



ROUTE 33 RECREATION FIELD

305 GREENLAND RD
PORTSMOUTH, NH.

WSE PROJECT 2160648

PETER RICE- DIRECTOR

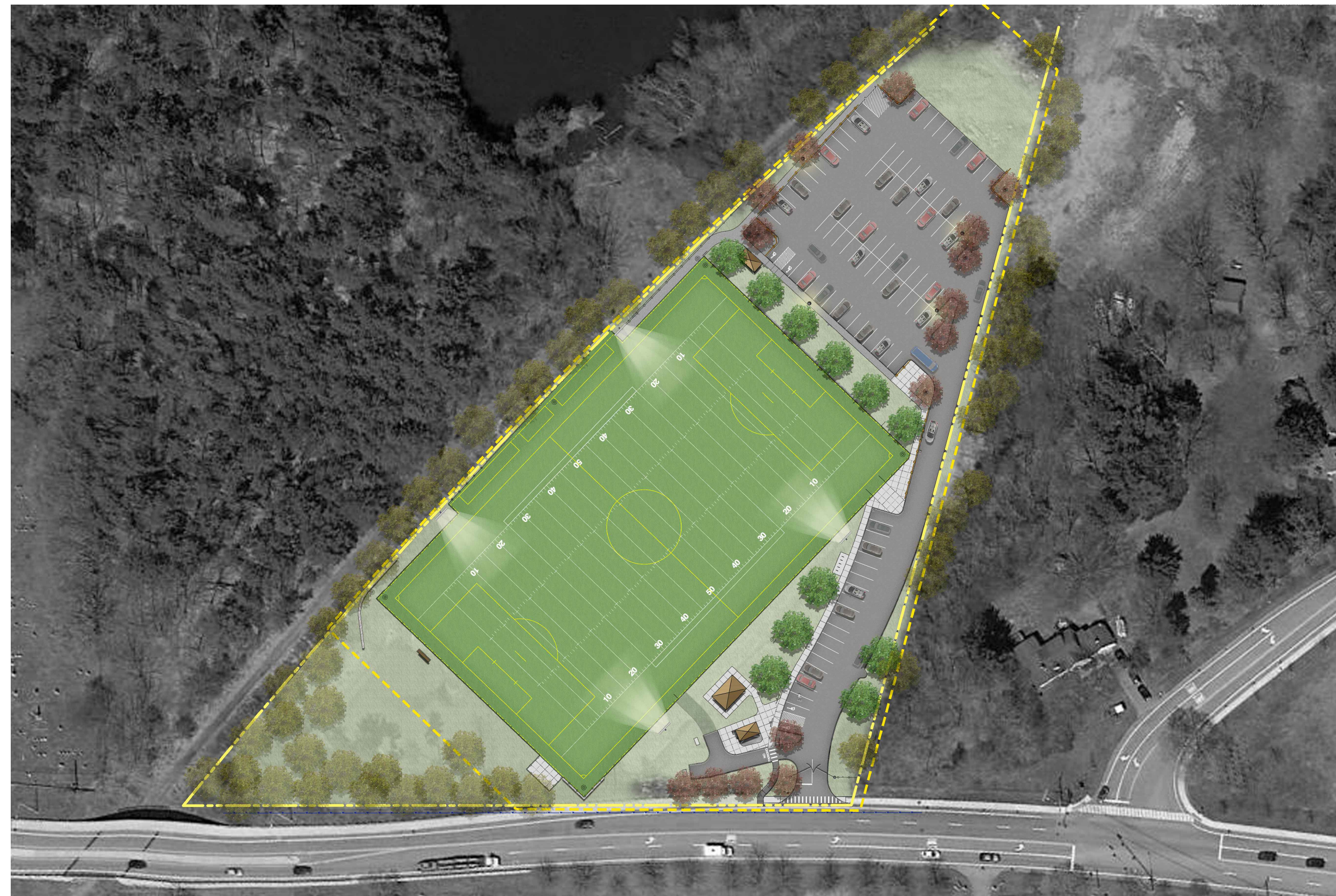
RYAN FLYNN- PROJECT MANAGER

CITY OF PORTSMOUTH
DEPARTMENT OF PUBLIC WORKS
680 PEVERLY HILL ROAD
PORTSMOUTH, NH. 03801

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CONSTRUCTION
DOCUMENTS



February 2018

Prepared By



427 Main Street, Suite 400, Worcester, MA 01608
(978).977.0110 (800).726.7766 (Sampson)
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ZONING INFORMATION:

OWNER: CITY OF PORTSMOUTH DEPARTMENT OF PUBLIC WORKS
680 PEVERLY HILL ROAD
PORTSMOUTH, NH. 03801

ZONE: M

ZONING REQUIREMENTS: LOTS AND BUILDINGS IN THE MUNICIPAL DISTRICT ARE EXEMPT FROM ALL DIMENSIONAL AND INTENSITY REGULATIONS SEE SECTION 10.560 OF THE CITY OF PORTSMOUTH ZONING ORDINANCE.

ABUTTER INFORMATION:

MAP 165 LOT 14
N/F
BOSTON AND MAINE CORPORATION
IRON HORSE PARK
HIGH STREET
NORTH BILLERICA, MA 01862

MAP 242 LOT 5
N/F
ROMAN CATHOLIC BISHOP OF MANCHESTER
CHURCH OF IMMAC CONCEPTION
98 SUMMER STREET
PORTSMOUTH, NH 03801

MAP 242 LOT 1
N/F
STATE OF NEW HAMPSHIRE
FISH AND GAME DEPARTMENT
11 HAZEN DRIVE
CONCORD, NH 03301
RCRD BK. #5248 PG. #739

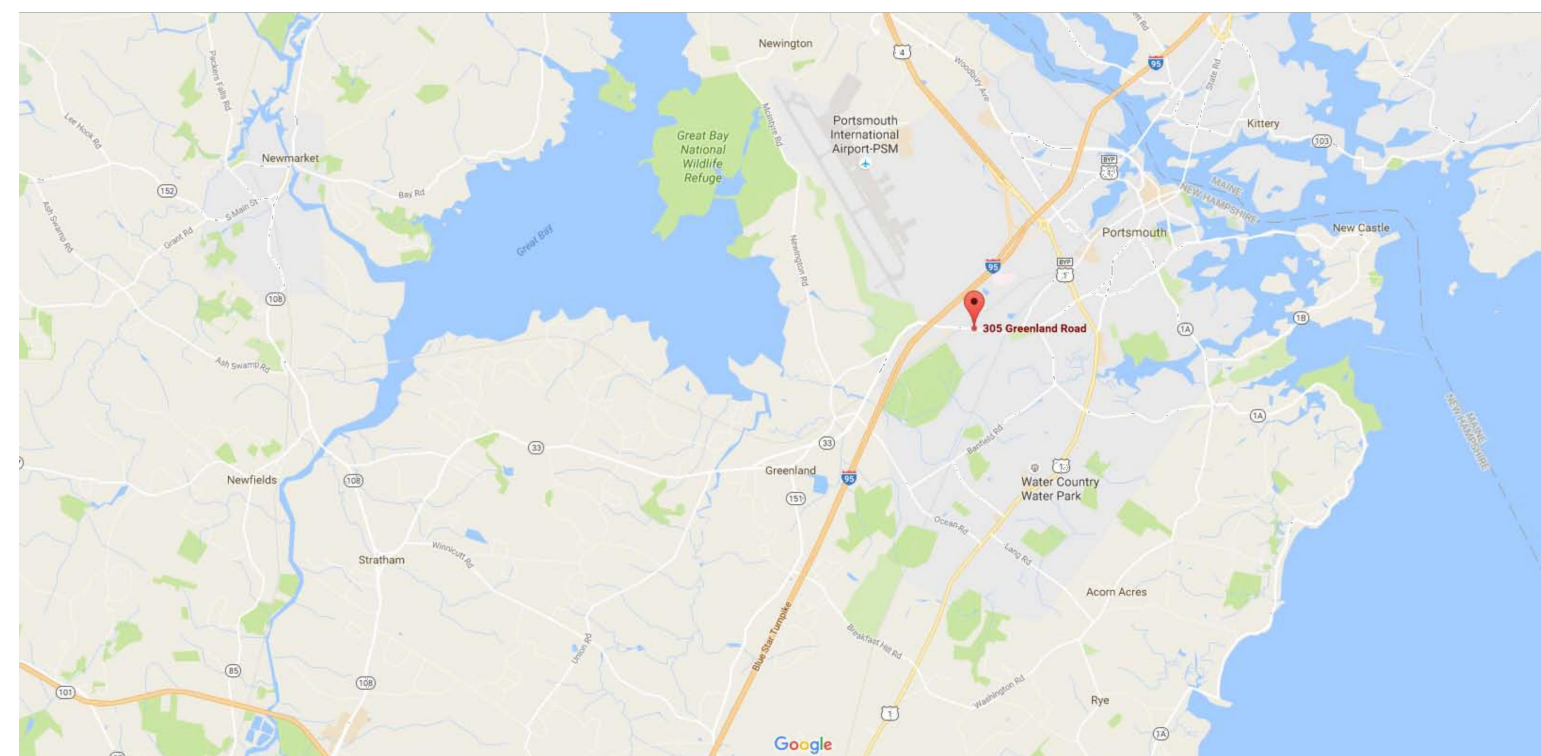
MAP 241 LOT 20
N/F
ANDREW H. SHERBURNE
REVOCABLE TRUST
24 TONGA DRIVE
BOW, NH 03304
RCRD BK. #5289 PG. #138

SURVEY PREPARED BY:

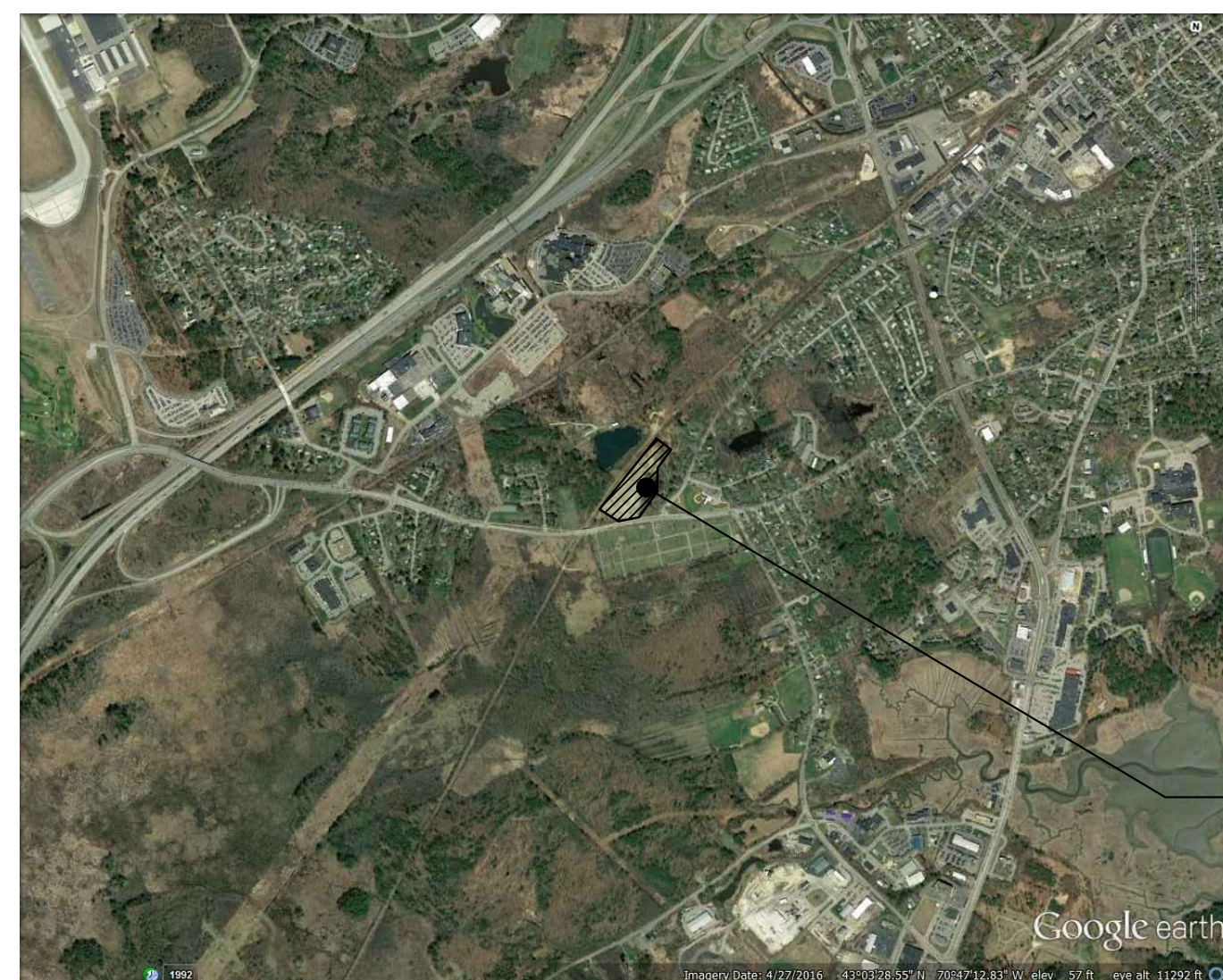


170 Commerce Way, Suite 102
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Locus Map



Aerial Map



ROUTE 33. RECREATION FIELD
305 GREENLAND RD.

L0.00

LEGEND

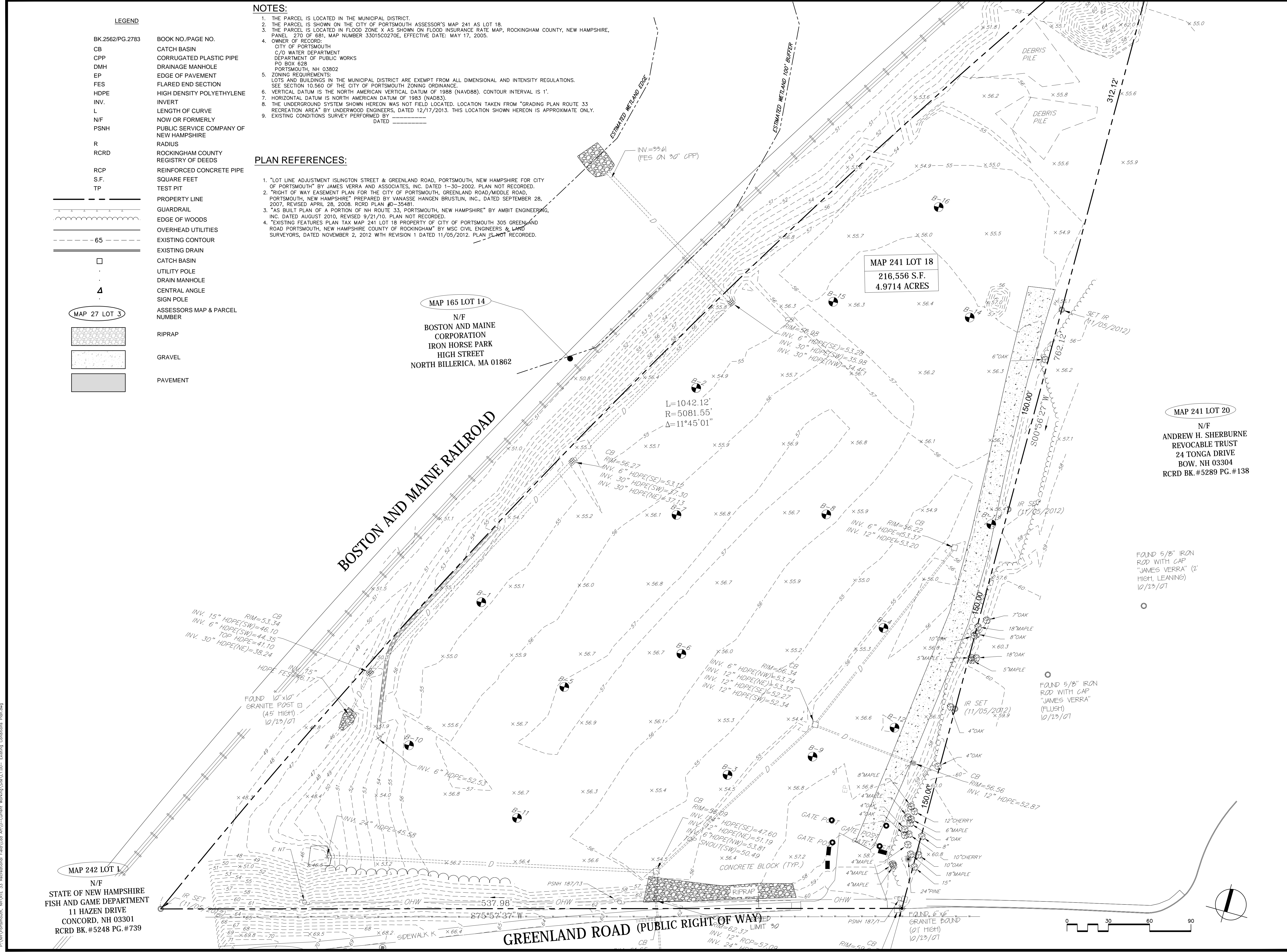
BK.2562/PG.2783	BOOK NO./PAGE NO.
CB	CATCH BASIN
CPP	CORRUGATED PLASTIC PIPE
DMH	DRAINAGE MANHOLE
EP	EDGE OF PAVEMENT
FES	FLARED END SECTION
HDPE	HIGH DENSITY POLYETHYLENE
INV.	INVERT
L	LENGTH OF CURVE
N/F	NOW OR FORMERLY
PSNH	PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE
R	RADIUS
RCRD	ROCKINGHAM COUNTY REGISTRY OF DEEDS
RCP	REINFORCED CONCRETE PIPE
S.F.	SQUARE FEET
TP	TEST PIT
---	PROPERTY LINE
---	GUARDRAIL
---	EDGE OF WOODS
---	OVERHEAD UTILITIES
---	EXISTING CONTOUR
---	EXISTING DRAIN
□	CATCH BASIN
○	UTILITY POLE
○	DRAIN MANHOLE
△	CENTRAL ANGLE
△	SIGN POLE
○	ASSESSORS MAP & PARCEL NUMBER
▨	RIPRAP
▨	GRAVEL
▨	PAVEMENT

NOTES:

1. THE PARCEL IS LOCATED IN THE MUNICIPAL DISTRICT.
2. THE PARCEL IS SHOWN ON THE CITY OF PORTSMOUTH ASSESSOR'S MAP 241 AS LOT 18.
3. THE PARCEL IS LOCATED IN FLOOD ZONE X AS SHOWN ON FLOOD INSURANCE RATE MAP, ROCKINGHAM COUNTY, NEW HAMPSHIRE, PANEL 270 OF 681, MAP NUMBER 3301500270E, EFFECTIVE DATE: MAY 17, 2005.
4. OWNER OF RECORD:
CITY OF PORTSMOUTH
C/O WATER DEPARTMENT
DEPARTMENT OF PUBLIC WORKS
PO BOX 628
PORTSMOUTH, NH 03802
5. ZONING REQUIREMENTS:
LOTS AND BUILDINGS IN THE MUNICIPAL DISTRICT ARE EXEMPT FROM ALL DIMENSIONAL AND INTENSITY REGULATIONS. SEE SECTION 10.560 OF THE CITY OF PORTSMOUTH ZONING ORDINANCE.
6. VERTICAL DATUM IS THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAV88), CONTOUR INTERVAL IS 1'.
7. HORIZONTAL DATUM IS NORTH AMERICAN DATUM OF 1983 (NAD83).
8. THE UNDERGROUND SYSTEM SHOWN HEREON WAS NOT FIELD LOCATED. LOCATION TAKEN FROM "GRADING PLAN ROUTE 33 RECREATION AREA" BY UNDERWOOD ENGINEERS, DATED 12/17/2013. THIS LOCATION SHOWN HEREON IS APPROXIMATE ONLY.
9. EXISTING CONDITIONS SURVEY PERFORMED BY _____ DATED _____

PLAN REFERENCES:

1. "LOT LINE ADJUSTMENT ISLING STREET & GREENLAND ROAD, PORTSMOUTH, NEW HAMPSHIRE FOR CITY OF PORTSMOUTH" BY JAMES VERRA AND ASSOCIATES, INC. DATED 1-30-2002. PLAN NOT RECORDED.
2. "RIGHT OF WAY EASEMENT PLAN FOR THE CITY OF PORTSMOUTH, GREENLAND ROAD/MIDDLE ROAD, PORTSMOUTH, NEW HAMPSHIRE" PREPARED BY VANASSE HANGEN BRUSTLIN, INC., DATED SEPTEMBER 28, 2007, REVISED APRIL 28, 2008. RCRD PLAN #D-35481.
3. "AS BUILT PLAN OF A PORTION OF NH ROUTE 33, PORTSMOUTH, NEW HAMPSHIRE" BY AMBIT ENGINEERING, INC. DATED AUGUST 2010, REVISED 9/21/10. PLAN NOT RECORDED.
4. "EXISTING FEATURES PLAN TAX MAP 241 LOT 18 PROPERTY OF CITY OF PORTSMOUTH 305 GREENLAND ROAD PORTSMOUTH, NEW HAMPSHIRE COUNTY OF ROCKINGHAM" BY MSC CIVIL ENGINEERS & LAND SURVEYORS, DATED NOVEMBER 2, 2012 WITH REVISION 1 DATED 11/05/2012. PLAN IS NOT RECORDED.



Project:
CITY OF PORTSMOUTH, NH

RTS 33. RECREATIONAL FIELD
305 GREENLAND RD.
PORTSMOUTH, NH. 03801

Weston & Sampson

427 Main Street,
Suite 400, Worcester, MA 01608
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Revisions:

No.	Date	Description

Seal:

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Scale: AS SHOWN
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Drawn By: EJA, MRJ
Reviewed By: DMM
Approved By: MSM
W&S Project No: 2160648
W&S File No:

Drawing Title:
EXISTING CONDITIONS PLAN

Sheet Number:
L1.00

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Consultants:

Revisions:

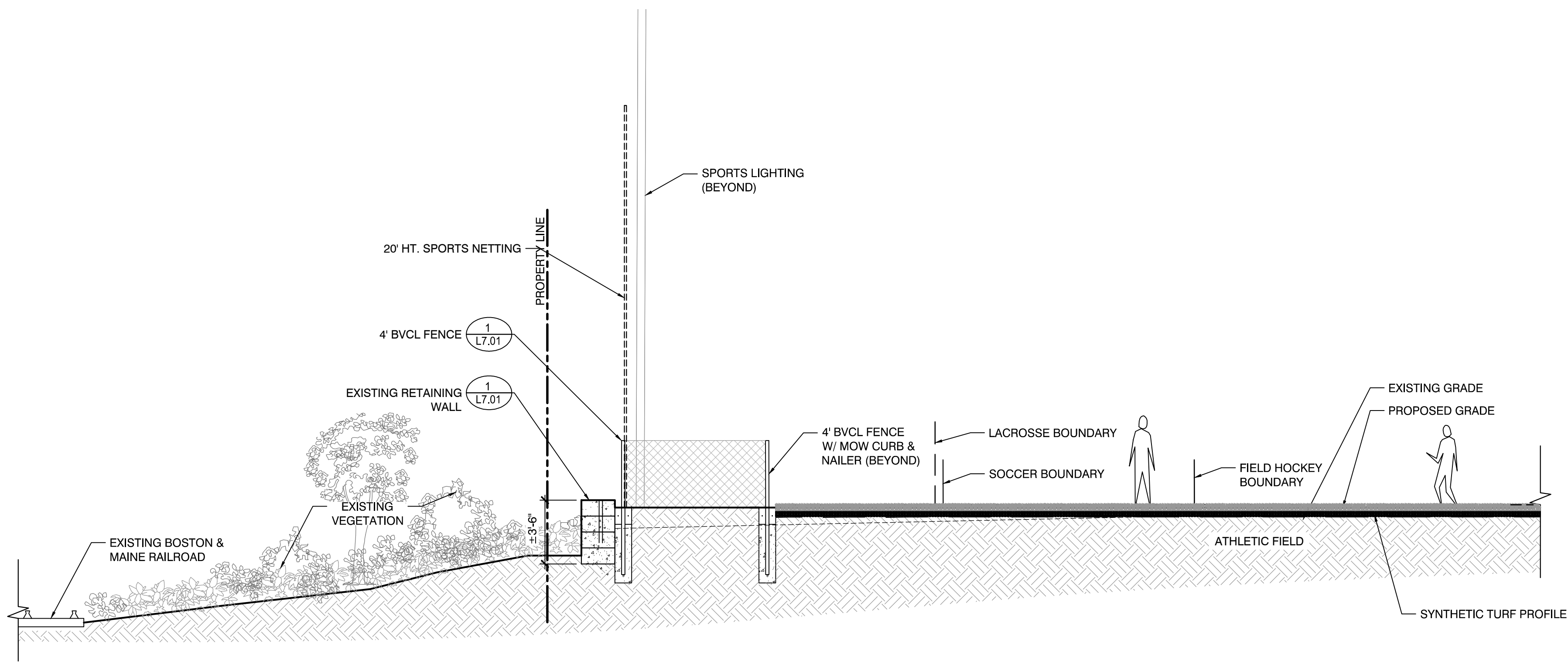
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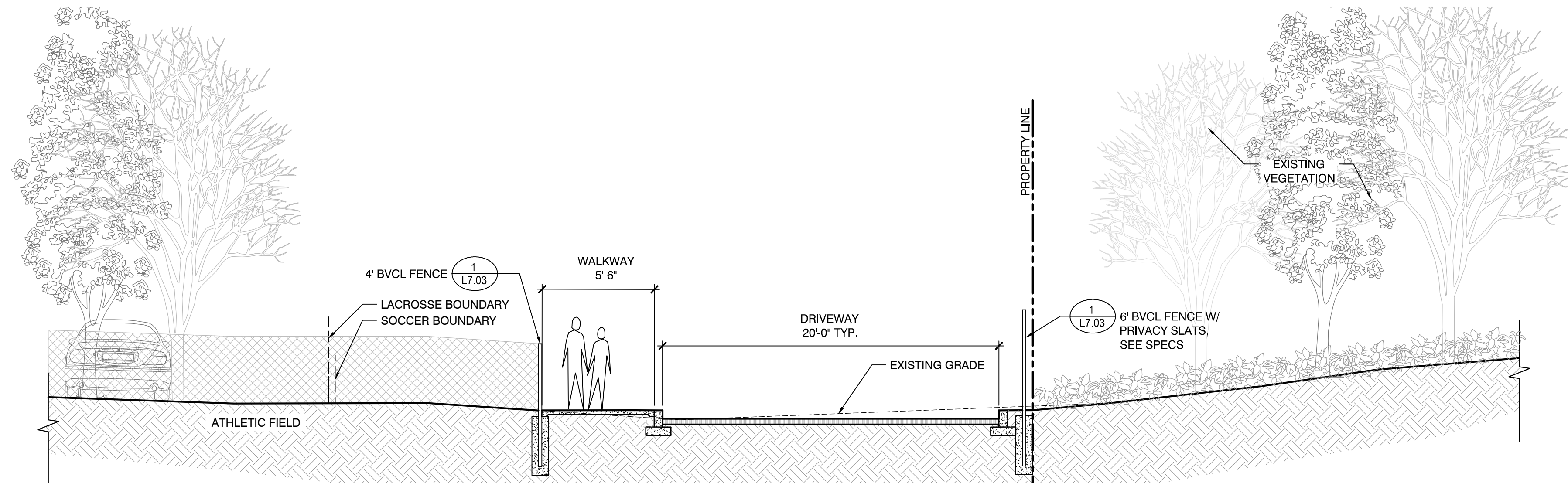
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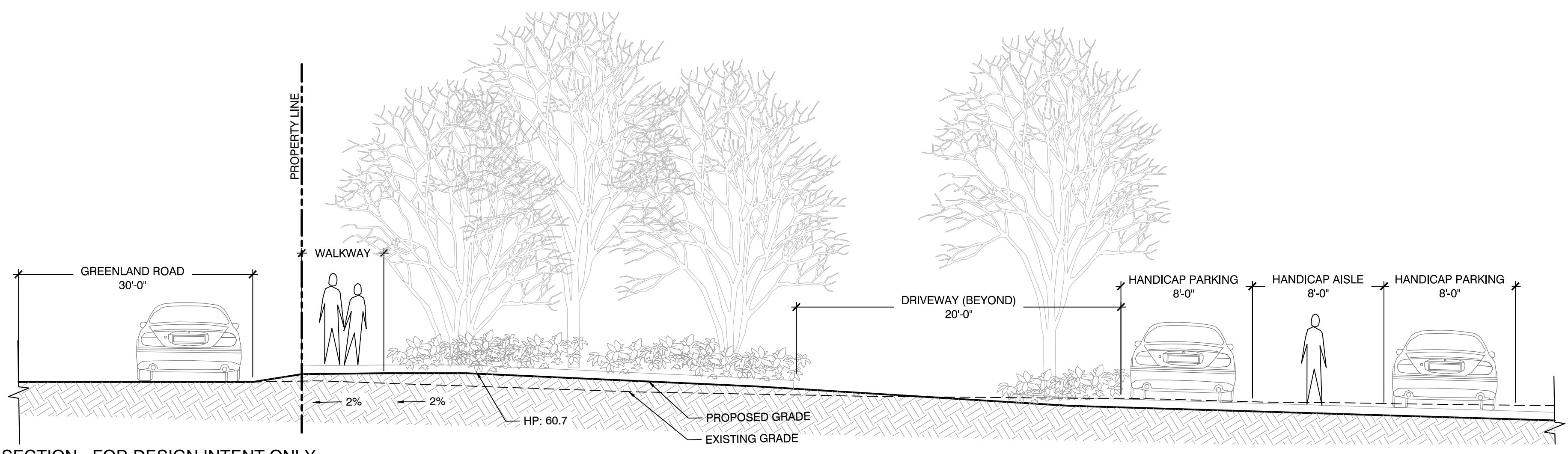
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SECTIONS
 Sheet Number:
L3.02



1 SECTION - FOR DESIGN INTENT ONLY
 SCALE: NTS



2 SECTION - FOR DESIGN INTENT ONLY
 SCALE: NTS



3 SECTION - FOR DESIGN INTENT ONLY
 SCALE: NTS

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Revisions:

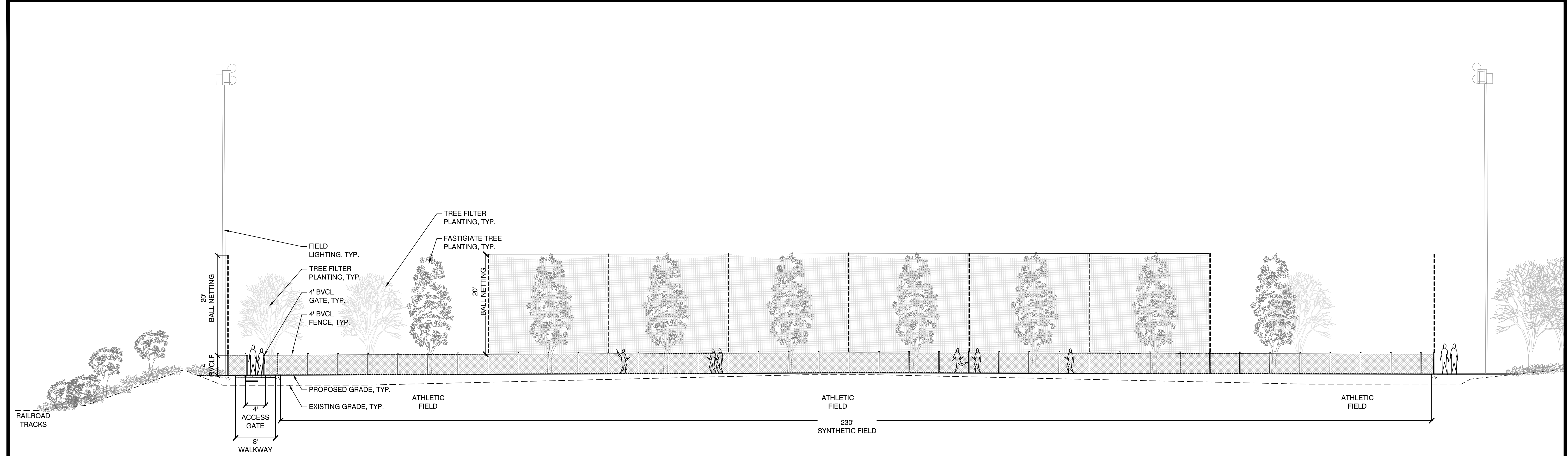
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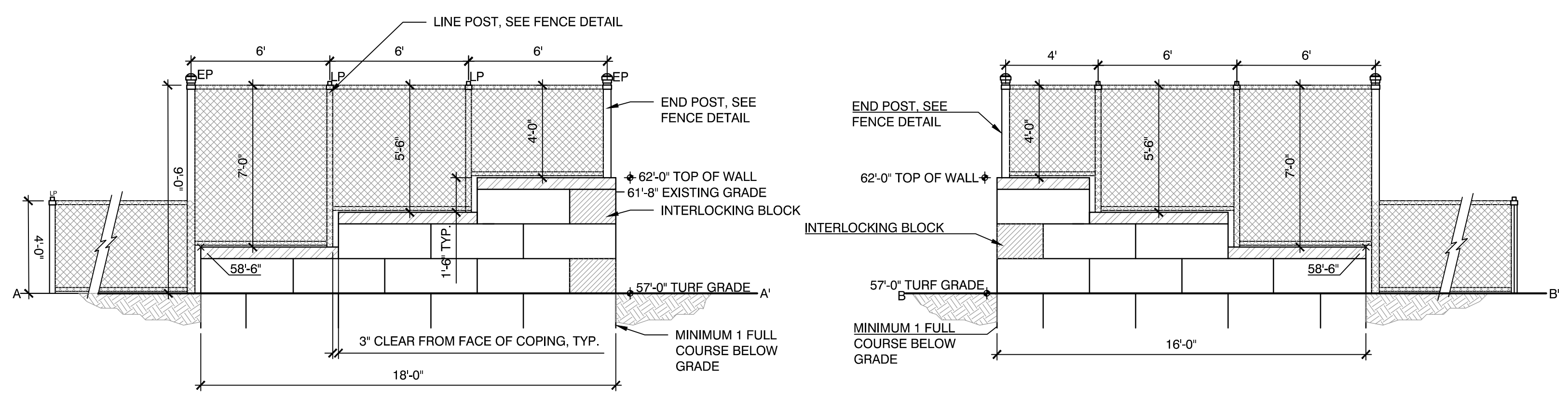
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 Drawn By: EJA, MRJ
 Reviewed By: DMM
 Approved By: MSM
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 W&S File No:

Drawing Title:
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 Sheet Number:
L3.03



1 SECTION - FOR DESIGN INTENT ONLY
 SCALE: NTS



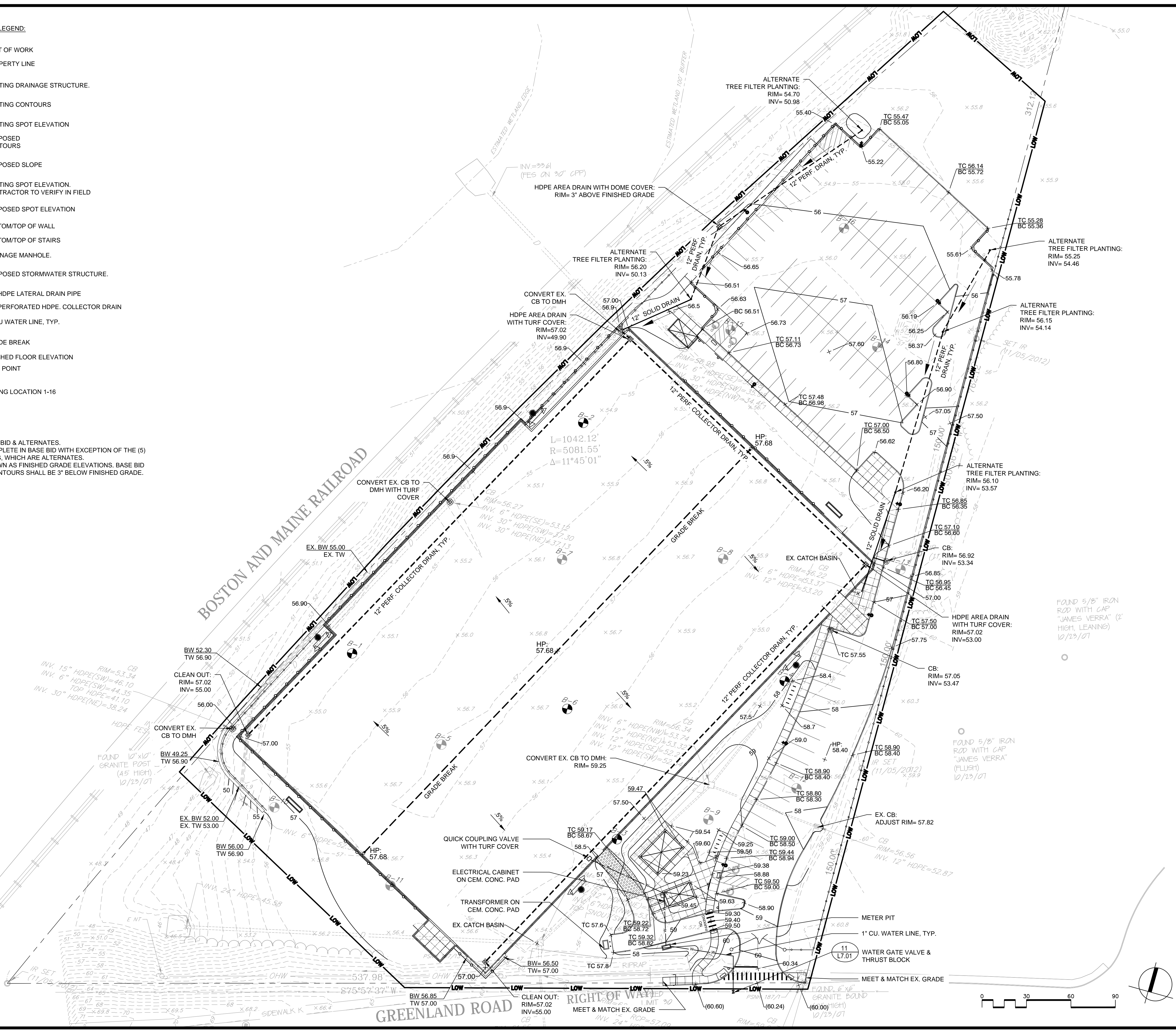
2 ELEVATION - FOR DESIGN INTENT ONLY
 SCALE: NTS

3 ELEVATION - FOR DESIGN INTENT ONLY
 SCALE: NTS

GRADING, DRAINAGE & UTILITIES LEGEND:

- LOW — LIMIT OF WORK
- - - - - PROPERTY LINE
- ⊙ EXISTING DRAINAGE STRUCTURE.
- 12 EXISTING CONTOURS
- 95.10 EXISTING SPOT ELEVATION
- 14 PROPOSED CONTOURS
- 1.5% PROPOSED SLOPE
- (13.56) + EXISTING SPOT ELEVATION CONTRACTOR TO VERIFY IN FIELD
- 13.56 + PROPOSED SPOT ELEVATION
- BW/TW BOTTOM/TOP OF WALL
- BS/TS BOTTOM/TOP OF STAIRS
- ⊙ DRAINAGE MANHOLE.
- ⊕ PROPOSED STORMWATER STRUCTURE.
- 12" LATERAL DRAIN 12" HDPE LATERAL DRAIN PIPE
- 12" COLLECTOR DRAIN 12" PERFORATED HDPE COLLECTOR DRAIN
- 1" CU WATER LINE, TYP.
- GB GRADE BREAK
- FFE FINISHED FLOOR ELEVATION
- HP HIGH POINT
- B-X BORING LOCATION 1-16

- NOTES:
- REFER TO SPECIFICATIONS FOR BASE BID & ALTERNATES.
 - ALL DRAINAGE TO BE INSTALLED COMPLETE IN BASE BID WITH EXCEPTION OF THE (5) TREE FILTER PLANTING CONNECTIONS, WHICH ARE ALTERNATES.
 - ALL CONTOURS AND SPOTS ARE SHOWN AS FINISHED GRADE ELEVATIONS. BASE BID GRAVEL PARKING LOT SPOTS AND CONTOURS SHALL BE 3" BELOW FINISHED GRADE.



Consultants:

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Drawn By: EJA, MRJ

Reviewed By: DMM

Approved By: MSM

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W&S File No:

Drawing Title:
GRADING, DRAINAGE & UTILITIES PLAN

Sheet Number:
L5.00

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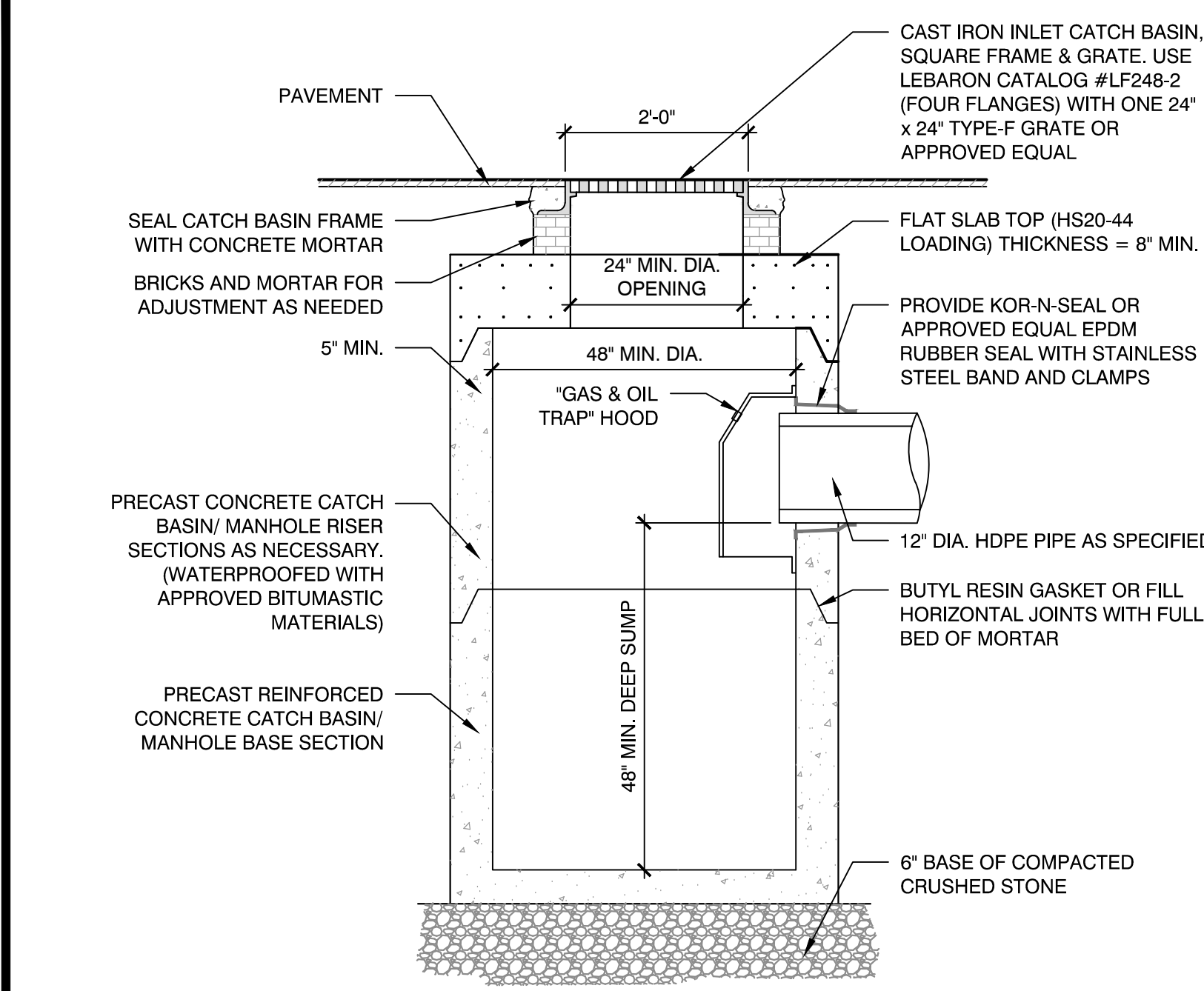
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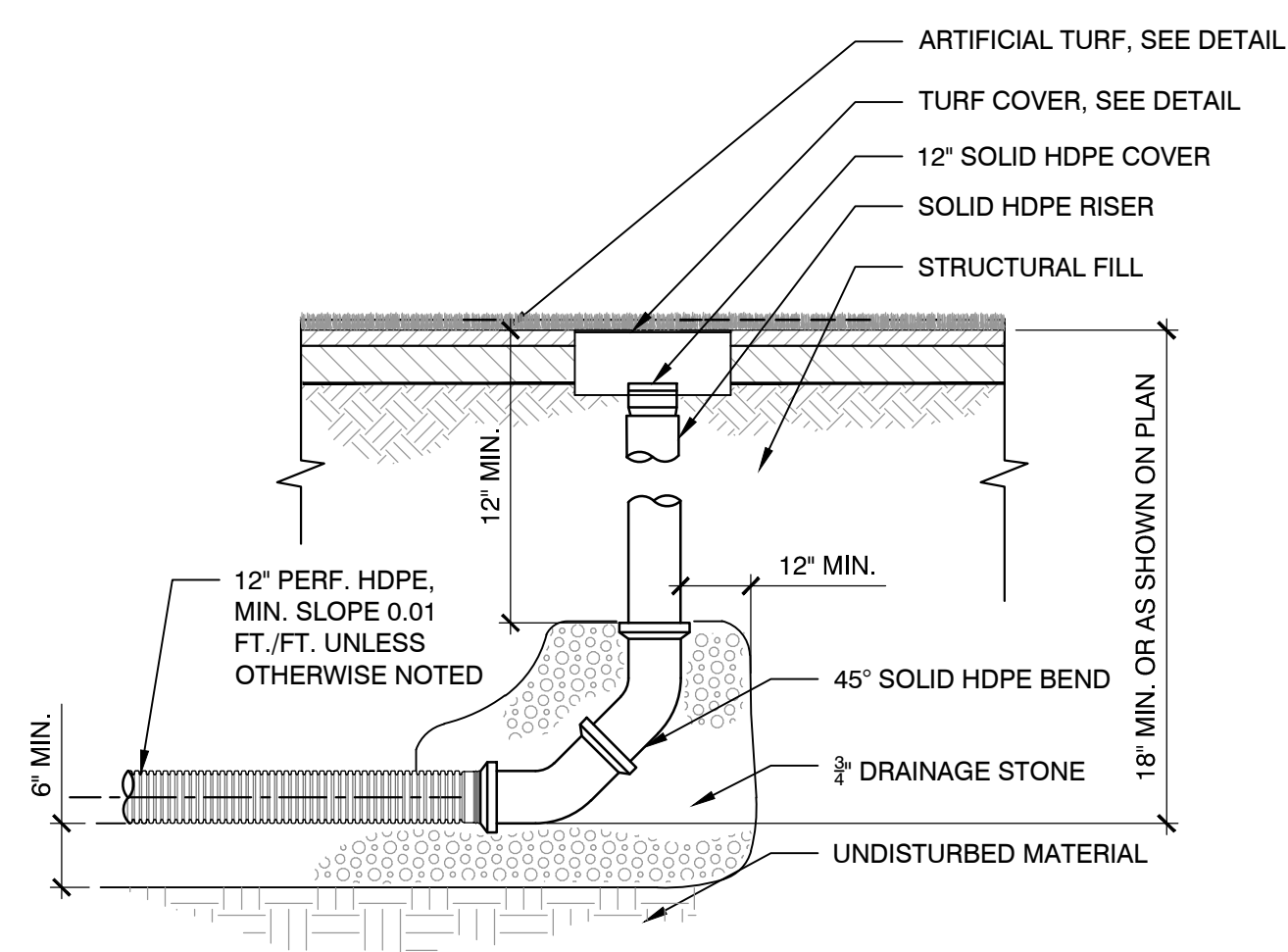
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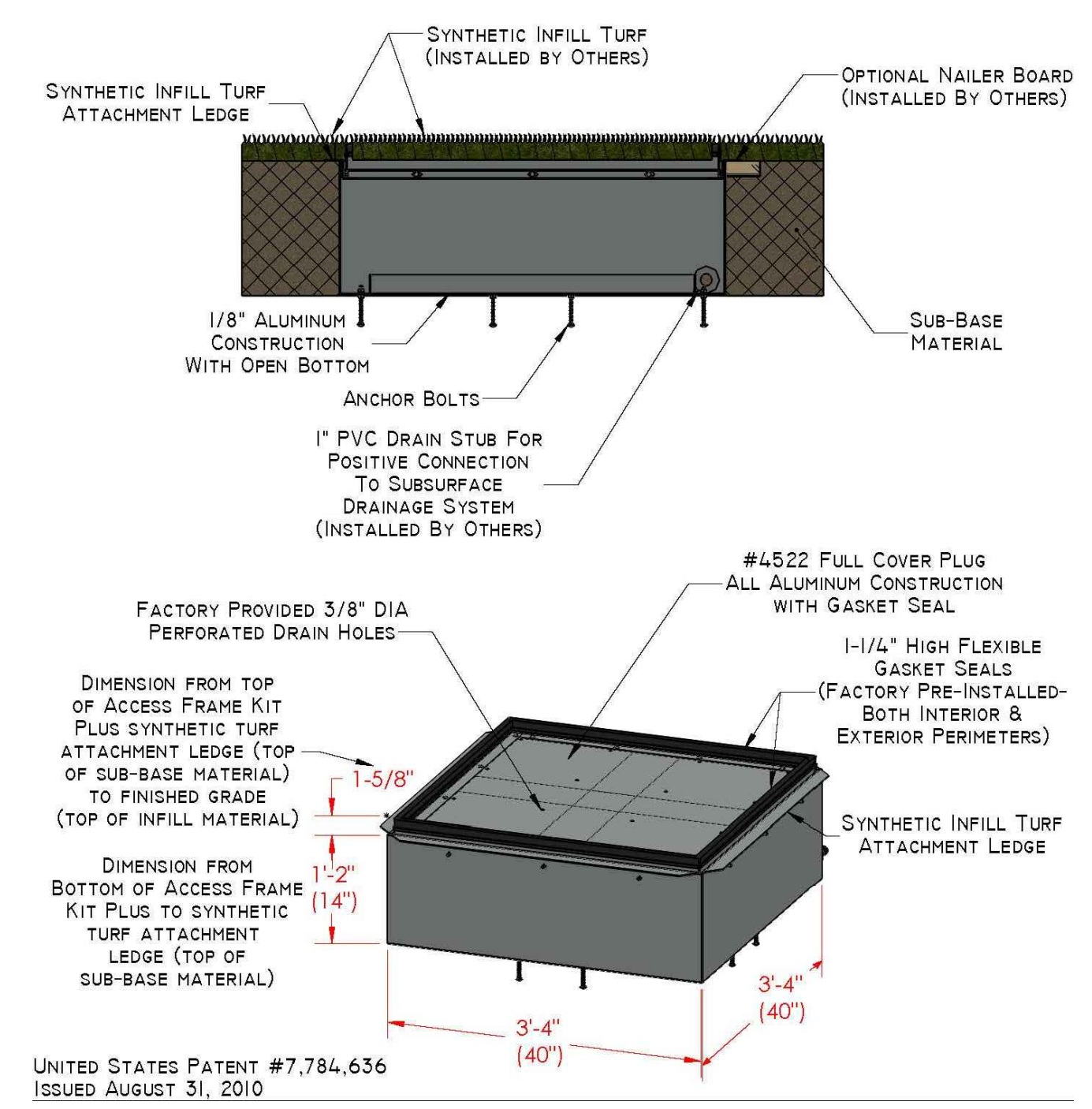
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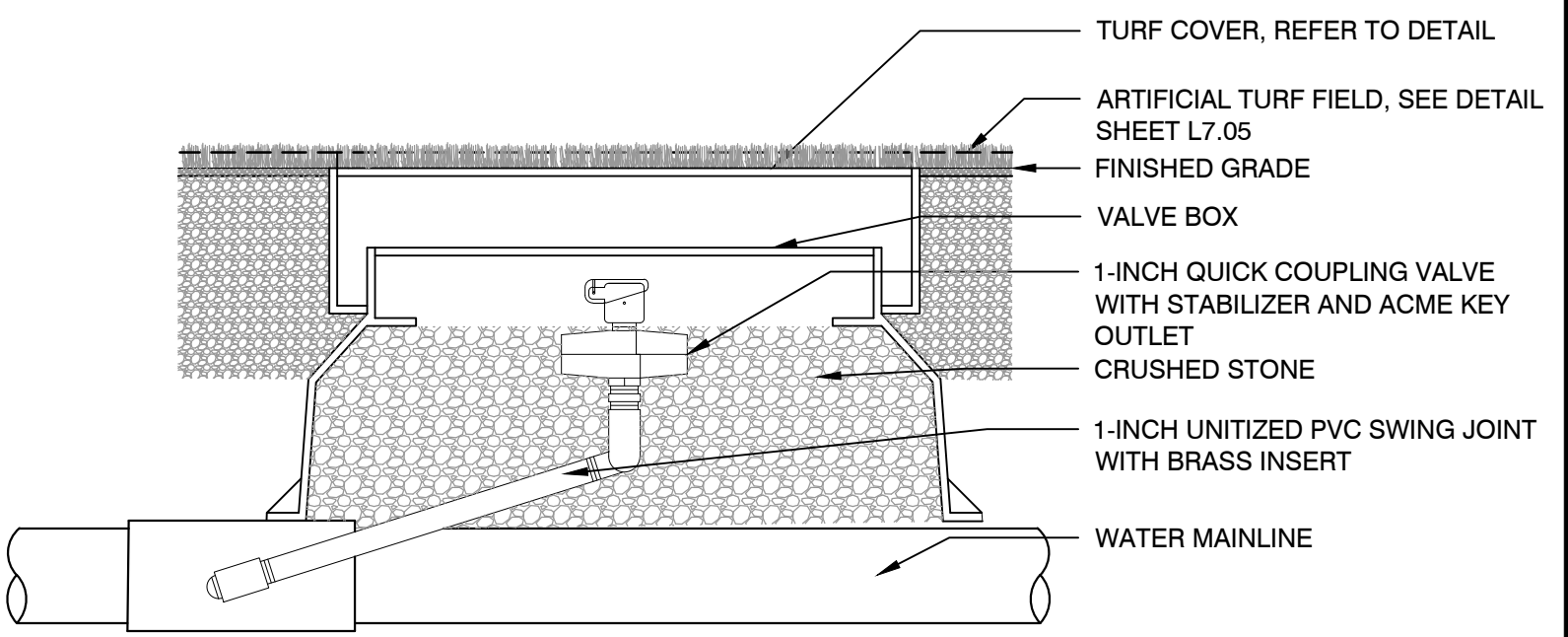
1 CATCHBASIN
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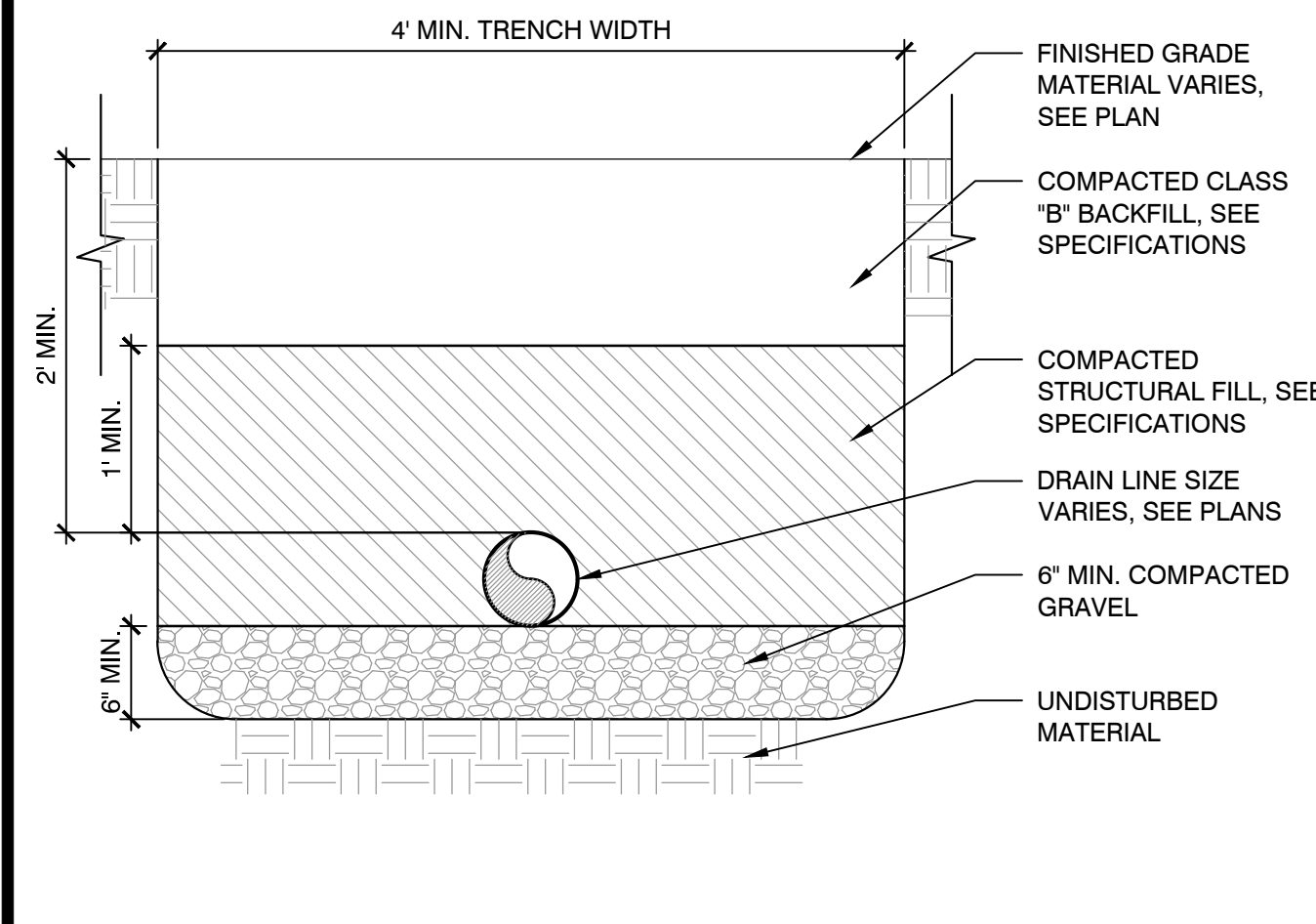
2 CLEAN OUT
 SCALE: NTS



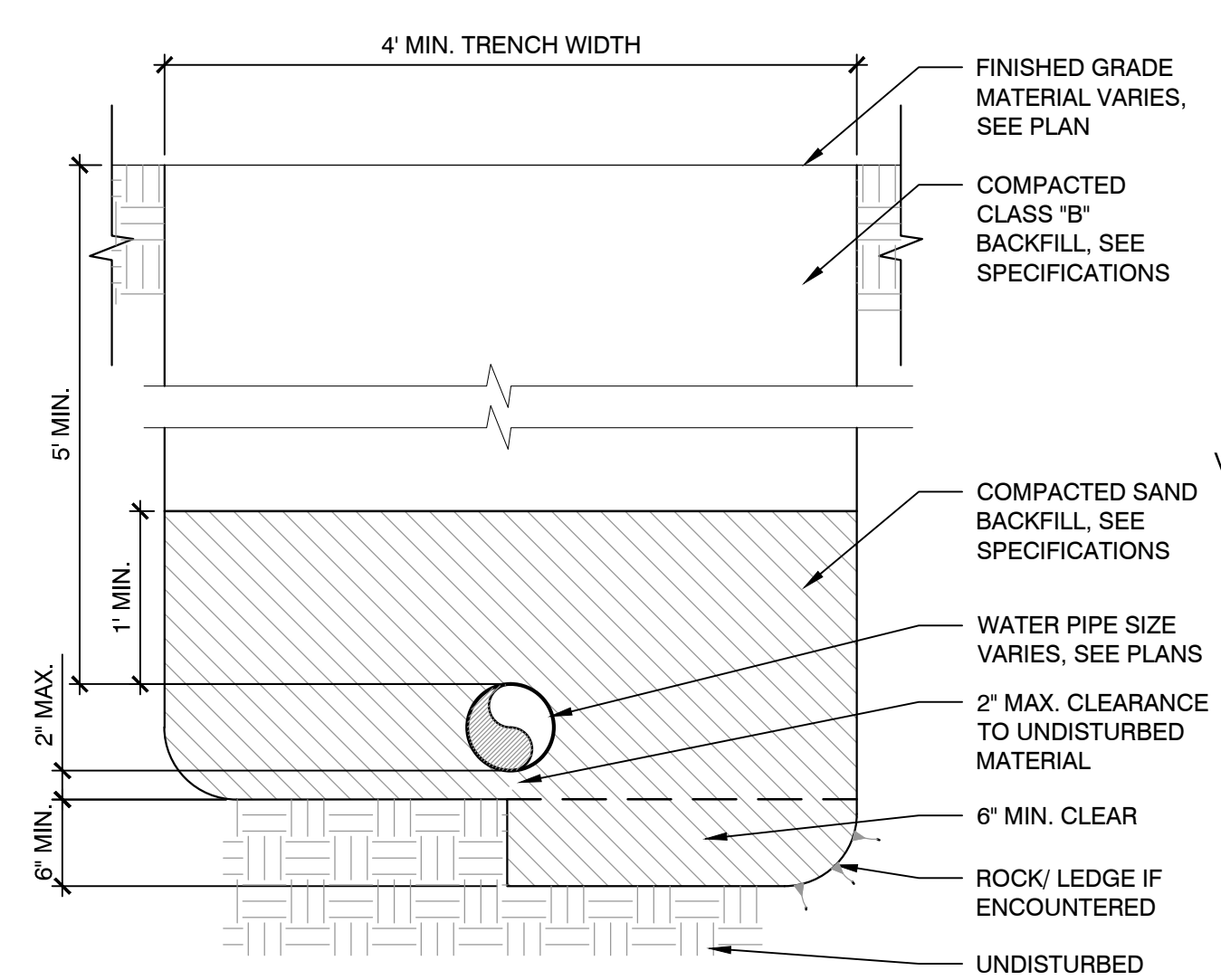
3 TURF COVER
 SCALE: NTS



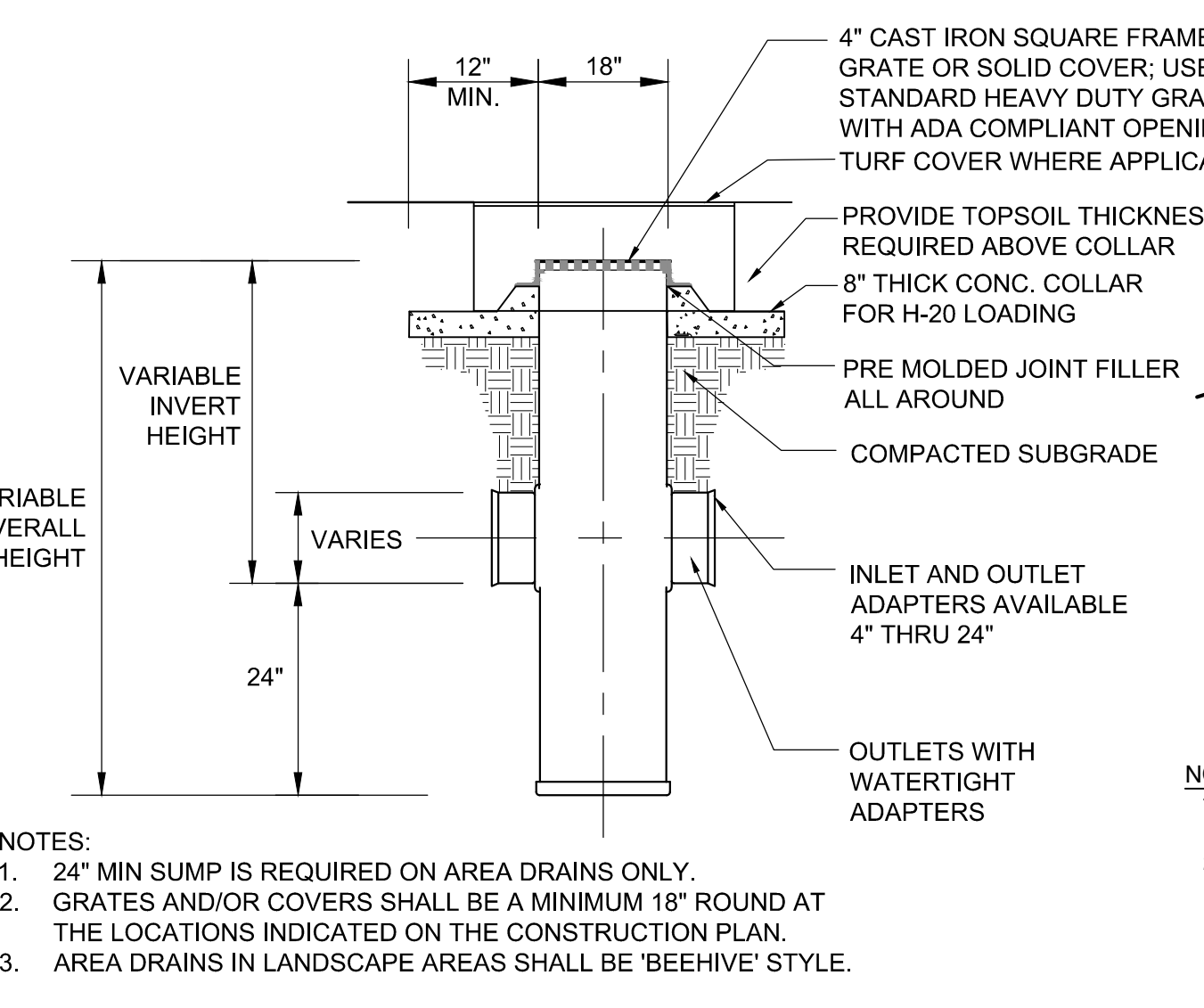
4 QUICK COUPLING VALVE
 SCALE: NTS



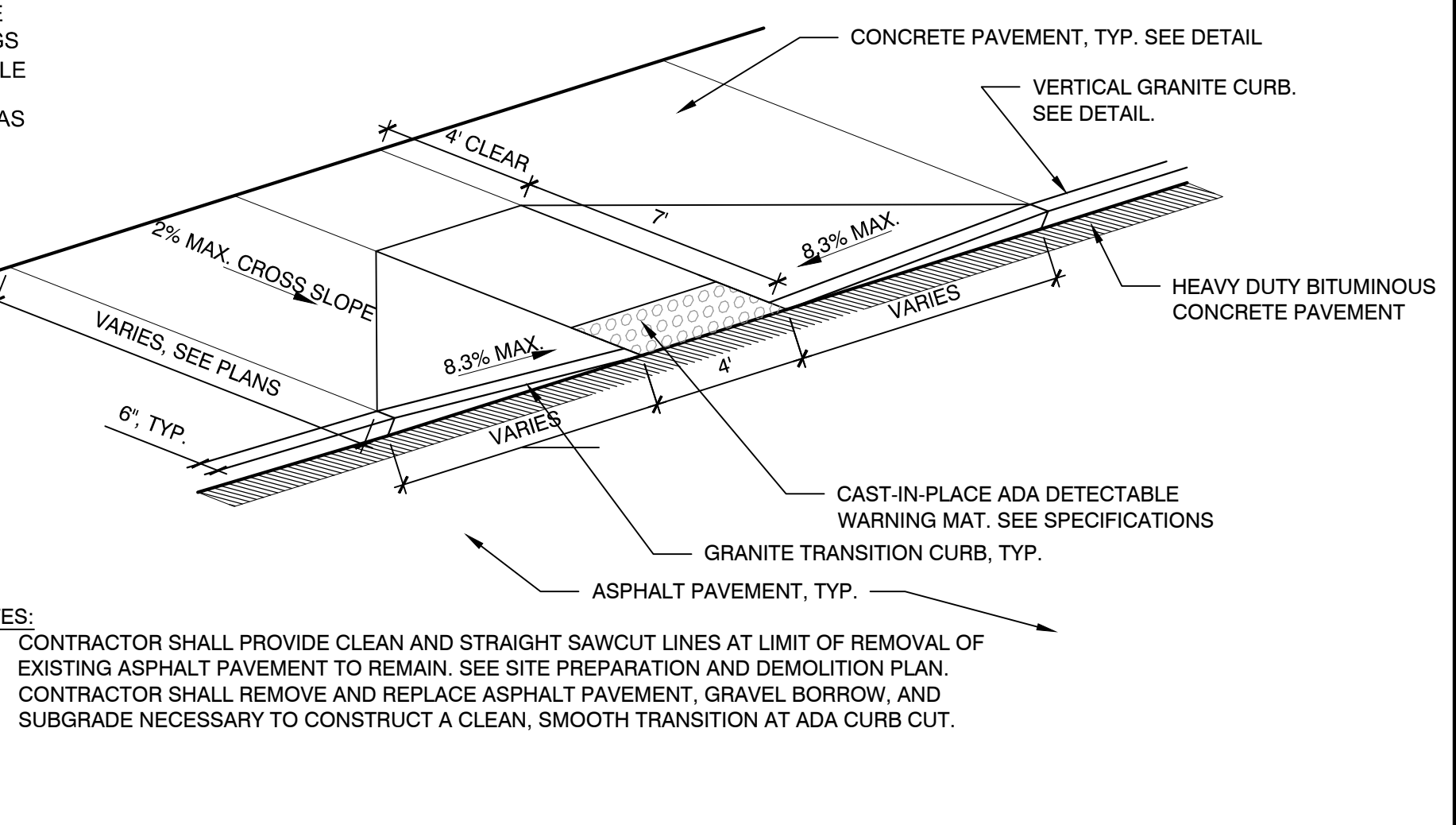
5 DRAIN LINE TRENCH
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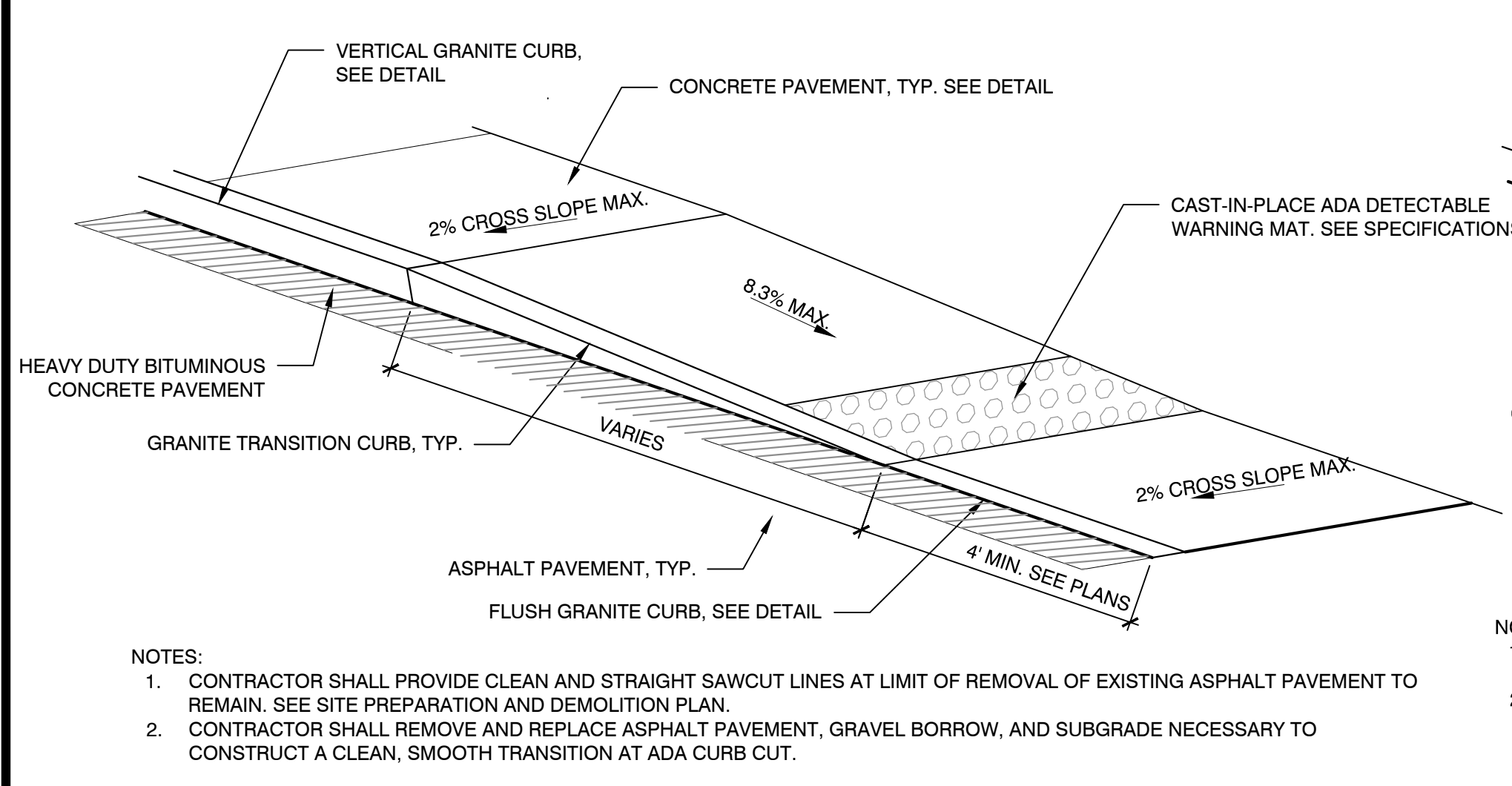
6 WATER PIPE TRENCH
 SCALE: NTS



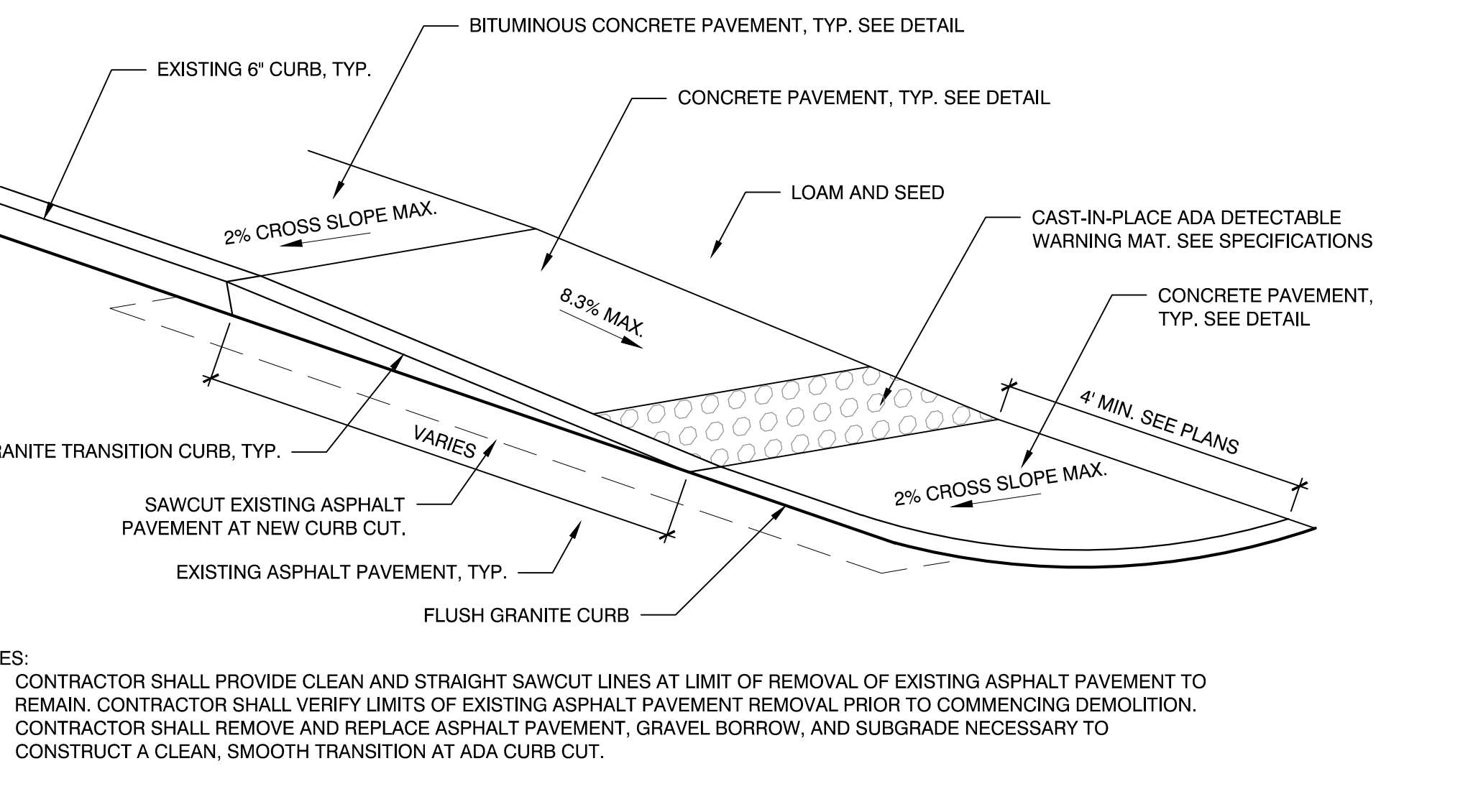
7 HDPE AREA DRAIN
 SCALE: NTS



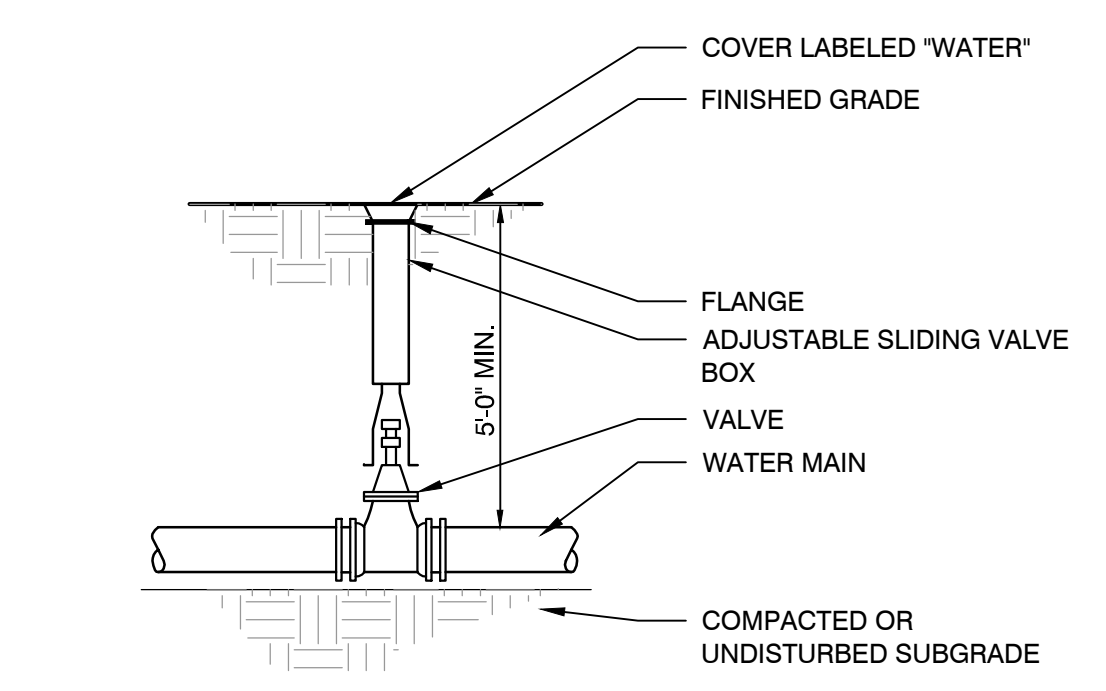
8 ADA CURB CUT- TYPE A
 SCALE: NTS



9 ADA CURB CUT- TYPE B
 SCALE: NTS



10 ADA CURB CUT- TYPE C
 SCALE: NTS



11 WATER GATE VALVE
 SCALE: NTS

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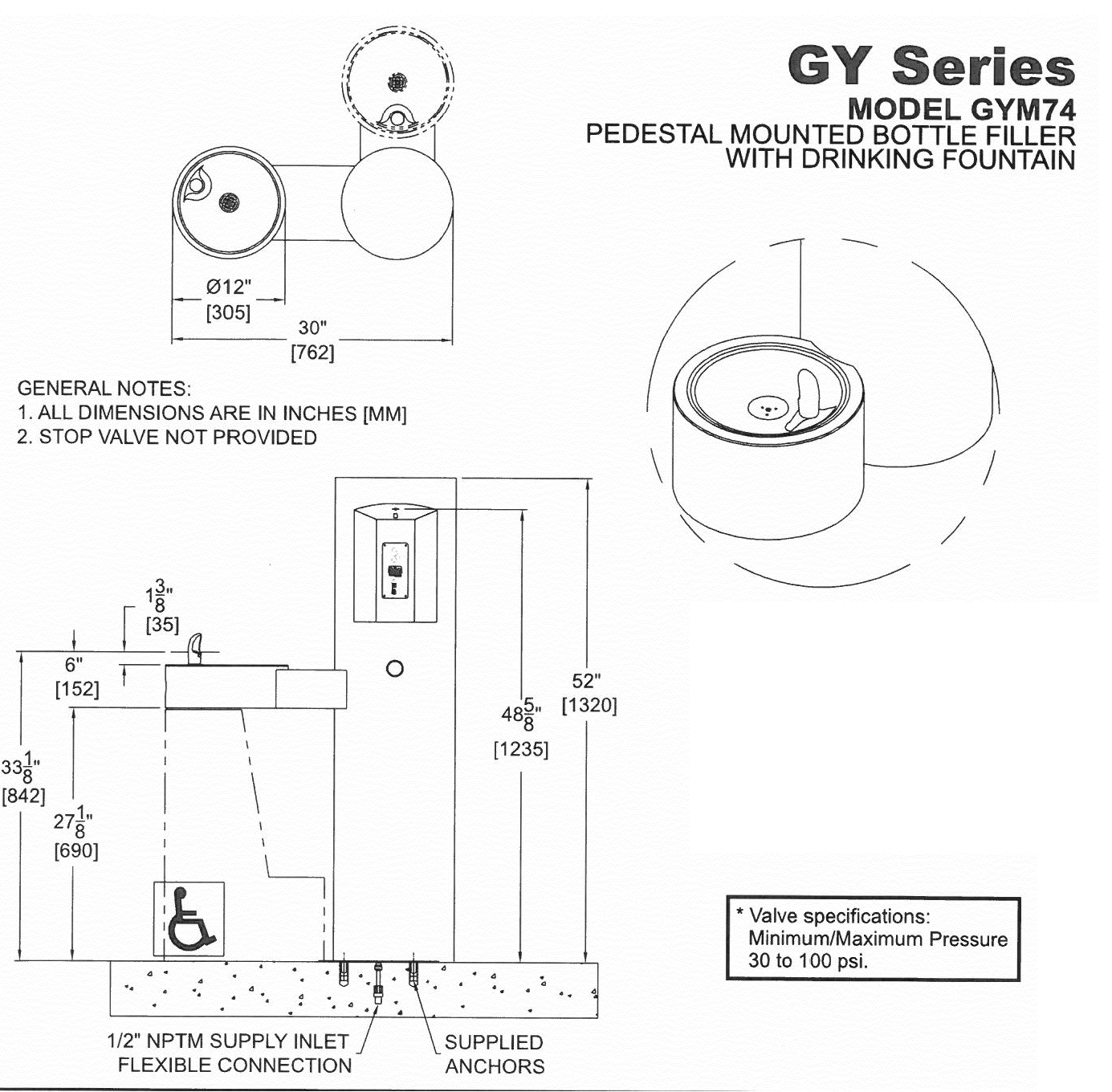
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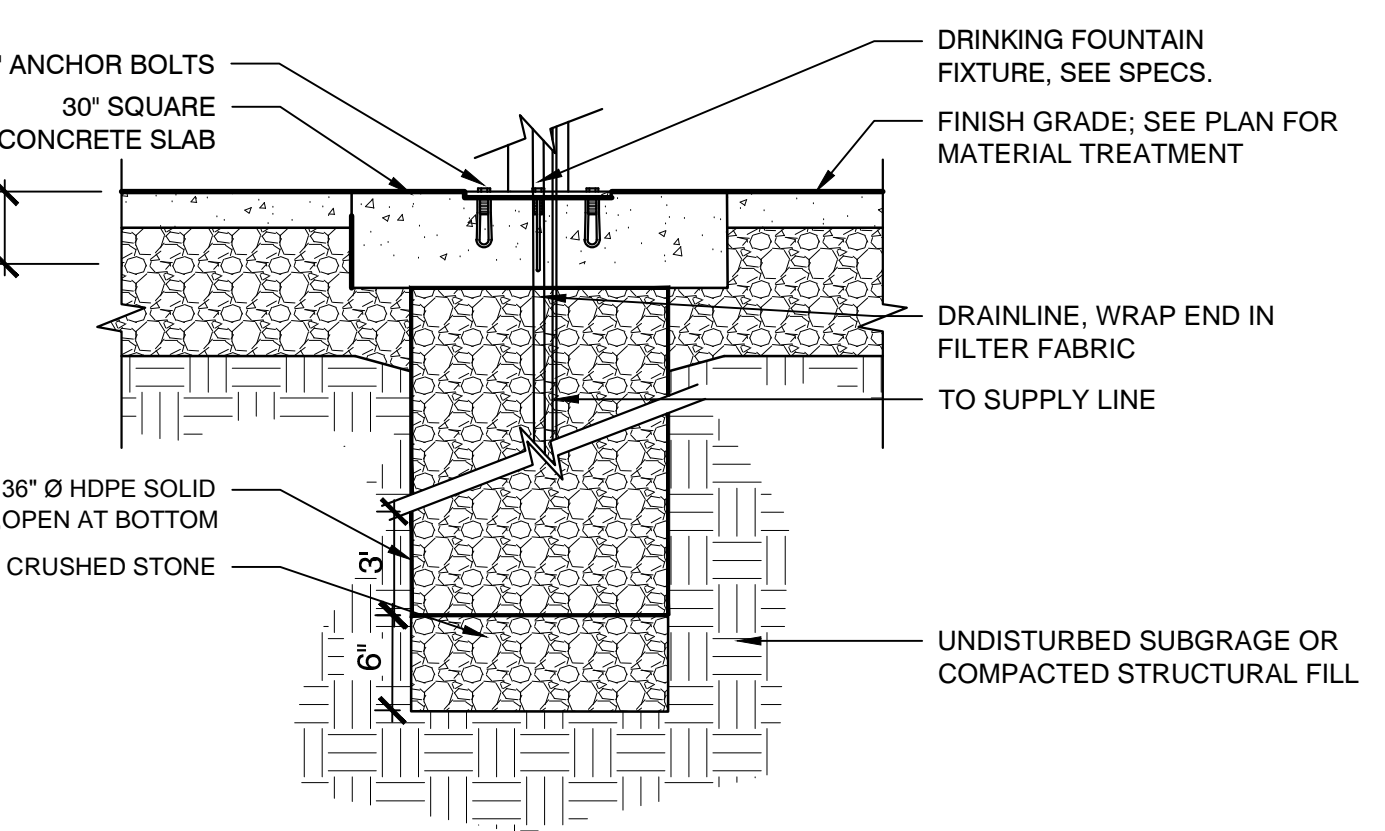
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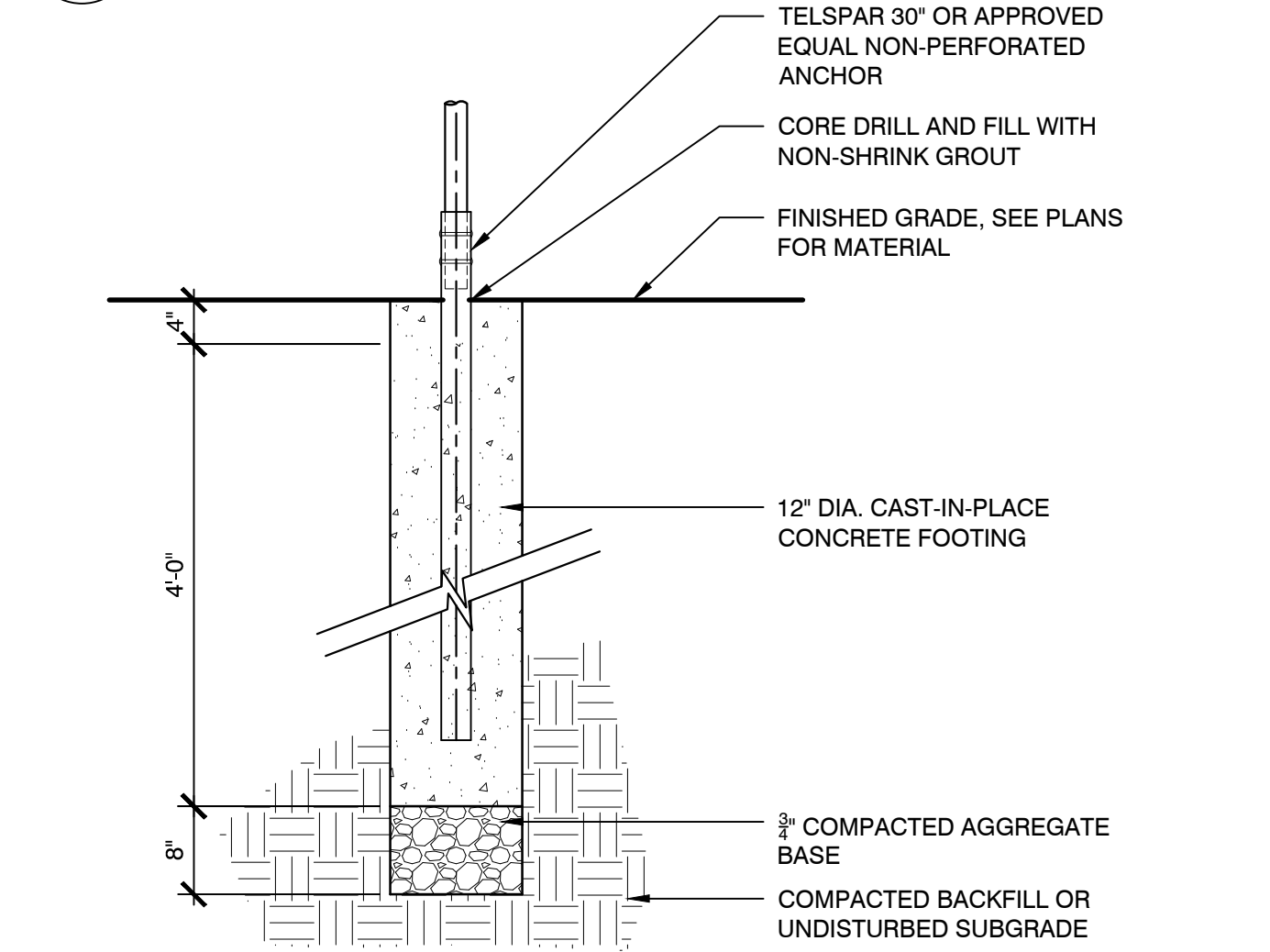
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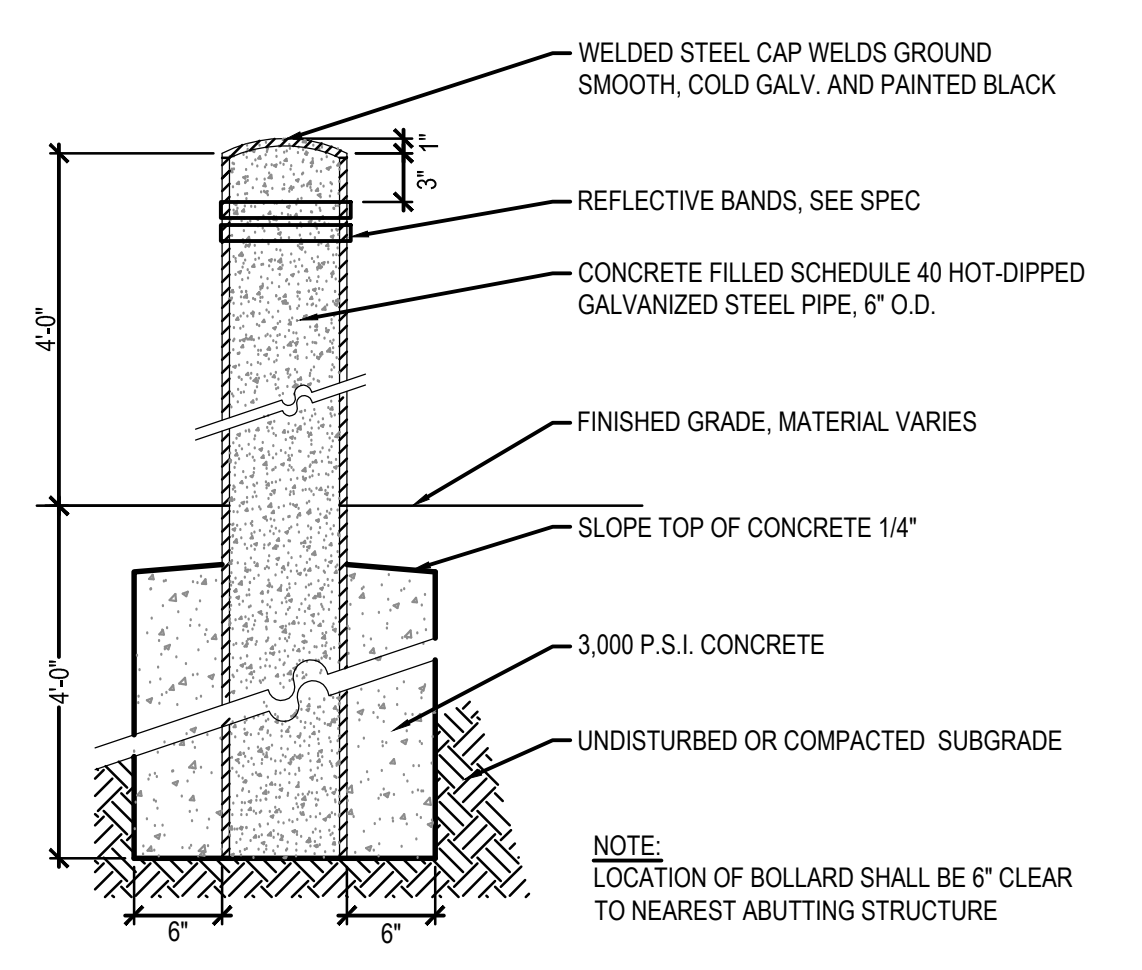
1 WATER FOUNTAIN
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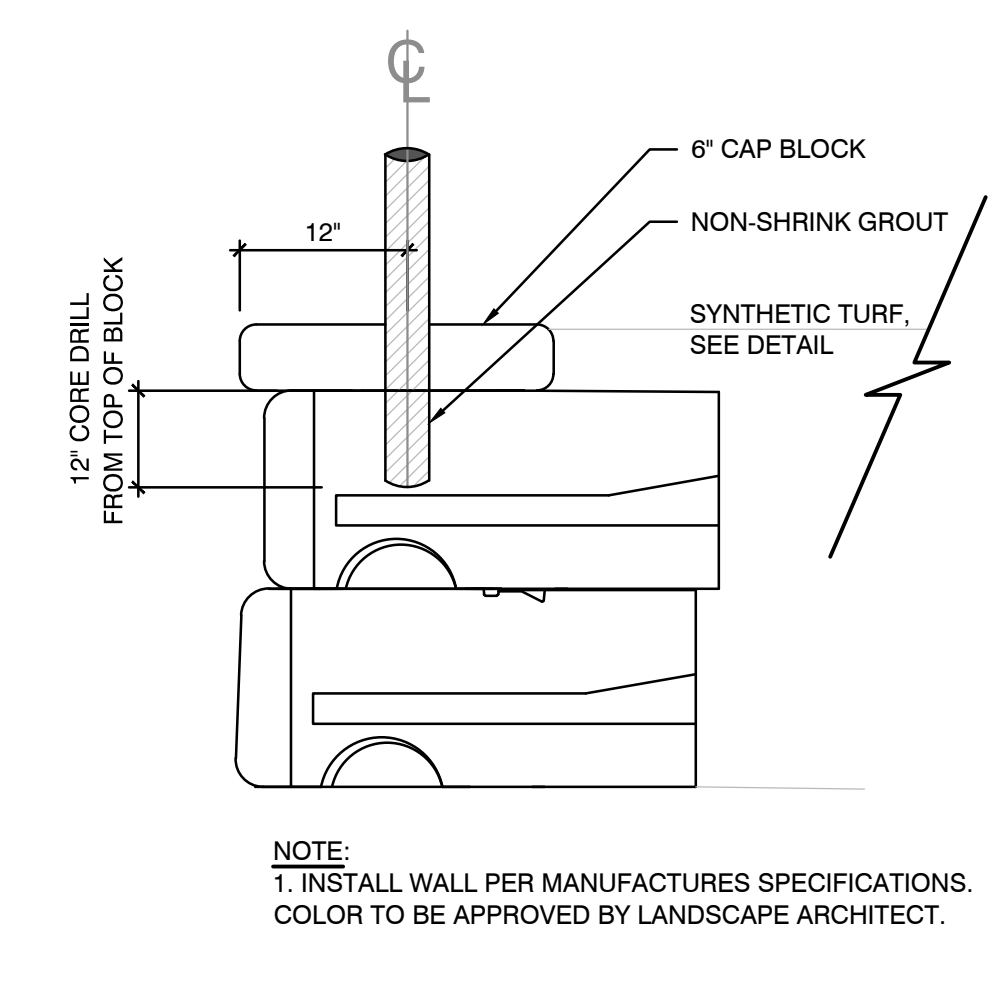
2 WATER FOUNTAIN FOOTING
SCALE: NTS



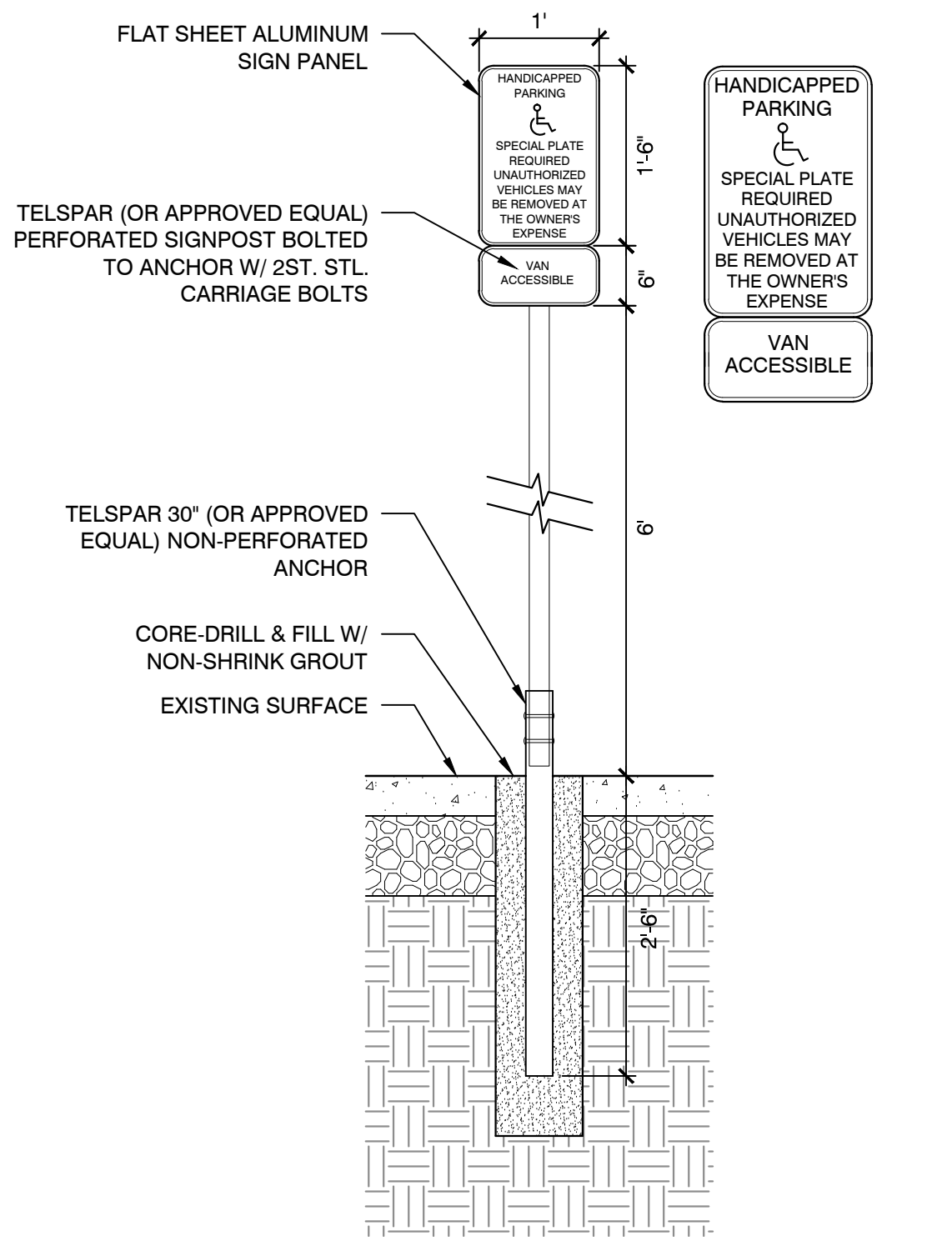
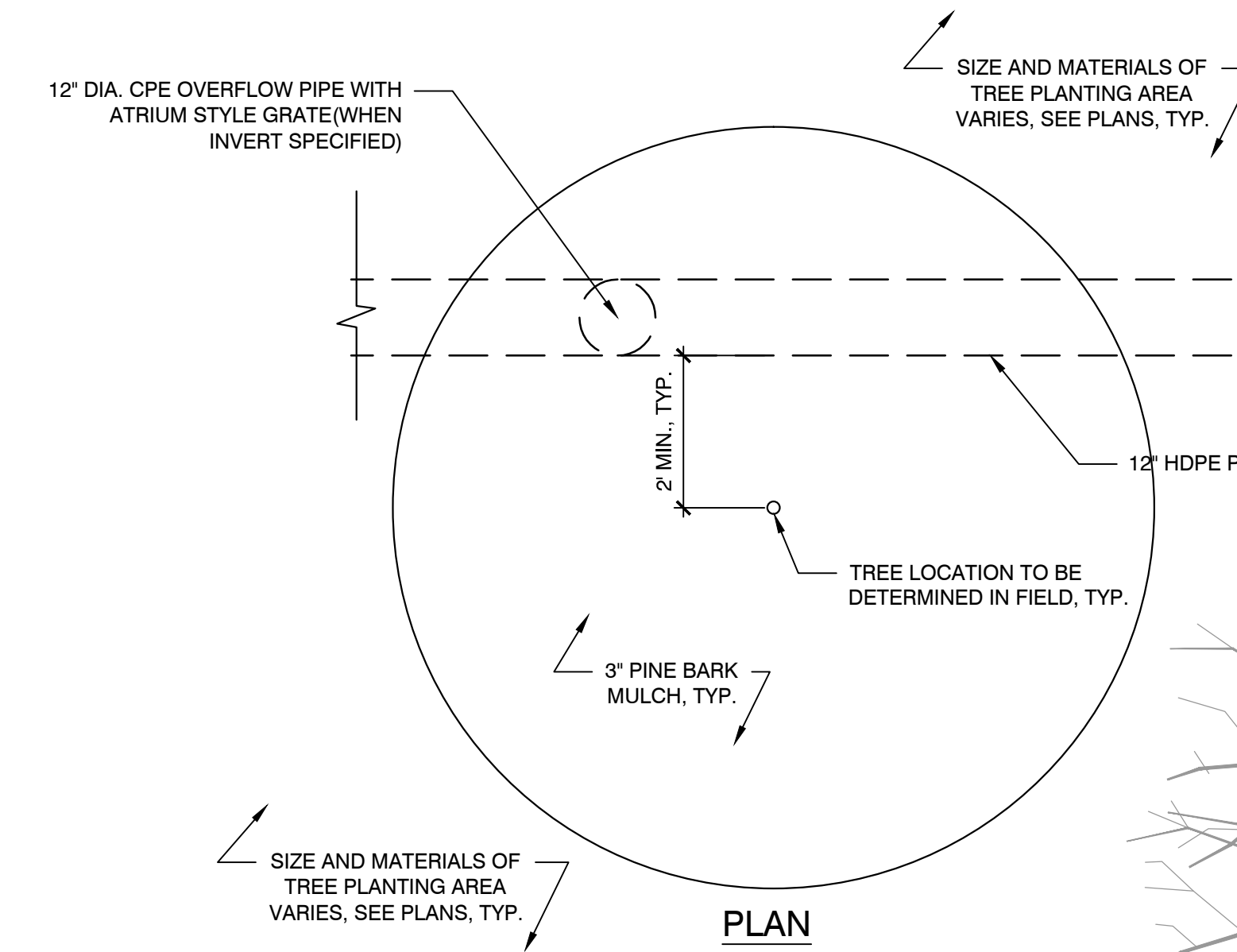
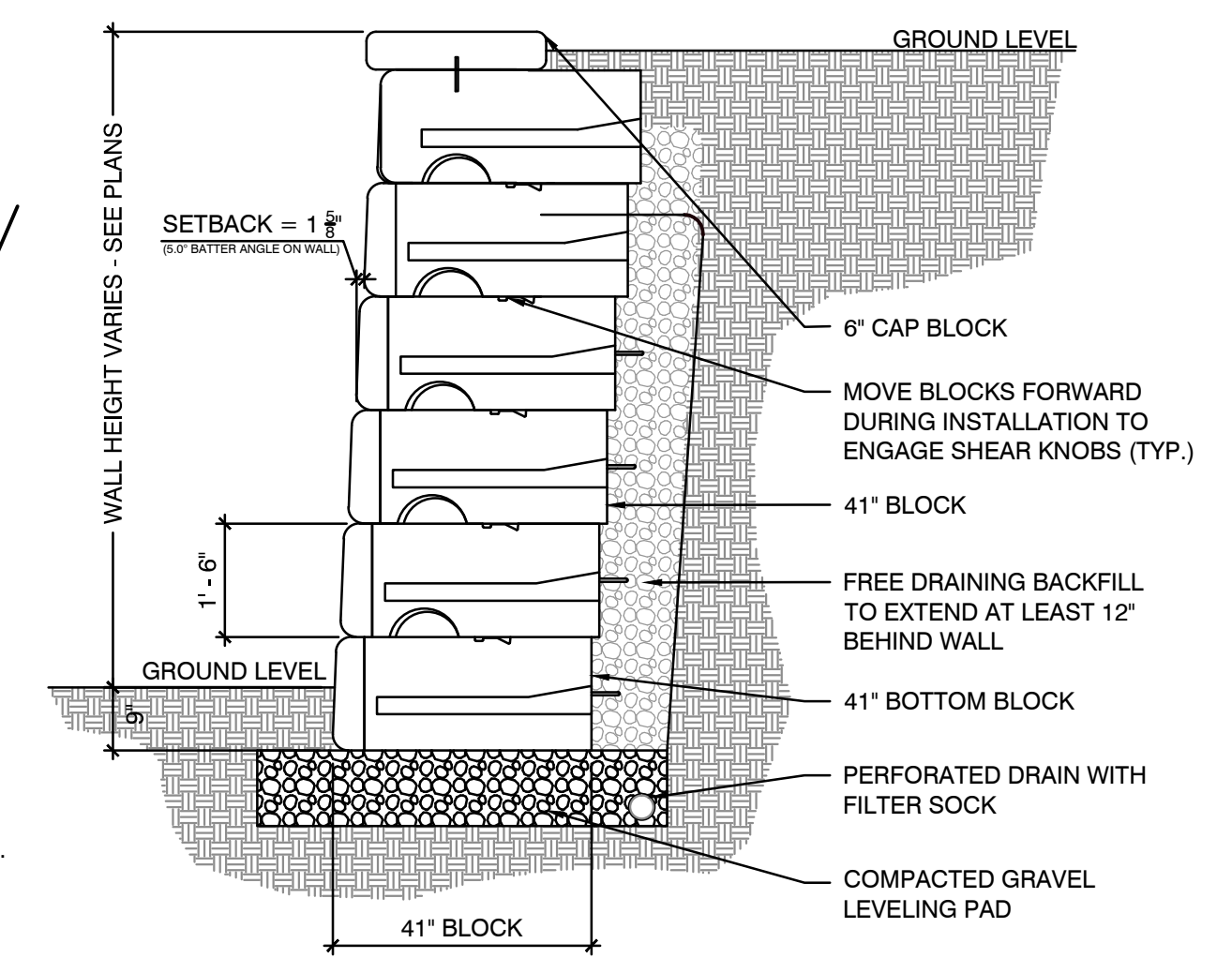
3 SIGN POST FOOTING
SCALE: NTS



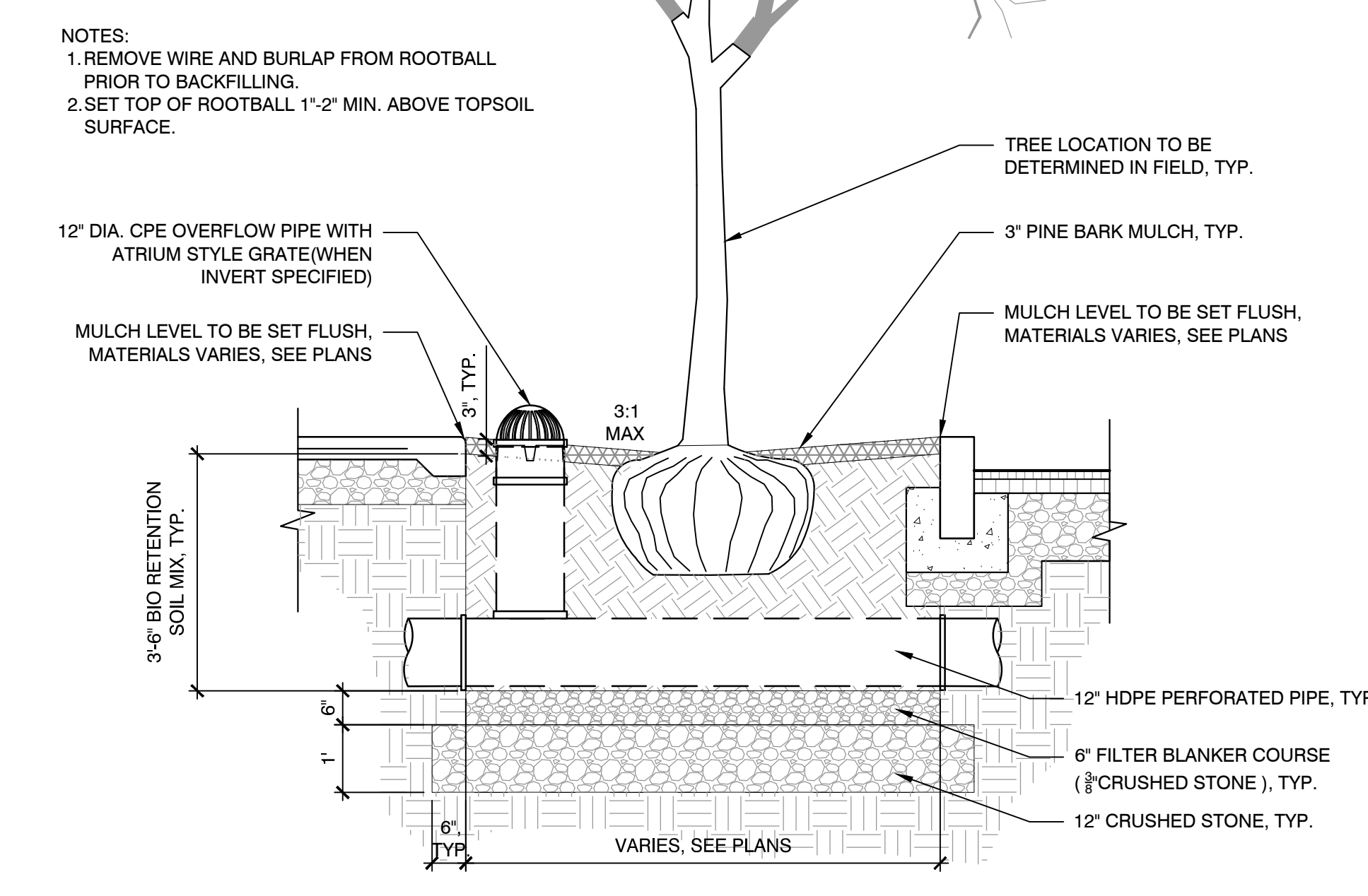
4 STEEL BOLLARD
SCALE: NTS



6 SEGMENTAL RETAINING WALL W/ FENCE POST FOOTING
SCALE: NTS



5 ACCESSIBLE PARKING SIGN
SCALE: NTS



7 TREE FILTER PLANTING
SCALE: NTS

Consultants:

Revisions:

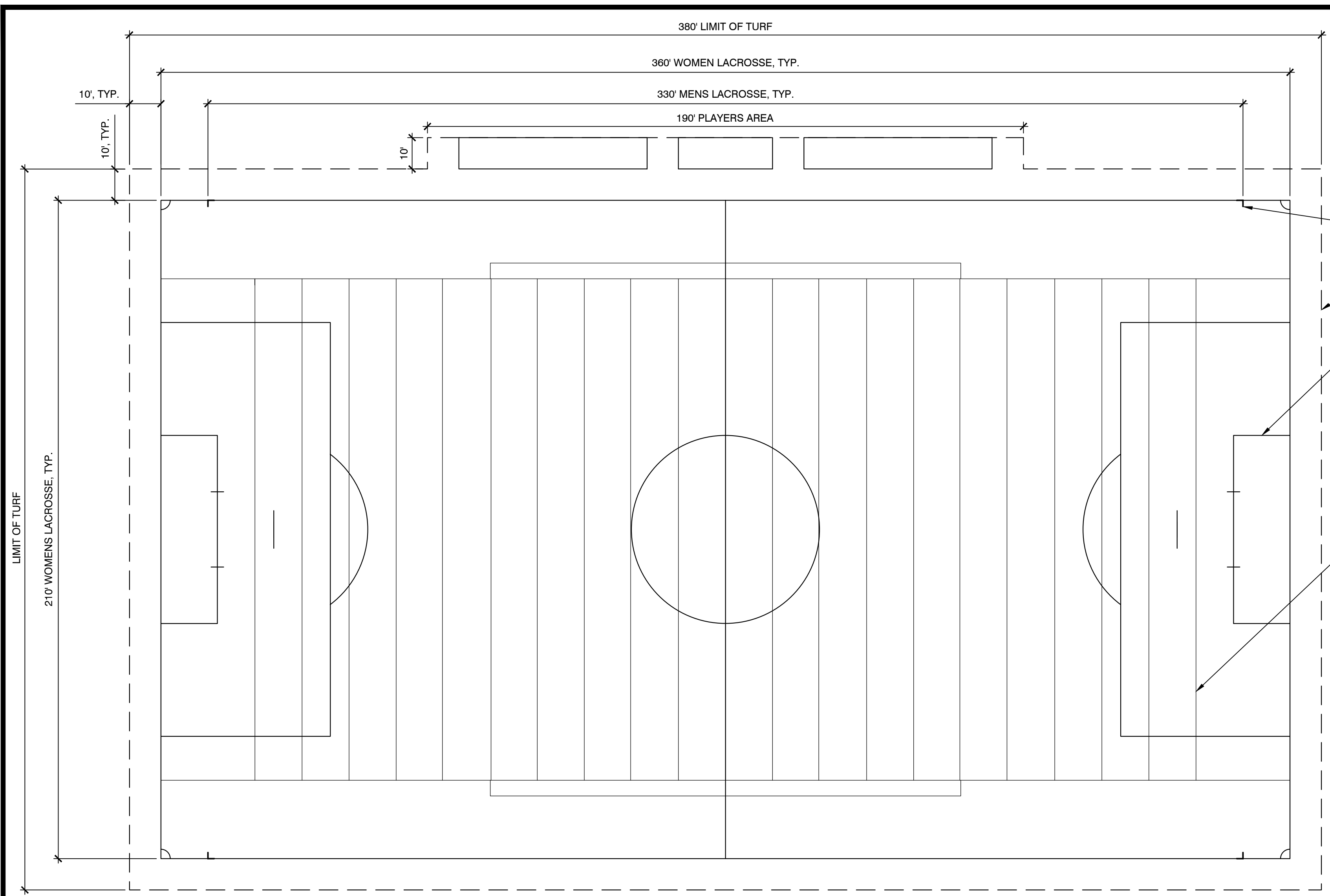
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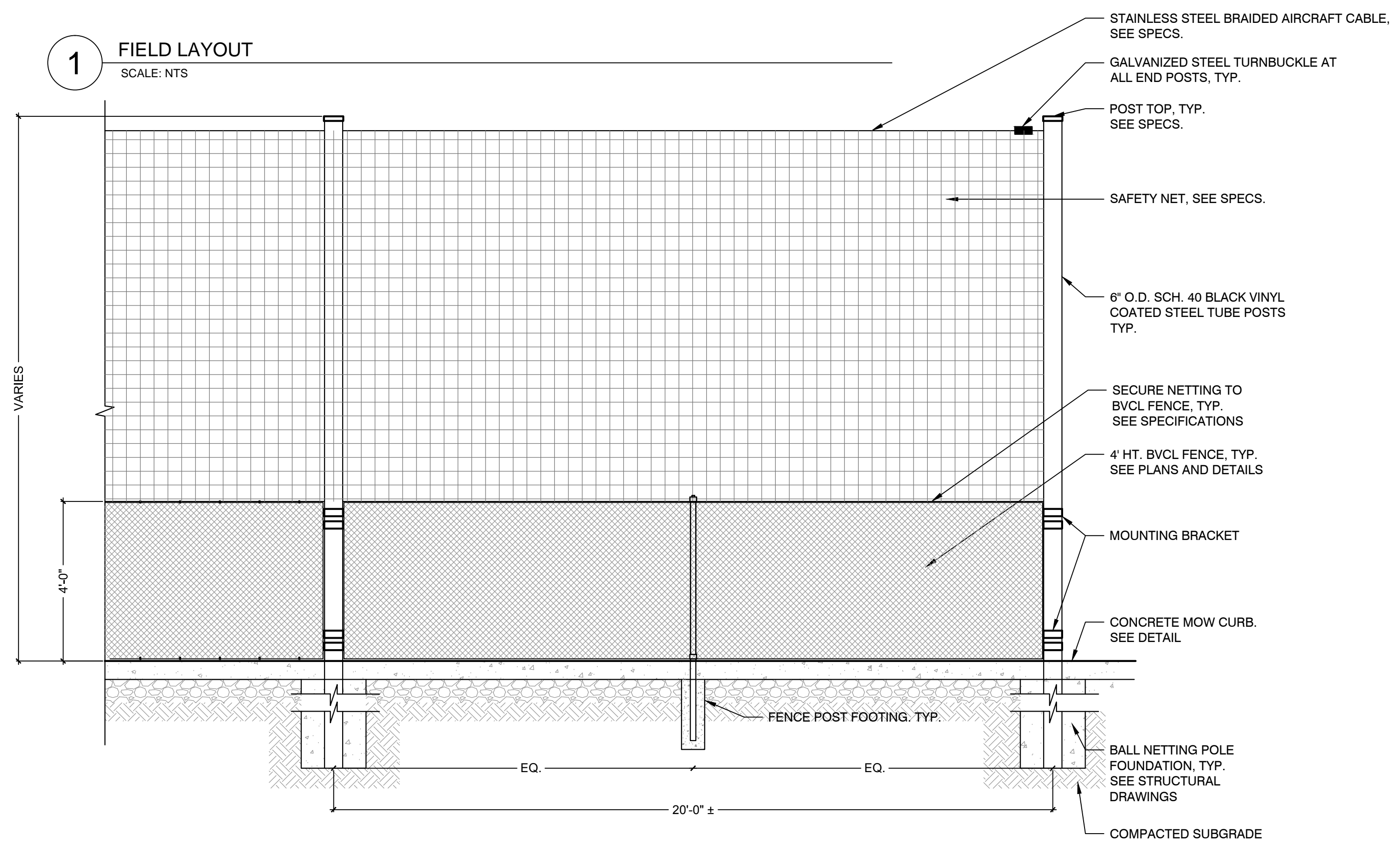
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SITE CONSTRUCTION DETAILS
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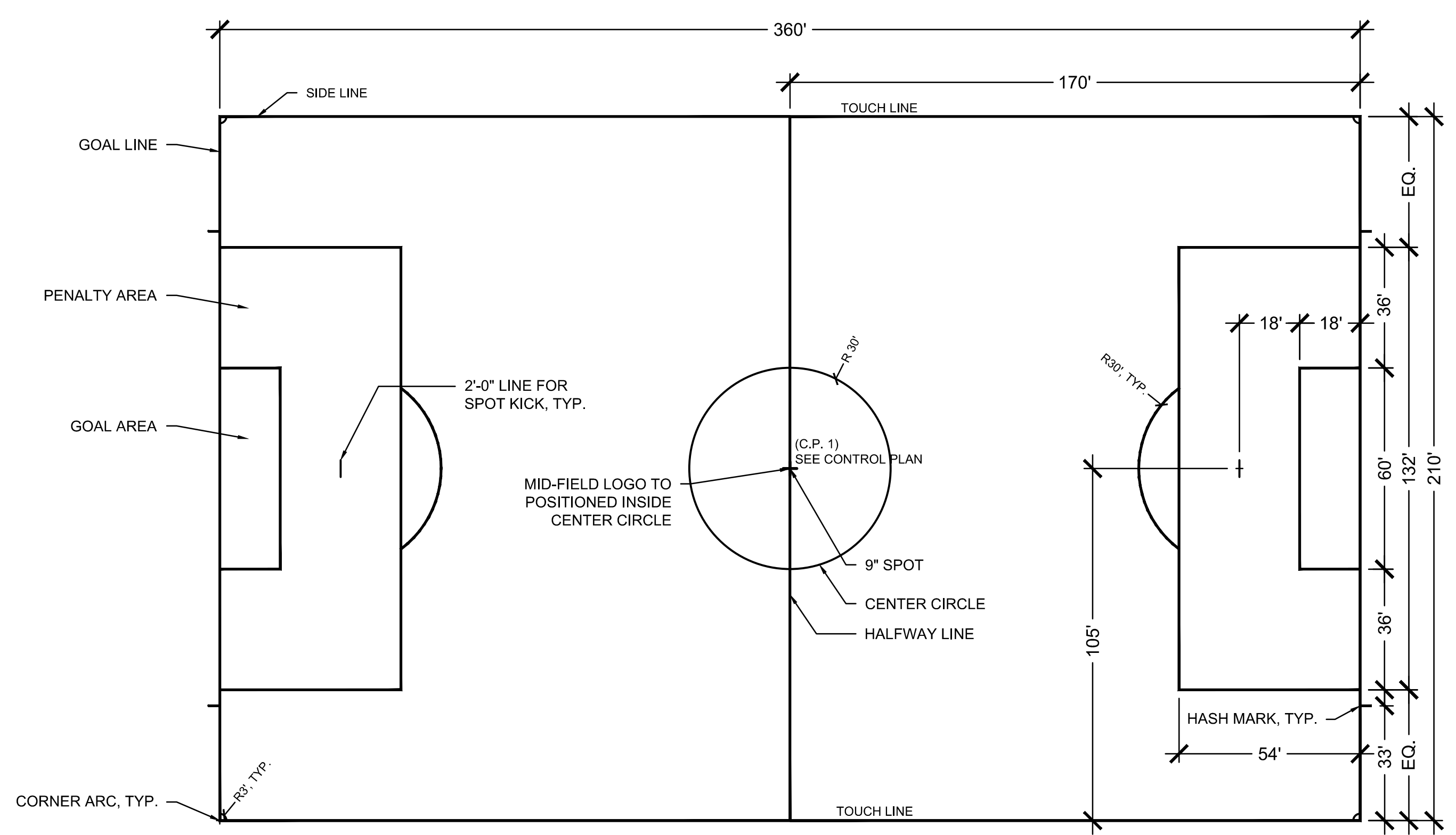
- NOTES:
 1. ALL LINES ARE TO BE MEASURED FROM OUTSIDE TO OUTSIDE
 2. SOCCER STRIPING- 4" WIDE YELLOW
 3. FOOTBALL- 4" WIDE WHITE
 4. BOYS LACROSSE- 4" WIDE BLACK TICK MARK, TYP. OF 4 CORNERS

1 FIELD LAYOUT
 SCALE: NTS



2 BALL NETTING SYSTEM
 SCALE: NTS

- NOTES:
 1. ALL LINES ARE TO BE MEASURED FROM OUTSIDE TO OUTSIDE



2 SOCCER FIELD LAYOUT
 SCALE: NTS

\\westonandsampson.com\Projects\NH\Portsmouth\NH\RE 33 Recreational Field\Site\Arch\Current Working\Site\17-00-00.dwg

GENERAL ELECTRICAL NOTES :

- DRAWINGS ARE DIAGRAMMATIC ONLY. THE EXACT LOCATION, MOUNTING HEIGHTS, SIZE OF EQUIPMENT AND ROUTING OF RACEWAYS SHALL BE COORDINATED AND DETERMINED IN THE FIELD.
- WORK SHALL CONFORM TO THE NEW HAMPSHIRE ELECTRICAL CODE AND NEW HAMPSHIRE BUILDING CODE AND REQUIREMENTS OF LOCAL AUTHORITIES HAVING JURISDICTION.
- THE WORD "CONTRACTOR" AS USED IN THE "ELECTRICAL WORK" SHALL MEAN THE ELECTRICAL SUBCONTRACTOR.
- CONTRACTOR SHALL PAY FOR ALL PERMITS, INSURANCE AND TESTS, AND SHALL PROVIDE LABOR AND MATERIAL TO COMPLETE THE ELECTRICAL WORK SHOWN.
- CONTRACTOR SHALL PAY ELECTRIC UTILITY COMPANY BACKCHARGES AND PROVIDE COORDINATION WITH SAME.
- EXCEPT AS OTHERWISE NOTED, THE ELECTRICAL WORK SHALL INCLUDE PANELBOARDS, CIRCUIT BREAKERS, FEEDERS, WIRING, RACEWAYS, LIGHTING FIXTURES, DEVICES, SAFETY SWITCHES, MOUNTING AND WIRING, TRANSFORMERS AND CONNECTIONS NECESSARY TO OPERATE ALL EQUIPMENT.
- THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY LIGHTING AND POWER AND PAY ALL ENERGY CHARGES.
- DURING CONSTRUCTION, THE ELECTRICAL CONTRACTOR SHALL KEEP HIS PORTION OF THE WORK NEAT, CLEAN AND ORDERLY.
- ALL SYSTEMS SHALL BE TESTED FOR SHORT CIRCUIT AND GROUNDS PRIOR TO ENERGIZING AND ANY DEFECTS SHALL BE CORRECTED.
- ALL CUTTING AND PATCHING REQUIRED FOR ELECTRICAL WORK SHALL BE INCLUDED AS PART OF THIS SECTION.
- COMPLETE SHOP DRAWINGS SHALL BE SUBMITTED FOR ELECTRICAL EQUIPMENT. WHERE SPECIFIED, ELECTRICAL EQUIPMENT IS SUBSTITUTED. THE ELECTRICAL CONTRACTOR SHALL SUBMIT COMPLETE SPECIFICATIONS ON THE SUBSTITUTE AS WELL AS THE ITEM ORIGINALLY SPECIFIED.
- MATERIALS SHALL BE SPECIFICATION GRADE AND UL LISTED.
- WHERE MATERIAL IS CALLED OUT IN THE LEGEND BY MANUFACTURER, TYPE OR CATALOG NUMBER, SUCH DESIGNATIONS ARE TO ESTABLISH STANDARDS OR DESIRED QUALITY. ACCEPTANCE OR REJECTIONS OF PROPOSED SUBSTITUTIONS SHALL BE SUBJECT TO THE APPROVAL OF THE OWNER.
- WORK SHALL BE COORDINATED WITH THAT OF OTHER TRADES TO ELIMINATE INTERFERENCES.
- ELECTRICAL WORK SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR FROM DATE OF WHICH SYSTEM IS PUT INTO SERVICE UNLESS OTHERWISE SPECIFIED.
- WORK SHALL BE GROUNDED IN ACCORDANCE WITH CODE REQUIREMENTS. COMPLETE EQUIPMENT (INSULATED GREEN WIRE) GROUNDING SYSTEM SHALL BE INSTALLED.
- WIRE SHALL BE TYPE "THHN/THWN" INSULATED FOR 600 VOLTS, MINIMUM SIZE #12 AWG COPPER UNLESS SPECIFICALLY NOTED OTHERWISE.
- WIRING METHODS:
 - EXTERIOR BELOW GRADE DIRECT BURIED WIRING SHALL BE IN SCHEDULE 80 PVC.
 - EXTERIOR BELOW GRADE CONCRETE ENCASED WIRING SHALL BE IN SCHEDULE 40 PVC
 - EXTERIOR ABOVE GROUND WIRING SHALL BE IN RIGID STEEL CONDUIT
 - INTERIOR WIRING SHALL BE IN RIGID STEEL CONDUIT.
- PANELBOARDS SHALL BE DEAD FRONT, THERMAL MAGNETIC BOLT-ON CIRCUIT BREAKER TYPE, DESIGNED FOR SURFACE MOUNTING AS INDICATED ON PLAN, AND HAVING CONNECTIONS TO 480/277 VOLT, 3-PHASE, 4-WIRE AND 120/208 VOLT, 3 PHASE, 4 WIRE SERVICE. ALL BUS BARS SHALL BE COPPER. CABINETS SHALL BE MADE OF CODE GAUGE GALVANIZED SHEET STEEL, WITH A MINIMUM OF 4 INCH GUTTERS, DOOR IN DOOR CONSTRUCTION, LOCKED DOOR, AND FLUSH HINGES. TYPEWRITTEN INDEX SHALL BE MOUNTED ON DOOR INSIDE TRANSPARENT COVER INDICATING LOAD SERVED. PANELS SHALL INCLUDE SEPARATE EQUIPMENT GROUND BUS.
- CONDUIT RUNS AS SHOWN ON THE PLANS ARE DIAGRAMMATIC ONLY; EXACT LOCATION AND METHOD OF SUPPORT SHALL BE DETERMINED IN THE FIELD.
- CONTRACTOR SHALL CHECK EXISTING CONDITIONS TO DETERMINE EXACT EXTENT OF WORK TO BE PERFORMED PRIOR TO BIDDING. DIMENSIONS RELEVANT TO EXISTING WORK SHALL BE VERIFIED IN THE FIELD.
- PROVIDE AS-BUILT "CADD" DRAWINGS AT THE COMPLETION OF THE PROJECT.

ABBREVIATIONS

A	AMPERE	NTS	NOT TO SCALE
AF	AMPERE FRAME	PNL	PANELBOARD
AC	ALTERNATING CURRENT	PH	PHASE
AT	AMPERE TRIP	FL	FLOOR
ATS	AUTOMATIC TRANSFER SWITCH	FLA	FULL LOAD AMPERE
BKR	BREAKER	GC	GENERAL CONTRACTOR
C	CONDUIT	GFI	GROUND FAULT INTERRUPTER
CKT	CIRCUIT	GND	GROUND
CB	CIRCUIT BREAKER	IG	ISOLATED GROUND
EC	ELECTRICAL CONTRACTOR	JB	JUNCTION BOX
EMT	ELECTRIC METALLIC TUBING	KVA	KILOVOLT AMPERES
KW	KILOWATT	PVC	POLYVINYL CHLORIDE CONDUIT
MCB	MAIN CIRCUIT BREAKER	RSC	RIGID GALVANIZED STEEL CONDUIT
MLO	MAIN LUGS ONLY	XFMR	TRANSFORMER
MC	MECHANICAL CONTRACTOR	V	VOLTS
MTD	MOUNTED	W	WATTS OR WIRE
MTG	MOUNTING	WP	WEATHERPROOF
NMC	NON-METALLIC CONDUIT		
NA	NOT APPLICABLE		
NIC	NOT IN CONTRACT		

ELECTRICAL SYMBOL LIST

RECEPTACLES

- DUPLEX CONVENIENCE OUTLET RATED 20A, 125V, U-SLOT GROUNDED TYPE. ALL OTHER MOUNTING HEIGHTS SHALL BE AS NOTED ADJACENT TO THE SYMBOL. REFER TO RECEPTACLE ABBREVIATIONS FOR SPECIAL PURPOSE RECEPTACLES
- DUPLEX RECEPTACLE WITH INTERGRAL GROUND FAULT INTERRUPTER

RACEWAY AND WIRING

- HOMERUN TO PANELBOARD, NUMBER OF SLASH MARKS INDICATES NUMBER OF #12 AWG CONDUCTORS IN MINIMUM 3/4" CONDUIT. NO SLASH MARKS INDICATE #12 & 1#12G, 3/4" UNLESS NOTED OTHERWISE. -GREEN GROUND CONDUCTOR IS NOT INDICATED BUT SHALL BE INCLUDED IN EACH RACEWAY. SIZE SHALL BE #12 UNLESS INDICATED OTHERWISE. -HOMERUNS TO PANELBOARDS SHALL HAVE A MAXIMUM OF THREE PHASE CONDUCTORS (ONE PER PHASE) PLUS NEUTRAL AND GROUND CONDUCTOR IN EACH CONDUIT.
- NEW UNDERGROUND ELECTRIC LINE

MISCELLANEOUS

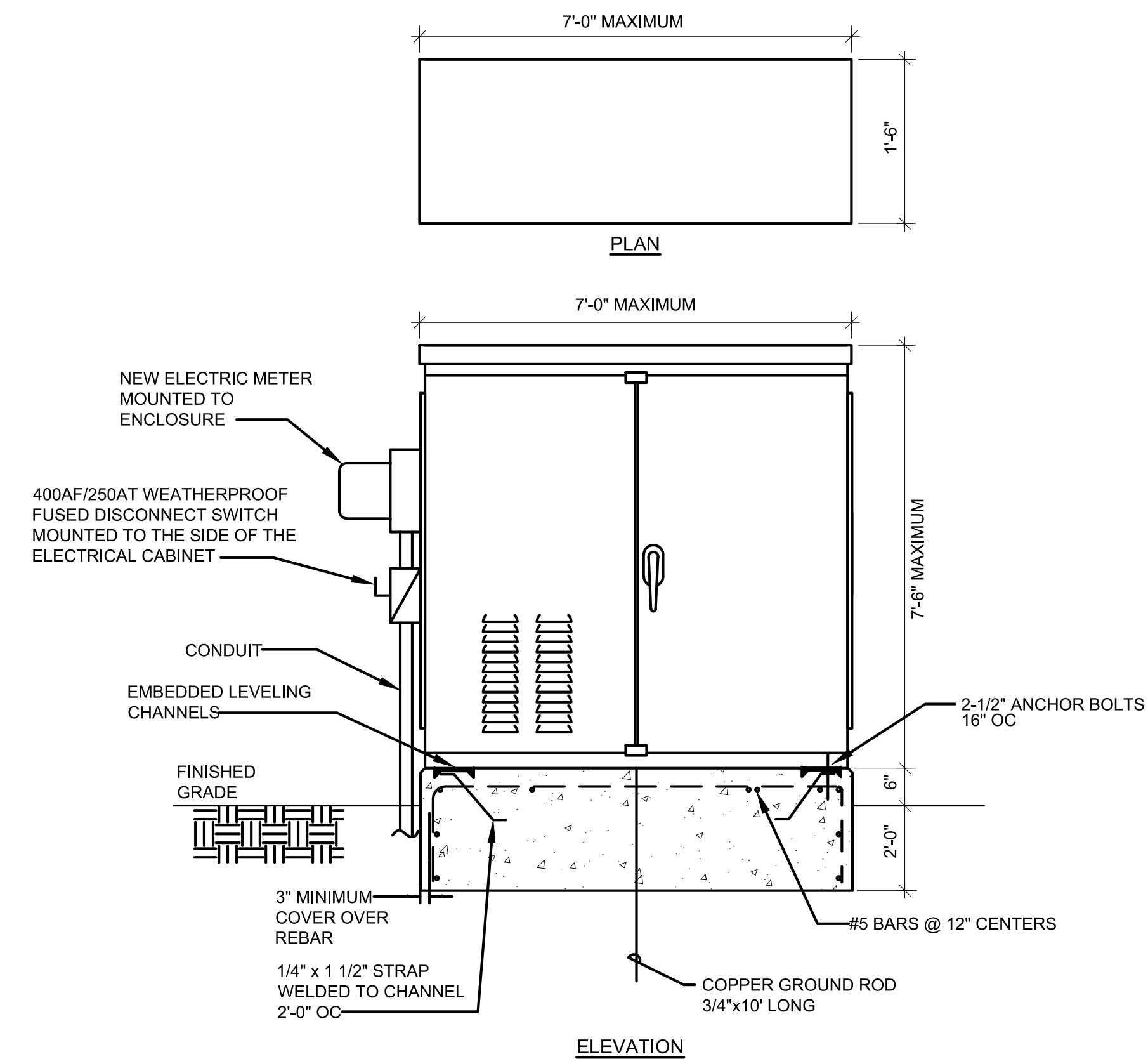
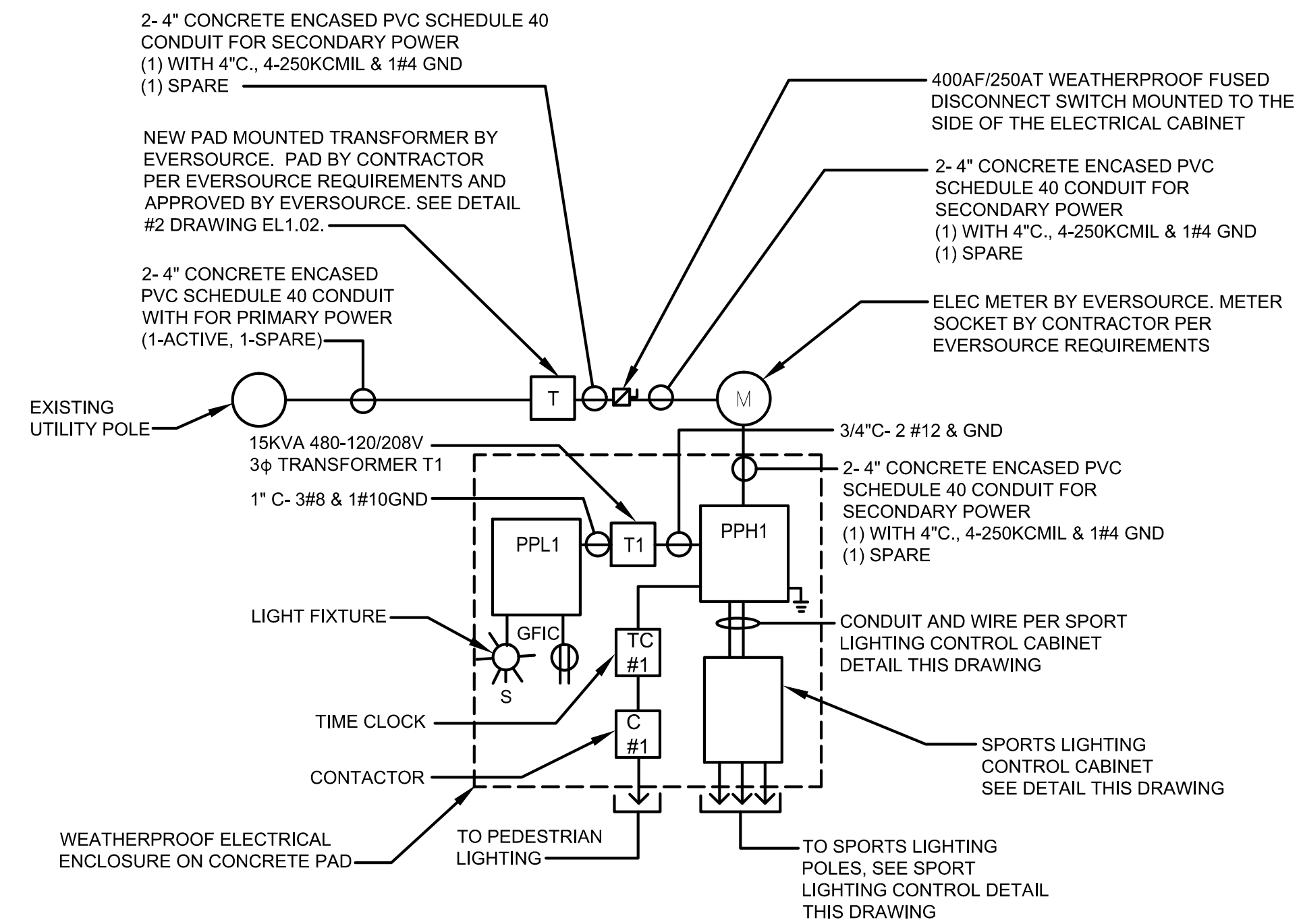
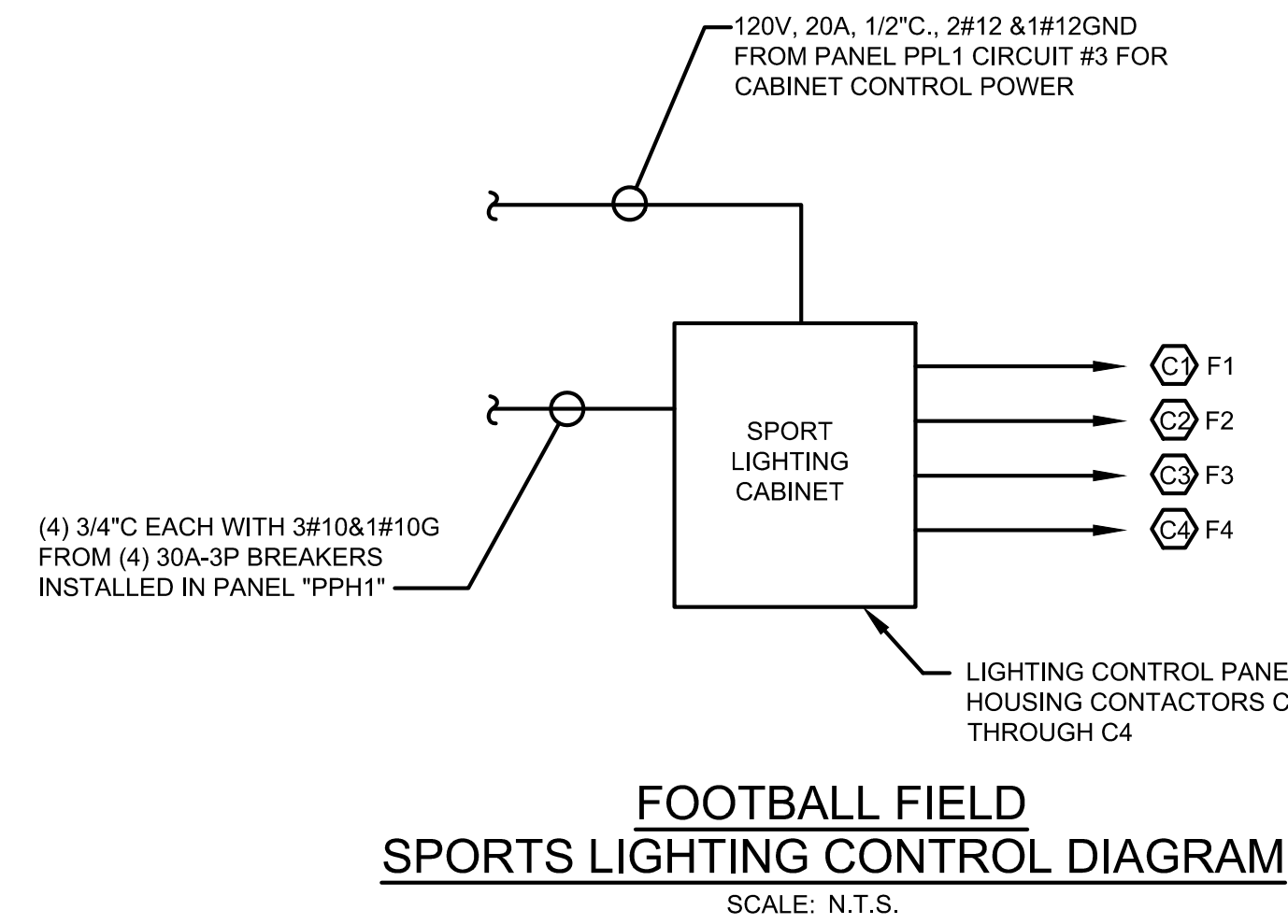
- JUNCTION BOX WITH BLANK COVERPLATE, SIZE AS REQUIRED BY N.E.C.
- CONTACTOR
- ELECTRIC UTILITY BILLING METER
- GROUND - SYSTEM AND/OR EQUIPMENT
- DIGITAL TIMER SWITCH

POWER DISTRIBUTION EQUIPMENT

- HAND HOLE

LIGHTING

- SPORTS LIGHT POLE - 'F1' INDICATES POLE NUMBER 'C1' INDICATES CONTACTOR OR CONTRACTORS CONTROLLING POLE MOUNTED FIXTURES
- POLE MOUNTED LIGHT FIXTURE



- NOTES:**
- FINAL CABINET SIZE SHALL BE DETERMINED BASED ON ACTUAL EQUIPMENT AND LAYOUT OF EQUIPMENT

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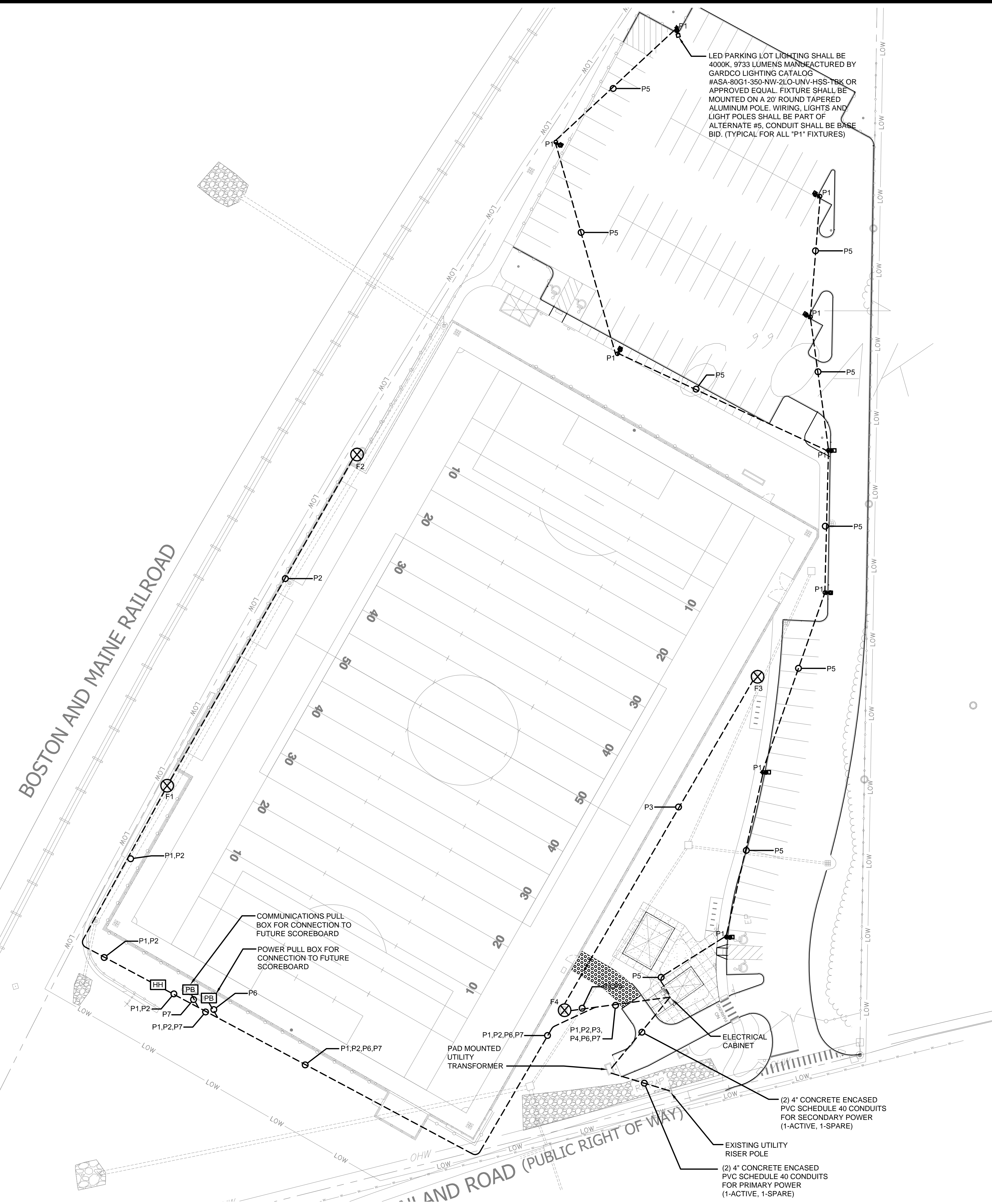
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W&S File No:

Drawing Title:
ELECTRICAL LEGEND, ABBREVIATIONS, GENERAL NOTES AND DETAILS

Sheet Number:
EL1.00

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 Date: 02-05-2018 10:00:00 AM
 Author: JMM
 Plot Date: 02-05-2018 10:00:00 AM
 Plot Scale: 1" = 30'-0"



ELECTRICAL SITE PLAN
 SCALE: 1" = 30'-0"
 30 15 0 30 60
 SCALE: 1" = 30'

CONDUIT & WIRING SCHEDULE

CONDUIT	FEEDER	FROM	TO	FIXTURES	LOAD	VOLTAGE	REMARKS
P1	2"C., 3#4 & 1#8G	LIGHTING CONTROL PANEL CONTACTOR C1	FIXTURE F1	11 @ 1500W	29.6A	480V	DIRECT BURIED (SEE NOTE 2)
P2	2"C., 3#4 & 1#8G	LIGHTING CONTROL PANEL CONTACTOR C2	FIXTURE F2	11 @ 1500W	29.6A	480V	DIRECT BURIED (SEE NOTE 2)
P3	2"C., 3#4 & 1#8G	LIGHTING CONTROL PANEL CONTACTOR C3	FIXTURE F3	11 @ 1500W	29.6A	480V	DIRECT BURIED (SEE NOTE 2)
P4	2"C., 3#4 & 1#8G	LIGHTING CONTROL PANEL CONTACTOR C4	FIXTURE F4	11 @ 1500W	29.6A	480V	DIRECT BURIED (SEE NOTE 2)
P5	2"C., 2#8 & 1#8G	PANEL PPH1 VIA TIMECLOCK	PARKING LOT LIGHTING	-	-	277V	DIRECT BURIED
P6	2"C., WITH NYLON PULL STRING	ELECTRICAL CABINET	FUTURE SCOREBOARD POWER	-	-	-	DIRECT BURIED
P7	2"C., WITH NYLON PULL STRING	ELECTRICAL CABINET	FUTURE SCOREBOARD COMMUNICATIONS	-	-	-	DIRECT BURIED

PANELBOARD SCHEDULE

PANELBOARD NO.: PPL1 SERVICE: 120/208V, 3Ø, 4W, 50 MCB
 LOCATION: ELECTRICAL ENCLOSURE BUS BARS: 100A
 MOUNTING: SURFACE AIC: 10,000 TOTAL NO. OF POLES: 12

CKT. No.	DESCRIPTION OF LOAD	CIRCUIT BREAKERS			DESCRIPTION OF LOAD	CKT. No.
		TRIP	POLES	TRIP		
1	ENCLOSURE RECEPTACLE	20	1	1	ENCLOSURE LIGHT	2
3	SPORTS LIGHTING CONTROL	20	1	1	SPARE	4
5	SPARE	20	1	1	SPARE	6
7	SPARE	20	1	1	SPARE	8
9	SPARE				SPARE	10
11	SPARE				SPARE	12

* PROVIDE PANELBOARD WITH A GROUND BUS

PANELBOARD SCHEDULE

PANELBOARD NO.: PPH1 SERVICE ENTRANCE RATED SERVICE: 277/480V, 3Ø, 4W, 250A MCB
 LOCATION: ELECTRICAL ENCLOSURE BUS BARS: 250A
 MOUNTING: SURFACE AIC: 22,000 TOTAL NO. OF POLES: 30

CKT. No.	DESCRIPTION OF LOAD	CIRCUIT BREAKERS			DESCRIPTION OF LOAD	CKT. No.
		TRIP	POLES	TRIP		
1	-	-	-	-	-	2
3	SPORT LIGHTING F1/C1	30	3	3	SPORT LIGHTING F2/C2	4
5	-	-	-	-	-	6
7	-	-	-	-	-	8
9	SPORT LIGHTING F3/C3	30	3	3	SPORT LIGHTING F4/C4	10
11	-	-	-	-	-	12
13	-	-	-	20	1	PARKING LOT LIGHTING
15	TRANSFORMER T1	30	3	1	20	SPARE
17	-	-	-	1	20	SPARE
19	SPARE	20	1	1	20	SPARE
21	SPARE	20	1	1	20	SPARE
23	SPARE	20	1	1	20	SPARE
25	SPARE	20	1	1	20	SPARE
27	SPARE	20	1	1	20	SPARE
29	SPARE	20	1	1	20	SPARE

* PROVIDE PANELBOARD WITH A GROUND BUS

- DRAWING NOTES:
- REFER TO DRAWING EL1.00 FOR LEGEND, ABBREVIATIONS AND GENERAL NOTES.
 - ALL WIRING TO THE MUSCO SPORTS LIGHTS SHALL BE PART OF ALTERNATE #1.

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ELECTRICAL SITE PLAN

Sheet Number:
EL1.01

1.0 - GENERAL

- 1.01 THE STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH ALL OTHER CONTRACT DRAWINGS AND SPECIFICATIONS. REFER TO CIVIL, LANDSCAPE ARCHITECTURAL, AND ELECTRICAL DRAWINGS FOR LOCATION, DIMENSIONS, AND DETAILS OF OPENINGS, SLEEVES, EMBEDMENTS, INSERTS, PADS, CURBS, DEPRESSIONS, ANCHOR BOLTS, AND OTHER PROJECT REQUIREMENTS NOT SHOWN ON STRUCTURAL DRAWINGS.
- 1.02 THE CONTRACTOR IS RESPONSIBLE FOR CHECKING, COORDINATING AND VERIFYING ALL DIMENSIONS IN THE FIELD PRIOR TO COMMENCING WORK. THE CONTRACTOR SHALL IMMEDIATELY REPORT ANY DISCREPANCY TO THE ARCHITECT AND ENGINEER.
- 1.03 THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING IN THE FIELD THE EXISTENCE AND LOCATION OF OVERHEAD, BURIED AND/OR EMBEDDED UTILITIES, AND DETERMINING LOCATIONS OF ALL EMBEDDED MECHANICAL, ELECTRICAL AND PLUMBING SYSTEMS AFFECTED BY THE WORK OF THIS CONTRACT.
- 1.04 ALL WORK IS TO CONFORM WITH THE FOLLOWING CODES AND STANDARDS:
 - (A) NEW HAMPSHIRE STATE BUILDING CODE
 - (B) INTERNATIONAL BUILDING CODE, (IBC 2009)
 - (C) "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE" - AMERICAN CONCRETE INSTITUTE (ACI 318-05)
 - (D) "MANUAL OF STEEL CONSTRUCTION" - AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC 360)
 - (E) "MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES" - AMERICAN SOCIETY OF CIVIL ENGINEERS, (ASCE 7-05)
 FOR ADDITIONAL CODES AND STANDARDS REFER TO SPECIFICATIONS.
- 1.05 THE CONTRACTOR SHALL NOTIFY THE ARCHITECT AND ENGINEER OF UNANTICIPATED CONDITIONS THAT MAY BE UNCOVERED DURING CONSTRUCTION.
- 1.06 DETAILS AND NOTES SHOWN ON STRUCTURAL DRAWINGS SHALL BE APPLICABLE TO ALL PARTS OF THE STRUCTURAL WORK EXCEPT WHERE SPECIFICALLY REQUIRED OTHERWISE BY CONTRACT DOCUMENTS. CONDITIONS NOT SPECIFICALLY SHOWN SHALL BE SIMILAR TO THOSE SHOWN FOR LIKE CONDITIONS AS DETERMINED BY THE ENGINEER.
- 1.07 TESTING AND INSPECTION OF STRUCTURAL WORK SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE COSTS FOR TESTING AND INSPECTION WILL BE PAID BY THE CONTRACTOR. FOR ADDITIONAL INFORMATION CONCERNING TESTING AND INSPECTION, REFER TO SECTION 01450 OF THE TECHNICAL SPECIFICATIONS.
- 1.08 THE CONTRACTOR SHALL DESIGN AND PROVIDE ALL REQUIRED SHORING AND TEMPORARY BRACING TO RESIST FORCES ON THE STRUCTURE THROUGHOUT THE CONSTRUCTION PERIOD.
- 1.09 SUBMIT SHOP DRAWINGS, WITH AMPLE TIME FOR ARCHITECT'S REVIEW AND APPROVAL, FOR STRUCTURAL ELEMENTS, INCLUDING STRUCTURAL STEEL AND PRECAST CONCRETE.

2.0 - FOUNDATIONS

- 2.01 THE SUBSURFACE CONDITIONS DESCRIBED IN THE DRAWINGS, SPECIFICATIONS, TEST BORINGS AND TEST PITS ARE INCLUDED ONLY TO ASSIST THE CONTRACTOR DURING BIDDING AND SUBSEQUENT CONSTRUCTION AND REPRESENT CONDITIONS ONLY AT THESE SPECIFIC LOCATIONS AT THE TIME THEY ARE MADE.
- 2.02 THE CONTRACTOR SHALL DESIGN AND PROVIDE ALL TEMPORARY EARTH SUPPORT, SHORING AND BRACING REQUIRED TO PERFORM THE WORK IN ACCORDANCE WITH OSHA, STATE AND LOCAL REQUIREMENTS.
- 2.03 THE CONTRACTOR SHALL DESIGN AND PROVIDE SHEETING, SHORING, BRACING, AND/OR UNDERPINNING IN ORDER TO PROTECT EXISTING UTILITIES FROM EXCESSIVE MOVEMENTS DURING THE CONSTRUCTION PERIOD, IN ACCORDANCE WITH OSHA, STATE & LOCAL REQUIREMENTS.
- 2.04 THE CONTRACTOR SHALL CARRY OUT CONTINUOUS CONTROL OF SURFACE AND SUBSURFACE WATER. DEWATER ANY AREAS REQUIRING EXCAVATION IN ADVANCE OF PERFORMING EXCAVATION. MAINTAIN GROUNDWATER LEVELS AT LEAST 2 FEET BELOW PLANNED SUBGRADES.
- 2.05 ALL SUBGRADES TO RECEIVE FILL MATERIALS, FOUNDATIONS, SLABS OR OTHER CONSTRUCTION SHALL BE FREE OF RUNNING OR STANDING WATER PRIOR TO PLACEMENT.
- 2.06 FOUNDATIONS SHALL BE INSTALLED IN THE GEOMETRY SHOWN IN THE PLANS, ANY ROCK ENCOUNTERED DURING EXCAVATION SHALL BE REMOVED TO CLEAR THE REQUIRED FOUNDATION GEOMETRY.

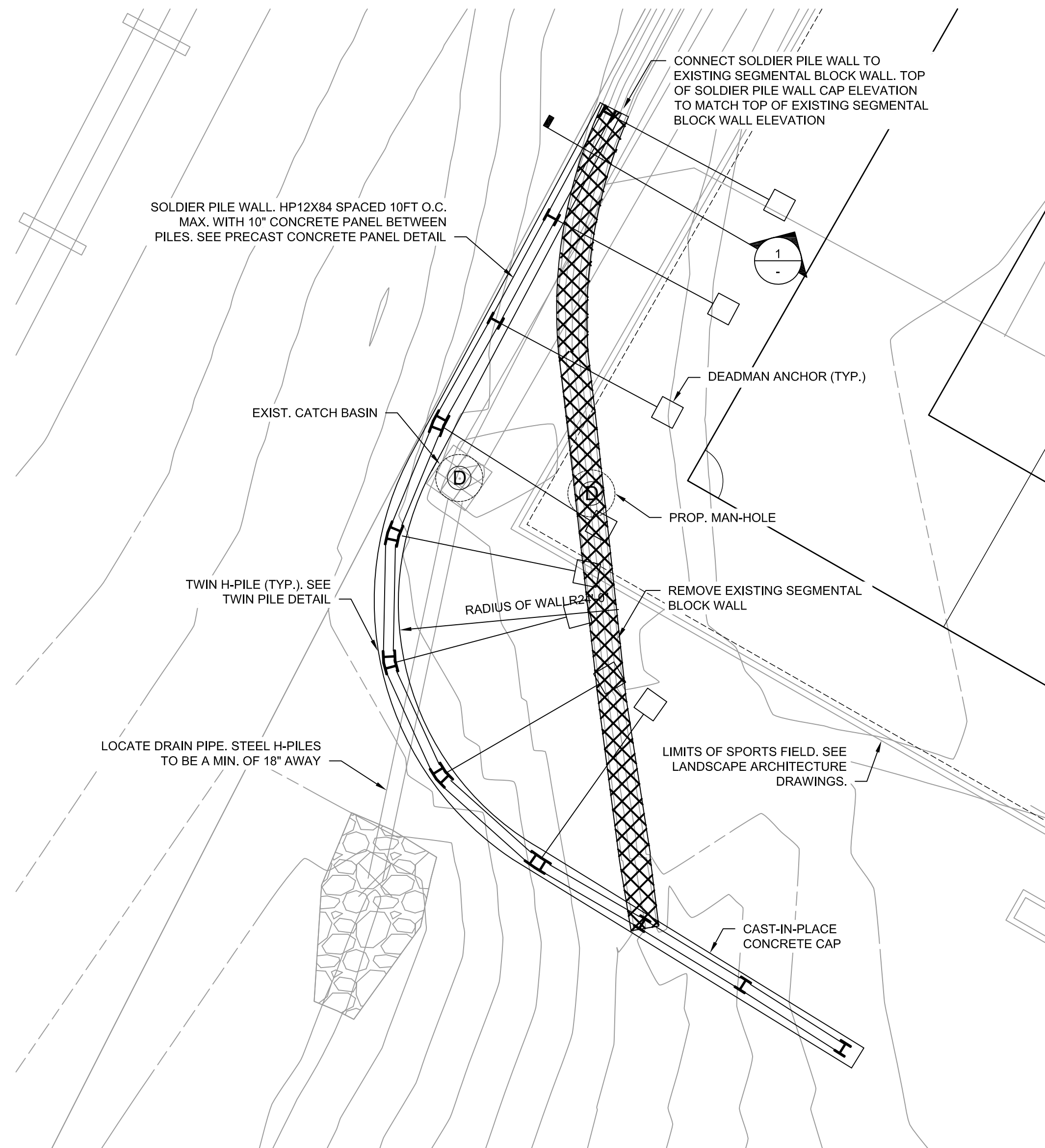
3.0 - CAST IN PLACE CONCRETE

- 3.01 CONCRETE WORK SHALL CONFORM TO "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" (ACI 318-02) AND "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS" (ACI 301-99).
- 3.02 CONCRETE SHALL BE CONTROLLED CONCRETE, PROPORTIONED, MIXED AND PLACED IN THE PRESENCE OF A REPRESENTATIVE OF AN APPROVED TESTING AGENCY.
- 3.03 UNLESS NOTED OTHERWISE, CONCRETE SHALL BE NORMAL WEIGHT AND HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4000PSI.
- 3.04 ALL PERMANENTLY EXPOSED VERTICAL AND HORIZONTAL CONCRETE SURFACES SHALL BE TREATED OR SEALED IN ACCORDANCE WITH PROJECT SPECIFICATIONS.
- 3.05 CONCRETE EXPOSED TO WEATHER IN THE FINISHED PROJECT SHALL BE AIR ENTRAINED PER SPECIFICATIONS REQUIREMENTS. INTERIOR SLABS ON GRADE SHALL NOT USE AIR ENTRAINING ADMIXTURES.
- 3.06 PROVIDE A $\frac{3}{8}$ " CHAMFER ON ALL VERTICAL AND HORIZONTAL CORNERS EXPOSED TO VIEW UNLESS NOTED OTHERWISE.

4.0 - CAST IN PLACE CONCRETE REINFORCEMENT

- 4.01 REINFORCEMENT DETAILING, FABRICATION, AND ERECTION SHALL CONFORM TO "ACI DETAILING MANUAL" - SP-66, "CRSI MANUAL OF STANDARD PRACTICE".
- 4.02 STEEL REINFORCEMENT, UNLESS NOTED OTHERWISE, SHALL CONFORM TO THE FOLLOWING:
 - (A) BARS, TIES, AND STIRRUPS _____ ASTM A615 GRADE 60
 - (B) WELDED WIRE FABRIC _____ ASTM A185, FLAT SHEETS FOR FLOOR SLABS.
- 4.03 REINFORCING STEEL SHALL BE UNCOATED AND DEFORMED.
- 4.04 MINIMUM CONCRETE PROTECTIVE COVERING FOR REINFORCEMENT, UNLESS REQUIRED FOR FIRE PROTECTION OR NOTED OTHERWISE, SHALL BE AS FOLLOWS:
 - (A) CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH: _____ 3"
 - (B) CONCRETE EXPOSED TO EARTH OR WEATHER: _____ 2"
- 4.05 REINFORCING STEEL SHALL BE CONTINUOUS THROUGH ALL CONSTRUCTION JOINTS, CORNERS, AND INTERSECTIONS UNLESS OTHERWISE NOTED. REINFORCING SHALL BE LAPPED AT NECESSARY SPLICES OR HOOKED AT DISCONTINUOUS ENDS, UNLESS OTHERWISE NOTED.
- 4.06 MECHANICAL SPLICES SHALL BE PERMITTED SUBJECT TO APPROVAL BY THE

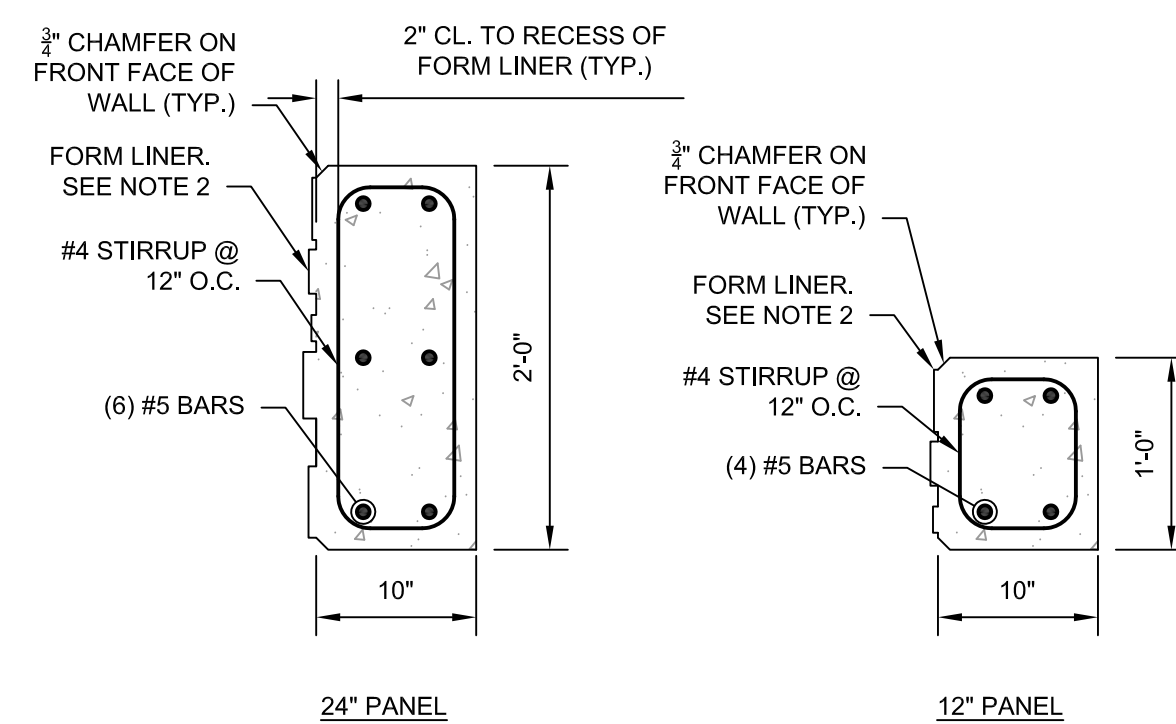
- ENGINEER. MECHANICAL SPLICES SHALL DEVELOP AT LEAST 125 PERCENT OF THE SPECIFIED YIELD STRENGTH OF THE BAR. NO WELDED CONNECTIONS ARE PERMITTED.
- 4.07 WELDED WIRE FABRIC SHALL BE LAPPED (1) SQUARE PLUS (2) INCHES WHERE REQUIRED AND SHALL BE WIRED TOGETHER AT ALL LAPS. WWF SHALL BE SUPPORTED BY CHAIRS AND/OR CARRYING BARS PRIOR TO CONCRETE PLACEMENT.
- 4.08 REINFORCEMENT SHALL NOT BE TACK WELDED.
- 4.09 NOTIFY THE TESTING LAB AND ENGINEER A MINIMUM OF 48 HOURS PRIOR TO SCHEDULED CONCRETE PLACEMENT IN ORDER TO ACCOMMODATE INSPECTION OF REINFORCEMENT AND CONCRETE TESTING. NO CONCRETE SHALL BE PLACED WITHIN 48 HOURS OF SUCH NOTIFICATION.



- NOTES:
1. SOLDIER PILE WALL CURVE MAY BE CONSTRUCTED USING CHORDS.
 2. DEADMAN ANCHORS ARE REQUIRED WHEN RETAINED HEIGHT IS OVER 4'-0".
 3. DEADMAN ANCHORS AND ANCHOR RODS SHALL BE PLACED LOCATIONS TO AVOID DRAIN PIPE, MAN-HOLES, CATCH BASINS, AND ASSOCIATED CONSTRUCTION ITEMS

SOLDIER PILE WALL PLAN VIEW

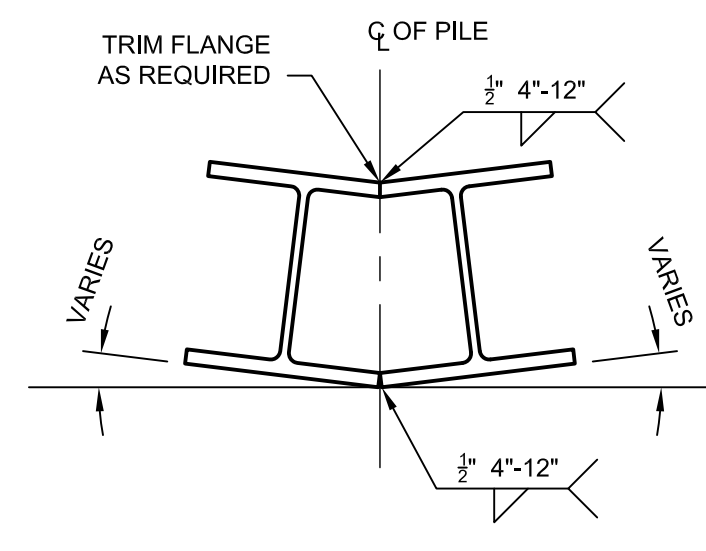
SCALE: 1/8"=1'-0"



- NOTE:
1. 12" PRECAST CONCRETE PANEL SHALL ONLY BE USED AT TOP OF WALL IF NECESSARY TO HELP WITH CREATING A CONSISTENT TOP OF WALL ELEVATION.
 2. FORM LINER DESIGN TO BE APPROVED BY ENGINEER.

PRECAST CONCRETE PANEL

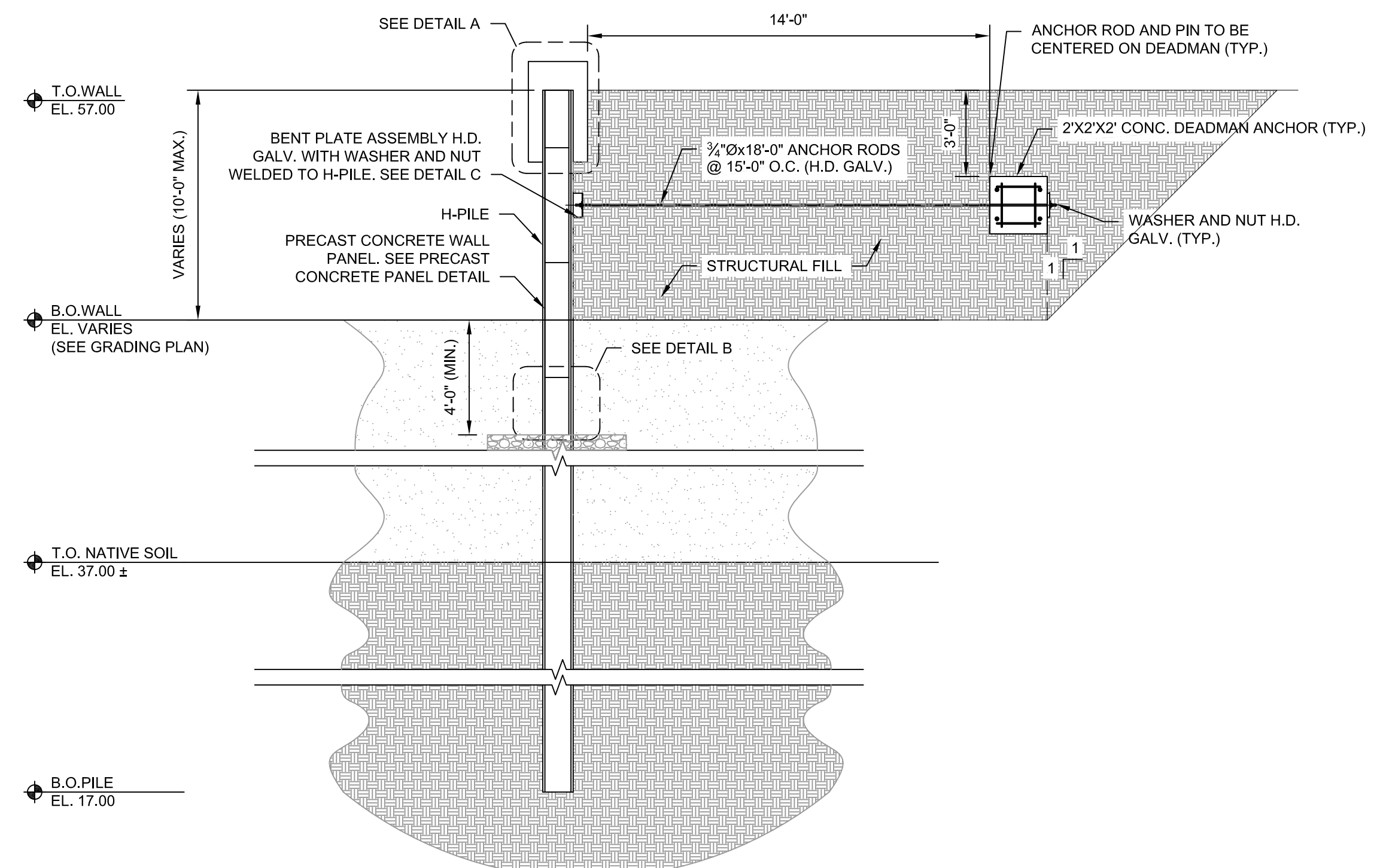
SCALE: 1"=1'-0"



- NOTE:
1. TWIN PILE TO BE USED AT CURVE IN WALL

TWIN PILE DETAIL

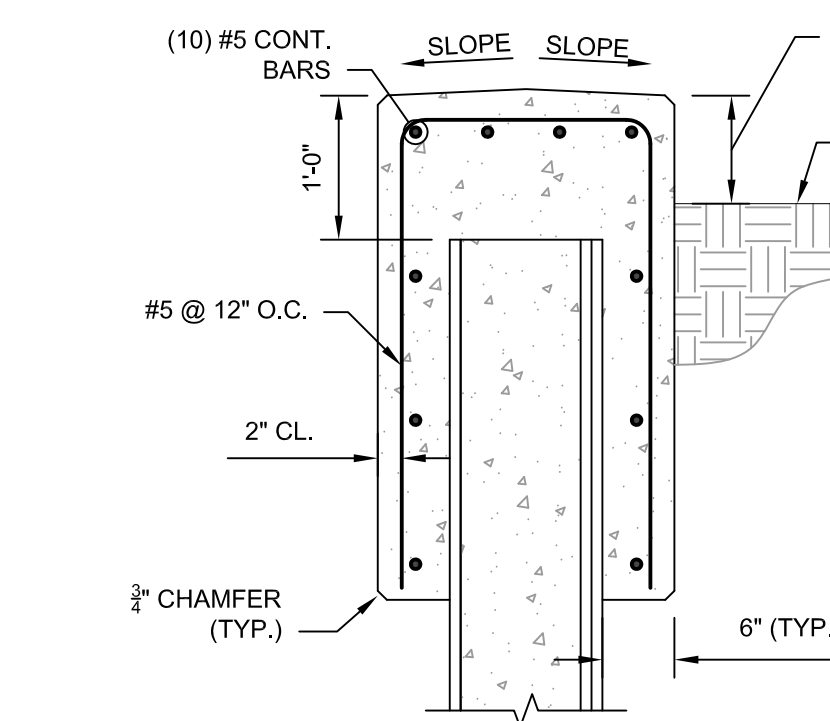
SCALE: 1"=1'-0"



- NOTE:
1. DEADMAN IS TO BE INSTALLED BEFORE WALL IS BACKFILLED.
 2. STRUCTURAL FILL SHOULD BE INSTALLED AND COMPACTED IN 12" LIFTS

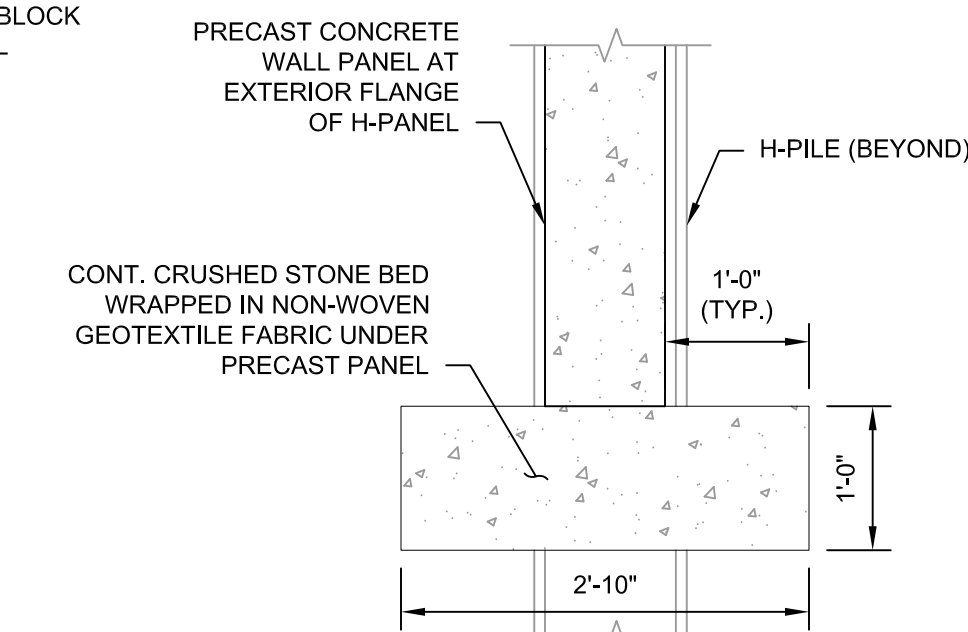
SECTION 1

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



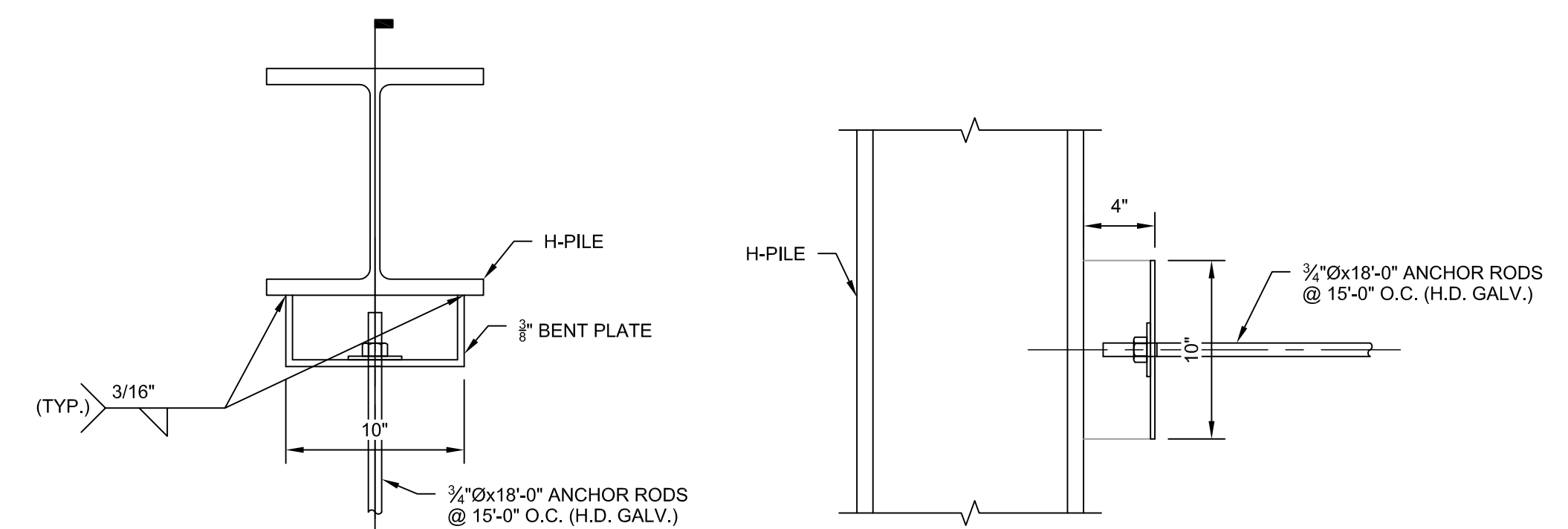
DETAIL A

SCALE: 3/4"=1'-0"



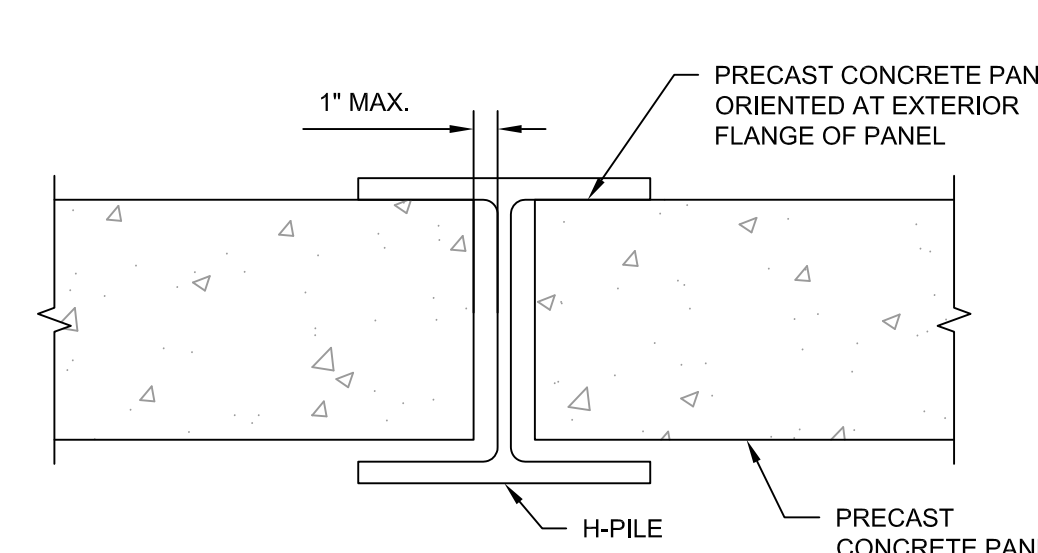
DETAIL B

SCALE: 3/4"=1'-0"



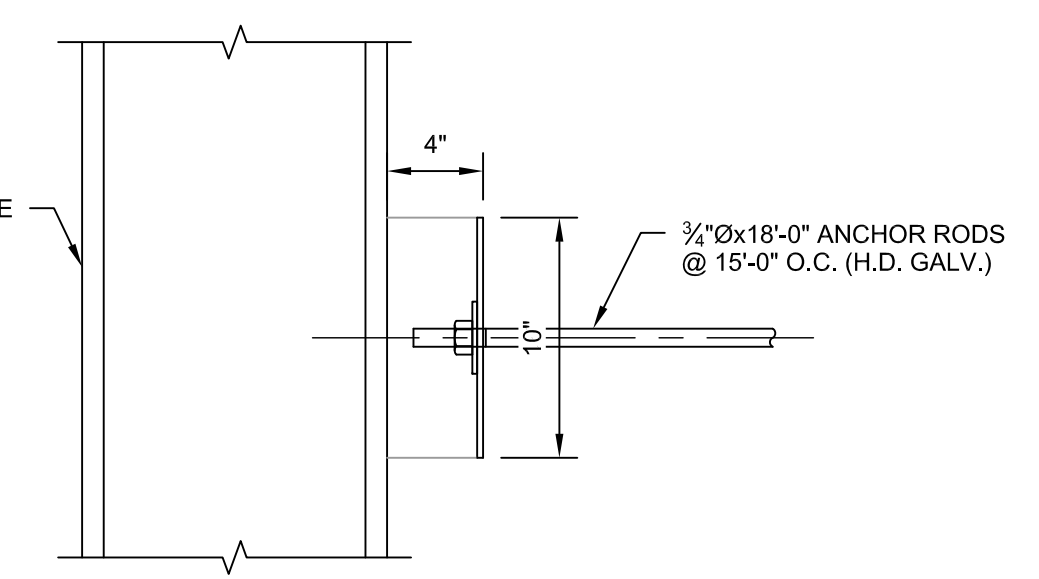
DETAIL C

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



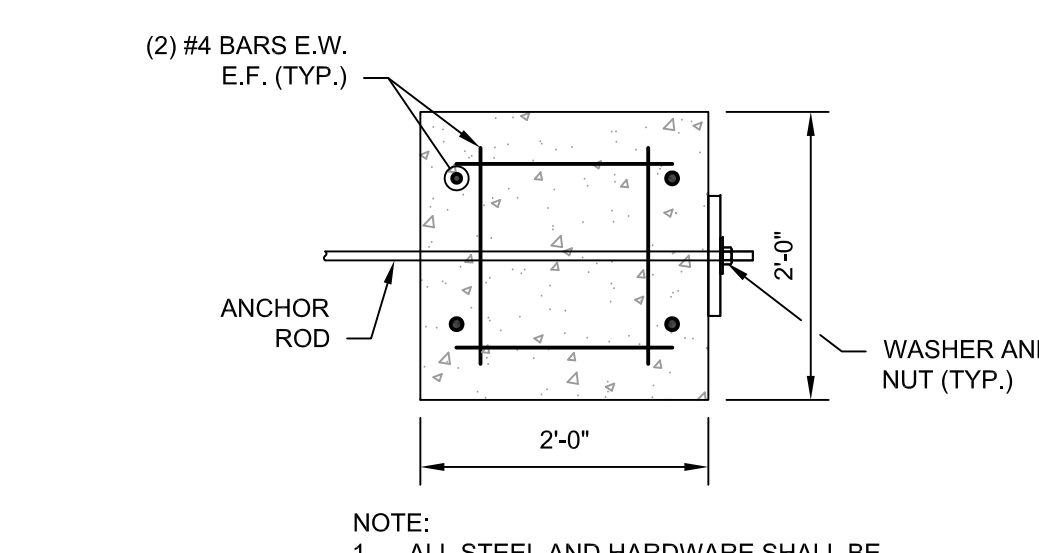
DETAIL

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



SECTION 2

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



DEADMAN DETAIL

SCALE: 3/4"=1'-0"

- NOTE:
1. ALL STEEL AND HARDWARE SHALL BE HOT-DIPPED GALVANIZED.

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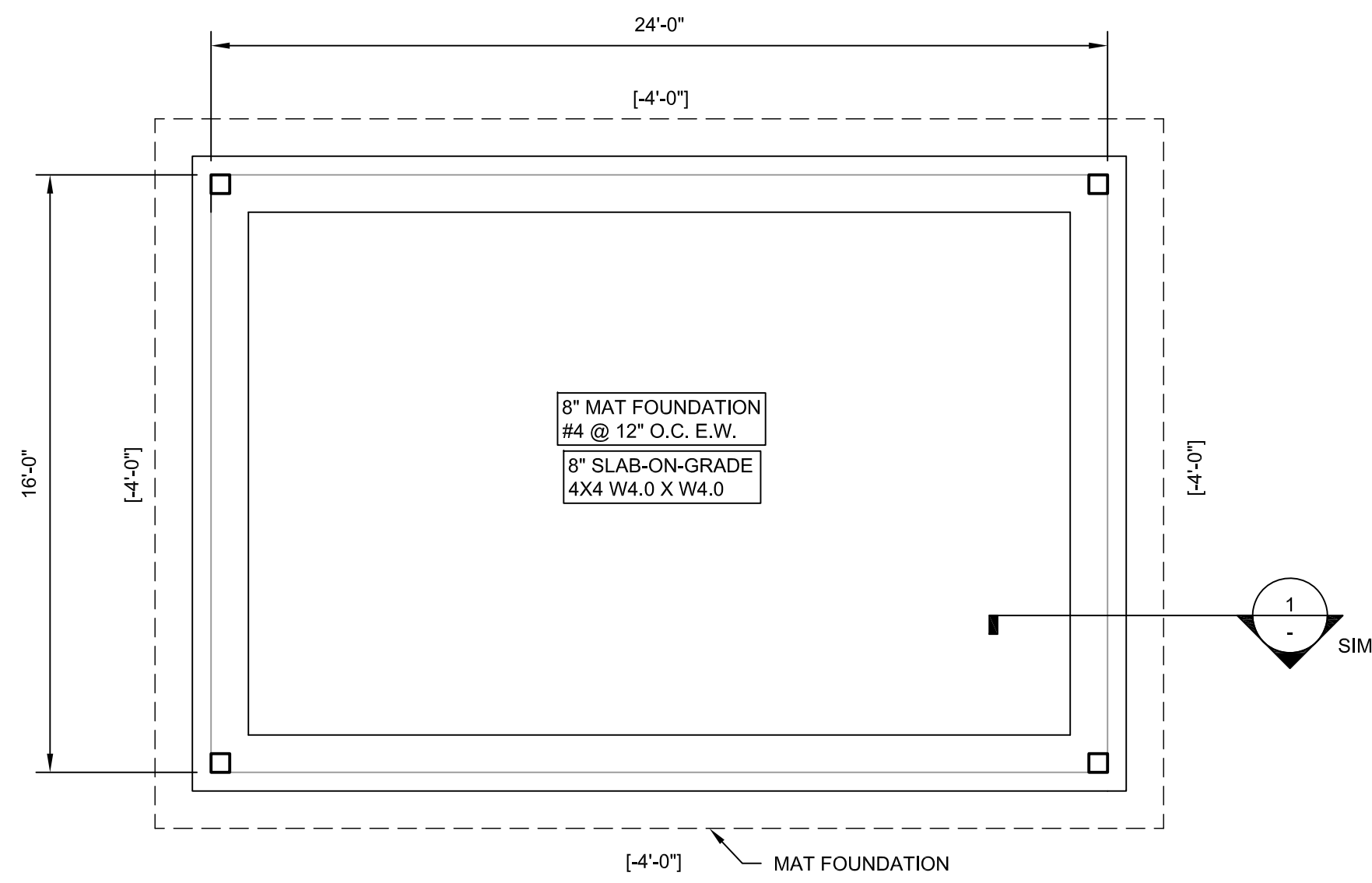
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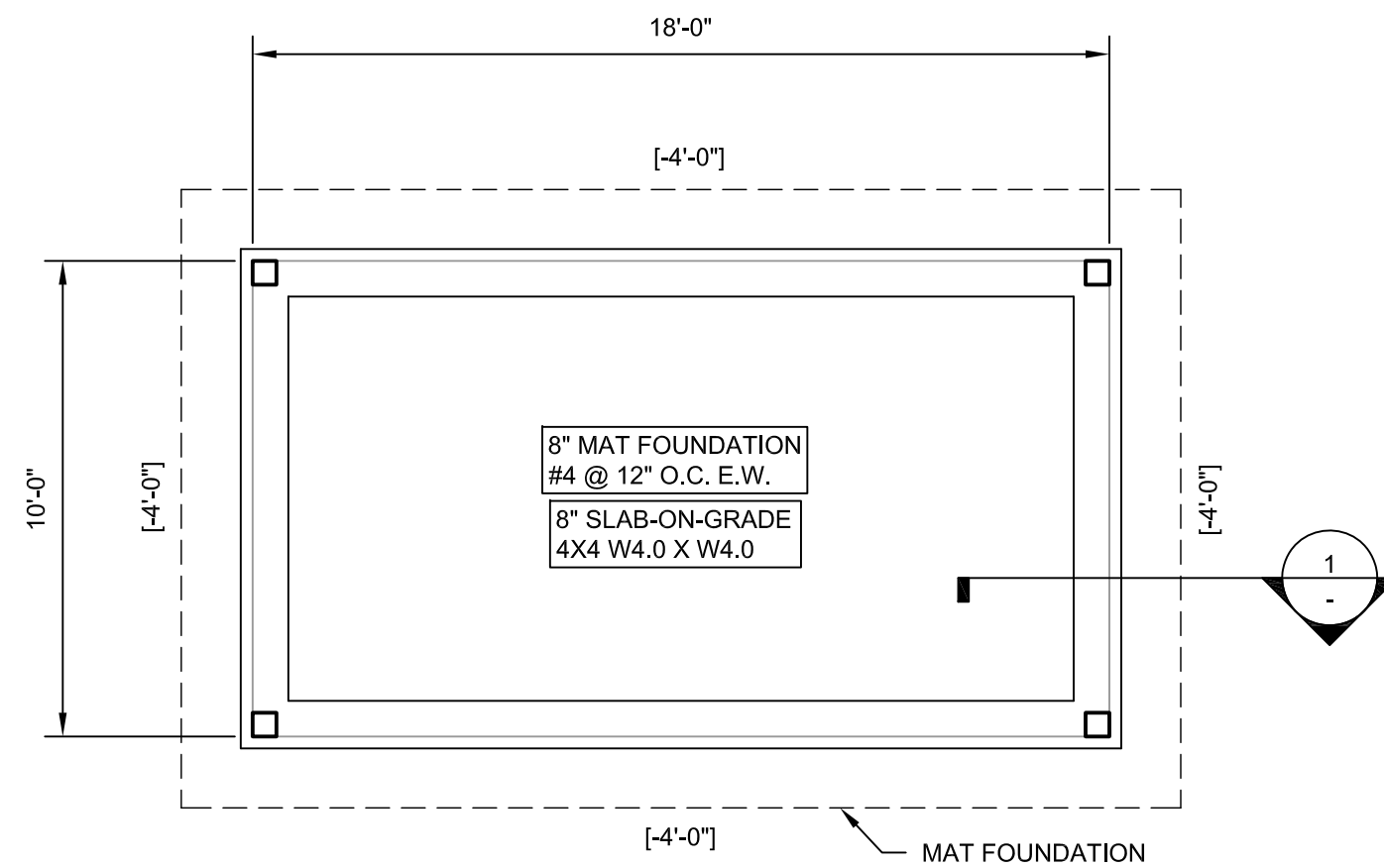
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Drawn By: CJW
Reviewed By: RAC
Approved By: RAC
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W&S File No:

Drawing Title:
GENERAL NOTES AND SOLDIER PILE WALL DETAILS

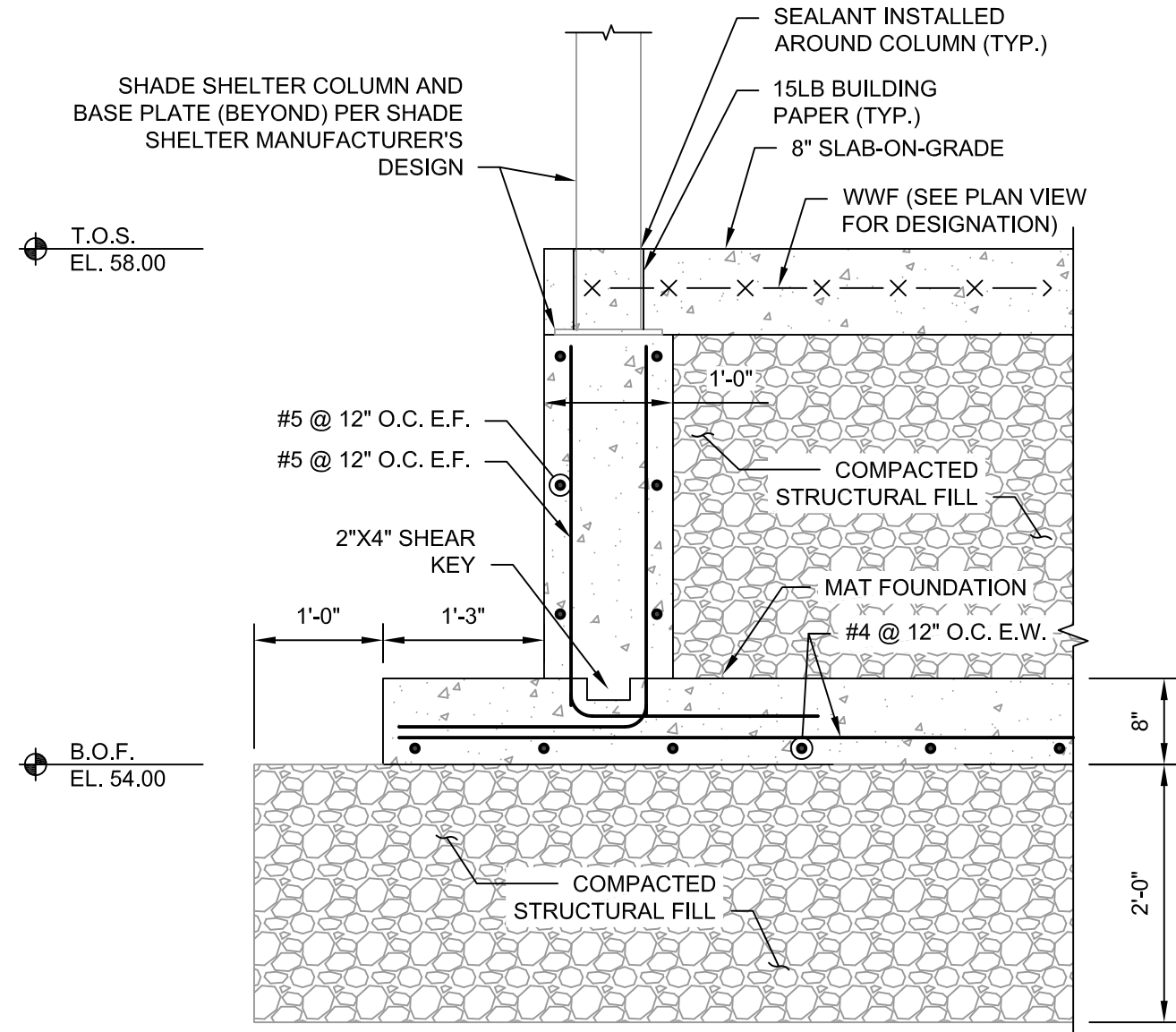
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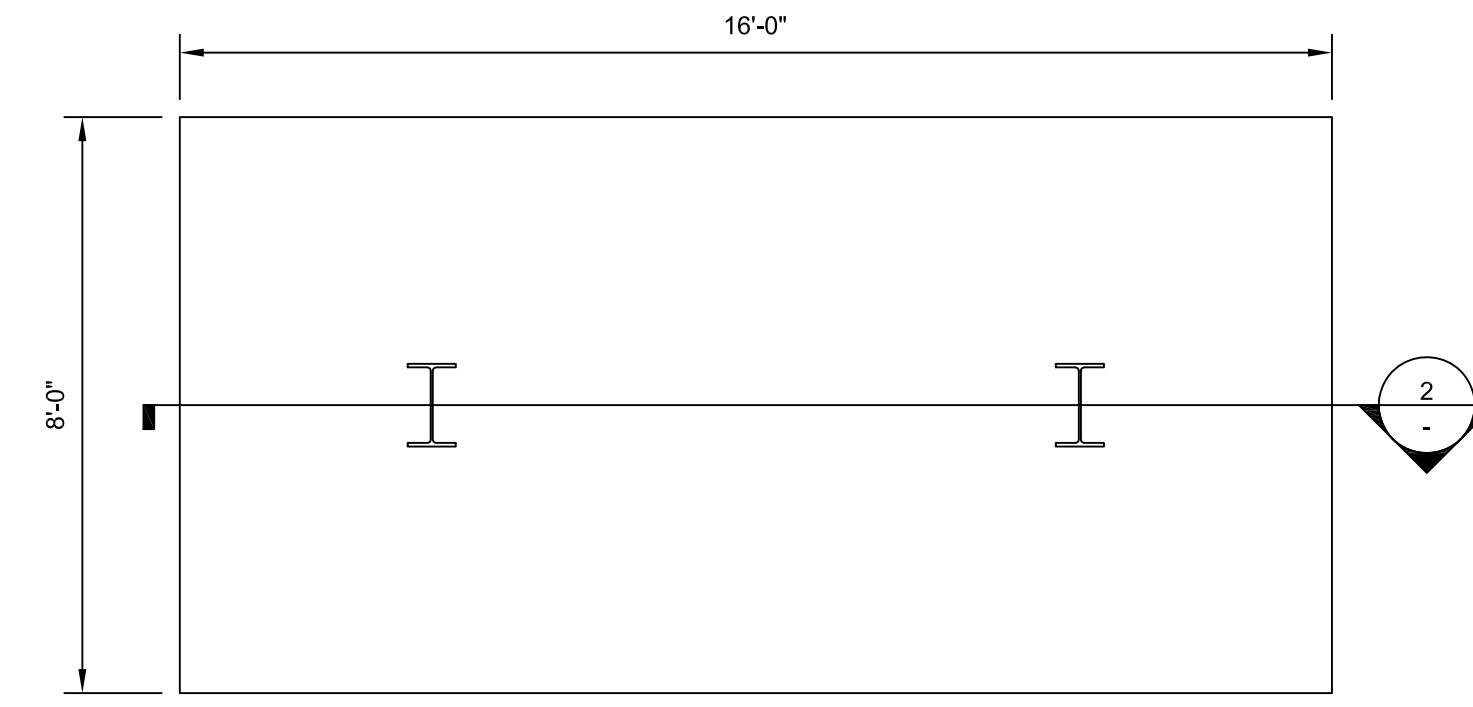
1 SHADE SHELTER 2 FOUNDATION PLAN VIEW
SCALE: 1/4"=1'-0"



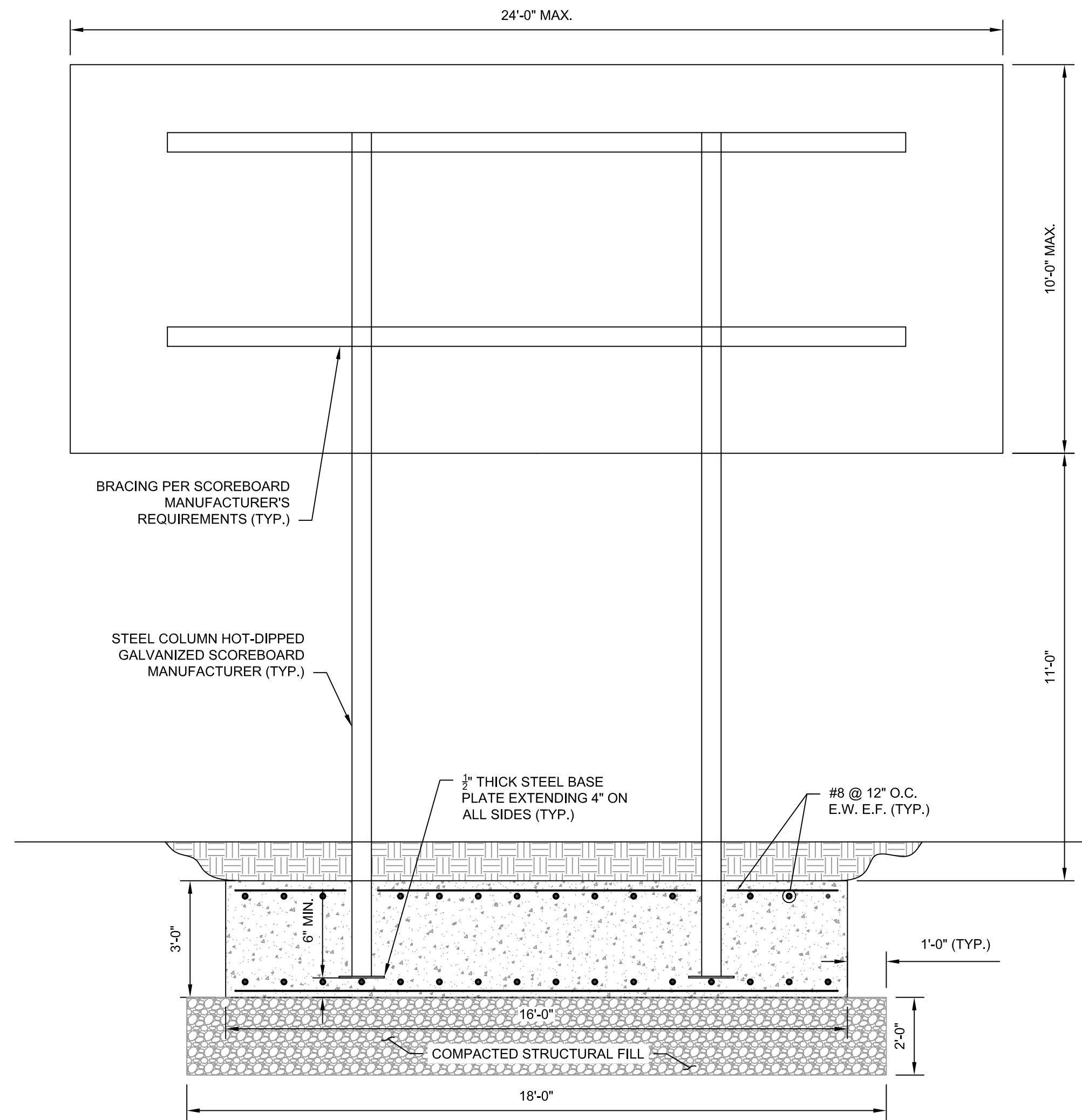
1 SHADE SHELTER 1 FOUNDATION PLAN VIEW
SCALE: 1/4"=1'-0"



1 SECTION
SCALE: 3/4"=1'-0"

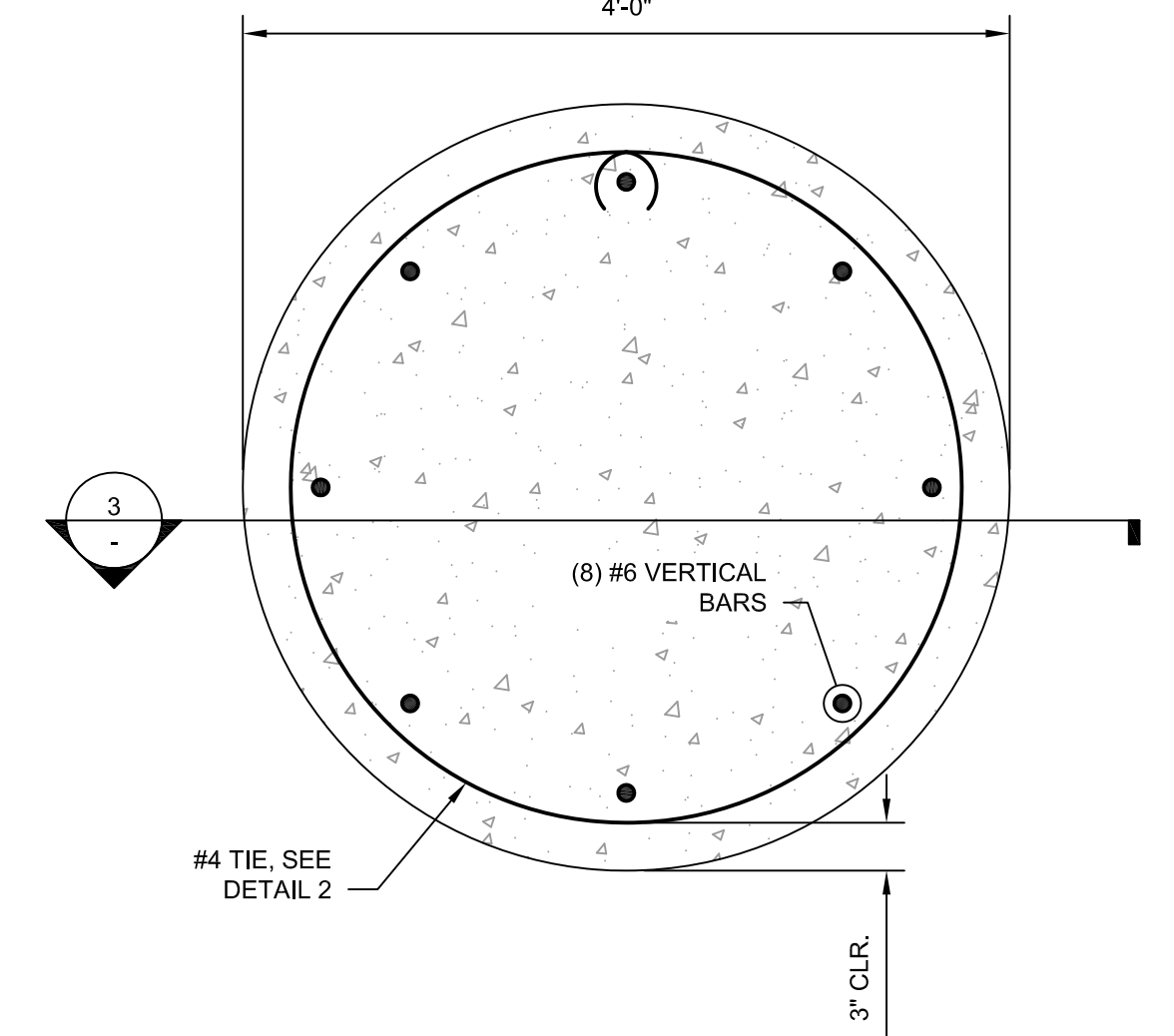


2 SCOREBOARD FOUNDATION PLAN VIEW
SCALE: 3/8"=1'-0"

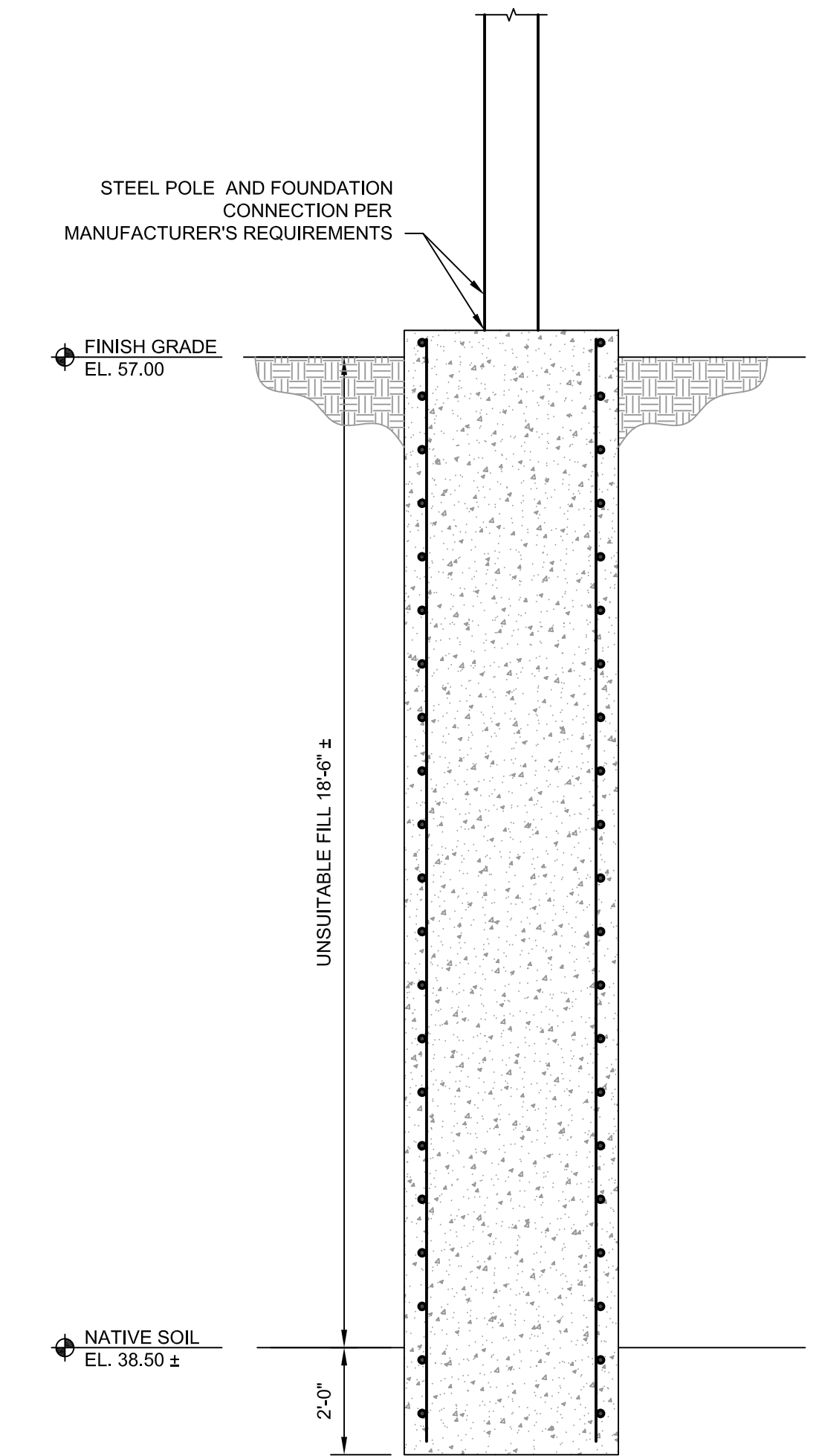


NOTES:
1. FOUNDATION AND STRUCTURAL STEEL SIZES ARE DESIGNED BASED ON ESTIMATED SCOREBOARD TYPE AND DIMENSIONS AND ARE APPROXIMATE. THEREFORE, THE FOUNDATION AND STRUCTURAL STEEL ARE SUBJECT TO CHANGE IN DIMENSION (IF NECESSARY) BASED ON APPROVED SCOREBOARD SHOP DRAWING.
2. SCOREBOARD MANUFACTURER TO COORDINATE CONNECTION TO STRUCTURAL STEEL.

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



3 BALL-NETTING FOUNDATION DETAIL
SCALE: 1"=1'-0"



3 BALL NETTING POLE FOUNDATION
SCALE: 3/8"=1'-0"

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SHADE SHELTER,
SCOREBOARD, AND
BALL NETTING POLE
FOUNDATION DETAILS

Sheet Number:
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