

* SUBCONTRACTOR SHALL SET PERMANENT BENCHMARKS. ELEVATION (IN NAVD88 VERTICAL DATUM) TO BE DETERMINED IN FIELD, RECORDED AND INCLUDED IN AS-BUILT.

<u>REFERENCE DRAWINGS:</u>	
23/13.2KV BUS STRUCTURE ULTIMATE ARRANGEMENT	H-111
LEIDOS ENGINEERING - CONDUIT GET-A-WAYS	SK-202
FOUNDATION PLAN	H-111
HILLSIDE 66 SUBSTATION LANDSCAPE PLAN	L1.01



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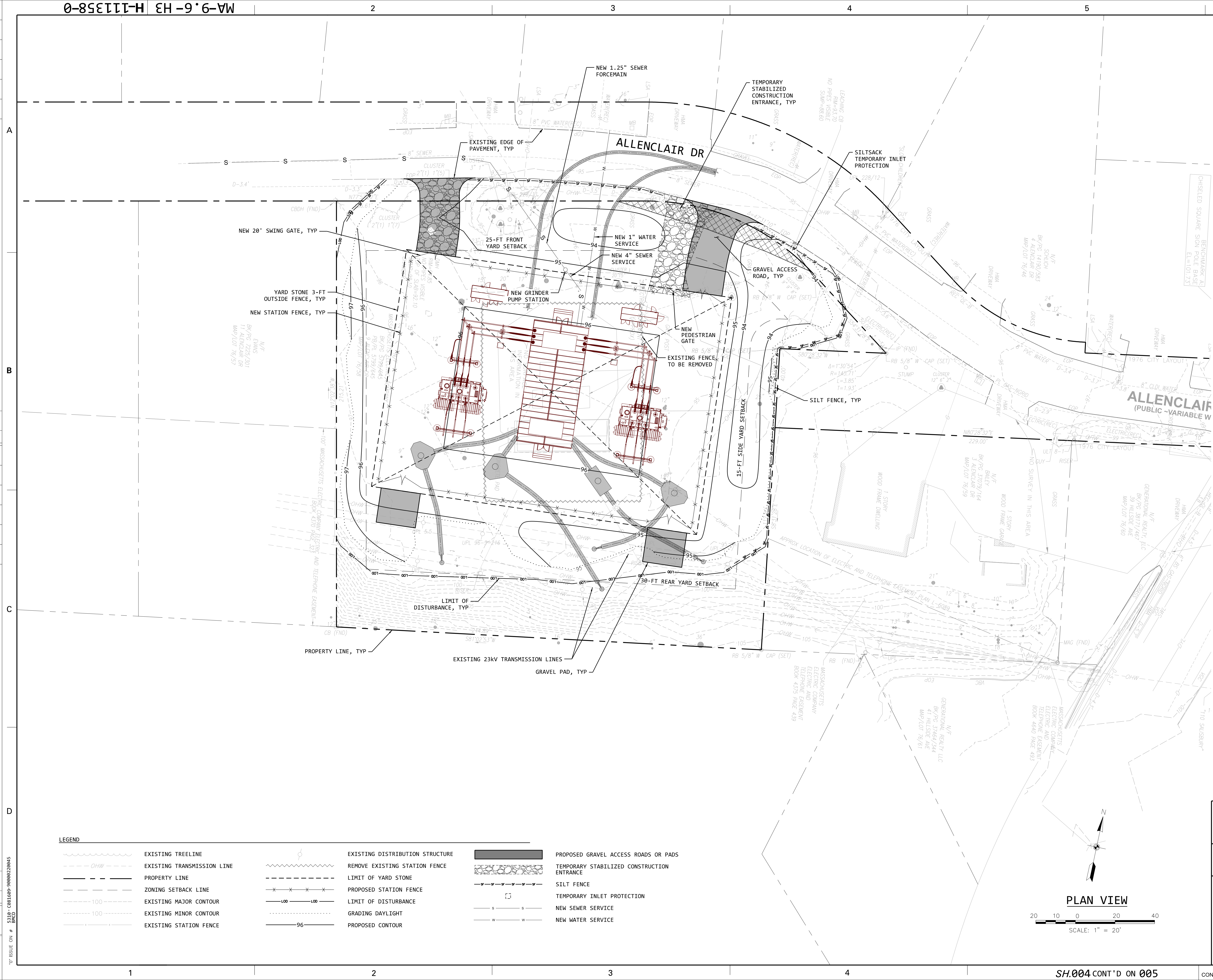
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MASSACHUSETTS ELECTRIC COMPANY
HILLSIDE AVE. SUBSTATION NO. 60
AMESBURY, MASSACHUSETTS
CIVIL-SITE PLANS
LAYOUT PLAN

SCALE: 1"=20'

FOR STRUCTION ONLY	MA-9.6-H3	H-111358-
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- NOTES:**
1. WETLAND DELINEATIONS HAVE NOT BEEN PROVIDED.
 2. HORIZONTAL DATUM: NAD83 MASSACHUSETTS STATE PLANE, US SURVEY FEET.
 3. VERTICAL DATUM: NAVD83
 4. SITE IS NOT LOCATED IN A FEMA DESIGNATED FLOOD HAZARD AREA.
 5. THE PURPOSE OF THIS PLAN IS TO DEPICT PROPOSED EROSION AND SEDIMENT CONTROL ONLY. ELECTRICAL SUBSTATION LAYOUT AND COMPONENTS ARE SHOWN FOR REFERENCE ONLY. REFER TO ELECTRICAL PLANS FOR SUBSTATION YARD LAYOUT.
 6. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE MASSACHUSETTS EROSION AND SEDIMENT CONTROL GUIDELINES FOR URBAN AND SUBURBAN AREAS, DATED MAY, 2003.
 7. SOIL WITHIN GRADING LIMITS CONSISTS OF PITTS, GRAVEL AND ON MCHS. THE SOIL SHALL BE PROTECTED.
 8. REFER TO SITE CONSTRUCTION DETAILS FOR ANTICIPATED CONSTRUCTION SEQUENCE.
 9. THIS PLAN DOES NOT DEPICT EXISTING SUBSURFACE UTILITY DATA, EXCEPT WHERE INDICATED. UTILITY LOCATIONS MUST BE FIELD-VERIFIED.
 10. TEMPORARY SOIL STOCKPILE IS TO BE LOCATED AS NEEDED WITHIN LOD, IN COORDINATION WITH ENVIRONMENTAL INSPECTOR.
 11. APPROPRIATE EROSION CONTROL MEASURES AS DESCRIBED HEREIN SHALL BE INSTALLED BY THE CONTRACTOR PRIOR TO THE COMMENCEMENT OF ANY DEMOLITION OR CONSTRUCTION ACTIVITY. SCHEDULE 10 SHALL BE USED TO DETERMINE THE LENGTH OF TIME THAT BARE SOIL WILL BE EXPOSED.
 12. THE CONTRACTOR SHALL INSTALL ALL SPECIFIED EROSION CONTROL MEASURES AND WILL BE REQUIRED TO MAINTAIN THEM IN THEIR INTENDED FUNCTIONING CONDITION AND BE IN STRICT ACCORDANCE WITH STANDARDS OF NATIONAL GRID AND THE MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION EROSION AND SEDIMENT CONTROL GUIDELINES FOR URBAN AND SUBURBAN AREAS, MAY 2003. THE CONTRACTOR SHALL MAINTAIN COMPLIANCE WITH THESE STANDARDS AND HAVE THEM AVAILABLE ON-SITE FOR THE DURATION OF CONSTRUCTION. THE AGENTS OF THE CITY OF AMESBURY AND/OR THE CIVIL ENGINEER SHALL HAVE THE AUTHORITY TO REQUIRE ADDITIONAL EROSION CONTROL OR ADDITIONAL MEASURES IF FIELD CONDITIONS ARE ENCOUNTERED BEYOND WHAT WOULD NORMALLY BE ANTICIPATED.
 13. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE CONTRACTOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO REDUCED THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION.
 14. THE CONTRACTOR IS ASSIGNED THE RESPONSIBILITY FOR IMPLEMENTING THIS EROSION AND SEDIMENT CONTROL PLAN. THIS RESPONSIBILITY INCLUDES THE INSTALLATION AND MAINTENANCE OF CONTROL MEASURES, INFORMING ALL PARTIES ENGAGED ON THE CONSTRUCTION SITE OF THE REQUIREMENTS AND OBJECTIVES OF THE PLAN.
 15. NOTIFICATION TO THE MAJOR DIVISION OF THE DEPARTMENT OF ENVIRONMENTAL PROTECTION AND CITY OF AMESBURY OFFICE OR GOVERNING AUTHORITY OF ANY TRANSFER OF THIS RESPONSIBILITY AND FOR CONVEYING A COPY OF THE EROSION AND SEDIMENT CONTROL PLAN IF THE TITLE OF THE LAND IS TRANSFERRED.
 16. ADDITIONAL AND/OR ALTERNATIVE SEDIMENT AND EROSION CONTROL MEASURES MAY BE INSTALLED DURING THE CONSTRUCTION PERIOD IF FOUND NECESSARY BY THE CONTRACTOR, OWNER, ENGINEER, OR CITY OF AMESBURY OR GOVERNING AGENCIES. THE CONTRACTOR SHALL CONTACT THE OWNER AND APPROPRIATE GOVERNING AGENCIES FOR APPROVAL IF ALTERNATIVE CONTROLS OTHER THAN THOSE SHOWN ON THE PROPOSED PLAN ARE REQUIRED.
 17. THE CONTRACTOR SHALL KEEP A SUPPLY OF EROSION CONTROL MATERIAL ON-SITE FOR MAINTENANCE AND EMERGENCY REPAIRS.
 18. THE CONTRACTOR SHALL COMPLY WITH REQUIREMENTS OF THE EPA FOR NPDES AND RECORD KEEPING.
 19. ALL STOCKPILES OF STRIPPED MATERIALS ARE TO BE PERIODICALLY SPRAYED WITH WATER OR A CRUSTING AGENT TO STABILIZE PARTICLES AND PREVENT MATERIALS FROM HAUL ROADS BOTH INTO AND AROUND THE SITE ARE TO BE SPRAYED AS NEEDED TO SUPPRESS DUST. TRUCKS HAULING IMPORT FILL MATERIAL ARE TO BE TARPED TO AID IN THE CONTROL OF AIRBORNE DUST. DURING THE WIND EVENTS (20 TO 30 MPH SUSTAINED) CONSTRUCTION ACTIVITY SHALL BE LIMITED OR CEASED IF DUST CANNOT BE CONTROLLED BY WETTING.
 20. WHERE SEDIMENT HAS BEEN TRACKED-OUT FROM THE CONSTRUCTION SITE ONTO ROADS, SIDEWALKS, OR OTHER PAVED AREAS, REMOVE THE DEPOSITED SEDIMENT BY SWEEPING OR VACUUMING ONE OR MORE TIMES A DAY (OR LESS FREQUENTLY IF NECESSARY) TO PREVENT TRACKING. SWEEPING OR HOISING TRACKED-OUT SEDIMENT INTO A STORM DRAIN, STORMWATER CONVEYANCE, WETLAND OR WATERCOURSE IS PROHIBITED.
 21. SEWER/WATER ARE FOR REFERENCE ONLY. REFER TO SUBSTATION SANITARY SEWER CONNECTION PLANS FOR CONSTRUCTION DETAILS.



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MASSACHUSETTS ELECTRIC COMPANY
HILLSIDE AVE. SUBSTATION NO. 66
AMESBURY, MASSACHUSETTS

CIVIL-SITE PLANS
EROSION CONTROL PLAN

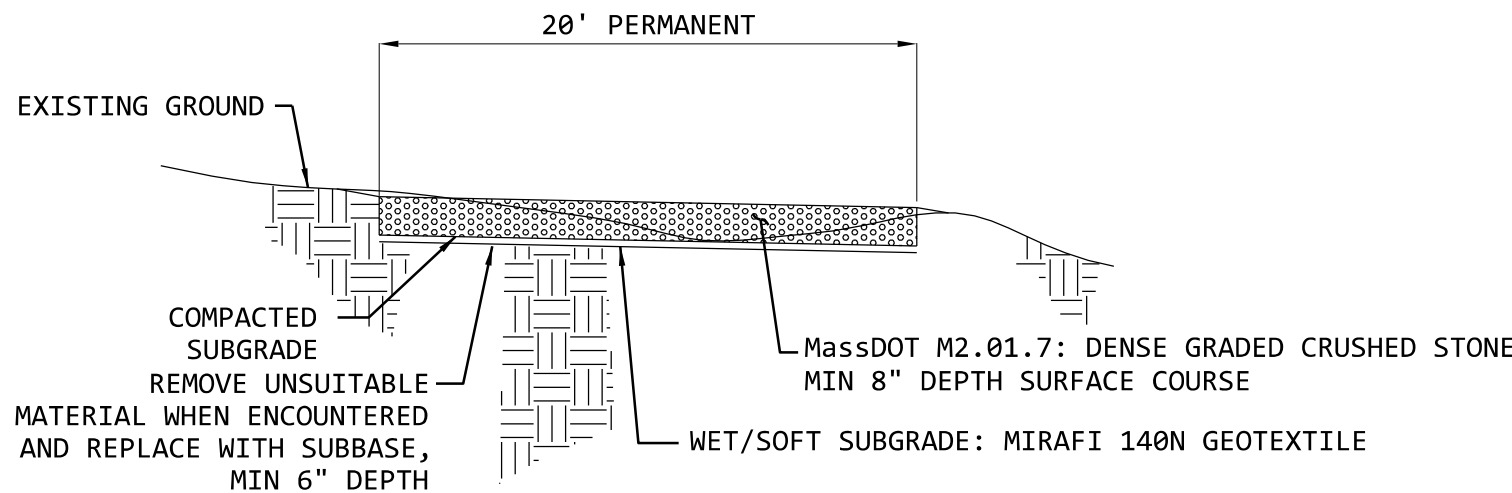
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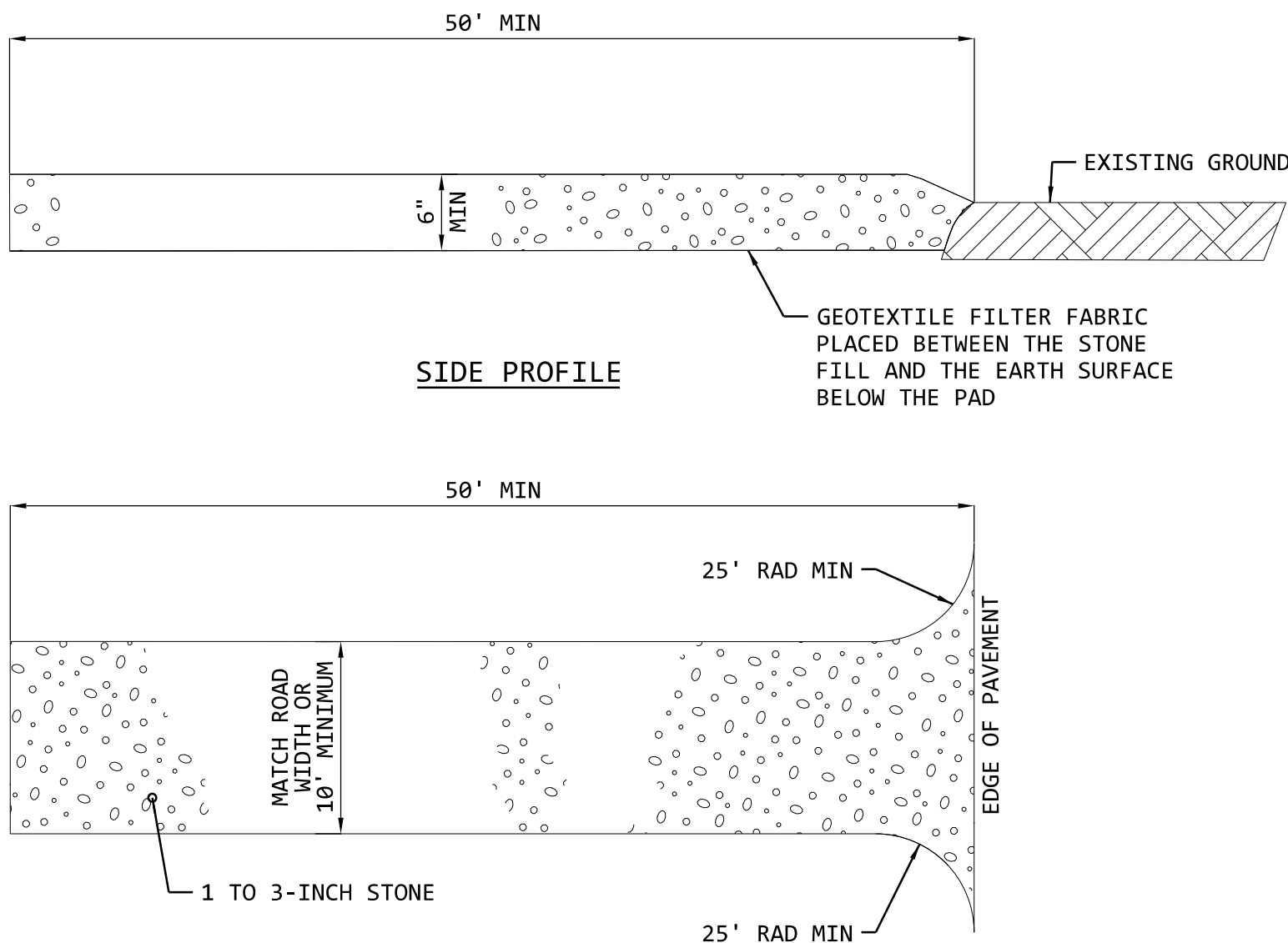
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- NOTES:
1. STRIP AND STOCKPILE TOPSOIL, CLEAR AND GRUB, AND REMOVE UNSUITABLE SOILS.
 2. PROOFROLL SUBGRADE AND REMOVE ANY ADDITIONAL SOFT, WET OR UNSUITABLE MATERIALS AND REPLACE WITH SUBBASE.

TYPICAL SECTION - PERMANENT GRAVEL ACCESS ROAD/GRAVEL PAD
SCALE: N.T.S.

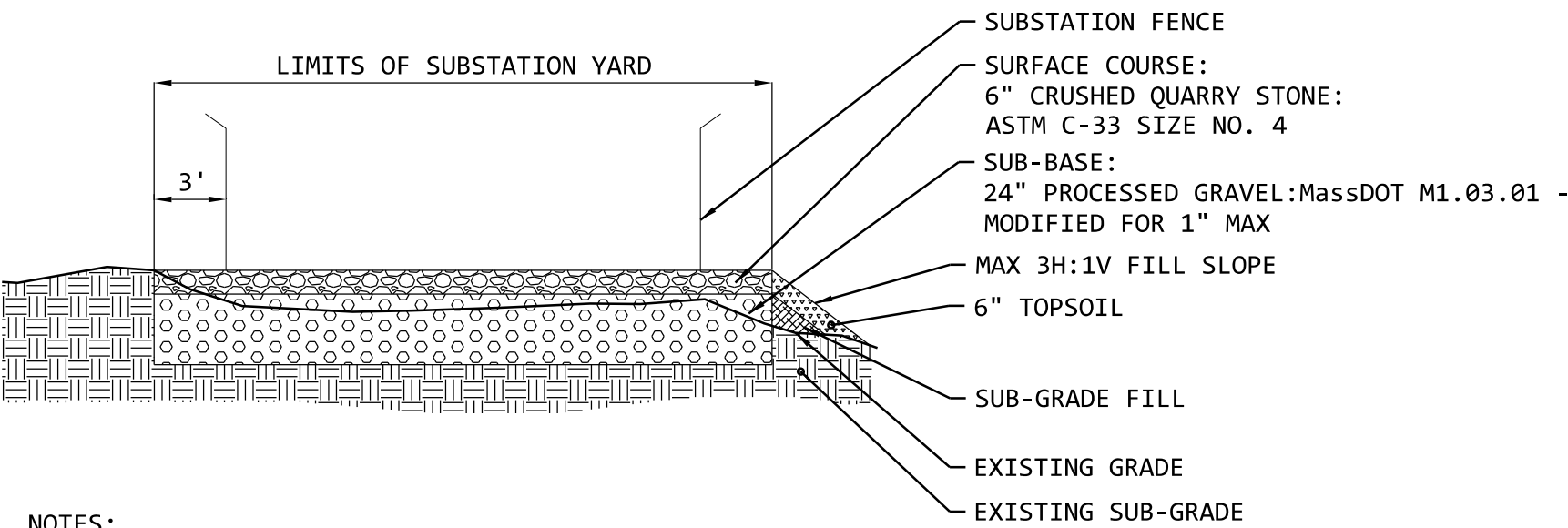


- NOTES:
1. THE AREA OF THE ENTRANCE MUST BE EXCAVATED A MINIMUM OF 3 INCHES AND MUST BE CLEARED OF ALL VEGETATION, ROOTS, AND OTHER OBJECTIONABLE MATERIAL. THE FILTER FABRIC UNDERLINER WILL THEN BE PLACED THE FULL WIDTH AND LENGTH OF THE ENTRANCE.
 2. FOLLOWING THE INSTALLATION OF THE FILTER CLOTH, THE STONE SHALL BE PLACED TO THE SPECIFIC DIMENSIONS. ANY DRAINAGE FACILITIES REQUIRED BECAUSE OF WASHING SHALL BE CONSTRUCTED ACCORDING TO SPECIFICATIONS.

MAINTENANCE:

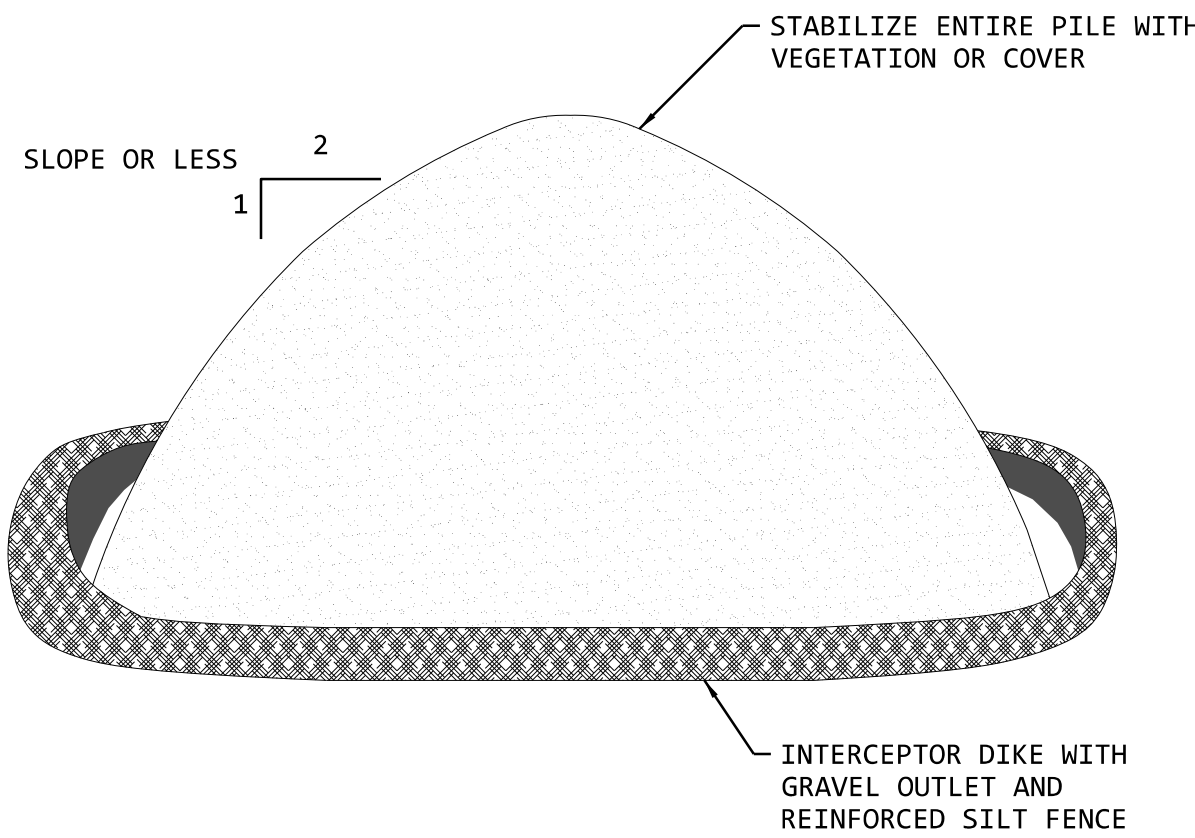
1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE OR THE WASHING AND REWORKING OF EXISTING STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY STRUCTURES USED TO TRAP SEDIMENT. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY. THE USE OF WATER TRUCKS TO REMOVE MATERIALS DROPPED, WASHED, OR TRACKED ONTO ROADWAYS WILL NOT BE PERMITTED UNDER ANY CIRCUMSTANCES.
2. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL PUBLIC STREETS FREE OF CONSTRUCTION DEBRIS AND SEDIMENT.

TEMPORARY STABILIZED CONSTRUCTION ENTRANCE
SCALE: N.T.S.



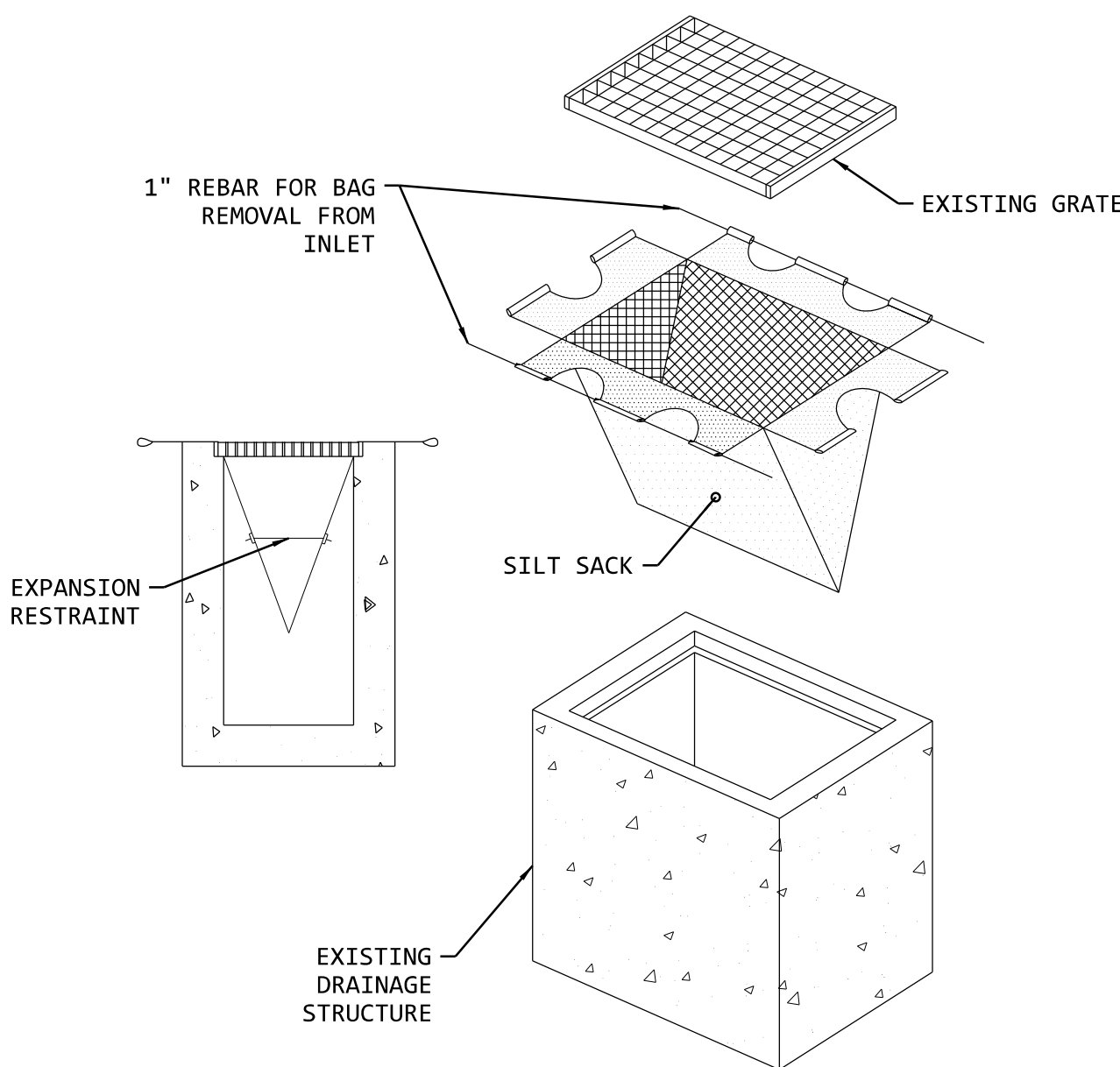
- NOTES:
1. REFER TO NATIONAL GRID STANDARD SP.08.00.001, ELECTRIC SUBSTATION CONSTRUCTION SPECIFICATION FOR ADDITIONAL INFORMATION.
 2. SUB-GRADE FILL IN AREAS DEEPER THAN 30 INCHES FROM FINISHED GRADE SHALL CONFORM TO GRAVEL BORROW, MassDOT M1.03.0 TYPE B, AS SPECIFIED IN NATIONAL GRID STANDARD SP.08.00.001.

SUBSTATION YARD - TYPICAL SECTION
SCALE: N.T.S.



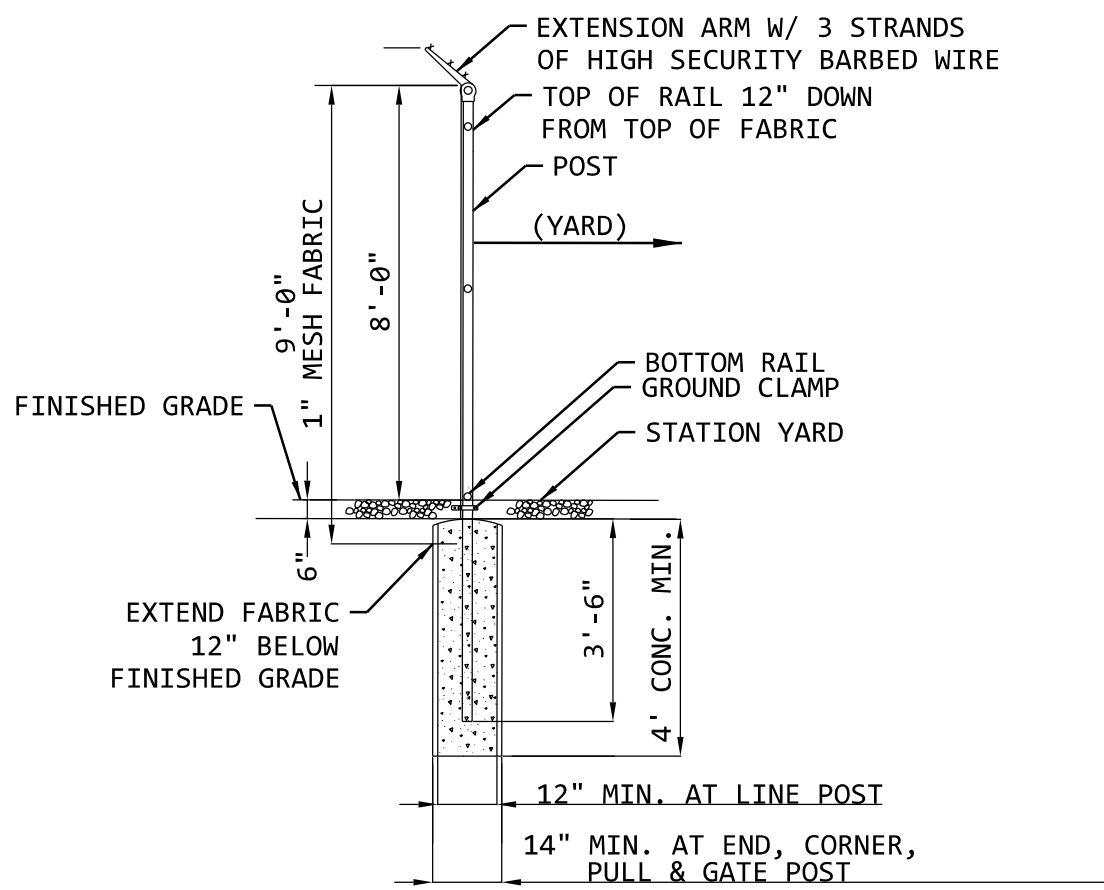
- NOTES:
1. AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
 2. MAXIMUM SLOPE OF STOCKPILE SHALL BE 2H:1V.
 3. EACH PILE SHALL BE SURROUNDED WITH INTERCEPTOR DIKE WITH GRAVEL OUTLET AND REINFORCED SILT FENCE, THEN STABILIZED WITH VEGETATION OR COVERED WHEN STOCKPILING OPERATIONS ARE INACTIVE FOR 7 DAYS OR MORE.
 4. OVERLAP REINFORCED SILT FENCE AT ENTRANCE TO STOCKPILE. WHEN ENTERING, TEMPORARILY MOVE FENCE. REPLACE FENCE WHEN FINISHED STOCKPILING, TO CREATE A COMPLETE PERIMETER BARRIER.

TYPICAL SOIL STOCKPILE
SCALE: N.T.S.



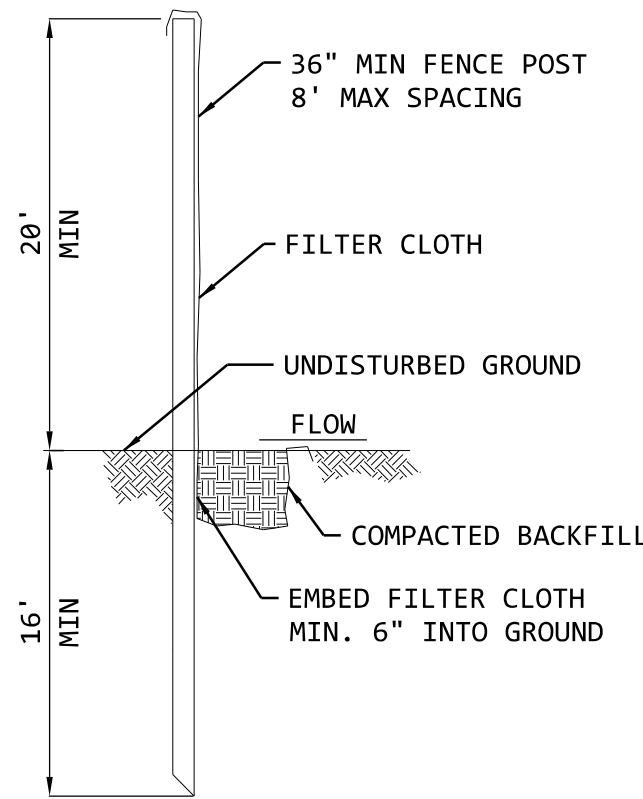
- NOTES:
1. INSTALL SILT SACK IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
 2. INSPECT SILT SACK AFTER EACH RAIN EVENT AND MAKE REPAIRS AS NEEDED.
 3. LIFT SILT SACK TO EMPTY CONTENTS. CLEAN OUT AND RINSE. RETURN SILT SACK TO ITS ORIGINAL SHAPE AND PLACE BACK IN THE STRUCTURE.

SILT SACK TEMPORARY INLET PROTECTION
SCALE: N.T.S.



- NOTE:
- STATION FENCE AND GATES SHALL BE INSTALLED IN ACCORDANCE WITH CHAIN LINK SPECIFICATION SEE DOC.#SP.03.05.001

TYPICAL FENCE
SCALE: N.T.S.



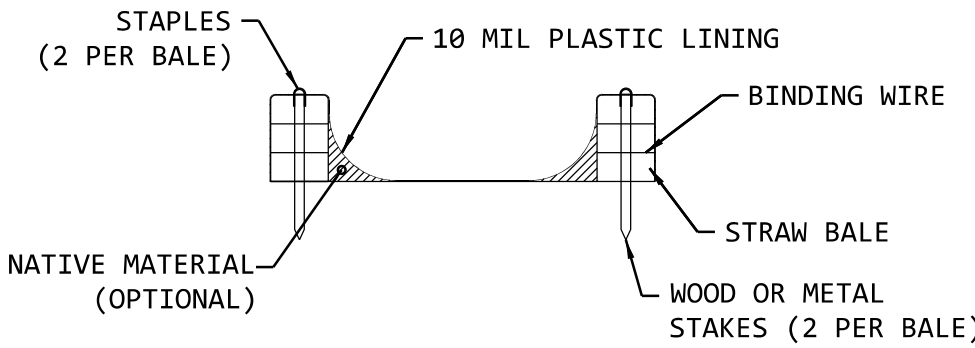
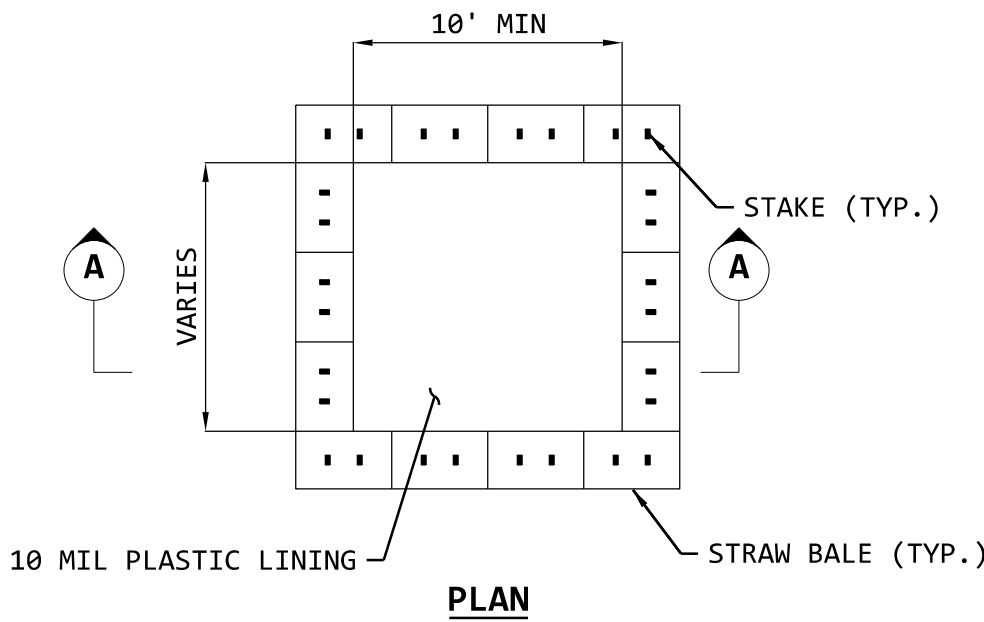
- NOTES:
1. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
 2. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH THEY SHALL BE OVERLAPPED BY 6" AND FOLDED.
 3. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

- POSTS: FOUR-INCH DIAMETER PINE, 1.33 LB/LINEAR FT STEEL, OR 2"x2" HARDWOOD STAKES. STEEL POSTS SHOULD HAVE PROJECTIONS FOR FASTENING FABRIC.
- FILTER CLOTH: MIRAFI1140NL (SUPPORTED). MIRAFI1160N (UNSUPPORTED) OR APPROVED EQUAL.
- PREFAB. UNIT: GEOFAB.ENVIROFENCE OR APPROVED EQUAL.

SILT FENCE
SCALE: N.T.S.

CONSTRUCTION SEQUENCE:

1. THE FOLLOWING CONSTRUCTION SEQUENCE IS RECOMMENDED (COORDINATE ALL SITE ACTIVITIES AND CONSTRUCTION SEQUENCE WITH THAT OF THE STATION ELECTRICAL EQUIPMENT, OVERHEAD LINES, AND OTHER STATION RELATED CONSTRUCTION):
2. CONTACT THE OWNER AND REGULATORY AGENCIES AT LEAST FORTY-EIGHT (48) HOURS PRIOR TO COMMENCEMENT OF ANY DEMOLITION, CONSTRUCTION OR REGULATED ACTIVITY ON THIS PROJECT SITE.
3. LIMIT OF DISTURBANCE (LOD) SHALL BE PHYSICALLY MARKED IN THE FIELD AND APPROVED BY THE REGULATORY AGENCIES PRIOR TO THE START OF WORK ON THE SITE.
4. INSTALL STABILIZED CONSTRUCTION ENTRANCES AT ACCESS POINT TO SITE FROM ALLENCLAIR DRIVE, ALONG WITH TEMPORARY INLET PROTECTION AND SILT FENCE WHERE NOTED.
5. DEMO EXISTING SUBSTATION INCLUDING EXISTING FENCELINE, CONCRETE PAD, AND REMOVE EXISTING EQUIPMENT.
6. CLEAR AND GRUB SITE. SCREEN AND STOCKPILE TOPSOIL. INSTALL PER TYPICAL SOIL STOCKPILE DETAIL.
7. COMMENCE EARTHWORK. ESTABLISH SIDE SLOPES TO DAYLIGHT AND STABILIZE.
8. STAKE AND INSTALL ALL FOUNDATIONS, UTILITIES, FENCE, AND OTHER SITE APPURTENANCES.
9. CONSTRUCT THE PERMANENT DRIVEWAYS, THROUGHOUT CONSTRUCTION ENSURE THE DRIVEWAY ENTRANCES MAINTAIN A LAYER OF STONE TO FUNCTION AS A STABILIZED CONSTRUCTION ENTRANCE.
10. INSTALL STATION YARD ACCORDING TO SECTION DETAIL AND INSTALL GRAVEL PADS.
11. STABILIZE YARD AND DRIVEWAYS IN ACCORDANCE WITH THE SECTION DETAILS.
12. PLACE 6" TOPSOIL AND SEED ON SLOPES AFTER FINAL GRADING IS COMPLETE.
13. REMOVE EXCESS TOPSOIL AND SPOILS FROM SITE.
14. INSTALL VEGETATION ACCORDING TO LANDSCAPING PLAN BY OTHERS.
15. THROUGHOUT CONSTRUCTION, REMOVE SEDIMENT FROM BEHIND SILT FENCE AND WITHIN SILTSACK TEMPORARY INLET PROTECTION AS REQUIRED. REMOVAL SHALL BE ON A PERIODIC BASIS (EVERY SIGNIFICANT RAINFALL OF 0.50 INCH OR GREATER). INSPECTION OF EROSION CONTROL MEASURES SHALL BE ON A WEEKLY BASIS AND AFTER EACH RAINFALL OF 0.50 INCHES OR GREATER.
16. UPON DIRECTION OF THE OWNER AND REGULATORY AGENCIES, EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED FOLLOWING STABILIZATION OF THE SITE.
17. REMOVE SEDIMENT AND DEBRIS FROM EXISTING DRY WELL.
18. RESTORE DISTURBED AREAS OF THE SITE, NOT FUNCTIONING AS NEW PERMANENT INFRASTRUCTURE, TO PRE-EXISTING CONDITIONS.



- NOTES:
1. WASHOUT PIT MUST BE INSPECTED FREQUENTLY TO ENSURE LINER IS INTACT.
 2. ONCE 75% OF ORIGINAL PIT VOLUME IS FILLED OR LINER IS TORN, MATERIAL MUST BE REMOVED AND PROPERLY DISPOSED OF ONCE HARDENED. LINER SHALL BE REPLACED IF TORN.

CONCRETE WASHOUT
SCALE: N.T.S.

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MASSACHUSETTS ELECTRIC COMPANY
HILLSIDE AVE.SUBSTATION NO. 66
AMESBURY, MASSACHUSETTS
CIVIL-SITE PLANS
SITE CONSTRUCTION DETAILS

SCALE: NONE

FOR CONSTRUCTION ONLY

MA-9.6-H3

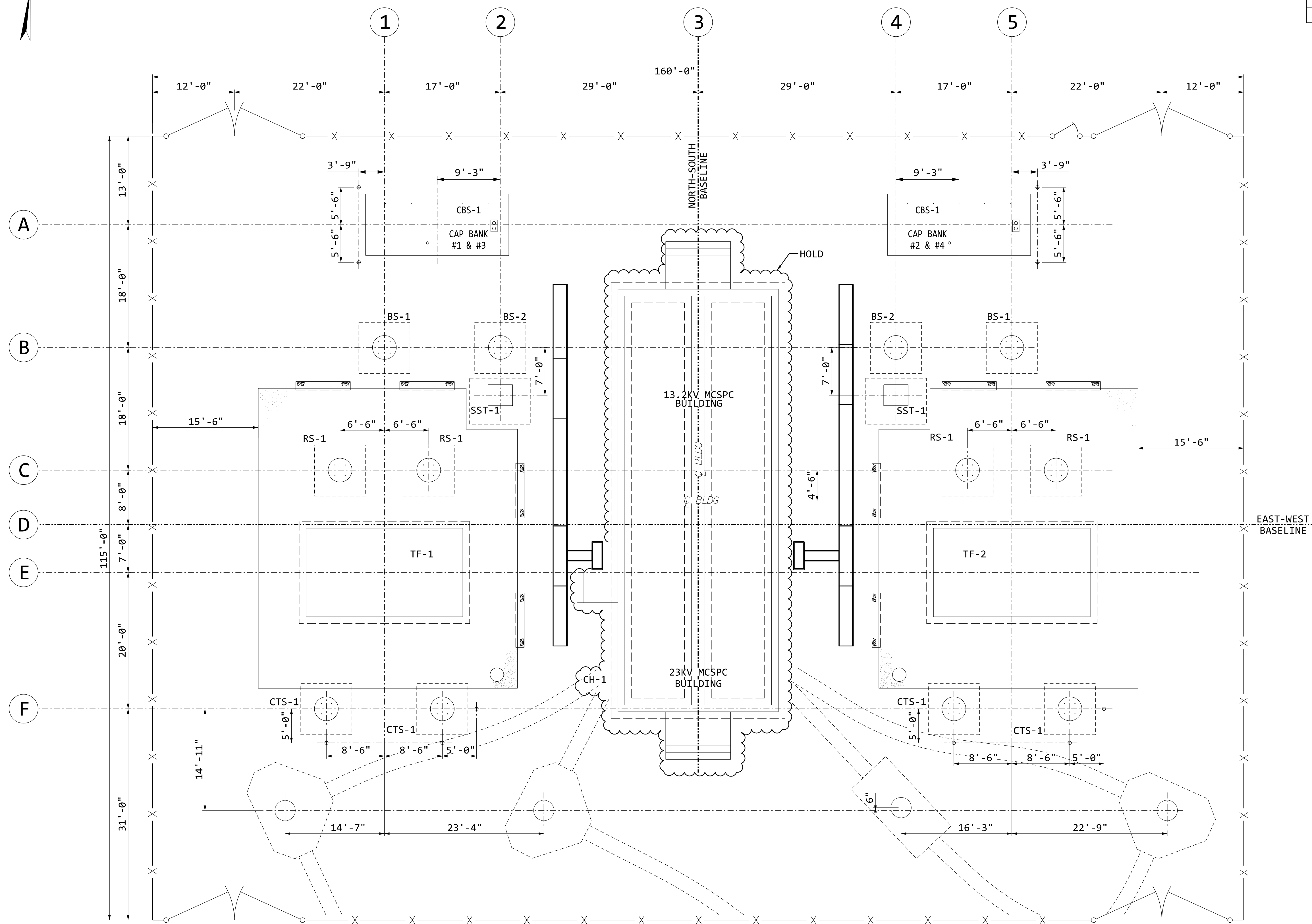
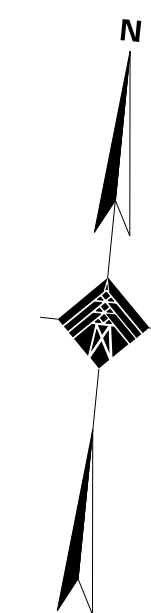
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FOUNDATION PLAN

SCALE $\frac{1}{8}" = 1' - 0"$

FOUNDATION SCHEDULE				
FDN MARK	TOC. ELEV.	DESCRIPTION	DETAIL DWG	REQ'D
CH-1	96.75'	CONTROL HOUSE (MCSPC) FDN., 28'-0" X 62'-0"	H-111434	1
TF-1	96.75'	TRANSFORMER #1 FOUNDATION & OIL CONTAINMENT	H-111435	1
TF-2	96.75'	TRANSFORMER #2 FOUNDATION & OIL CONTAINMENT	H-111436	1
BS-1	96.75'	13.2KV BI-LEVEL BUS SUPPORT STRUCTURE FDN., BS-20.0	H-111437	2
BS-2	96.75'	13.2KV HIGH BUS SUPPORT STRUCTURE FDN., BS-24.0	H-111437	2
CTS-1	96.75'	23KV CABLE TERMINATION STRUCTURE FDN., CTS-19.5/19.5A	H-111437	4
RS-1	96.75'	13KV RISER STRUCTURE FDN., RS-20.0/20.0A	H-111437	4
CBS-1	96.50'	CAP BANK FOUNDATION, CAP BANK #1, #2, #3, & #4	H-111438	2
SST-1	96.75'	STATION SERVICE TRANSFORMER FOUNDATION & OIL CONTAINMENT	H-111438	2
PB-1	-	PIPE BOLLARD	H-111438	16

REFERENCE DRAWINGS:

23/13.2KV BUS STRUCTURE ELECTRICAL PLAN	H-111318
23/13.2KV BUS STRUCTURE CONDUIT PLAN	H-111324
23/13.2KV BUS STRUCTURE ULTIMATE ARRANGEMENT	H-111325
23/13.2KV BUS STRUCTURE GROUNDING PLAN	H-111326
23/13.2KV STRUCTURAL ARRANGEMENT PLAN	H-111429

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MASSACHUSETTS ELECTRIC COMPANY
HILLSIDE AVE. SUBSTATION NO.66
AMESBURY, MASSACHUSETTS

23/13.2KV BUS STRUCTURE FOUNDATION PLAN

SCALE: 1/8"=1'-0"

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DEREK L. OGBURN
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08/22/2025

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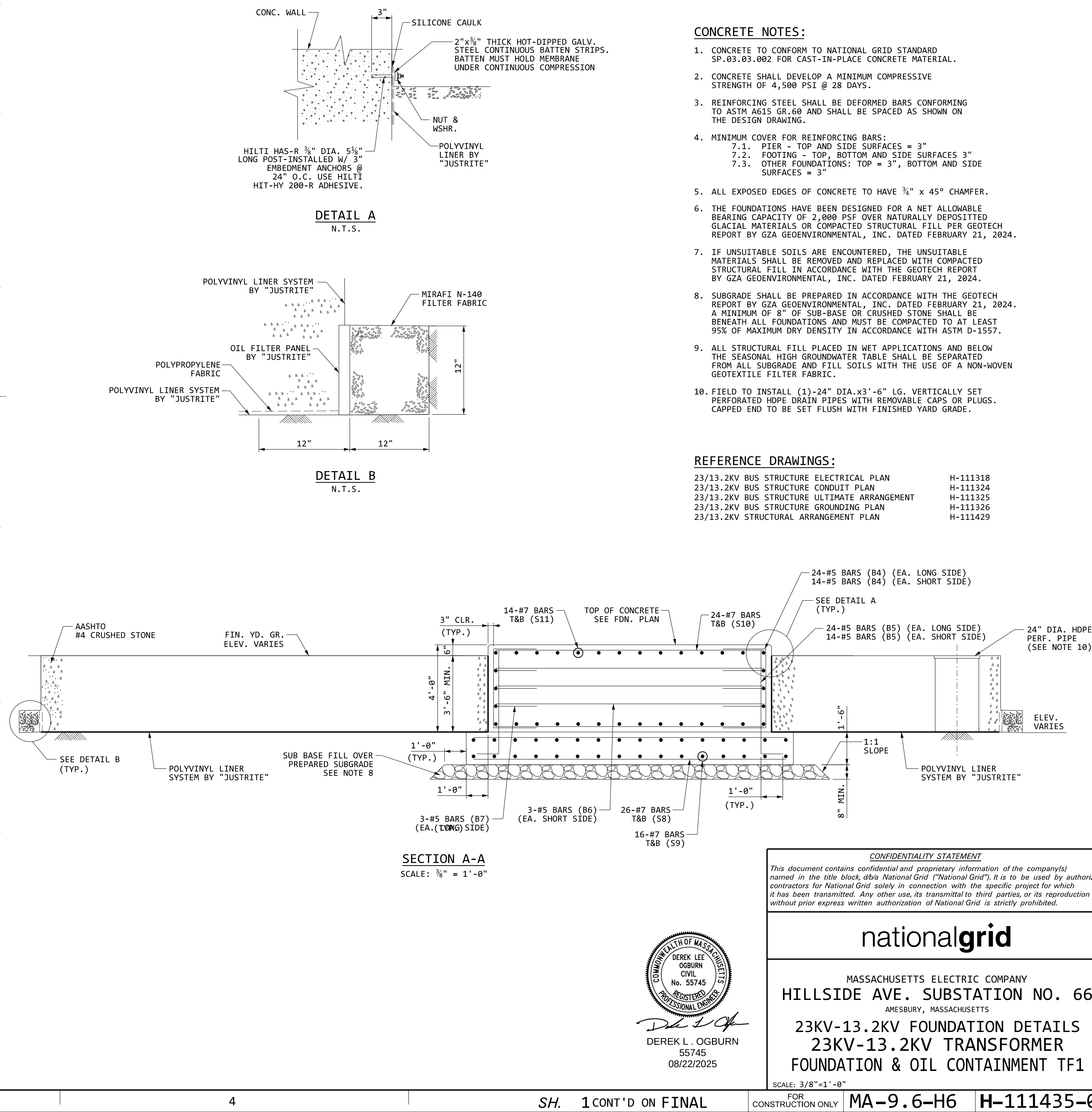
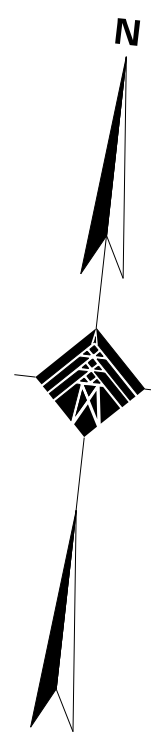
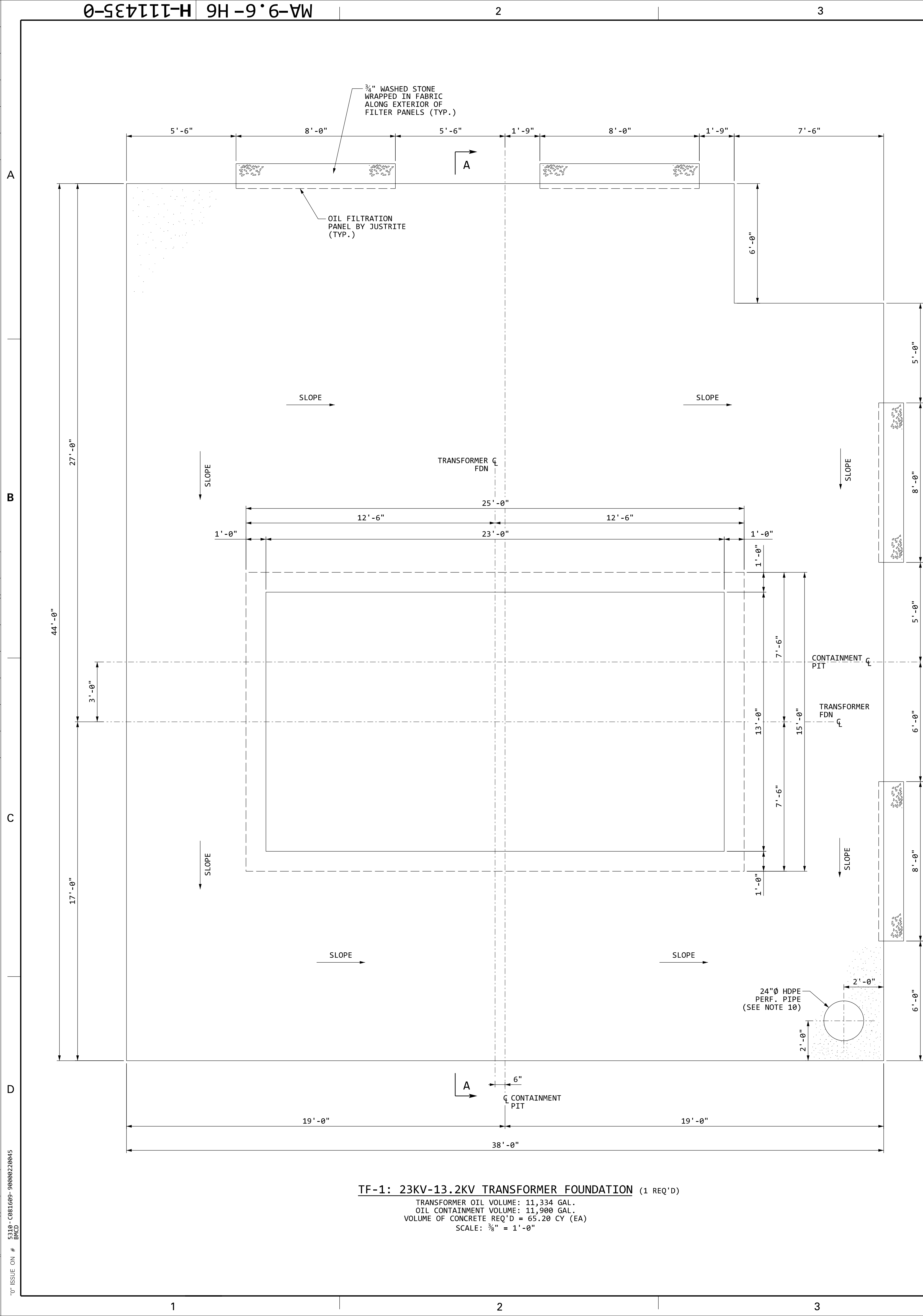
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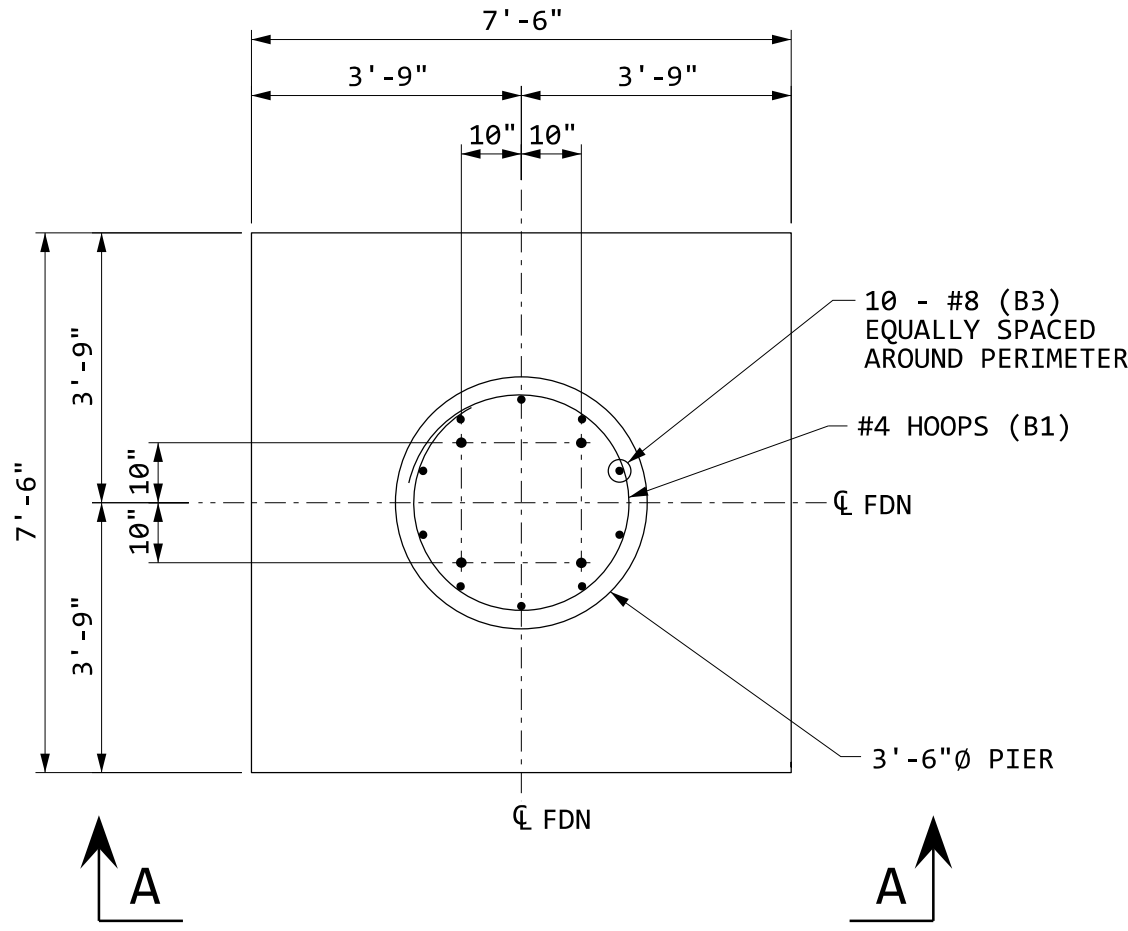
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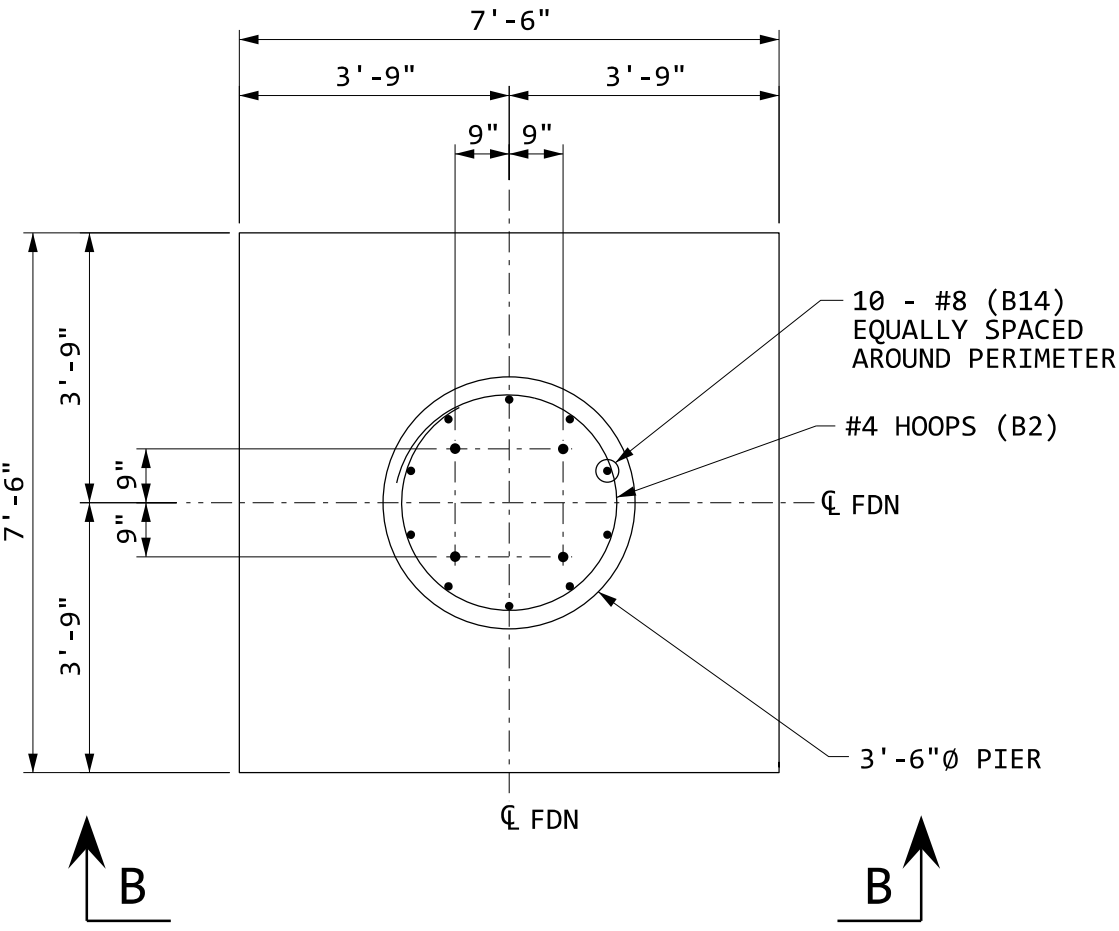
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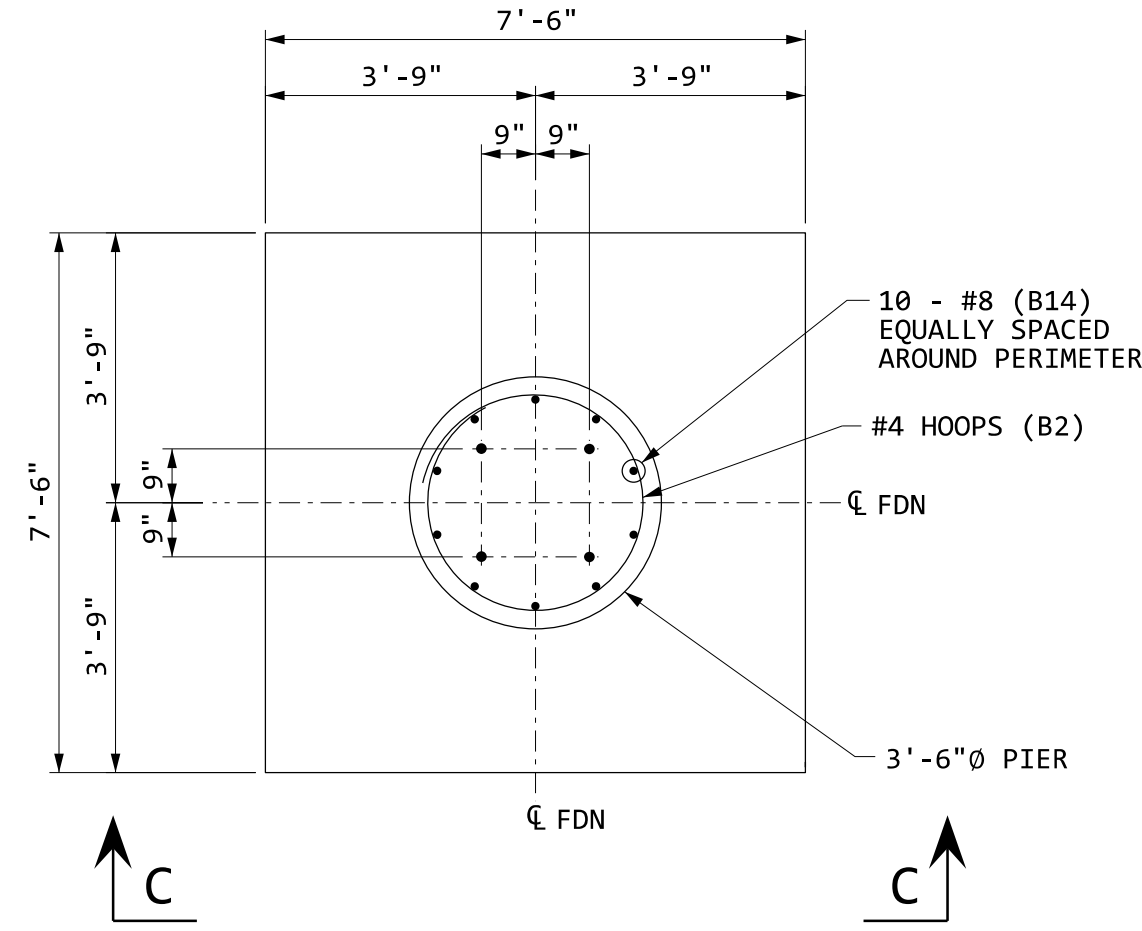
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BS-1: 13.2KV BI-LEVEL BUS SUPPORT STRUCTURE FOUNDATION (2 REQ'D)
BS-2: 13.2KV HIGH BUS SUPPORT STRUCTURE FOUNDATION (2 REQ'D)
VOLUME OF CONCRETE REQ'D = 4.55 CUBIC YARDS EA.
SCALE: 3/8" = 1'-0"

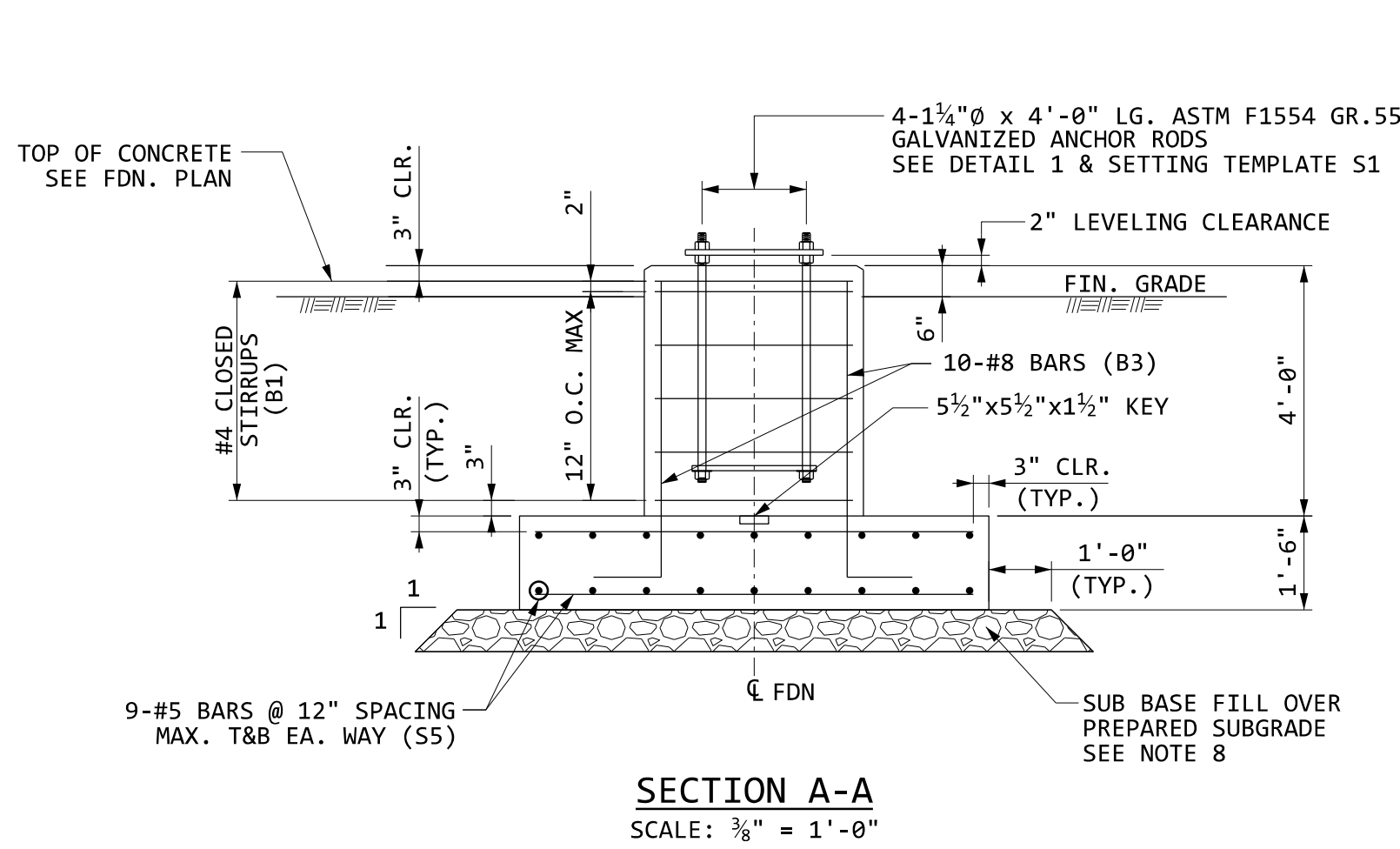


RS-1: 13KV RISER STRUCTURE FOUNDATION (4 REQ'D)
VOLUME OF CONCRETE REQ'D = 5.08 CUBIC YARDS EA.
SCALE: 3/8" = 1'-0"

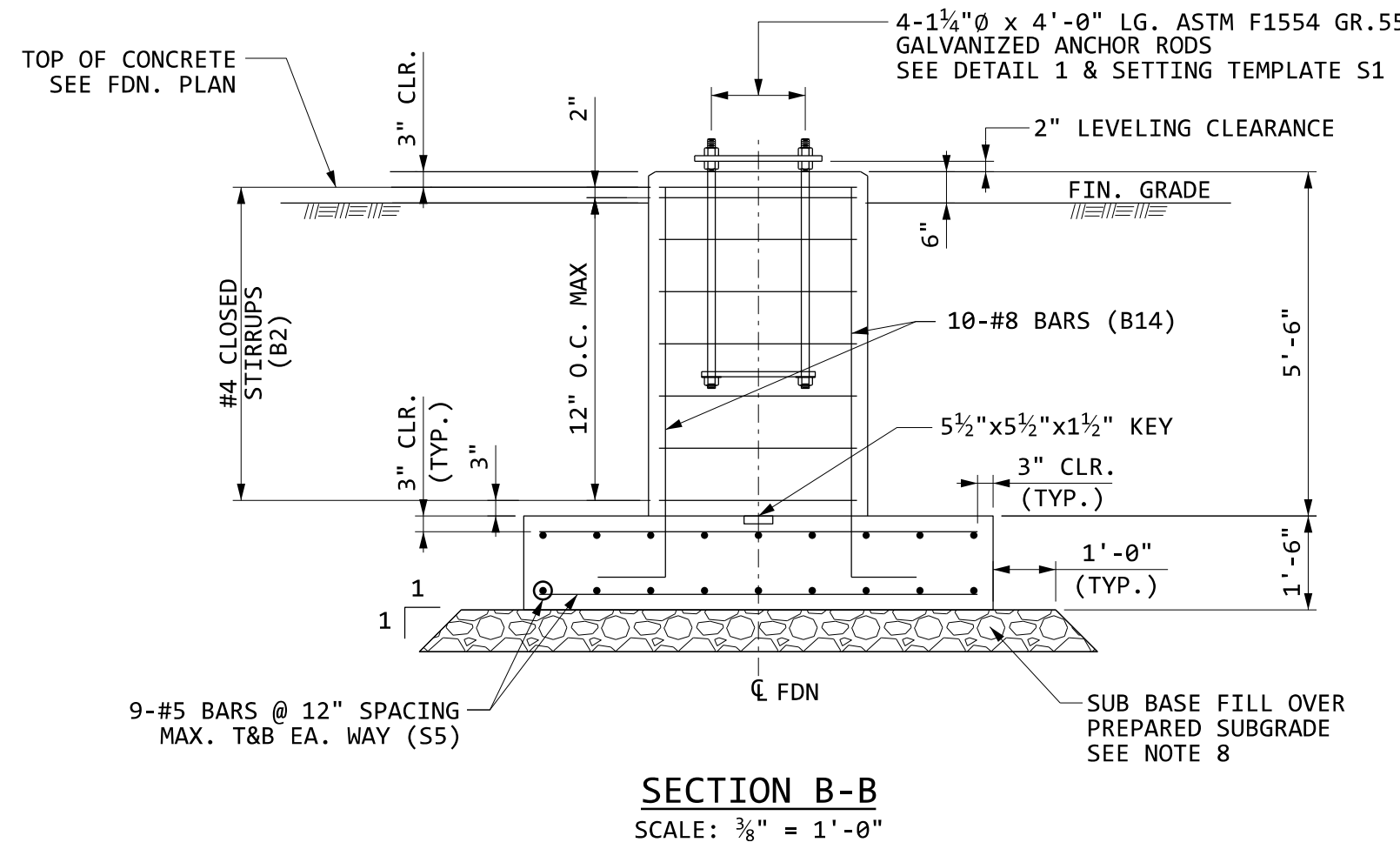


CTS-1: 23KV CABLE TERMINATION
STRUCTURE FOUNDATION (4 REQ'D)
VOLUME OF CONCRETE REQ'D = 5.08 CUBIC YARDS EA.
SCALE: 3/8" = 1'-0"

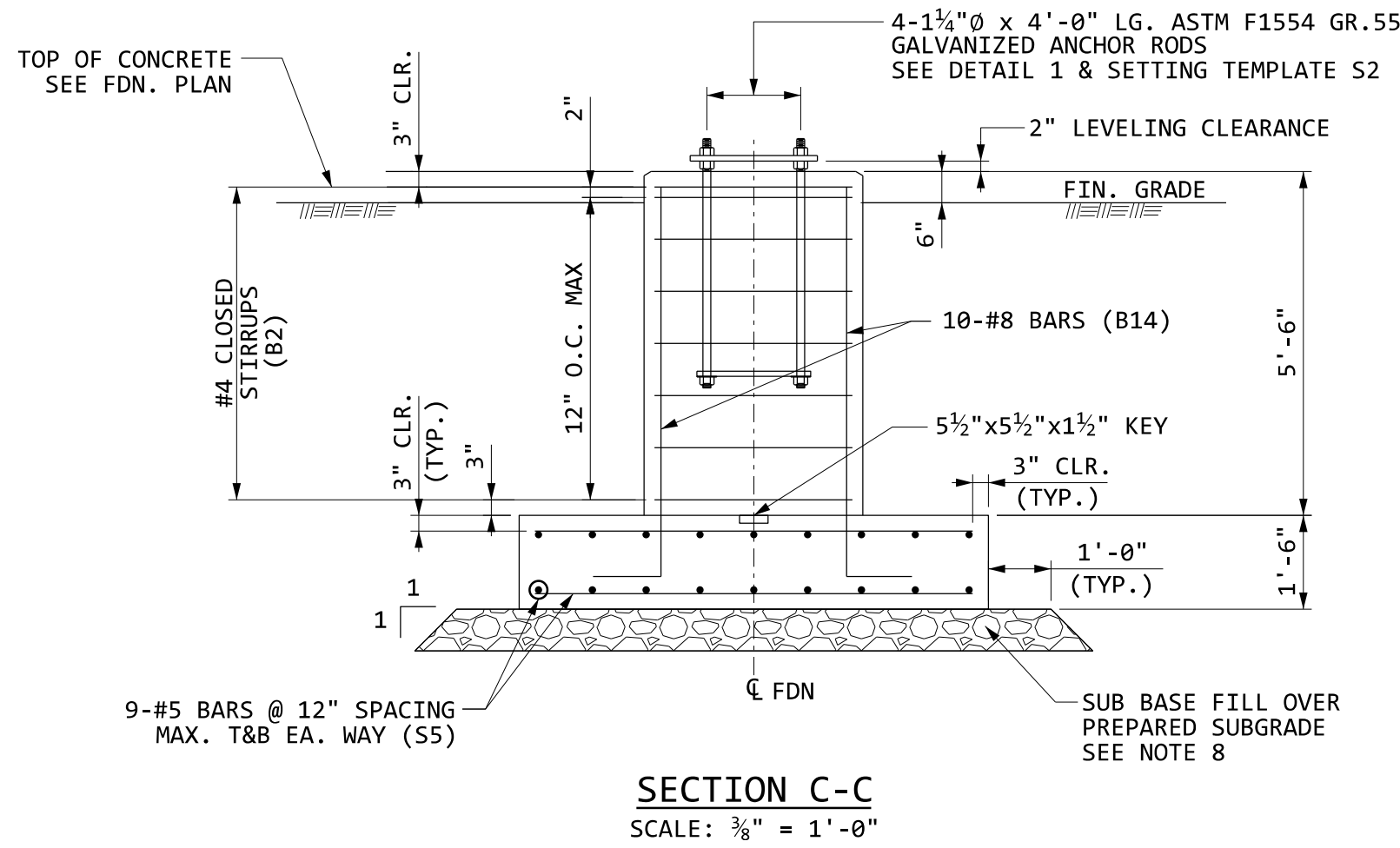
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SECTION A-A
SCALE: 3/8" = 1'-0"

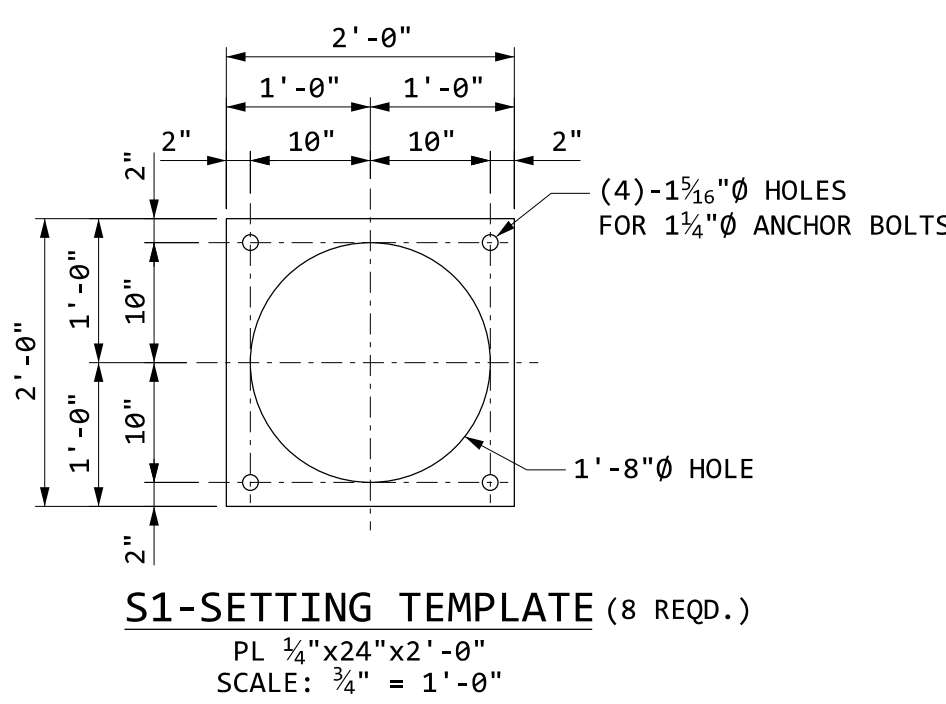


SECTION B-B
SCALE: 3/8" = 1'-0"

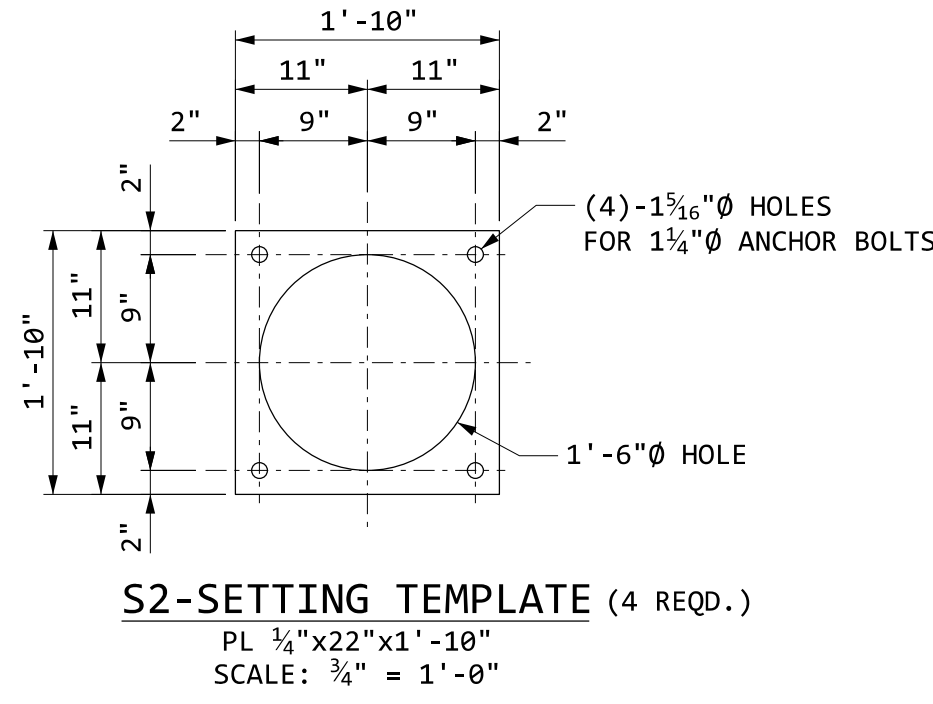


SECTION C-C
SCALE: 3/8" = 1'-0"

C

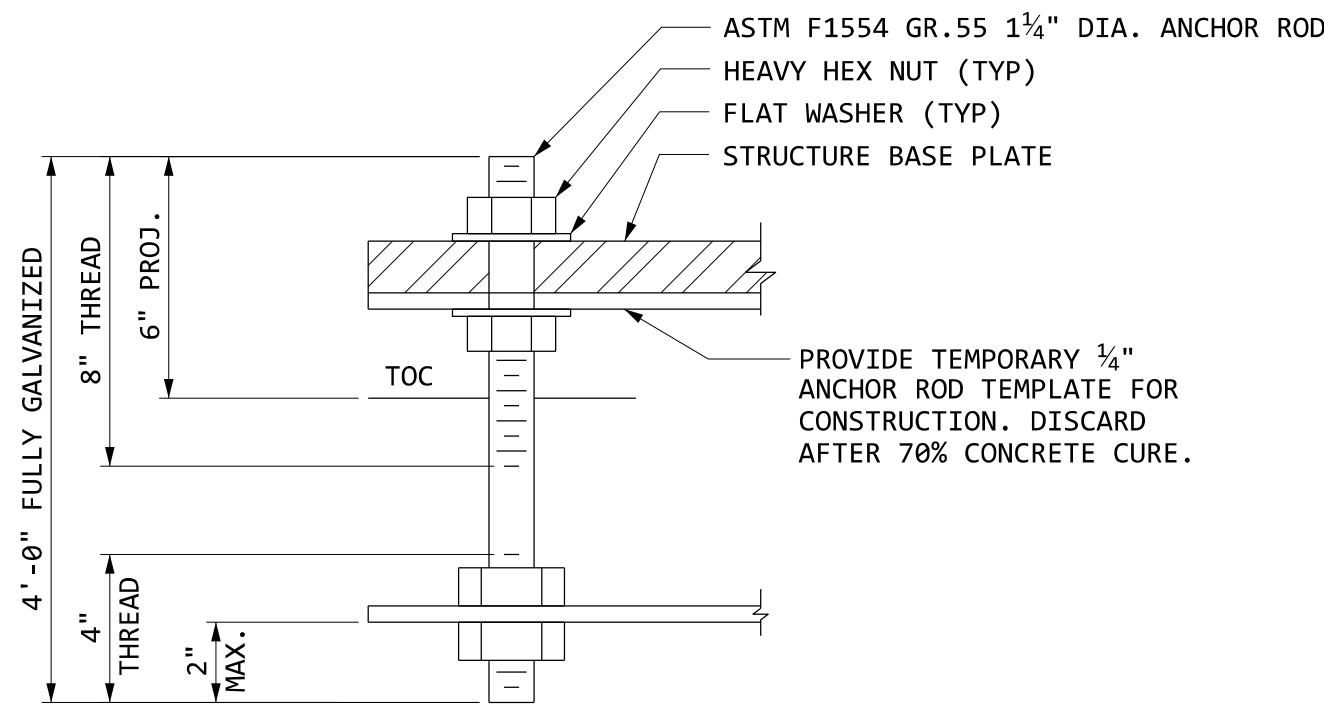


S1-SETTING TEMPLATE (8 REQ'D.)
PL 1/4"x24"x2'-0"
SCALE: 3/4" = 1'-0"



S2-SETTING TEMPLATE (4 REQ'D.)
PL 1/4"x22"x1'-10"
SCALE: 3/8" = 1'-0"

D



DETAIL 1
1 1/4" ANCHOR ROD DETAIL
NTS

REINFORCING SCHEDULE

FOUND.	MARK	NO. BARS	SIZE	LGTH. PER BAR	SKETCH	WT. FOR ONE FDN.
BS-1	S5	36	#5	7'-0"		471#
	B1	6	#4	10'-8"		
	B3	10	#8	6'-2"		
BS-2	S5	36	#5	7'-0"		471#
	B1	6	#4	10'-8"		
	B3	10	#8	6'-2"		
RS-1	S5	36	#5	7'-0"		525#
	B2	8	#4	10'-8"		
	B14	10	#8	7'-8"		
CTS-1	S5	36	#5	7'-0"		525#
	B2	8	#4	10'-8"		
	B14	10	#8	7'-8"		

CONCRETE NOTES

- CONCRETE TO CONFORM TO NATIONAL GRID STANDARD SP.03.03.002 FOR CAST-IN-PLACE CONCRETE MATERIAL.
- CONCRETE SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH OF 4,500 PSI @ 28 DAYS.
- REINFORCING STEEL SHALL BE DEFORMED BARS CONFORMING TO ASTM A615 GR. 60 AND SHALL BE SPACED AS SHOWN ON THE DESIGN DRAWING.
- MINIMUM COVER FOR REINFORCING BARS:
7.1. PIER - TOP AND SIDE SURFACES = 3"
7.2. FOOTING - TOP, BOTTOM AND SIDE SURFACES = 3"
7.3. OTHER FOUNDATIONS: TOP = 2", BOTTOM AND SIDE SURFACES = 3"
- ALL EXPOSED EDGES OF CONCRETE TO HAVE 3/4" x 45° CHAMFER.
- THE FOUNDATIONS HAVE BEEN DESIGNED FOR A NET ALLOWABLE BEARING CAPACITY OF 2,500 PSF OVER NATURALLY DEPOSITED GLACIAL MATERIALS OR COMPACTED STRUCTURAL FILL PER GEOTECH REPORT BY GZA GEOENVIRONMENTAL, INC. DATED FEBRUARY 21, 2024.
- IF UNSUITABLE SOILS ARE ENCOUNTERED, THE UNSUITABLE MATERIALS SHALL BE REMOVED AND REPLACED WITH COMPACTED STRUCTURAL FILL IN ACCORDANCE WITH THE GEOTECH REPORT BY GZA GEOENVIRONMENTAL, INC. DATED FEBRUARY 21, 2024.
- SUBGRADE SHALL BE PREPARED IN ACCORDANCE WITH THE GEOTECH REPORT BY GZA GEOENVIRONMENTAL, INC. DATED FEBRUARY 21, 2024. A MINIMUM OF 8" OF SUB-BASE OR CRUSHED STONE FILL SHALL BE BENEATH ALL FOUNDATIONS AND MUST BE COMPACTED TO AT LEAST 95% OF MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D-1557.
- ALL STRUCTURAL FILL PLACED IN NET APPLICATIONS AND BELOW THE SEASONAL HIGH GROUNDWATER TABLE SHALL BE SEPARATED FROM ALL SUBGRADE AND FILL SOILS WITH THE USE OF A NON-WOVEN GEOTEXTILE FILTER FABRIC.

REFERENCE DRAWINGS:

23/13.2KV BUS STRUCTURE ELECTRICAL PLAN	H-111318
23/13.2KV BUS STRUCTURE CONDUIT PLAN	H-111324
23/13.2KV BUS STRUCTURE ULTIMATE ARRANGEMENT	H-111325
23/13.2KV BUS STRUCTURE GROUNDING PLAN	H-111326
23/13.2KV BUS STRUCTURE FOUNDATION PLAN	H-111428
23/13.2KV STRUCTURAL ARRANGEMENT PLAN	H-111429

CONFIDENTIALITY STATEMENT

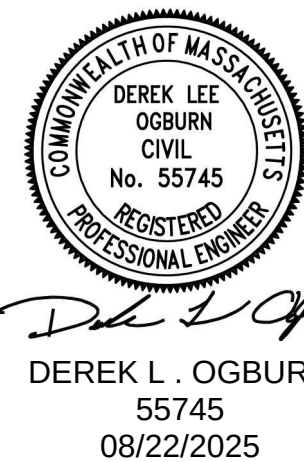
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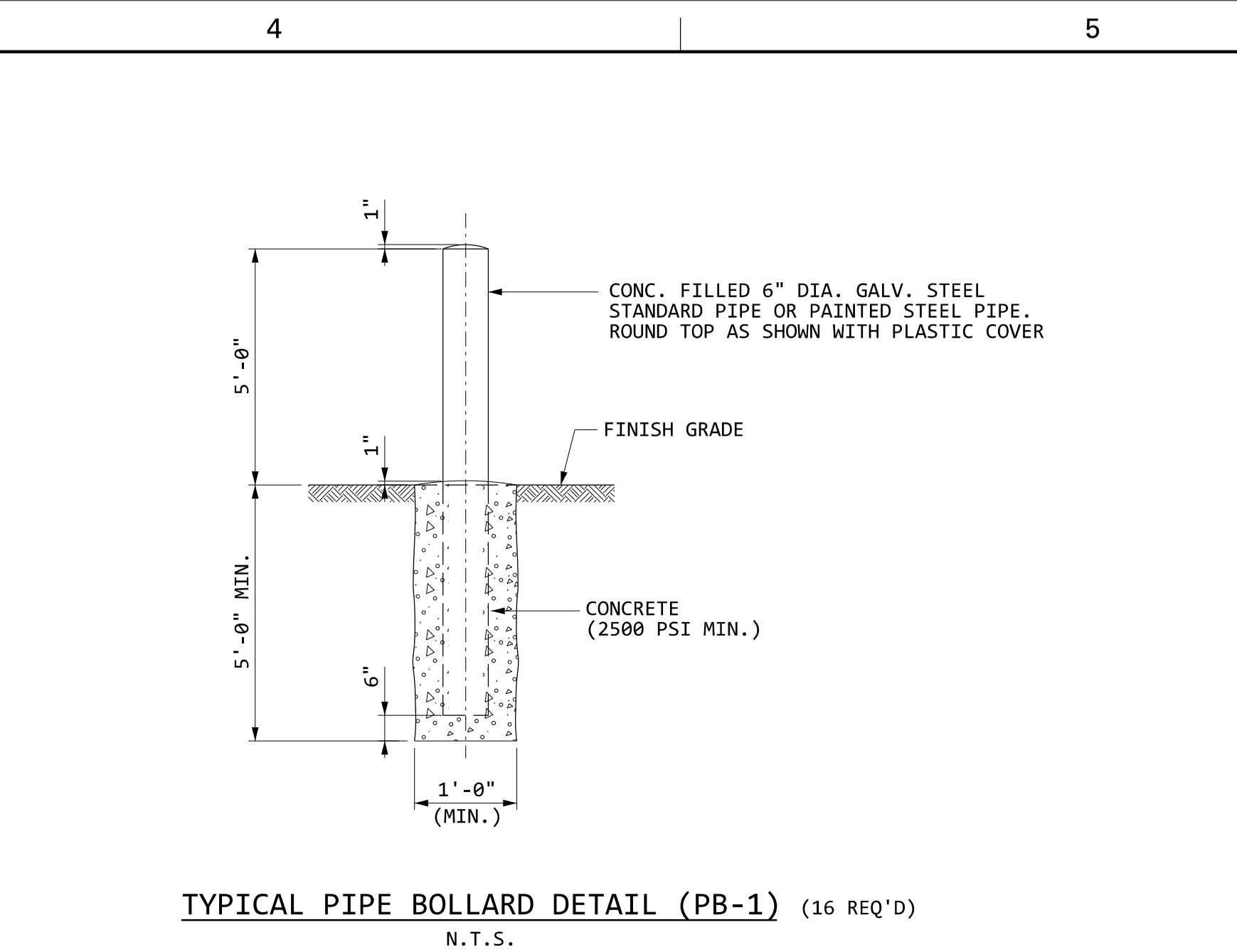
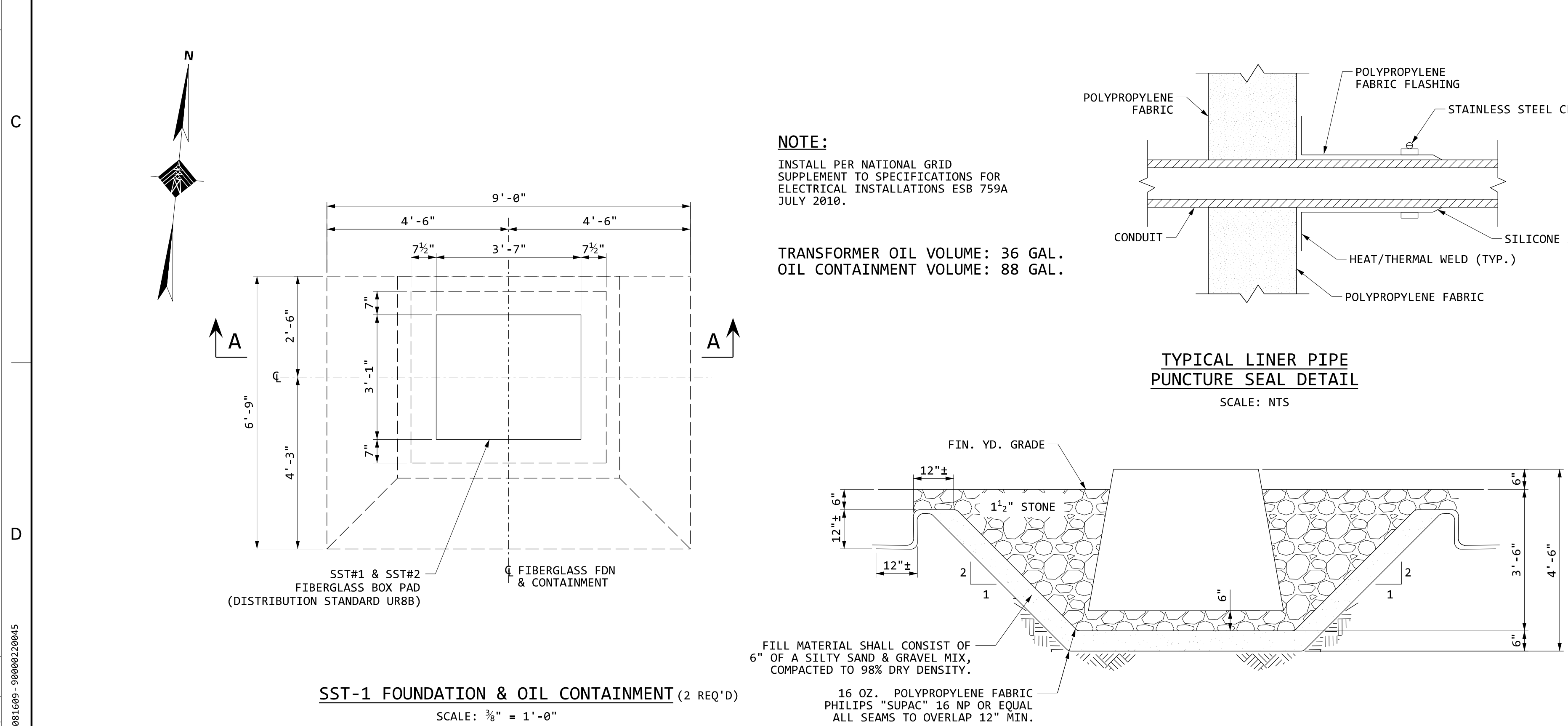
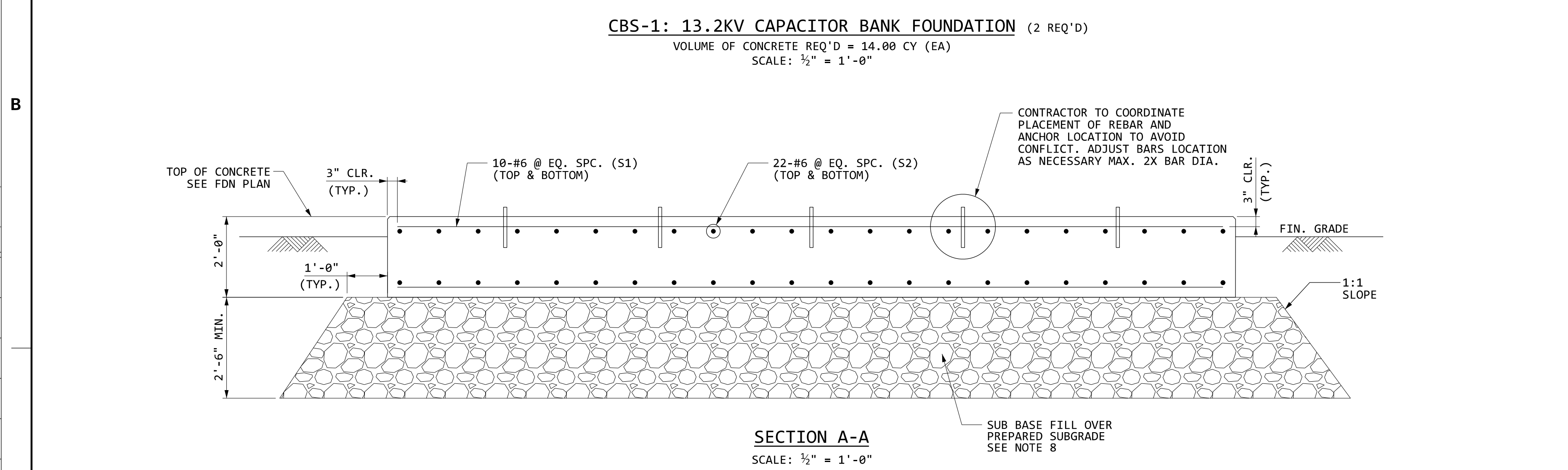
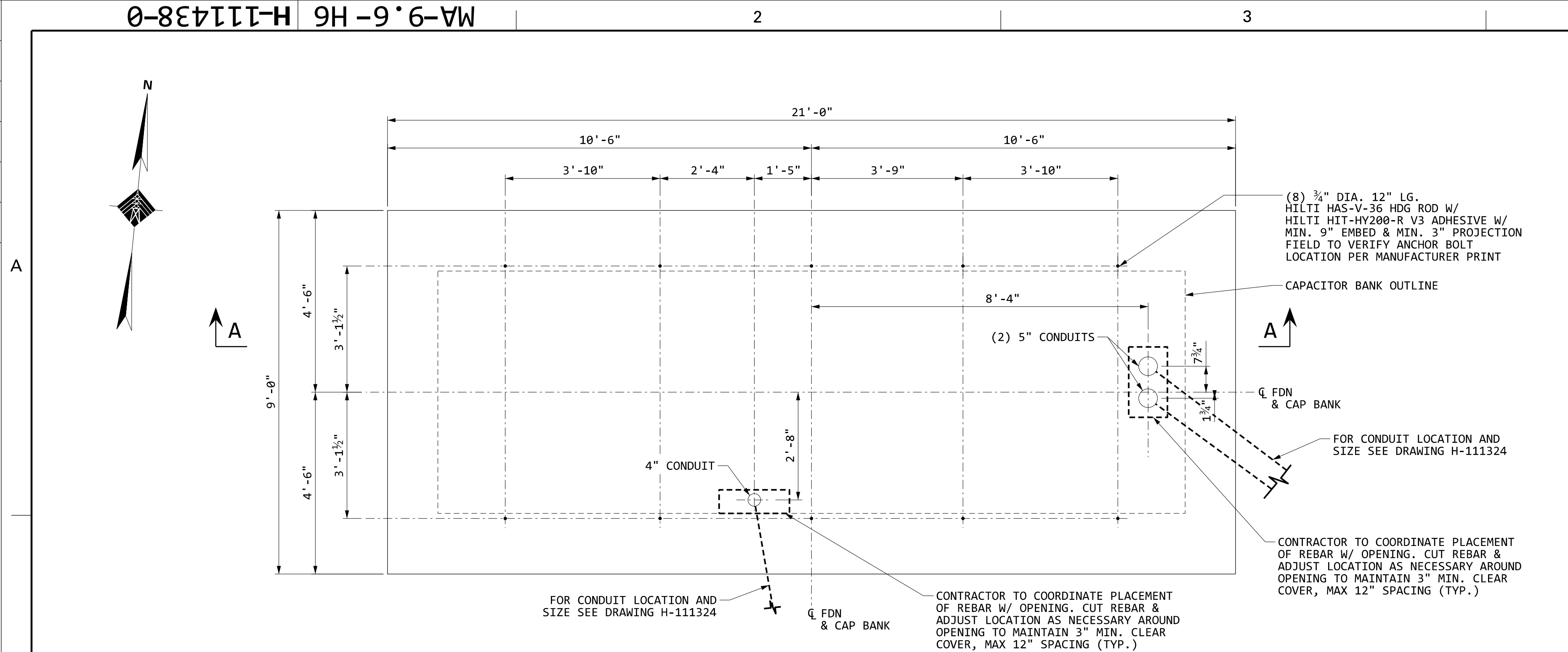
MASSACHUSETTS ELECTRIC COMPANY
HILLSIDE AVE. SUBSTATION NO. 66
AMESBURY, MASSACHUSETTS

23/13.2KV FOUNDATION DETAILS
SPREAD FOOTING DETAILS

SCALE: 3/8"=1'-0"



DEREK L. OGBURN
55745
08/22/2025

[illegible]

						6
REINFORCING SCHEDULE						
FOUND.	MARK	NO. BARS	SIZE	LGTH. PER BAR	SKETCH	WT. FOR ONE FDN.
CBS-1	S1	2Ø	#5	2Ø'-6"	 S1 S2	818#
	S2	44	#5	8'-6"		

CONCRETE NOTES

- CONCRETE TO CONFORM TO NATIONAL GRID STANDARD SP.Ø3.Ø3.ØØ2 FOR CAST-IN-PLACE CONCRETE MATERIAL .
- CONCRETE SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH OF 4,5ØØ PSI @ 28 DAYS.
- REINFORCING STEEL SHALL BE DEFORMED BARS CONFORMING TO ASTM A615 GR. ØØ AND SHALL BE SPACED AS SHOWN ON THE DESIGN DRAWING.
- MINIMUM COVER FOR REINFORCING BARS:
 - 7.1. PIER - TOP AND SIDE SURFACES = 3"
 - 7.2. FOOTING - TOP, BOTTOM AND SIDE SURFACES 3"
 - 7.3. OTHER FOUNDATIONS: Top = 2", BOTTOM AND SIDE SURFACES = 3"
- ALL EXPOSED EDGES OF CONCRETE TO HAVE ¾" x 45° CHAMFER.
- THE FOUNDATIONS HAVE BEEN DESIGNED FOR A NET ALLOWABLE BEARING CAPACITY OF 2,ØØØ PSF OVER NATURALLY DEPOSITED GLACIAL MATERIALS OR COMPACTED STRUCTURAL FILL PER GEOTECH REPORT BY GZA GEOENVIRONMENTAL, INC. DATED FEBRUARY 21, 2Ø24.
- IF UNSUITABLE SOILS ARE ENCOUNTERED, THE UNSUITABLE MATERIALS SHALL BE REMOVED AND REPLACED WITH COMPACTED STRUCTURAL FILL IN ACCORDANCE WITH THE GEOTECH REPORT BY GZA GEOENVIRONMENTAL, INC. DATED FEBRUARY 21, 2Ø24.
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- ALL STRUCTURAL FILL PLACED IN WET APPLICATIONS AND BELOW THE SEASONAL HIGH GROUNDWATER TABLE SHALL BE SEPARATED FROM ALL SUBGRADE AND FILL SOILS WITH THE USE OF A NON-WOVEN GEOTEXTILE FILTER FABRIC.
- PIERS SHALL BE PLUMB AND LEVEL. PIER TOP SURFACE SHALL BE FINISHED BY STRAIGHT EDGE.
- FOOTINGS SHALL NOT BE PLACED ON TOP OF UNDERGROUND DUCT BANKS.
- DEVIATIONS FROM THE DESIGN DRAWINGS SHALL NOT BE PERMITTED WITHOUT PRIOR APPROVAL FROM CIVIL ENGINEERING.
- CONTRACTOR IS TO PROVIDE A "MARKED UP" AS-BUILT TO CIVIL ENGINEERING IDENTIFYING ALL FIELD CHANGES WITHIN 3Ø DAYS OF COMPLETION.
- INSTALLER TO VERIFY AND ENSURE ALIGNMENT OF ANCHOR BOLTS PRIOR TO INSTALLATION.

REFERENCE DRAWINGS:

23/13.2KV BUS STRUCTURE ELECTRICAL PLAN	H-111318
23/13.2KV BUS STRUCTURE CONDUIT PLAN	H-111324
23/13.2KV BUS STRUCTURE ULTIMATE ARRANGEMENT	H-111325
23/13.2KV BUS STRUCTURE GROUNDING PLAN	H-111326
23/13.2KV BUS STRUCTURE FOUNDATION PLAN	H-111428
23/13.2KV STRUCTURAL ARRANGEMENT	H-111429

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MASSACHUSETTS ELECTRIC COMPANY
HILLSIDE SUBSTATION NO. 666
AMESBURY, MASSACHUSETTS

13.2KV FOUNDATION DETAILS
13.2KV CAPACITOR BANK,
SST OIL CONTAINMENT, & BOLLARDS

SCALE: 1/2"=1'-0"

COMMONWEALTH OF MASSACHUSETTS
REGISTERED PROFESSIONAL ENGINEER

DEREK LEE OGBURN
No. 55745

08/22/2025

ON FINAL

FOR CONSTRUCTION ONLY

MA-9.6-H6

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