

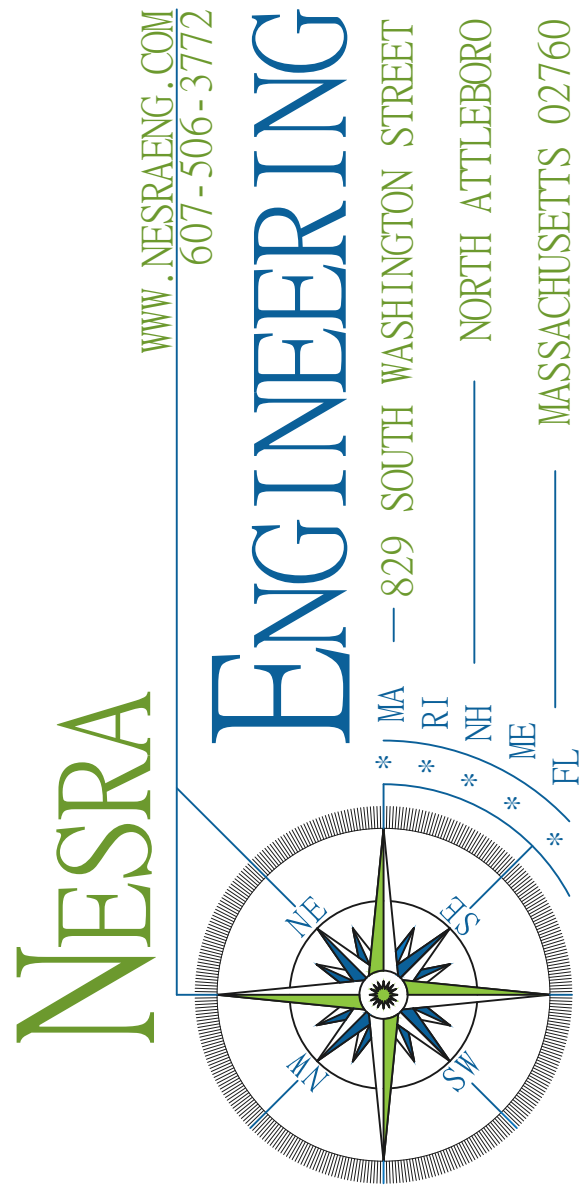
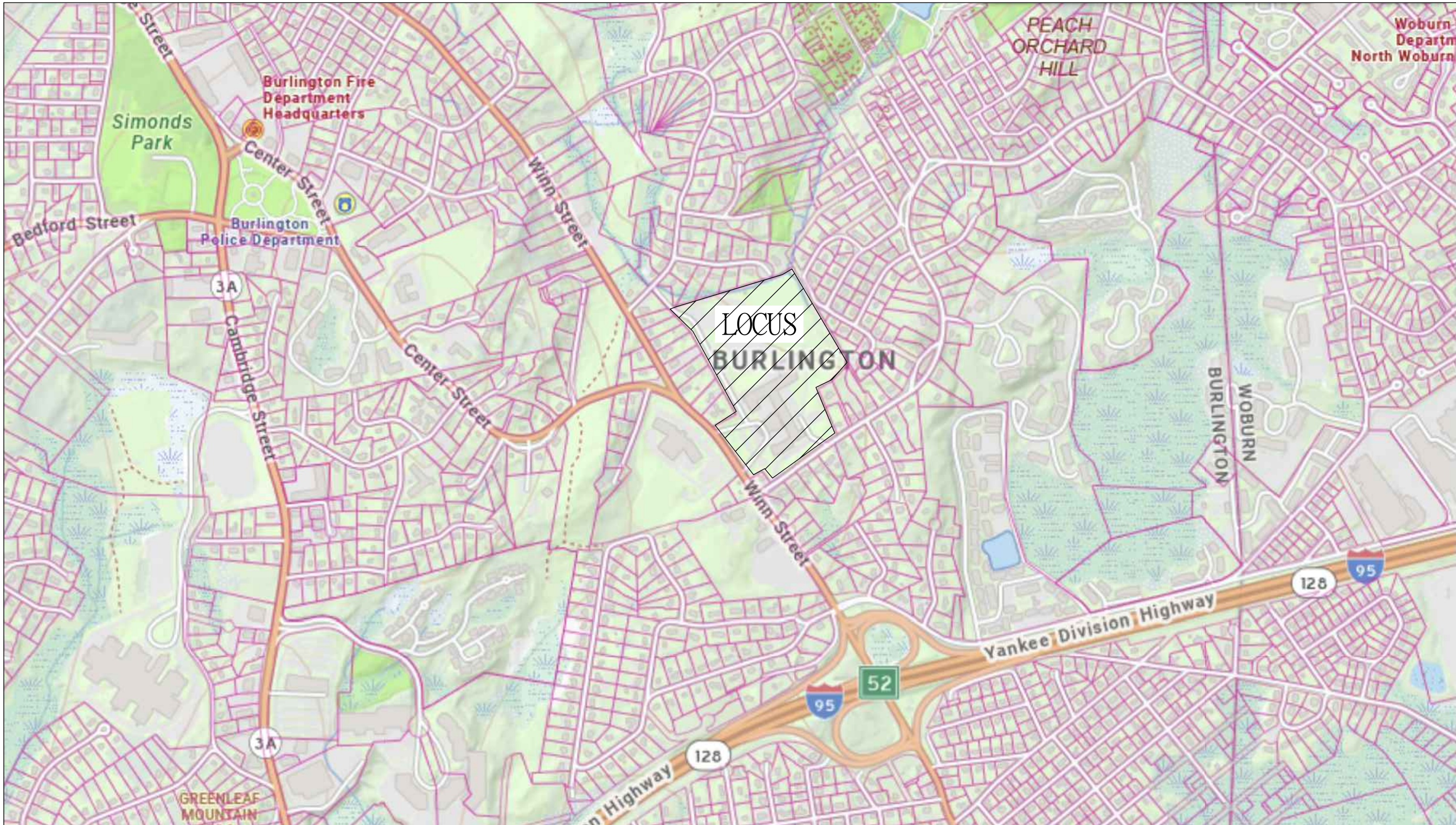


# MARSHALL SIMONDS MIDDLE SCHOOL BRUSH FIELD RENOVATION PROJECT

BURLINGTON, MASSACHUSETTS

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PROJECT		
MARSHALL SIMONDS MIDDLE SCHOOL ATHLETIC FIELDS RENOVATION PROJECT BURLINGTON, MA 01803		
CLIENT		
BURLINGTON PUBLIC SCHOOLS 123 CAMBRIDGE STREET BURLINGTON, MA 01803		
NO.	REVISION	DATE
SCALE - AS NOTED DATE - 2/10/25		
PERMIT SET		

COVER SHEET

C-1



EROSION CONTROL NOTES:

1.

AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:  
A. GRAVEL BASE COURSE HAS BEEN INSTALLED IN AREAS TO BE PAVED;  
B. A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED;  
C. A MINIMUM OF 3" OF NON-EROSIVE MATERIAL SUCH AS STONE FOR RIP RAP HAS BEEN INSTALLED;  
D. EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED;
2.

THE CONTRACTOR SHALL CONDUCT DAILY AND TIMELY INSPECTION OF BOTH TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL MEASURES.
3.

CONSTRUCTION SHALL PROCEED IN SUCH A MANNER AS TO FACILITATE INSTALLATION OF EROSION CONTROL MEASURES AND THE COMPLETION OF GRADING, SEEDING, AND LANDSCAPING AS SOON AS POSSIBLE WITHIN AN AREA. THIS PROCEDURE SHOULD RESULT IN THE EXPOSURE OF THE SMALLEST PRACTICAL LAND AREA AT ANY ONE TIME.
4.

INSTALL SILT SOCKS AS SHOWN ON PLAN AND IN DETAIL BEFORE EARTHWORK COMMENCES. ADDITIONAL SILT SOCKS MAY BE REQUIRED AS WORK CONTINUES.
5.

CUT AND FILL SLOPES BOTH CALL FOR EROSION CONTROL MEASURES.
6.

ALL DISTURBED AREAS SHALL HAVE TOPSOIL SPREAD (8" MINIMUM) AND BE LIMED, FERTILIZED, TILLED, SEEDED AND MULCHED. ALL SLOPES 3:1 (3 RUN 1 RISE) AND STEEPER SHALL HAVE MULCH HELD IN PLACE WITH BIODEGRADABLE JUTE NETTING, STAPLED AND STAKED. EACH AREA SHALL BE LIMED, FERTILIZED, PREPARED, SEEDED AND MULCHED (WITH ANCHORED NETTING IF REQUIRED) WITHIN 24 HOURS OF FINAL GRADING. WHEN PERMANENT SEEDING CANNOT BE INSTALLED BY SEPTEMBER 15, TEMPORARY SEEDING AND MULCHING OF ALL DISTURBED AREAS SHALL BE INSTALLED IMMEDIATELY AND MAINTAINED IN THAT CONDITION UNTIL PERMANENT PRACTICES CAN BE INSTALLED IN THE FOLLOWING PLANTING SEASON.  
  
TEMPORARY STABILIZATION OF DISTURBED AREAS: SEED BED PREPARATION: TILL THREE INCHES DEEP MIXING IN FERTILIZER. APPLY LIME 2 TONS/ACRE (100#/1,000 SQ. FT.) FERTILIZE: UNIFORMLY APPLY NOT LESS THAN 300#/ACRE (7#/1,000 SQ. FT.) OF 10-20-20 OR EQUIVALENT. SEEDING: SELECT APPROPRIATE SEEDING MIXTURE FROM TABLE 1 BELOW. SPREAD SEED UNIFORMLY. FIRM SOIL BY ROLLING OR PACKING; IF NOT FEASIBLE, THAN RAKE LIGHTLY TO COVER SEEDS.  
MULCHING: MULCH ALL DISTURBED AREAS WITH 1- ½ TO 2 TONS OF STRAW OR SALT MARSH HAY PER ACRE (70-90# / 1,000 SQ. FT.) ANCHOR ON ALL SLOPES 3:1 OR STEEPER AND FLATTER SLOPES SUBJECT TO WASHOUTS OR WIND BLOWING. JUTE OR OTHER BIODEGRADABLE NETTING, STAKING AND STAPLING MAY BE REQUIRED.

TABLE 1  
PLANT SELECTION AND SEEDING RATES

SPECIES	PER ACRE	PER 1,000 SQ. FT.	REMARKS
WINTER RYE	2 BU OR 112 LBS.	2.6 LBS.	BEST FOR FALL SEEDING. SEED AUGUST 15 TO SEPTEMBER 15 FOR BEST COVER. SEED TO DEPTH OF ONE INCH.
OATS	2 ½ BU OR 90 LBS.	2 LBS.	BEST FOR SPRING SEEDINGS. LATER THAN MAY 15 FOR SUMMER PROTECTION. SEED TO DEPTH OF ONE INCH.
ANNUAL RYE	40 LBS.	1. LB	GROWS QUICKLY, BUT IS FOR SHORT GRASS DURATION. USE WHERE APPEARANCES ARE IMPORTANT. COVER SEED WITH NO MORE THAN ½ INCH OF SOIL WITH MULCH. SEEDING MAY BE DONE THROUGHOUT GROWING SEASON. OTHERWISE SEED EARLY SPRING OR BETWEEN AUGUST 15 AND SEPTEMBER 15.
8.	PERMANENT STABILIZATION OF DISTURBED AREAS: SEED BED PREPARATION: TOPSOIL (SANDY LOAM, LOAM, OR SILT LOAM), FRIABLE, FREE OF TREE ROOTS, WEEDS, STONES MORE THAN 1- ½ INCHES IN DIAMETER OR LENGTH SHALL BE PLACED OVER ALL DISTURBED AREAS IN A 6" MINIMUM AND 8" MAXIMUM THICK LAYER. TOPSOIL SHALL BE FREE OF HERBICIDES AND TOXIC MATERIALS, TILL 4 INCHES DEEP MIXING IN THE FERTILIZER AND LIME. APPLY LIME 2 TONS/ACRE (100# / 1,000 SQ. FT.) FERTILIZER: UNIFORMLY APPLY NOT LESS THAN 500#/ACRE (12#/1,000 SQ. FT.) OF 10-20-20 OR EQUIVALENT. SEEDING: SPREAD SEED UNIFORMLY. FIRM SOIL BY ROLLING OR PACKING; IF NOT FEASIBLE, THAN RAKE LIGHTLY TO COVER SEEDS. MULCHING: MULCH ALL DISTURBED AREAS WITH 1- ½ TO 2 TONS OF HAY OR STRAW PER ACRE (70-90# / 1,000 SQ. FT.). ANCHOR ON ALL SLOPES 3:1 OR STEEPER AND ON LATTER SLOPES SUBJECT TO WASH (WATERWAYS) AND/OR WINDBLOWN USING JUTE OR OTHER BIODEGRADABLE NETTING, STAKING, AND STAPLING.		
9.	TEMPORARY EROSION CONTROL MEASURES SHALL NOT BE REMOVED UNTIL ALL DISTURBED AREAS HAVE BEEN STABILIZED.		
10.	MAINTENANCE: DURING THE CONSTRUCTION PERIOD AND UNTIL SUCH TIME AS THE LONG TERM VEGETATION IS ESTABLISHED.  A. DISTURBED AREAS WILL BE FERTILIZED AND RESEEDED. B. CATCH BASINS WILL BE CHECKED AND CLEANED AS NECESSARY. C. DRAINAGE AND GRASS TREATMENT SWALES SHALL BE CHECKED FREQUENTLY AND CLEANED AS REQUIRED. D. THE HAYBALE DIKES WILL BE CHECKED ON A REGULAR BASIS AND REPAIRED AS NECESSARY TO CORRECT ANY DAMAGE, DETERIORATION, AND SHORT CIRCUITTING.		
11.	SITE VISITS: THE ENGINEER SHALL BE CONTACTED ON A REGULAR BASIS TO OBSERVE ALL EROSION CONTROL PRACTICES AS WELL AS THE MAINTENANCE OF THE EROSION CONTROL COMPONENTS. REFER TO CONSTRUCTION SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS. EROSION CONTROL PRACTICES SHALL BE IN STRICT ACCORDANCE WITH THE APPROVED PLANS AND SPECIFICATIONS.		
12.	ALL TREATMENT SWALES AND DITCHES SHALL BE ESTABLISHED PRIOR TO DIRECTING RUNOFF TO THEM.		

CONSTRUCTION SEQUENCE:

1.

GENERAL CONTRACTOR IS RESPONSIBLE FOR OBTAINING NPDES GENERAL CONSTRUCTION PERMIT AND PREPARATION OF THE ASSOCIATED STORMWATER POLLUTION PREVENTION PLAN.
2.

COMPLY WITH ALL THE REQUIREMENTS OF THE LOCAL CONSERVATION COMMISSION ORDER OF CONDITIONS. COLLABORATE WITH THE CONSERVATION COMMISSION AGENT FOR ALL NECESSARY INSPECTIONS AND DOCUMENTATION.
2.

INSTALL SILT SOCKS AT ALL LOCATIONS INDICATED ON PLAN AND AT OTHER LOCATIONS AS DETERMINED BY ENGINEER. INSTALL OTHER TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO ANY EARTHWORK AND AS REQUIRED BY THE ORDER OF CONDITIONS. ADDITIONAL EROSION CONTROL MATERIAL SHALL BE STORED ON SITE AND UTILIZED AS NEEDED AND REQUESTED BY THE ENGINEER AND OR CONSERVATION AGENT.
3.

CONSTRUCT INLET PROTECTION AT ALL CATCH BASINS.
4.

STABILIZE CONSTRUCTION ENTRANCES AND TEMPORARY ACCESS ROADS WITH COARSE AGGREGATE 4 INCHES (MINIMUM) OVER COMPACTED FILL AREAS TO PREVENT OFF-SITE TRACKING BY VEHICLES AND EQUIPMENT. PROVIDE STEEL PLATES AS NECESSARY FOR CURB CROSSING.
9.

INSPECT ALL DISTURBED AREAS ON A DAILY BASIS. FOLLOWING THE DAILY INSPECTION, INSTALL AS REQUIRED ANY AND ALL TEMPORARY DRAINAGE, EROSION, AND SEDIMENT CONTROL PRACTICES AS INDICATED, I.E., DIVERSION CHANNELS, BERMS, DRAINS, DITCHES, SEED AND MULCH OR OTHER PRACTICES.
10.

DISCONNECT ELECTRICAL SERVICE TO THE EXISTING LIGHT POLES.
11.

REMOVE AND DISPOSE EXISTING LIGHTING, FOUNDATIONS, CONDUITS, WIRING, ETC.
12.

REMOVE AND DISPOSE EXISTING FENCE POTS, RAILS, FABRIC, FOOTINGS, ETC., AS INDICATED ON THE DEMOLITION AND EROSION CONTROL PLANS.
13.

REMOVE AND DISPOSE EXISTING GOAL POSTS AND FOUNDATIONS.
14.

SAW CUT PARKING AREAS AND WALKWAYS TO BE DEMOLISHED.
15.

REMOVE AND DISPOSE BITUMINOUS CONCRETE PAVEMENT AND SUBSURFACE MATERIAL WITHIN THE LIMITS INDICATED ON THE DEMOLITION PLANS. PROOF ROLE THE BASE AND PREPARE FOR NEW DENSE GRADED CRUSHED TONE AND ASPHALT PAVEMENT.
16.

REMOVE, SCREEN AND STOCKPILE EXISTING LOAM WITHIN THE LIMITS OF PROPOSED IMPERVIOUS SURFACES, AND LIMITS OF PROPOSED SYNTHETIC TURF. STOCKPILE IN DESIGNATED LOCATIONS ON SITE. PROVIDE PERIMETER EROSION CONTROL AND FACILITATE REMOVAL AND PROPER DISPOSAL FROM SITE.
17.

CONTRACTOR TO KEEP, SCREEN AND STORE ONLY THE AMOUNT OF TOPSOIL NECESSARY FOR THE RESTORATION OF THE SITE AND WETLAND REPLICATIONS. ALL EXCESS MATERIAL INCLUDING TAILINGS SHALL BE REMOVED AND DISPOSED OFF SITE.
18.

IMPORT, PLACE AND COMPACT CLEAN SOILS FROM NEWLY BORROWED SOURCES IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS. PROOF ROLE, COMPACT AND TEST FOR COMPACTION.
19.

CREATE WETLAND REPLICATION AREAS, HAVE INSPECTED AND APPROVED. PERFORM PLANTING INSTALLATION IN THE PLANTING SEASON AND AS APPROVED BY CONSERVATION.
20.

STAKE OUT, DRILL AND INSTALL LIGHT POLE FOUNDATIONS, SCOREBOARD FOUNDATIONS, NETTING POLE FOUNDATIONS ETC.
21.

EXCAVATE AND INSTALL TRANSFORMER PAD, CONDUITS, JUNCTION BOXES ETC. CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITTING FROM THE TOWN INCLUDING BUT NOT LIMITED TO TRENCH PERMIT, CONDUIT AND WIRING INSPECTIONS ETC.
22.

EXCAVATE, PREPARE, FORM AND POUR PERIMETER TURF NAILER.
23.

CONDUCT AN PREPARE A SURVEY GRID OF THE SUB BASE AND SUBMIT TO ENGINEER FOR REVIEW AND APPROVAL.
24.

ONCE APPROVED INSTALL DRAINAGE TRENCHES, COLLECTOR PIPES, FILTER FABRIC AND FLAT PANEL DRAINS.
25.

CREATE A TEST PLOT OF APPROXIMATELY 20' X 20' OF BASE STONE AND TOP STONE, COMPACTED TO PROJECT SPECIFICATIONS AND PERFORM INFILTRATION TESTING. THE MATERIAL SHALL BE THE SAME AND FROM THE SAME SOURCE FOR THE ENTIRE PROJECT. ONCE TESTED AND APPROVED, BEGIN IMPORTING BASE STONE AND TOP STONE MATERIALS.
26.

PLACE AND COMPACT TO SPECIFICATIONS. PERFORM THE GRID SURVEY FOR THE BASE STONE AND THE TOP STONE MATERIALS. OBTAIN APPROVAL FROM THE ENGINEER AFTER EACH LAYER. TOP STONE IN EXCESS OF THE SPECULATION TOLERANCES WILL NOT BE ALLOWED.
27.

INSTALL ATHLETIC FIELD LIGHTING, SCOREBOARDS, NETTING POLES, GOAL POSTS AND ALL OTHER STRUCTURES.
28.

INSTALL TERRACED WALLS AND SEATING AREAS ON THE EMBANKMENT.
29.

PREPARE PARKING, ACCESS AREA, AND WALKWAY BASE, PROOF ROLE, TEST FOR COMPACTION AND PREPARE FOR BINDER.
30.

INSTALL FENCE POSTS, GUARD RAIL POSTS, PARKING SIGNAGE POSTS ETC.
31.

PROVIDE FINAL PAVING AND STRIPING.
32.

INSTALL FENCE RAILS, FABRIC, TIES ETC. INSTALL GUARD RAILS, AND PARKING SINGS.
33.

INSTALL TERRACED SEATING MATERIALS. (TO BE DETERMINED - TURF, SOD, ETC.)
34.

INSTALL SYNTHETIC TURF FIELD, AND PLACE INFILL.
35.

INSTALL, TEST AND INSPECT ALL WIRING FOR THE LIGHTS, SCOREBOARDS, ELECTRICAL PLUGS, ETC.
36.

INSTALL ALL COMMUNICATION AND SOUND REQUIREMENTS.
37.

INSTALL GATES AND LATCHES.
38.

PLACE TOPSOIL ON ALL DISTURBED AREAS AND DEGRADED AREAS, COMPLETE PERMANENT FERTILIZING, LIMING, SEEDING AND MULCHING, INSTALL LANDSCAPE PLANTINGS.
39.

CLEAN AND RESTORE SILT DETENTION SITES AND DRAINAGE STRUCTURES. REMOVE OTHER EROSION CONTROL PRACTICES ON A TIMELY BASIS AS PERMANENT MEASURES TAKE HOLD. SPOT FERTILIZE, SEED, AND MULCH AS REQUIRED.
40.

INSPECT AND MAINTAIN GRADING, EROSION CONTROL AND SEDIMENT CONTROL PRACTICES WEEKLY AND IMMEDIATELY AFTER ALL STORMS OF MORE THAN ½ INCH PRECIPITATION IN 24 HOURS.
41.

REFER TO EROSION CONTROL NOTES FOR ADDITIONAL DETAILS RELATIVE TO THE REQUIRED CONSTRUCTION SEQUENCE.
42.

MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL COMPONENTS AND INSTALLATION OF ADDITIONAL EROSION AND SEDIMENT CONTROL COMPONENTS SHALL BE AN ONGOING PRACTICE AND IN STRICT ACCORDANCE WITH THE CONTRACT SPECIFICATIONS.
43.

PERFORM AS-BUILT SURVEY AND SUBMIT AS-BUILT AND RECORD DRAWINGS.
44.

TRAIN OWNER'S REPRESENTATIVES IN MAINTENANCE AND OPERATIONS OF THE FACILITY.
45.

COMPLETE PROJECT PUNCH LIST.
46.

SUBMIT ALL REQUIRED DOCUMENTATION, INCLUDING BUT NOT LIMITED TO WARRANTIES, MAINTENANCE DOCUMENTS, RECORD DOCUMENTS, ETC.

GENERAL NOTES:

1.

ALL SITE WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LOCAL CPW/DPW SPECIFICATIONS.
2.

THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND PAYING FOR ALL NECESSARY CONSTRUCTION PERMITS REQUIRED TO COMPLETE THE WORK.
3.

ALL UTILITY SIZES, LOCATIONS, AND APPURTENANCES ARE SUBJECT TO THE APPROVAL AND/ OR REVISION OF THE RESPECTIVE UTILITY HAVING JURISDICTION.
4.

NOTIFY "DIG-SAFE" (1-888-344-7233) AND THE LOCAL CPW/DPW TO VERIFY THE LOCATION, DEPTH AND SIZE OF THE EXISTING UTILITY SERVICE CONNECTIONS PRIOR TO CONSTRUCTION.
5.

THE CONTRACTOR IS RESPONSIBLE FOR LOAMING AND HYDROSEEDING AREAS DISTURBED BY CONSTRUCTION OPERATIONS.
6.

ALL MATERIAL TO BE REMOVED MUST BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.
7.

ALL EXISTING UTILITIES SHALL BE PROTECTED UNLESS OTHERWISE SPECIFIED.
8.

ALL EROSION CONTROL TO BE INSTALLED PRIOR TO ANY OTHER WORK ON THE SITE.
9.

WALKWAY CROSS SLOPES, AS INDICATED IN THE STANDARD SPECIFICATIONS, WILL BE AT 1.6% MAXIMUM, 1.5% PREFERRED, IN ACCORDANCE WITH THE ARCHITECTURAL ACCESS BOARD (AAB) RULES AND REGULATIONS. THE SIDEWALK CROSS SLOPE CANNOT EXCEED 2.0%.
10.

ANY ALTERATIONS REQUIRED ON THESE DRAWINGS DURING CONSTRUCTION SHALL BE APPROVED BY THE PROJECT ENGINEER AND THE TOWN/CITY PRIOR TO CONSTRUCTION AND SHALL BE RECORDED ON THE "AS-BUILT" DRAWINGS.
11.

THE CONTRACTOR SHALL COORDINATE ALL WORK AND TIME SCHEDULES WITH THE TOWN/CITY AND THEIR REPRESENTATIVES.

DIMENSIONS AND QUANTITIES:

1.

ALL DIMENSIONS AND QUANTITIES SHALL BE DETERMINED OR VERIFIED BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION.
2.

CONTRACTOR SHALL VERIFY THE DRAWING SCALE AND NOTIFY THE ENGINEER IMMEDIATELY OF ANY INACCURACIES.
3.

THE INFORMATION ON THE CONTRACT DRAWINGS HAS BEEN COMPILED FROM VARIOUS SOURCES AND MAY NOT REFLECT THE ACTUAL CONDITIONS AT THE TIME OF CONSTRUCTION.
4.

THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS AND MAKE ALL INVESTIGATIONS NECESSARY TO PERFORM THE WORK. THE OWNER WILL NOT CONSIDER UNFAMILIARITY WITH THE PROJECT AS A BASIS FOR ADDITIONAL COMPENSATION.

PROTECTION NOTES:

1.

ADEQUATE PROTECTION OF PERSONS AND PROPERTY SHALL BE PROVIDED AT ALL TIMES. THE WORK SHALL BE EXECUTED IN SUCH A WAY AS TO AVOID HAZARD TO PERSONS AND PROPERTY. WORK SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE REQUIREMENTS OF LOCAL, STATE AND FEDERAL AUTHORITIES HAVING JURISDICTION OVER THE WORK.
2.

PROVIDE ALL NECESSARY TEMPORARY PROTECTION AND BARRIERS TO SEGREGATE THE WORK AREA AND TO PREVENT DAMAGE TO ADJACENT AREAS.
3.

PROVIDE PROPER PROTECTION AND BARRIERS BETWEEN THE WORK OF THE CONTRACT AND THE EXISTING STRUCTURES TO REMAIN.
4.

PROVIDE MAXIMUM SECURITY IN TERMS OF PREVENTION OF FIRE AND OTHER HAZARDS.

PERMIT ADVISORY NOTE:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND PAYING FOR ALL PERMITS AND APPROVALS INCIDENTAL TO THEIR SCOPE OF WORK, INCLUDING, BUT NOT LIMITED TO, THE FOLLOWING:

1.

BUILDING PERMIT: FOR ALL CONSTRUCTION-RELATED ACTIVITIES, INCLUDING BUT NOT LIMITED TO GRADING, INSTALLATION OF LIGHT POLES, SCOREBOARD STRUCTURES, AND GOALPOSTS.
2.

TRENCH PERMIT: FOR ANY EXCAVATION, TRENCHING, OR UNDERGROUND UTILITY INSTALLATIONS (INCLUDING DRAINAGE SYSTEMS, ELECTRICAL CONDUITS, ETC.).
3.

ELECTRICAL PERMIT: FOR THE INSTALLATION OF LIGHTING SYSTEMS, ELECTRICAL PANELS, WIRING, AND RELATED INFRASTRUCTURE ASSOCIATED WITH THE TURF FIELD AND ASSOCIATED AMENITIES.
4.

DRAINAGE PERMIT: FOR ANY DRAINAGE SYSTEMS AND STORMWATER MANAGEMENT MEASURES REQUIRED FOR THE FIELD INSTALLATION, INCLUDING COLLECTION AND RUNOFF SYSTEMS.
5.

RIGHT-OF-WAY PERMITS: IF REQUIRED FOR ANY WORK WITHIN PUBLIC ROADWAYS OR EASEMENTS RELATED TO FIELD INFRASTRUCTURE, LIGHT POLES, OR OTHER SYSTEMS.
6.

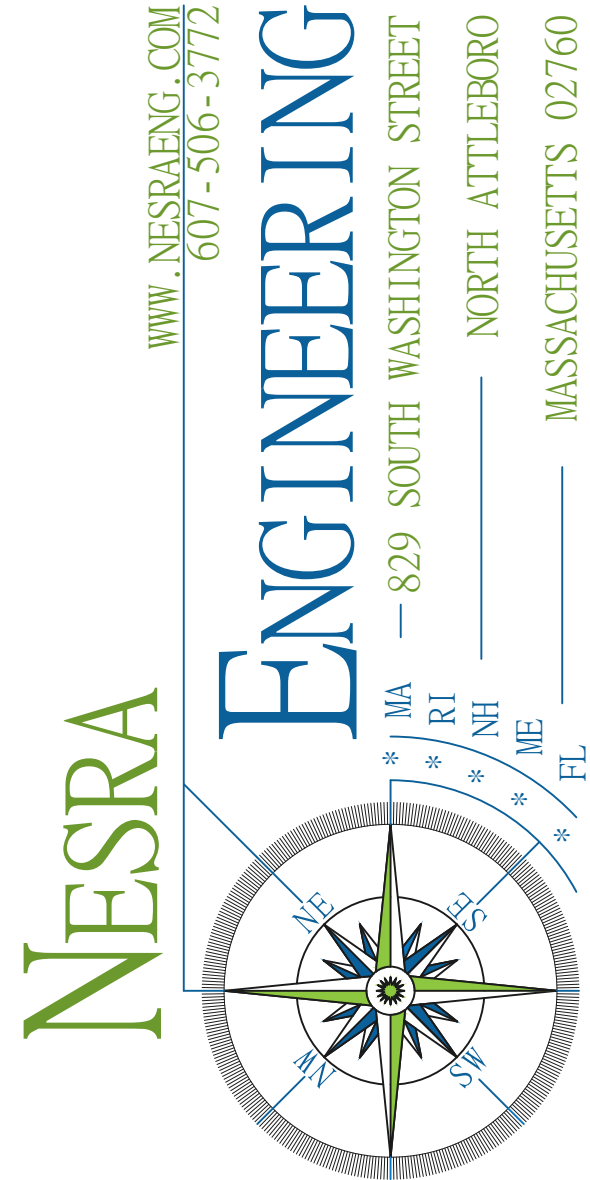
TEMPORARY STRUCTURES PERMITS: FOR THE INSTALLATION OF TALL NETTING POLES, SCAFFOLDING, OR OTHER TEMPORARY STRUCTURES, AS REQUIRED BY LOCAL CODES.
7.

NPDES PERMIT (NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM): THE CONTRACTOR IS REQUIRED TO OBTAIN AND COMPLY WITH THE FEDERAL NPDES PERMIT FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES. THIS PERMIT IS MANDATED BY THE EPA AND MUST BE SECURED PRIOR TO THE COMMENCEMENT OF ANY SITE DISTURBANCE OR CONSTRUCTION ACTIVITIES.
8.

SWPPP (STORMWATER POLLUTION PREVENTION PLAN): IN CONJUNCTION WITH THE NPDES PERMIT, THE CONTRACTOR SHALL DEVELOP AND IMPLEMENT A SWPPP TO MANAGE AND MITIGATE STORMWATER RUNOFF, EROSION, AND SEDIMENTATION THROUGHOUT THE DURATION OF THE CONSTRUCTION. THE SWPPP MUST BE IN PLACE BEFORE ANY SITE DISTURBANCE OCCURS, AND THE CONTRACTOR MUST ENSURE FULL COMPLIANCE WITH ITS PROVISIONS.

ALL PERMITS MUST BE OBTAINED PRIOR TO THE COMMENCEMENT OF CONSTRUCTION ACTIVITIES, AND THE CONTRACTOR SHALL ENSURE THAT ALL WORK COMPLIES WITH LOCAL, STATE, AND FEDERAL REGULATIONS, INCLUDING THE FEDERAL NPDES REQUIREMENTS. THE CONTRACTOR IS ALSO RESPONSIBLE FOR COORDINATING INSPECTIONS, ENSURING ALL WORK IS DONE IN COMPLIANCE WITH APPROVED PERMIT CONDITIONS, AND MAINTAINING ALL NECESSARY DOCUMENTATION THROUGHOUT THE PROJECT.

THE PROJECT IS SUBJECT TO APPLICABLE MASSACHUSETTS LAWS, BUILDING CODES, AND ZONING ORDINANCES.



PROJECT

MARSHALL SIMONDS  
MIDDLE SCHOOL  
ATHLETIC FIELDS  
RENOVATION PROJECT  
BURLINGTON, MA 01803

CLIENT

BURLINGTON PUBLIC  
SCHOOLS  
123 CAMBRIDGE STREET  
BURLINGTON, MA 01803

NO.	REVISION	DATE

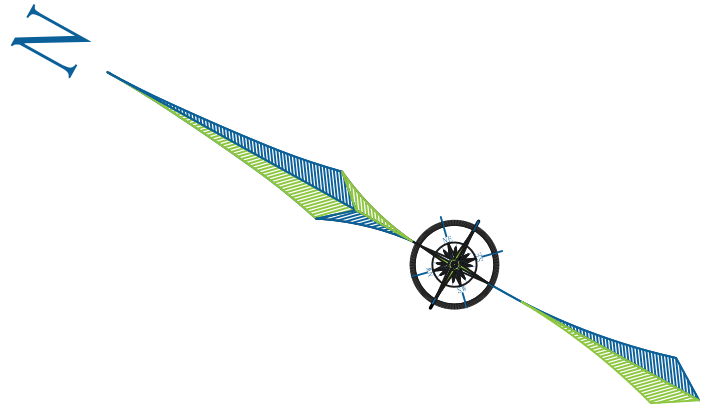
SCALE - AS NOTED  
DATE - 2/10/25

PERMIT SET

GENERAL  
NOTES

C-2





LEGEND

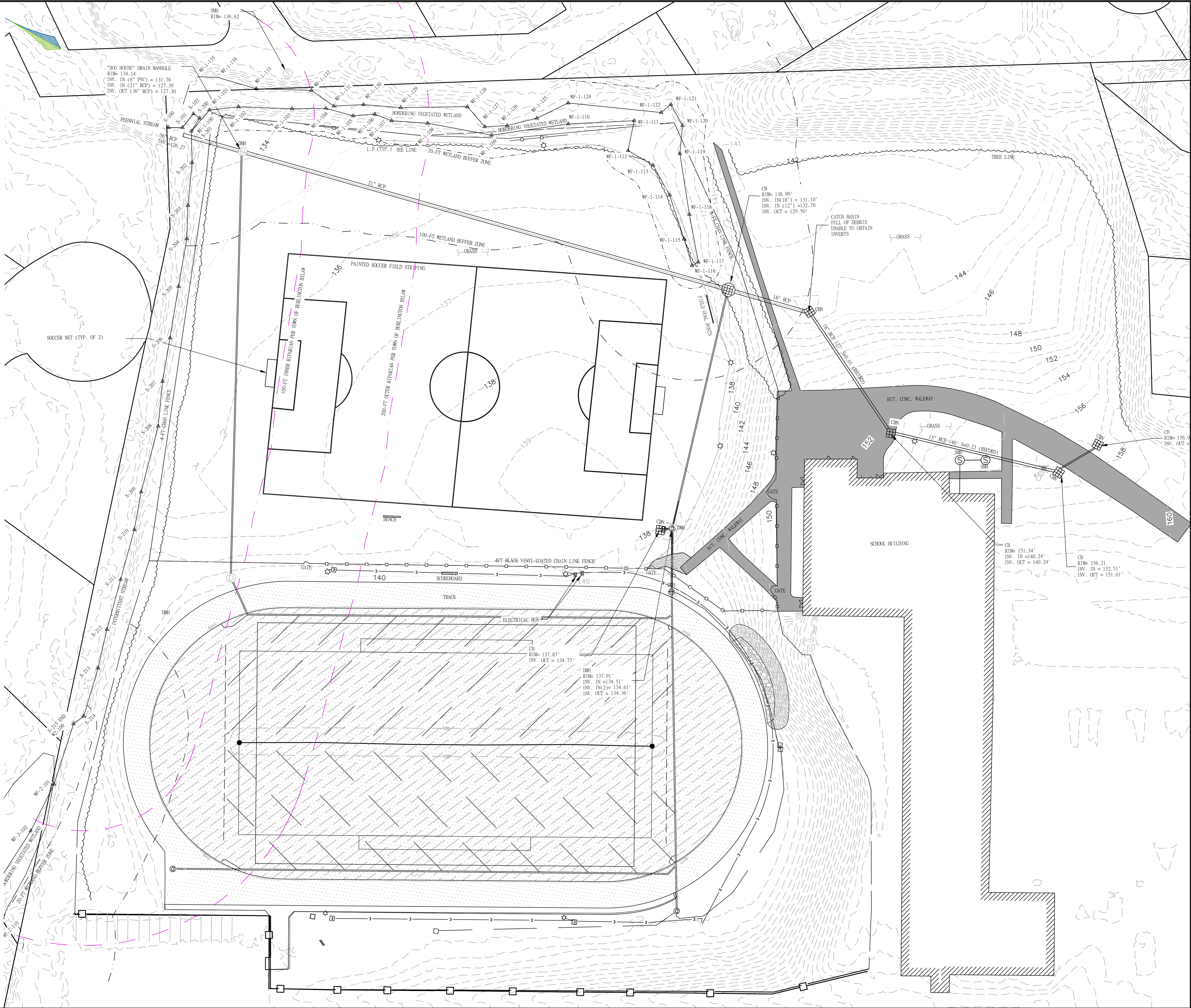
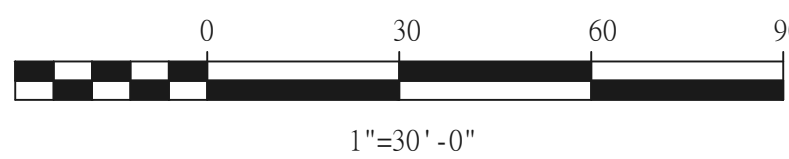
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|--|--------------------------------|
|  | ATHLETIC FIELD LIGHTS          |
|  | ELECTRIC HAND HOLE (EHH)       |
|  | DRAIN MANHOLE (DMH)            |
|  | CATCH BASIN (CB)               |
|  | AREA DRAIN (ADRN)              |
|  | UTILITY POLE (UP)              |
|  | GUY WIRE                       |
|  | SEWER MANHOLE (SMH)            |
|  | HYDRANT (HYD)                  |
|  | WATER SHUTOFF (WSO)            |
|  | WATER PIT                      |
|  | TRASH RECEPTACLE               |
|  | FIELD UNDERDRAIN               |
|  | PERFORATED HDPE COLLECTOR PIPE |
|  | SOLID DRAIN LINE               |
|  | ELECTRICAL CONDUIT             |
|  | ELECTRICAL CONDUIT             |
|  | WATER LINE                     |
|  | SEWER LINE                     |
|  | CHAIN LINK FENCE               |
|  | ORNAMENTAL FENCE               |
|  | MINOR CONTOURS                 |
|  | MAJOR CONTOURS                 |
|  | SCOREBOARD                     |
|  | INVERT                         |
|  | DRAIN MANHOLE                  |
|  | CATCH BASIN                    |
|  | REINFORCED CONCRETE PIPE       |
|  | PERFORATED                     |
|  | HDPPE                          |
|  | B.W.                           |
|  | T.W.                           |
|  | MON.                           |
|  | ENC.                           |
|  | F.P.                           |

NOTE:

SURVEY COORDINATES ARE BASED ON AN ASSUMED DATUM.

SURVEY ELEVATIONS ARE BASED ON AN ASSUMED DATUM.

AS-BUILT INFORMATION IS COMPILED FROM ON THE GROUND TOTAL STATION SURVEY, AND RECORD PLANS PROVIDED BY THE OWNER.

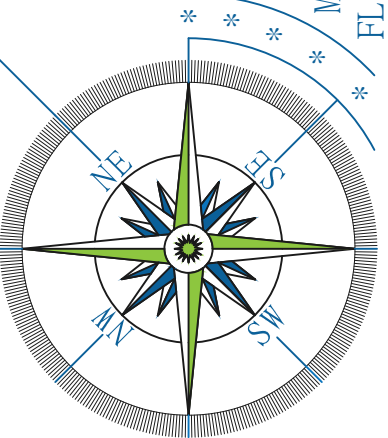


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ENGINEERING

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FL —



PROJECT

MARSHALL SIMONDS  
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ATHLETIC FIELDS  
RENOVATION PROJECT  
BURLINGTON, MA 01803

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123 CAMBRIDGE STREET  
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SCALE - 1"=30'  
DATE - 12/15/24

PERMIT SET

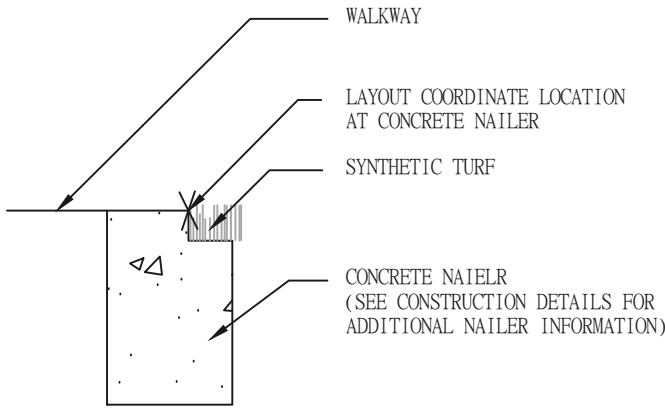
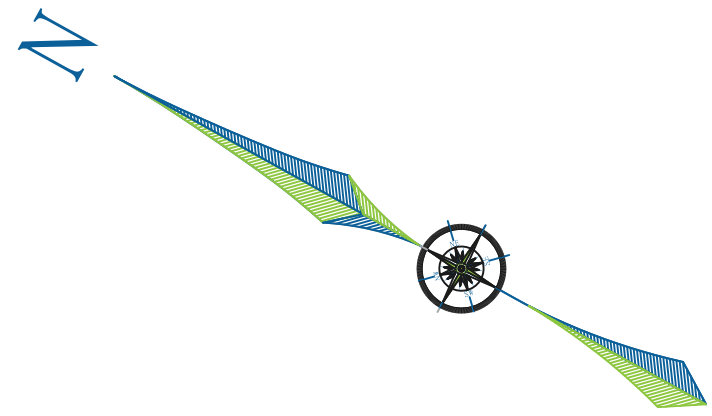
EXISTING  
CONDITIONS  
PLAN

C-3

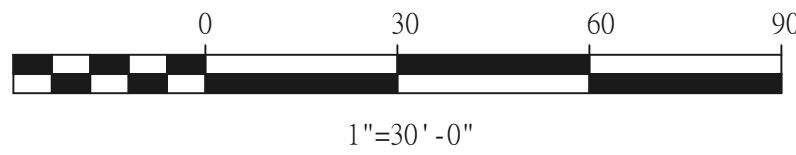
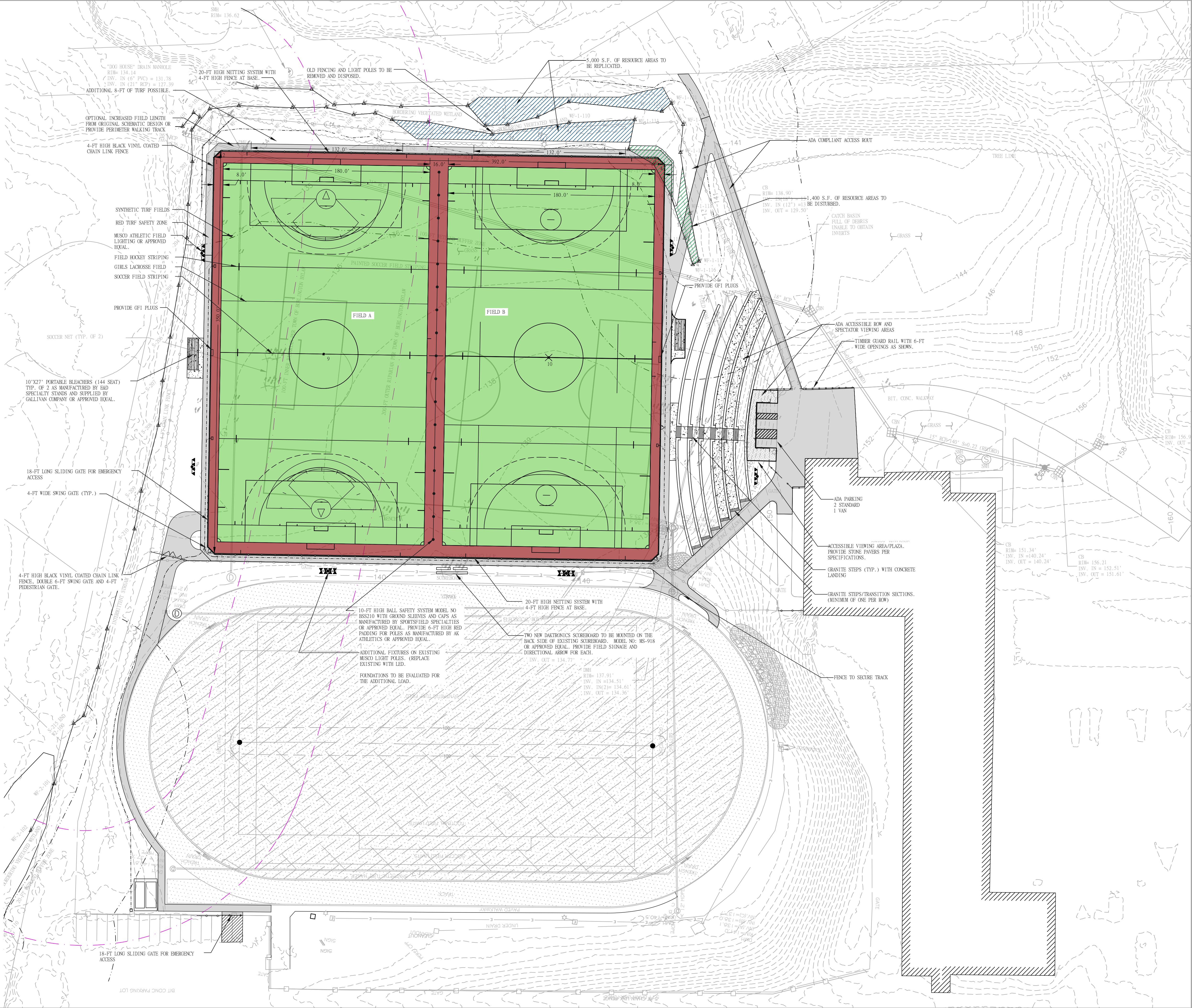




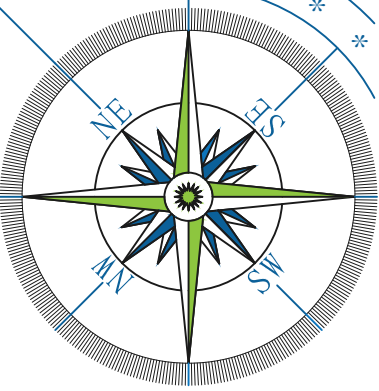




LAYOUT COORDINATES				
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2.	3008814.95	742304.72	135.20	NAILER
3.	3008479.33	742483.83	137.22	NAILER
4.	3008471.80	742481.45	137.28	NAILER
5.	3008312.16	742182.89	139.08	NAILER
6.	3008314.54	742175.05	139.08	NAILER
7.	3008650.16	741995.94	137.00	NAILER
8.	3008657.99	741998.32	137.06	NAILER
9.	3008651.20	742193.74	136.62	CENTER FIELD A
10.	3008478.34	742286.13	137.64	CENTER FIELD F



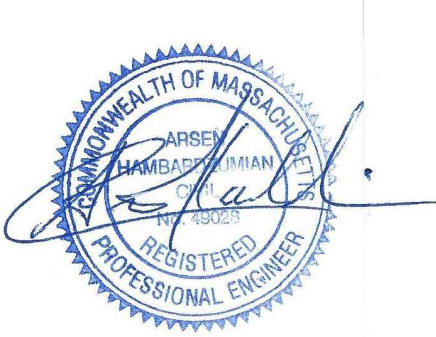
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ENGINEERING

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PROJECT

MARSHALL SIMONDS  
MIDDLE SCHOOL  
ATHLETIC FIELDS  
RENOVATION PROJECT  
BURLINGTON, MA 01803

CLIENT

BURLINGTON PUBLIC  
SCHOOLS  
123 CAMBRIDGE STREET  
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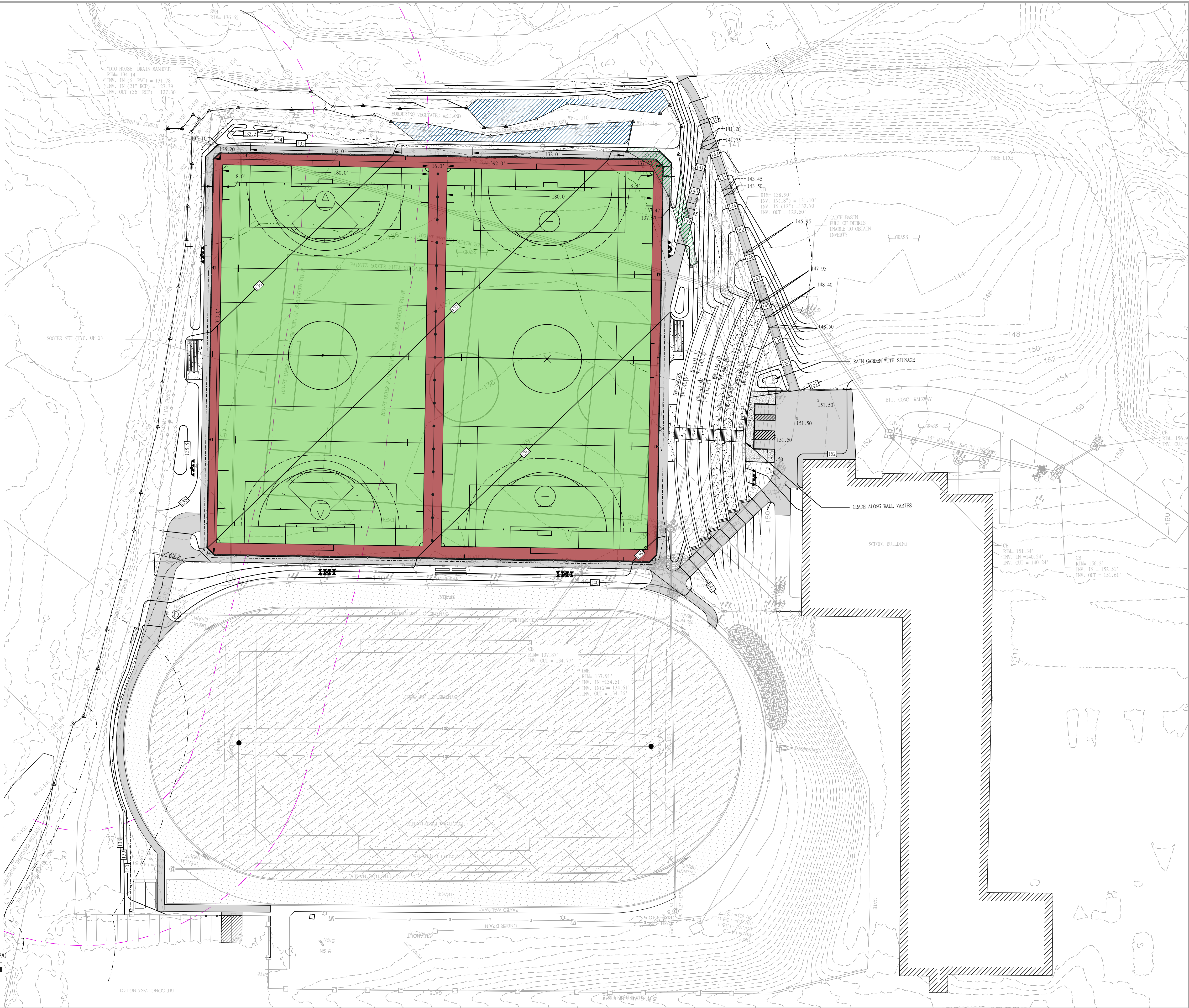
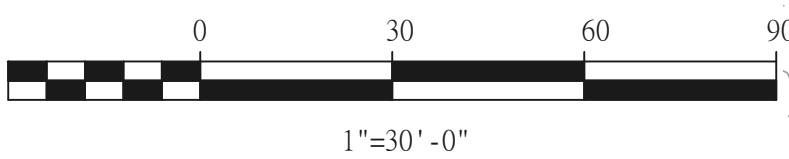
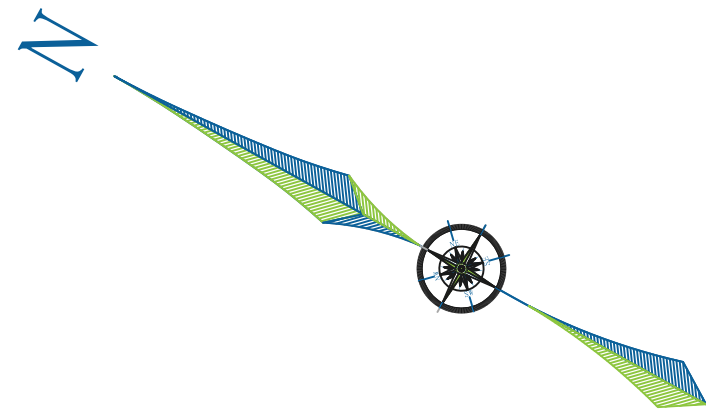
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DATE - 2/10/25

PERMIT SET

LAYOUT, AND  
MATERIALS  
PLAN

C-5



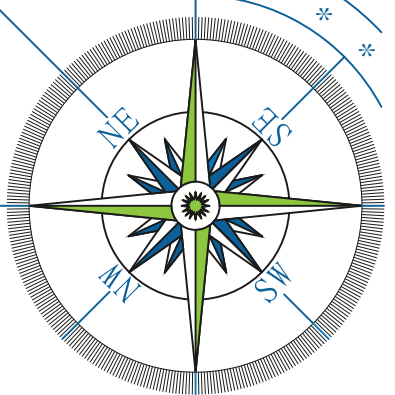


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PROJECT

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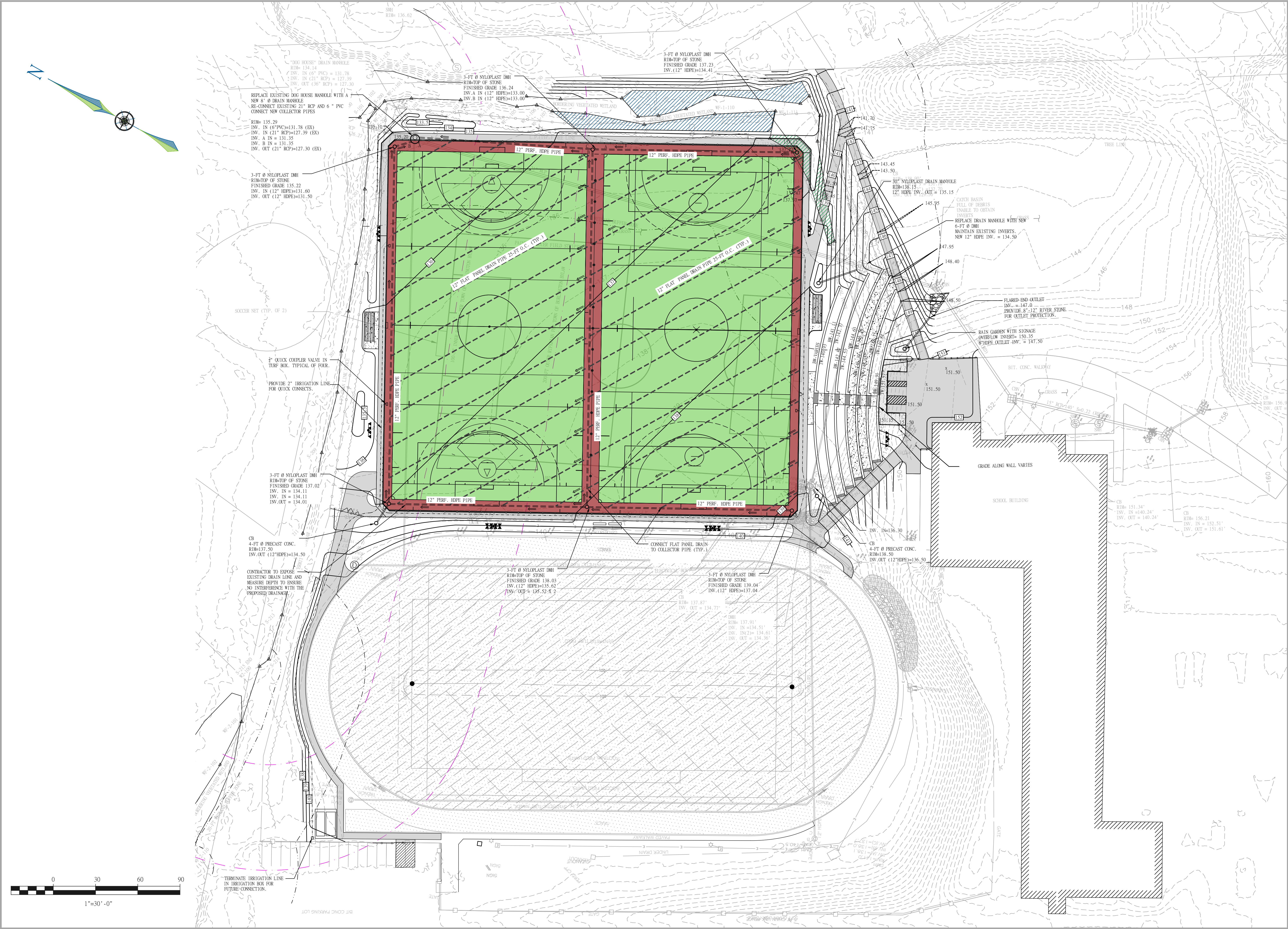
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PERMIT SET

GRADING  
PLAN

C-6





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SEAL

COMMONWEALTH OF MASSACHUSETTS  
JAMES M. MARRAS  
REGISTERED PROFESSIONAL ENGINEER

PROJECT

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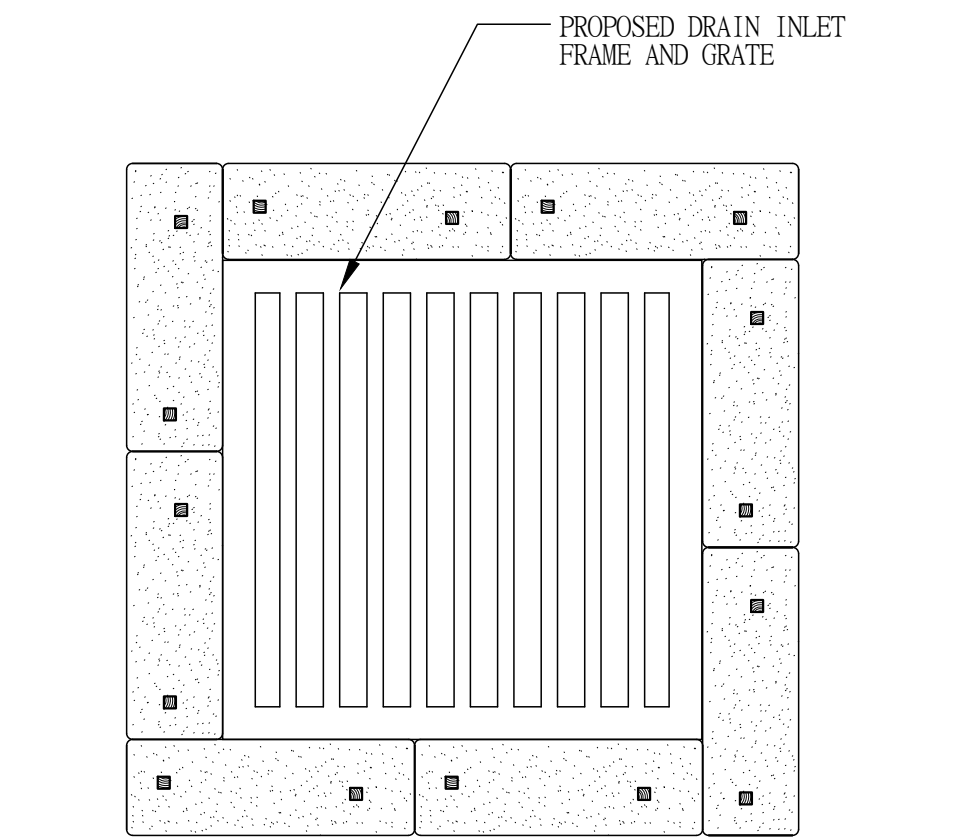
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DATE - 2/10/25

PERMIT SET

DRAINAGE AND  
UTILITY PLAN

C-7

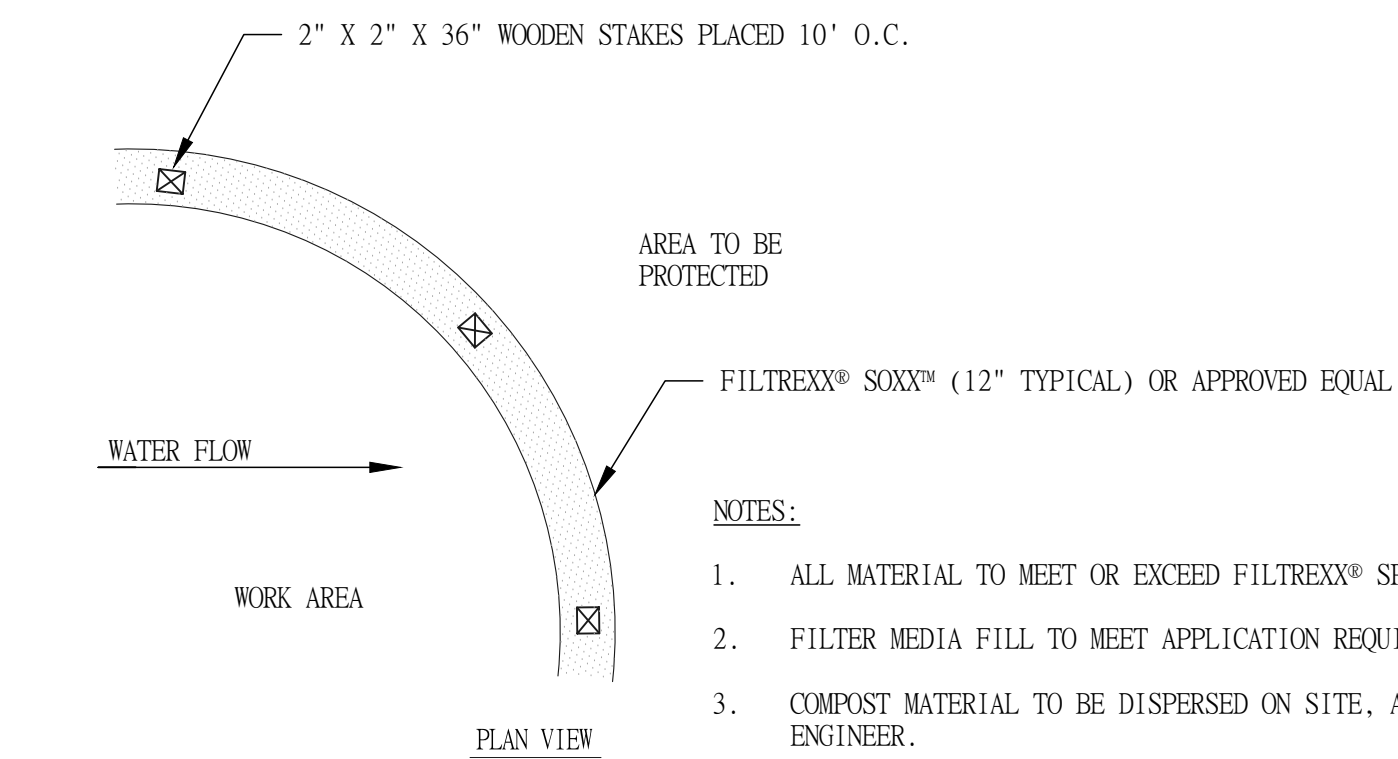
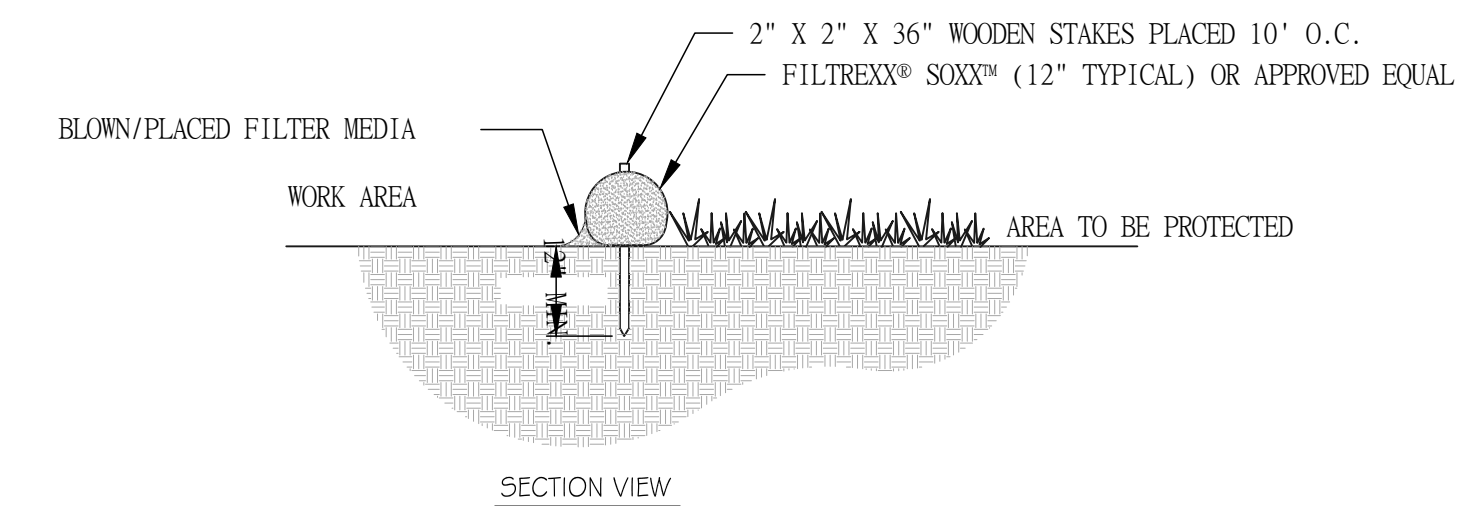




- NOTES:
- BALES SHALL BE PLACED IN A ROW WITH THE ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
  - BALES SHALL BE SECURELY ANCHORED IN PLACE BY STAKES OR RE-BARS DRIVEN THROUGH THE BALES. THE FIRST STAKE IN EACH BALE SHALL BE ANGLED TOWARD PREVIOUSLY LAID BALE TO FORCE BALES TOGETHER.
  - INSPECTION SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.

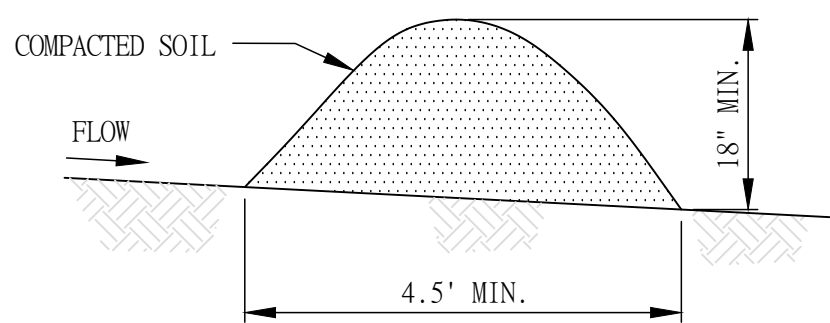
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N.T.S.



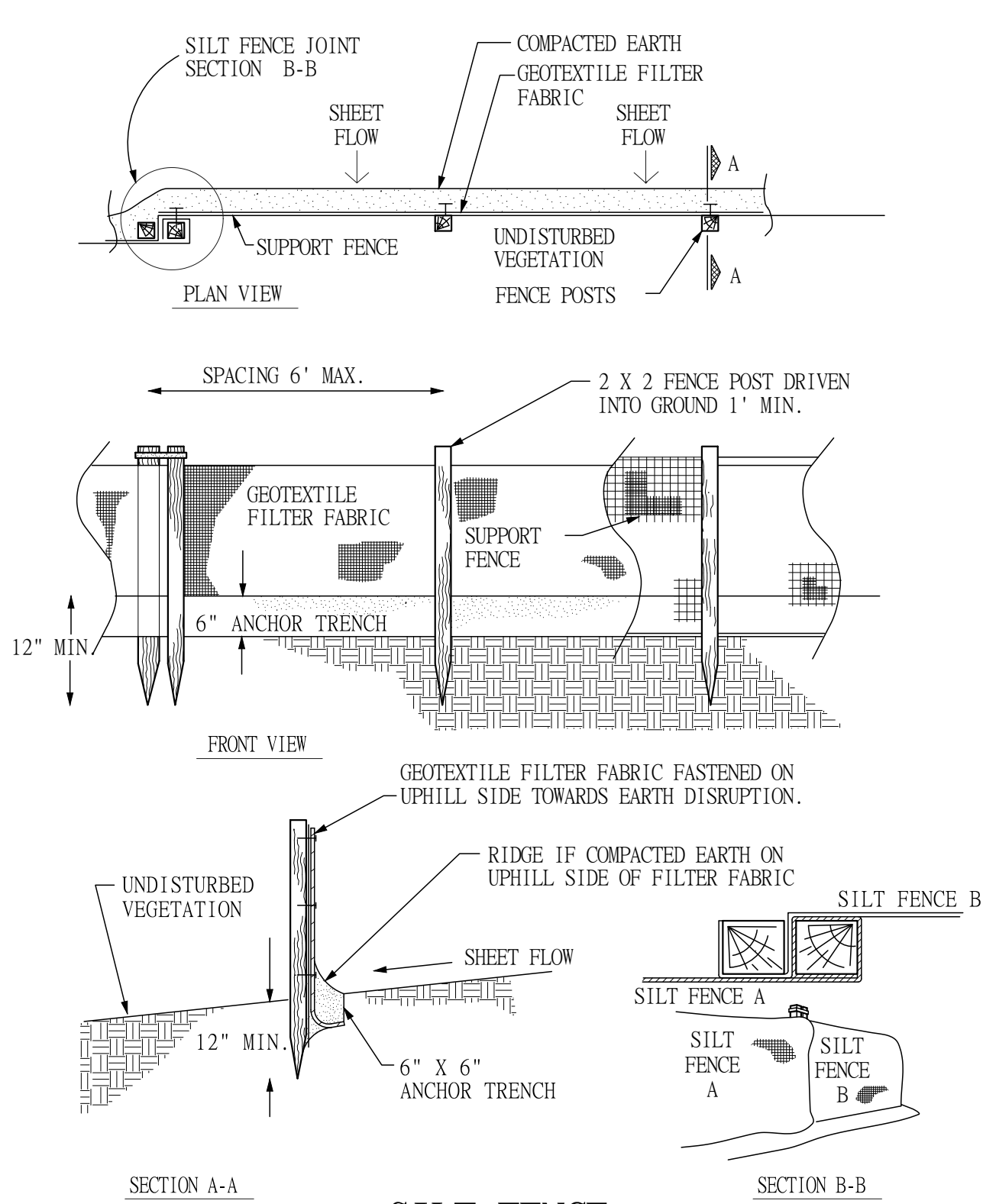
### SEDIMENT CONTROL

N.T.S.



### TEMPORARY DIVERSION DIKE

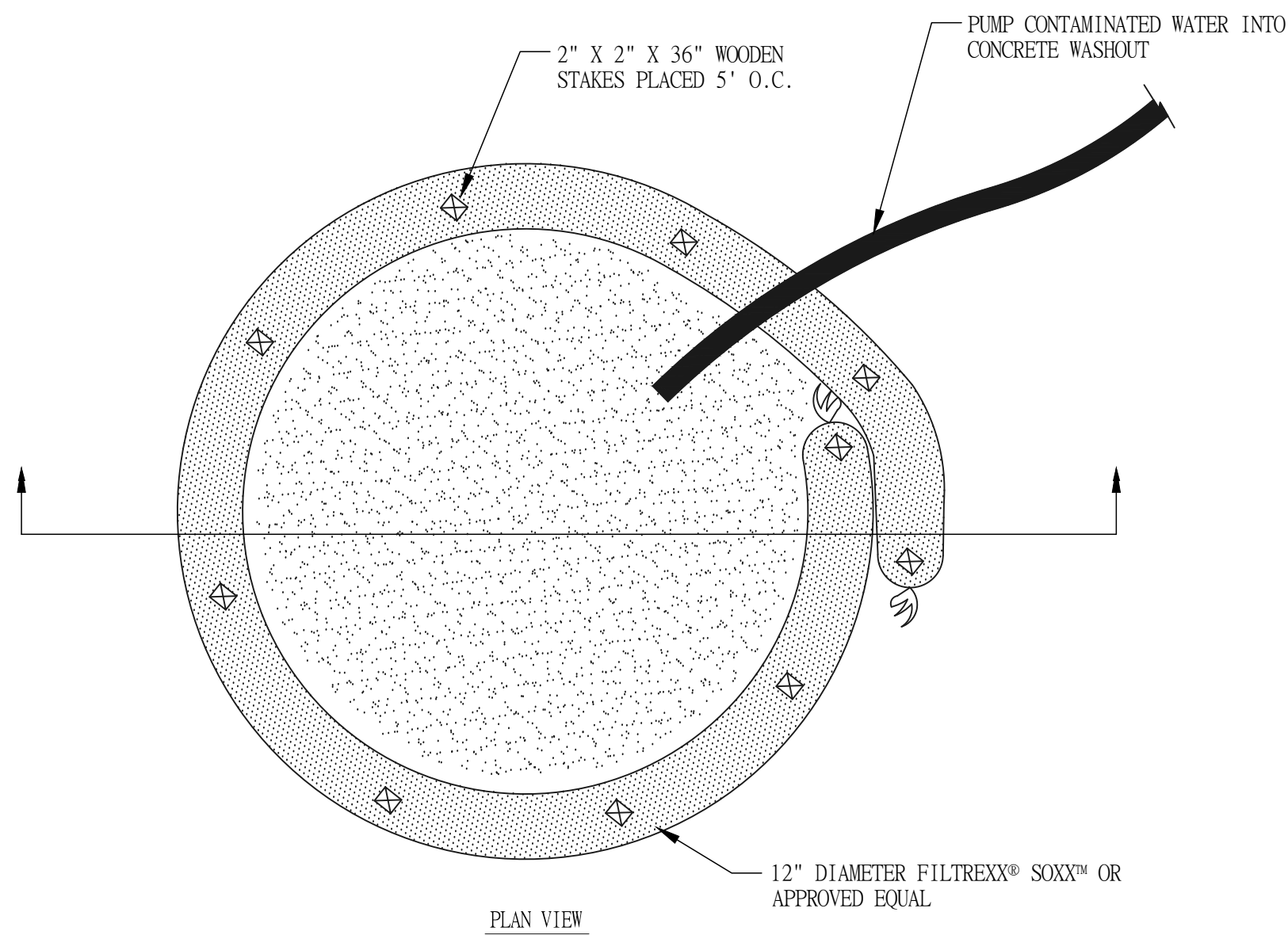
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### SILT FENCE

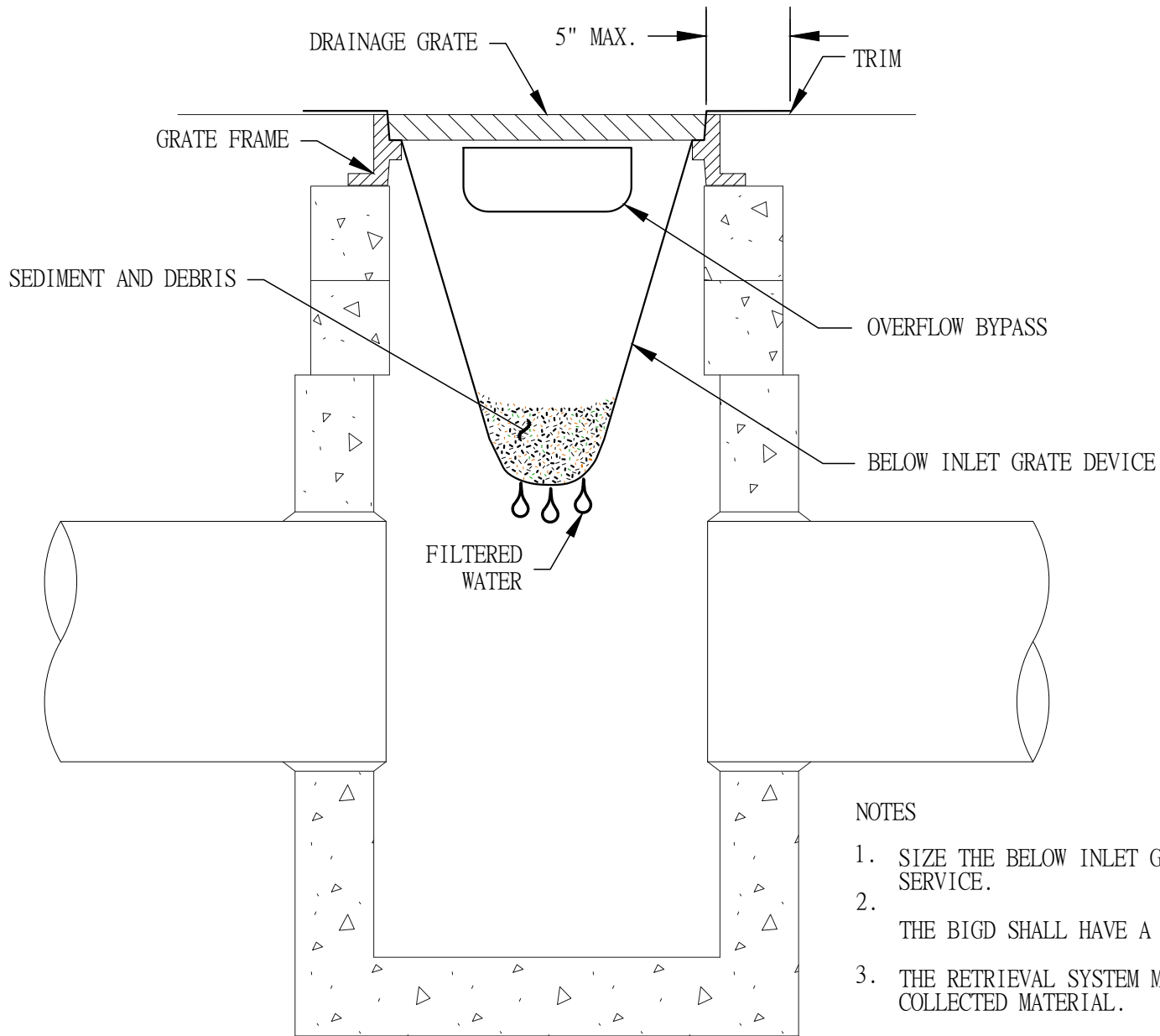
N.T.S.

- NOTES:
- INSTALL ON FLAT GRADE FOR OPTIMUM PERFORMANCE
  - CONCRETE WASHOUT MAY BE STACKED IN A PYRAMIDAL CONFIGURATION FOR ADDED HEIGHT AND STABILITY
  - CONCRETE WASHOUT MAY BE DIRECT SEEDED AT THE TIME OF INSTALLATION



### CONCRETE WASHOUT STATION

N.T.S.

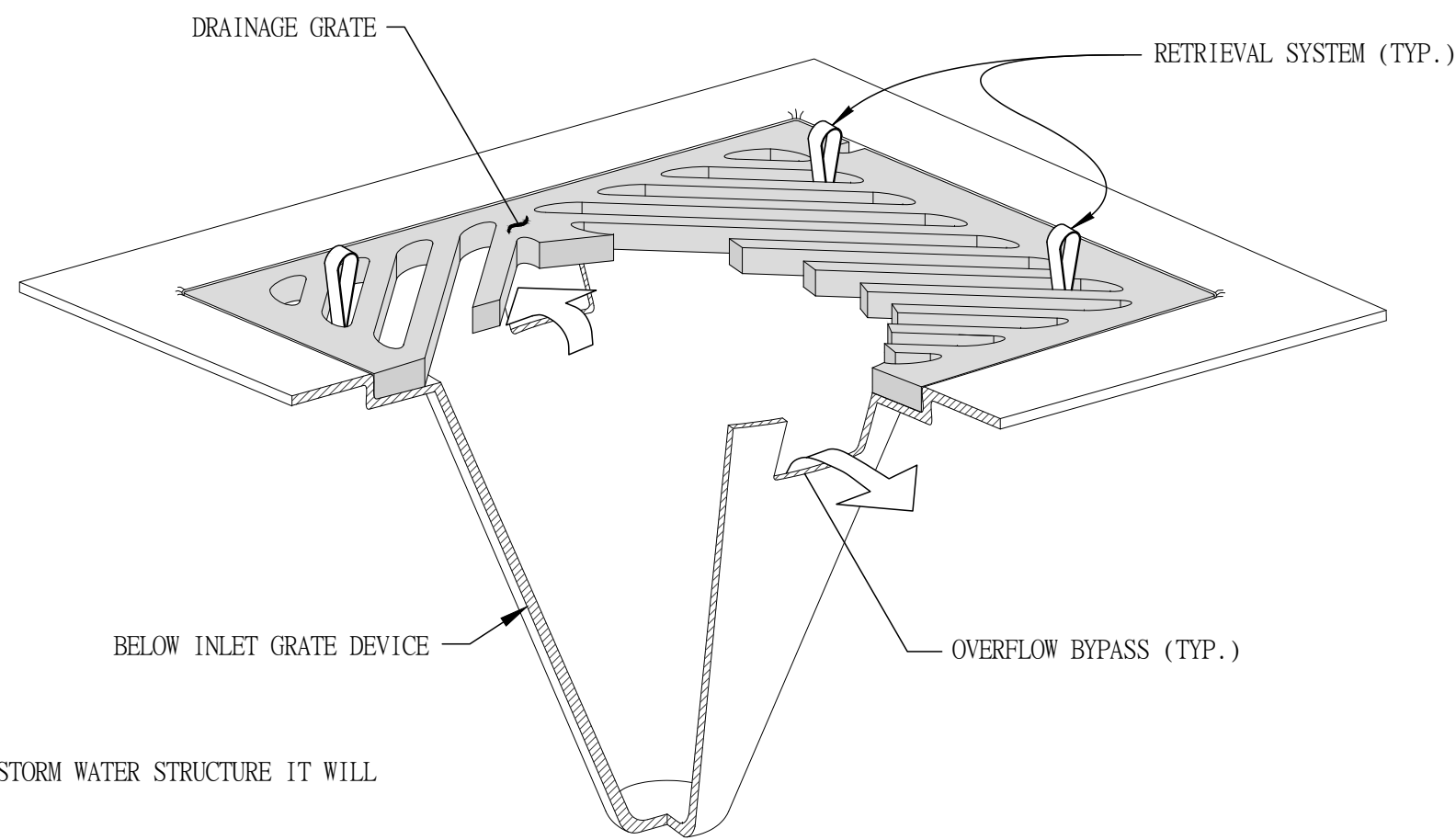


### SECTION VIEW

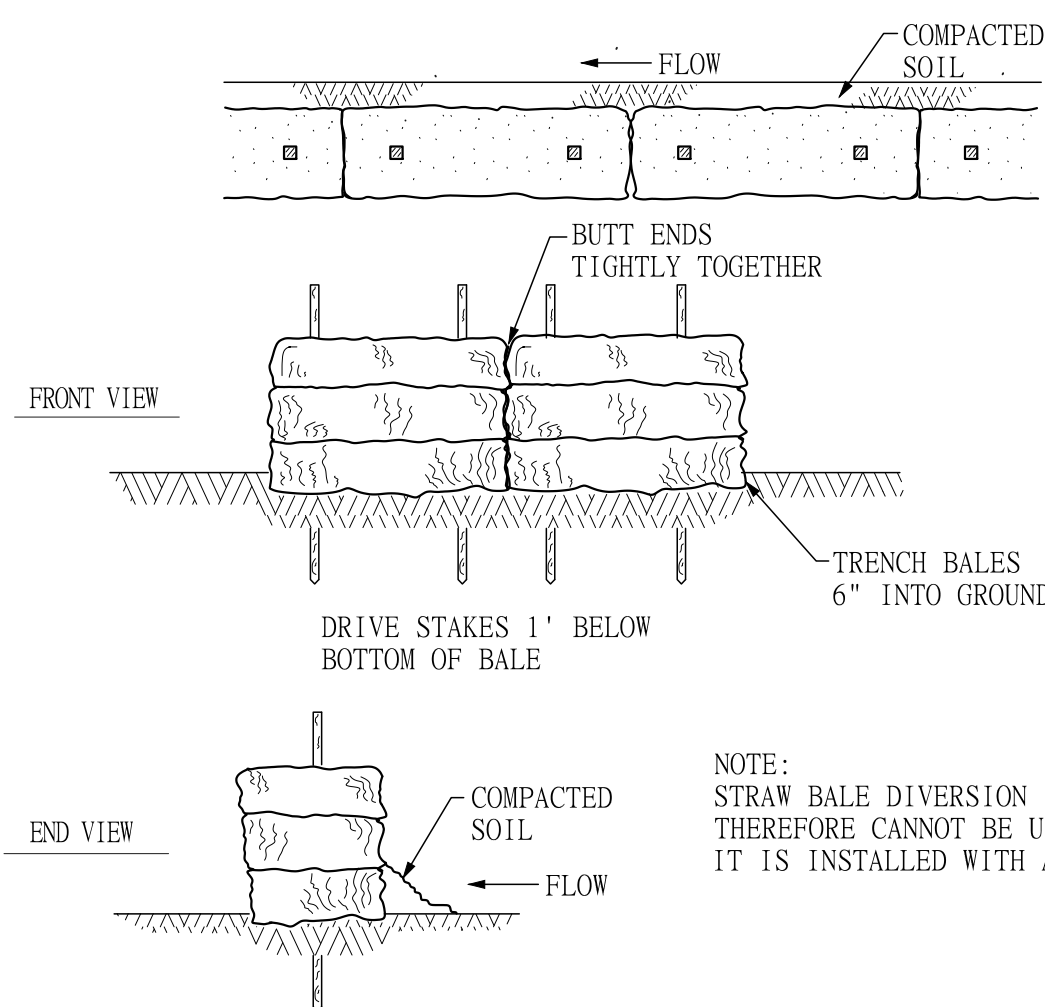
- NOTES
- SIZE THE BELOW INLET GRATE DEVICE (BIGD) FOR THE STORM WATER STRUCTURE IT WILL SERVICE.
  - THE BIGD SHALL HAVE A BUILT-IN HIGH-FLOW RELIEF SYSTEM (OVERFLOW BYPASS).
  - THE RETRIEVAL SYSTEM MUST ALLOW REMOVAL OF THE BIGD WITHOUT SPILLING THE COLLECTED MATERIAL.
  - PERFORM MAINTENANCE IN ACCORDANCE WITH STORMWATER POLLUTION PREVENTION PLAN, TO BE PREPARED BY THE CONTRACTOR.

### STORM DRAIN INLET PROTECTION

N.T.S.

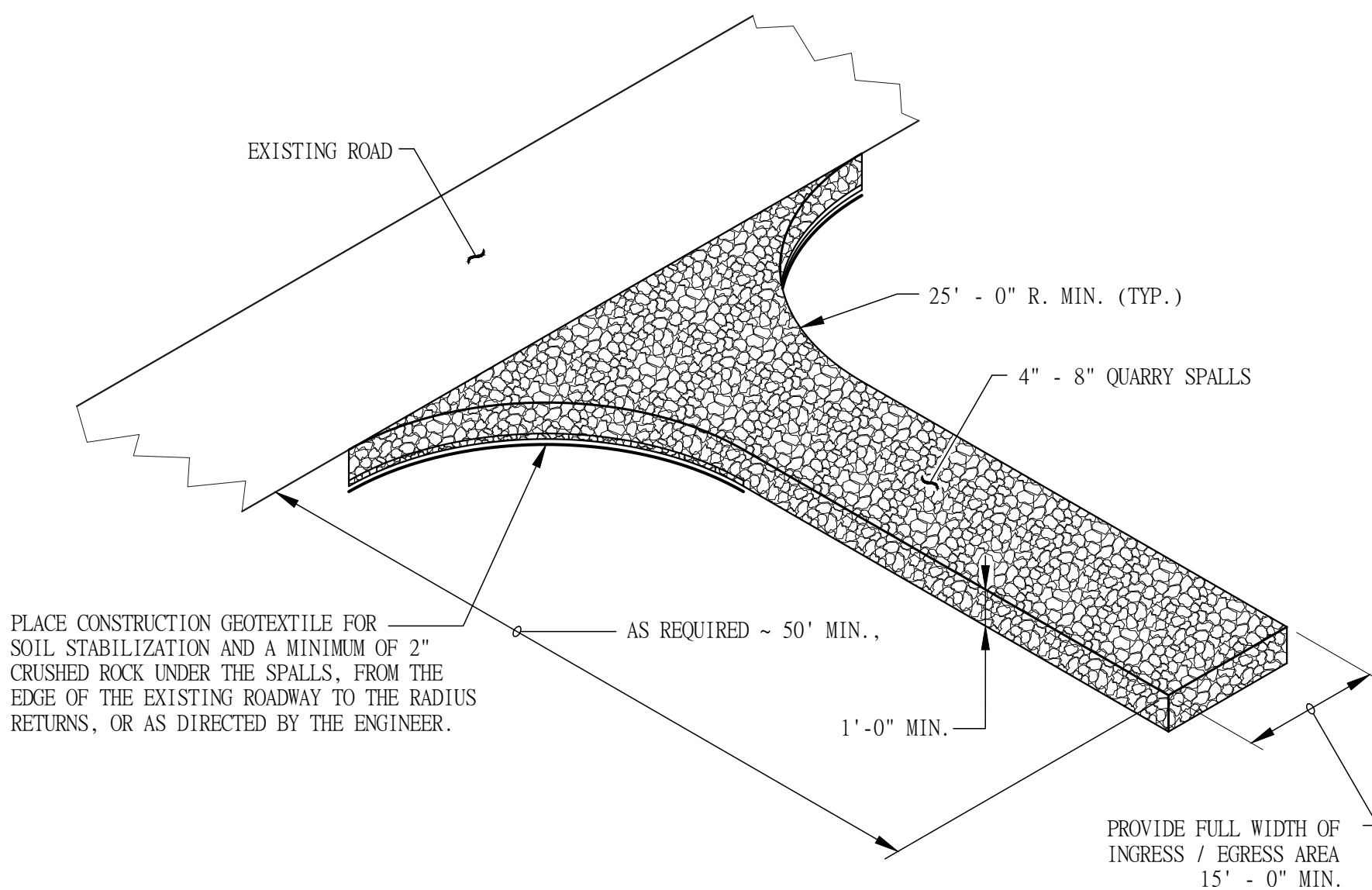


### ISOMETRIC VIEW



### STRAW BALE DETAIL

N.T.S.



### STABILIZED CONSTRUCTION ENTRANCE

N.T.S.



#### PROJECT

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#### PERMIT SET

## CONSTRUCTION DETAILS

# C-8



Figure 1 displays nine isometric views of various wood joint configurations, arranged in a 3x3 grid. Each joint is shown with its dimensions: height (16 inches), width (48 inches), and depth (24 inches). The joints include various types of butt, lap, and scarf joints, as well as more complex configurations like a half-lap joint and a scarf joint with a 39-degree angle.

[illegible]

Figure 1: Typical cross-section of a curb and gutter. The diagram shows a cross-section of a curb and gutter assembly. From left to right, it consists of a leveling pad, two base blocks (each 48 inches wide), a middle block (48 inches wide), and another base block (48 inches wide). The total width of the base blocks and middle block is 192 inches. The curb height is 16 inches. The gutter depth is 6 inches. The base material is 6 inches thick. A note indicates to ensure proper compaction of base material at steps.

Diagram illustrating the cross-section of a retaining wall foundation, showing the wall structure, drainage system, and soil layers.

**Wall Structure and Drainage:**

- 8" LOC PERMEABLE SOIL
- MIN. 12" DRAINAGE ZONE ( $\frac{3}{4}$ " CRUSHED STONE)
- 24T, 24M, 24M, 39M, 39M, 45M, 45M, 60M, 60B
- RETAINED SOIL
- APPROXIMATE LIMITS OF EXCAVATION
- 1:1 BENCH CUT RECOMMENDED
- APPROXIMATE LIMITS OF EXCAVATION VARY WHERE SUBCUT IS REQUIRED
- DRAIN TILE (4" MIN.)

**Foundation and Soil:**

- UNREINFORCED CONCRETE OR CRUSHED STONE LEVELING PAD (6" MIN. THICKNESS)
- FOUNDATION SOIL
- SUBCUT TO A DEPTH "D" AS REQUIRED AND REPLACE WITH SUITABLE COMPACTED STRUCTURAL FILL TO ACHIEVE THE REQUIRED BEARING CAPACITY AND SLIDING RESISTANCE AS DIRECTED BY THE SITE GEOTECHNICAL ENGINEER. ALL STRUCTURAL FILL SHALL BE COMPACTED.

**Other Labels:**

- VARIABLES
- 4"
- \*\*EMBEDMENT



NOTE: WHEN BUILDING A WALL WITH AN OUTSIDE 90° CORNER, IT IS RECOMMENDED THAT CONSTRUCTION START AT THE CORNER AND EXTEND OUTWARD FROM THIS POINT IN BOTH DIRECTIONS. THIS ALLOWS FOR PLACEMENT OF THE CORNER BLOCKS SO THAT 1" OF SET BACK CAN BE MAINTAINED IN THE WALL IN BOTH DIRECTIONS. NO BLOCK CUTTING IS REQUIRED TO MAINTAIN THE 1" OF SET BACK PER ROW OF BLOCK ASSUMING THAT BOTH ENDS OF THE WALL RUNNING AWAY FROM THE 90° CORNER RUN OUT TO GRADE. IN LIEU OF MAINTAINING THE 1" SET BACK AFTER TURNING A 90° CORNER, YOU CAN BUILD ONE SIDE OF THE CORNER (SAY "SIDE B") VERTICALLY WITHOUT THE 1" SET BACK PER ROW OF BLOCK. THIS WILL REQUIRE YOU TO CUT 1" OFF THE BACK OF THE TONGUE OF THE FIRST REGULAR BLOCK ADJACENT TO THE CORNER BLOCK IN EACH ROW ON SIDE B OF THE WALL. YOU CAN RE-ESTABLISH THE 1" SET BACK ON SIDE B GRADUALLY AS YOU MOVE OUT FROM THE CORNER. HOWEVER, THE ELIMINATION OF THE SET BACK MUST BE TAKEN INTO ACCOUNT IN THE DESIGN OF THE WALL BY THE REGISTERED PROFESSIONAL ENGINEER. *IN EITHER CASE, DURING INSTALLATION, IT IS RECOMMENDED THAT PL PREMIUM ADHESIVE BE APPLIED TO THE TOPS OF ALL REGULAR CORNER BLOCKS PRIOR TO INSTALLING THE NEXT ROW OF BLOCK.* IF ONE END OF THE WALL MUST END VERTICALLY BECAUSE IT ADJUTS TO AN EXISTING VERTICAL STRUCTURE OR THE WALL HAS TWO OUTSIDE 90° CORNERS, THEN BLOCKS WILL NEED TO BE CUT TO MAINTAIN THE 1" SET BACK - IN THIS CASE REFER TO DRAWING # 311.

0-16" ABOVE GRADE (8" SHOWN)

RECON FREESTANDING BLOCK

G-SERIES MIDDLE BLOCK

24M

24M

CAPSTONE

FINAL GRADE

The diagram shows a cross-section of a 24M block wall. The wall is composed of a 'RECON FREESTANDING BLOCK' at the top, followed by two '24M' blocks, and a 'G-SERIES MIDDLE BLOCK' in the center. A 'CAPSTONE' is placed on top of the wall. The wall is shown above a 'FINAL GRADE' line. A dimension line indicates '0-16" ABOVE GRADE (8" SHOWN)' for the top section of the wall.

Diagram illustrating the dimensions for a tapered post hole:

- Top diameter: 12"
- Bottom diameter: 12"
- Height: 24"
- Labels: PRECAST POST HOLE, DIAMETER FOR HOLE SHOULD BE A MINIMUM OF 1" GREATER THAN POST TO BE INSTALLED.

FENCE POST 8-FT SPACING TYP.

GROUT POST INTO HOLES. REFER TO ARTICLE 3 & 4.5 OF RECON GUARDRAIL SPEC FOR ADDITIONAL GROUT REQUIREMENTS OR APPROVED EQUAL.

39T

RECON TOP BLOCK DEPTH AS REQUIRED PER DESIGN. IF CAP STONE IS CALLED OUT TOP SHALL BE CORED THROUGH CAP STONE AND TOP BLOCK.

24M  
24M

FENCE CONNECTION  
SECTION VIEW

1. BLOCK MASS REQUIRED TO RESIST POST LOADING SHALL BE DETERMINED BY THE MANUFACTURER'S STRUCTURAL ENGINEER CERTIFYING THE WALL SUBMISSION FOR REVIEW.
2. MANUFACTURER'S ENGINEER TO PROVIDE ADEQUATE POST AND FINAL CONNECTION REQUIREMENTS.
3. DETAILS SHOWN ARE FOR POST TO BLOCK CONNECTION OPTIONS.
4. CONNECTION OPTIONS SHOWN ARE FOR POST TO TOP BLOCK. CONNECTION SHALL BE SIMILAR WHEN ATTACHING TO FULL HIGH CAP OR THROUGH CAP STONE OR OTHER BLOCKS.
5. BLOCKS SHALL BE ORDERED WITH PRECAST HOLES.

SEE NOTE 4

6" 6" 6" 6" 6"

UNREINFORCED CONCRETE OR CRUSHED STONE LEVELING PAD

NOTES:

1. LEVELING PAD SHOULD BE AS SPECIFIED BY THE DESIGN ENGINEER IN THE PROJECT PLAN SET.
2. THE WIDTH OF THE LEVELING PAD MUST EXTEND 6" (MINIMUM) IN FRONT AND 6" (MINIMUM) IN BACK OF THE BASE BLOCK. AS A RESULT THE TYPICAL WIDTH OF LEVELING PAD WOULD BE:  
24" DEEP BASE BLOCK...LEVELING PAD WIDTH IS 36"  
39" DEEP BASE BLOCK...LEVELING PAD WIDTH IS 51"  
45" DEEP BASE BLOCK...LEVELING PAD WIDTH IS 57"  
60" DEEP BASE BLOCK...LEVELING PAD WIDTH IS 72"  
66" DEEP BASE BLOCK...LEVELING PAD WIDTH IS 78"  
72" DEEP BASE BLOCK...LEVELING PAD WIDTH IS 84"  
78" DEEP BASE BLOCK...LEVELING PAD WIDTH IS 90"  
84" DEEP BASE BLOCK...LEVELING PAD WIDTH IS 96"
3. SET THE BASE BLOCK AND CHECK FOR LEVEL FROM FRONT TO BACK.
4. EMBEDMENT SHOULD BE THE GREATER OF 6" OR H/20 FOR WALLS WITH LEAVE GRADE. AT THE TOE REFER TO RECON'S EMBEDMENT RECOMMENDATION DOCUMENT FOR ADDITIONAL INFORMATION FOR WALLS WITH A TOE SLOPE CONDITION.
5. COMPACTION TO THE SPECIFIED EMBEDMENT DEPTH SHALL BE DONE IN FRONT OF THE BASE BLOCK BEFORE COMPACTION IS DONE BEHIND THE BASE BLOCK. THIS REDUCES THE CHANCE THAT COMPACTION BEHIND THE BASE BLOCK WILL ROLL THE BASE BLOCK FORWARD.
6. SEE BLOCK SPECIFICATION & INSTALLATION INSTRUCTIONS FOR MORE DETAILS.

1. CONTRACTOR SHALL SUBMIT STAMPED STRUCTURAL DRAWINGS FOR THE SPECIFIC WALL SYSTEM BEING PROPOSED FOR REVIEW AND APPROVAL BY THE PROJECT ENGINEER.



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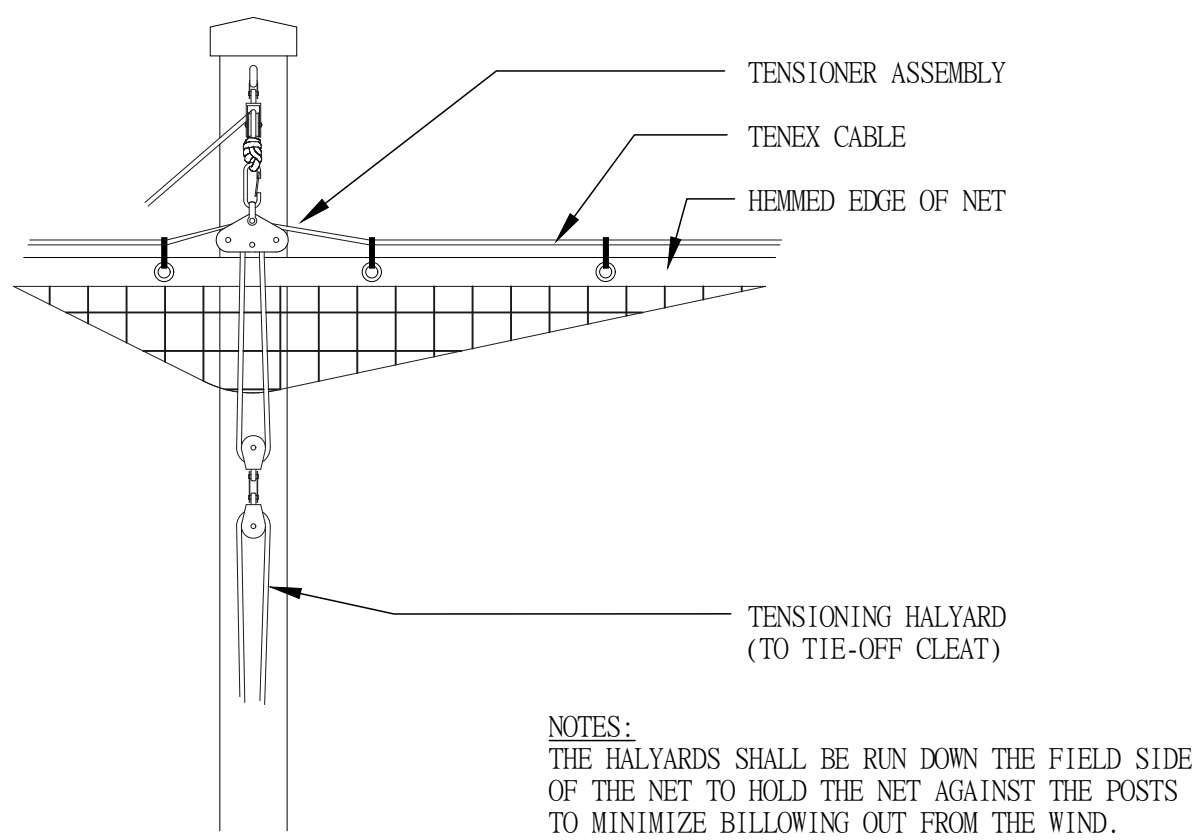
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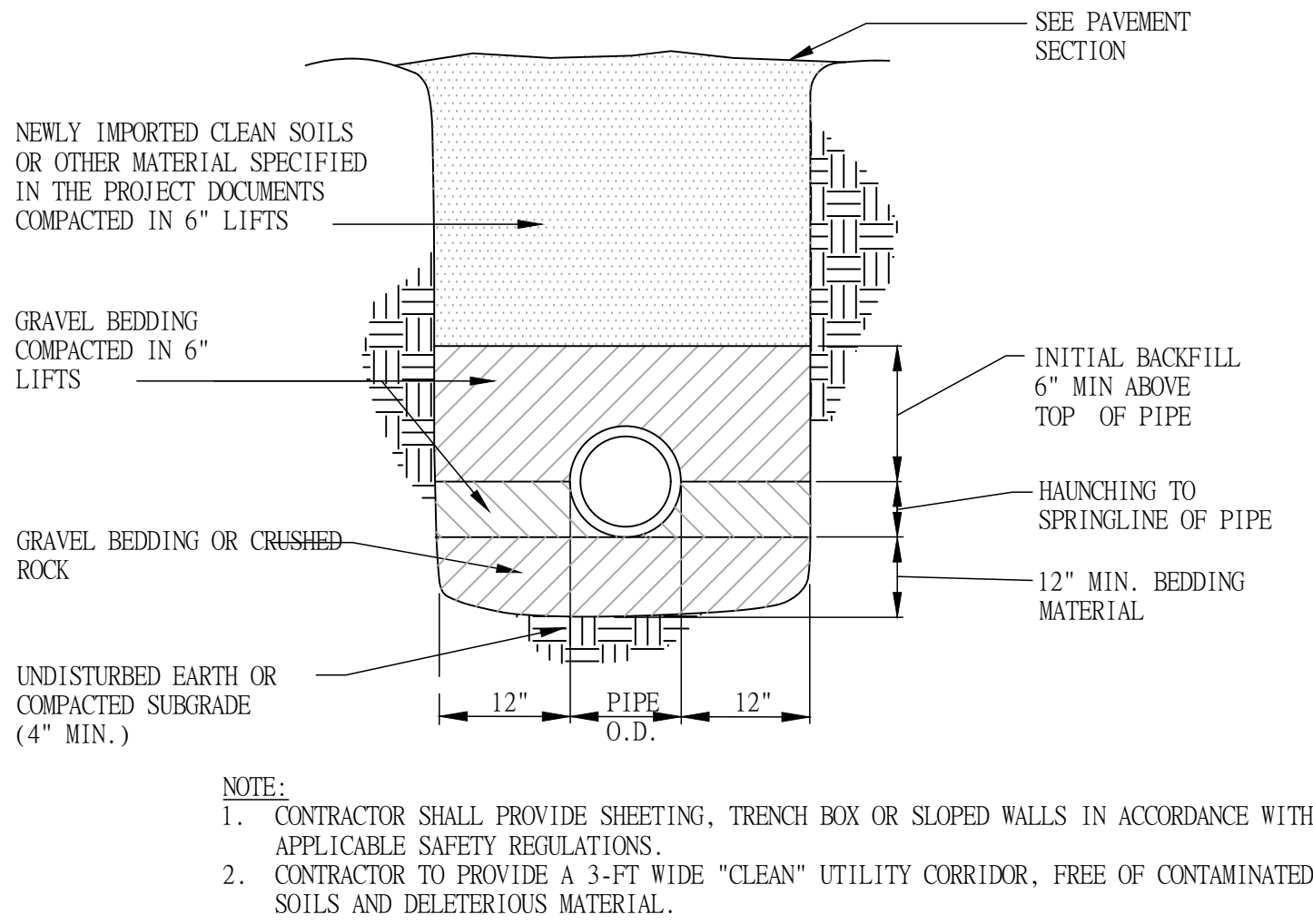
## CONSTRUCTION DETAILS

C-9

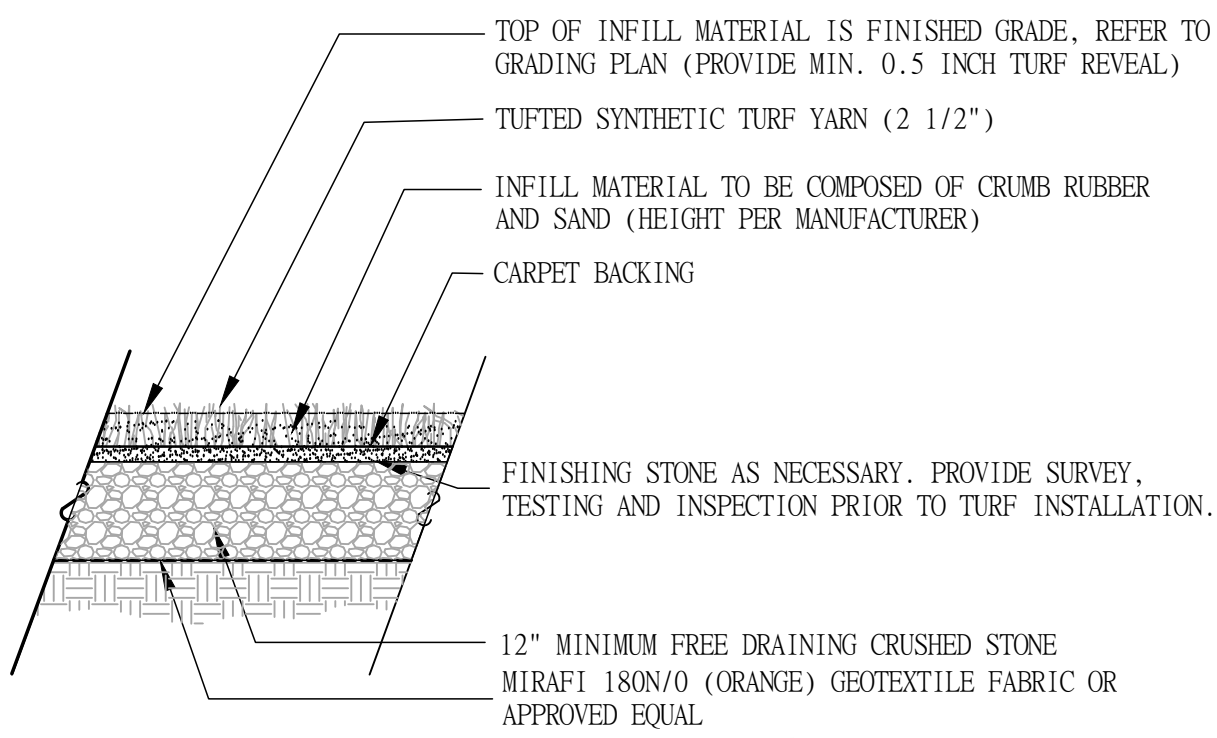




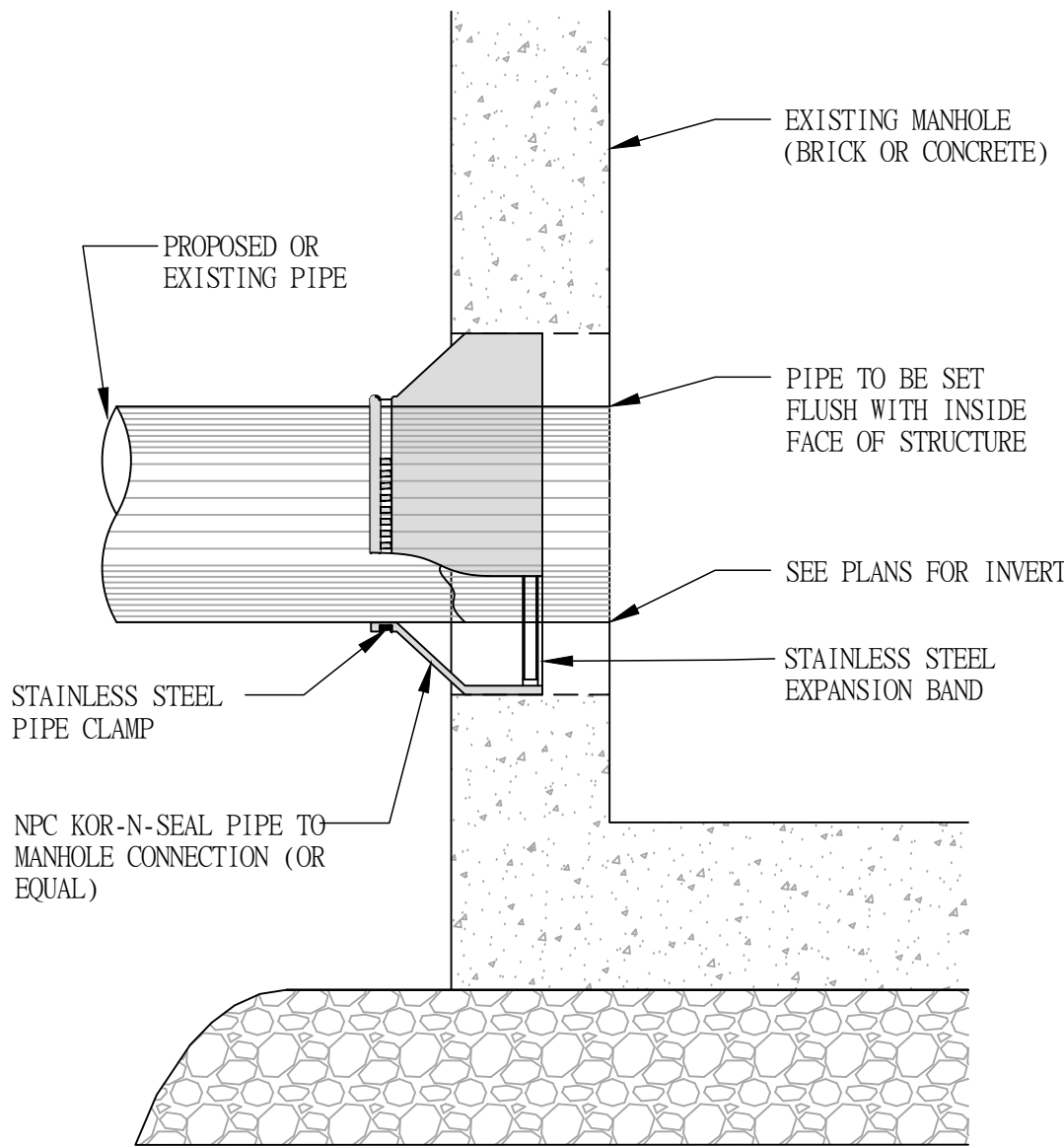
TENSIONING POST DETAIL  
N.T.S.



HDPE TRENCH DETAIL FOR SOLID PIPE (UP TO 24" DIA)  
N.T.S.

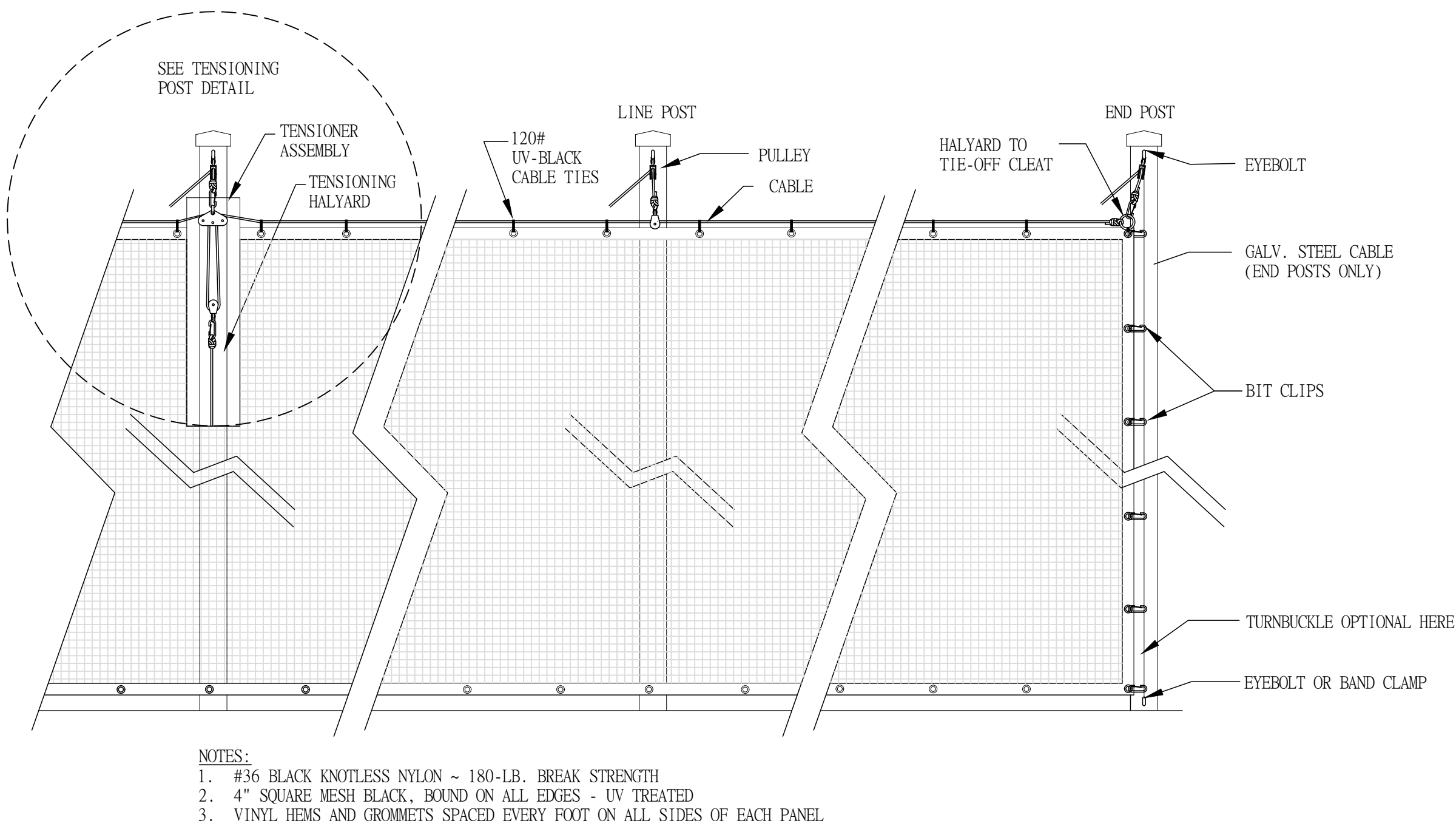


INFILLED SYNTHETIC TURF SYSTEM DETAIL  
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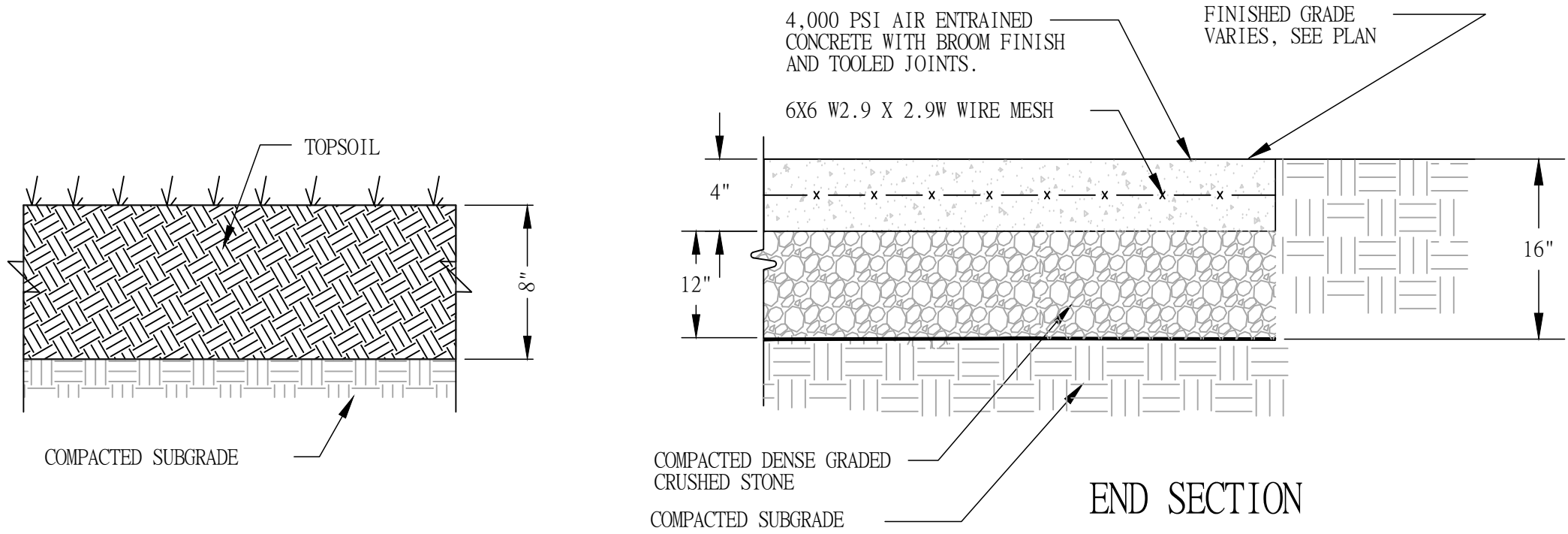


- NOTES:
1. ALL METAL FIXTURES SHALL BE STAINLESS STEEL.
  2. SERVICE LINE SHALL BE FLUSH WITH THE INSIDE OF THE MANHOLE.
  3. FOR PROPOSED MANHOLE INSTALLATION AT EXISTING PIPE, CONTRACTOR SHALL EXTEND PIPE INTO NEW MANHOLE USING A SPOOL PIECE OF SAME PIPE MATERIAL WITH FERNO COUPLES..

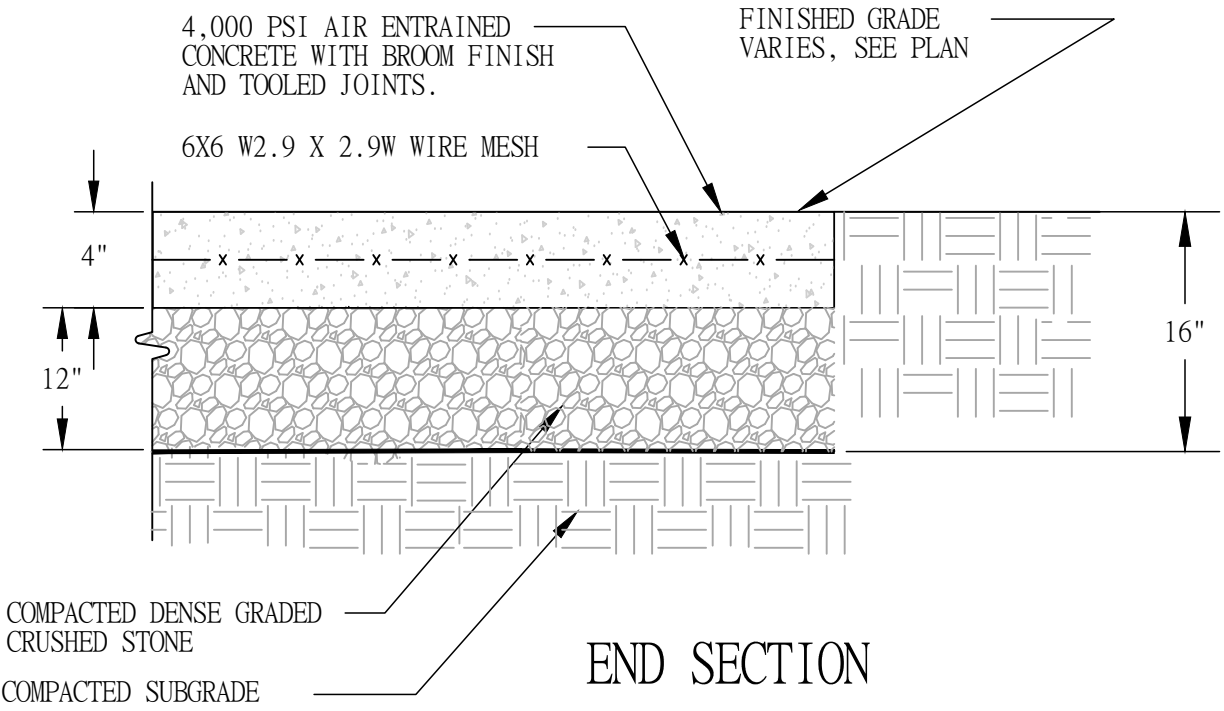
CONNECTION TO EXISTING MANHOLE  
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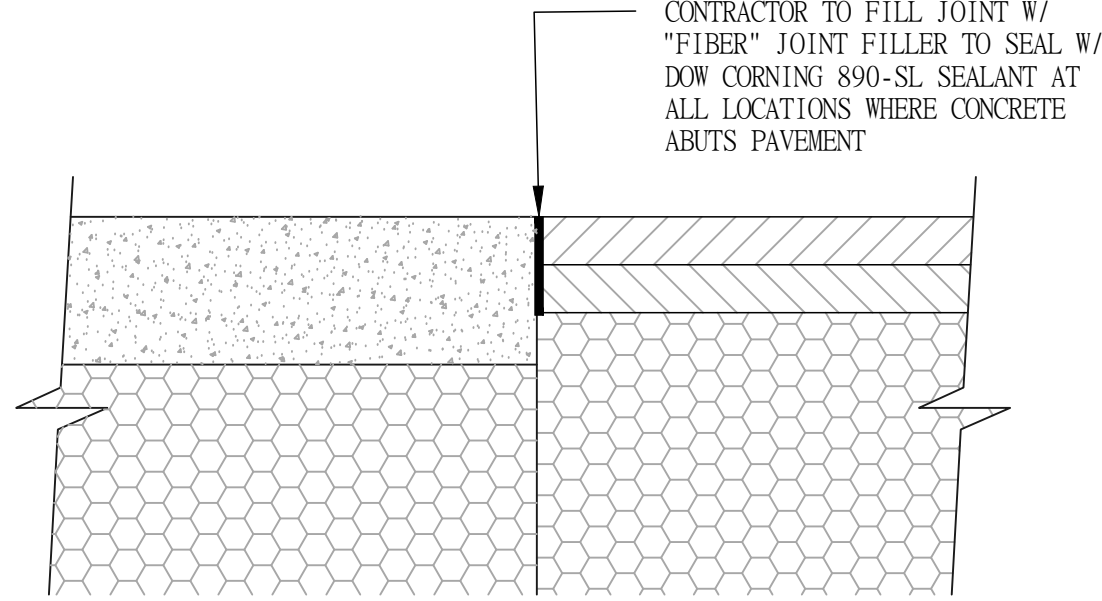
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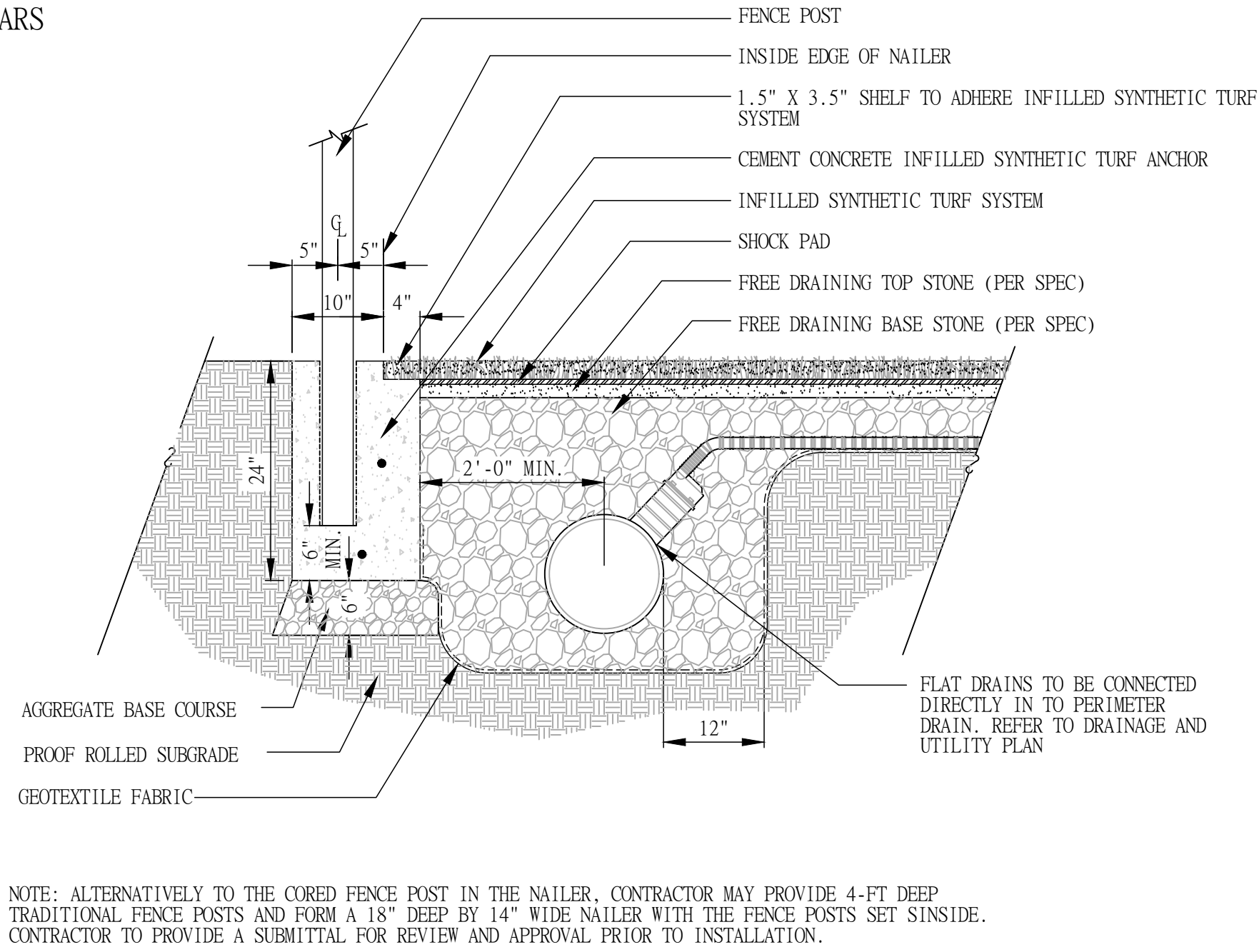
LOAM AND SEED DETAIL  
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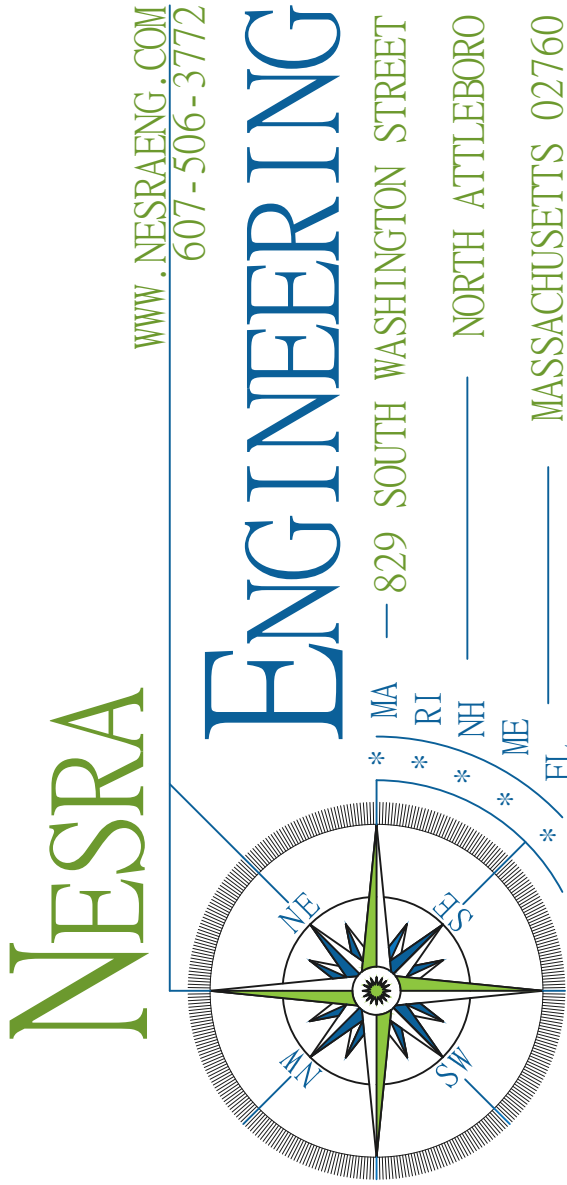
TYPICAL CONCRETE PAD DETAILS  
N.T.S.



CONCRETE TO PAVEMENT DETAIL  
N.T.S.



6-FT HIGH CHAIN LINK FENCE IN TURF ANCHOR DETAIL  
N.T.S.



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CONSTRUCTION  
DETAILS

C-10



C-11