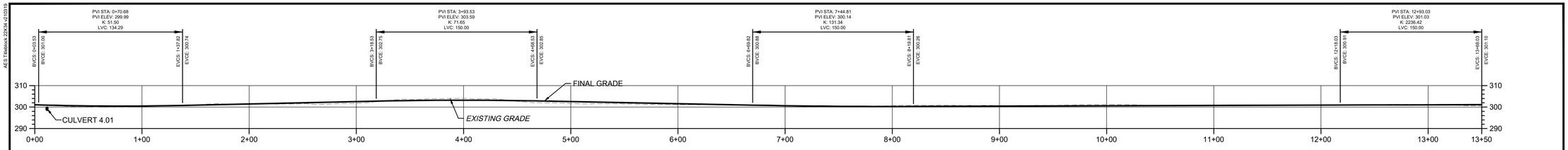
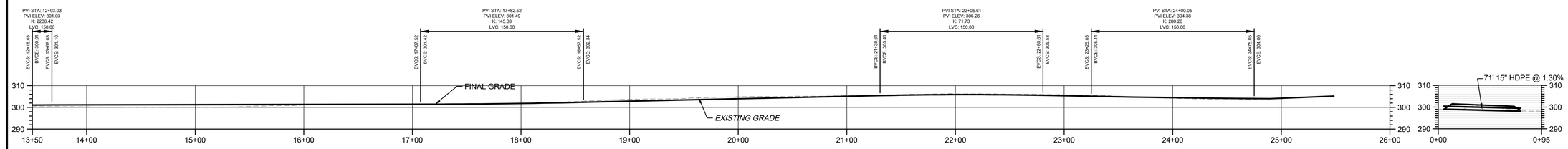
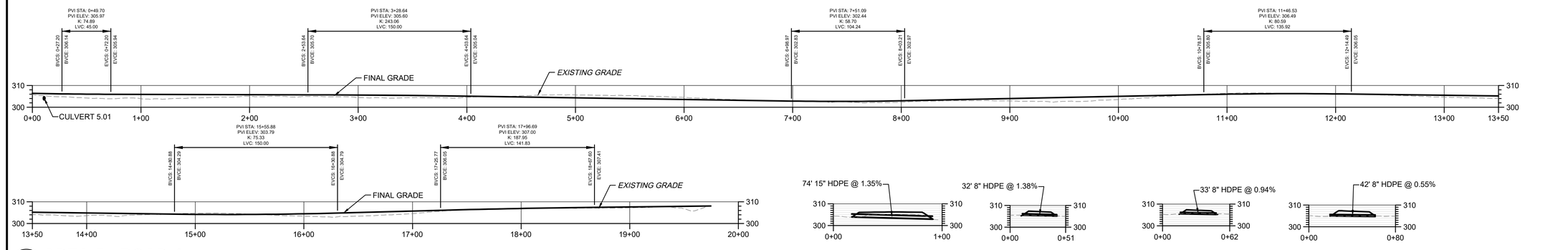




1 C.06.02 **AREA 4 - ROAD 1**
H:1"=50' | V:1"=25'

CULVERT 4.01
H:1"=50' | V:1"=25'



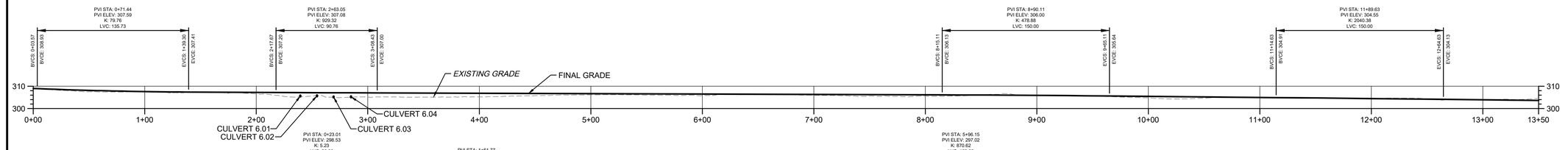
2 C.06.02 **AREA 5 - ROAD 1**
H:1"=50' | V:1"=25'

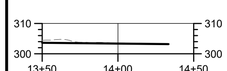
CULVERT 5.01
H:1"=50' | V:1"=25'

CULVERT 6.01
H:1"=50' | V:1"=25'

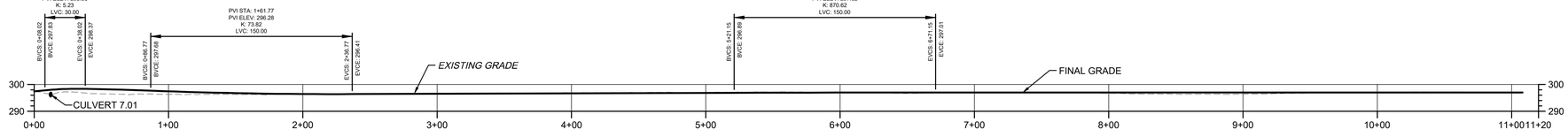
CULVERT 6.02
H:1"=50' | V:1"=25'

CULVERT 6.03
H:1"=50' | V:1"=25'

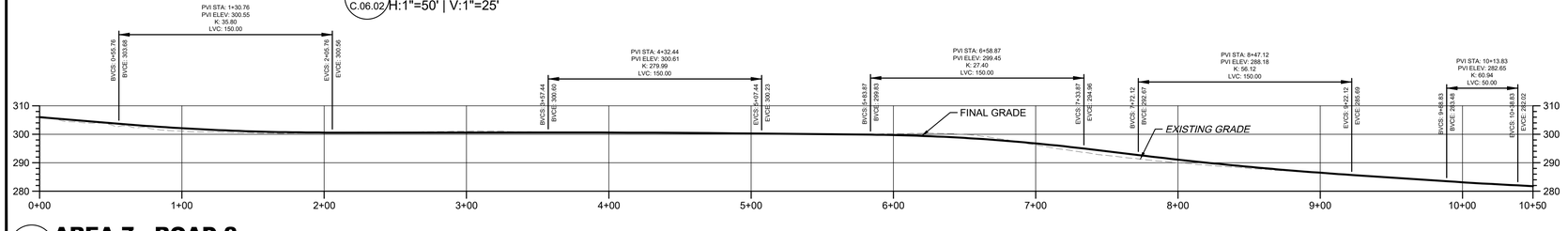


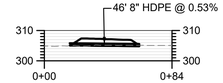


3 C.06.02 **AREA 6 - ROAD 1**
H:1"=50' | V:1"=25'



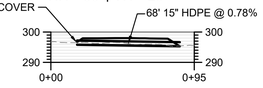
4 C.06.02 **AREA 7 - ROAD 1**
H:1"=50' | V:1"=25'





CULVERT 6.04
H:1"=50' | V:1"=25'

CULVERT SHALL BE COUNTERSUNK 6" TO PROVIDE 1' MIN. COVER



CULVERT 7.01
H:1"=50' | V:1"=25'

5 C.06.02 **AREA 7 - ROAD 2**
H:1"=50' | V:1"=25'

AES CLEAN ENERGY DEVELOPMENT, LLC
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PROJECT LOCATION:

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SOMERSET, NY

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ROAD PROFILES

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PROJ NUM:	SU20.0012
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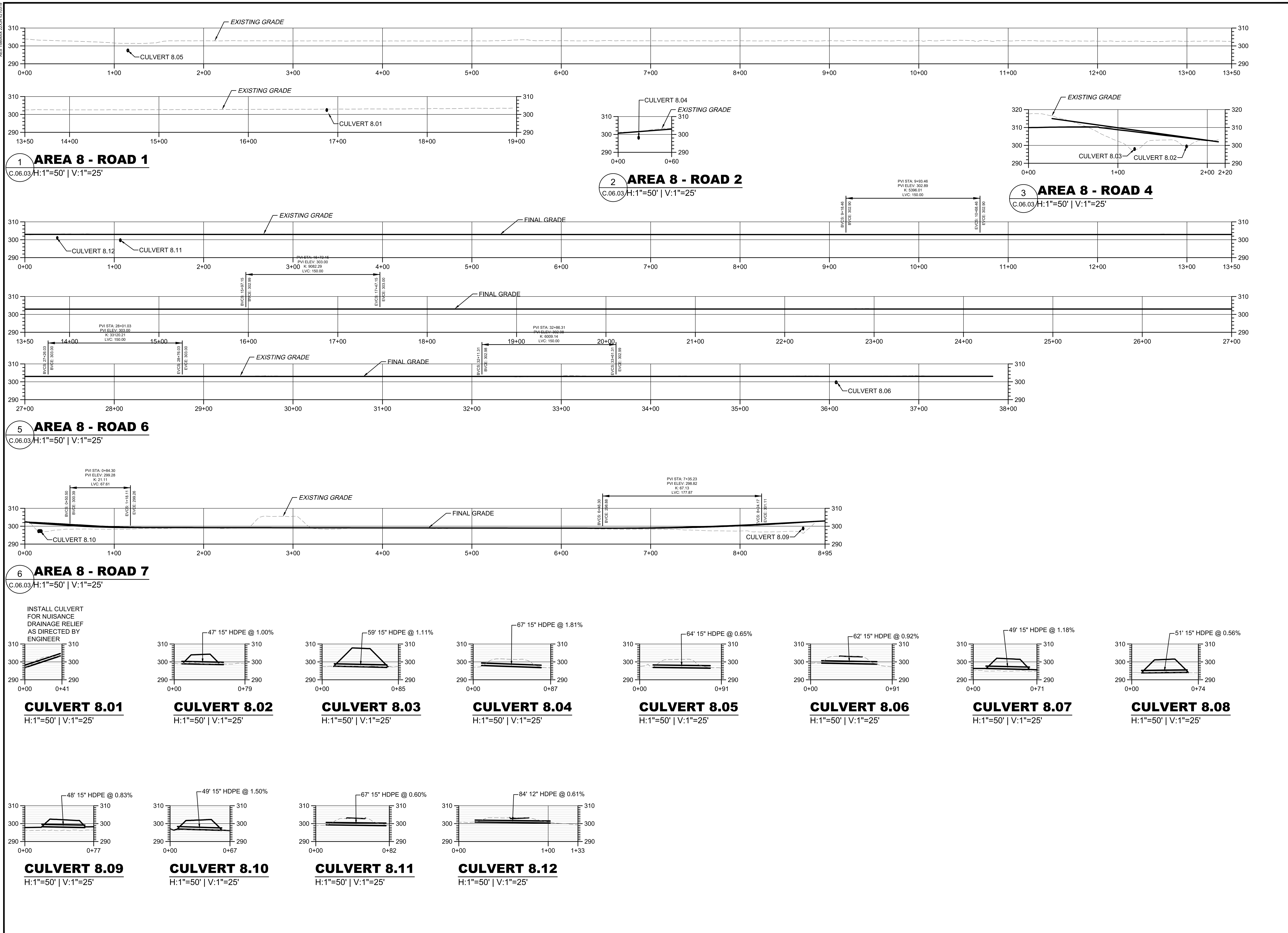
DWN:	RCD
CHK:	JPP/MAH
APV:	BMS
DATE:	08/11/2023

SCALE AT 22" x 34":

AS SHOWN

SHEET NO: PV-C.06.02

REV: 1



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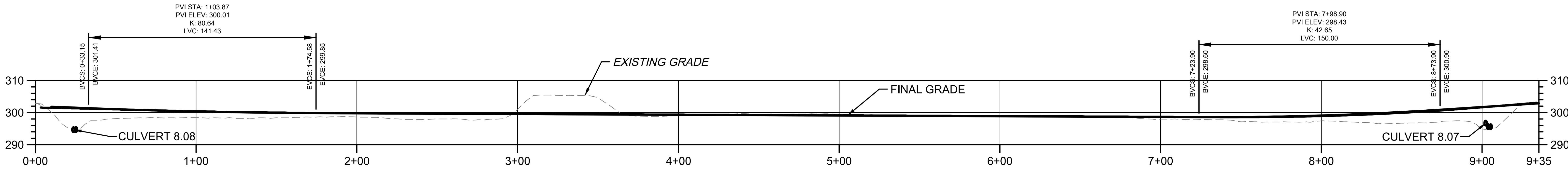
DATE:	08/11/2023

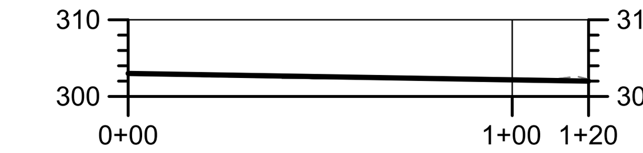
SCALE AT 22" x 34":

AS SHOWN

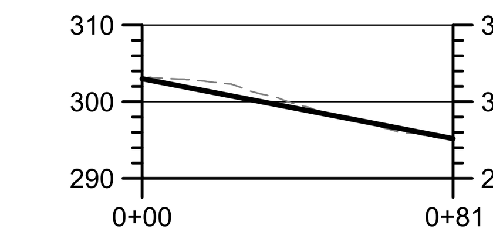
SHEET NO: PV-C.06.03 REV: 1



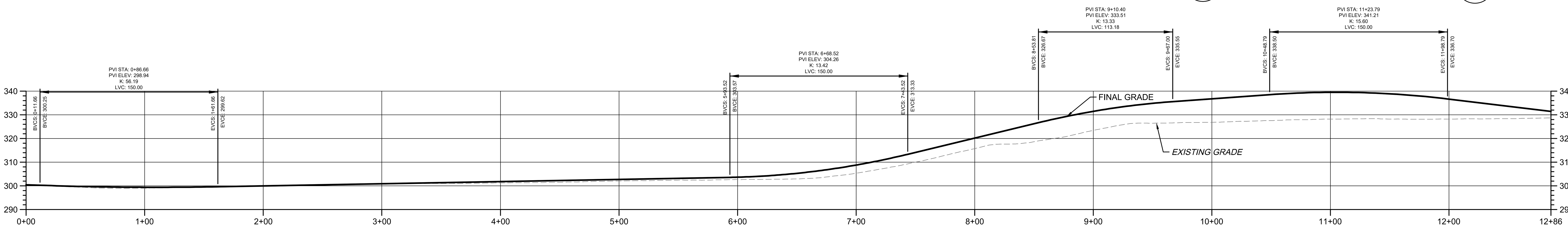
1 AREA 8 - ROAD 8
C.06.04 H:1"=50' | V:1"=25'



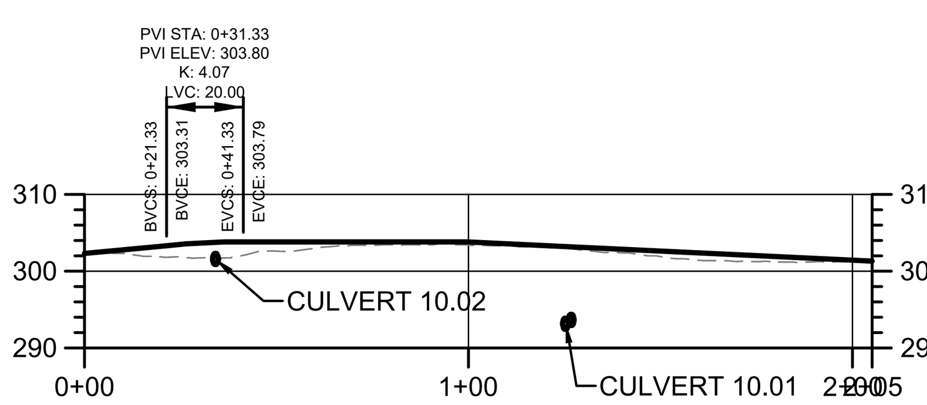
1 AREA 10 - ROAD 5
C.06.04 H:1"=50' | V:1"=25'



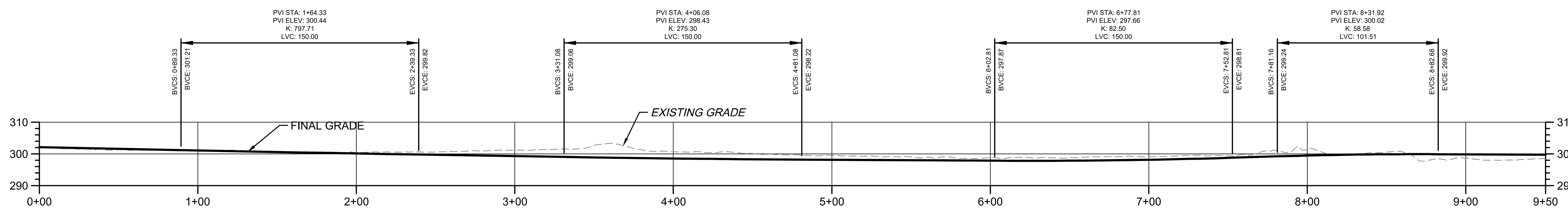
3 AREA 10 - ROAD 4
C.06.04 H:1"=50' | V:1"=25'



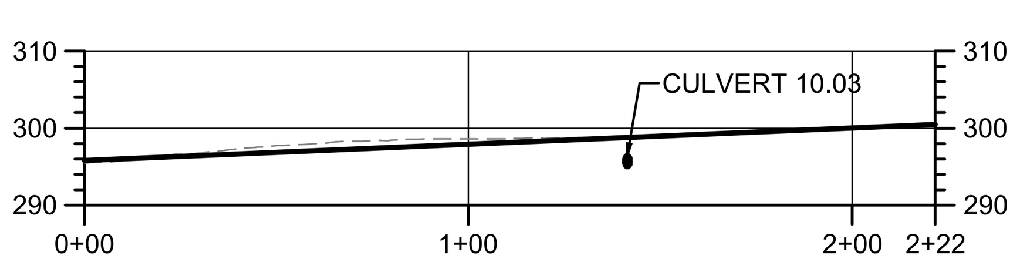
4 AREA 9 - ROAD 1
C.06.04 H:1"=50' | V:1"=25'



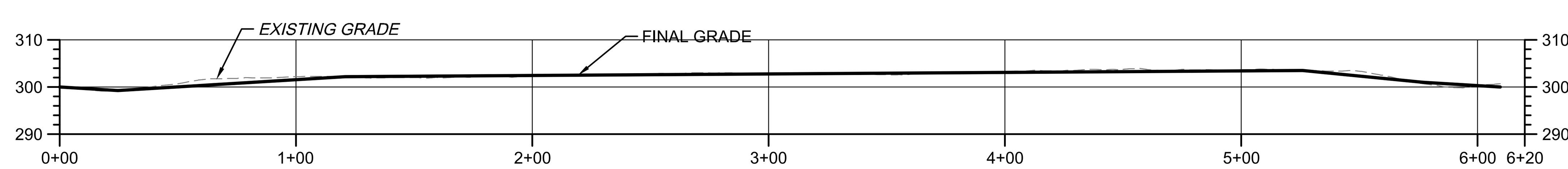
5 AREA 10 - ROAD 1
C.06.04 H:1"=50' | V:1"=25'



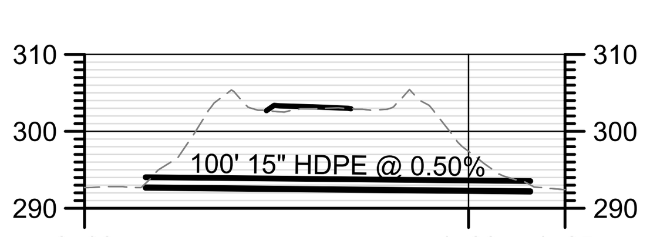
6 AREA 10 - ROAD 2
C.06.04 H:1"=50' | V:1"=25'



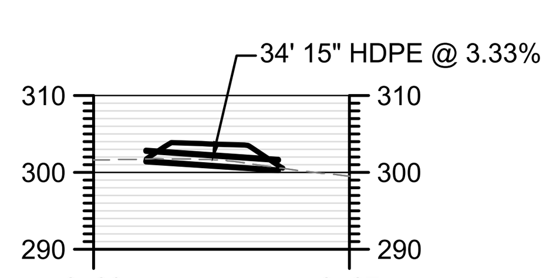
7 AREA 10 - ROAD 3
C.06.04 H:1"=50' | V:1"=25'



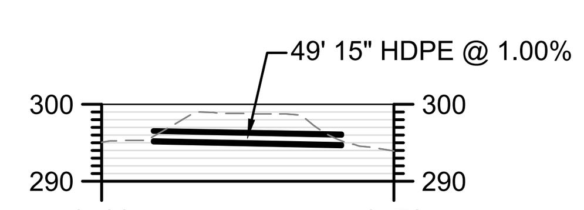
8 SUBSTATION ROAD
C.06.04 H:1"=50' | V:1"=25'



CULVERT 10.01
H:1"=50' | V:1"=25'



CULVERT 10.02
H:1"=50' | V:1"=25'



CULVERT 10.03
H:1"=50' | V:1"=25'

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IT IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW, ARTICLE 145, FOR ANY PERSON, UNLESS UNDER THE DIRECTION OF A NEW YORK STATE LICENSED PROFESSIONAL ENGINEER, TO ALTER AN ITEM ON THIS DOCUMENT IN ANY WAY.

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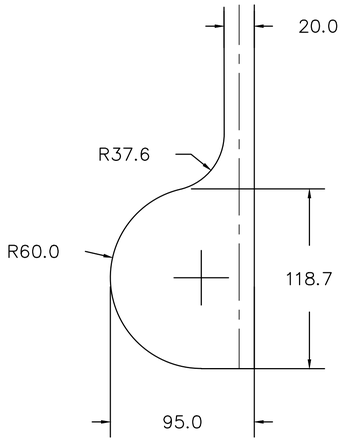
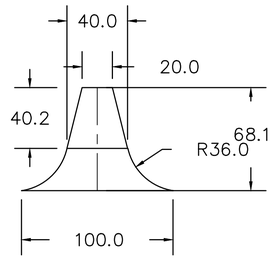
SCALE AT 22" x 34":
AS SHOWN

SHEET NO: PV-C.06.04
REV: 1



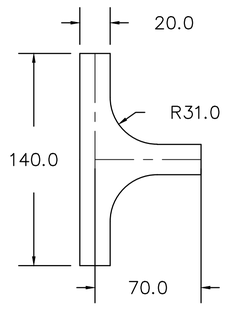
TYPICAL UTILITY (WB–67) TURN AROUND

SCALE: N.T.S. 1 C.07.01



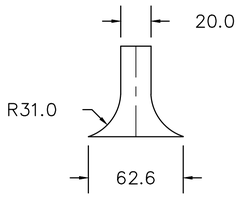
TYPICAL UTILITY (WB–67) ENTRANCE

SCALE: N.T.S. 2 C.07.01



TYPICAL ALTERNATIVE HAMMERHEAD TURN–AROUND/INTERSECTION

SCALE: N.T.S. 4 C.07.01



TYPICAL ENTRANCE

SCALE: N.T.S. 3 C.07.01

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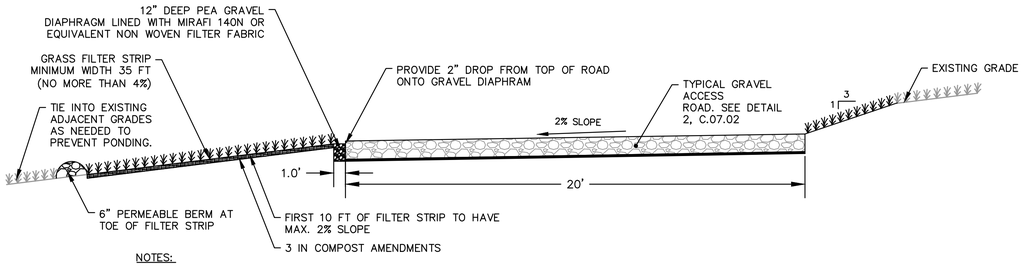
DATE:	08/11/2023

SCALE AT 22" x 34":

AS SHOWN

SHEET NO: PV-C.07.01

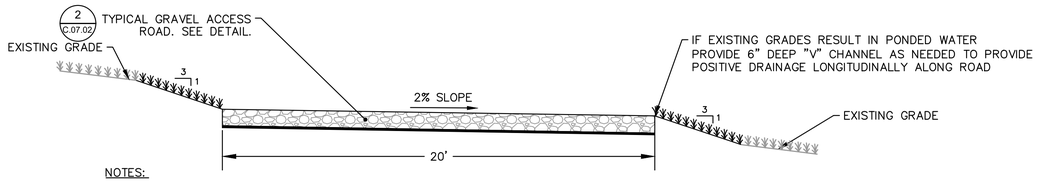
REV: 1



NOTES:

1. MEDIA FOR PERMEABLE BERM SHALL CONSIST OF GENERAL FILL WITH 40% SAND, 20% PEA GRAVEL, AND 40% EXCAVATED MATERIAL.
2. GRASSED FILTER STRIP SHALL RECEIVE 3 IN OF COMPOST AMENDMENTS.
3. ACCESS ROAD SHOWN PROVIDES THE MINIMUM REQUIREMENTS FOR THE FINISHED CONDITION. THIS IS A LIGHT DUTY ROAD SUITABLE FOR INFREQUENT MAINTENANCE TRAFFIC AFTER CONSTRUCTION OF THE FACILITY IS COMPLETE. THE CORRIDOR SHOWN MAY BE USED DURING CONSTRUCTION.
4. CONTRACTOR RESPONSIBLE FOR CONSTRUCTING A SUITABLE ACCESS ROAD FOR HEAVY CONSTRUCTION TRAFFIC AND EQUIPMENT DURING CONSTRUCTION.
5. THE CONSTRUCTION ACCESS ROAD MAY BE LEFT IN PLACE AS PART OF THE FINAL ACCESS ROAD, AS LONG AS IT CONFORMS TO THE LIMITS AND GRADES SHOWN ON THE DRAWING, AND SUBJECT TO APPROVAL BY ENGINEER OF RECORD.
6. PROTECT FILTER STRIP FROM HEAVY COMPACTION DURING CONSTRUCTION.
7. CONDUCT RESTORATION, SEEDING, AND DECOMPACTING OF FILTER STRIP IN ACCORDANCE WITH THE SWPPP.

TYPICAL SECTION W/ FILTER STRIP



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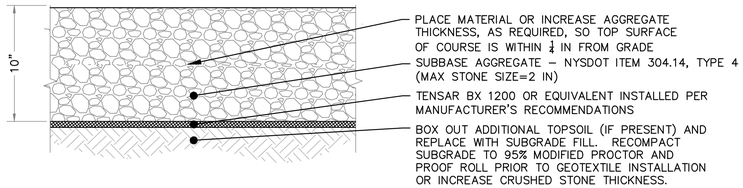
2. CONTRACTOR RESPONSIBLE FOR CONSTRUCTING A SUITABLE ACCESS ROAD FOR HEAVY CONSTRUCTION TRAFFIC AND EQUIPMENT DURING CONSTRUCTION.
3. THE CONSTRUCTION ACCESS ROAD MAY BE LEFT IN PLACE AS PART OF THE FINAL ACCESS ROAD, AS LONG AS IT CONFORMS TO THE LIMITS AND GRADES SHOWN ON THE DRAWING, AND SUBJECT TO APPROVAL BY ENGINEER OF RECORD.
4. ADJUST SLOPE DIRECTION AS NEEDED IN FIELD TO PROVIDE POSITIVE DRAINAGE AWAY FROM EDGE OF ROAD AND PREVENT PONDING ON THE SITE. ROAD CAN BE SLOPED TOWARD THE FILTER STRIP @ 2%.

TYPICAL SECTION

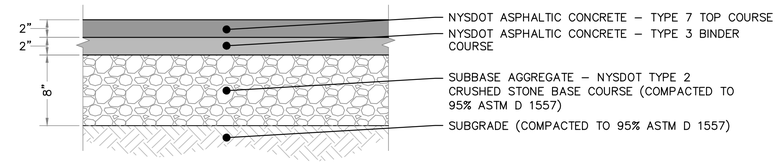
TYPICAL ACCESS ROAD

DETAILS — SCALE: N.T.S. — 1 / C.07.02



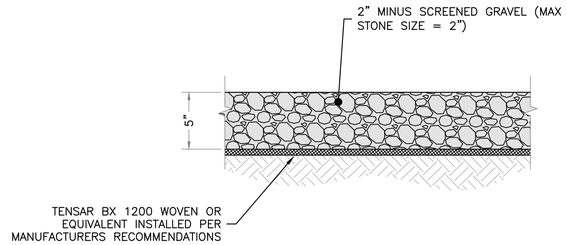
TYPICAL GRAVEL ACCESS ROAD

SECTION — SCALE: N.T.S. — 2 / C.07.02



TYPICAL ASPHALT APRON

SECTION — SCALE: N.T.S. — 3 / C.07.02

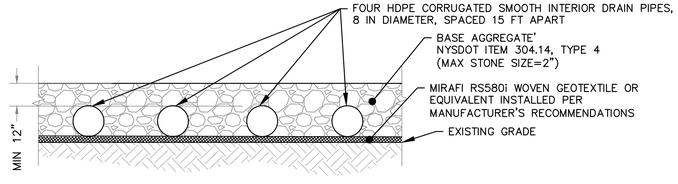


NOTE:

1. GRAVEL STAGING / LAYOUT AREA IS A TEMPORARY FEATURE AND WILL BE REMOVED AFTER THE CONSTRUCTION PERIOD. DECOMPACTION WILL OCCUR AND TOPSOIL ADDED PRIOR TO VEGETATION WITH THE SAME INTERNAL SEED MIXES.

TYPICAL GRAVEL STAGING/ LAYDOWN AREA

SECTION — SCALE: N.T.S. — 4 / C.07.02



NOTE:

1. SPECIFIED GEOTEXTILE WILL ONLY BE UTILIZED IN PLACID SOILS. PLACID SOILS CONSIST OF POORLY DRAINED SOILS COMPOSED OF FINELY TEXTURED PARTICLES AND ARE PRONE TO RUTTING. PLACID SOILS ARE TYPICALLY PRESENT IN LOW-LYING AREAS WITH HYDROLOGIC SOILS GROUP (HSG) OF C OR D, OR AS SPECIFIED FROM A ENVIRONMENTAL SCIENTIST, SOIL SCIENTIST, OR GEOTECHNICAL DATA.

ACCESS ROAD THROUGH WETLAND

SECTION — SCALE: N.T.S. — 5 / C.07.02

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SCALE AT 22" x 34":

AS SHOWN

SHEET NO: PV-C.07.02

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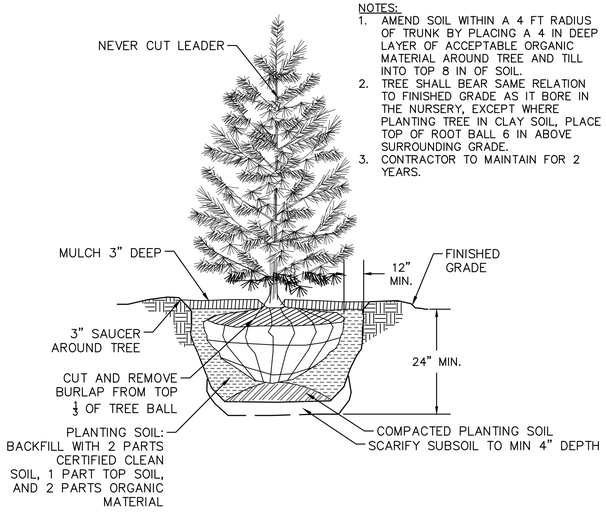
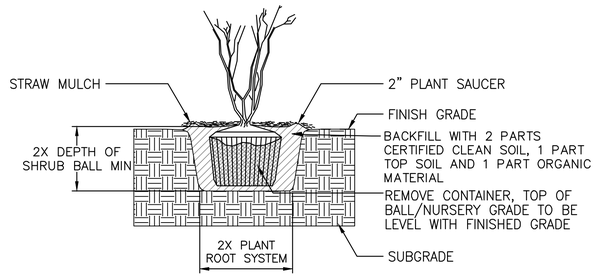


TYPICAL TREE PLANTING

DETAIL 1 / C.07.03

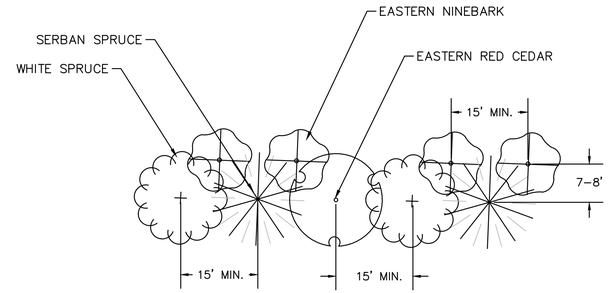
SCALE: N.T.S.



TYPICAL SHRUB PLANTING

DETAIL 2 / C.07.03

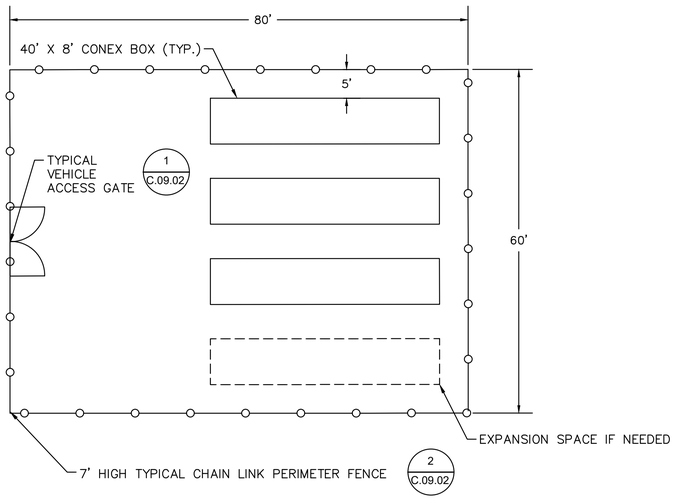
SCALE: N.T.S.



TYPICAL TREE / SHRUB SPACING

DETAIL 3 / C.07.03

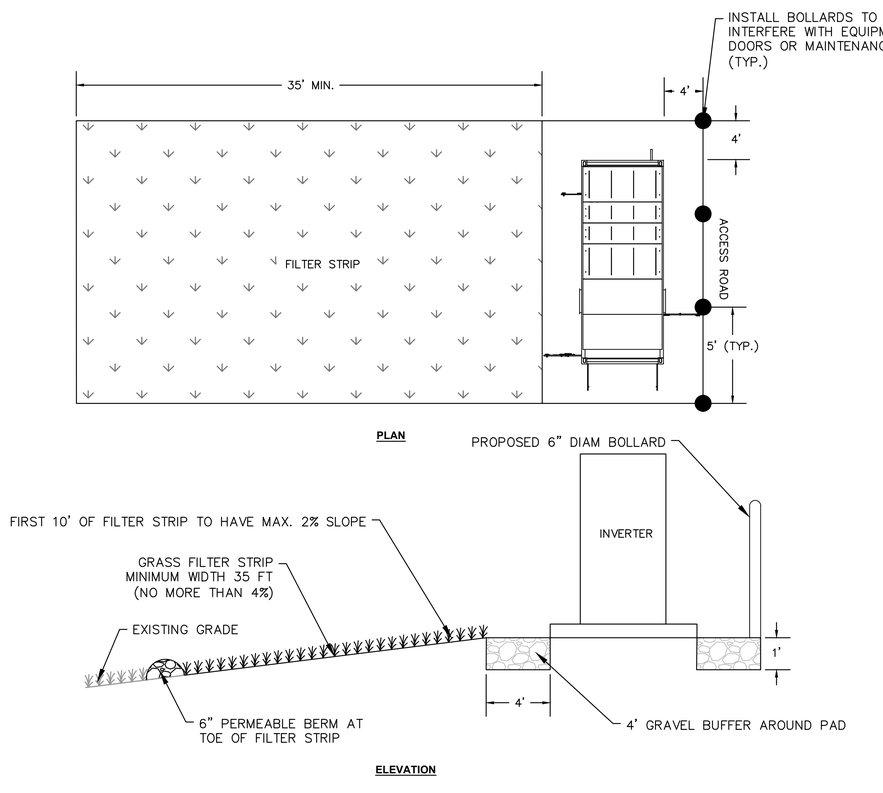
SCALE: N.T.S.



TYPICAL OPERATION & MAINTENANCE YARD

LAYOUT 4 / C.07.03

SCALE: N.T.S.



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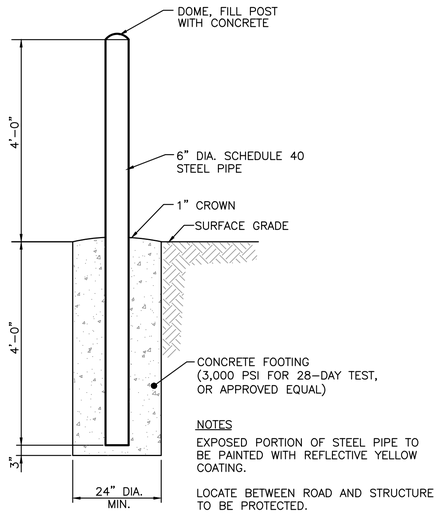
TYPICAL FILTER STRIP & INVERTER INSTALLATION

DETAIL 5 / C.07.03

SCALE: N.T.S.



TYPICAL 6" DIAM. BOLLARD

DETAIL 6 / C.07.03

SCALE: N.T.S.

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1	08/11/2023	RE-ISSUED FOR 94-C PERMIT

PROJECT TITLE:

SOMERSET SOLAR PROJECT

PROJECT LOCATION:

LAKE ROAD
SOMERSET, NY

SHEET TITLE & DESCRIPTION:

SITE DETAILS

ISSUED FOR 94-C PERMIT ONLY
NOT FOR CONSTRUCTION

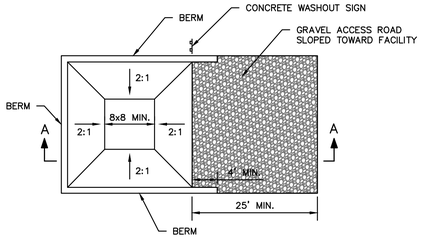
PROJ NUM:	SU20.0012
DES:	RCD
DWN:	RCD
CHK:	JPP/MAH
APV:	BMS
DATE:	08/11/2023

SCALE AT 22" x 34":

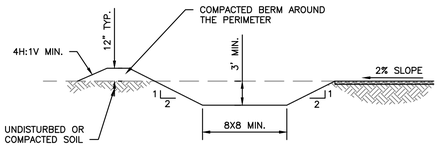
AS SHOWN

SHEET NO: PV-C.07.03

REV: 1



PLAN



SECTION A-A

CONCRETE TRUCK WASHOUT AREA NOTES:

1. LOCATE THE FACILITY A MINIMUM OF 100 FT FROM DRAINAGE SWALES, STORM DRAIN INLETS, WETLANDS, STREAMS AND OTHER SURFACE WATER.
2. PREVENT SURFACE WATER FROM ENTERING THE FACILITY EXCEPT FOR THE ACCESS ROAD.
3. PROVIDE A GRAVEL ACCESS ROAD TO FACILITY THAT IS SLOPED DOWN TO FACILITY.
4. PLACE SIGNS DIRECTING DRIVERS TO THE FACILITY AFTER THEIR LOAD IS DISCHARGED.
5. LINE ALL WASHOUT FACILITIES TO PREVENT LEACHING OF LIQUIDS INTO THE GROUND. USE PLASTIC SHEETING HAVING A MINIMUM THICKNESS OF 10 MILS WITH NO HOLES OR TEARS. ANCHOR THE LINER BEYOND THE TOP OF THE PIT WITH AN EARTHEN BERM, SAND BAGS, STONE, OR OTHER STRUCTURAL APPURTENANCES EXCEPT AT THE ACCESS POINT.
6. PREFABRICATED WASHOUT FACILITIES CAN BE USED BUT THEY MUST CAPTURE AND CONTAIN CONCRETE WASH AND BE SIMILARLY SIZED AS SHOWN ABOVE AND LOCATED AS NOTED ABOVE.
7. WASH WATER IS ESTIMATED TO BE 7 GALLONS PER CHUTE AND 50 GALLONS PER HOPPER OF A PUMP TRUCK AND/OR DISCHARGING DRUM.

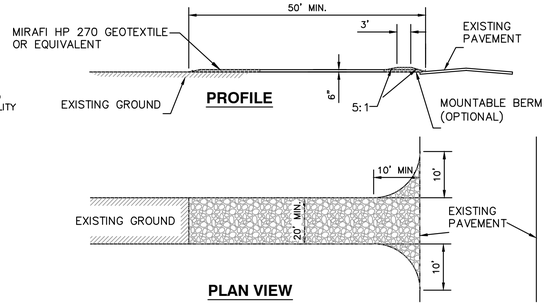
MAINTENANCE:

1. INSPECT ALL FACILITIES DAILY.
2. DEACTIVATE, REPAIR, AND/OR REPLACE DAMAGED OR LEAKING FACILITIES.
3. PUMP EXCESS ACCUMULATED RAINWATER TO A STABILIZED AREA, SUCH AS A GRASS FILTER STRIP.
4. REMOVE ACCUMULATED HARDENED MATERIAL WHEN 75% OF THE STORAGE CAPACITY OF THE FACILITY IS FILLED. ANY EXCESS WASH WATER PUMP INTO A CONTAINMENT VESSEL AND PROPERLY DISPOSED OF OFF-SITE AT A PERMITTED C&D LANDFILL. NO ONSITE DISPOSAL WILL BE ALLOWED.
5. REPLACE THE PLASTIC LINER WITH EACH CLEANING OF THE FACILITY.
6. INSPECT PROJECT SITE FREQUENTLY TO ENSURE THAT NO CONCRETE DISCHARGES ARE TAKING PLACE IN NON-DESIGNATED AREAS.

CONCRETE WASHOUT

DETAIL 1 / C.08.01

SCALE: N.T.S.



PLAN VIEW

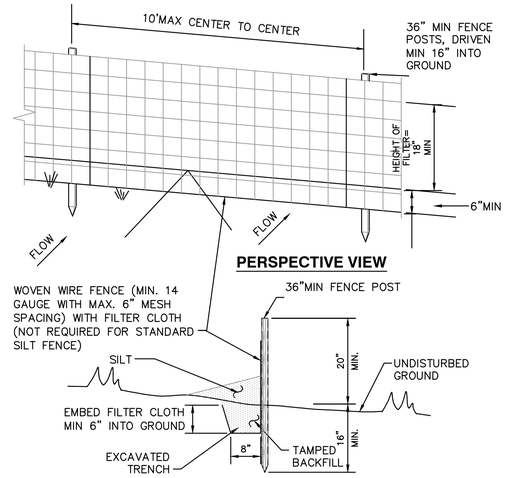
STABILIZED CONSTRUCTION ENTRANCE NOTES:

1. STONE SIZE – USE 2 IN STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. THICKNESS – NOT LESS THAN SIX (6) IN.
3. WIDTH –TWENTY (20) FT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY FOUR FEET (24) FT MINIMUM IF SINGLE ENTRANCE TO SITE.
4. LENGTH – AS REQUIRED, BUT NOT LESS THAN 50 FT.
5. GEOTEXTILE – MIRAFI HP 270 GEOTEXTILE OR EQUIVALENT, PLACE OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER – ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE – MAINTAIN THE ENTRANCE IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WASHING – CLEAN WHEELS TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PROVIDE WEEKLY INSPECTION AND NEEDED MAINTENANCE.

STABILIZED CONSTRUCTION ENTRANCE

DETAIL 2 / C.08.01

SCALE: N.T.S.



SECTION

SILT FENCE NOTES:

1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. POSTS SHALL BE STEEL EITHER "T" OR "U" TYPE OR HARDWOOD.
2. SECURELY FASTEN FILTER CLOTH TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24 IN AT TOP AND MID SECTION. FENCE SHALL BE WOVEN WIRE, 6 IN MAXIMUM MESH OPENING.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY 6 IN AND FOLDED. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI 100X, STABILINKA T140N OR APPROVED EQUAL.
4. PERFORM MAINTENANCE AS NEEDED AND REMOVE MATERIALS WHEN "BULGES" DEVELOP IN THE SILT FENCE.
5. USE SILT FENCE WHERE EROSION COULD OCCUR IN THE FORM OF SHEET EROSION.
6. DO NOT USE SILT FENCE WHEN A CONCENTRATION OF WATER IS FLOWING TO THE BARRIER AND SOIL CONDITIONS DO NOT ALLOW FOR PROPER KEYING OF FABRIC, OR OTHER ANCHORAGE, TO PREVENT BLOWOUTS.
7. THE TYPE OF SILT FENCE SHALL NOT EXCEED THE MAXIMUM SLOPE LENGTH AND MAXIMUM FENCE LENGTH REQUIREMENTS SHOWN IN THE FOLLOWING TABLE.

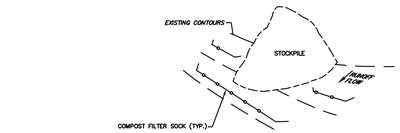
SLOPE	STEEPNESS	SLOPE LENGTH/FENCE LENGTH (FT)		
		STANDARD	REINFORCED	SUPER
<2%	<50:1	300/1500	N/A	N/A
2–10%	50:1 TO 10:1	125/1000	250/2000	300/2500
10–20%	10:1 TO 5:1	100/750	150/1000	200/1000
20–33%	5:1 TO 3:1	60/500	80/750	100/1000
33–50%	3:1 TO 2:1	40/250	70/350	100/500
>50%	>2:1	20/125	30/175	50/250

8. USE ADDITIONAL BEST MANAGEMENT PRACTICES IN CONJUNCTION WITH SILT FENCE WHERE APPROPRIATE TO MINIMIZE EROSION.

SILT FENCE

DETAIL 4 / C.08.01

SCALE: N.T.S.



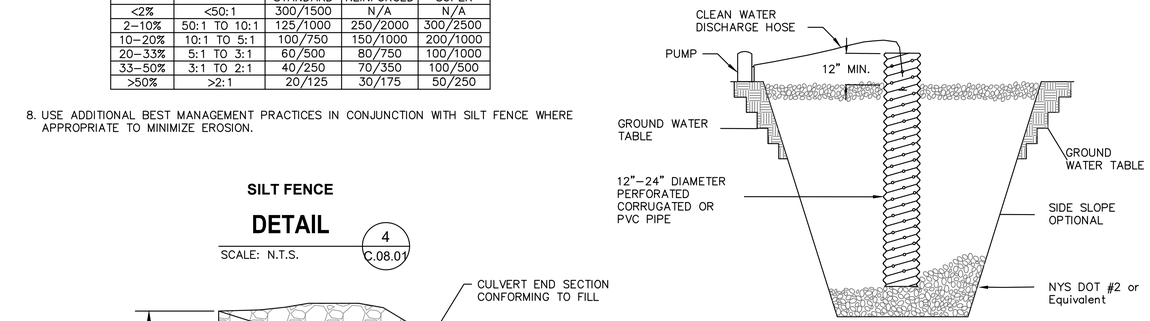
SOIL STOCKPILE NOTES:

1. AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
2. STOCKPILE HEIGHT SHOULD GENERALLY NOT EXCEED 20 FEET AND HAVE A MAXIMUM SLOPE OF 1V:2H.
3. UPON COMPLETION OF STOCKPILING, INSTALL COMPOST FILTER SOCK, THEN STABILIZE WITH VEGETATION OR COVER THE STOCKPILE IF IT REMAINS FOR MORE THAN 7 DAYS.
4. PROVIDE COMPOST FILTER SOCK AS INDICATED. SEE SHEET PV-C.08.02 FOR COMPOST FILTER SOCK DETAILS.
5. REFER TO AGRICULTURAL AREA NOTES ON SHEET PV-C.00.04 FOR SOIL STOCKPILING PRACTICES IN ACCORDANCE WITH NYSAGM GUIDELINES.

TEMPORARY SOIL STOCKPILE

DETAIL 5 / C.08.01

SCALE: N.T.S.



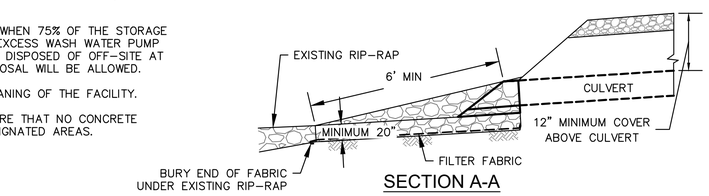
DEWATERING SUMP PIT NOTES:

1. PIT DIMENSIONS ARE SUGGESTED.
2. CONSTRUCT THE STANDPIPE BY PERFORATING A 12–24 IN DIAMETER CORRUGATED OR PVC PIPE.
3. BACKFILL THE PIT SURROUNDING THE STANDPIPE WITH 2 IN AGGREGATE.
4. EXTEND THE STANDPIPE 12–18 IN ABOVE THE LIP OF THE PIT.
5. DISCHARGE TURBID WATER PUMPED FROM THE STANDPIPE SHOULD BE TO A SEDIMENT TRAP, SEDIMENT BASIN, FILTER BAG OR STABILIZED AREA, SUCH AS A FILTER STRIP.
6. IF DISCHARGE WILL BE PUMPED DIRECTLY TO A STORM DRAINAGE SYSTEM, WRAP THE STANDPIPE WITH FILTER CLOTH BEFORE INSTALLATION. IF DESIRED, ¼ IN – ½ IN HARDWARE CLOTH MAY BE PLACED AROUND THE STANDPIPE, PRIOR TO ATTACHING THE FILTER CLOTH.

DEWATERING SUMP PIT

DETAIL 3 / C.08.01

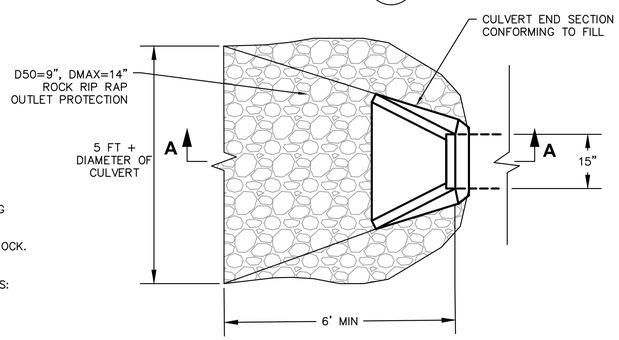
SCALE: N.T.S.



SECTION A-A

CULVERT OUTLET PROTECTION:

1. RIP-RAP APRON DIMENSIONS WILL VARY DEPENDING UPON THE GRADING CONFIGURATION.
2. CONSTRUCT RIP RAP USING FIELD ROCK OR ROUGH UNHEWN QUARRY ROCK.
3. PLACE STONE RIP-RAP ON NON-WOVEN GEOTEXTILE HAVING A THICKNESS OF 60 MILS (MIN.), GRAB STRENGTH NO LESS THAN 120 LBS: AND SHALL CONFORM TO ASTM D 1777 AND ASTM D 1682.



CULVERT OUTLET PROTECTION

DETAIL 6 / C.08.01

SCALE: N.T.S.

AES CLEAN ENERGY DEVELOPMENT, LLC
292 MADISON AVENUE, 15TH FLOOR
NEW YORK, NY 10017

TETRA TECH

KEY PLAN:

REVISIONS:

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SOMERSET, NY

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EROSION & SEDIMENT CONTROL DETAILS

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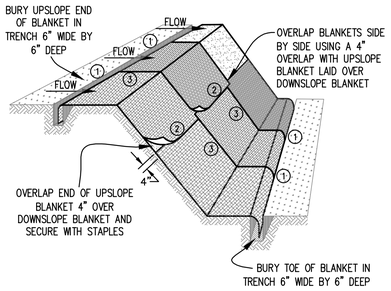
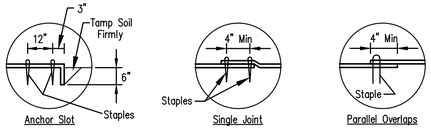
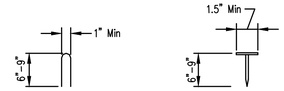




DETAIL 1 DETAIL 2 DETAIL 3



STAPLE DETAIL PUSH PIN DETAIL

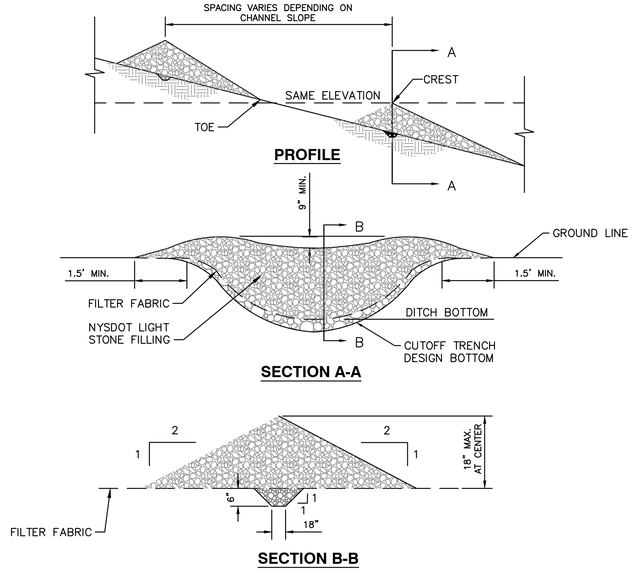
NOTES:

1. PLACE STAPLES IN A DIAMOND PATTERN AT 2 PER SY FOR STITCHED BLANKETS. USE 4 STAPLES PER SY OF MATERIAL FOR NON-STICK BLANKETS. THIS EQUATES TO 200 STAPLES WITH STITCHED BLANKET AND 400 STAPLES WITH NON-STITCHED BLANKET PER 100 SY OF MATERIAL.
2. SELECT STAPLE OR PIN LENGTHS BASED ON SOIL TYPE AND CONDITIONS. (MINIMUM STAPLE LENGTH IS 6 IN)
3. PLACE EROSION CONTROL MATERIAL IN CONTACT WITH THE SOIL OVER A PREPARED SEEDBED.
4. STAPLE ALL ANCHOR SLOTS AT APPROXIMATELY 12 IN INTERVALS.

ANCHORED STABILIZATION MATTING

DETAIL 1 C.08.02

SCALE: N.T.S.



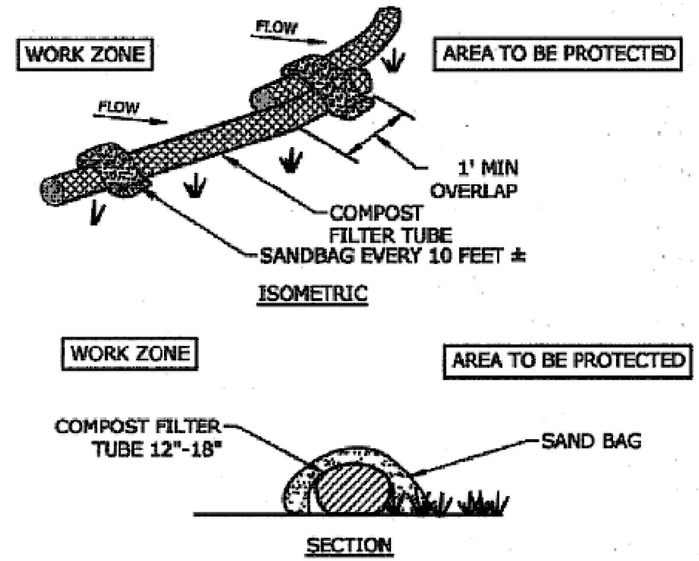
STONE CHECK DAM NOTES:

1. PLACE STONE ON A FILTER FABRIC FOUNDATION.
2. SET SPACING OF CHECK DAMS SUCH THAT THE ELEVATIONS OF THE DOWNSTREAM DAM ARE AT THE SAME ELEVATION AS THE TOE OF THE UPSTREAM DAM.
3. EXTEND THE STONE A MINIMUM OF 1.5 FT BEYOND THE DITCH BANKS TO PREVENT CUTTING AROUND THE DAM.
4. PROTECT THE CHANNEL DOWNSTREAM OF THE LOWEST CHECK DAM FROM SCOUR AND EROSION WITH STONE OR LINER AS APPROPRIATE.
5. ENSURE THAT CHANNEL APPURTENANCES SUCH AS CULVERT ENTRANCES BELOW CHECK DAM ARE NOT SUBJECT TO DAMAGE OR BLOCKAGE FROM DISPLACED STONE.

STONE CHECK DAM

DETAIL 2 C.08.02

SCALE: N.T.S.



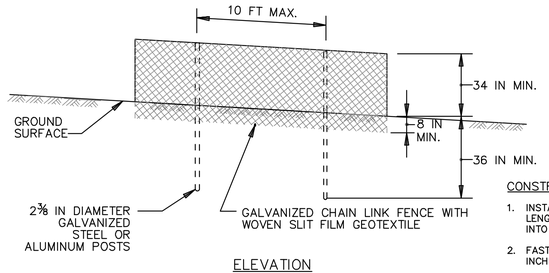
COMPOST FILTER SOCK NOTES:

1. USE SOCK FABRIC THAT MEETS STANDARDS LISTED IN TABLE 5.1 OF THE NYS STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL (2016 OR LATEST VERSION). USE COMPOST THAT MEETS THE STANDARDS LISTED IN TABLE 5.2.
2. PLACE COMPOST FILTER SOCK AT EXISTING LEVEL GRADE. EXTEND BOTH ENDS OF THE SOCK AT LEAST 8 FT UP SLOPE AT 45 DEGREES TO THE MAIN SOCK ALIGNMENT. STAKES MAY BE INSTALLED IMMEDIATELY DOWNSLOPE OF THE SOCK IF SO SPECIFIED BY THE MANUFACTURER.
3. DO NOT PERMIT TRAFFIC TO CROSS FILTER SOCKS.
4. REMOVE ACCUMULATED SEDIMENT WHEN IT REACHES HALF THE ABOVEGROUND HEIGHT OF THE SOCK.
5. INSPECT SOCKS WEEKLY AND AFTER EACH RUNOFF EVENT. REPAIR DAMAGED SOCKS ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACE WITHIN 24 HOURS OF INSPECTION.
6. REPLACE BIODEGRADABLE FILTER SOCKS AFTER 6 MONTHS; PHOTODEGRADABLE SOCKS AFTER 1 YEAR. REPLACE POLYPROPYLENE SOCKS ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
7. UPON STABILIZATION OF THE TRIBUTARY AREA TO THE SOCKS, REMOVE SANDBAGS. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, CUT OPEN THE MESH AND SPREAD THE MULCH AS A SOIL SUPPLEMENT.

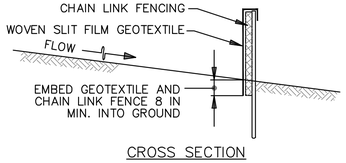
COMPOST FILTER SOCK

DETAIL 3 C.08.02

SCALE: N.T.S.



ELEVATION



CROSS SECTION

CONSTRUCTION SPECIFICATIONS

1. INSTALL 2⅜ INCH DIAMETER GALVANIZED STEEL POSTS OF 0.095 INCH WALL THICKNESS AND SIX FOOT LENGTH SPACED NO FURTHER THAN 10 FEET APART. DRIVE THE POSTS A MINIMUM OF 36 INCHES INTO THE GROUND.
2. FASTEN 9 GAUGE OR HEAVIER GALVANIZED CHAIN LINK FENCE (2⅜ INCH MAXIMUM OPENING) 42 INCHES IN HEIGHT SECURELY TO THE FENCE POSTS WITH WIRE TIES OR HUG RINGS.
3. FASTEN WOVEN SLIT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS, SECURELY TO THE UPSLOPE SIDE OF CHAIN LINK FENCE WITH TIES SPACED EVERY 24 INCHES AT THE TOP AND MID SECTION. EMBED GEOTEXTILE AND CHAIN LINK FENCE A MINIMUM OF 8 INCHES INTO THE GROUND.
4. WHERE ENDS OF THE GEOTEXTILE COME TOGETHER, THE ENDS SHALL BE OVERLAPPED BY 6 INCHES, FOLDED, AND STAPLED TO PREVENT SEDIMENT BY PASS.
5. EXTEND BOTH ENDS OF THE SUPER SILT FENCE A MINIMUM OF FIVE HORIZONTAL FEET UPSLOPE AT 45 DEGREES TO THE MAIN FENCE ALIGNMENT TO PREVENT RUNOFF FROM GOING AROUND THE ENDS OF THE SUPER SILT FENCE.
6. PROVIDE MANUFACTURER CERTIFICATION TO THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS.
7. REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN. IF UNDERMINING OCCURS, REINSTALL CHAIN LINK FENCING AND GEOTEXTILE.

SUPER SILT FENCE

DETAIL 4 C.08.02

SCALE: N.T.S.

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292 MADISON AVENUE, 15TH FLOOR
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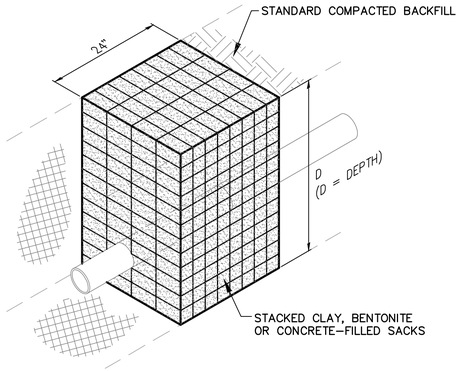
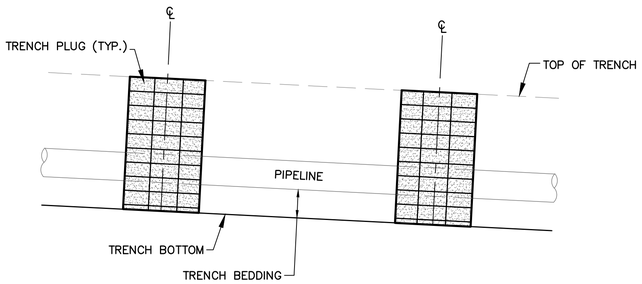




REQUIRED SPACING & MATERIALS FOR TRENCH PLUGS		
TRENCH SLOPE (%)	SPACING L (FT)	PLUG MATERIAL
<5	1,000	* CLAY, BENTONITE OR CONCRETE–FILLED SACKS
5–15	500	* CLAY, BENTONITE OR CONCRETE–FILLED SACKS
15–25	300	* CLAY, BENTONITE OR CONCRETE–FILLED SACKS
25–35	200	* CLAY, BENTONITE OR CONCRETE–FILLED SACKS
35–100	100	* CLAY, BENTONITE OR CONCRETE–FILLED SACKS
>100	50	CEMENT FILLED BAGS (WETTED) OR MORTARED STONE

* IMPERVIOUS TRENCH PLUGS ARE REQUIRED AT ALL STREAM, RIVER, OR WATER–BODY CROSSINGS REGARDLESS OF TRENCH SLOPE.

** TOP SOIL MAY NOT BE USED TO FILL SACKS

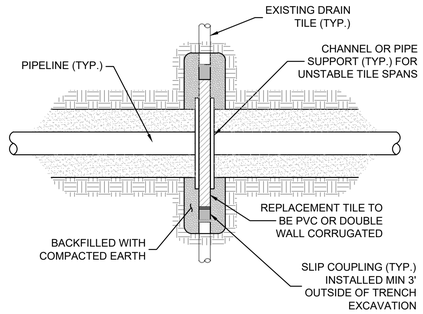
TRENCHING NOTES (PER NYSAGM GUIDELINES):

1. HORIZONTAL DIRECTIONAL DRILLING (HDD) OR EQUIVALENT INSTALLATION TECHNIQUES THAT DO NOT DISRUPT THE SOIL PROFILE SHALL BE USED WHEREVER PRACTICABLE.
2. WHEN OPEN–CUT TRENCHING IS PROPOSED, TOPSOIL WILL BE SEGREGATED FROM OTHER MATERIALS AND SUBSEQUENTLY GRADED ON TOP OF THE BACKFILLED NATIVE MATERIAL WHEN CLOSING A TRENCH.
3. NARROW OPEN TRENCHES LESS THAN 25 FEET LONG INVOLVING A SINGLE DIRECTLY BURIED CONDUCTOR OR CONDUIT (AS REQUIRED) TO CONNECT SHORT ROWS WITHIN THE ARRAY, WILL BE EXEMPT FROM TOPSOIL SEGREGATION.
4. FOLLOW GUIDANCE FROM THE NEW YORK STATE DEPARTMENT OF AGRICULTURE AND MARKETS GUIDELINES FOR SOLAR ENERGY PROJECTS – CONSTRUCTION MITIGATION FOR AGRICULTURAL LANDS (REVISION 10/18/2019).

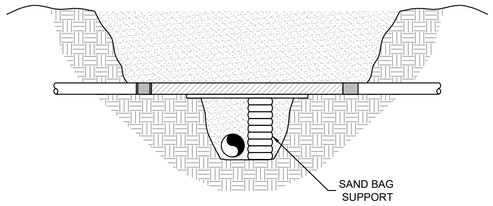
TRENCH PLUG

DETAIL 1 C.08.03

SCALE: N.T.S.



PLAN VIEW



SECTION VIEW

NOTES:

1. IF WATER IS FLOWING THROUGH THE DAMAGED TILE LINE TO BE REPAIRED, THE TILE LINE MUST BE IMMEDIATELY TEMPORARILY REPAIRED, UNTIL SUCH TIME THAT PERMANENT REPAIRS CAN BE MADE TO THE EXTENT PRACTICABLE. IF THE DAMAGED TILE LINE TO BE REPAIRED IS DRY, TEMPORARY REPAIRS ARE NOT NEEDED IF THE PERMANENT REPAIRS CAN BE COMPLETED WITHIN 14 BUSINESS DAYS (WEATHER AND SOIL CONDITIONS PERMITTING) OF THE TIME SAID DAMAGE OCCURRED. EXPOSED TILE LINES WILL BE SCREENED OR OTHERWISE PROTECTED TO PREVENT THE ENTRY OF FOREIGN MATERIALS OR ANIMALS INTO THE TILE LINES.
2. ALL SUBSURFACE DRAINS SUBJECT TO REPAIR SHALL BE REPAIRED OR REPLACED WITH MATERIALS OF EQUAL OR HIGHER QUALITY AND OF AN EQUAL OR LARGER INSIDE DIAMETER AS THOSE WHICH WERE DAMAGED OR REMOVED.
3. COMMERCIALLY REASONABLE EFFORTS SHALL BE MADE TO MAINTAIN THE TILE LINE TO ITS ORIGINAL ALIGNMENT/GRADIENT.
4. FOLLOW GUIDANCE FROM THE NEW YORK STATE DEPARTMENT OF AGRICULTURE AND MARKETS GUIDELINES FOR SOLAR ENERGY PROJECTS – CONSTRUCTION MITIGATION FOR AGRICULTURAL LANDS (REVISION 10/18/2019).

DRAIN TILE REPAIR

DETAIL 2 C.08.03

SCALE: N.T.S.

AES CLEAN ENERGY DEVELOPMENT, LLC
292 MADISON AVENUE, 15TH FLOOR
NEW YORK, NY 10017

TETRA TECH

KEY PLAN:

REVISIONS:

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0	03/03/2023	ISSUED FOR 94-C PERMIT
1	08/11/2023	RE-ISSUED FOR 94-C PERMIT

PROJECT TITLE:

SOMERSET SOLAR PROJECT

PROJECT LOCATION:

LAKE ROAD
SOMERSET, NY

SHEET TITLE & DESCRIPTION:

EROSION & SEDIMENT CONTROL DETAILS

ISSUED FOR 94-C PERMIT ONLY
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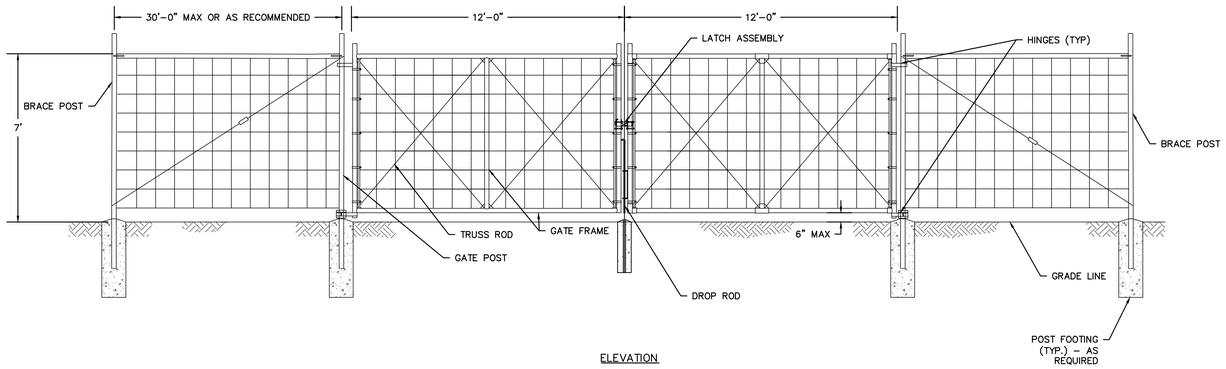
PROJ NUM:	SU20.0012
DES:	RCD
DWN:	RCD
CHK:	JPP/MAH
APV:	BMS
DATE:	08/11/2023

SCALE AT 22" x 34":

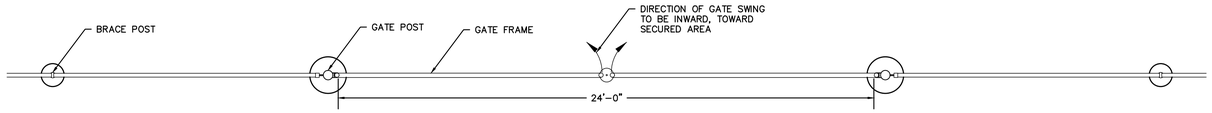
AS SHOWN

SHEET NO: PV-C.08.03

REV: 1



ELEVATION

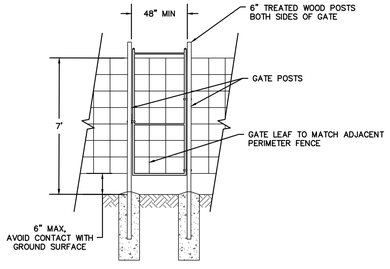


PLAN VIEW

TYPICAL DOUBLE SWING ACCESS GATE WITH AGRICULTURAL FENCE

DETAIL 1 / C.09.01

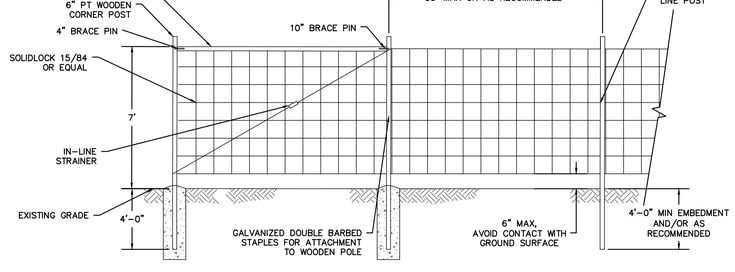
SCALE: NTS



TYPICAL EMERGENCY PEDESTRIAN GATE WITH AGRICULTURAL FENCE

DETAIL 2 / C.09.01

SCALE: NTS



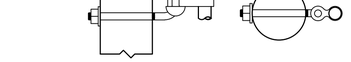
NOTES:

1. INSTALL BRACE ASSEMBLY AS REQUIRED AT CORNER, CHANGE IN DIRECTION, OR APPROXIMATELY EVERY 1,320 LF.
2. INSTALL LINE POSTS AT 30 FT MAXIMUM INTERVALS DEPENDING ON LOCAL SOIL CONDITIONS, TERRAIN, AND MANUFACTURER'S RECOMMENDATIONS.
3. INSTALL FENCING WITHIN THE LIMITS OF APPROVED CLEARING. PERFORM NO ADDITIONAL CLEARING TO ACCOMMODATE FENCE INSTALLATION.

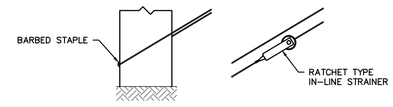
TYPICAL PERIMETER AGRICULTURAL FENCE

DETAIL 3 / C.09.01

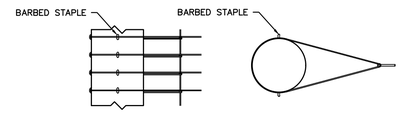
SCALE: NTS



BOLT-THRU GATE GUDGEON HINGE ASSEMBLY



BRACE STRAINER



FENCE FABRIC ANCHOR

TYPICAL AGRICULTURAL FENCE FASTENING

DETAIL 4 / C.09.01

SCALE: NTS

FENCE & GATE NOTES:

1. GROUNDING OR BONDING OF THE SECURITY FENCE SYSTEM SHALL BE IN ACCORDANCE WITH THE NEC.
2. PROVIDE ALL LABOR, MATERIALS AND APPURTENANCES NECESSARY FOR INSTALLATION.
3. DOUBLE SWING GATES TO OPEN INWARD TOWARD SECURE AREA, AS SHOWN ON DRAWINGS.
4. DESIGN AND INSTALL POST FOOTINGS PER APPLICABLE CODES AND FENCE MANUFACTURER SPECIFICATIONS.
5. INSTALL PERIMETER FENCE WARNING SIGNS 5 FT ABOVE GRADE IN ACCORDANCE WITH NEC 110.212(B).
6. PROVIDE HORIZONTAL AND DIAGONAL BRACING AT ALL CORNERS, PULL, TERMINAL, GATE POSTS, AND NO MORE THAN 1,320 FT APART.
7. POSTS SHALL BE SPACED AT A MAXIMUM OF 30 FT-0 IN, SEE DETAIL FOR GATE POST SPACING.
8. POST SHALL BE PRESSURE TREATED(PT) PINE OR EQUIVALENT.
9. HORIZONTAL WOOD BRACES SHALL BE PINNED OR DOWELED.
10. GATE SHALL BE PT WOOD (4 IN MIN. SQUARE STOCK), METAL (2 IN ø BLACK COATED), OR APPROVED EQUIVALENT.
11. MESH SHALL BE HIGH TENSILE STEEL 6 IN X 6 IN FIXED-KNOT 12.5 GAUGE WIRE.
12. SEE GATE SCHEDULE ON C.09.05 FOR LOCATIONS OF ACCESS GATES.

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292 MADISON AVENUE, 15TH FLOOR
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PROJECT LOCATION:

LAKE ROAD
SOMERSET, NY

SHEET TITLE & DESCRIPTION:

FENCE & GATE DETAILS

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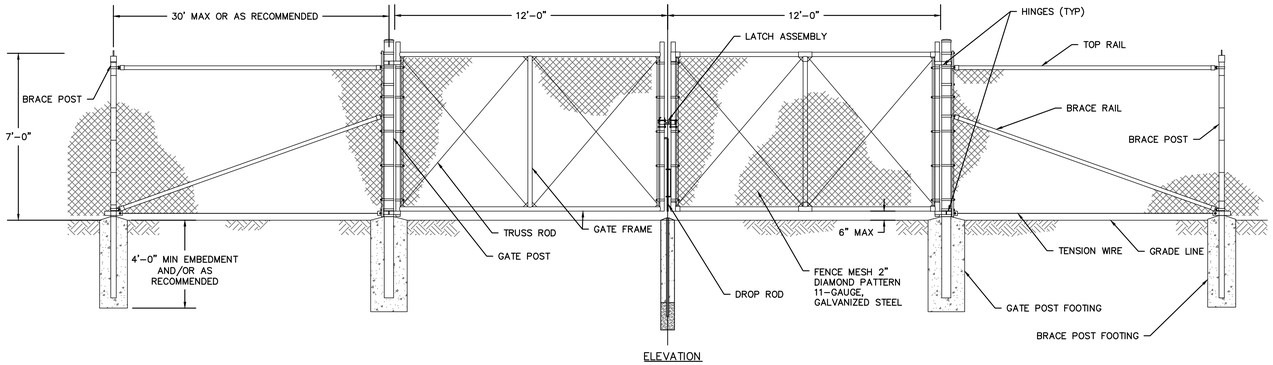
SCALE AT 22" x 34":

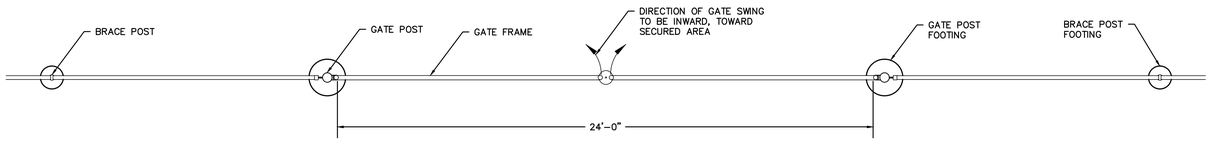
AS SHOWN

SHEET NO: PV-C.09.01

REV: 1



ELEVATION



PLAN VIEW

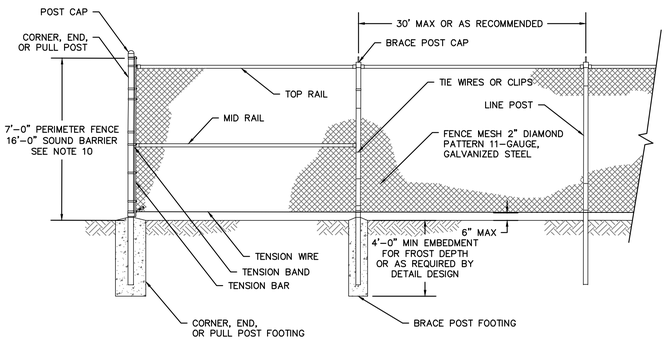
TYPICAL CHAIN LINK DOUBLE SWING ACCESS GATE WITH CHAIN LINK FENCE

DETAIL 1 / C.09.02

SCALE: NTS

FENCE & GATE NOTES:

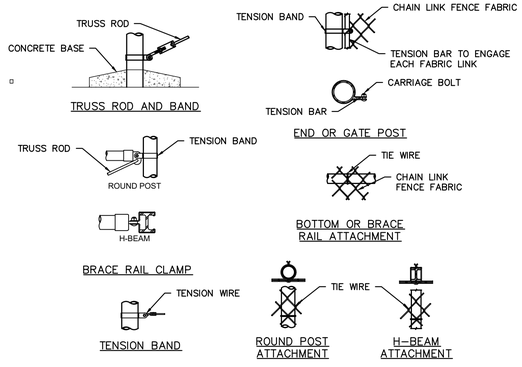
1. PROVIDE ALL LABOR, MATERIALS AND APPURTENANCES NECESSARY FOR INSTALLATION.
2. SIZE AND DIMENSIONS OF THE FENCE AND GATE COMPONENTS SHOWN HEREON SHALL BE IN ACCORDANCE WITH THE CHAIN-LINK FENCE MANUFACTURER SPECIFICATIONS UNLESS OTHERWISE NOTED ON THIS DRAWING.
3. GROUNDING AND BONDING OF THE SECURITY FENCE SYSTEM SHALL BE IN ACCORDANCE WITH THE NEC.
4. DOUBLE SWING GATE TO OPEN INWARD, TOWARD SECURED AREA AS SHOWN ON THE SITE PLAN.
5. INSTALL WIRE TIES, RAILS, POSTS, AND BRACES ON THE SECURE SIDE OF THE FENCE ALIGNMENT. PLACE CHAIN-LINK FABRIC ON THE OPPOSITE SIDE OF THE SECURE AREA.
6. INSTALL GATE, LINE, CORNER, END, BRACE, AND PULL POST CONCRETE FOOTINGS, AS REQUIRED, PER CHAIN-LINK FENCE MANUFACTURER SPECIFICATIONS AND ASTM F567.
7. TOP SELVAGES TO BE TWISTED, BOTTOM SELVAGES TO BE KNUCKLED.
8. INSTALL PERIMETER WARNING SIGNS 5 FT ABOVE GRADE IN ACCORDANCE WITH NEC 110.212(B).
9. SEE GATE SCHEDULE ON C.09.05 FOR LOCATIONS OF ACCESS GATES.
10. PROVIDE 16' HIGH FENCE FOR INSTALLATION OF ACOUSTIFENCE AS DESCRIBED IN SITE PLAN. FOLLOW ALL MANUFACTURERS RECOMMENDATIONS. SEE DETAIL 7 ON SHEET C.10.05.



TYPICAL CHAIN LINK FENCE

DETAIL 2 / C.09.02

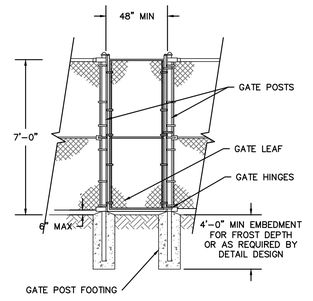
SCALE: NTS



TYPICAL CHAIN LINK FENCE FASTENING

DETAIL 3 / C.09.02

SCALE: NTS



TYPICAL CHAIN LINK EMERGENCY PEDESTRIAN GATE

DETAIL 4 / C.09.02

SCALE: NTS

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SOMERSET SOLAR PROJECT

PROJECT LOCATION:

LAKE ROAD
SOMERSET, NY

SHEET TITLE & DESCRIPTION:

FENCE & GATE DETAILS

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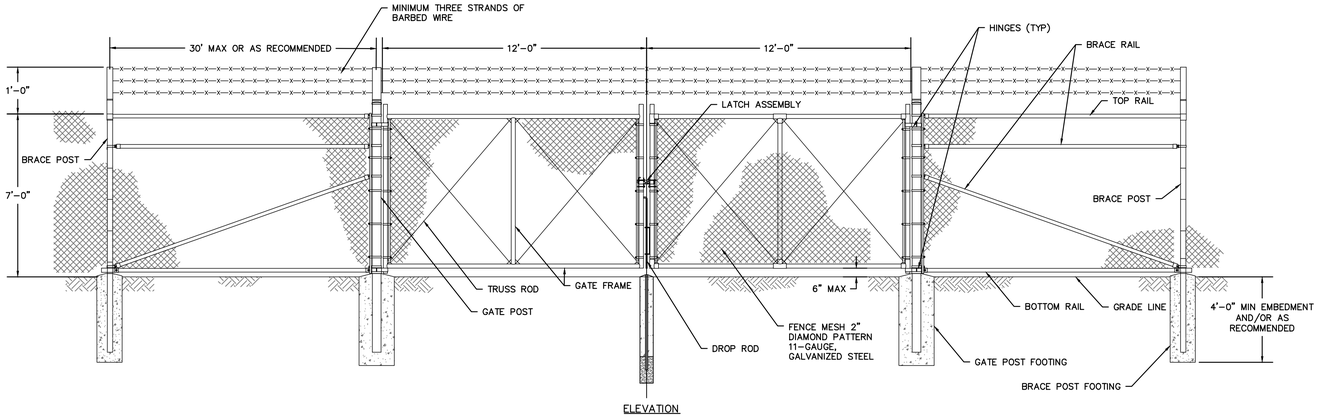
SCALE AT 22" x 34":

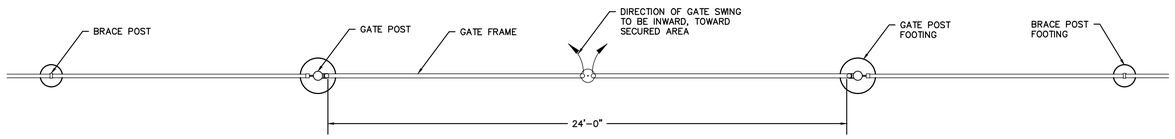
AS SHOWN

SHEET NO: PV-C.09.02

REV: 1



ELEVATION



PLAN VIEW

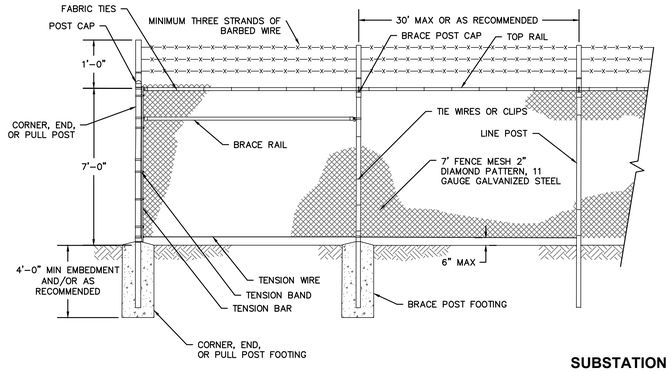
SUBSTATION CHAIN LINK FENCE AND DOUBLE SWING ACCESS GATE WITH BARBED WIRE

DETAIL 1 C.09.03

SCALE: NTS

FENCE & GATE NOTES:

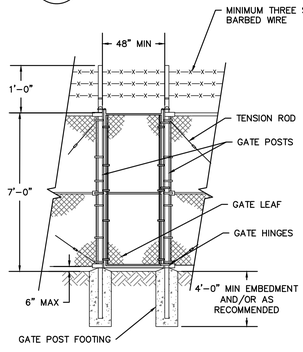
1. PROVIDE ALL LABOR, MATERIALS AND APPURTENANCES NECESSARY FOR INSTALLATION.
2. SIZE AND DIMENSIONS OF THE FENCE AND GATE COMPONENTS SHOWN HEREON SHALL BE IN ACCORDANCE WITH THE CHAIN-LINK FENCE MANUFACTURER SPECIFICATIONS UNLESS OTHERWISE NOTED ON THIS DRAWING.
3. GROUNDING AND BONDING OF THE SECURITY FENCE SYSTEM SHALL BE IN ACCORDANCE WITH THE NEC.
4. DOUBLE SWING GATE TO OPEN INWARD, TOWARD SECURED AREA AS SHOWN ON THE SITE PLAN.
5. INSTALL WIRE TIES, RAILS, POSTS, AND BRACES ON THE SECURE SIDE OF THE FENCE ALIGNMENT. PLACE CHAIN-LINK FABRIC ON THE OPPOSITE SIDE OF THE SECURE AREA.
6. INSTALL GATE, LINE, CORNER, END, BRACE, AND PULL POST CONCRETE FOOTINGS, AS REQUIRED, PER CHAIN-LINK FENCE MANUFACTURER SPECIFICATIONS AND ASTM F567.
7. TOP SELVAGES TO BE TWISTED, BOTTOM SELVAGES TO BE KNUCKLED.
8. INSTALL PERIMETER WARNING SIGNS 5 FT ABOVE GRADE IN ACCORDANCE WITH NEC 110.212(B).
9. SEE GATE SCHEDULE ON C.09.05 FOR LOCATIONS OF ACCESS GATES.



SUBSTATION CHAIN LINK PERIMETER FENCE WITH BARBED WIRE

DETAIL 2 C.09.03

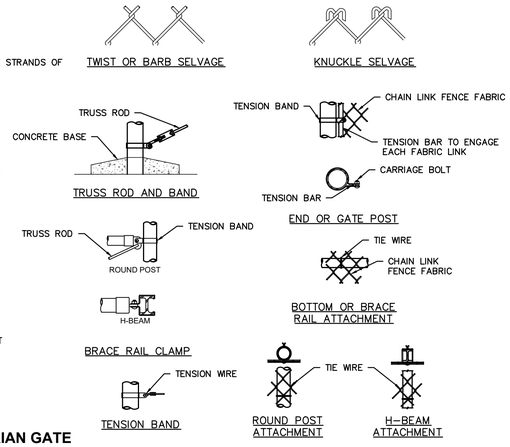
SCALE: NTS



SUBSTATION CHAIN LINK FENCE EMERGENCY PEDESTRIAN GATE WITH BARBED WIRE

DETAIL 3 C.09.03

SCALE: NTS



TYPICAL CHAIN LINK FENCE FASTENING

DETAILS 4 C.09.03

SCALE: NTS

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SCALE AT 22" x 34":

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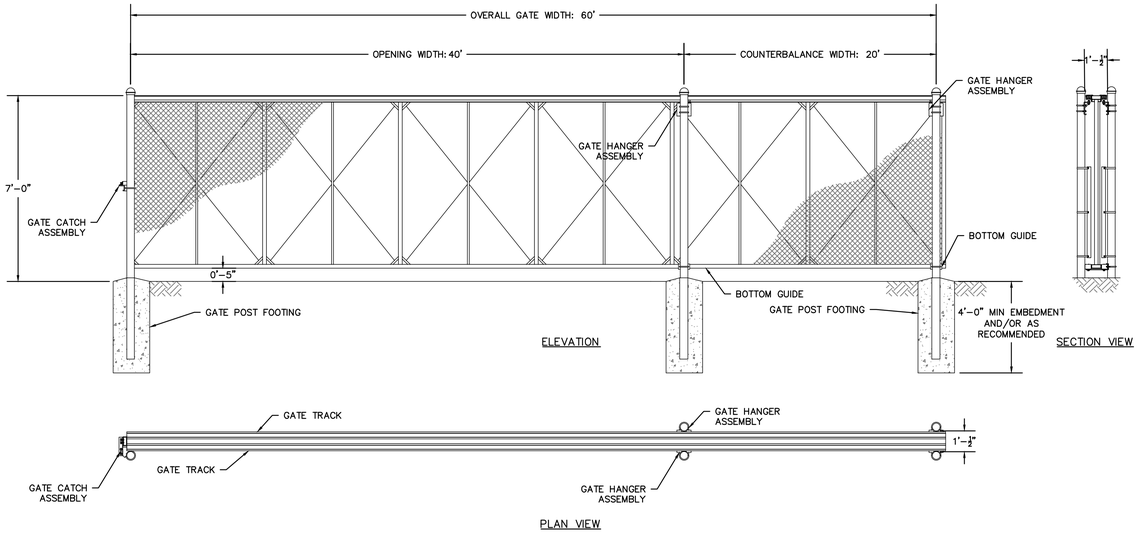
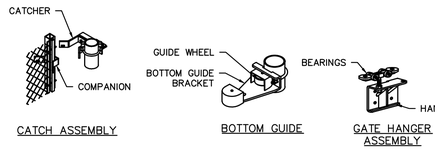
REV: 1



TYPICAL 40' CHAINLINK CANTILEVER SLIDE GATE

DETAIL 1 C.09.04

SCALE: NTS



TYPICAL CANTILEVER GATE COMPONENTS

DETAIL 2 C.09.04

SCALE: NTS

FENCE & GATE NOTES:

1. PROVIDE ALL LABOR, MATERIALS AND APPURTENANCES NECESSARY FOR INSTALLATION.
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6. INSTALL GATE, LINE, CORNER, END, BRACE, AND PULL POST CONCRETE FOOTINGS, AS REQUIRED, PER CHAIN–LINK FENCE MANUFACTURER SPECIFICATIONS AND ASTM F567.
7. TOP SELVAGES TO BE TWISTED, BOTTOM SELVAGES TO BE KNUCKLED.
8. INSTALL PERIMETER WARNING SIGNS 5 FT ABOVE GRADE IN ACCORDANCE WITH NEC 110.212(B).
9. SEE GATE SCHEDULE ON C.09.05 FOR LOCATIONS OF ACCESS GATES.

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SCALE AT 22" x 34":

AS SHOWN

SHEET NO: PV-C.09.04

REV: 1

AREA 1 GATE SCHEDULE

GATE NUMBER	GATE TYPE	NORTHING	EASTING
A1G1	DOUBLE SWING AGRICULTURAL	1220798.73	1139635.19
A1G2	DOUBLE SWING AGRICULTURAL	1220861.18	1140757.17
A1G3	DOUBLE SWING AGRICULTURAL	1222266.94	1140977.89
A1G4	DOUBLE SWING AGRICULTURAL	1223284.34	1140987.43
A1G5	PEDESTRIAN AGRICULTURAL	1223691.79	1140999.78
A1G6	PEDESTRIAN AGRICULTURAL	1224212.13	1140849.77
A1G7	PEDESTRIAN AGRICULTURAL	1224174.62	1140490.28
A1G8	PEDESTRIAN AGRICULTURAL	1224099.79	1139995.98
A1G9	PEDESTRIAN AGRICULTURAL	1224025.34	1139502.06
A1G10	PEDESTRIAN AGRICULTURAL	1223960.48	1139041.88
A1G11	PEDESTRIAN AGRICULTURAL	1223743.90	1138690.76
A1G12	PEDESTRIAN AGRICULTURAL	1223243.96	1138688.35
A1G13	PEDESTRIAN AGRICULTURAL	1222743.97	1138686.05
A1G14	PEDESTRIAN AGRICULTURAL	1222243.91	1138683.88
A1G15	PEDESTRIAN AGRICULTURAL	1221743.92	1138681.58
A1G16	PEDESTRIAN AGRICULTURAL	1221243.92	1138679.28
A1G17	PEDESTRIAN AGRICULTURAL	1220743.93	1138676.99
A1G18	PEDESTRIAN AGRICULTURAL	1220343.85	1138775.45
A1G19	PEDESTRIAN AGRICULTURAL	1220340.78	1139275.44
A1G20	PEDESTRIAN AGRICULTURAL	1220656.23	1139305.85
A1G21	PEDESTRIAN AGRICULTURAL	1220847.71	1140125.61
A1G22	PEDESTRIAN AGRICULTURAL	1220845.64	1140625.60
A1G23	PEDESTRIAN AGRICULTURAL	1221169.87	1140867.74
A1G24	PEDESTRIAN AGRICULTURAL	1221644.13	1140927.59
A1G25	PEDESTRIAN AGRICULTURAL	1222160.48	1140976.78
A1G26	PEDESTRIAN AGRICULTURAL	1222660.40	1140981.58
A1G27	PEDESTRIAN AGRICULTURAL	1223160.43	1140986.15

AREA 2 GATE SCHEDULE

GATE NUMBER	GATE TYPE	NORTHING	EASTING
A2G1	DOUBLE SWING AGRICULTURAL	1220109.94	1140929.67
A2G2	PEDESTRIAN AGRICULTURAL	1219672.15	1141132.29
A2G3	PEDESTRIAN AGRICULTURAL	1219172.26	1141121.79
A2G4	PEDESTRIAN AGRICULTURAL	1218672.55	1141111.24
A2G5	PEDESTRIAN AGRICULTURAL	1218172.48	1141100.46
A2G6	PEDESTRIAN AGRICULTURAL	1217672.52	1141090.43
A2G7	PEDESTRIAN AGRICULTURAL	1217199.02	1141054.51
A2G8	PEDESTRIAN AGRICULTURAL	1217210.19	1140554.58
A2G9	PEDESTRIAN AGRICULTURAL	1217221.60	1140054.84
A2G10	PEDESTRIAN AGRICULTURAL	1217637.97	1139976.64
A2G11	PEDESTRIAN AGRICULTURAL	1218137.90	1139985.25
A2G12	PEDESTRIAN AGRICULTURAL	1218637.82	1139994.04
A2G13	PEDESTRIAN AGRICULTURAL	1219137.80	1140002.71
A2G14	PEDESTRIAN AGRICULTURAL	1219637.66	1140011.61
A2G15	PEDESTRIAN AGRICULTURAL	1220137.64	1140020.46
A2G16	PEDESTRIAN AGRICULTURAL	1220058.28	1140683.99

SUBSTATION GATE SCHEDULE

GATE NUMBER	GATE TYPE	NORTHING	EASTING
SSG1	DOUBLE SWING CHAIN LINK W/ BARBED WIRE	1221526.39	1141005.99
SSG2	DOUBLE SWING CHAIN LINK W/ BARBED WIRE	1221376.95	1141002.87
SSG3	PEDESTRIAN W/ BARBED WIRE	1221562.17	1141064.63

AREA 3 GATE SCHEDULE

GATE NUMBER	GATE TYPE	NORTHING	EASTING
A3G1	DOUBLE SWING AGRICULTURAL	1219202.85	1142744.13
A3G2	PEDESTRIAN AGRICULTURAL	1219148.00	1143291.92
A3G3	PEDESTRIAN AGRICULTURAL	1218700.45	1143365.48
A3G4	PEDESTRIAN AGRICULTURAL	1218627.13	1143719.98
A3G5	PEDESTRIAN AGRICULTURAL	1219127.05	1143724.31
A3G6	PEDESTRIAN AGRICULTURAL	1219626.92	1143637.50
A3G7	PEDESTRIAN AGRICULTURAL	1219626.92	1143137.50
A3G8	PEDESTRIAN AGRICULTURAL	1219530.10	1142666.71

AREA 4 GATE SCHEDULE

GATE NUMBER	GATE TYPE	NORTHING	EASTING
A4G1	DOUBLE SWING AGRICULTURAL	1220088.98	1145216.25
A4G2	PEDESTRIAN AGRICULTURAL	1220093.07	1145694.82
A4G3	PEDESTRIAN AGRICULTURAL	1219837.38	1145943.76
A4G4	PEDESTRIAN AGRICULTURAL	1219616.38	1146215.34
A4G5	PEDESTRIAN AGRICULTURAL	1219143.11	1146199.61
A4G6	PEDESTRIAN AGRICULTURAL	1218931.68	1145816.82
A4G7	PEDESTRIAN AGRICULTURAL	1218439.32	1145791.53
A4G8	PEDESTRIAN AGRICULTURAL	1218038.74	1145811.60
A4G9	PEDESTRIAN AGRICULTURAL	1217753.37	1145412.67
A4G10	PEDESTRIAN AGRICULTURAL	1217307.03	1145314.56
A4G11	PEDESTRIAN AGRICULTURAL	1216814.77	1145262.25
A4G12	PEDESTRIAN AGRICULTURAL	1216352.89	1145414.34
A4G13	PEDESTRIAN AGRICULTURAL	1216358.74	1144930.03
A4G14	PEDESTRIAN AGRICULTURAL	1216659.69	1144724.61
A4G15	PEDESTRIAN AGRICULTURAL	1217159.62	1144728.85
A4G16	PEDESTRIAN AGRICULTURAL	1217659.60	1144733.08
A4G17	PEDESTRIAN AGRICULTURAL	1218159.58	1144737.32
A4G18	PEDESTRIAN AGRICULTURAL	1218572.65	1144885.37
A4G10	PEDESTRIAN AGRICULTURAL	1219059.55	1144941.04
A4G20	PEDESTRIAN AGRICULTURAL	1219530.03	1144906.91
A4G21	PEDESTRIAN AGRICULTURAL	1219976.04	1144815.09

AREA 5 GATE SCHEDULE

GATE NUMBER	GATE TYPE	NORTHING	EASTING
A5G1	DOUBLE SWING AGRICULTURAL	1219992.79	1147658.49
A5G2	PEDESTRIAN AGRICULTURAL	1219731.80	1147702.31
A5G3	PEDESTRIAN AGRICULTURAL	1219232.43	1147678.67
A5G4	PEDESTRIAN AGRICULTURAL	1218732.98	1147655.14
A5G5	PEDESTRIAN AGRICULTURAL	1218233.43	1147631.61
A5G6	PEDESTRIAN AGRICULTURAL	1218151.77	1147225.93
A5G7	PEDESTRIAN AGRICULTURAL	1218272.16	1146833.49
A5G8	PEDESTRIAN AGRICULTURAL	1218771.90	1146851.48
A5G9	PEDESTRIAN AGRICULTURAL	1219292.59	1146870.35
A5G10	PEDESTRIAN AGRICULTURAL	1219771.25	1146887.47
A5G11	PEDESTRIAN AGRICULTURAL	1220071.07	1147094.38

AREA 6 GATE SCHEDULE

GATE NUMBER	GATE TYPE	NORTHING	EASTING
A6G1	DOUBLE SWING AGRICULTURAL	1219058.49	1148773.45
A6G2	PEDESTRIAN AGRICULTURAL	1218666.54	1149145.03
A6G3	PEDESTRIAN AGRICULTURAL	1218166.54	1149144.48
A6G4	PEDESTRIAN AGRICULTURAL	1218106.64	1148722.38
A6G5	PEDESTRIAN AGRICULTURAL	1218307.63	1148411.07
A6G6	PEDESTRIAN AGRICULTURAL	1218807.63	1148411.82

AREA 7 GATE SCHEDULE

GATE NUMBER	GATE TYPE	NORTHING	EASTING
A7G1	DOUBLE SWING AGRICULTURAL	1224828.42	1150358.73
A7G2	DOUBLE SWING AGRICULTURAL	1223436.13	1150342.38
A7G3	PEDESTRIAN AGRICULTURAL	1224582.81	1149754.86
A7G4	PEDESTRIAN AGRICULTURAL	1224582.27	1150254.86
A7G5	PEDESTRIAN AGRICULTURAL	1224946.17	1150371.97
A7G6	PEDESTRIAN AGRICULTURAL	1225446.12	1150364.85
A7G7	PEDESTRIAN AGRICULTURAL	1225946.02	1150357.85
A7G8	PEDESTRIAN AGRICULTURAL	1225968.42	1149883.97
A7G9	PEDESTRIAN AGRICULTURAL	1225944.81	1149386.10
A7G10	PEDESTRIAN AGRICULTURAL	1224446.73	1149617.09
A7G11	PEDESTRIAN AGRICULTURAL	1224454.51	1150117.03
A7G12	PEDESTRIAN AGRICULTURAL	1224225.17	1150364.92
A7G13	PEDESTRIAN AGRICULTURAL	1223727.14	1150372.67
A7G14	PEDESTRIAN AGRICULTURAL	1223391.35	1150222.89
A7G15	PEDESTRIAN AGRICULTURAL	1223399.65	1149722.90

AREA 8 GATE SCHEDULE

GATE NUMBER	GATE TYPE	NORTHING	EASTING
A8G1	DOUBLE SWING CHAIN LINK	1222618.49	1142385.90
A8G2	DOUBLE SWING CHAIN LINK	1221044.58	1144383.75
A8G3	DOUBLE SWING CHAIN LINK	1222894.22	1144720.82

AREA 9 GATE SCHEDULE

GATE NUMBER	GATE TYPE	NORTHING	EASTING
A9G1	CHAIN LINK CANTALEVER SLIDE GATE	1222836.57	1147568.05

AREA 10 GATE SCHEDULE

GATE NUMBER	GATE TYPE	NORTHING	EASTING
A10G1	DOUBLE SWING CHAIN LINK	1222976.51	1144987.38
A10G2	DOUBLE SWING CHAIN LINK	1222699.51	1145354.26
A10G3	DOUBLE SWING CHAIN LINK	1222632.89	1145592.40
A10G4	DOUBLE SWING CHAIN LINK	1222757.63	1146371.48
A10G5	DOUBLE SWING CHAIN LINK	1222830.85	1146856.93

AES CLEAN ENERGY DEVELOPMENT, LLC
292 MADISON AVENUE, 15TH FLOOR
NEW YORK, NY 10017

TETRA TECH

KEY PLAN:

REVISIONS:

NO.	DATE	DESCRIPTION
0	03/03/2023	ISSUED FOR 94-C PERMIT
1	08/11/2023	RE-ISSUED FOR 94-C PERMIT

PROJECT TITLE:

SOMERSET SOLAR PROJECT

PROJECT LOCATION:

LAKE ROAD
SOMERSET, NY

SHEET TITLE & DESCRIPTION:

GATE SCHEDULE

ISSUED FOR 94-C PERMIT ONLY
NOT FOR CONSTRUCTION

PROJ NUM:	SU20.0012
DES:	RCD
DWN:	RCD
CHK:	JPP/MAH
APV:	BMS
DATE:	08/11/2023

SCALE AT 22" x 34":

AS SHOWN

SHEET NO: PV-C.09.05

REV: 1

GENERAL NOTES

A. THE NOTES ON THIS SHEET AND THE STANDARD STRUCTURAL DETAILS ARE GENERAL AND APPLY TO THE ENTIRE PROJECT WHETHER SPECIFICALLY CALLED OUT OR NOT, EXCEPT WHERE THERE ARE SPECIFIC INDICATIONS TO THE CONTRARY ON THE STRUCTURAL SHEETS. IF THERE ARE QUESTIONS, SUBMIT THEM TO THE ENGINEER OF RECORD AND RECEIVE ANSWERS IN WRITING PRIOR TO CONSTRUCTION.

B. THE FOUNDATION SUPPORT AND SOIL PROPERTIES FOR THIS DESIGN ARE BASED ON RECOMMENDATIONS AND/OR DATA PROVIDED IN THE GEOTECHNICAL REPORT, REV 1, PREPARED BY ANS GEO, DATED NOVEMBER 21, 2021.

C. BECOME FAMILIAR WITH ALL EXISTING SITE CONDITIONS AND WITH DESIGN DOCUMENTS PROVIDED BY THE VARIOUS DESIGN PROFESSIONALS INVOLVED IN THIS PROJECT.

D. VERIFY ALL DIMENSIONS, DETAILS, AND SPATIAL RELATIONSHIPS SHOWN ON THESE DRAWINGS IN CONJUNCTION WITH ALL OTHER RELATED DESIGN DRAWINGS. ANY DISCREPANCIES, CONFLICTS, OR OMISSIONS FOUND SHALL BE REPORTED TO THE ENGINEER OF RECORD AND OTHER DESIGN PROFESSIONALS AS APPROPRIATE FOR RESOLUTION PRIOR TO PROCEEDING WITH ANY WORK ON THE PROJECT.

E. ALL CONSTRUCTION SHALL COMPLY WITH THE 2020 NEW YORK STATE BUILDING CODE.

F. ALL CONCRETE WORK SHALL CONFORM TO ACI-318 (2014).

G. ANY TESTING OR INSPECTION REQUIRED BY BUILDING OFFICIALS OR THE PROJECT DRAWINGS OR SPECIFICATIONS SHALL BE PERFORMED IN ACCORDANCE WITH 2020 NEW YORK STATE BUILDING CODE.

H. OBSERVATION VISITS TO THE SITE BY THE ENGINEER OF RECORD SHALL NEITHER BE CONSTRUED AS INSPECTION NOR APPROVAL OF CONSTRUCTION.

I. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR COMPLIANCE WITH OSHA AND 2020 NEW YORK STATE BUILDING CODE.

J. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR BRACING AND SHORING ALL EXCAVATIONS, TEMPORARY AND EXISTING STRUCTURES, AND PARTIALLY COMPLETED PORTIONS OF THE WORK AND DEWATERING ALL EXCAVATIONS OF SURFACE WATER, GROUNDWATER AND/ OR SEEPAGE TO ENSURE THE SAFETY OF ANY PERSON COMING IN CONTACT WITH THE WORK.

K. AMEND TO DATE ALL ASTM SPECIFICATIONS NOTED ON THE DRAWINGS.

L. PROVIDE AND INSTALL EVERYTHING SHOWN ON THESE DRAWINGS AS PART OF THE WORK UNLESS CALLED OUT AS EXISTING OR NOT-IN-CONTRACT.

M. COMPLETE A REVIEW ALL SUBMITTALS INCLUDING SHOP DRAWINGS AND VERIFY CORRECTNESS OF THEM PRIOR TO SUBMISSION TO TETRA TECH.

BUILDING AND DESIGN CODES

1. 2020 NEW YORK STATE BUILDING CODE (INTERNATIONAL BUILDING CODE 2018).
2. ASCE 7-16, MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES.
3. ACI 318-14, BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE AND COMMENTARY
4. AISC STEEL CONSTRUCTION MANUAL AND SPECIFICATIONS, 15TH EDITION.

STRUCTURAL DESIGN CRITERIA

1. APPLIES TO ALL STRUCTURES (UNO)
   a. FOUNDATION DEAD LOAD: EQUIPMENT WEIGHT + SELF-WEIGHT
2. WIND:
   a. RISK CATEGORY: I
   b. BASIC WIND SPEED: 105 MPH
   c. EXPOSURE: C
3. SEISMIC:
   a. RISK CATEGORY: I
   b. IMPORTANCE FACTOR: 1.0
   c. SPECTRAL RESPONSE ACCELERATION, S_S: 0.167g
   d. SPECTRAL RESPONSE ACCELERATION, S_1: 0.046g
   e. SITE CLASS: D
   f. SEISMIC DESIGN CATEGORY: B
   g. SPECTRAL RESPONSE COEFFICIENT, S_{DS}: 0.178g
   h. SPECTRAL RESPONSE COEFFICIENT, S_{D1}: 0.074g
4. SNOW:
   a. RISK CATEGORY I
   b. IMPORTANCE FACTOR 0.8
   c. GROUND SNOW LOAD: 50 PSF
   d. EXPOSURE FACTOR 0.9
   e. THERMAL FACTOR 1.2

FOUNDATION DESIGN PARAMETERS AND NOTES

1. CONTROLLING PV SUPPORT STRUCTURE LOADS PER NEXTRACKER "21015.735_TOPL100_7FT_AES - Sommerset_1659140_7-16_105mph_50spf_RCI_NXH_Rev2_20220111.PDF" AND "21015.735_TOPL75_7FT_AES - Sommerset_1659140_7-16_105mph_50spf_RCI_NXH_Rev2_20220111.PDF"
2. DRIVEN PILE-ULTIMATE SKIN FRICTION (COMPRESSION/TENSION): VARIES WITH DEPTH, 500 PSF TO 350 PSF, SEE GEOTECHNICAL REPORT
3. SOIL TYPE FOR PILE ANALYSIS: CLAY/SILT TO GLACIAL TILL, SEE GEOTECHNICAL REPORT
4. EFFECTIVE UNIT WEIGHT: VARIES WITH DEPTH, 100 TO 125 PCF, SEE GEOTECHNICAL REPORT
5. COHESION: 1,200 PSF
6. BEAR FOUNDATIONS ON APPROPRIATE SOIL AS DESCRIBED IN THE GEOTECHNICAL REPORT. ACTUAL FOUNDATION DEPTH AND ENGAGEMENT OF PROPER SOILS SHALL BE CONFIRMED IN THE FIELD BY A REPRESENTATIVE OF THE GEOTECHNICAL ENGINEER OF RECORD. SHOULD ANY SUBSURFACE CONDITION NOT BE IN ACCORDANCE WITH THE ABOVE REFERENCED GEOTECHNICAL REPORT, NOTIFY THE GEOTECHNICAL ENGINEER IMMEDIATELY FOR RESOLUTION PRIOR TO CONTINUING ANY WORK.
7. MINIMUM 28-DAY CONCRETE COMPRESSIVE STRENGTH: 4,500 PSI
8. MINIMUM YIELD STRENGTH OF REINFORCING BAR: 60 KSI
9. ALLOWABLE SOIL BEARING CAPACITY: 1,500 PSF
10. ANTICIPATED GROUNDWATER DEPTH: REFER TO THE GEOTECHNICAL REPORT
11. FROST DEPTH: 54 INCHES

STRUCTURAL STEEL PILES

PART 1 GENERAL

1.1 THIS SECTION SPECIFIES THE TECHNICAL AND CONSTRUCTION REQUIREMENTS FOR THE STRUCTURAL STEEL PILES TO SUPPORT THE PV SUPPORT STRUCTURE, CAB SYSTEM AND ELECTRICAL SKID MOUNTED EQUIPMENT, AND AUXILIARY ELECTRICAL EQUIPMENT.

1.2 PERFORM ALL WELDING IN ACCORDANCE WITH THE AMERICAN WELDING SOCIETY (AWS) "STRUCTURAL STEEL WELDING CODE", ANSI/AWS D1.1-LATEST EDITION AND AISC REQUIREMENTS; REPLACE OR REPAIR STRUCTURAL STEEL THAT IS DAMAGED DURING WELDING IN A MANNER THAT IS ACCEPTABLE TO THE ENGINEER OF RECORD AND SKID MANUFACTURER.

1.3 SHOP WELDING TO BE DONE IN AN APPROVED FABRICATORS SHOP PER 2020 NEW YORK STATE BUILDING CODE, CHAPTER 17.

1.4 WELDERS ARE TO HAVE CURRENT EVIDENCE OF PASSING THE APPROPRIATE AWS QUALIFICATION TESTS. THE ENGINEER OF RECORD AND AES REPRESENTATIVE MAY REQUEST SUCH DOCUMENTATION AT ANY TIME DURING THE PROJECT.

1.5 DO NOT USE GAS CUTTING TORCHES TO CORRECT FABRICATION ERRORS WITHOUT APPROVAL OF THE ENGINEER OF RECORD.

1.6 PROVIDE CORROSION PROTECTION COATING FOR ALL STRUCTURAL STEEL (INCLUDING BOLTS AND OTHER HARDWARE).

1.7 FABRICATION AND ERECTION SHALL COMPLY WITH AISC SPECIFICATIONS, LATEST EDITION.

1.8 VERIFY ALL DIMENSIONS WITH CIVIL AND ELECTRICAL DRAWINGS. COORDINATE ANY CONFLICTS BEFORE PROCEEDING.

1.9 SOLAR TRACKING SYSTEM AND ITS COMPONENTS, INCLUDING ATTACHMENT TO PILES, TO BE DESIGNED AND PROVIDED BY ARRAY TECHNOLOGIES, INC (ATI). BOLT HOLES IN PV SUPPORT PILES TO BE COORDINATED BY CONTRACTOR WITH ATI DESIGN DOCUMENTS, AS NECESSARY.

1.10 SUBMITTALS

SUBMIT THE FOLLOWING TO THE ENGINEER OF RECORD FOR REVIEW AND ACCEPTANCE PRIOR TO CONSTRUCTION:

A. SHOP DRAWINGS FOR W-SHAPES: DRAWING FOR EACH TYPICAL PILE TO INDICATE SECTION SIZE, LENGTH, COATING, BOLT HOLES, SHOP CONNECTIONS, AND QUANTITY.

B. W-SHAPE MILL CERTIFICATES

C. PILE INSTALLATION PLAN (TO INCLUDE PILE DRIVING EQUIPMENT)

D. PILE TESTING REPORTS

E. PRODUCT DATA FOR REPAIR PAINT FOR HOT-DIPPED GALVANIZED SURFACES.

F. PILE DRIVING REPORT

G. FABRICATOR QUALIFICATIONS

H. WELDER QUALIFICATIONS

1.11 QUALITY ASSURANCE

A. PILES MUST BE FABRICATED BY AN AISC CERTIFIED STRUCTURAL STEEL FABRICATOR, IN ACCORDANCE WITH AISC 207, CATEGORY BU. SUBMIT AISC STRUCTURAL STEEL FABRICATOR QUALITY CERTIFICATION

PART 2 PRODUCTS

2.1 W-SHAPES

A. PROVIDE WIDE FLANGE (W) CONFORMING TO ASTM A992 WITH A YIELD STRENGTH (Fy) OF 50 KSI. HOT-DIP GALVANIZE ALL PILES PER ASTM A123 (MINIMUM 3.3 MILS COATING THICKNESS).

2.2 STEEL PLATE

A. PROVIDE STEEL PLATE CONFORMING TO ASTM A36 WITH A Fy OF 36 KSI. HOT-DIP GALVANIZE ALL PLATE PER ASTM A123 (MINIMUM 3.3 MILS COATING THICKNESS).

2.3 BOLTS

A. PROVIDE BOLTS CONFORMING TO ASTM A325, UNLESS NOTED OTHERWISE. HOT-DIP GALVANIZE ALL BOLTS, WASHERS, AND NUTS PER ASTM A325 AND A123.

2.4 WELDING ELECTRODE

A. PROVIDE AWS A5.1 OR A5.5, E70XX WELDING ELECTRODE.

2.5 REPAIR PAINT FOR HOT DIPPED GALVANIZED SURFACES

A. PROVIDE ORGANIC ZINC REPAIR PAINT COMPLYING WITH THE REQUIREMENTS OF ASTM A780. GALVANIZING REPAIR PAINT IS TO CONTAIN 95% ZINC BY WEIGHT. APPLY THE GALVANIZING REPAIR PAINT NO LESS THAN THE COATING THICKNESS REQUIRED BY ASTM A123 OR A153 AS APPLICABLE.

2.6 PILE DRIVING HAMMERS

A. PROVIDE IMPACT OR VIBRATORY TYPE PILE DRIVING HAMMERS WITH A MINIMUM ENERGY OF 1,000 JOULES, SUCH AS A VERMEER PD10 OR EQUIVALENT. SELECT THE PROPOSED PILE DRIVING EQUIPMENT, INCLUDING HAMMERS, CAPBLOCK, CUSHION AND OTHER REQUIRED ITEMS, AND SUBMIT COMPLETE DESCRIPTIONS OF THE PROPOSED EQUIPMENT AND PROPOSED DRIVING RESISTANCE CRITERIA IN THE PILE INSTALLATION PLAN.

PART 3 EXECUTION

3.1 SUBMIT PILE INSTALLATION PLAN INCLUDING INFORMATION ON THE TYPE OF EQUIPMENT (INCLUDING VERIFICATION OF THE SPECIFIED HAMMER ENERGY REQUIRED) PROPOSED TO BE USED, PROPOSED METHODS OF OPERATION, TEST PILE AND PRODUCTION PILE DRIVING PLANS INCLUDING PROPOSED SEQUENCE OF DRIVING, AND DETAILS OF ALL PILE DRIVING EQUIPMENT AND ACCESSORIES. USE THE SAME TYPE AND SIZE EQUIPMENT AS FOR THE TEST PILES.

3.2 TEST PILE DRIVING

A. TEST PILE DRIVING SHALL BE COMPLETED USING THE SAME TYPE AND ENERGY HAMMER TO BE USED IN PRODUCTION PILE DRIVING.

B. DIAL GAGES AND LOAD CELLS SHALL BE CALIBRATED AND CERTIFICATES OF CALIBRATION INCLUDED WITH THE TEST PILE PLAN AS PART OF THE PILE INSTALLATION PLAN SUBMITTAL.

C. TEST PILES SHALL BE OF THE SAME SIZE, AND TYPE, INCLUDING PROTECTIVE COATINGS AS THE PILES SPECIFIED ON THE STRUCTURAL DRAWINGS.

D. TEST PILES MAY BE USED AS PRODUCTION PILES IF THEY MEET THE LOAD TEST REQUIREMENTS WITHOUT FAILURE OR PERMANENT DEFORMATION.

E. TESTING SHALL BE CONDUCTED IN THE PRESENCE OF THE ENGINEER AND DURING THE ENTIRE TIME PILES ARE INITIALLY DRIVEN OR REDRIVEN AND DURING PILE RESTRIKE TESTING.

F. TEST PILES OF EACH TYPE SHALL BE DRIVEN TO THE SPECIFIED MINIMUM DEPTH AND TESTED IN THE FIELD BY A REPRESENTATIVE OF THE GEOTECHNICAL ENGINEER OF RECORD. SHOULD IN EACH INVERTER/POWER BLOCK FOR VERIFICATION OF LATERAL AND AXIAL CAPACITY (TABLE 1) PRIOR TO INSTALLATION OF PRODUCTION PILES. IN EACH INVERTER/POWER BLOCK CONDUCT THE MINIMUM AT REPRESENTATIVE LOCATIONS:

1. PILE AXIAL TENSILE CAPACITY IN ACCORDANCE WITH ASTM D3689, PROCEDURE A: MINIMUM 3 PILES OF EACH TYPE PER INVERTER/POWER BLOCK. LOAD INCREMENTS MAY BE UP TO 10% OF THE TEST LOAD PROVIDED IN TABLE 1.
2. LATERAL LOAD CAPACITY IN ACCORDANCE WITH ASTM D3966: MINIMUM 3 PILES FOR EACH PILE TYPE PER INVERTER/POWER BLOCK. USE LOAD INCREMENTS EQUAL TO 25% OF THE TEST LOAD PROVIDED IN TABLE 1.

G. CONDUCT TEST PILES AT LEAST 200 FEET APART.

H. PERFORM AXIAL TESTING PRIOR TO LATERAL TESTING.

I. LATERAL LOADS TO BE RESISTED BY THE STRONG AXIS OF THE PILE FOR THE TEST.

J. RECORD PILE DEFLECTIONS AT EACH LOAD INCREMENT.

K. UNLOAD THE PILE AND ALLOW THE PILE TO "REBOUND" AFTER LOAD DEFLECTION IS RECORDED.

L. TEST EACH PILE TO THE LOAD CAPACITY INDICATED IN TABLE 1 AND VERIFY DEFLECTIONS UNDER REQUIRED LOADS ARE LESS THAN:

1. TENSILE: 0.25 IN.
2. LATERAL: 0.5 IN. AT GROUND SURFACE; 3 IN. AT THE TOP OF PILE

G. RECORD ENERGY AND PILE DRIVING RESISTANCE FOR EACH TEST PILES DURING DRIVING.

1. FOR RAPID IMPACT AND VIBRATORY HAMMERS, RECORD HAMMER ENERGY AND DRIVE TIME PER FOOT
2. FOR NORMAL IMPACT HAMMERS, RECORD HAMMER ENERGY AND BLOWS PER FOOT.
3. DEFINE MINIMUM REFUSAL RESISTANCE FOR LAST FOOT OF PENETRATION.
4. PROVIDE PILE TESTING REPORTS IN ACCORDANCE WITH THE ASTM D3689 AND ASTM D3966.

3.3 INSTALL EACH PILE AS ONE (1) CONTINUOUS MEMBER.

3.4 DO NOT BEGIN PILE INSTALLATION UNTIL THE EARTHWORK IN THE AREA WHERE PILES ARE TO BE INSTALLED HAS BEEN COMPLETED.

3.5 PILE PLACEMENT TOLERANCES:

A. REFER TO ATI INSTALLATION MANUAL.

3.6 COMPLETE NECESSARY EXCAVATION AND FURNISH LINES AND LEVELS AS REQUIRED TO INSTALL PILES AT THEIR INDICATED LOCATIONS.

3.7 ACCURATELY LOCATE AND INSTALL PILES BY SUCH METHODS AND EQUIPMENT SO AS NOT TO IMPAIR THE PILE STRENGTH OR DAMAGE PILES OR ADJACENT CONSTRUCTION. PILE REFUSAL MAY BE ENCOUNTERED IN WHICH CASE PRE-DRILLING AND BACKFILLING PILE HOLES WITH CONCRETE MAY BE REQUIRED TO THE MINIMUM EMBEDMENT DEPTH SHOWN ON STRUCTURAL DETAILS. COORDINATE WITH ENGINEER OF RECORD IF REFUSAL IS ENCOUNTERED TO CONFIRM THE CORRECTIVE ACTIONS AND CONCRETE SPECIFICATIONS. SUBMIT MIX DESIGN FOR REVIEW.

3.8 INSTALL PILES TO THE MINIMUM DEPTH INDICATED ON THE DRAWINGS AND THE MINIMUM DRIVING RESISTANCE ESTABLISHED BASED ON TEST PILING. RECORD DRIVING RESISTANCE FOR EACH PILE.

3.9 EACH PILE IS TO BE FREE FROM DEFECTS AND DAMAGE DUE TO CONSTRUCTION, FABRICATION, DELIVERY, INSTALLATION OR OTHER CAUSES.

3.10 DAMAGED PILES INCLUDE BUT ARE NOT NECESSARILY LIMITED TO PILES BENT, BUCKLED, CRACKED, WITH FABRICATION TOLERANCES BEYOND THOSE INDICATED ABOVE OR WITH ANY OTHER DEFECT AS DETERMINED BY THE ENGINEER OF RECORD THAT WOULD WEAKEN THE PILE.

3.11 REPAIR ALL DAMAGED CORROSION PROTECTION COATINGS IN ACCORDANCE WITH COATING MANUFACTURER RECOMMENDATIONS FOR REPAIR MATERIAL SPECIFIED IN PART 2 FOR REPAIR OF HOT DIPPED GALVANIZED SURFACES.

3.12 FIELD COAT ALL FIELD WELDS INSTALLED ON SHOP COATED STRUCTURAL STEEL WITH THE SAME COATING SYSTEM IN ACCORDANCE WITH THE REPAIR MATERIAL SPECIFIED IN PART 2 FOR REPAIR OF HOT DIPPED GALVANIZED

3.13 PROVIDE THE ENGINEER WITH A COPY OF A PILE DRIVING REPORT. KEEP A COMPLETE AND ACCURATE RECORD OF EACH PILE DRIVEN. INDICATE THE:

A. DATE DRIVEN,

B. PILE LOCATION AND NUMBER,

C. DEPTH DRIVEN,

D. DEVIATIONS FROM PILE LOCATION,

E. CROSS SECTION SHAPE AND DIMENSIONS, ORIGINAL LENGTH, GROUND ELEVATION, TIP ELEVATION, CUT-OFF ELEVATIONS (IF NECESSARY), VERTICAL ALIGNMENT,

F. NUMBER OF BLOWS REQUIRED FOR EACH FOOT OF PENETRATION AND NUMBER OF BLOWS FOR THE LAST 6 INCHES OF PENETRATION FOR IMPACT HAMMERS AND DRIVE TIME FOR EACH FOOT OF PENETRATION FOR RAPID IMPACT AND VIBRATORY HAMMERS.

G. INCLUDE IN THE RECORD THE BEGINNING AND ENDING TIMES OF EACH OPERATION DURING DRIVING OF PILE,

H. TYPE AND SIZE OF HAMMER USED, RATE OF OPERATION, STROKE OR EQUIVALENT STROKE FOR DIESEL HAMMER, TYPE OF DRIVING HELMET, AND TYPE AND DIMENSION OF HAMMER CUSHION (CAPBLOCK) AND PILE CUSHION USED.

I. RECORD RETAP DATA AND UNUSUAL OCCURRENCES DURING PILE DRIVING SUCH AS REDRIVING, HEAVING, WEAVING, OBSTRUCTIONS, AND ANY DRIVING INTERRUPTIONS.

J. PROVIDE A DESCRIPTION OF PILES THAT WERE REJECTED (PILE NUMBER, LOCATION, REASON FOR REJECTION). PILES MAY BE REJECTED IF THEY DO NOT MEET THE REQUIRED DRIVING RESISTANCE, DO NOT ACHIEVE THE MINIMUM EMBEDMENT, ARE DAMAGED DUE TO INSTALLATION OR OTHER REASON, OR ARE INSTALLED WITH INCORRECT LOCATION OR ORIENTATION.

3.14 DRIVE PILES INTO NATIVE SOIL OR COMPACTED FINISHED GRADE WHERE CUT OR FILL IS REQUIRED. ALL EARTHWORK SHALL BE COMPLETED PRIOR TO INSTALLATION OF ANY PILE FOUNDATION. DO NOT PRE-DRILL WITHOUT WRITTEN APPROVAL FROM THE OWNER AND ENGINEER OF RECORD.

3.15 BRING TO THE ATTENTION OF THE ENGINEER OF RECORD ALL PILES THAT ARE DRIVEN INTO THE GROUND AT A RATE THAT THE PILE DRIVING OPERATOR BELIEVES IS FASTER THAN WHAT IS EXPECTED BASED ON PREVIOUS PILES FOR THIS PROJECT. PERFORM TESTING OF THESE PILES UNDER THE DIRECTION AND DISCRETION OF THE ENGINEER OF RECORD AT THAT TIME.

3.16 ALL PILES ARE TO BE INSTALLED VERTICALLY UNLESS OTHERWISE SPECIFIED.

3.17 PROVIDE PILE INSPECTION PER INSPECTION TABLE 2.

CAB COMPONENTS

PART 1 GENERAL

1.1 THIS SECTION SPECIFIES THE CAB PRODUCT STRUCTURAL REQUIREMENTS FOR THE CAB SYSTEM.

1.2 CAB COMPONENTS INCLUDING MESSGENGER/GROUNDING WIRE, SUPPORT BRACKETS, AND HANGERS ARE DESIGNED AND PROVIDED BY CAMBRIA COUNTRY ASSOCIATION FOR THE BLIND AND HANDICAPPED (CCABH).

1.3 BOLT HOLES IN SUPPORT PILES TO BE COORDINATED BY CONTRACTOR WITH CAB DESIGN DOCUMENTS AND DATA SHEETS, AS NECESSARY. SHOP DRILL ALL BOLT HOLES.

1.4 SUBMITTALS

SUBMIT THE FOLLOWING SUBMITTALS TO THE ENGINEER OF RECORD FOR REVIEW AND ACCEPTANCE:

A. SHOP DRAWINGS: PROVIDE SHOP DRAWING FOR REQUIRED BOLT HOLE LOCATIONS IN SUPPORT STRUCTURE (EX. PILES).

B. CAB PRODUCT DATA SHEETS

PART 2 PRODUCTS

2.1 CAB COMPONENTS AS REQUIRED BY DETAILED DESIGN

A. MESSENGER/GROUNDING WIRE: CAB PRODUCT #####

B. SUPPORT L-BRACKET KIT: CAB PRODUCT ####

C. CONDUCTOR HANGER: CAB PRODUCT ####

D. DEAD-END ASSEMBLY KIT: CAB PRODUCT #####

2.2 BOLTS, NUTS, WASHERS

A. PROVIDE BOLTS, WASHERS AND NUTS AS SPECIFIED AND PROVIDED BY CCABH. ALL BOLTS, WASHERS AND NUTS SHALL BE HOT-DIPPED GALVANIZED PER ASTM A123 OR STAINLESS STEEL AS SPECIFIED BY CCABH.

2.3 REPAIR PAINT FOR HOT DIPPED GALVANIZED SURFACES

A. PROVIDE ORGANIC ZINC REPAIR PAINT COMPLYING WITH THE REQUIREMENTS OF ASTM A780. GALVANIZING REPAIR PAINT IS TO CONTAIN 95% ZINC BY WEIGHT. APPLY THE GALVANIZING REPAIR PAINT NO LESS THAN THE COATING THICKNESS REQUIRED BY ASTM A123 OR A153 AS APPLICABLE.

PART 3 EXECUTION

3.1 INSTALL CAB COMPONENTS IN ACCORDANCE WITH THE MANUFACTURER INSTRUCTIONS AND RECOMMENDATIONS.

3.2 ENSURE ALL PILES ARE INSTALLED TO MAINTAIN THE CAB MESSENGER WIRE IN A STRAIGHT LINE BETWEEN THE CAB SUPPORT PILES IN THE VERTICAL PLANE.

3.2 REFER TO THE ELECTRICAL DRAWING FOR ADDITIONAL INFORMATION REGARDING THE CAB LAYOUT AND CONDUCTOR REQUIREMENTS.

SPECIAL INSPECTIONS:

1. PROVIDE SPECIAL INSPECTION IN ACCORDANCE WITH CHAPTER 17 OF THE NEW YORK STATE BUILDING CODE FOR ALL STRUCTURAL ITEMS AND COMPONENTS THAT ARE APPLICABLE TO THIS PROJECT AND SHOWN IN THESE STRUCTURAL DRAWINGS.
2. SPECIAL INSPECTORS SHALL BE OBJECTIVE, COMPETENT AND INDEPENDENT FROM THE CONTRACTOR RESPONSIBLE FOR THE WORK THAT IS BEING INSPECTED.
3. SPECIAL INSPECTORS SHALL KEEP RECORDS OF INSPECTIONS. THESE RECORDS SHALL BE PROVIDED TO THE BUILDING OFFICIAL, AND TO THE REGISTERED ENGINEER OF RECORD FOR APPROVAL.
4. SPECIAL INSPECTIONS DO NOT RELIEVE THE CONTRACTOR OF COMPLIANCE WITH THE CONTRACT PERFORMANCE REQUIREMENTS, DOCUMENTATION AND SUBMITTALS.

GENERAL SUBMITTAL REQUIREMENTS

1. THIS SECTION SPECIFIES THE REQUIREMENTS FOR SUBMITTALS LISTED IN THE STRUCTURAL STEEL PILES, UNISTRUT FRAMING AND CAB COMPONENTS SECTIONS.
2. SUBMIT ONE ELECTRONIC COPY OF THE SUBMITTALS SPECIFIED TO THE ENGINEER OF RECORD AND OWNER.
3. THE ENGINEER OF RECORD WILL REVIEW THE SUBMITTALS FOR CONFORMANCE AND COMPLIANCE WITH THE DESIGN DRAWINGS AND TECHNICAL SPECIFICATIONS.

DEFINITIONS

1. THIRD-PARTY REPRESENTATIVE - REPRESENTATIVE OF THE CLIENT OR OWNER
2. ENGINEER - REPRESENTATIVE OF TETRA TECH
3. ENGINEER OF RECORD - TETRA TECH PROFESSIONAL ENGINEER WHO HAS SIGNED AND SEALED THE DESIGN DRAWINGS
4. AES/CLIENT REPRESENTATIVE - EMPLOYEE OF AES SOLAR
5. GEOTECHNICAL ENGINEER - PROFESSIONAL ENGINEER LICENSED IN NEW YORK COMPETENT IN THE PRACTICES OF GEOTECHNICAL ENGINEERING.

TABLE 1: TEST PILE LOAD CAPACITY SUMMARY

PILE TYPE	CROSS SECTION	MINIMUM EMBEDMENT	TOP OF PILE TEST LOADS*	
			AXIAL TENSION	LATERAL
EXTERIOR PILE	TBD	TBD	TBD	TBD
INTERIOR PILE AND EQUIPMENT SUPPORT	TBD	TBD	TBD	TBD
CAB DEAD-END PILE	TBD	TBD	TBD	TBD
SKID-SUPPORT PILE	TBD	TBD	TBD	TBD

* TEST LOADS PROVIDED ARE BASED ON ASCE 7-16 ALLOWABLE STRENGTH DESIGN (ASD) LOAD COMBINATIONS USED IN THE DESIGN CALCULATIONS WITH AN ADDITIONAL FACTOR OF SAFETY OF 1.25 APPLIED.

TABLE 2: TABLE OF SPECIAL INSPECTIONS

DESCRIPTION	PERIODIC	CONTINUOUS
PILE INSTALLATION		
VERIFY PILE MATERIAL, SIZES AND LENGTHS COMPLY WITH DESIGN DRAWINGS	X	
DETERMINE CAPACITIES OF TEST ELEMENTS AND CONDUCT ADDITIONAL LOAD TESTS AS REQUIRED	X	
OBSERVE DRIVING OPERATION AND MAINTAIN ACCURATE RECORDS FOR EACH ELEMENT	X	
VERIFY PLACEMENT LOCATIONS AND PLUMBNESS, CONFIRM TYPE AND SIZE OF HAMMER, RECORD TIP AND BUTT ELEVATIONS AND DOCUMENT ANY DAMAGE TO THE FOUNDATION ELEMENT.	X	
INSPECTION OF SOILS		
VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL	X	
PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS	X	
VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESS DURING PLACEMENT AND COMPACTION OF COMPACTED FILL	X	
PRIOR TO PLACEMENT OF COMPACTED FILL, OBSERVE SUB-GRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY	X	
STRUCTURAL STEEL		
SPECIAL INSPECTION OF STRUCTURAL STEEL ELEMENTS AND WELDING SHALL BE IN ACCORDANCE WITH AISC 360 AND AWS D1.1/D1.1M	X	

aes
AES CLEAN ENERGY DEVELOPMENT, LLC
292 MADISON AVENUE, 15TH FLOOR
NEW YORK, NY 10017

TETRA TECH

KEY PLAN:

REVISIONS:

NO.	DATE	DESCRIPTION
0	03/03/2023	ISSUED FOR 94-C PERMIT
1	07/24/2023	RE-ISSUED FOR 94-C PERMIT

PROJECT TITLE:

SOMERSET SOLAR PROJECT

PROJECT LOCATION:

LAKE ROAD
SOMERSET, NY.

SHEET TITLE & DESCRIPTION:

FOUNDATION NOTES

ISSUED FOR 94-C PERMIT ONLY
NOT FOR CONSTRUCTION

PROJ NUM:	SU12.0012
DES:	SAE
DWN:	SAE
CHK:	JBH
APV:	SAE
DATE:	07/24/2023

SCALE AT 22" x 34":

AS SHOWN

SHEET NO: PV-C.10.01 REV: 1

EXCAVATION, BACKFILL AND COMPACTION

PART 1 GENERAL

1.1 THIS SECTION SPECIFIES THE TECHNICAL AND CONSTRUCTION REQUIREMENTS FOR EXCAVATION, BACKFILL, COMPACTION AND GRADING FOR CONCRETE FOUNDATIONS.

1.2 SUBMITTALS

A. BACKFILL AND STRUCTURAL FILL: SUBMIT LABORATORY SOIL TEST RESULTS DOCUMENTING FILL PROPERTIES. THIS TEST DATA SHALL INCLUDE MOISTURE–DENSITY RELATIONSHIP AND PARTICLE SIZE ANALYSIS AND OTHER INFORMATION NECESSARY TO DEMONSTRATE COMPLIANCE WITH THE MATERIAL REQUIREMENTS.

B. SUBGRADE INSPECTION AND COMPACTION REPORTS FOR EACH CONCRETE FOUNDATION. A QUALIFIED THIRD–PARTY REPRESENTATIVE SHALL INSPECT AND PERFORM COMPACTION TESTING IN THE BASE OF EACH FOUNDATION EXCAVATION PRIOR TO PLACING ANY STRUCTURAL FILL. THE QUALIFIED THIRD–PARTY REPRESENTATIVE SHALL PERFORM COMPACTION TESTING FOR THE STRUCTURAL FILL AND GENERAL FILL PLACED BENEATH AND ADJACENT TO THE FOUNDATION. THE QUALIFIED THIRD–PARTY REPRESENTATIVE SHALL DOCUMENT WITH PHOTOS AND WRITTEN NARRATIVE THE TYPE AND CHARACTER OF THE EXPOSED EARTH AND TESTING RESULTS. THE REPORT SHOULD ASSESS THE ALLOWABLE BEARING CAPACITY AND VERIFY THAT IT MEETS OR EXCEEDS 1500 PSF. EACH INSPECTION REPORT SHALL BE SIGNED BY THE QUALIFIED THIRD–PARTY REPRESENTATIVE, PROFESSIONAL ENGINEER, AND OWNER REPRESENTATIVE AND FORWARDED TO THE PROFESSIONAL ENGINEER FOR RECORD.

PART 2 PRODUCTS

2.1 STRUCTURAL FILL

A. THE IMPORTED STRUCTURAL FILL MATERIAL SHALL BE CLEAN DENSE GRADED AGGREGATE FREE OF CONTAMINANTS MEETING THE REQUIREMENTS OF NEW YORK DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR SUBBASE AGGREGATE SECTION 304, TABLE 304–1, TYPE 4, REFER TO SECTIONS 304 AND 703–02.

2.2 STANDARD FILL

A. STANDARD FILL WILL CONSIST OF SATISFACTORY SOILS: ASTM D 2487 SOIL CLASSIFICATION GROUPS GW, GP, GM, SW, SP, AND SM, OR A COMBINATION OF THESE GROUP SYMBOLS; FREE OF ROCK OR GRAVEL LARGER THAN 3 INCHES IN ANY DIMENSION, DEBRIS, WASTE, FROZEN MATERIALS, VEGETATION, AND OTHER DELETERIOUS MATTER. UNSATISFACTORY SOILS: ASTM D 2487 SOIL CLASSIFICATION GROUPS GC, SC, ML, MH, CL, CH, OL, OH, AND PT, OR A COMBINATION OF THESE GROUP SYMBOLS. PROVIDE BORROW SOIL MATERIALS WHEN SUFFICIENT SATISFACTORY SOIL MATERIALS ARE NOT AVAILABLE FROM EXCAVATIONS.

2.3 TOP SOIL MATERIALS

A. STRIPPED SOIL DURING EXCAVATION SHALL BE STOCKPILED, SALVAGED AND REUSED.

2.4 EXTRUDED POLYSTYRENE INSULATION

A. PROVIDE ASTM C578, TYPE IV EXTRUDED POLYSTYRENE INSULATION OR APPROVED EQUIVALENT. INSULATION TO PROVIDE A MINIMUM EFFECTIVE HORIZONTAL RESISTIVITY OF 4.0 PER INCH THICKNESS. INSULATION TO PROVIDE A MINIMUM COMPRESSIVE STRENGTH OF 1200 PSF.

PART 3 EXECUTION

3.1 PREPARATION

A. CONTACT LOCAL UTILITY LINE LOCATION SERVICE, IF AVAILABLE, BEFORE PERFORMING WORK.

B. IDENTIFY REQUIRED LINES, LEVELS, CONTOURS, AND DATUM.

3.2 CLEARING

A. REMOVE ALL VEGETATION INCLUDING TREES, STUMPS, ROOTS AND SHRUBS AS NECESSARY WITHIN FOUNDATION CONSTRUCTION AREAS.

B. STRIP EXISTING TOPSOIL TO A DEPTH SPECIFIED BY THE OWNER REPRESENTATIVE. STOCKPILE FOR REUSE.

3.3 EXCAVATION

A. PROVIDE DEWATERING AS REQUIRED TO MAINTAIN GROUNDWATER LEVEL AT LEAST 1 FOOT BELOW THE BOTTOM OF EXCAVATION. NO SUMPS OR OTHER PUMPING WILL BE PERMITTED WITHIN THE FOUNDATION FOOTPRINT.

B. EXCAVATE SUBGRADE MATERIAL FROM THE REQUIRED AREAS TO THE LINES AND GRADES SHOWN IN THE DESIGN DRAWINGS.

C. IF SUBGRADE IS INSPECTED WITH UNSATISFACTORY CONDITIONS SUCH AS STANDING WATER, FROZEN SOIL, ORGANICS, PROTRUDING COBBLES OR BOULDERS, OR DELETERIOUS MATERIALS, UNDERCUT THE EXCAVATION AN ADDITIONAL 6 INCHES.

D. SEE REQUIREMENTS IN EXCAVATION, BACKFILL AND COMPACTION, PART 1 GENERAL, PARAGRAPH 1.2 B AND PART 3, PARAGRAPH 3.6.

E. REMOVE UNSUITABLE EXCAVATED MATERIALS FROM THE FOUNDATION FOOTPRINT AS DIRECTED BY THE OWNER REPRESENTATIVE.

F. EXCAVATION SHOULD BE CARRIED OUT IN SUCH A MANNER THAT THE GRADE THROUGHOUT THE WORK AREA IS KEPT DRAINED AT ALL TIMES.

3.4 STOCKPILING

A. STOCKPILE MATERIALS ON SITE AT LOCATIONS INDICATED BY THE OWNER.

3.5 CLEANUP AND RESTORATION

A. REMOVE STOCKPILE; LEAVE AREA IN CLEAN AND NEAT CONDITION, GRADE THE AREA AROUND THE FOUNDATIONS IN ACCORDANCE WITH CIVIL DESIGN DRAWINGS.

3.6 BACKFILLING

A. DO NOT BACKFILL OVER POROUS, WET, FROZEN, OR SPONGY SUBGRADE SURFACES.

B. ALL FILL MATERIAL PLACED ADJACENT TO AND SUPPORTING THE FOUNDATIONS SHALL BE COMPACTED FILL AS SHOWN ON THE FOUNDATION DETAILS.

C. PRIOR TO PLACING STRUCTURAL FILL OR CONCRETE, COMPACT EXPOSED SUBGRADE WITH PLATE COMPACTORS, OR ACCEPTED ALTERNATIVE EQUIPMENT, UNDER THE OBSERVATION OF GEOTECHNICAL PERSONNEL. SUBGRADE SHOULD BE MOISTURE CONDITIONED TO WITHIN 2% OF OPTIMUM MOISTURE AND COMPACTED TO A MINIMUM OF 95 PERCENT OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D1557 TO ATTAIN REQUIRED COMPACTED DRY DENSITY.

D. PLACE STRUCTURAL FILL IN MAXIMUM OF 8 INCH LOOSE LIFTS. MOISTURE CONDITION STRUCTURAL FILL TO WITHIN 2% OF OPTIMUM MOISTURE CONTENT AND COMPACT EACH LIFT TO A MINIMUM 95 PERCENT OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D1557.

E. PLACE INSULATION AT THE DEPTH SHOWN ON THE FOUNDATION DETAILS IN ACCORDANCE WITH THE MANUFACTURER REQUIREMENTS.

F. AFTER THE CONCRETE FOUNDATION HAS CURED FOR A MINIMUM OF 7 DAYS. PLACE GENERAL FILL IN MAXIMUM OF 8 INCH LOOSE LIFTS. MOISTURE CONDITION GENERAL FILL TO WITHIN 2% OF OPTIMUM MOISTURE CONTENT AND COMPACT EACH LIFT TO A MINIMUM 95 PERCENT OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D1557.

3.7 TOLERANCE

D. SUBGRADE ELEVATION UPON EXCAVATION: PLUS 0 INCHES OR MINUS 2 INCHES FROM REQUIRED ELEVATION.

3.8 TESTING

A. ONE IN–PLACE DENSITY AND ONE MOISTURE TEST SHALL BE PERFORMED FOR THE SUBGRADE AND EACH LIFT OF FILL.

B. IN–PLACE DENSITY TEST: ASTM D1557, ASTM D2167, ASTM D6938

C. IN–PLACE MOISTURE TEST: ASTM D6938

D. MOISTURE DENSITY RELATIONSHIP: ASTM D1557, ASTM D4718

E. PARTICLE SIZE ANALYSIS: ASTM D6913

CAST-IN-PLACE STRUCTURAL CONCRETE

PART 1 GENERAL

1.1 THIS SECTION SPECIFIES TECHNICAL AND CONSTRUCTION REQUIREMENTS FOR FORM WORK, CAST–IN–PLACE CONCRETE, AND REINFORCING STEEL.

1.2 QUALIFICATIONS

A. MANUFACTURER: COMPANY SPECIALIZING IN MANUFACTURING PRODUCTS SPECIFIED IN THIS SECTION WITH MINIMUM THREE YEARS DOCUMENTED EXPERIENCE.

1.3 SUBMITTALS

A. CONCRETE MIX DESIGN: SUBMIT 14 DAYS PRIOR TO PLACEMENT OF CONCRETE. SUBMIT SEPARATE MIX DESIGNS WHENEVER SPECIAL ADMIXTURES ARE REQUIRED.

B. BATCH TICKETS: SUBMIT COPIES OF THE BATCH TICKET FOR EACH LOAD OF CONCRETE.

C. CONCRETE FIELD TEST RESULTS: SUBMIT SLUMP, AIR CONTENT, AND TEMPERATURE TEST RESULTS FOR CONCRETE USED FOR THE FOUNDATIONS.

D. CONCRETE COMPRESSION TEST RESULTS: SUBMIT COMPRESSION TEST RESULTS FOR CONCRETE USED FOR THE FOUNDATION.

E. PRODUCT DATA FOR ADMIXTURE, POZZOLAN, AND CURING MEMBRANE USED ON THE PROJECT.

F. PRODUCT DATA FOR CONTROL JOINT BACKER ROD AND JOINT SEALANT.

G. COLD AND HOT WEATHER CONCRETE PLACEMENT AND PROTECTION PLAN.

H. REINFORCING STEEL FABRICATION AND PLACEMENT DRAWINGS.

I. CERTIFIED MILL REPORTS OF REINFORCING STEEL, CONFIRMING THE GRADE AND STRENGTH OF REINFORCING STEEL PROVIDED ON THE PROJECT.

1.4 QUALITY ASSURANCE

A. PERFORM CONCRETE WORK IN ACCORDANCE WITH ACI 318 AND ACI 301.

B. REVIEW CONCRETE SUPPLIER BATCH PLANT TO ASSURE CAPABILITY OF BATCH PLANT TO PRODUCE CONCRETE MEETING THE REQUIREMENTS STATED IN THE SPECIFICATION.

PART 2 PRODUCTS

2.1 FORM MATERIALS

A. FORMS FOR EXPOSED FINISH CONCRETE: PROVIDE CONTINUOUS, STRAIGHT, SMOOTH EXPOSED SURFACES. FURNISH IN LARGEST PRACTICAL SIZES TO MINIMIZE NUMBER OF JOINTS. PROVIDE FORM MATERIAL WITH SUFFICIENT THICKNESS TO WITHSTAND PRESSURE OF NEWLY PLACED CONCRETE WITHOUT VISIBLE BOW OR DEFLECTION.

B. FORM COATINGS: PROVIDE COMMERCIAL FORMULATION FORM–COATING COMPOUNDS THAT WILL NOT BOND WITH, STAIN NOR ADVERSELY AFFECT CONCRETE SURFACES, AND WILL NOT IMPAIR SUBSEQUENT TREATMENTS.

2.2 REINFORCING MATERIALS

A. REINFORCING STEEL: ASTM 615, GRADE 60.

2.3 CONCRETE MATERIALS

A. PORTLAND CEMENT SHALL CONFORM TO ASTM C150, TYPE I.

B. COARSE AGGREGATE: COARSE AGGREGATE SHALL CONFORM TO ASTM C33. MAXIMUM COARSE AGGREGATE SIZE SHALL BE 1.5 INCHES AND SHALL CONSIST OF GRAVEL, CRUSHED GRAVEL OR STONE.

C. MIXING WATER: POTABLE WATER HAVING NO PRONOUNCED TASTE OR ODOR, AND CONTAINING NO DELETERIOUS MATERIALS SHALL BE USED FOR MIXING CONCRETE.

D. AIR–ENTRAINING AGENTS SHALL MEET THE REQUIREMENTS OF ASTM C260 AND SHALL NOT CONTAIN CHLORIDE.

E. HIGH RANGE WATER–REDUCING ADMIXTURE (SUPERPLASTICIZER) SHALL CONFORM TO ASTM C494, TYPE F.

F. WATER–REDUCING ADMIXTURES SHALL CONFORM TO ASTM C494, TYPE A AND CONTAIN NO MORE THAN 1% CHLORIDE IONS.

G. CALCIUM CHLORIDE SHALL NOT BE USED.

H. POZZOLANS (FLY ASH) SHALL CONFORM TO ASTM C618, CLASS F AND THE LOSS OF IGNITION (LOI) SHALL BE LESS THAN 6%. POZZOLANS SHALL BE LIMITED TO A MAXIMUM OF 25% OF CEMENTITOUS CONTENT.

I. FINE AGGREGATE: FINE AGGREGATE SHALL CONFORM TO ASTM C33. FINE AGGREGATE SHALL CONSIST OF NATURAL SAND, MANUFACTURED SAND OR A COMBINATION THEREOF.

J. CURING COMPOUND SHALL COMPLY WITH ASTM C309, TYPE I, CLASS A.

2.4 CONCRETE MIX DESIGN

A. CONCRETE MIX DESIGN SHALL BE PREPARED FOR EACH REQUIRED TYPE AND STRENGTH OF CONCRETE BY EITHER LABORATORY TRIAL BATCH, FIELD EXPERIENCE METHODS AS SPECIFIED IN ACI 318. THE MIX DESIGNS AND SUPPORTING DATA, SIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF NEW YORK, SUBMITTED TO AND APPROVED BY THE FIELD ENGINEER PRIOR TO PLACING CONCRETE.

B. WATER/CEMENT RATIO (MAXIMUM BY WEIGHT): 0.45 MAX

C. ADMIXTURE TYPES AND QUANTITIES SHALL BE AS INDICATED IN CONCRETE MIX DESIGNS.

2.5 LABORATORY AND FIELD TESTING OF CONCRETE

A. COMPRESSIVE STRENGTH (28 DAY, ASTM C39): 4500 PSI

B. AGGREGATE SIZE (MAXIMUM, ASTM C33): 1.5 INCHES

C. ENTRAINED AIR (ASTM C231): 6 PERCENT (± 1.0 PERCENT)

D. SLUMP (ASTM C143): 4 INCHES ± 1 INCH

MAXIMUM SLUMP FOR CONCRETE USING A HIGH–RANGE WATER–REDUCER MAY BE INCREASED TO 6 INCHES.

2.6 CONTROL JOINT BACKER ROD AND SEALANT

A. PROVIDE NON–ABSORPTIVE NON–REACTIVE BACKER ROD TO FIT SNUG IN JOINT IN ACCORDANCE WITH ASTM D5249. PROVIDE MATERIAL THAT IS 25 PERCENT LARGER IN DIAMETER THAN THE NOMINAL WIDTH OF THE SAWCUT JOINT.

B. PROVIDE AN ASTM C920, TYPE M, CLASS 25, USE NT JOINT SEALANT.

PART 3 EXECUTION

3.1 CONCRETE FORMWORK

A. ALL FORMS SHALL BE STRAIGHT AND PLUMB, RIGID, AND MORTAR TIGHT. ALL FORMS SHALL BE BRACED, TIED AND SUPPORTED SUFFICIENTLY TO MAINTAIN THEIR REQUIRED POSITION DURING AND AFTER THE PLACEMENT OF THE CONCRETE. EARTH FORMS MAY BE USED IN CONSTRUCTING FOUNDATIONS WHEN SOIL AT THE SITE IS STIFF.

B. FORM TIES: USE FACTORY–FABRICATED, ADJUSTABLE–LENGTH REMOVABLE OR SNAPOFF METAL FORM TIES, DESIGNED TO PREVENT FORM DEFLECTION, AND TO PREVENT SPALLING CONCRETE SURFACE UPON REMOVAL UNLESS OTHERWISE INDICATED. PROVIDE TIES SO THAT PORTIONS REMAINING WITHIN CONCRETE AFTER REMOVAL WILL NOT BE WITHIN 1 INCH OF ANY EXPOSED CONCRETE SURFACE.

C. PROVIDE OPENINGS IN CONCRETE FORMWORK TO ACCOMMODATE THE INSTALLATION OF EMBEDDED CONDUIT.

D. TOLERANCES: CONSTRUCT FORMWORK WITHIN THE TOLERANCES SHOWN ON THE FORMWORK DRAWINGS.

E. PREPARATION OF FORM SURFACES: COAT CONTACT SURFACES OF FORMS WITH A FORM–COATING COMPOUND BEFORE REINFORCEMENT IS PLACED. DO NOT ALLOW FORM–COATING COMPOUND TO COME INTO CONTACT WITH REINFORCEMENT OR WITH CONCRETE SURFACES AGAINST WHICH FRESH CONCRETE WILL BE PLACED.

F. REMOVAL OF FORMS AND SUPPORTS: AFTER PLACING CONCRETE, FORMS SHALL REMAIN IN PLACE AFTER COMPLETION OF CONCRETE PLACEMENTS FOR ENOUGH TIME TO PREVENT CONCRETE DAMAGE DURING FORM REMOVAL.

G. INSPECT AND CHECK THE FORMWORK BEFORE THE REINFORCING STEEL IS PLACED TO CONFIRM THAT THE DIMENSIONS AND LOCATION OF THE CONCRETE FOUNDATIONS WILL CONFORM TO THE FOUNDATION DESIGN DRAWINGS.

3.2 PLACING REINFORCEMENT AND EMBEDDED ITEMS

A. PROVIDE BARS, WIRE FABRIC, WIRE TIES, SUPPORTS, AND OTHER DEVICES NECESSARY TO INSTALL AND SECURE REINFORCEMENT. REINFORCEMENT SHALL NOT HAVE SCALE, OIL, GREASE, CLAY, OR FOREIGN SUBSTANCES THAT WOULD REDUCE THE BOND. RUSTING OF REINFORCEMENT IS A BASIS OF REJECTION IF THE EFFECTIVE CROSS–SECTIONAL AREA OR THE NOMINAL WEIGHT PER UNIT LENGTH HAS BEEN REDUCED. REMOVE LOOSE RUST PRIOR TO PLACING STEEL. TACK WELDING IS PROHIBITED FOR ALL REINFORCEMENT SHOWN ON STRUCTURAL DRAWINGS.

B. ALL HOOKS IN REINFORCING STEEL SHALL BE STANDARD 90–DEGREE HOOKS.

C. FOR #5 AND SMALLER BARS, STANDARD 90–DEGREE STIRRUP HOOKS WITH A CONTINUOUS PERPENDICULAR BAR (#4 MINIMUM) INSTALLED INSIDE THE CORNER OF ALL HOOKED BARS MAY BE USED IN LIEU OF STANDARD 90 DEGREE HOOKS. THE PRIMARY SLAB REINFORCING MAY BE USED FOR THE CONTINUOUS PERPENDICULAR BARS.

D. PLACE REINFORCEMENT AND SECURE WITH GALVANIZED OR NON–CORRODIBLE CHAIRS, SPACERS, OR METAL HANGERS. FOR SUPPORTING REINFORCEMENT ON THE GROUND, USE CONCRETE OR OTHER NON–CORRODIBLE MATERIAL, HAVING A COMPRESSIVE STRENGTH EQUAL TO OR GREATER THAN THE CONCRETE BEING PLACED. ACCURATELY POSITION, SUPPORT AND SECURE REINFORCEMENT AGAINST MOVEMENT BY FORMWORK, CONSTRUCTION, OR CONCRETE PLACEMENT OPERATIONS.

E. PLACE REINFORCEMENT TO MEET MINIMUM REBAR COVER FOR REINFORCEMENT PROTECTION, SPACING AND PLACEMENT REQUIREMENTS SPECIFIED ON DESIGN DRAWINGS.

F. SPLICING: LOCATE REINFORCEMENT SPLICES AS INDICATED ON THE PLACEMENT DRAWINGS. REBAR SPLICE SHALL BE ALTERNATED TO PREVENT WEAK PLANES. SPLICES SHALL BE CLASS B TENSION LAP SPLICE LENGTHS CALCULATED IN ACCORDANCE WITH ACI 318.

G. EMBEDDED ITEMS:

1. MAKE PROVISIONS FOR CONDUIT PENETRATIONS SPECIFIED ON ELECTRICAL DRAWINGS.
2. DO NOT EMBED WOOD OR UNCOATED ALUMINUM IN CONCRETE.
3. SECURELY ANCHOR EMBEDDED ITEMS IN CORRECT LOCATION AND ALIGNMENT PRIOR TO PLACING CONCRETE.

H. EXAMINATION OF REINFORCEMENT: VERIFY REQUIREMENTS FOR CONCRETE COVER OVER REINFORCEMENT. VERIFY REINFORCEMENT AND OTHER ITEMS TO BE CAST INTO CONCRETE ARE ACCURATELY PLACED, POSITIONED SECURELY, AND WILL NOT INTERFERE WITH PLACING CONCRETE. NOTIFY THE AES REPRESENTATIVE AFTER PLACEMENT OF REINFORCING STEEL IN FORMS, BUT PRIOR TO PLACING CONCRETE. SCHEDULE CONCRETE PLACEMENT TO PERMIT FORMWORK INSPECTION BY THE AES REPRESENTATIVE BEFORE PLACING CONCRETE.

3.3 MIXING AND TRANSPORTING CONCRETE

A. HAND–MIXED CONCRETE SHALL NOT BE ALLOWED FOR ANY PORTION OF THE WORK.

B. CONCRETE SHALL BE DISCHARGED, WHEN THE AIR TEMPERATURE IS LESS THAN 85 DEGREES F, WITHIN ONE AND ONE–HALF HOURS FROM THE TIME DRY AGGREGATES ARE LOADED INTO THE TRUCK MIXER. FOR AIR TEMPERATURE ABOVE 85 DEGREES F, PLACE CONCRETE WITHIN 60 MINUTES FROM THE TIME AGGREGATES ARE LOADED.

C. IF CONCRETE MIX DESIGN CONTAINS SET RETARDING ADMIXTURE, THE LIMIT FOR PLACING CONCRETE MAY REMAIN AT 90 MINUTES PROVIDED SLUMP REQUIREMENTS CAN BE MET.

D. FURNISH BATCH TICKET TO THE FIELD ENGINEER WITH EACH BATCH OF CONCRETE BEFORE UNLOADING AT THE SITE. THE BATCH TICKET SHALL CONTAIN THE FOLLOWING INFORMATION CONCERNING THE CONCRETE:

1. NAME OF READY–MIX CONCRETE COMPANY
2. SERIAL NUMBER OF TICKET
3. DATE
4. TRUCK NUMBER
5. NAME OF PURCHASER
6. AMOUNT OF CONCRETE IN CUBIC YARDS
7. MAXIMUM SIZE OF AGGREGATE
8. INGREDIENTS CERTIFIED AS BEING PREVIOUSLY APPROVED
9. SIGNATURE OF PRODUCER'S REPRESENTATIVE
10. TIME THE BATCH WAS PLACED IN THE TRUCK

E. AVOID SEGREGATING THE CONCRETE MIX DURING DISCHARGE AT THE LOCATION OF PLACEMENT.

F. TRANSPORT CONCRETE FROM THE BATCH PLANT TO THE PROJECT SITE AS SOON AS POSSIBLE TO AVOID DELAYS AND DISPOSAL OF UNSUITABLE CONCRETE.

G. CLEAN TRANSPORTING EQUIPMENT BEFORE EACH BATCH. DO NOT USE ALUMINUM PIPE OR CHUTES.

H. READY–MIX CONCRETE SHALL BE IN ACCORDANCE WITH ACI 301 AND ASTM C94.

3.4 PLACING CONCRETE

A. NOTIFY AES REPRESENTATIVE A MINIMUM 24 HOURS PRIOR TO COMMENCEMENT OF CONCRETE OPERATIONS.

B. PRE–PLACEMENT INSPECTION: AES REPRESENTATIVE SHALL INSPECT THE COMPLETED FORMWORK, REINFORCING STEEL, AND ITEMS TO BE EMBEDDED PRIOR TO CONCRETE PLACEMENT. HOWEVER, THIS DOES NOT RELEASE THE CONTRACTOR FROM RESPONSIBILITY FOR ACCEPTABLE AND SATISFACTORILY COMPLETED WORK.

C. PLACE CONCRETE AS SOON AS PRACTICAL AFTER THE FORMS AND THE REINFORCEMENT HAVE BEEN INSPECTED AND APPROVED. DO NOT PLACE CONCRETE WHEN WEATHER CONDITIONS PREVENT PROPER PLACEMENT, CONSOLIDATION AND CURING; IN UNCOVERED AREAS DURING PERIODS OF PRECIPITATION; OR IN STANDING WATER. PRIOR TO PLACING CONCRETE, REMOVE DIRT, CONSTRUCTION DEBRIS, WATER, SNOW, AND ICE FROM WITHIN THE FORMS. DEPOSIT CONCRETE AS CLOSE AS PRACTICABLE TO THE FINAL POSITION IN THE FORMS. DO NOT EXCEED A FREE VERTICAL DROP OF 5 FEET FROM THE POINT OF DISCHARGE.

D. CONSOLIDATION: CONSOLIDATE CONCRETE IN ACCORDANCE WITH ACI 301. CONSOLIDATE CONCRETE FOUNDATION WITH HIGH FREQUENCY, INTERNAL, MECHANICAL VIBRATING EQUIPMENT SUPPLEMENTED BY HAND SPADING AND TAMPING. OPERATE VIBRATORS WITH VIBRATORY ELEMENT SUBMERGED IN THE CONCRETE, WITH A MINIMUM FREQUENCY OF NOT LESS THAN 6000 IMPULSES PER MINUTE WHEN SUBMERGED. DO NOT USE VIBRATORS TO TRANSPORT THE CONCRETE IN THE FORMS. INSERT AND WITHDRAW VIBRATORS AT A SPACING RECOMMENDED BY THE MANUFACTURER. PENETRATE THE PREVIOUSLY PLACED LIFT WITH THE VIBRATOR WHEN MORE THAN ONE LIFT IS REQUIRED. PLACE CONCRETE IN 18 INCHES MAXIMUM VERTICAL LIFTS. EXTERNAL VIBRATORS MAY BE USED ON THE EXTERIOR SURFACE OF THE FORMS WHEN INTERNAL VIBRATORS DO NOT PROVIDE ADEQUATE CONSOLIDATION OF THE CONCRETE.

E. MAINTAIN RECORDS OF CONCRETE PLACEMENT. RECORD DATE, LOCATION, QUANTITY, AIR TEMPERATURE, AND TEST SAMPLES TAKEN. ALSO KEEP DUPLICATE RECORDS.

F. DO NOT INTERRUPT SUCCESSIVE PLACEMENT TO PREVENT COLD JOINTS FROM FORMING.

3.5 FINISH OF FORMED SURFACES

A. DEFECTS: REPAIR FORMED SURFACES BY REMOVING MINOR HONEYCOMBS, PITS GREATER THAN 1 SQUARE INCH SURFACE AREA OR ¼ INCH MAXIMUM DEPTH. PROVIDE EDGES PERPENDICULAR TO THE SURFACE AND PATCH WITH NONSHRINK GROUT. PATCH TIE HOLES AND DEFECTS WHEN THE FORMS ARE REMOVED. CONCRETE WITH EXTENSIVE HONEYCOMB INCLUDING EXPOSED STEEL REINFORCEMENT, COLD JOINTS, ENTRAPPED DEBRIS, SEPARATED AGGREGATE, OR OTHER DEFECTS, WHICH AFFECT THE SERVICEABILITY OR STRUCTURAL STRENGTH, WILL BE REJECTED, UNLESS CORRECTION OF DEFECTS IS APPROVED BY THE FIELD ENGINEER. OBTAIN APPROVAL OF CORRECTIVE ACTION PRIOR TO REPAIR. EXPOSED SURFACES SHALL BE UNIFORM IN APPEARANCE AND FINISHED TO A SMOOTH FORM FINISH UNLESS OTHERWISE SPECIFIED.

B. ROUGH FORM FINISH: PROVIDE AS–CAST ROUGH FORM FINISH TO FORMED CONCRETE SURFACES THAT ARE TO BE CONCEALED IN FINISH WORK OR BY OTHER CONSTRUCTION, UNLESS OTHERWISE INDICATED.

C. SMOOTH FORM FINISH: PROVIDE AS–CAST SMOOTH FORM FINISH FOR FORMED CONCRETE SURFACES THAT ARE EXPOSED TO VIEW. PRODUCE SMOOTH FORM FINISH BY SELECTING FORM MATERIAL TO IMPART A SMOOTH, HARD, UNIFORM TEXTURE AND ARRANGING THEM ORDERLY AND SYMMETRICALLY WITH A MINIMUM OF SEAMS. REPAIR AND PATCH DEFECTIVE AREAS WITH FINS OR OTHER PROJECTIONS COMPLETELY REMOVED AND SMOOTHED.

3.6 FOUNDATION TOP FINISH

A. PLACE, CONSOLIDATE, AND IMMEDIATELY STRIKE OFF CONCRETE TO OBTAIN PROPER CONTOUR, GRADE, AND ELEVATION BEFORE BLEEDWATER APPEARS. PERMIT CONCRETE TO ATTAIN A SET SUFFICIENT FOR FLOATING AND SUPPORTING THE WEIGHT OF THE FINISHER AND EQUIPMENT. IF BLEEDWATER IS PRESENT PRIOR TO FLOATING THE SURFACE, DRAG THE EXCESS WATER OFF OR REMOVE BY ABSORPTION WITH POROUS MATERIALS. DO NOT USE DRY CEMENT TO ABSORB BLEEDWATER.

B. TROWEL FINISH: APPLY TROWEL FINISH TO TOP SURFACE OF THE FOUNDATION, UNLESS OTHERWISE INDICATED, IN THE DESIGN DRAWINGS. AFTER FLOATING, BEGIN FIRST TROWEL OPERATION USING POWER TROWEL OR USING MANUAL LABOR. BEGIN FINAL TROWELING WHEN SURFACE PRODUCES RINGING SOUND AS TROWEL IS MOVED OVER SURFACE. CONSOLIDATE CONCRETE SURFACE BY FINAL HAND TROWELING OPERATION, FREE OF TROWEL MARKS, UNIFORM IN TEXTURE AND APPEARANCE. AFTER TROWELING OPERATION, USE SOFT–BRISTLED PUSH BROOM OVER THE FRESHLY TROWELED SURFACE TO OBTAIN A NON–SLIP SURFACE.

3.7 CURING AND PROTECTION

A. CURE AND PROTECT CONCRETE FROM DAMAGING ACTIONS BY SUN, RAIN, WIND, FLOWING WATER, MECHANICAL DAMAGE AND PREMATURE DRYING FOR NOT LESS THAN SEVEN CONSECUTIVE DAYS AFTER PLACEMENT IN ACCORDANCE WITH ACI 301. BEGIN CURING FORMED SURFACES IMMEDIATELY FOLLOWING FORM REMOVAL. AVOID DAMAGE TO CONCRETE FROM VIBRATION CREATED BY ANY ACTIVITY RESULTING IN GROUND VIBRATIONS. DO NOT ALLOW CONCRETE TO DRY OUT FROM TIME OF PLACEMENT UNTIL THE EXPIRATION OF THE SPECIFIED CURING PERIOD.

B. IF FORMS ARE REMOVED PRIOR TO THE EXPIRATION OF THE CURING PERIOD, PROVIDE ANOTHER CURING PROCEDURE SPECIFIED HEREIN FOR THE REMAINING PORTION OF THE CURING PERIOD FOR EXPOSED SURFACES AFTER REMOVAL OF FORM. PROVIDE MOIST CURING FOR THOSE AREAS RECEIVING LIQUID CHEMICAL SEALER–HARDENER OR EPOXY COATING.

C. MOIST CURING: COVER CONCRETE SURFACES WITH MOISTURE–RETAINING COVER FOR CURING PERIOD. EXPOSED HORIZONTAL CONCRETE SURFACES MAY BE COVERED WITH SAND OR OTHER APPROVED MATERIAL AND KEPT WET FOR THE REQUIRED PERIOD. KEEP WOOD FORMS SUFFICIENTLY WET AT ALL TIMES TO PREVENT THE FORMS FROM SEPARATING AT THE JOINTS AND THE CONCRETE FROM DRYING.

D. MEMBRANE CURING: CONCRETE SURFACES TO RECEIVE MEMBRANE CURING SHALL BE TREATED WITH A CURING COMPOUND AS SPECIFIED OR OTHERWISE APPROVED. APPLY THE CURING COMPOUND IN STRICT ACCORDANCE WITH THE DIRECTIONS OF THE MANUFACTURER OF THE COMPOUND.

E. COLD WEATHER: PROTECT CONCRETE BY PROVIDING ADEQUATE COVER AND HEATING SOURCE TO MAINTAIN CONCRETE TEMPERATURE SPECIFIED IN ACI 306.1 OR AS APPROVED BY THE AES REPRESENTATIVE.

F. HOT WEATHER: KEEP THE CONCRETE SURFACES BELOW 85 DEGREES F FOR THE CURING PERIOD. PROVIDE WINDBREAKS, SHADING, FOG SPRAYING, SPRINKLING, PONDING, OR WET COVERING, AS REQUIRED, IN ACI 305 OR AS APPROVED BY THE AES REPRESENTATIVE TO PREVENT MOISTURE LOSS DURING CURING PERIOD.

3.8 CONTROL JOINTS

A. JOINTS MUST BE 1/8–INCH WIDE AND FORMED BY INSERTING HAND–PRESSED FIBERBOARD STRIP INTO FRESH CONCRETE UNTIL TOP SURFACE OF STRIP IS FLUSH WITH SLAB SURFACE. AFTER CONCRETE HAS CURED FOR AT LEAST 7 DAYS, THE CONTRACTOR MUST REMOVE INSERTS AND CLEAN GROOVE OF FOREIGN MATTER AND LOOSE PARTICLES . GROOVE THEN MUST BE PREPARED FOR JOINT SEALANT BY SAW CUTTING THE JOINT TO THE WIDTH AND DEPTH REQUIRED FOR THE SEALANT AND BACKER ROD. THOROUGHLY CLEAN, IMMEDIATELY FOLLOWING THE SAWING OPERATION, THE JOINT OPENING USING A WATER JET TO REMOVE ALL SAW CUTTINGS AND DEBRIS.

B. ONCE DRY, SEAL JOINTS IMMEDIATELY FOLLOWING THE PLACEMENT OF THE BACKER ROD. INSTALL JOINT SEALANT IN ACCORDANCE WITH MANUFACTURER INSTRUCTIONS AND SPECIFICATIONS. OPEN JOINTS, THAT CANNOT BE SEALED UNDER THE CONDITIONS SPECIFIED, OR WHEN RAIN INTERRUPTS SEALING OPERATIONS SHALL BE RECLEANED AND ALLOWED TO DRY PRIOR TO INSTALLING THE SEALANT.

3.9 PATCHING

A. NOTIFY THE AES REPRESENTATIVE TO INSPECT CONCRETE SURFACES IMMEDIATELY UPON REMOVAL OF FORMS.

B. EXCESSIVE HONEYCOMB OR EMBEDDED DEBRIS IN CONCRETE IS NOT ACCEPTABLE. NOTIFY THE AES REPRESENTATIVE UPON DISCOVERY.

C. PATCH IMPERFECTIONS AS DIRECTED BY THE AES REPRESENTATIVE.

3.10 TESTING

A. PROVIDE THE NECESSARY TESTING AND MONITORING SERVICES NEEDED TO CONTROL OR MONITOR THE PRODUCTION, TRANSPORTATION, PLACEMENT, PROTECTION, CURING OF THE CONCRETE. SAMPLING AND TESTING FOR QUALITY CONTROL DURING PLACEMENT SHALL INCLUDE THE FOLLOWING:

1. SAMPLING OF FRESH CONCRETE: OBTAIN CONCRETE SAMPLES FOR TESTING IN ACCORDANCE WITH ASTM C172.
2. SLUMP: TEST THE SLUMP OF THE SAMPLED CONCRETE IN ACCORDANCE WITH ASTM C143. THE MAXIMUM SLUMP MAY BE INCREASED AS SPECIFIED WITH THE ADDITION OF AN APPROVED ADMIXTURE PROVIDED THAT THE WATER–CEMENT RATIO IS NOT EXCEEDED. PERFORM TESTS AT COMMENCEMENT OF CONCRETE PLACEMENT, WHEN TEST CYLINDERS ARE MADE, AND FOR EACH BATCH (MINIMUM) OR EVERY 150 CUBIC YARDS (MAXIMUM) OF CONCRETE.
3. AIR CONTENT: TEST AIR CONTENT OF THE SAMPLED CONCRETE IN ACCORDANCE WITH ASTM C231. TEST CONCRETE FOR AIR CONTENT AT THE SAME FREQUENCY AS SPECIFIED FOR SLUMP TESTS.
4. CONCRETE TEMPERATURE: TEST WHEN AIR TEMPERATURE IS BELOW 40 DEGREES F OR WHEN ABOVE 80 DEGREES F. TEST CONCRETE DELIVERED AND WHILE IN THE FORMS DURING CURING PERIOD.
5. COMPRESSION TEST SPECIMENS: MAKE FIVE 6 INCH DIAMETER TEST CYLINDERS FOR EACH SET OF TESTS IN ACCORDANCE WITH ASTM C31. TAKE PRECAUTIONS TO PREVENT EVAPORATION AND LOSS OF WATER FROM THE SPECIMEN. LABORATORY SHALL PERFORM COMPRESSION TESTING OF CONCRETE CYLINDERS IN ACCORDANCE WITH ASTM C39. TEST TWO CYLINDERS AT 7 DAYS, TWO CYLINDERS AT 28 DAYS, AND HOLD ONE CYLINDER IN RESERVE. SAMPLES FOR STRENGTH TESTS SHALL BE TAKEN FOR EACH FOUNDATION OR 100 CUBIC YARDS OR FRACTION THEREOF, OF EACH CONCRETE CLASS PLACED. STRENGTH LEVEL OF CONCRETE SHALL BE CONSIDERED SATISFACTORY IF BOTH THE FOLLOWING REQUIREMENTS ARE MET:
   a. NO INDIVIDUAL TEST RESULT IS 500 PSI LESS THAN THE 7–DAY OR 28–DAY STRENGTH AS APPLICABLE.
   b. THE AVERAGE OF THE COMPRESSIVE TESTS EQUALS OR EXCEEDS THE 7–DAY OR 28–DAY STRENGTH AS APPLICABLE.
6. IN THE EVENT OF UNSATISFACTORY COMPRESSIVE TEST RESULTS, NOTIFY A THIRD–PARTY REPRESENTATIVE FOR RESOLUTION.

3.11 DEFECTIVE CONCRETE

A. DEFECTIVE CONCRETE: CONCRETE NOT CONFORMING TO REQUIRED DETAILS, DIMENSIONS, TOLERANCES OR SPECIFIED REQUIREMENTS.

B. REPAIR OR REPLACEMENT OF DEFECTIVE CONCRETE WILL BE DETERMINED BY A THIRD–PARTY REPRESENTATIVE.

3.12 TOLERANCE

A. PLACE CONCRETE IN ACCORDANCE WITH THE FOLLOWING DIMENSIONAL TOLERANCES.

1. REINFORCING PLAN SPACING: PLUS OR MINUS 2 INCHES.
2. REINFORCING VERTICAL SPACING: PLUS OR MINUS 1 INCH.
3. CONCRETE CLEAR COVER: MINUS 0 INCHES, PLUS 1 INCH.
4. FOOTING PLAN DIMENSIONS: MINUS 0 INCHES, PLUS 2 INCHES.
5. FOOTING THICKNESS: MINUS 0 INCHES, PLUS 2 INCHES.
6. FOUNDATION DEVIATION FROM LEVEL: 1/16 INCH IN 4 FEET.

SPECIAL INSPECTIONS:

1. REFER TO SPECIAL INSPECTIONS NOTES ON PV.C.10.01.
2. SEE TABLE 3 FOR RELEVANT CONCRETE CONSTRUCTION SPECIAL INSPECTIONS PER CHAPTER 17 OF THE 2020 NEW YORK STATE BUILDING CODE.

TABLE 3: TABLE OF SPECIAL INSPECTIONS

CONCRETE CONSTRUCTION		
DESCRIPTION	PERIODIC	CONTINUOUS
1. INSPECT REINFORCEMENT AND VERIFY PLACEMENT.	X	
2. VERIFY USE OF REQUIRED DESIGN MIX.	X	
3. PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.		X
4. VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.	X	
5. INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.	X	

CONCRETE PADS AND UNDERGROUND

1. CONCRETE SPECIFICATIONS, UON:
   BASED ON SOIL WITH 2000 PSF BEARING CAPACITY
   4000 PSI 28–DAY COMPRESSIVE STRENGTH
   145 PCF UNIT WEIGHT
   REINFORCING INCLUDING TIES AND STIRRUPS CONFORMS TO ASTM A615 AND GR60
   CONFORMS TO ACI301, ACI315, ACI318, ACI305, AND ACI306
   REINFORCING BAR PLACEMENT CONFORMS TO CRSI
   AIR ENTRAINED FOR SEVERE EXPOSURE
2. THE TOP OF THE CONCRETE SHALL BE SLOPED AWAY FROM CENTER FOR POSITIVE DRAINAGE WITH A LEVEL AT 1% SLOPE.
3. CONCRETE REBAR MATERIAL, SIZE, PATTERN, PLACEMENT, TIES AND MINIMUM DISTANCE TO EDGES MEETS DESIGN SPECIFICATIONS. REBAR SHALL NOT BE EXPOSED OUTSIDE OF FINISHED CONCRETE.

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KEY PLAN:

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0	03/03/2023	ISSUED FOR 94-C PERMIT
1	07/24/2023	RE-ISSUED FOR 94-C PERMIT

PROJECT TITLE: SOMERSET SOLAR PROJECT

PROJECT LOCATION: LAKE ROAD SOMERSET, NY.

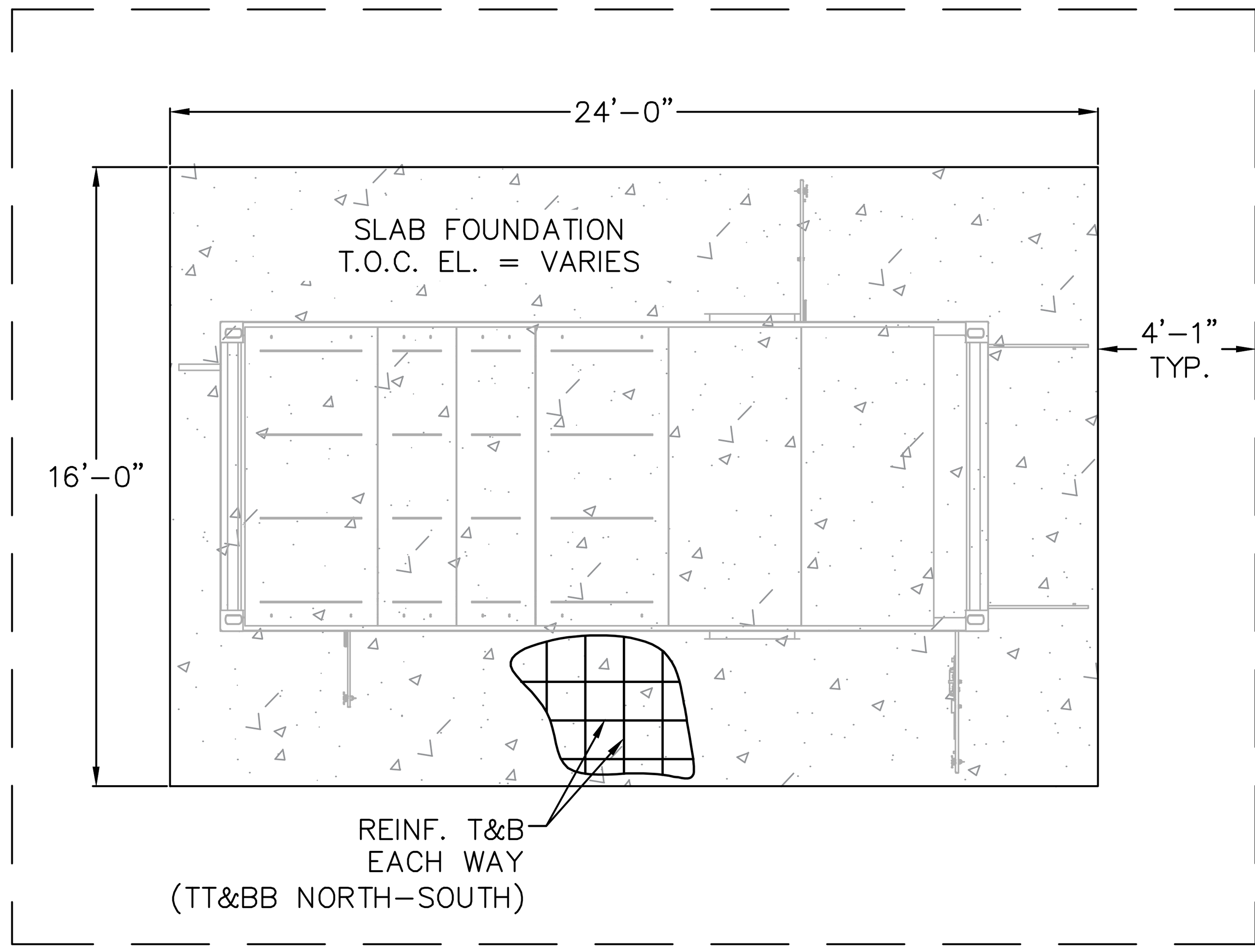
SHEET TITLE & DESCRIPTION: FOUNDATION NOTES

ISSUED FOR 94-C PERMIT ONLY
NOT FOR CONSTRUCTION

PROJ NUM:	SU12.0012
DES:	SAE
DWN:	SAE
CHK:	JBH
APV:	SAE
DATE:	07/24/2023

SCALE AT 22" x 34": AS SHOWN

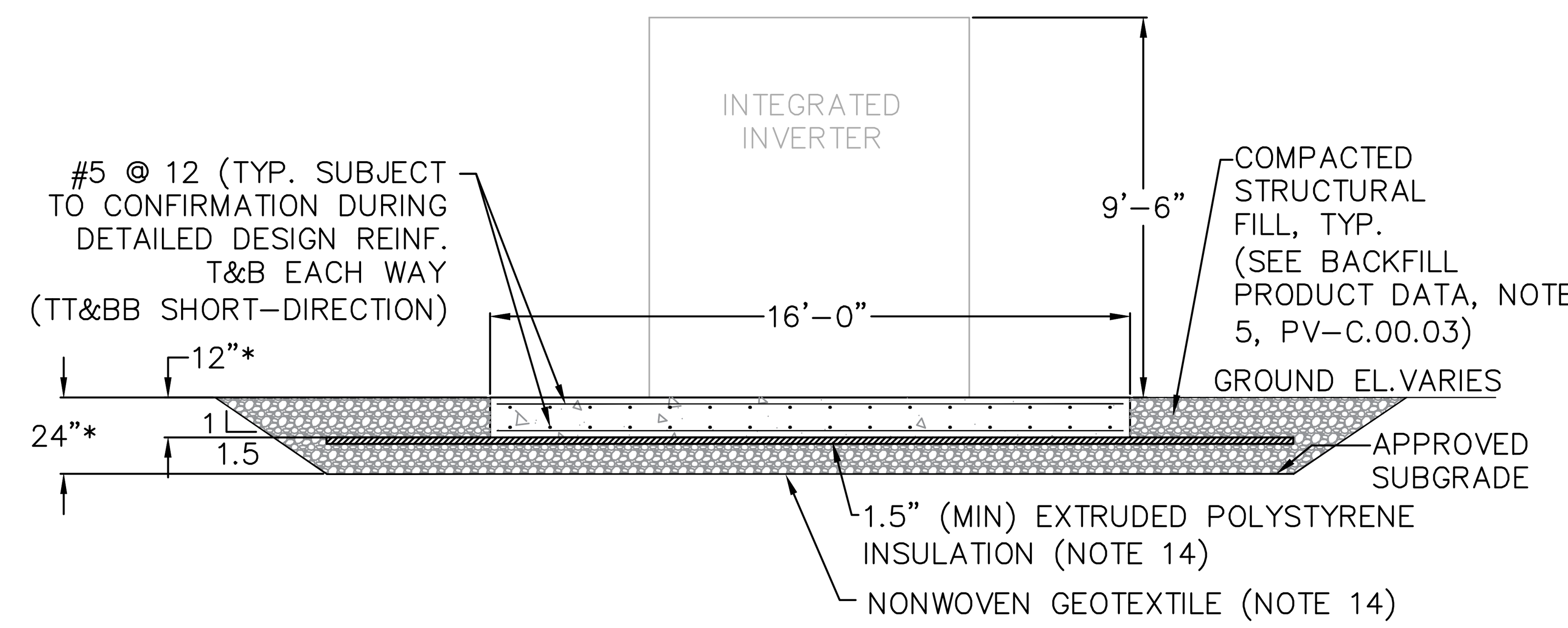
SHEET NO: PV-C.10.02 REV: 1



CONCRETE EQUIPMENT SLAB FOUNDATION

TYP. PLAN (1 / C.10.03)

SCALE: 1/4" = 1'-0"



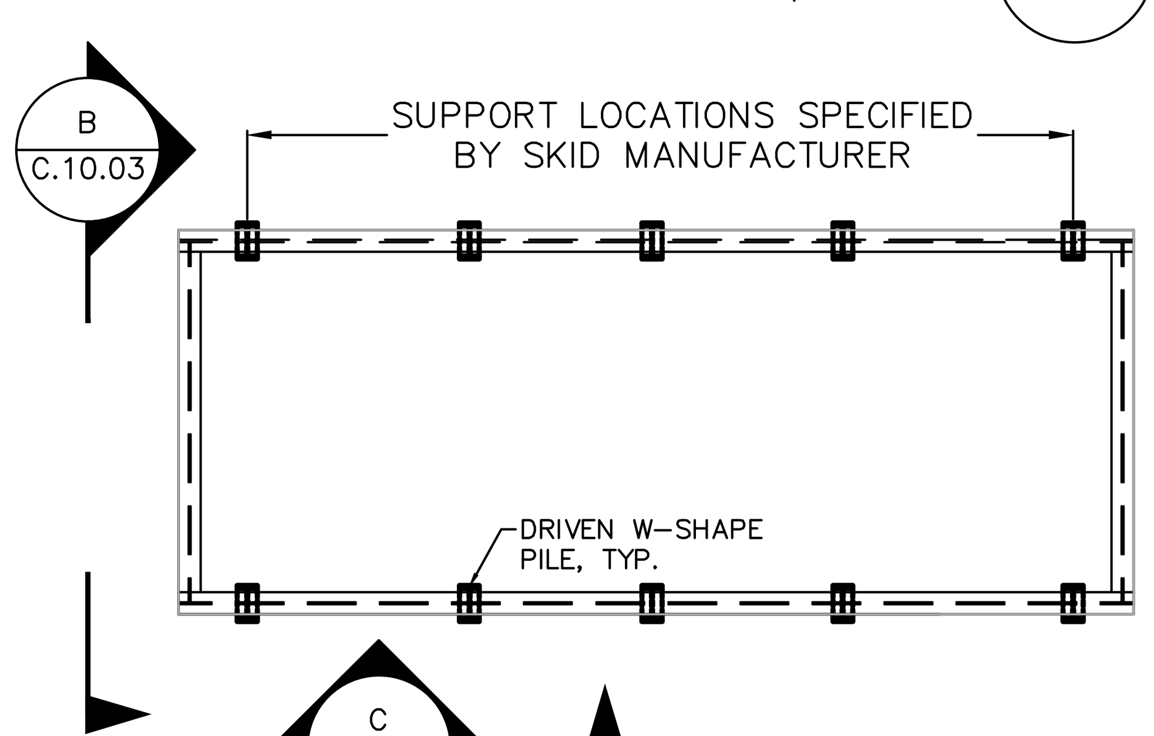
NOTE:

*SLAB THICKNESS AND EXCAVATION DEPTH TO BE CONFIRMED DURING DETAILED DESIGN.

CONCRETE EQUIPMENT SLAB FOUNDATION

SECTION (A / C.10.03)

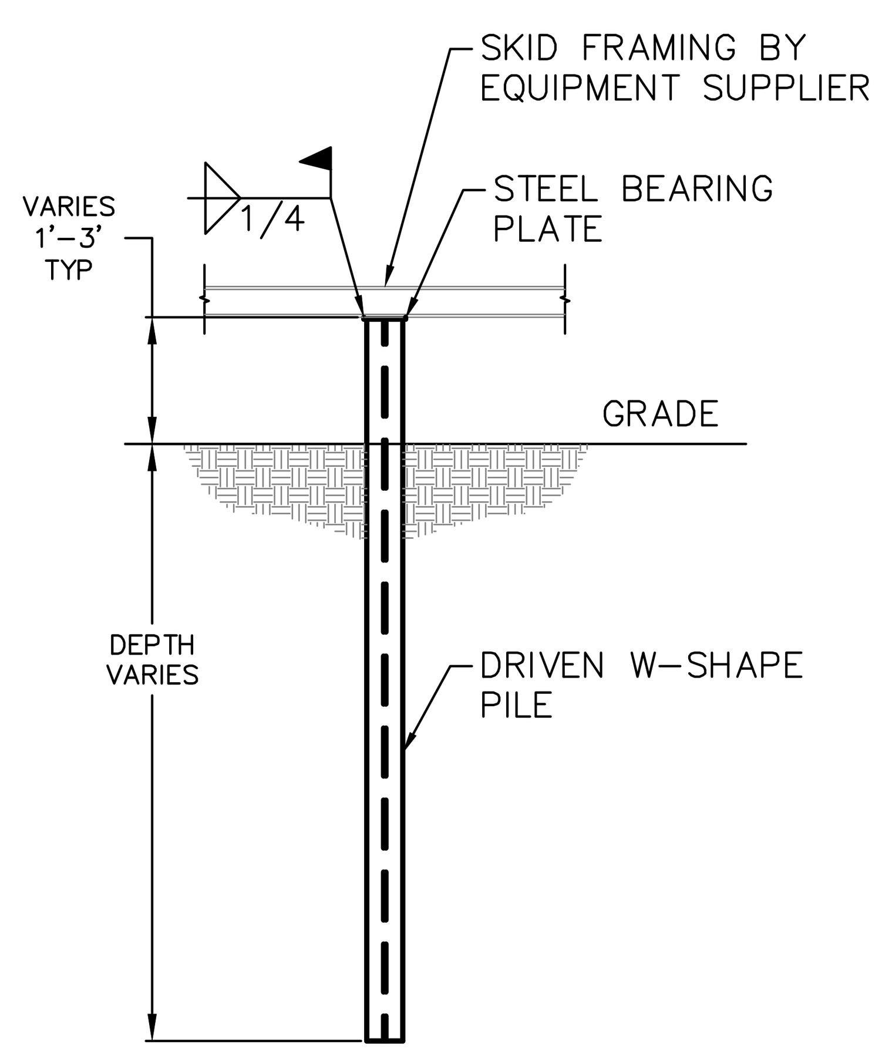
SCALE: 1/4" = 1'-0"



PILE-SUPPORTED EQUIPMENT SKID FOUNDATION

TYP. PLAN (2 / C.10.03)

SCALE: NTS



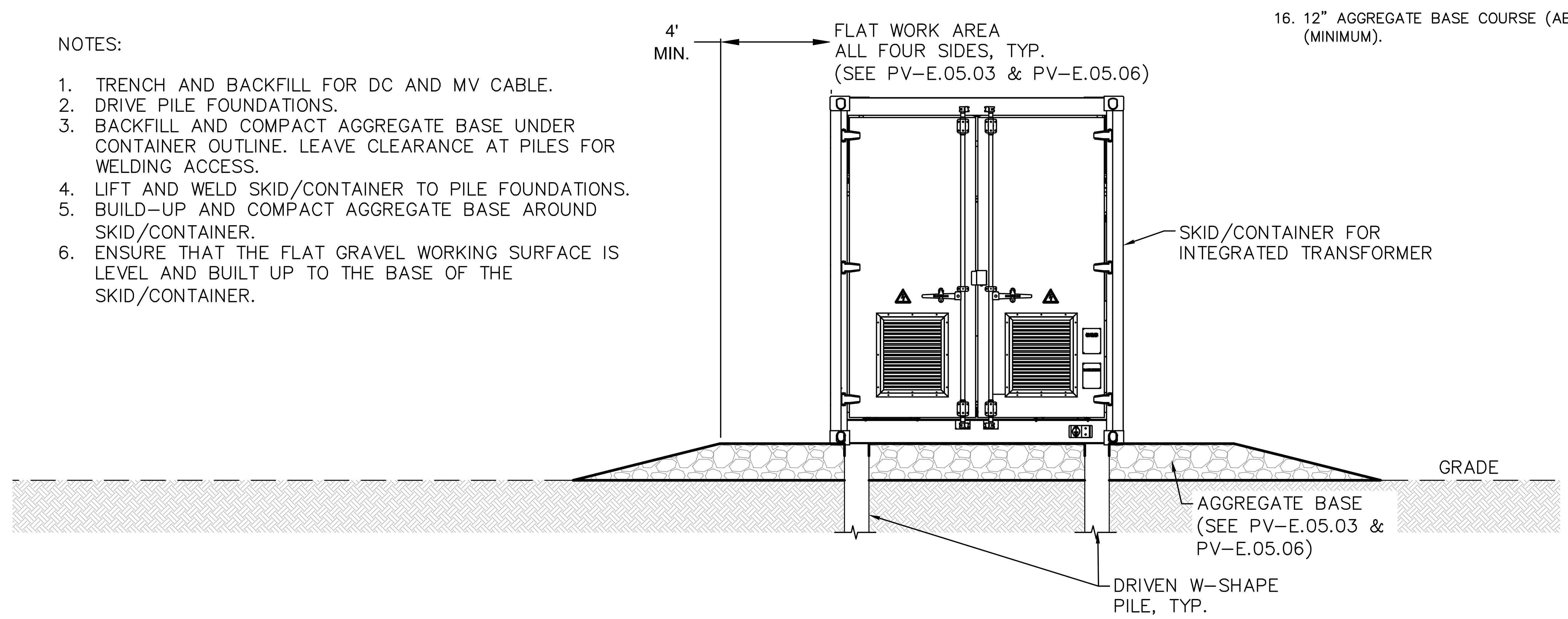
TYPICAL SKID FOUNDATION PILE SUPPORT

DETAIL (C / C.10.03)

SCALE: NTS

NOTES:

1. TRENCH AND BACKFILL FOR DC AND MV CABLE.
2. DRIVE PILE FOUNDATIONS.
3. BACKFILL AND COMPACT AGGREGATE BASE UNDER CONTAINER OUTLINE. LEAVE CLEARANCE AT PILES FOR WELDING ACCESS.
4. LIFT AND WELD SKID/CONTAINER TO PILE FOUNDATIONS.
5. BUILD-UP AND COMPACT AGGREGATE BASE AROUND SKID/CONTAINER.
6. ENSURE THAT THE FLAT GRAVEL WORKING SURFACE IS LEVEL AND BUILT UP TO THE BASE OF THE SKID/CONTAINER.



TYPICAL SKID FOUNDATION PILE SUPPORT

SECTION (B / C.10.03)

SCALE: NTS

ACRONYMS/ABBREVIATIONS:

BB	BOTTOM MOST REINFORCEMENT	TBD	TO BE DETERMINED
C.C.	CONCRETE COVER	TT	TOP MOST REINFORCEMENT
NTS	NOT TO SCALE	T.O.C.	TOP OF CONCRETE
REINF.	REINFORCEMENT	TYP	TYPICAL
T&B	TOP AND BOTTOM		

NOTES:

1. REFER TO CIVIL DRAWING C.03 SERIES FOR THE FOUNDATION LOCATIONS AND GRADING WITHIN THE SITE.
2. THE CONCRETE SLAB OR PILE-SUPPORTED SKID FOUNDATION WILL SUPPORT THE FOLLOWING EQUIPMENT (LOAD AND DIMENSIONS PROVIDED):

   INTEGRATED INVERTER – SUNGROW – SG3425UD-MV/SG3600UD-MV
   WEIGHT= 39683.2 LBS
   DIMENSIONS = 238.5" X 114" X 96" (WxDxH)

   INTEGRATED INVERTER – SUNGROW – SG3150U-MV
   WEIGHT= 39683.2 LBS
   DIMENSIONS= 238.5" X 114" X 96" (WxDxH)
3. ALL EXCAVATION, BACKFILL AND COMPACTION FOR THE FOUNDATIONS ARE AS LISTED IN THE SPECIFICATIONS ON SHEET PV.C.10.02.
4. ALL CONCRETE, REINFORCEMENT, MATERIALS, ACCESSORIES, AND PLACEMENT ARE AS LISTED IN THE CAST-IN-PLACE CONCRETE SPECIFICATIONS ON SHEET PV.C.10.01.
5. CONSTRUCT ALL FOUNDATIONS MONOLITHICALLY WITH NO CONSTRUCTION JOINTS.
6. PLACE NO CONCRETE IN EXCAVATIONS CONTAINING WATER OR FROZEN GROUND.
7. ALL FOUNDATIONS ARE TO BEAR ON APPROVED SUBGRADE (SOIL) UNLESS ENGINEER OF RECORD DETERMINES OTHERWISE. NO FOUNDATION SHALL BE POURED WITHOUT APPROVAL OF THE AES REPRESENTATIVE. COMPACTION REQUIREMENTS ARE PROVIDED IN THE EXCAVATION, BACKFILL AND COMPACTION SPECIFICATIONS ON SHEET PV.C.10.02.
8. CONCRETE CLEAR COVER:
   a. UNLESS OTHERWISE NOTED, PROVIDE CONCRETE COVER FOR REINFORCING AS FOLLOWS:
      CONCRETE DEPOSITED AGAINST EARTH: 3"
      ALL OTHER: 2"
9. INSTALLATION OF ALUMINUM CONDUIT IN CONCRETE IS NOT PERMITTED.
10. CONDUIT SLEEVES, PENETRATIONS AND OPENINGS SHALL BE CAST INTO THE CONCRETE; SAW CUTTING, CORING, OR DRILLING SLEEVES OR OPENINGS THROUGH PREVIOUSLY CAST CONCRETE IS NOT PERMITTED EXCEPT WHERE SPECIFICALLY REVIEWED AND APPROVED BY THE ENGINEER OF RECORD. COORDINATE OPENINGS AND CONDUIT LOCATIONS WITH EOR.
11. IF REQUIRED, EQUIPMENT POST INSTALLED ANCHORS INTO CONCRETE SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF NEW YORK. ANCHORS ARE TO BE LOCATED SUCH THAT THEY DO NOT DAMAGE CONCRETE REINFORCING. ANCHORS TO BE INSTALLED A MINIMUM OF 6 INCHES CLEAR FROM THE EDGE OF CONCRETE IN ALL DIRECTIONS.
12. REBAR IN ALL FOUNDATIONS ARE TO BE GROUNDED WITH BARE COPPER WIRE, MINIMUM 4/0AWG. PIGTAILS TO BE ACCESSIBLE FOR BONDING TO GROUND GRID. REFER TO THE ELECTRICAL DRAWINGS FOR QUANTITY OF GROUNDING POINTS AND LOCATIONS.
13. REFER TO SHEETS PV.C.10.01 AND PV.C.10.02 FOR STRUCTURAL GENERAL NOTES AND SPECIFICATIONS.
14. INSULATION AND GEOTEXTILE RECOMMENDED TO REDUCE DEPTH OF FOUNDATION (AND ASSOCIATED EXCAVATION) RELATIVE TO REGIONAL FROST DEPTH REQUIREMENT. IF PREFERRED, THESE MATERIALS MAY BE REMOVED IN FAVOR OF EXTENDING THE DEPTH OF THE FOUNDATION TO FULL FROST DEPTH.
15. SEE ELECTRICAL DRAWINGS PV.E.05.02 FOR INVERTER PILE DIMENSIONS.
16. 12" AGGREGATE BASE COURSE (ABC) COMPACTED TO 500 PSF BEARING CAPACITY (MINIMUM).

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0	03/03/2023	ISSUED FOR 94-C PERMIT
1	07/24/2023	RE-ISSUED FOR 94-C PERMIT

PROJECT TITLE:

SOMERSET SOLAR PROJECT

PROJECT LOCATION:

LAKE ROAD
SOMERSET, NY.

SHEET TITLE & DESCRIPTION:

FOUNDATION DETAILS

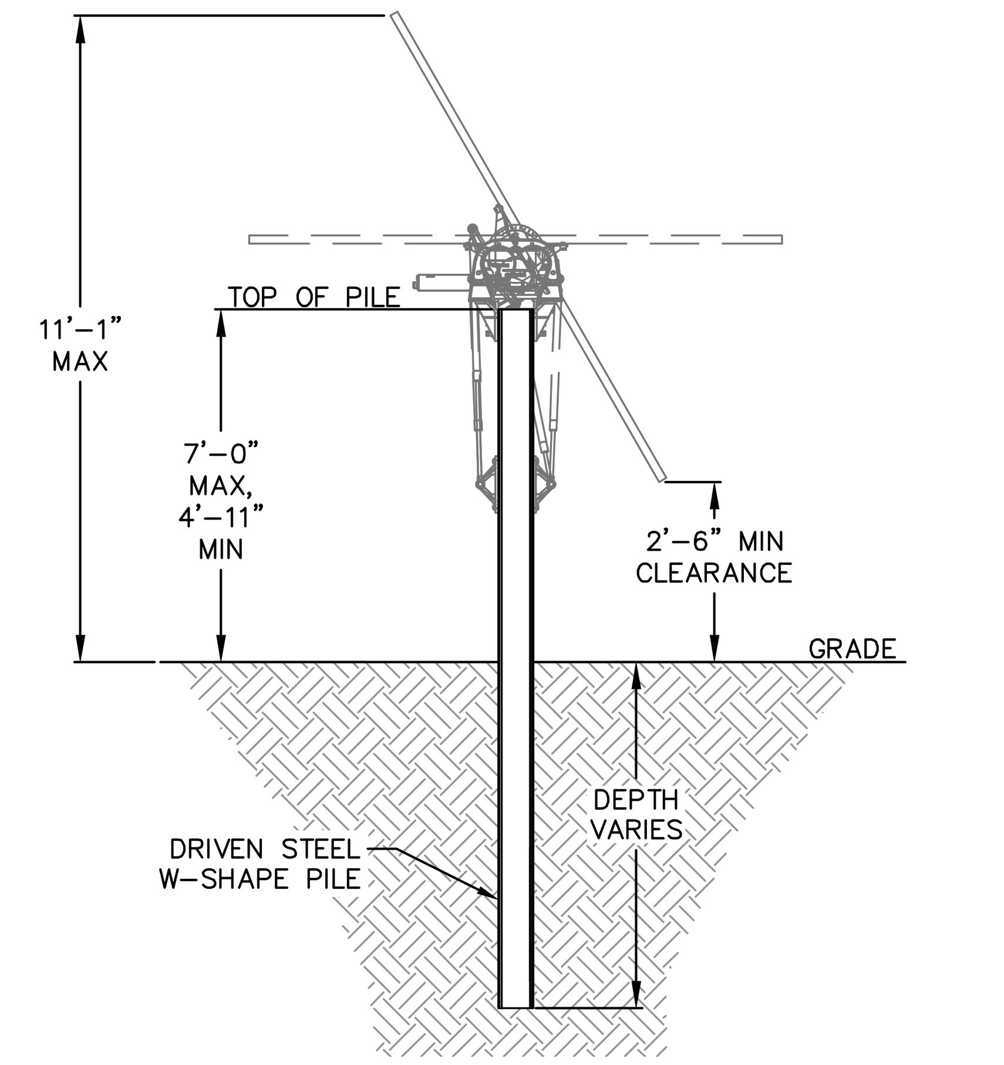
ISSUED FOR 94-C PERMIT ONLY
NOT FOR CONSTRUCTION

PROJ NUM:	SU12.0012
DES:	SAE
DWN:	SAE
CHK:	JBH
APV:	SAE
DATE:	07/24/2023

SCALE AT 22" x 34":

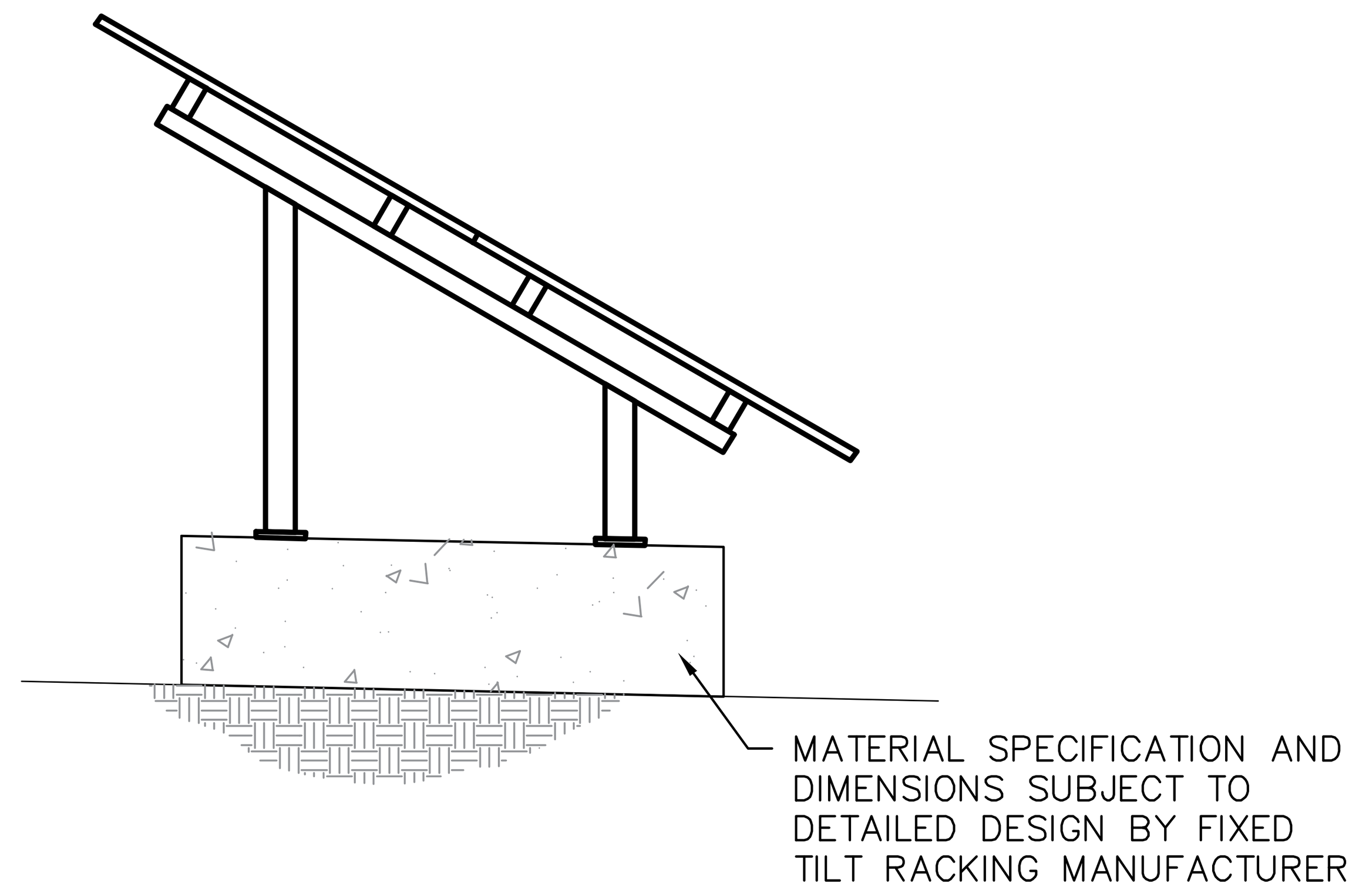
AS SHOWN

SHEET NO: PV-C.10.03 REV: 1



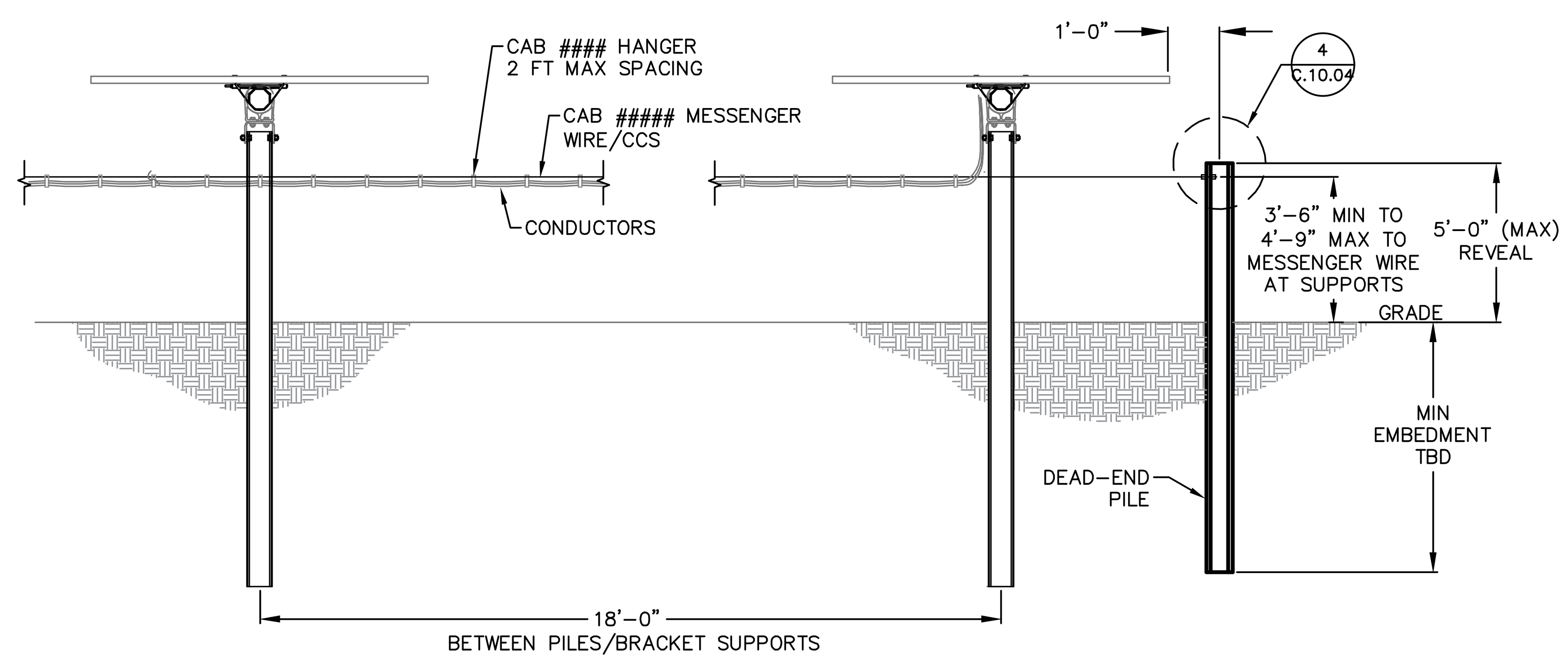
BEARING/SEISMIC TRACKER PILE FOUNDATION

DETAIL 1 C.10.04
SCALE: NTS



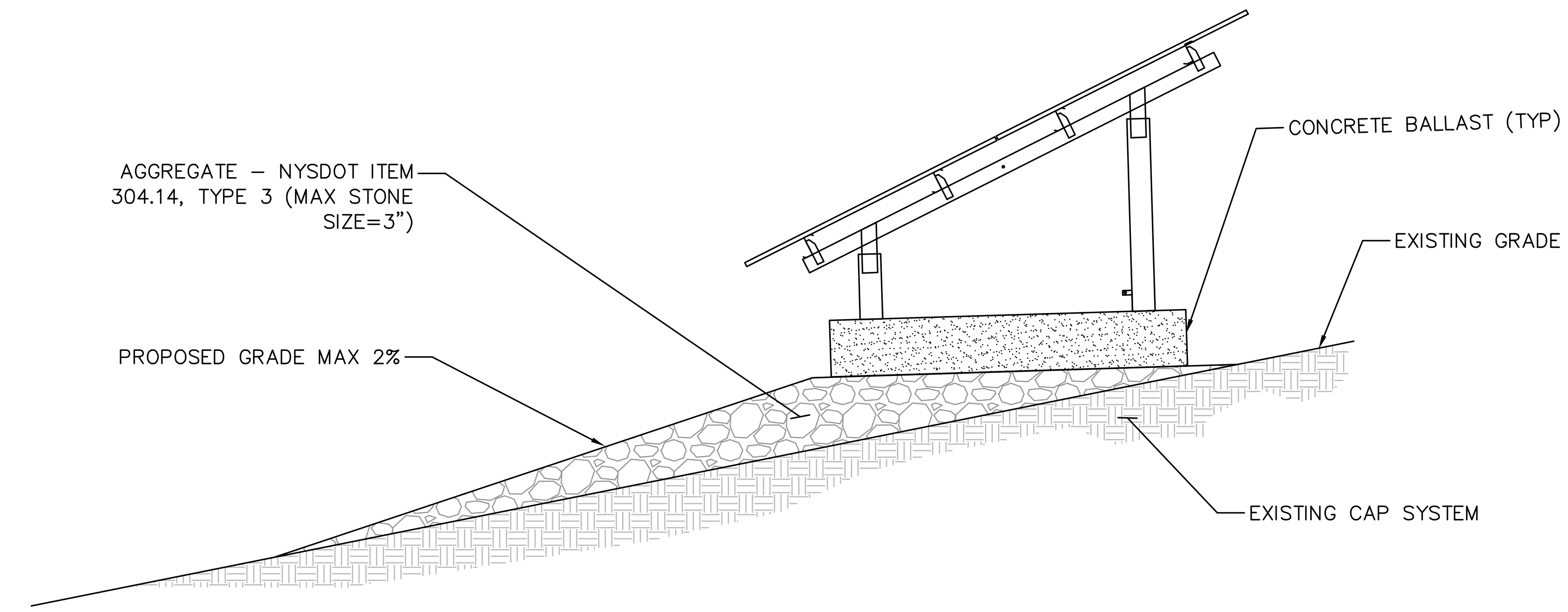
FIXED PANEL BALLAST FOUNDATION

DETAIL 2 C.10.04
SCALE: NTS



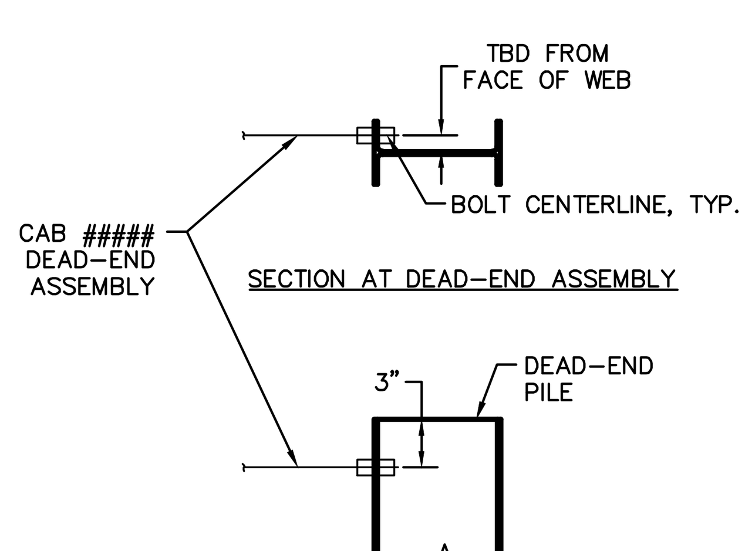
CAB ARRANGEMENT AND DEAD-END PILE FOUNDATIONS

DETAIL 3 C.10.04
SCALE: NTS



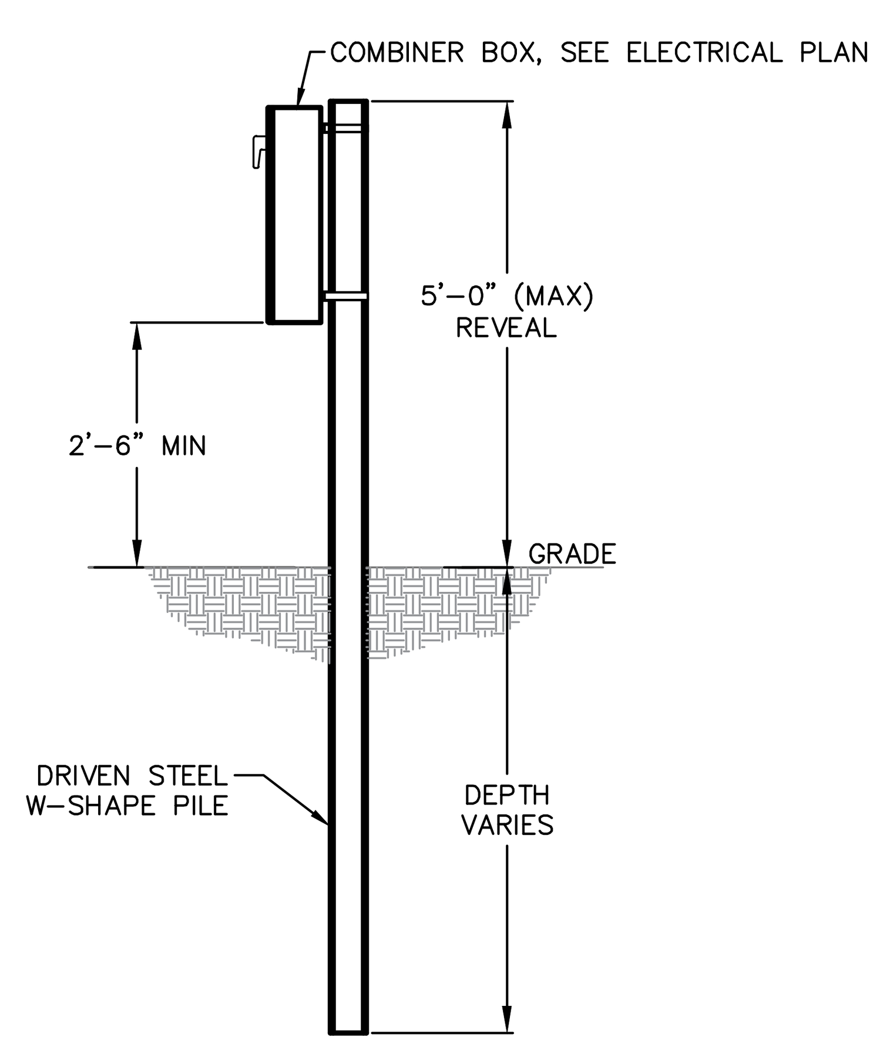
BALLAST COLLAR FOR SLOPES EXCEEDING 2%

DETAIL 7 C.10.04
SCALE: NTS



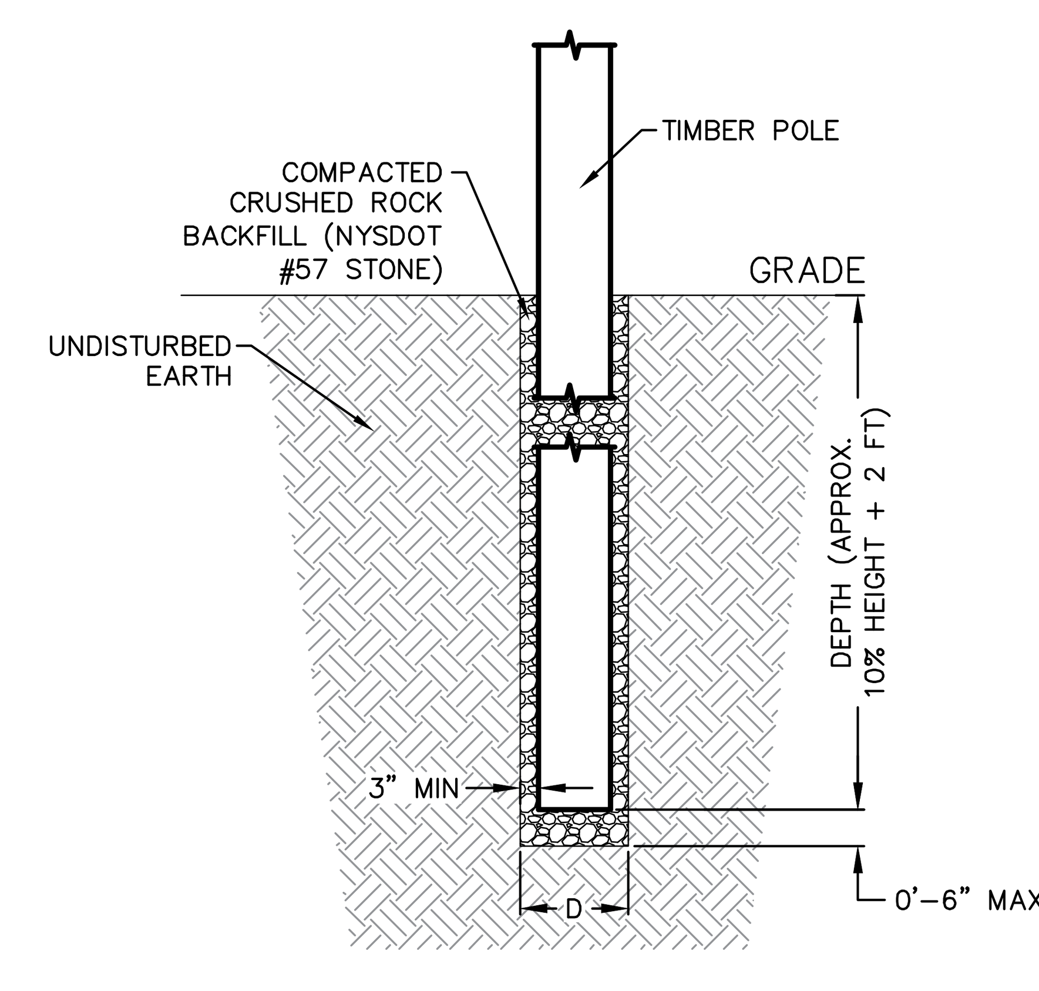
CAB DEAD-END ASSEMBLY CONNECTION

DETAIL 4 C.10.04
SCALE: NTS



DC DISCONNECT/COMBINER BOX PILE FOUNDATION

DETAIL 5 C.10.04
SCALE: NTS



NOTE: D = BUTT DIAMETER + 6"

TIMBER POLE EMBEDMENT

DETAIL 6 C.10.04
SCALE: NTS

ACRONYMS/ABBREVIATIONS:

NTS	NOT TO SCALE
TBD	TO BE DETERMINED
TYP	TYPICAL

NOTES:

1. REFER TO CIVIL DRAWING C.03 SERIES FOR THE FOUNDATION LOCATIONS AND GRADING WITHIN THE SITE
2. ALL EXCAVATION, BACKFILL AND COMPACTION FOR THE FOUNDATIONS ARE AS LISTED IN THE SPECIFICATIONS ON SHEET PV.C.10.02.
3. PILE SPACING DIMENSIONS PROVIDED BY SOLAR TRACKING SYSTEM MANUFACTURER AND ALL OF ITS COMPONENTS INCLUDING ATTACHMENT TO PILES TO BE DESIGNED AND PROVIDED BY TRACKING SYSTEM MANUFACTURER. REFER TO MANUFACTURER INSTALLATION MANUAL FOR ALLOWABLE PILE TOLERANCES.
4. REFER TO SHEETS PV.C.10.01 AND PV.C.10.02 FOR STRUCTURAL GENERAL NOTES AND SPECIFICATIONS.
5. DETAIL 2, BALLAST FOUNDATION, IS FOR USE ON LANDFILL (AREA 9).

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AS SHOWN

SHEET NO: PV-C.10.04
REV: 1

DESIGN PARAMETERS:

GENERAL

1. WALL HEIGHTS MUST EQUAL THE ACOUSTICAL PROFILE.
2. PROVIDE EITHER PRECAST CONCRETE POSTS OR STEEL POSTS. DO NOT MIX POST TYPES.
3. ALL DIMENSIONS SHOWN ARE HORIZONTAL, EXCEPT AS NOTED.

STEEL POSTS

1. POSTS ARE DESIGNED AS VERTICAL CANTILEVER COLUMNS.
2. POSTS ARE TO BE DESIGNED FOR SITE SPECIFIC WIND LOADING DURING DETAILED DESIGN.
3. MAXIMUM PERMITTED POST DEFLECTION EQUALS POST HEIGHT (H) DIVIDED BY 360.

ANCHOR BOLTS

1. THE ANCHOR BOLT EMBEDMENT LENGTH MUST EXTEND TO A DEPTH WHERE THE FOOTING/CAISSON REINFORCEMENT IS FULLY DEVELOPED. DESIGNER MUST INCREASE EMBEDMENT LENGTH AS REQUIRED DURING DETAILED DESIGN.

BASE PLATES

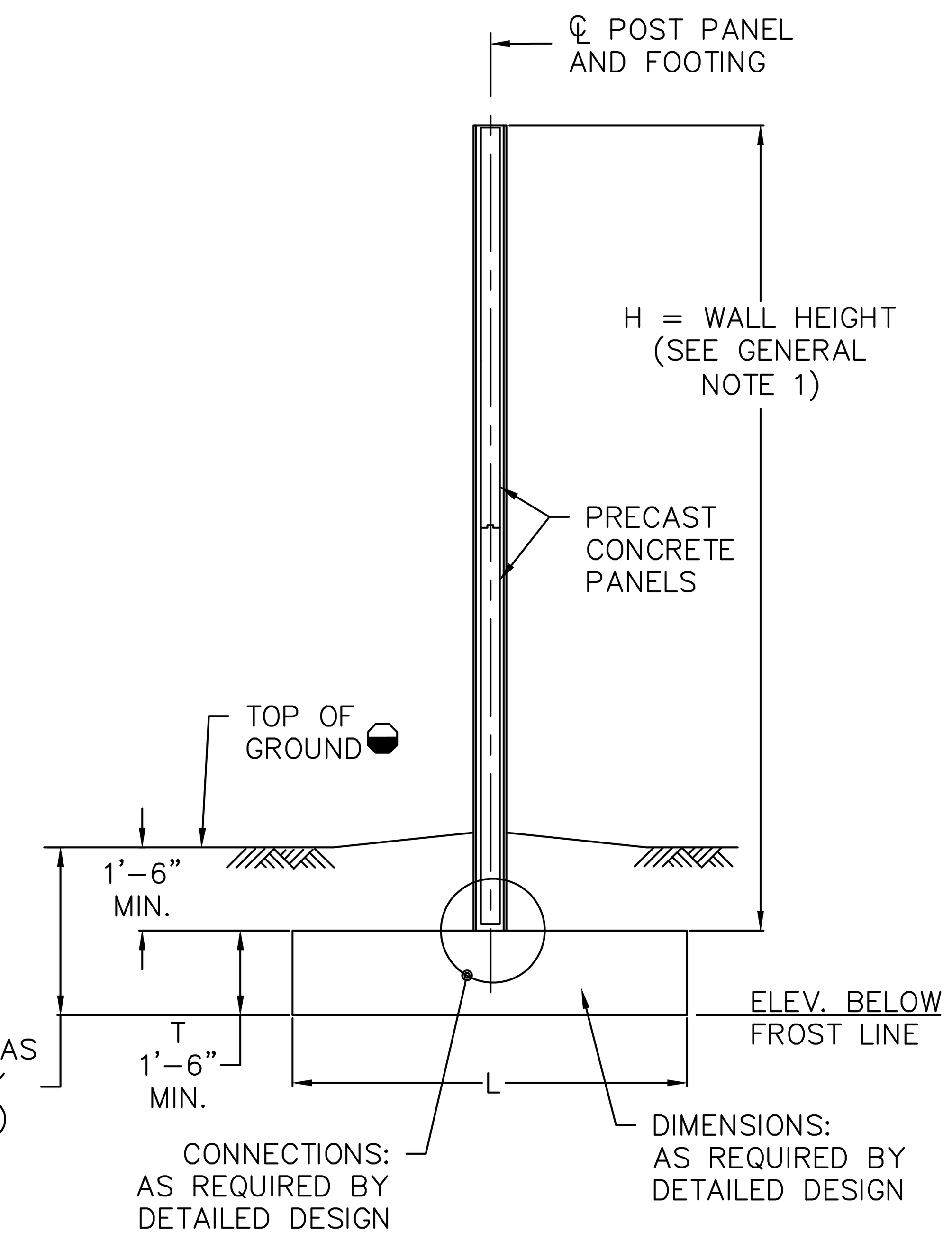
1. PANEL EMBEDMENT MAY NEED TO BE INCREASED TO ACCOMMODATE BASE PLATES AND ANCHOR BOLT PROJECTIONS.
2. BASE PLATES ARE DESIGNED FOR BENDING DUE TO THE APPLIED BOLTS FORCES, COMPRESSION AND TENSION.
3. BASE PLATES ARE NOT DESIGNED TO SUPPORT THE VERTICAL LOAD OF THE PRECAST CONCRETE PANELS.
4. BASE PLATE IS SUPPORTED ON THE LEVELING NUTS. THE NON-SHRINK GROUT IS NOT CONSIDERED AS A LOAD-CARRYING ELEMENT.
5. EDGE DISTANCE OF ANCHOR BOLTS:
   THE CLEAR DISTANCE BETWEEN THE EDGES OF HOLES AND EDGES OF THE BASE PLATE SHALL NOT BE LESS THAN THE DIAMETER OF THE ANCHOR BOLT WHEN OVERSIZED OR SLOTTED HOLES ARE SPECIFIED.

SPREAD FOOTINGS:

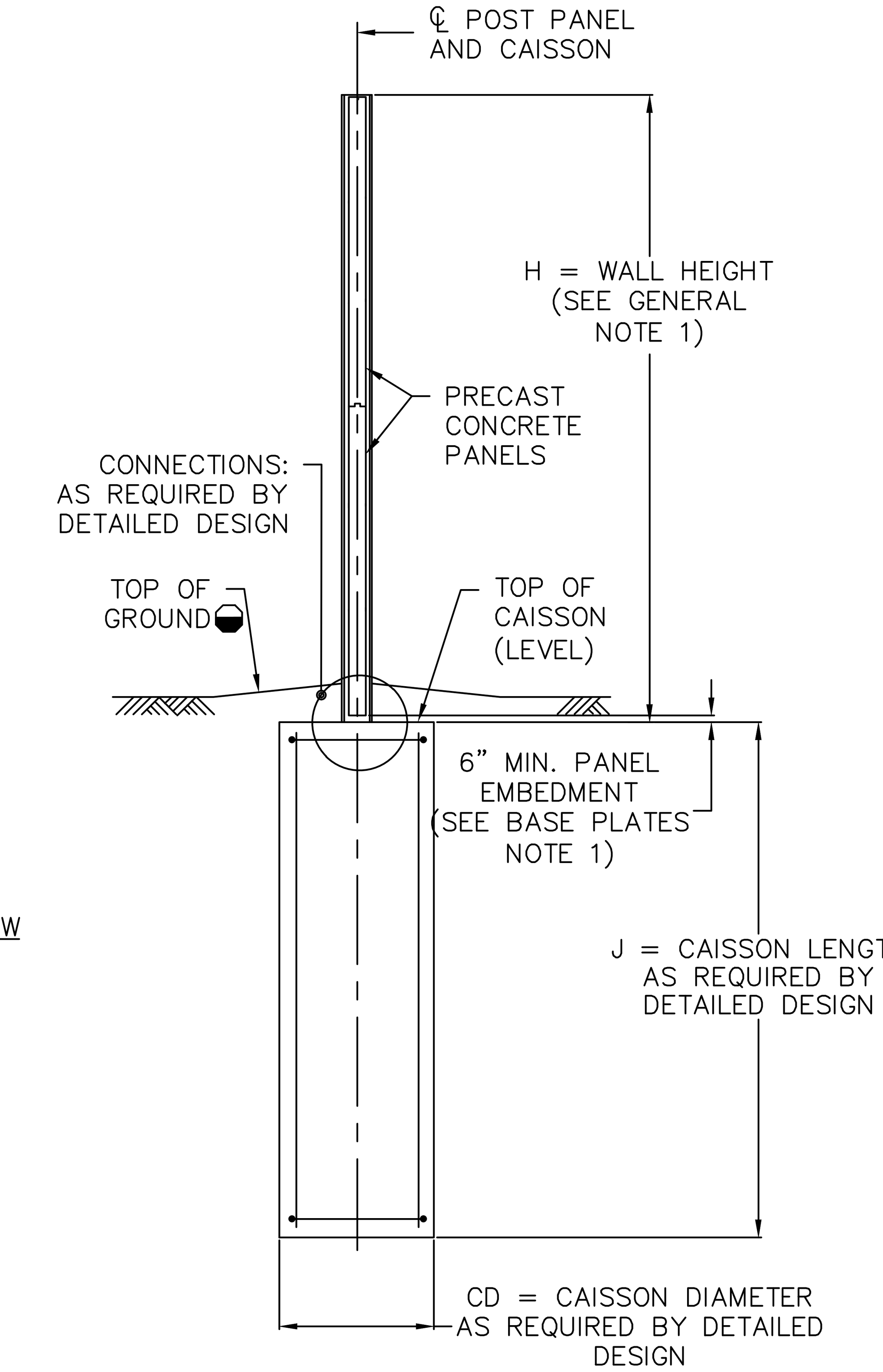
1. SPREAD FOOTINGS ARE DESIGNED BEARING ON SOIL WITH AN ALLOWABLE BEARING PRESSURE AND COEFFICIENT OF SLIDING FRICTION AS DEFINED IN THE PROJECT SPECIFIC GEOTECHNICAL REPORT.
2. SPREAD FOOTINGS TO BE DESIGNED FOR SITE SPECIFIC WIND LOADING DURING DETAILED DESIGN.
3. FACTOR OF SAFETY AGAINST SLIDING = 1.5 MINIMUM
4. FACTOR OF SAFETY AGAINST SLIDING FOR SEISMIC LOADING = 1.125 MINIMUM
5. FACTOR OF SAFETY AGAINST OVERTURNING = 2.00 MINIMUM
6. FACTOR OF SAFETY AGAINST OVERTURNING FOR SEISMIC LOADING = 1.50 MINIMUM
7. PROVIDE A MINIMUM SOIL DEPTH OF 1'-6" ABOVE THE TOP OF FOOTING.
8. EXTEND BOTTOM OF FOUNDATION TO A MINIMUM OF FROST DEPTH OR SUITABLE SUBGRADE.
9. SPREAD FOOTINGS ARE DESIGNED FOR LEVEL GROUND. A SITE SPECIFIC DESIGN IS REQUIRED IF GROUND IS SLOPED.
10. SPREAD FOOTINGS MUST BE DESIGNED FOR LIVE LOAD SURCHARGE (AS APPLICABLE).
11. FOUNDATION DESIGN PARAMETERS MUST BE ACCEPTED BY THE ENGINEER OF RECORD.

CAISSONS

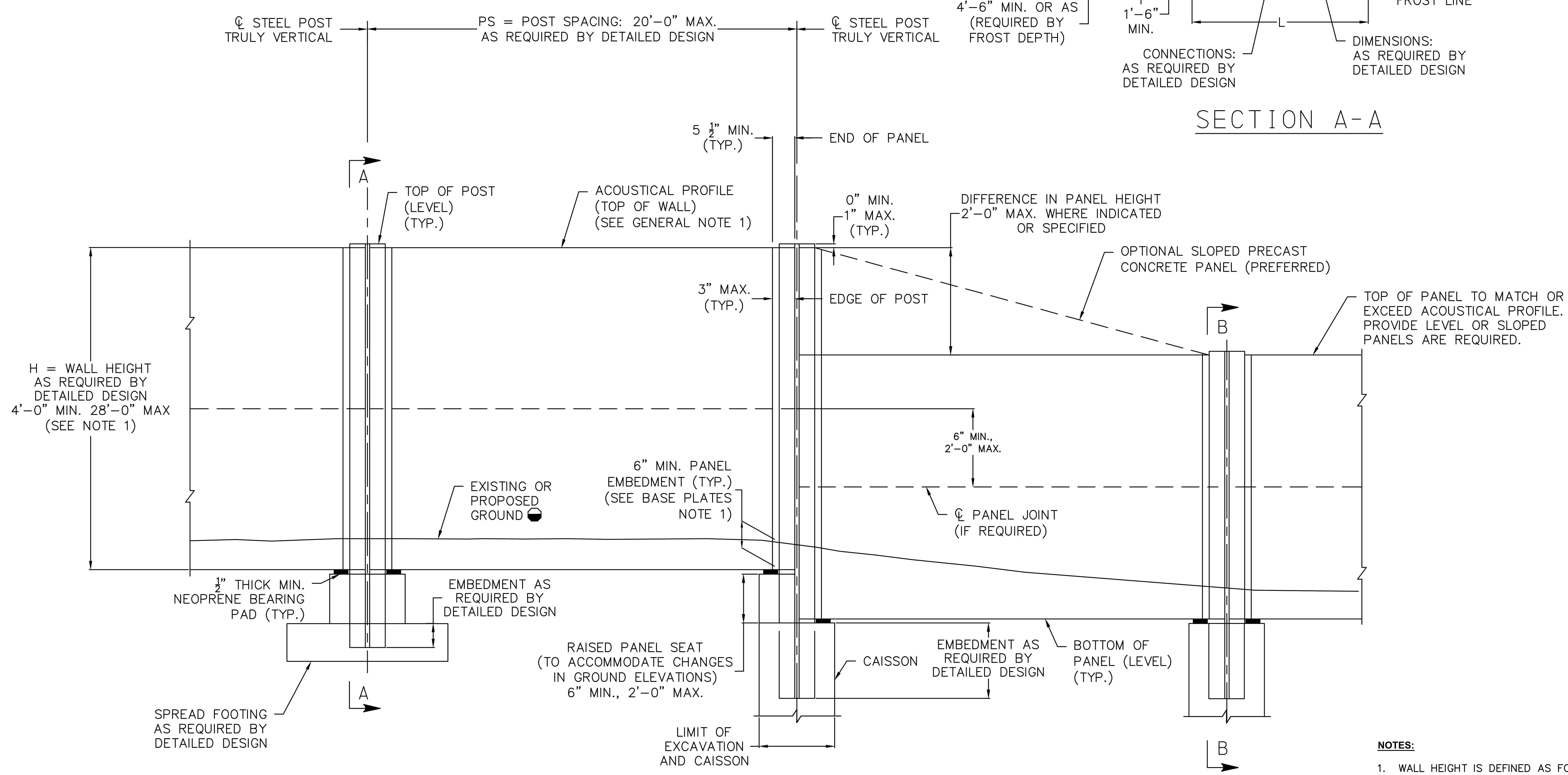
1. CAISSONS MUST BE DESIGNED IN SOIL USING THE SOIL PROPERTIES DEFINED IN THE GEOTECHNICAL REPORT.
2. CAISSONS TO BE DESIGNED FOR SITE SPECIFIC WIND LOADING DURING DETAILED DESIGN
3. FACTOR OF SAFETY AGAINST OVERTURNING = 2.0 MINIMUM
4. MAXIMUM ALLOWABLE LATERAL DESIGN DISPLACEMENT AT TOP OF CAISSON = ½"
5. CAISSON MAXIMUM ALLOWABLE VERTICAL DISPLACEMENT = 1.0"
6. DRILLED CAISSONS ARE DESIGNED FOR LEVEL GROUND. A SITE SPECIFIC DESIGN IS REQUIRED IF GROUND IS SLOPED.
7. DRILLED CAISSONS MUST BE DESIGNED FOR LIVE LOAD SURCHARGE (AS APPLICABLE).
8. ALTERNATE CAISSON DESIGNS ARE PERMITTED IF SOIL PROPERTIES DIFFER FROM THOSE INDICATED OR IF CAISSON EXTENDS PARTIALLY OR ENTIRELY INTO ROCK. FOUNDATION DESIGN PARAMETERS MUST BE ACCEPTED BY THE ENGINEER OF RECORD.



SECTION A-A



SECTION B-B



LEVEL PANEL

LEVEL OR SLOPED TOP PANEL
(SLOPED TOP PANEL PREFERRED)

GROUND MOUNTED SOUND BARRIER ELEVATION

DETAIL 7 / C.10.05

SCALE: NTS

LEGEND:

GRADE GROUND TO DRAIN AWAY FROM WALL. FILL DEPTH ON EACH SIDE OF WALL TO BE WITHIN 1'-0" DIFFERENCE

NOTES:

1. WALL HEIGHT IS DEFINED AS FOLLOWS:
   POSTS WITH BASE PLATE: H = HEIGHT FROM TOP OF BASE PLATE TO TOP OF WALL.
   POST WITHOUT BASE PLATE: H = HEIGHT FROM TOP OF WALL FOOTING/CAISSON TO TOP OF WALL.
2. PANEL EMBEDMENT MAY NEED TO BE INCREASED TO ACCOMMODATE BASE PLATES AND ANCHOR BOLT PROJECTIONS.
3. WALL HEIGHT MUST EQUAL OR EXCEED THE ACOUSTICAL PROFILE.
4. PROVIDE EITHER PRECAST CONCRETE POSTS OR STEEL POSTS. DO NOT MIX POST TYPES WITHOUT PERMISSION FROM THE ENGINEER OF RECORD.
5. ALL DIMENSIONS SHOWN ARE HORIZONTAL, EXCEPT AS NOTED.

AES CLEAN ENERGY DEVELOPMENT, LLC
292 MADISON AVENUE, 15TH FLOOR
NEW YORK, NY 10017

TETRA TECH

KEY PLAN:

REVISIONS:

NO.	DATE	DESCRIPTION
0	03/03/2023	ISSUED FOR 94-C PERMIT
1	07/24/2023	RE-ISSUED FOR 94-C PERMIT

PROJECT TITLE:

SOMERSET SOLAR PROJECT

PROJECT LOCATION:

LAKE ROAD
SOMERSET, NY.

SHEET TITLE & DESCRIPTION:

SOUND WALL DETAILS

ISSUED FOR 94-C PERMIT ONLY
NOT FOR CONSTRUCTION

PROJ NUM:	SU12.0012
DES:	SAE
DWN:	CAN
CHK:	JBH
APV:	SAE
DATE:	07/24/2023

SCALE AT 22" x 34":

AS SHOWN

SHEET NO: PV-C.10.05 REV: 1