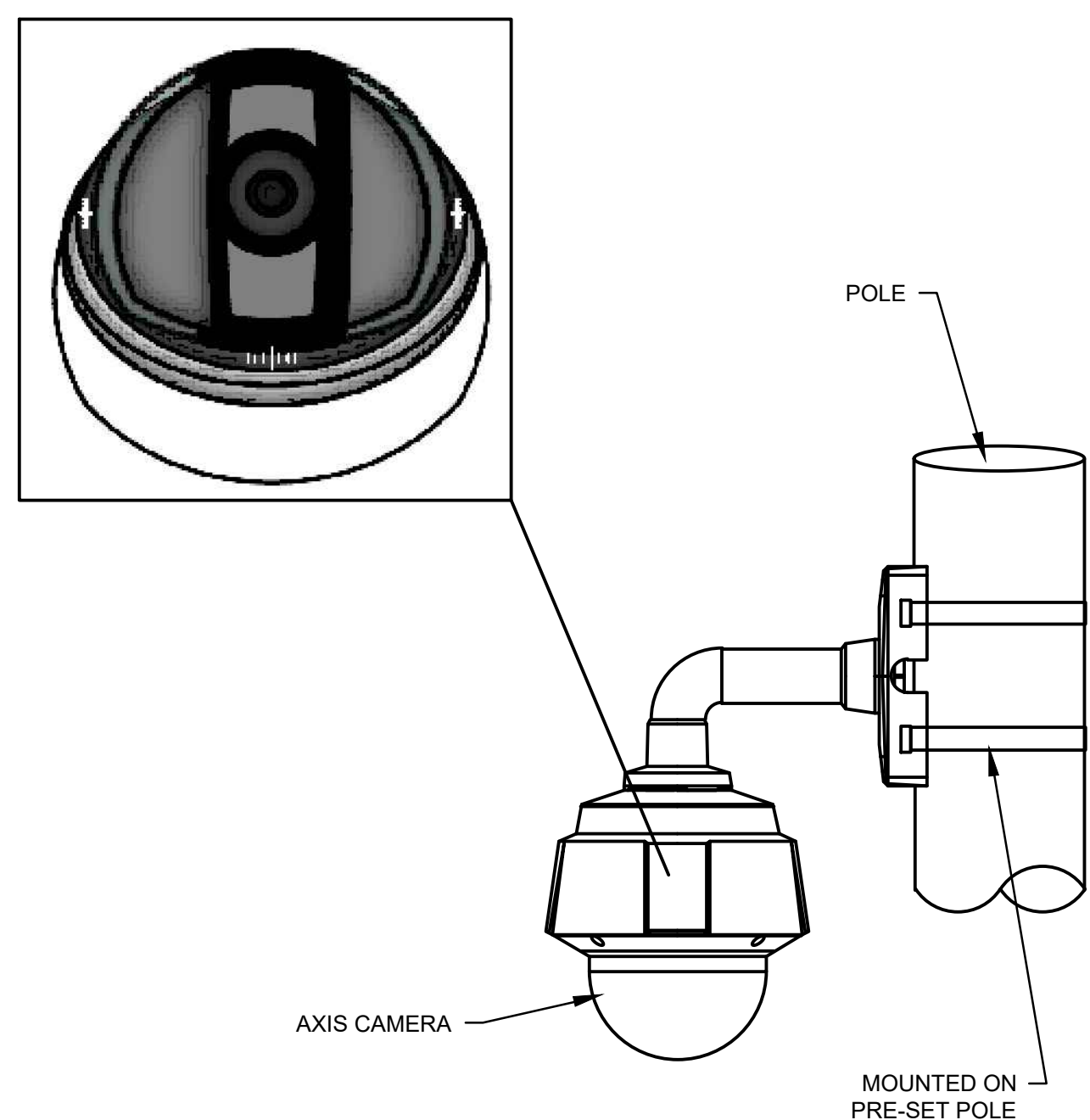


E LUFFT WS601USM INSTALLATION
E-503
SCALE: N.T.S.

- ELECTRICAL DETAIL NOTES:**
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B PYRANOMETER (GHI) INSTALLATION
E-503
SCALE: N.T.S.



D AXIS CAMERA INSTALLATION
E-503
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UPDATES PER PLANNING BOARD COMMENT

7/3/24

TSB

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TOWN OF MARLBOROUGHULSTER COUNTY, NY

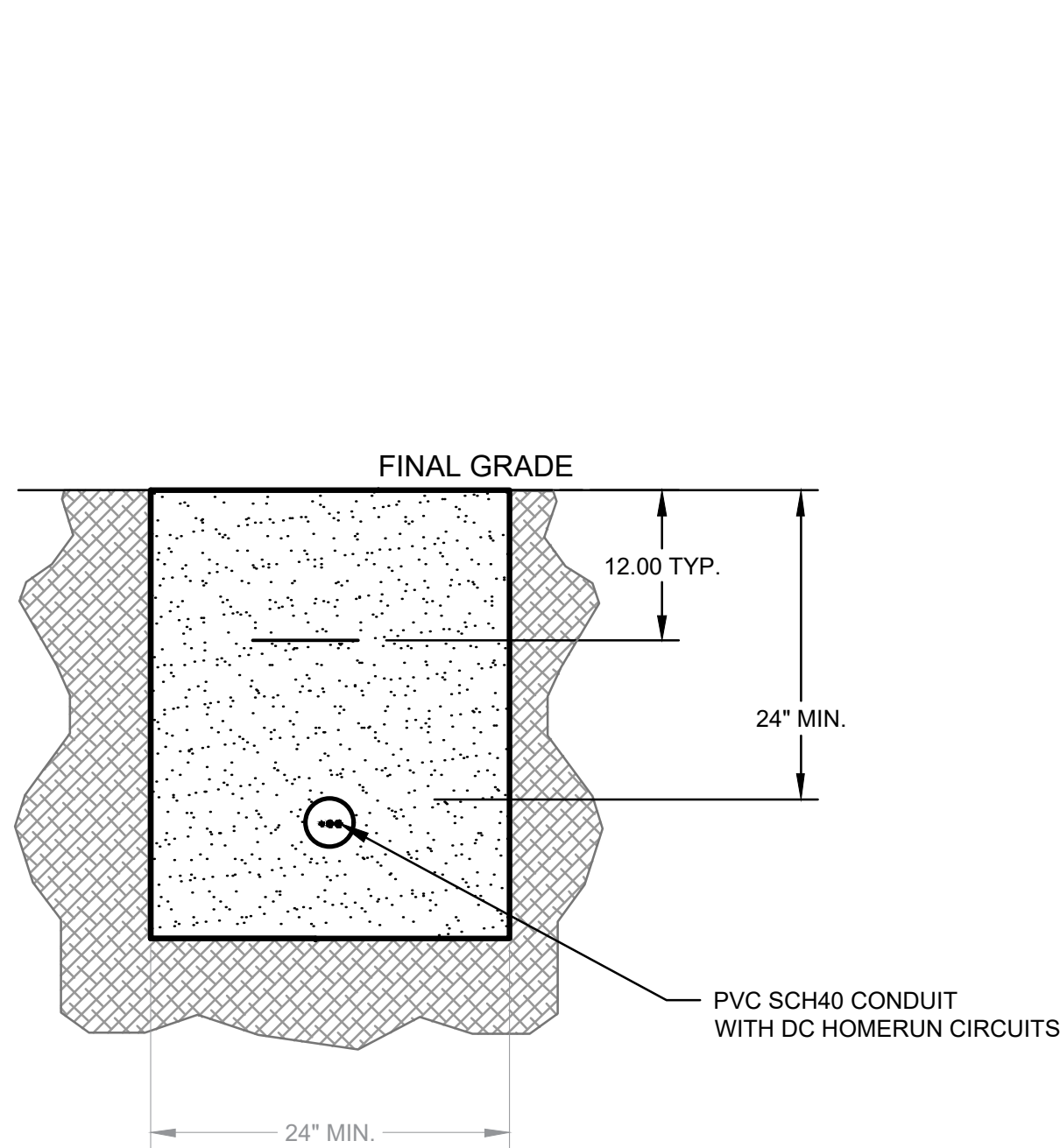
ELECTRICAL DETAILS - SHEET 3

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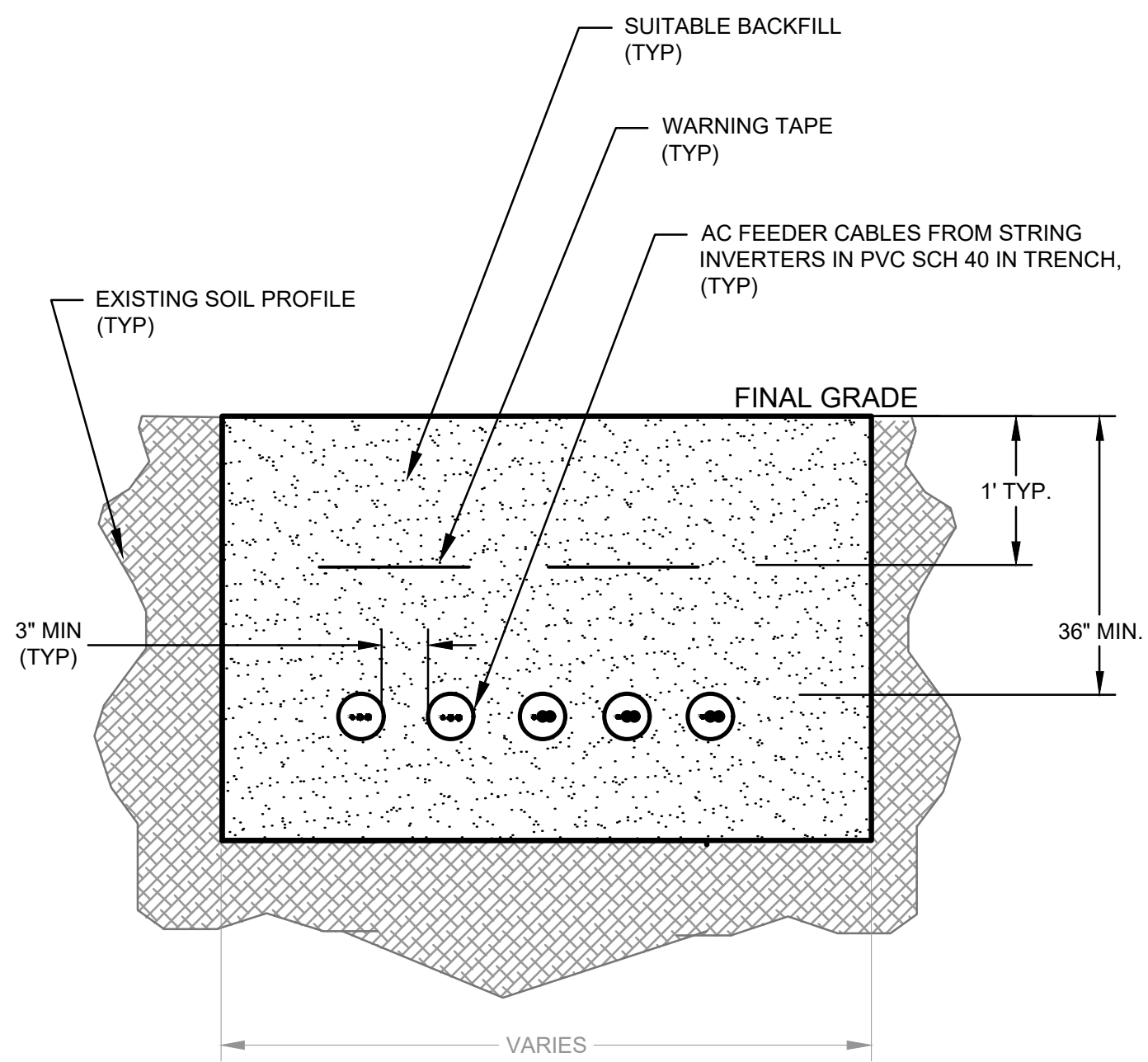
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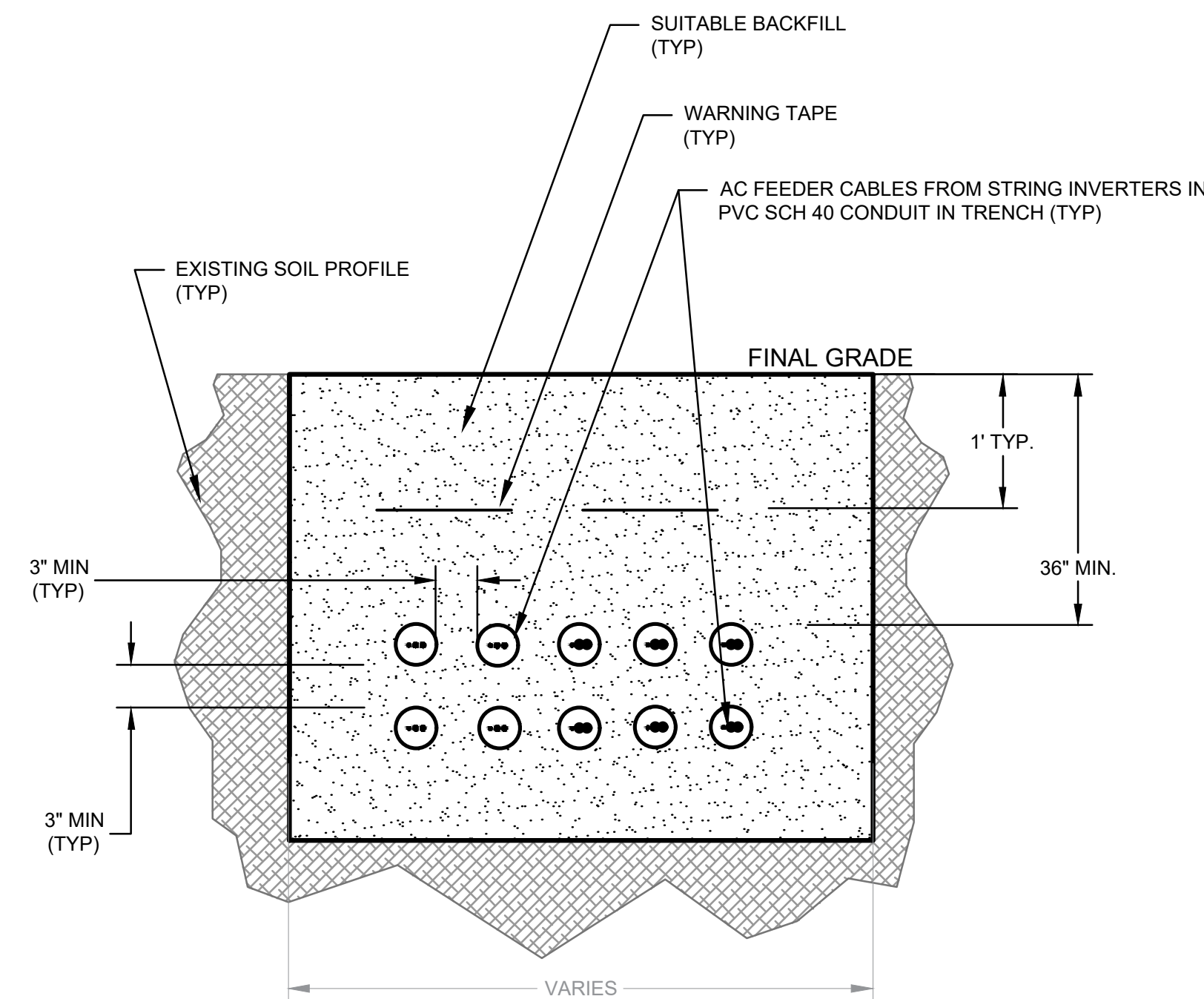
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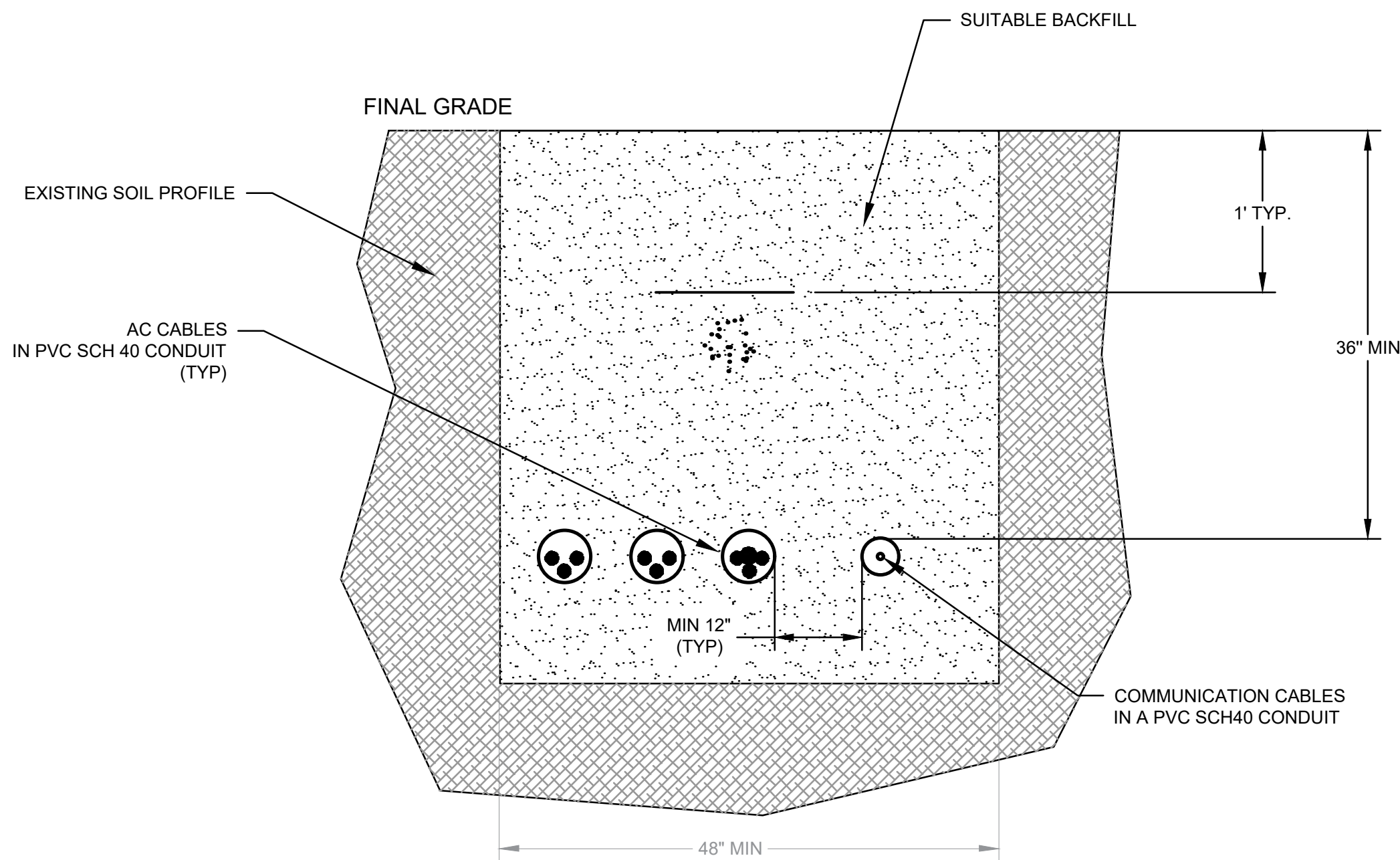
A DC HOMERUNS ROW TO ROW JUMPER TRENCH DETAIL
E-504 SCALE: N.T.S.



B AC FEEDER CIRCUITS TRENCH DETAIL (SINGLE LAYER)
E-504 SCALE: N.T.S.



C AC FEEDER CIRCUITS TRENCH DETAIL (TWO LAYERS)
E-504 SCALE: N.T.S.



D MEDIUM VOLTAGE CONDUCTORS WITH COMMUNICATIONS CABLES TRENCH DETAIL
E-504 SCALE: N.T.S.

NOTES:

1. ALL AC CONDUITS TO BE BURIED AT A MINIMUM OF 3'. ALL DC CONDUITS TO BE BURIED AT A MINIMUM OF 2'.
2. COMMUNICATION CABLES TO BE A MINIMUM OF 12" AWAY FROM DC AND AC CABLES.
3. WARNING TAPE TO BE METALLIC WITH THE PHRASE "CAUTION: BURIED ELECTRICAL LINES"
4. BACKFILL TO BE FREE FROM ANY ROCKS OR OTHER DELETERIOUS OBJECTS THAT ARE 3/4" IN DIAMETER OR GREATER.
5. ELECTRICIANS TO PROVIDE MATCHING FITTINGS AND EXPANSION COUPLINGS BY THE SAME MANUFACTURER AS THE CONDUIT

ELECTRICAL DETAIL NOTES:

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