

MAINTENANCE FACILITY EXPANSION

CHARLES RIVER COUNTRY CLUB

483 DEDHAM STREET
 NEWTON, MA 02459

SEPTEMBER 27, 2021

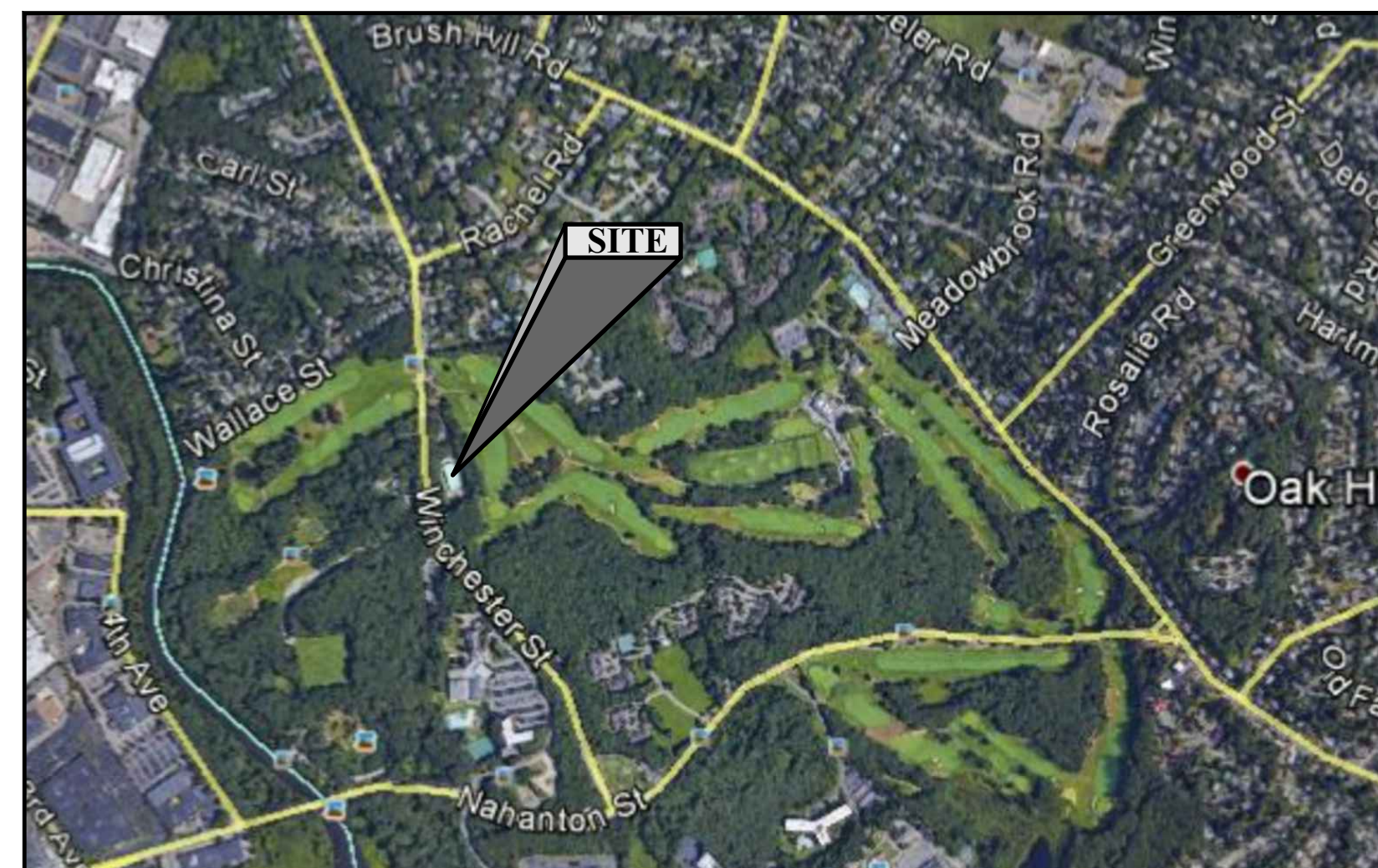
| REVISION/ISSUE DATES | | |
|----------------------|--------------------------------------|-----------|
| 1 | ISSUED FOR CITY OF NEWTON PERMITTING | 9/27/2021 |

OWNER/APPLICANT

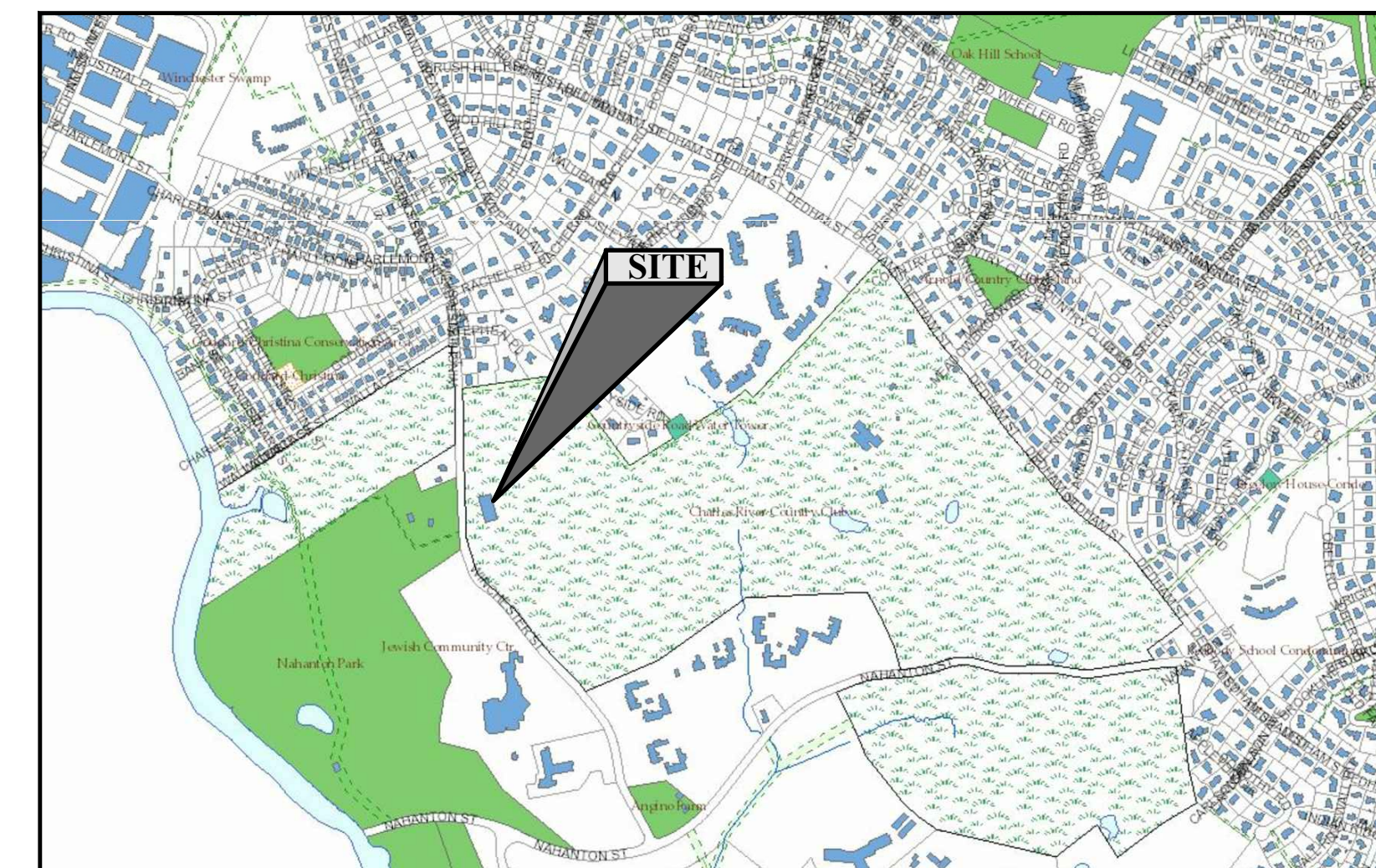
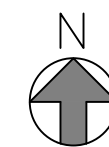
CHARLES RIVER COUNTRY CLUB
 483 DEDHAM STREET
 NEWTON, MA 02459

ARCHITECT

DP ARCHITECTS
 386 MOWRY STREET
 WOONSOCKET, RI 02895



LOCUS - AERIAL
 SCALE: 1"=1000'



LOCUS - USGS
 SCALE: 1"=1000'



SHEET INDEX

- 1 - C001 - Cover Sheet
- 2 - C101 - Existing Conditions Plan
- 3 - C102 - Site Demo, Sediment & Erosion Control Plan
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PREPARED BY:



100 GROVE STREET | WORCESTER MA 01605
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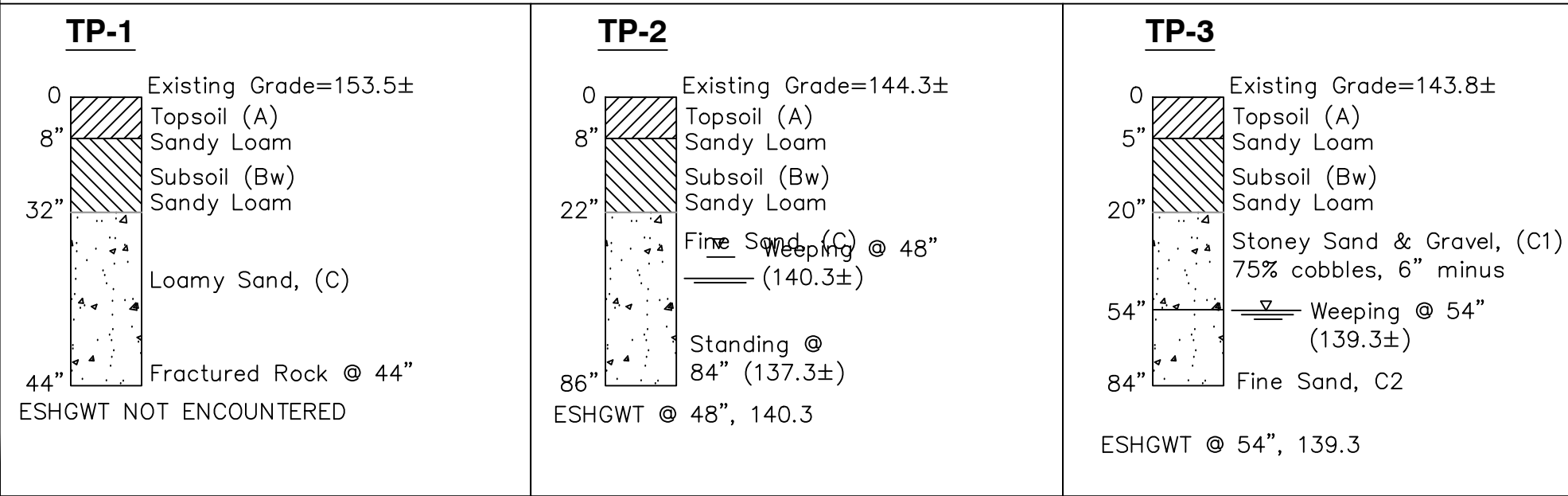
ELECTRONICALLY STAMPED
 BY MICHAEL ANDRADE, PE: 09/27/2021

GENERAL NOTES

PARCEL DATA:
STREET ADDRESS: 483 DEDHAM STREET, NEWTON, MA 02459 (COURSE)
OFF WINCHESTER STREET (SITE)

- 1) LOCATION OF ALL UNDERGROUND UTILITIES SHOWN HEREON ARE APPROXIMATE AND ARE BASED ON THE FIELD LOCATION OF VISIBLE STRUCTURES SUCH AS CATCH BASINS, MANHOLES, WATER GATES, ETC. AND COMPILED INFORMATION FROM PLANS SUPPLIED BY VARIOUS UTILITY COMPANIES AND GOVERNMENT AGENCIES. IN ACCORDANCE WITH CHAPTER 82 SECTION 40 INCLUDING AMENDMENTS, ALL CONTRACTORS SHOULD NOTIFY IN WRITING ALL UTILITY COMPANIES AND GOVERNMENT AGENCIES PRIOR TO ANY EXCAVATION WORK AND CALL DIG-SAFE AT 811.
- 2) PROPERTY LINES, TOPOGRAPHIC FEATURES, AND UTILITIES SHOWN ON THESE PLANS ARE COMPILED FROM PREVIOUS PLANS BY OTHERS SUPPLEMENTED IN AREAS BY INSTRUMENT SURVEY BY GRAVES ENGINEERING, INC. IN DECEMBER, 2018.
- 3) THE VERTICAL DATUM FOR THIS SURVEY IS BASED ON NAVD88, HORIZONTAL COORDINATE SYSTEM IS MASSACHUSETTS STATE PLANE COORDINATE SYSTEM. SEE PLANS FOR PROJECT BENCHMARK.
- 4) THE PROJECT AREA WAS EVALUATED BY ECOTEC, INC. FOR THE PRESENCE OF WETLAND RESOURCES AND NONE WERE FOUND (JANUARY 31, 2021 REPORT)

SOIL TESTING DATA



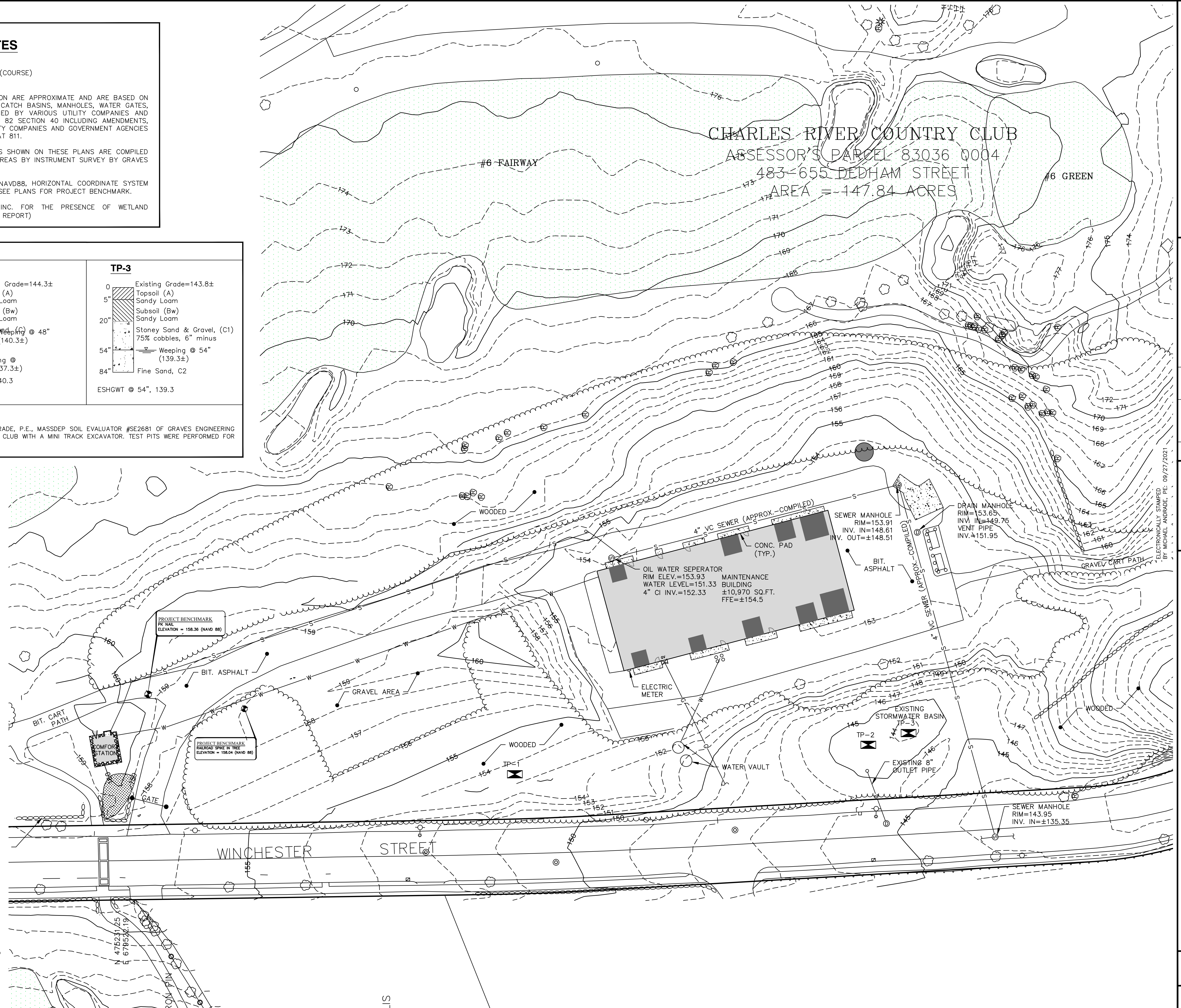
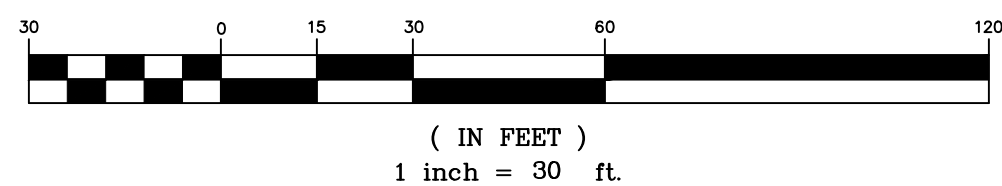
ESHGWT= Estimated Seasonal High Groundwater Table

NOTE: SOIL TESTING TEST PITS WERE OBSERVED BY MICHAEL ANDRADE, P.E., MASSDEP SOIL EVALUATOR #SE2681 OF GRAVES ENGINEERING ON 3/23/21. TESTS PITS EXCAVATED BY CHARLES RIVER COUNTRY CLUB WITH A MINI TRACK EXCAVATOR. TEST PITS WERE PERFORMED FOR STORMWATER MANAGEMENT DESIGN PURPOSES ONLY.

LEGEND

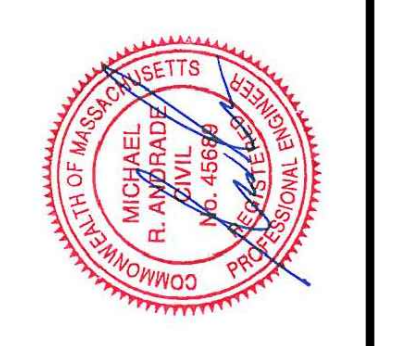
- W — WATER
- D — DRAIN
- S — SEWER
- ⊙ S SEWER MANHOLE (SMH)
- ⊙ D DRAIN MANHOLE (DMH)
- ⊙ C CATCH BASIN (CB)
- ⊙ O OIL/WATER SEPARATOR (OWS)
- ▨ BITUMINOUS PAVEMENT (BIT.)
- ▨ CONCRETE (CONC.)
- TREELINE
- OH OVERHEAD
- H.P. HIGH POINT
- XXX SPOT ELEVATION
- VC VITRIFIED CLAY
- CONC. CONCRETE
- BIT. BITUMINOUS
- STONEWALL
- ⊙ R ROCK OUTCROPPING
- ⊙ TREE
- ⊙ TP-# DEEP HOLE TEST PIT-NUMBER

GRAPHIC SCALE



GRAVES ENGINEERING, Inc.
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| NO. | DATE | BY | DESCRIPTION |
|-----|----------|-----|--------------------------------------|
| 1 | 09/27/21 | MRA | ISSUED FOR CITY OF NEWTON PERMITTING |



EXISTING CONDITIONS PLAN
MAINTENANCE FACILITY EXPANSION
CHARLES RIVER COUNTRY CLUB, 483 DEDHAM STREET, NEWTON, MA
CLIENT: CHARLES RIVER COUNTRY CLUB
483 DEDHAM STREET, NEWTON, MA 02459
DATE: 09/27/21 SCALE: 1"=30'
DES. BY: OAG DRW. BY: OAG CHK. BY: MRA PRJ. NO.: 20141

SHEET NOTES

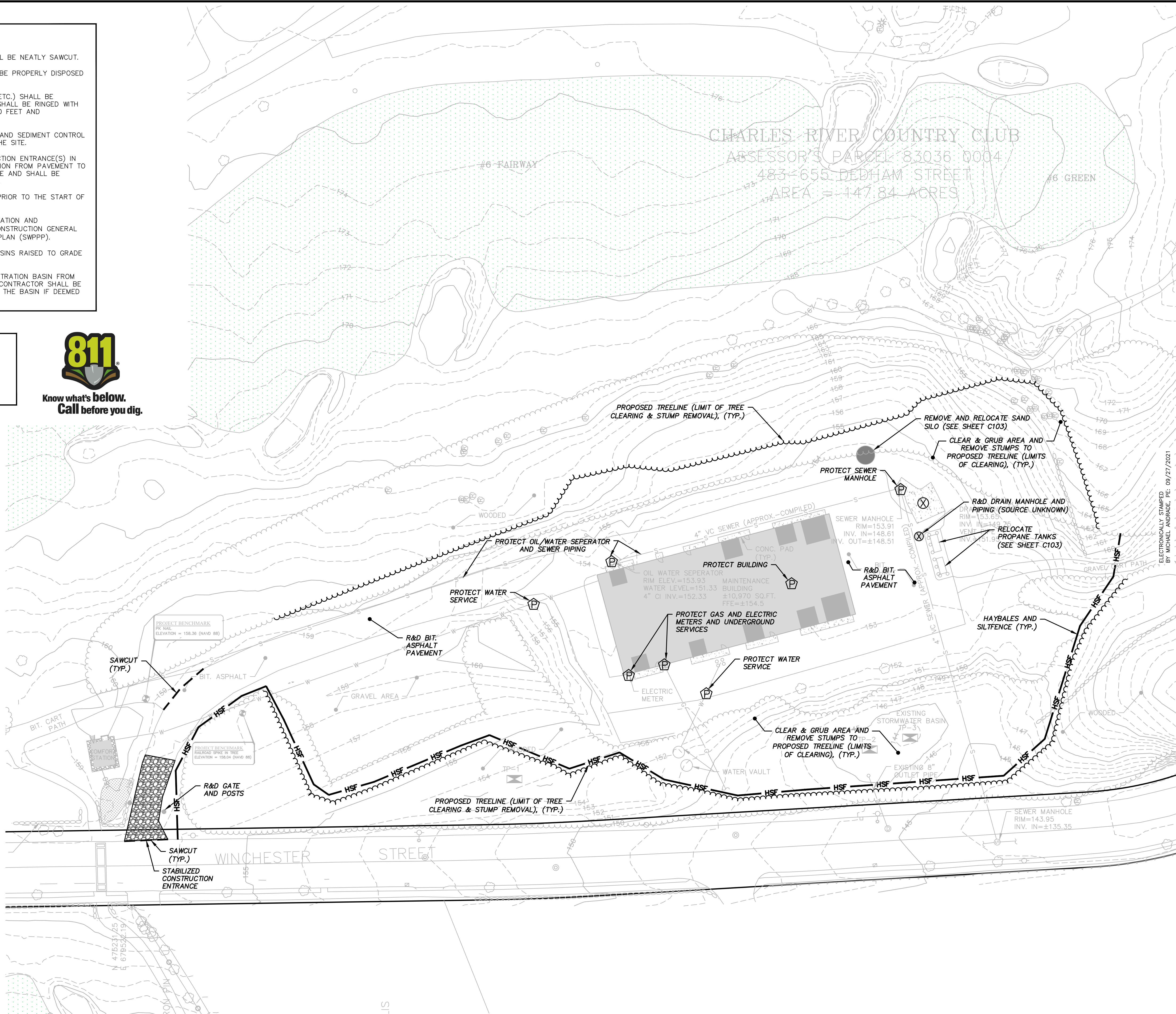
- 1) ALL EXISTING PAVEMENT IN PROPOSED WORK AREAS SHALL BE NEATLY SAWCUT.
- 2) ALL ITEMS NOTED TO BE REMOVED AND DISPOSED SHALL BE PROPERLY DISPOSED OF OFFSITE.
- 3) STOCKPILE LOCATIONS (STRIPPED LOAM, FILL MATERIALS, ETC.) SHALL BE COORDINATED WITH THE OWNER AND THE ENGINEER AND SHALL BE RINGED WITH SILTFENCE. STOCKPILES SHALL NOT BE PLACED WITHIN 100 FEET AND ENVIRONMENTAL RESOURCE AREA.
- 4) THE CONTRACTOR SHALL EMPLOY ANY AND ALL EROSION AND SEDIMENT CONTROL MEASURES TO PREVENT A RELEASE OF SEDIMENT FROM THE SITE.
- 5) THE CONTRACTOR SHALL INSTALL A STABILIZED CONSTRUCTION ENTRANCE(S) IN ACCORDANCE WITH THE DETAILS AT ANY VEHICLE TRANSITION FROM PAVEMENT TO SOIL. THE ENTRANCE SHALL REMAIN AS LONG AS POSSIBLE AND SHALL BE REPAIRED AS NECESSARY TO MAINTAIN PROPER FUNCTION.
- 6) SEDIMENT AND EROSION CONTROLS SHALL BE INSTALLED PRIOR TO THE START OF ANY SITE WORK.
- 7) THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTATION AND RECORDKEEPING ASSOCIATED WITH THE PROJECT'S EPA CONSTRUCTION GENERAL PERMIT (CGP) AND STORMWATER POLLUTION PREVENTION PLAN (SWPPP).
- 8) INSTALL A CATCH BASIN SEDIMENT BAG IN ALL CATCH BASINS RAISED TO GRADE UNTIL THE SITE IS STABILIZED.
- 9) PROTECT THE BOTTOM ELEVATION OF THE PROPOSED INFILTRATION BASIN FROM COMPACTION AND SILTATION DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL OF SEDIMENT AND TILLING OF THE BASIN IF DEEMED NECESSARY BY THE ENGINEER.

SHEET KEY

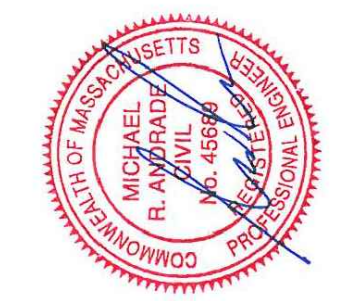
FEATURES MARKED AS  SHALL BE R&D
 FEATURES MARKED AS  SHALL BE PROTECTED
 R&D = REMOVE AND DISPOSE



**Know what's below.
Call before you dig.**

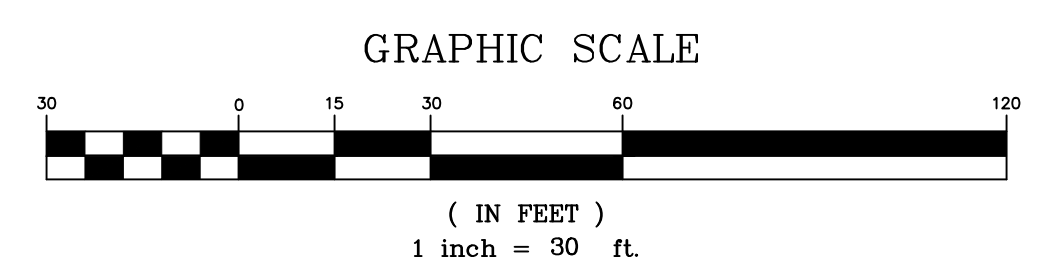


ELECTRONICALLY STAMPED
 BY MICHAEL ANDRAGE, PE, 09/27/2021



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SITE DEMO, SEDIMENT & EROSION CONTROL PLAN
MAINTENANCE FACILITY EXPANSION
CHARLES RIVER COUNTRY CLUB, 483 DEDHAM STREET, NEWTON, MA
 CLIENT: CHARLES RIVER COUNTRY CLUB
 483 DEDHAM STREET, NEWTON, MA 02459
 DATE: 09/27/21 SCALE: 1"=30'
 DES. BY: OAG
 DRW. BY: OAG
 CHK. BY: MRA
 PRJ. NO.: 20141



PROJECT ZONING INFORMATION


| CRITERIA | REQUIRED/EXISTING | PROPOSED |
|---------------------|----------------------------|-------------------------|
| ZONING DISTRICT | SR-1 | SR-1 |
| LOT AREA | NA/148.84 ACRES | 147.84 ACRES |
| FRONTAGE | NA/640 FT. | 640 FT. |
| FRONT SETBACK | NA/95.3 FT. (MAINT. BLDG) | 98.1 FT. (MAINT. ADD.) |
| SIDE SETBACK | NA/683.5 FT. (MAINT. BLDG) | 658.7 FT. (MAINT. ADD.) |
| REAR SETBACK | NA | NA |
| LOT COVERAGE | NA/1.1% | 1.2% |
| BUILDING HEIGHT | NA | TBD (MATCH EXISTING) |
| FLOOR TO AREA RATIO | NA/.011 | .012 |

- NOTES:**
- ZONING DISTRICT SOURCE: THE ABOVE INFORMATION WAS OBTAINED FROM THE CITY OF NEWTON ZONING ORDINANCE DATED DECEMBER 31, 2017 AND UPDATED SEPTEMBER 10, 2018.
 - NA INDICATES THAT THE REQUIRED CRITERIA IS UNCLEAR BASED ON THE EXISTING GOLF COURSE USE IN THE SR-1 DISTRICT.

SHEET NOTES

- ALL DIMENSIONS SHOWN ARE MEASURED FROM TOE OF CURB OR CENTER OF PAINTED LINE.
- PAVEMENT MARKINGS SHALL BE PAINTED WITH WHITE TRAFFIC PAINT CONFORMING TO SECTION M7.01.08 OF THE MASSDOT STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES, LATEST EDITION. LINE WIDTH SHALL BE 4 INCHES.
- THE CONTRACTOR SHALL COORDINATE WITH PLANS BY OTHERS (ARCHITECTURAL, STRUCTURAL, MEP, ETC.) WITH REGARD TO THE BUILDING CONSTRUCTION AND UTILITY PENETRATIONS.

SNOW STORAGE NOTES

- SNOW SHALL BE STORED WITHIN AREAS AS SHOWN ON THIS SHEET DESIGNATED BY THIS HATCHING 
- SNOW STORAGE LOCATIONS SHOWN REPRESENT THE MINIMUM NECESSARY AND THE OWNER SHALL EXPAND SUCH AREAS AS NEEDED. SNOW SHALL NOT BE PLACED SO AS TO INHIBIT VEHICLE SIGHT LINES FOR ENTERING AND EXITING THE SITE AND INTERNAL SITE CIRCULATION NOR PLACED TO INHIBIT SITE DRAINAGE (NOT WITHIN STORMWATER BASINS OR FOREBAYS, SWALES, OR OVER CATCH BASINS).

PARKING SCHEDULE

REQUIRED PARKING
PER ORDINANCE ARTICLE 5.1.4.A

OFFICE = 1 SPACE PER 250 SQ.FT.
625 SQ.FT. OFFICE SPACE = 3 SPACES



WAREHOUSE/STORAGE = 1 SPACE PER 2,500 SQ.FT. PLUS
1 SPACE PER 4 EMPLOYEES
19,065 SQ.FT. WAREHOUSE/STORAGE SPACE = 8 SPACES

TOTAL REQUIRED PARKING = 11 SPACES

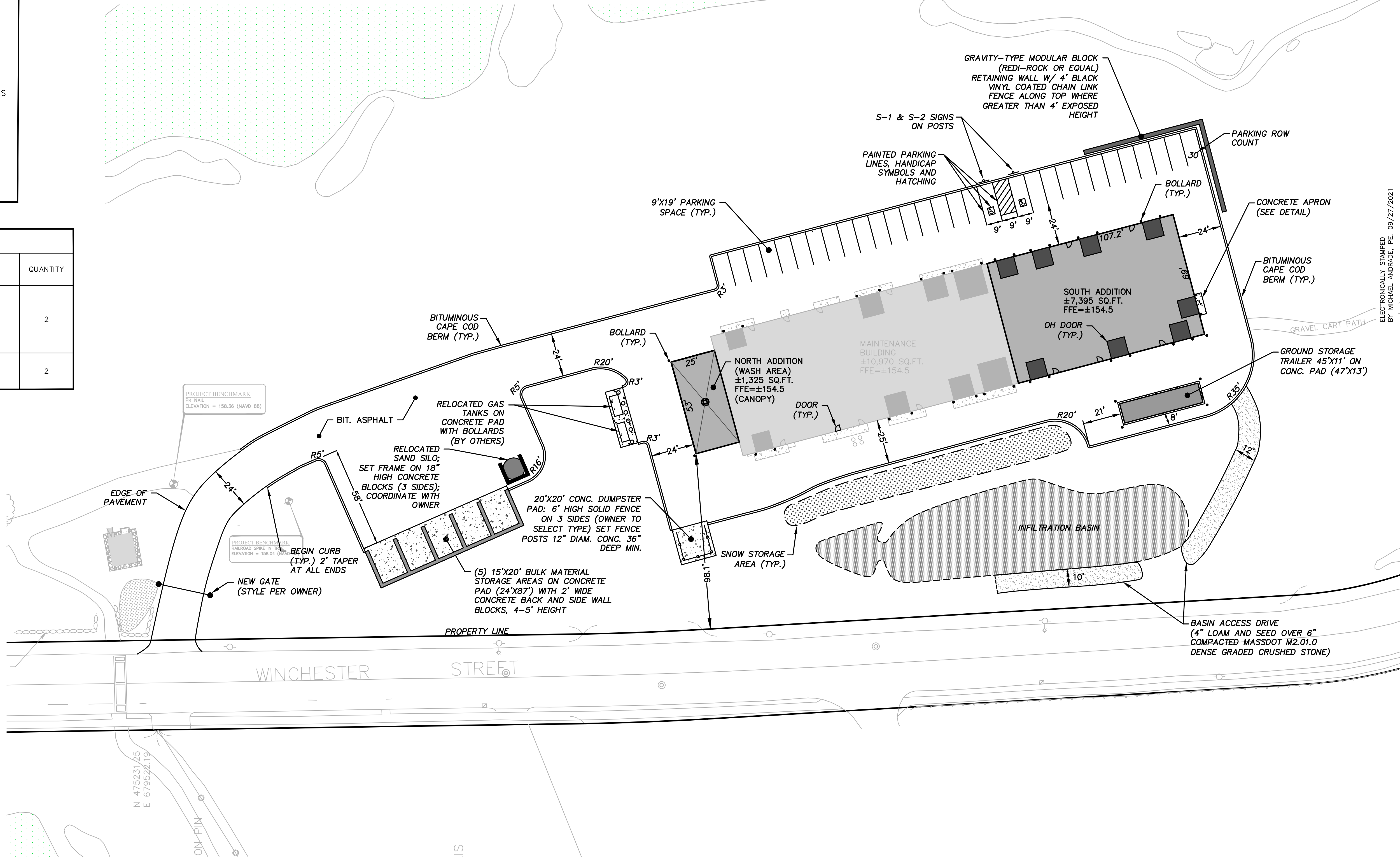
PROPOSED PARKING

2 HANDICAP ACCESSIBLE SPACES (BOTH VAN ACCESSIBLE)
28 STANDARD SPACES (9'x19')
30 SPACES TOTAL

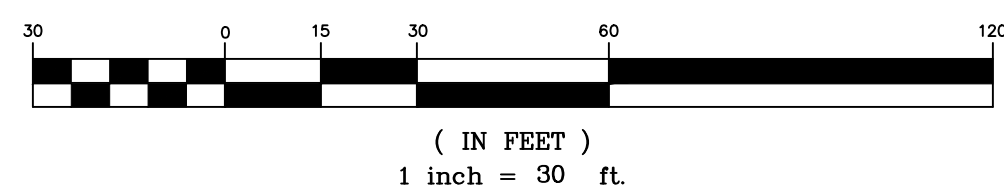
SIGNAGE KEY

| PLAN SYMBOL | MUTCD DESIGNATION | SIGN SIZE | | SIGN LAYOUT | QUANTITY |
|-------------|-------------------|-----------|--------|---|----------|
| | | WIDTH | HEIGHT | | |
| S-1 | R7-8 | 12" | 18" |  | 2 |
| S-2 | R7-8a | 12" | 6" |  | 2 |

CHARLES RIVER COUNTRY CLUB
ASSESSOR'S PARCEL 83036 0004
483-655 DEDHAM STREET
AREA = 147.84 ACRES

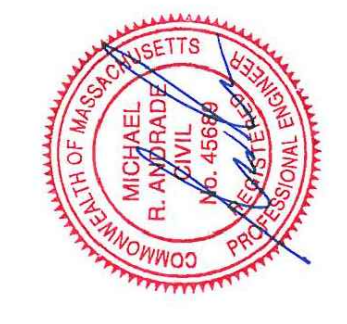


GRAPHIC SCALE



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LAYOUT PLAN
MAINTENANCE FACILITY EXPANSION
CHARLES RIVER COUNTRY CLUB, 483 DEDHAM STREET, NEWTON, MA
CLIENT: CHARLES RIVER COUNTRY CLUB
483 DEDHAM STREET, NEWTON, MA 02459
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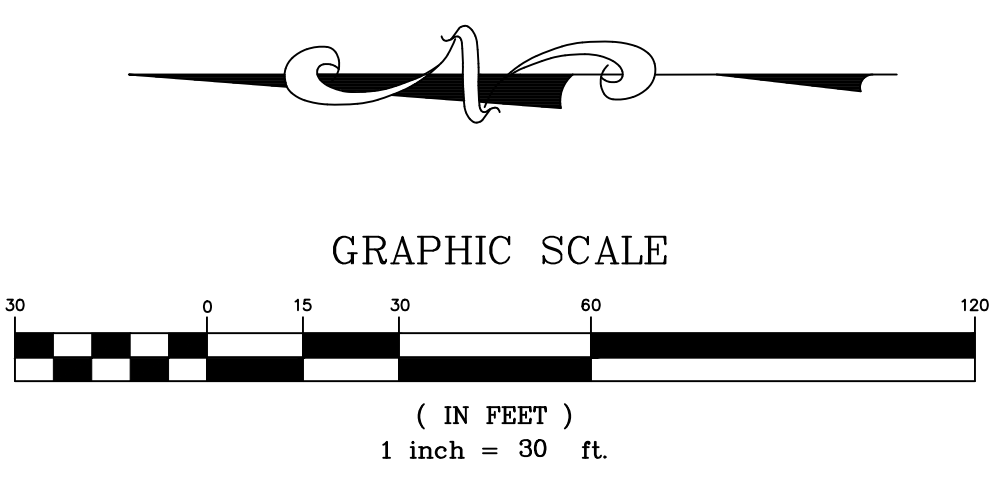
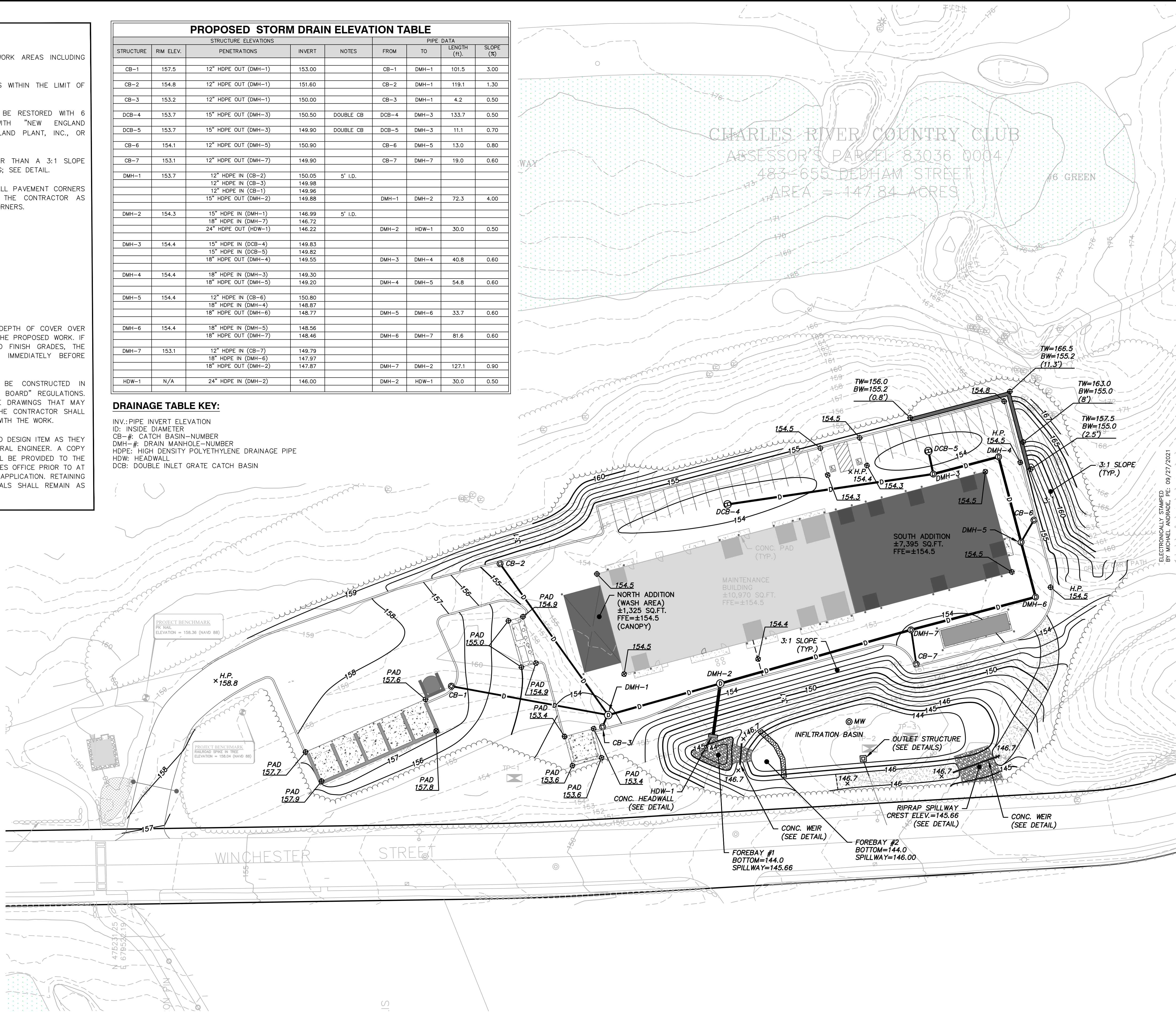
SHEET NOTES

- 1) PROVIDE POSITIVE DRAINAGE IN ALL FINISH GRADED WORK AREAS INCLUDING AWAY FROM ALL BUILDINGS.
- 2) ADJUST ALL STRUCTURES TO PROPOSED FINISH GRADES WITHIN THE LIMIT OF WORK.
- 3) ALL DISTURBED AREAS OUTSIDE OF PAVEMENT SHALL BE RESTORED WITH 6 INCHES OF SCREENED LOAM AND SEEDED WITH "NEW ENGLAND CONSERVATION/WILDLIFE MIX" BY NEW ENGLAND WETLAND PLANT, INC., OR ENGINEER APPROVED EQUAL.
- 4) ALL FINISHED GRASSED SLOPES EQUAL TO OR GREATER THAN A 3:1 SLOPE SHALL BE STABILIZED WITH AN EROSION CONTROL MATTING; SEE DETAIL.
- 5) PROPOSED GRADES AS SHOWN SHALL BE CARRIED TO ALL PAVEMENT CORNERS HOWEVER GRADE ADJUSTMENTS SHALL BE MADE BY THE CONTRACTOR AS NECESSARY TO PROVIDE POSITIVE DRAINAGE FROM ALL CORNERS.
- 6) SPOT GRADE KEY:
 (E) = EXISTING GRADE TO BE MAINTAINED
 TC = TOP OF CURB FINISH GRADE
 BC = BOTTOM OF CURB FINISH GRADE
 FFE = BUILDING FINISH FLOOR ELEVATION
 CB = CATCH BASIN
 HP = HIGH POINT
 LP = LOW POINT
 TW = TOP OF WALL (FINISH GRADE)
 BW = BOTTOM OF WALL (FINISH GRADE)
- 7) PRIOR TO WORK, THE CONTRACTOR SHALL VERIFY THE DEPTH OF COVER OVER THE EXISTING UNDERGROUND UTILITIES IN THE AREA OF THE PROPOSED WORK. IF ADEQUATE COVER IS NOT PRESENT TO THE PROPOSED FINISH GRADES, THE CONTRACTOR SHALL CONTACT THE DESIGN ENGINEER IMMEDIATELY BEFORE BEGINNING WORK IN THIS AREA.
- 8) HANDICAP RAMPS AND ACCESSIBLE ROUTES SHALL BE CONSTRUCTED IN CONFORMANCE WITH 521 CMR "ARCHITECTURAL ACCESS BOARD" REGULATIONS. SHOULD ANY DISCREPANCIES BE DISCOVERED ON THESE DRAWINGS THAT MAY PREVENT FULL COMPLIANCE WITH SAID REGULATIONS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY BEFORE PROCEEDING WITH THE WORK.
- 9) THE PROPOSED RETAINING WALLS SHOWN ARE A DEFERRED DESIGN ITEM AS THEY REQUIRE A BUILDING PERMIT AND DESIGN BY A STRUCTURAL ENGINEER. A COPY OF THE STAMPED RETAINING WALL DESIGN PLAN(S) SHALL BE PROVIDED TO THE WORCESTER DIVISION OF PLANNING & REGULATORY SERVICES OFFICE PRIOR TO AT THE SAME TIME AS SUBMITTAL OF THE BUILDING PERMIT APPLICATION. RETAINING WALL LOCATIONS, HEIGHTS, AND CONSTRUCTION MATERIALS SHALL REMAIN AS SHOWN ON THESE PLANS.

| PROPOSED STORM DRAIN ELEVATION TABLE | | | | | | | | |
|--------------------------------------|----------------------|----------------------|--------|-----------|-----------|-------|--------------|-----------|
| STRUCTURE | STRUCTURE ELEVATIONS | | | NOTES | PIPE DATA | | | |
| | RIM ELEV. | PENETRATIONS | INVERT | | FROM | TO | LENGTH (ft.) | SLOPE (%) |
| CB-1 | 157.5 | 12" HDPE OUT (DMH-1) | 153.00 | | CB-1 | DMH-1 | 101.5 | 3.00 |
| CB-2 | 154.8 | 12" HDPE OUT (DMH-1) | 151.60 | | CB-2 | DMH-1 | 119.1 | 1.30 |
| CB-3 | 153.2 | 12" HDPE OUT (DMH-1) | 150.00 | | CB-3 | DMH-1 | 4.2 | 0.50 |
| DCB-4 | 153.7 | 15" HDPE OUT (DMH-3) | 150.50 | DOUBLE CB | DCB-4 | DMH-3 | 133.7 | 0.50 |
| DCB-5 | 153.7 | 15" HDPE OUT (DMH-3) | 149.90 | DOUBLE CB | DCB-5 | DMH-3 | 11.1 | 0.70 |
| CB-6 | 154.1 | 12" HDPE OUT (DMH-5) | 150.90 | | CB-6 | DMH-5 | 13.0 | 0.80 |
| CB-7 | 153.1 | 12" HDPE OUT (DMH-7) | 149.90 | | CB-7 | DMH-7 | 19.0 | 0.60 |
| DMH-1 | 153.7 | 12" HDPE IN (CB-2) | 150.05 | 5' I.D. | | | | |
| | | 12" HDPE IN (CB-3) | 149.98 | | | | | |
| | | 12" HDPE IN (CB-1) | 149.96 | | | | | |
| | | 15" HDPE OUT (DMH-2) | 149.88 | | | | | |
| DMH-2 | 154.3 | 15" HDPE IN (DMH-1) | 146.99 | 5' I.D. | | | | |
| | | 18" HDPE IN (DMH-7) | 146.72 | | | | | |
| | | 24" HDPE OUT (HDW-1) | 146.22 | | | | | |
| DMH-3 | 154.4 | 15" HDPE IN (DCB-4) | 149.83 | | | | | |
| | | 15" HDPE IN (DCB-5) | 149.82 | | | | | |
| | | 18" HDPE OUT (DMH-4) | 149.55 | | | | | |
| DMH-4 | 154.4 | 18" HDPE IN (DMH-3) | 149.30 | | | | | |
| | | 18" HDPE OUT (DMH-5) | 149.20 | | | | | |
| DMH-5 | 154.4 | 12" HDPE IN (CB-6) | 150.80 | | | | | |
| | | 18" HDPE IN (DMH-4) | 148.87 | | | | | |
| | | 18" HDPE OUT (DMH-6) | 148.77 | | | | | |
| DMH-6 | 154.4 | 18" HDPE IN (DMH-5) | 148.56 | | | | | |
| | | 18" HDPE OUT (DMH-7) | 148.46 | | | | | |
| DMH-7 | 153.1 | 12" HDPE IN (CB-7) | 149.79 | | | | | |
| | | 18" HDPE IN (DMH-6) | 147.97 | | | | | |
| | | 18" HDPE OUT (DMH-2) | 147.87 | | | | | |
| HDW-1 | N/A | 24" HDPE IN (DMH-2) | 146.00 | | DMH-2 | HDW-1 | 30.0 | 0.50 |

DRAINAGE TABLE KEY:

INV.: PIPE INVERT ELEVATION
 ID: INSIDE DIAMETER
 CB-#: CATCH BASIN-NUMBER
 DMH-#: DRAIN MANHOLE-NUMBER
 HDPE: HIGH DENSITY POLYETHYLENE DRAINAGE PIPE
 HDW: HEADWALL
 DCB: DOUBLE INLET GRATE CATCH BASIN



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GRADING & DRAINAGE PLAN
MAINTENANCE FACILITY EXPANSION
CHARLES RIVER COUNTRY CLUB, 483 DEDHAM STREET, NEWTON, MA

CLIENT: CHARLES RIVER COUNTRY CLUB
 483 DEDHAM STREET, NEWTON, MA 02459

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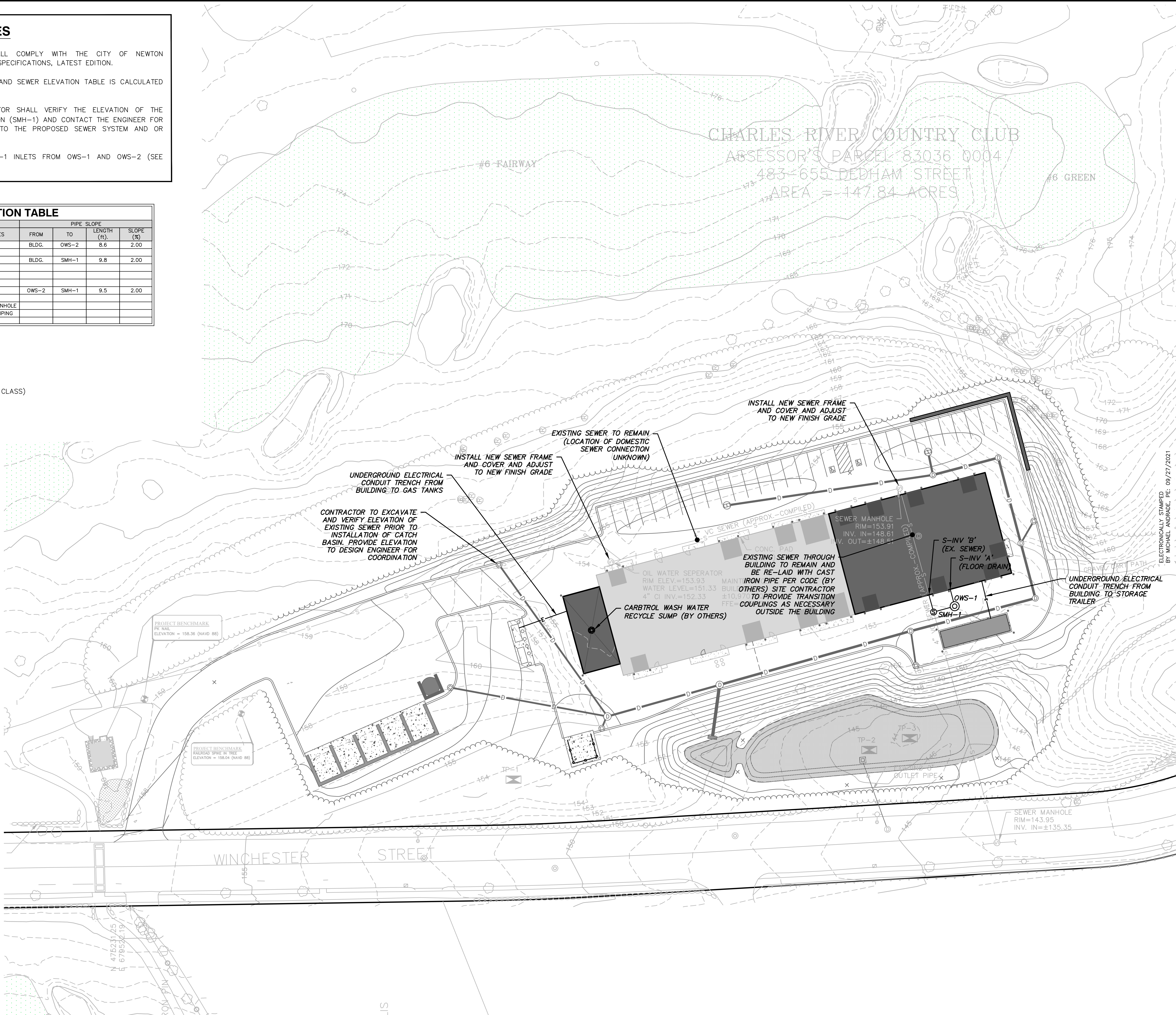
- 1) UTILITY MATERIALS, CONSTRUCTION, & TESTING SHALL COMPLY WITH THE CITY OF NEWTON DEPARTMENT OF PUBLIC WORKS AND PARKS STANDARD SPECIFICATIONS, LATEST EDITION.
- 2) PIPE LENGTH AND SLOPE SHOWN IN THE STORM DRAIN AND SEWER ELEVATION TABLE IS CALCULATED FROM INSIDE FACE TO INSIDE FACE OF STRUCTURE.
- 3) BEFORE PROCEEDING WITH THE WORK, THE CONTRACTOR SHALL VERIFY THE ELEVATION OF THE EXISTING SEWER AT THE PROPOSED POINT OF CONNECTION (SMH-1) AND CONTACT THE ENGINEER FOR COORDINATION. BASED ON THE ELEVATION, REVISIONS TO THE PROPOSED SEWER SYSTEM AND OR DRAIN CROSSING MAY BE REQUIRED.
- 4) PROVIDE INTERIOR DROP BOWLS AND PIPING AT SMH-1 INLETS FROM OWS-1 AND OWS-2 (SEE DETAIL)

PROPOSED SEWER ELEVATION TABLE

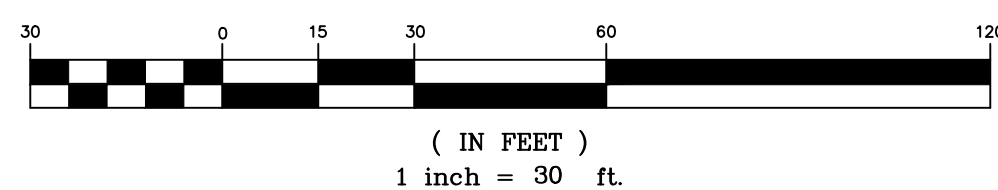
| STRUCTURE | STRUCTURE ELEVATIONS | | | PIPE SLOPE | | | |
|-----------|----------------------|-----------------------------|---------|--------------|-------|--------------|-----------|
| | RIM ELEV. | PENETRATIONS | INVERT | FROM | TO | LENGTH (ft.) | SLOPE (%) |
| S-INV 'A' | - | 4" CI OUT (FLOOR DRAIN) | 150.30 | BLDG. | OWS-2 | 8.6 | 2.00 |
| S-INV 'B' | - | 4" SDR35 PVC (EX. SEWER) | ±144.56 | BLDG. | SMH-1 | 9.8 | 2.00 |
| OWS-1 | 154.20 | 4" CI IN (BLDG.) | 150.12 | | | | |
| | | 4" CI OUT (INV. 'AA') | 149.79 | | | | |
| | | 4" CI OUT (INV. 'BB') | 146.79 | OWS-2 | SMH-1 | 9.5 | 2.00 |
| SMH-1 | 154.20 | 4" SDR35 PVC IN (EX. SEWER) | 144.36 | | | | |
| | | 4" CI IN (OWS-1) | 149.60 | DROP MANHOLE | | | |
| | | 4" VC OUT (EX. SEWER) | ±144.01 | DROP PIPING | | | |

SEWER TABLE KEY:

S-INV 'A': SEWER INVERT ELEVATION-DESIGNATION (SEE TABLE)
 OWS-#: OIL/WATER SEPARATOR
 SDR35: POLYVINYL CHLORIDE (PVC) SEWER PIPE, SDR35
 CI: CAST IRON PIPE (SEE PLUMBING PLANS/SPECS. FOR MATERIAL CLASS)
 M.E.: MATCH EXISTING

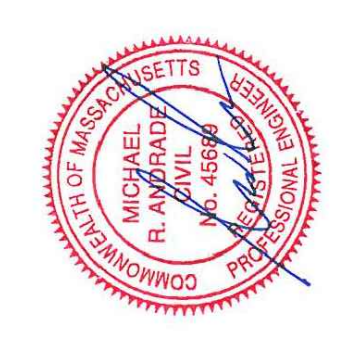


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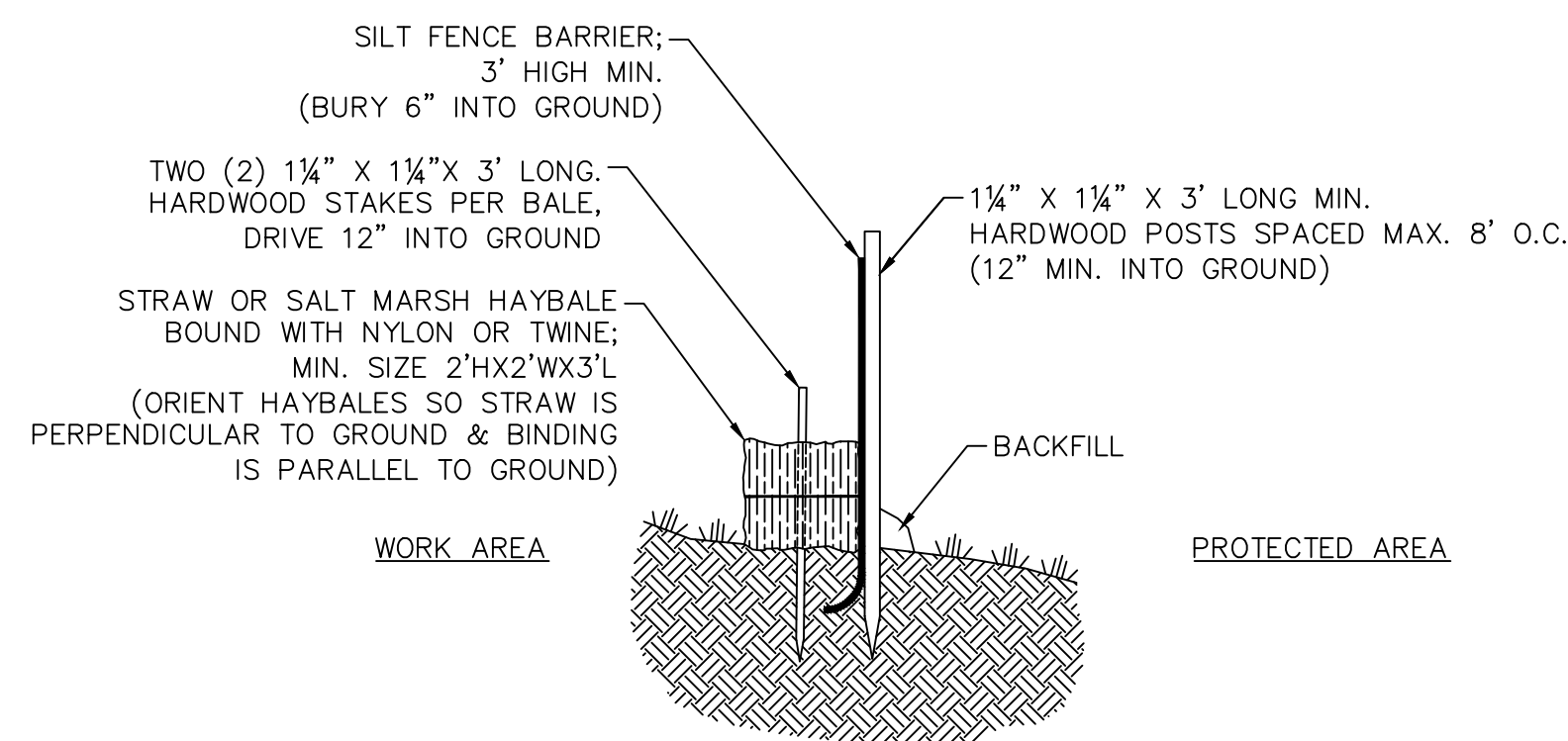


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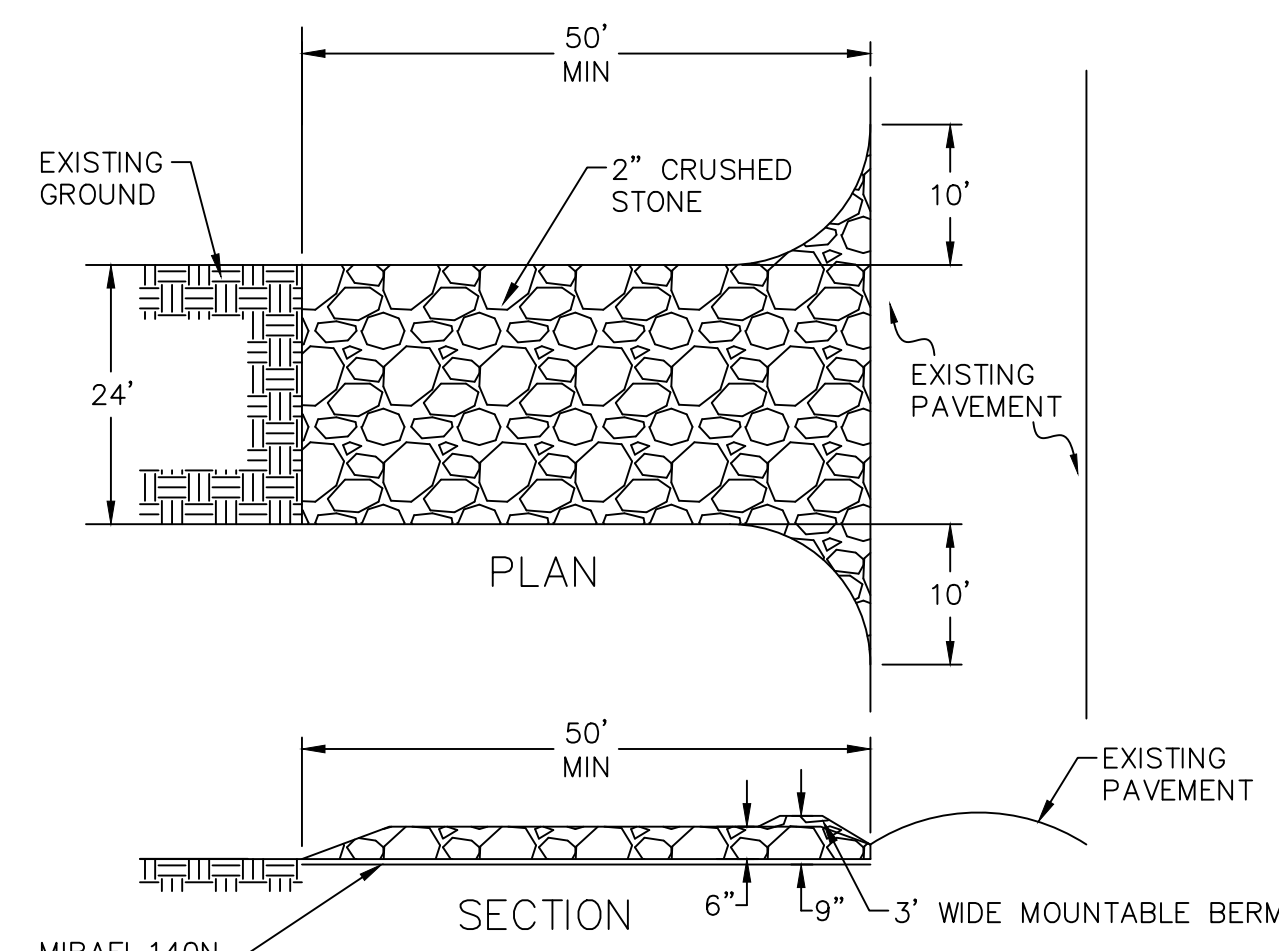


SITE UTILITIES PLAN
MAINTENANCE FACILITY EXPANSION
CHARLES RIVER COUNTRY CLUB, 483 DEDHAM STREET, NEWTON, MA
 CLIENT: CHARLES RIVER COUNTRY CLUB
 483 DEDHAM STREET, NEWTON, MA 02459
 DATE: 09/27/21 SCALE: 1"=30'
 DES. BY: OAG DRW. BY: OAG CHK. BY: MRA PRJ. NO.: 20141

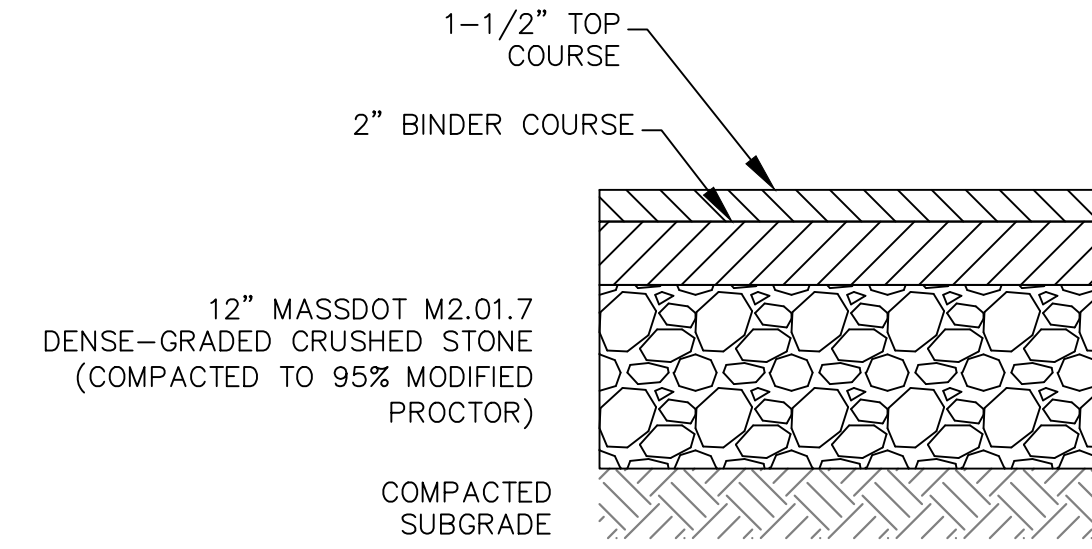


HAYBALE & SILTFENCE NTS

NOTES:
1) PROVIDE A 3' TO 6' LEVEL AREA BETWEEN THE HAYBALE AND THE TOE OF ANY SLOPE TO PROVIDE AREA FOR SEDIMENT ACCUMULATION.

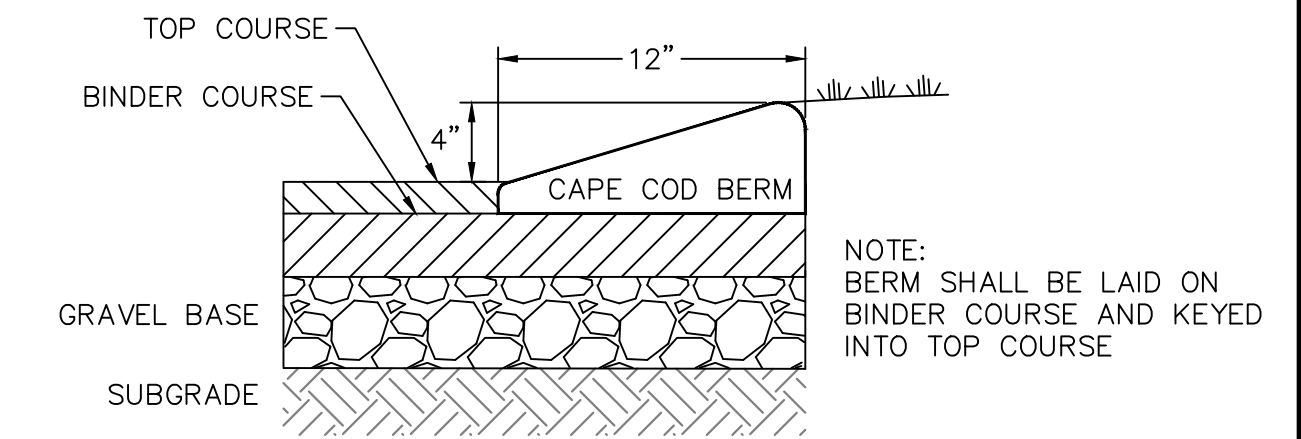


STABILIZED CONSTRUCTION ENTRANCE NTS

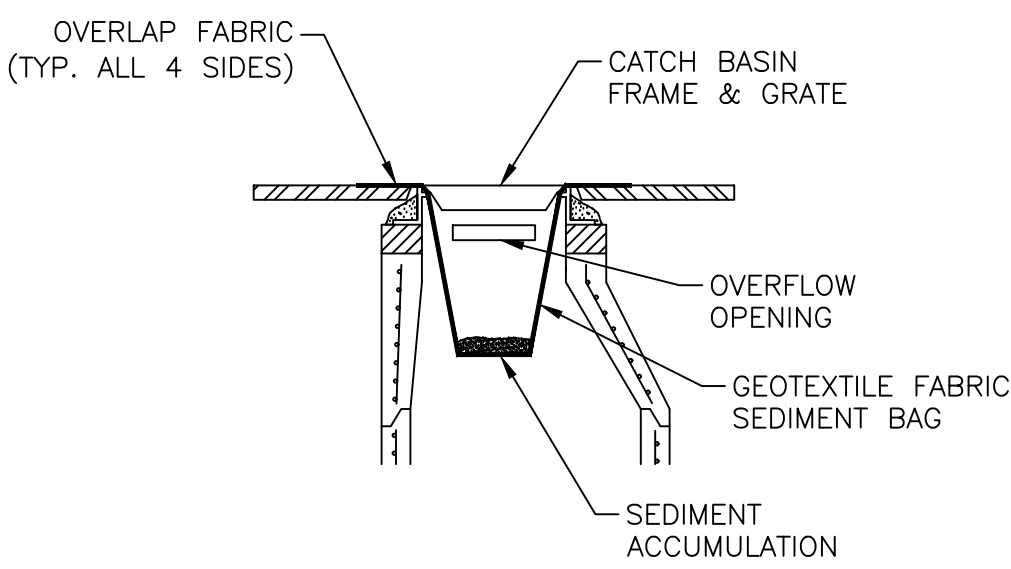


PAVEMENT SECTION-STANDARD NTS

NOTES:
1) TAMP ALL ASPHALT EDGES THAT ABUT LAWN, LANDSCAPED OR OTHER SOFT SURFACE.
2) **BINDER COURSE:** - MASSDOT M3.11.03, TABLE A, "HMA INTERMEDIATE COURSE DENSE BINDER" OR SUPERPAVE INTERMEDIATE COURSE - 19.0MM (MIXTURE DESIGNATION SIC - 19.0).
3) **TOP COURSE:** - MASSDOT M3.11.03, TABLE A, "SURFACE COURSE STANDARD TOP" OR SUPERPAVE SURFACE COURSE - 12.5MM (MIXTURE DESIGNATION SSC - 12.5).

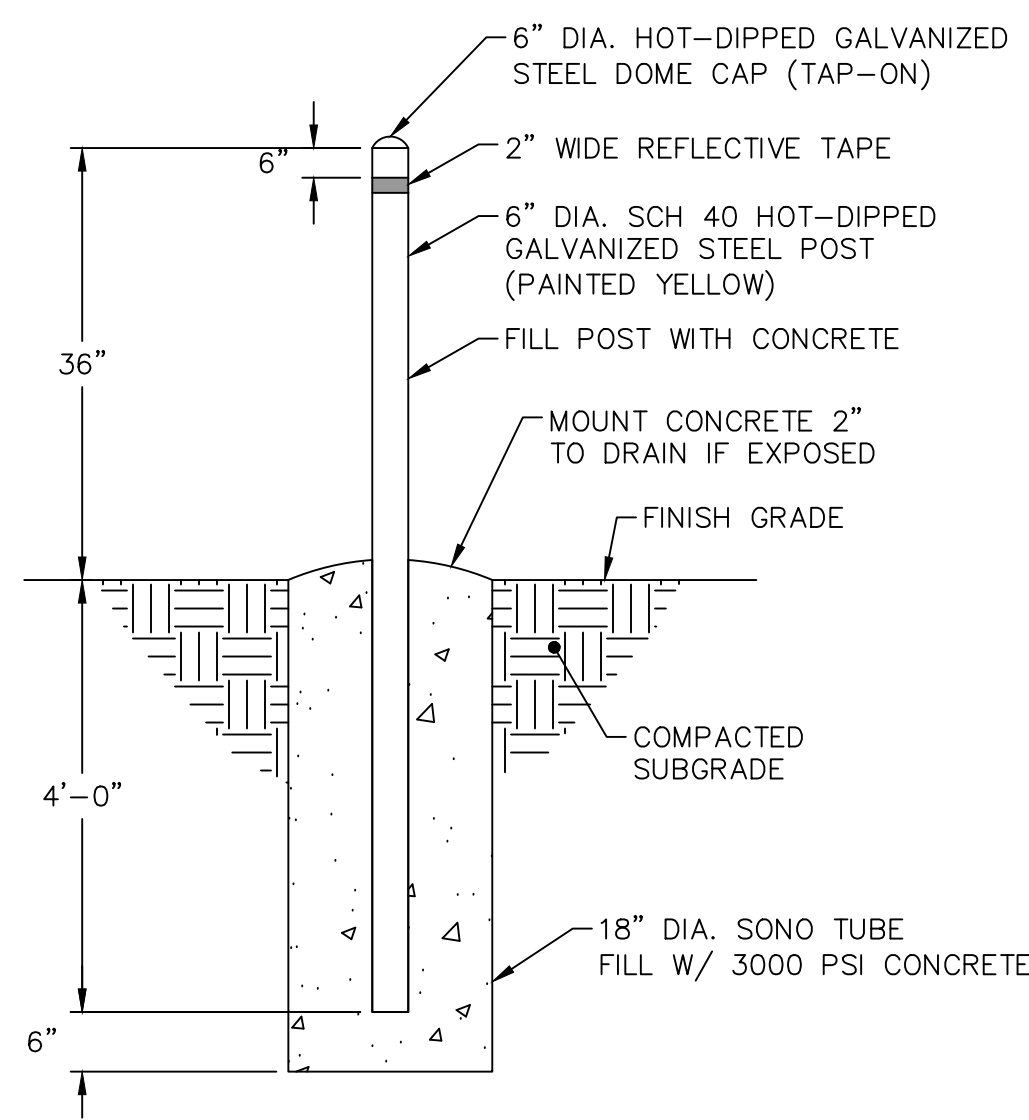


CAPE COD BERM NTS

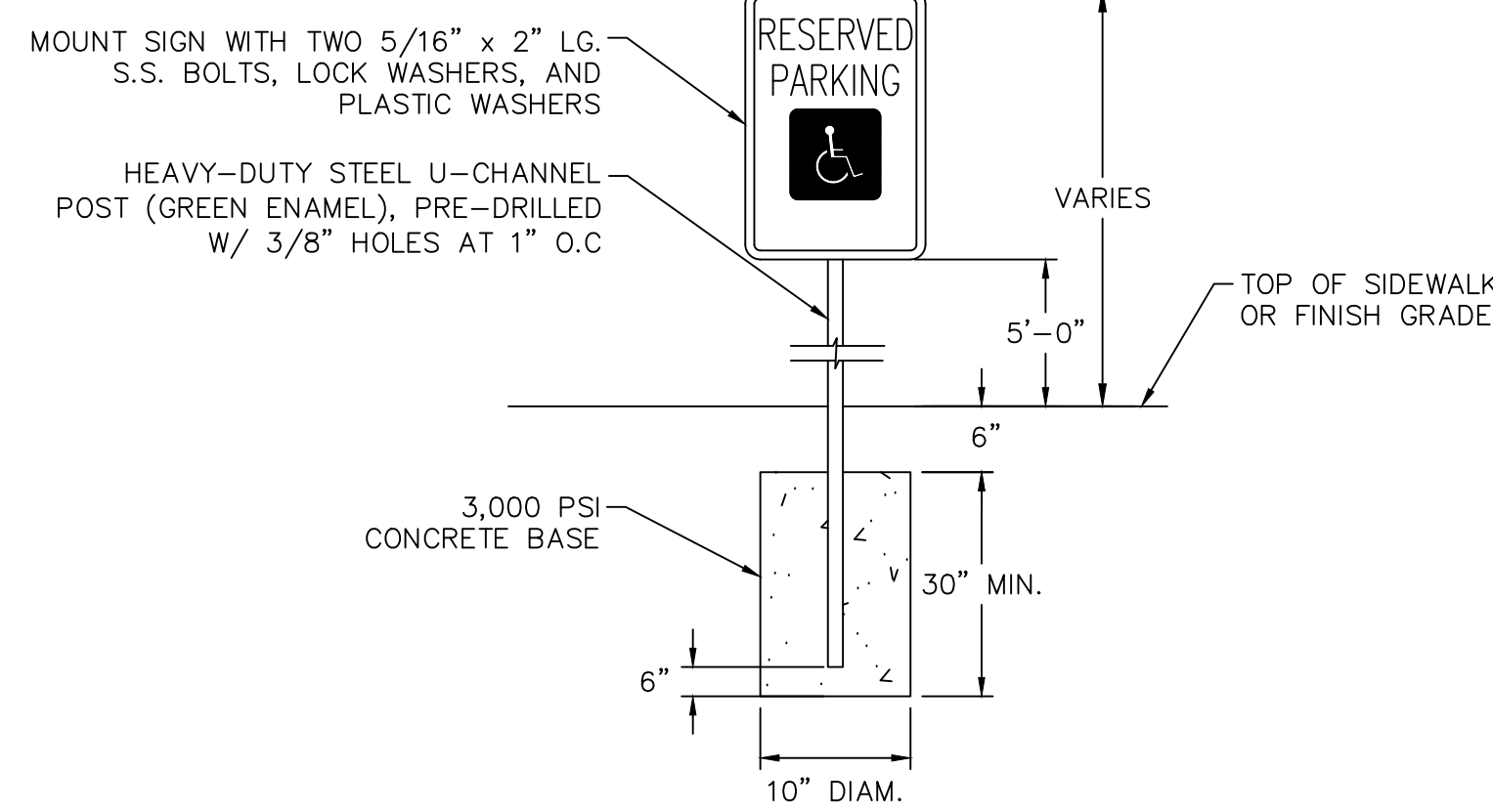


CATCH BASIN SEDIMENT BAG NTS

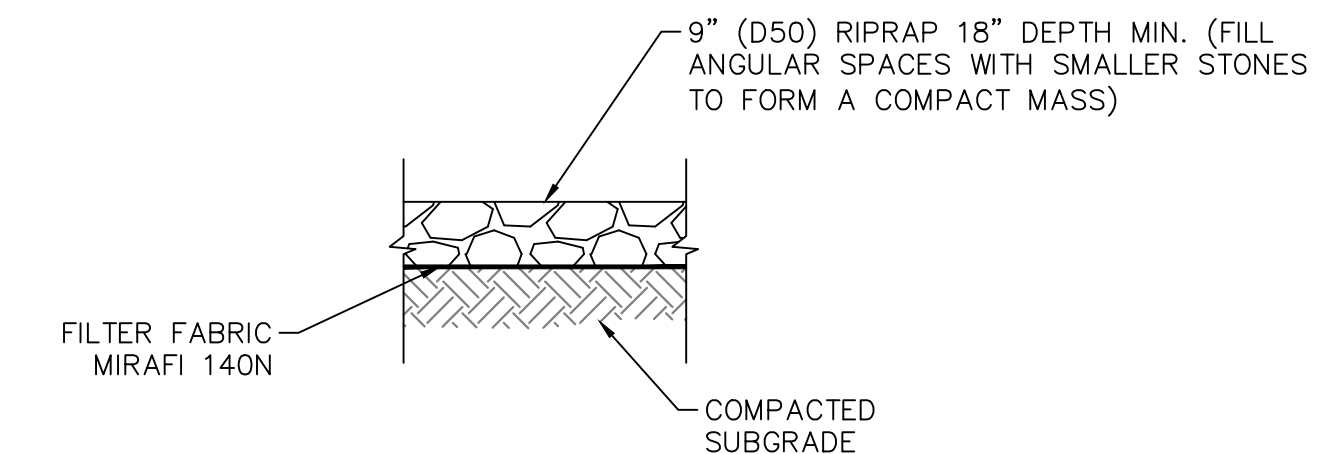
NOTES:
1) SEDIMENT BAG SHALL BE SILTSACK BY ACF ENVIRONMENTAL, OR APPROVED EQUAL.
2) OIL ABSORPTION MEDIUM MAY ALSO BE PLACED IN BAG (OPTIONAL).
3) INSTALL AND MAINTAIN PER MANUFACTURER'S INSTRUCTIONS.



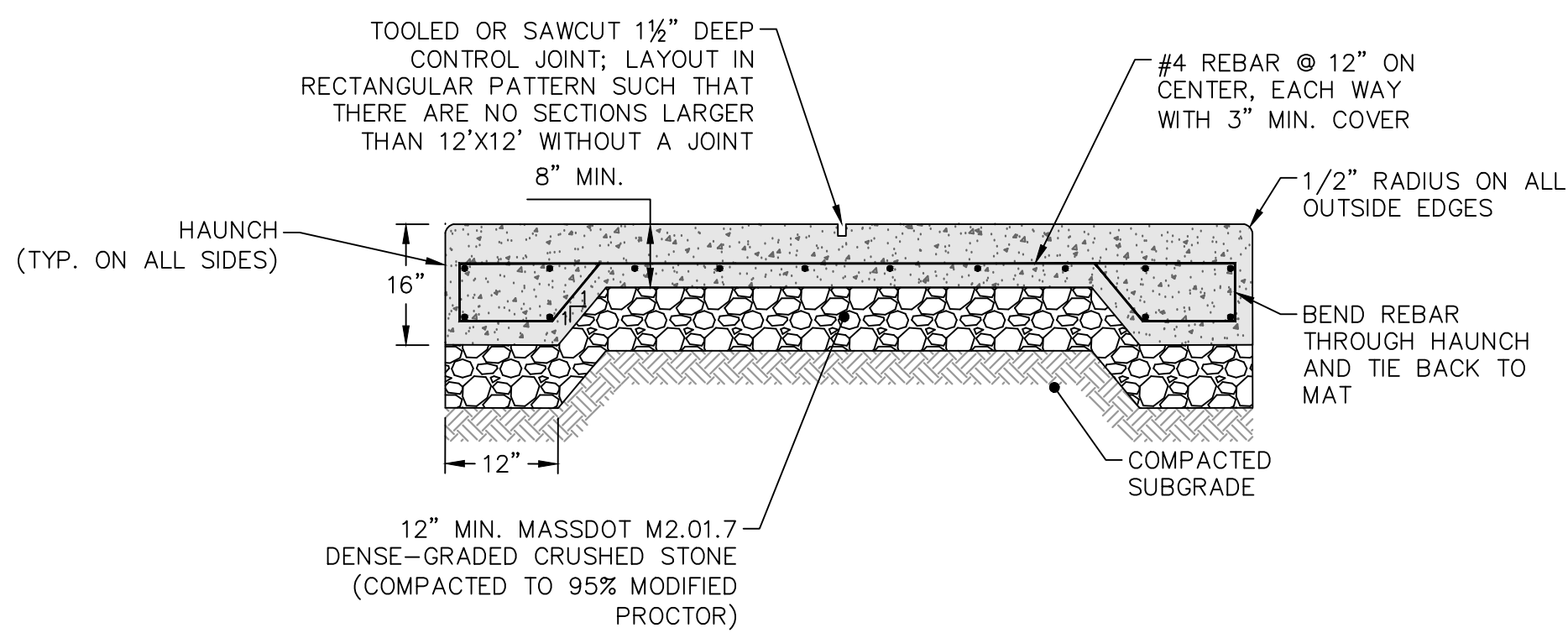
BOLLARD NTS



NOTES:
1) THIS DETAIL APPLIES TO THE CONSTRUCTION OF ALL PROPOSED SIGNS; (SIGN TYPE AND DIMENSIONS MAY VARY FROM THOSE SHOWN). HANDICAP VAN ACCESSIBLE PLACARD SHALL BE MOUNTED DIRECTLY BELOW PRIMARY SIGN

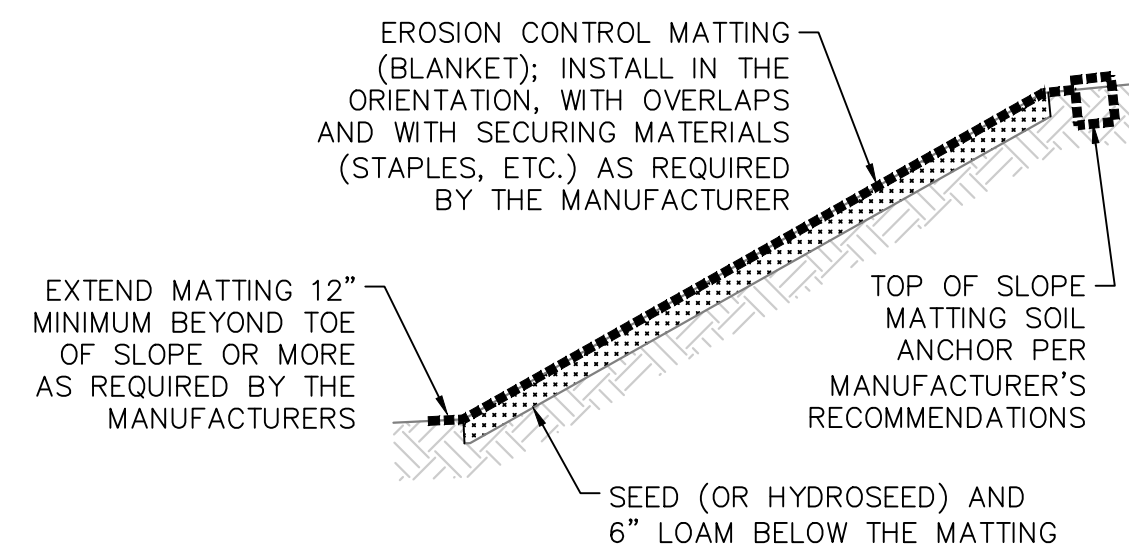


RIPRAP APRON SECTION NTS



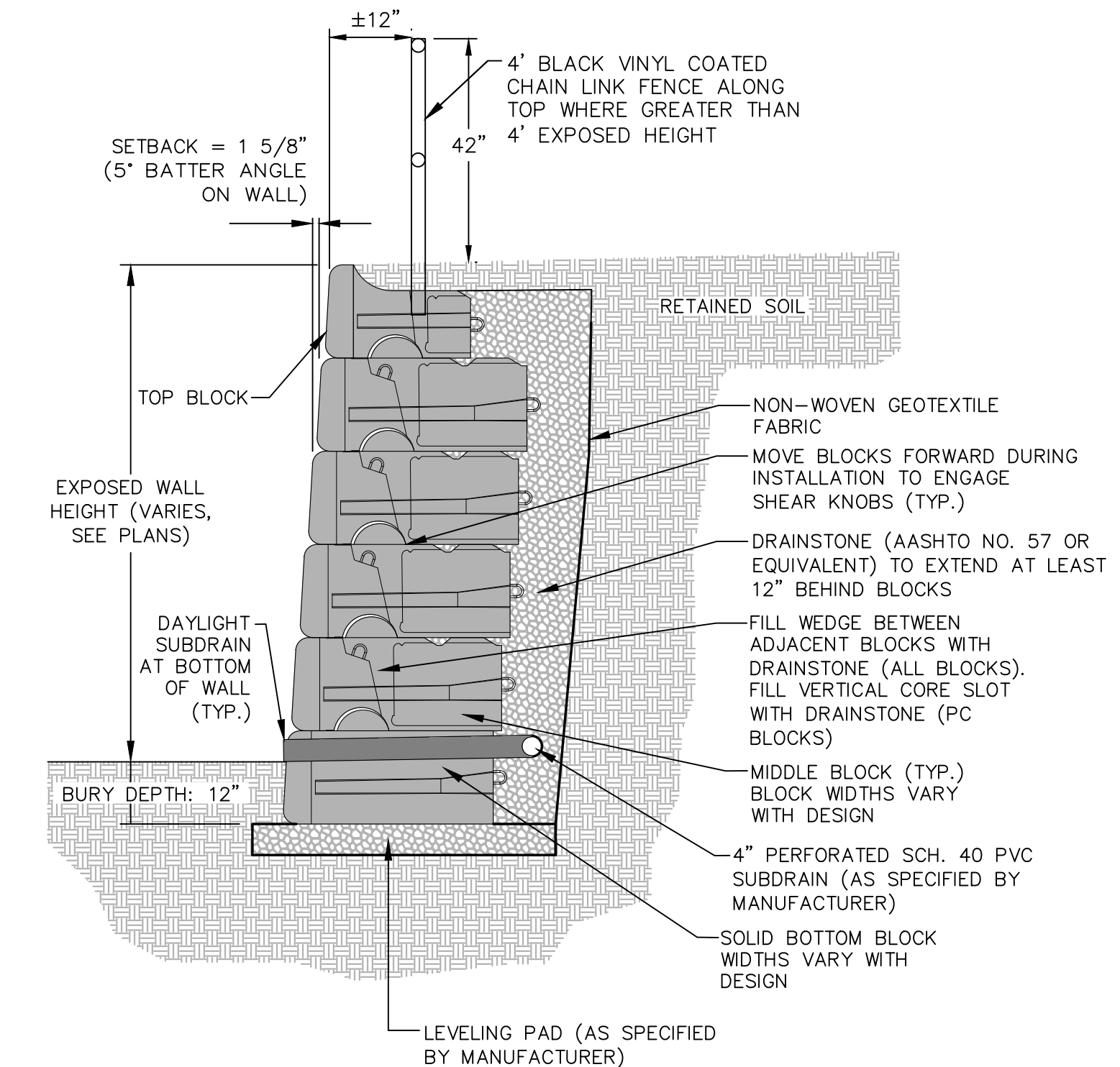
CONCRETE PAD-HEAVY DUTY NTS

NOTES:
1) THIS DETAIL APPLIES TO THE PROPOSED DUMPSTER PAD, STORAGE TRAILER PAD, BULK MATERIAL STORAGE PAD, AND CONCRETE APRON AT OVERHEAD DOOR.
2) CONCRETE MIX DESIGN SHALL BE FOR EXTERIOR USE; AIR-ENTRAINED, 4,000 PSI MIN. (28-DAY), 3/4" AGGREGATE.
3) OMIT THE HAUNCH WHEN ABUTTING ANOTHER HARD SURFACE SUCH AS EXISTING CONCRETE (BITUMINOUS IS NOT A HARD SURFACE).
4) WHEN THE PAD ABUTS A STRUCTURE OR EXISTING HARD SURFACE (CONCRETE, ETC.), INSTALL AN EXPANSION JOINT ACROSS THE ENTIRETY OF THE ABUTTING FACE WITH PREFORMED FIBER JOINT FILLER AND FILL WITH 1" DEEP OF POLYURETHANE JOINT SEALANT.
5) PAD SHALL HAVE A MEDIUM BROOM FINISH. THERE SHALL BE NO SMOOTHED TOOL JOINTS; BROOM FINISH SHALL EXTEND TO THE EDGES OF THE PAD AND ACROSS ANY JOINTS.
6) SLOPE (PITCH) PAD TO DRAIN 1.0% MIN. TO 2.0% MAX. (STORAGE TRAILER PAD SHALL BE LEVEL).



EROSION CONTROL BLANKET SLOPE STABILIZATION NTS

NOTES:
1) EROSION CONTROL MATTING (BLANKETS) SHALL BE INSTALLED ON ALL FINISHED SLOPES SHOWN EQUAL TO OR EXCEEDING A 3:1 SLOPE (33.5%).
2) INSTALLATION SHALL STRICTLY FOLLOW THE MANUFACTURER'S RECOMMENDATIONS AND INSTRUCTIONS.
3) UNLESS OTHERWISE SPECIFIED ON THE DRAWINGS FOR A PARTICULAR LOCATION AND APPLICATION, ACCEPTABLE EROSION CONTROL BLANKETS FOR GENERAL SLOPE STABILIZATION ARE: SC150 BY NORTH AMERICAN GREEN, CURLEX II BY AMERICAN EXCELSIOR COMPANY, OR LANDLOK C2 BY PROPEX (OR ENGINEER APPROVED EQUAL).

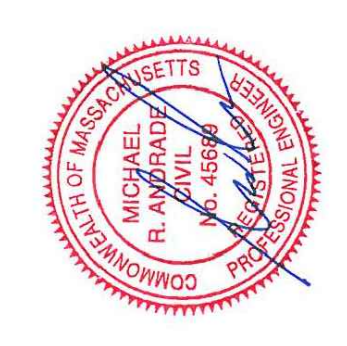


TYPICAL GRAVITY-TYPE PRECAST CONCRETE MODULAR BLOCK RETAINING WALL SECTION NTS

NOTES:
1) BLOCK TEXTURE (FINISH) SHALL BE SIMILAR TO "LIMESTONE" BY REDI-ROCK INTERNATIONAL, LLC. AND BASED ON CONTRACTOR-SELECTED WALL MANUFACTURER; SEE SPECS. FOR SUBMITTAL REQUIREMENTS.
2) BLOCK COLOR SHALL BE GRAY.
3) CONTRACTOR IS RESPONSIBLE FOR WALL MANUFACTURER'S COST OF PREPARING STRUCTURAL ENGINEERING DRAWINGS.



| NO. | DATE | BY | DESCRIPTION | REVISIONS |
|-----|----------|-----|--------------------------------------|-----------|
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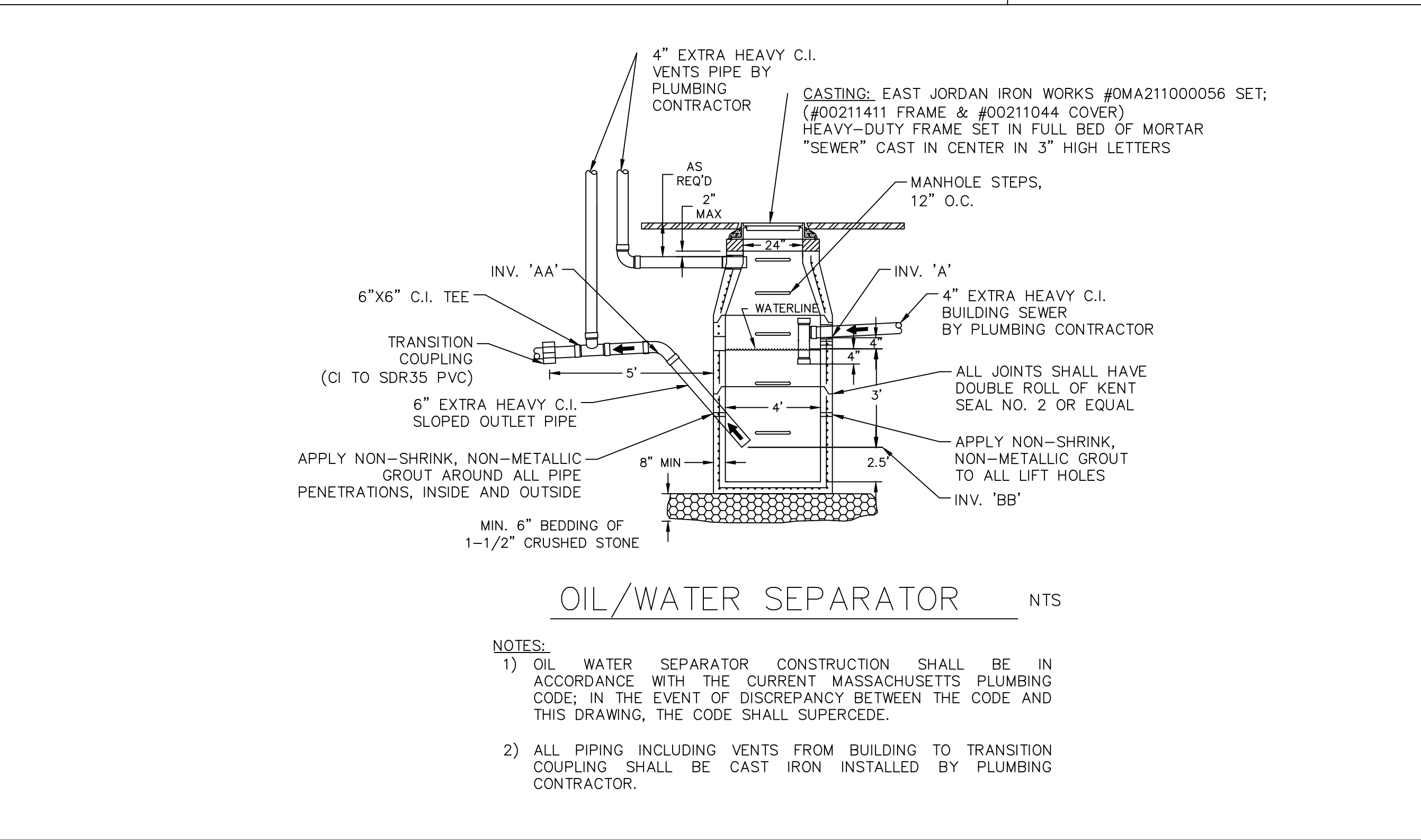
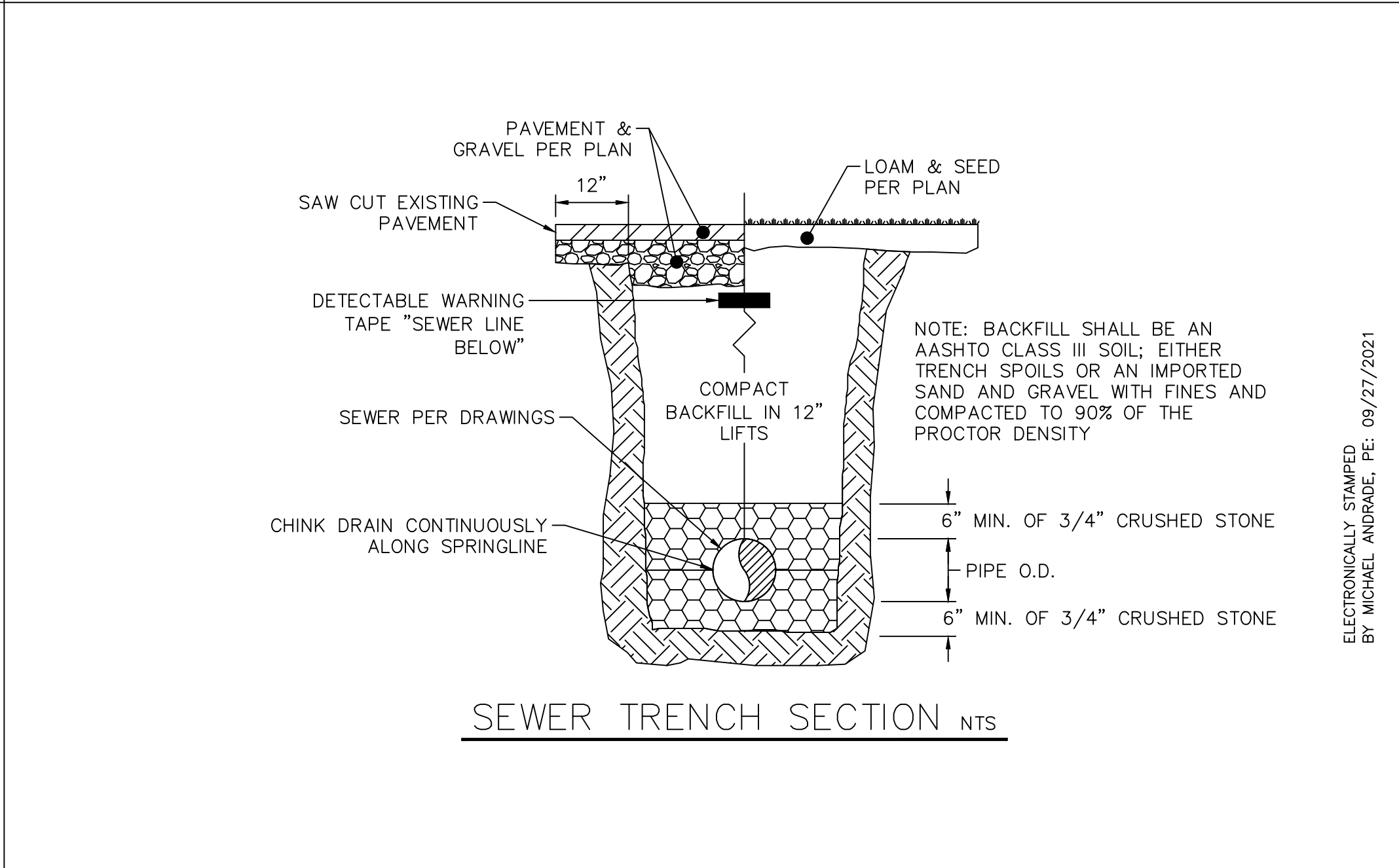
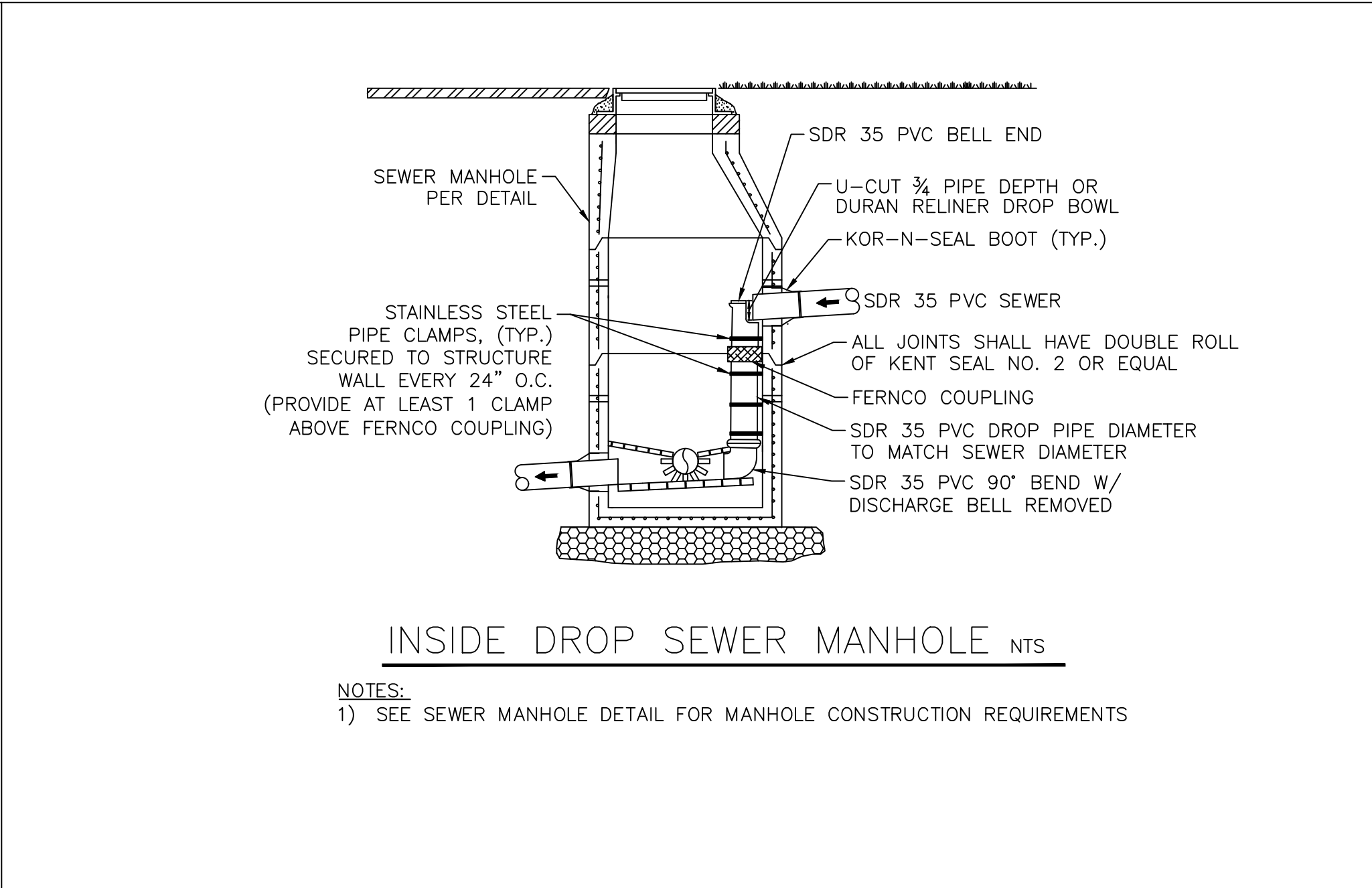
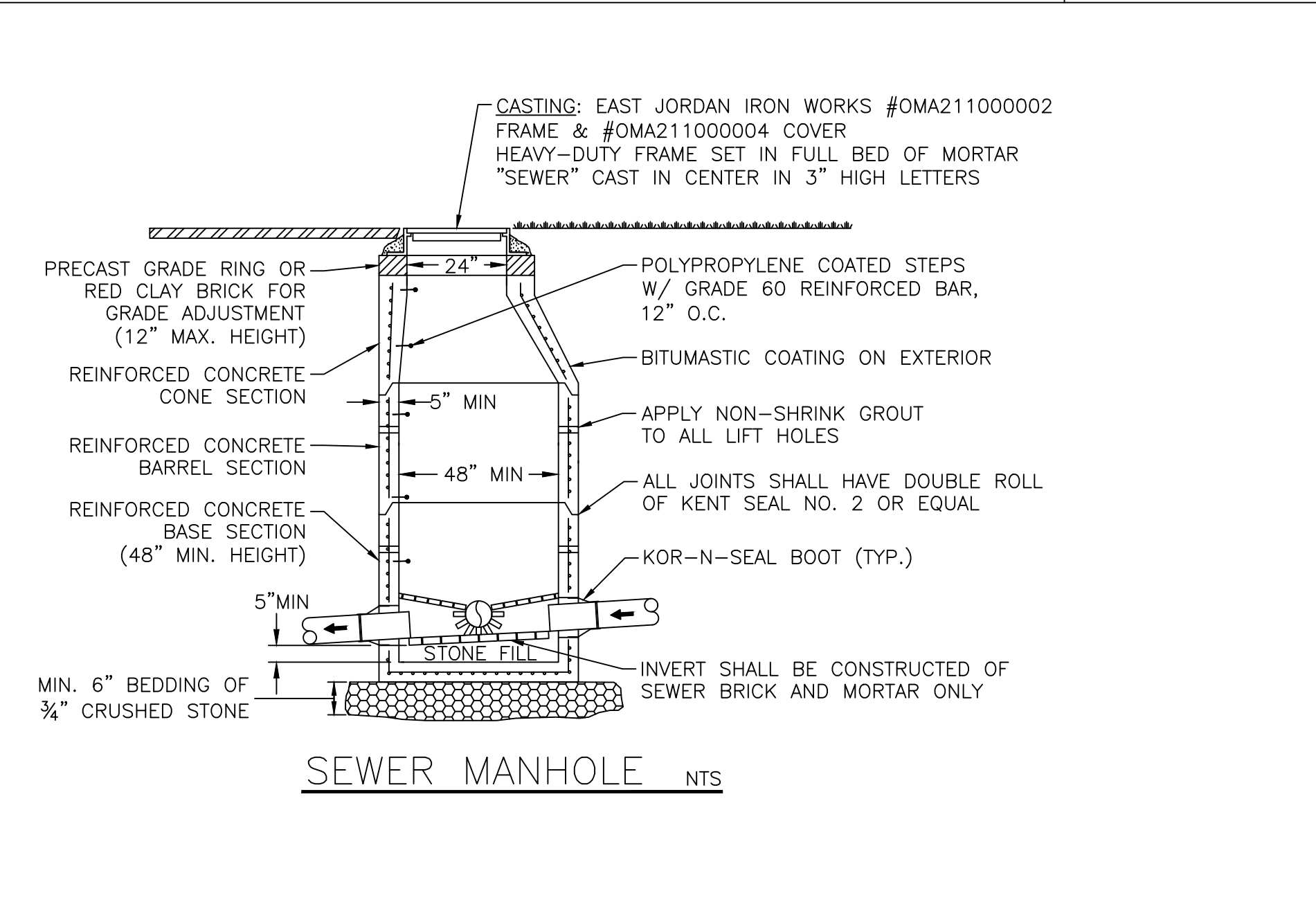
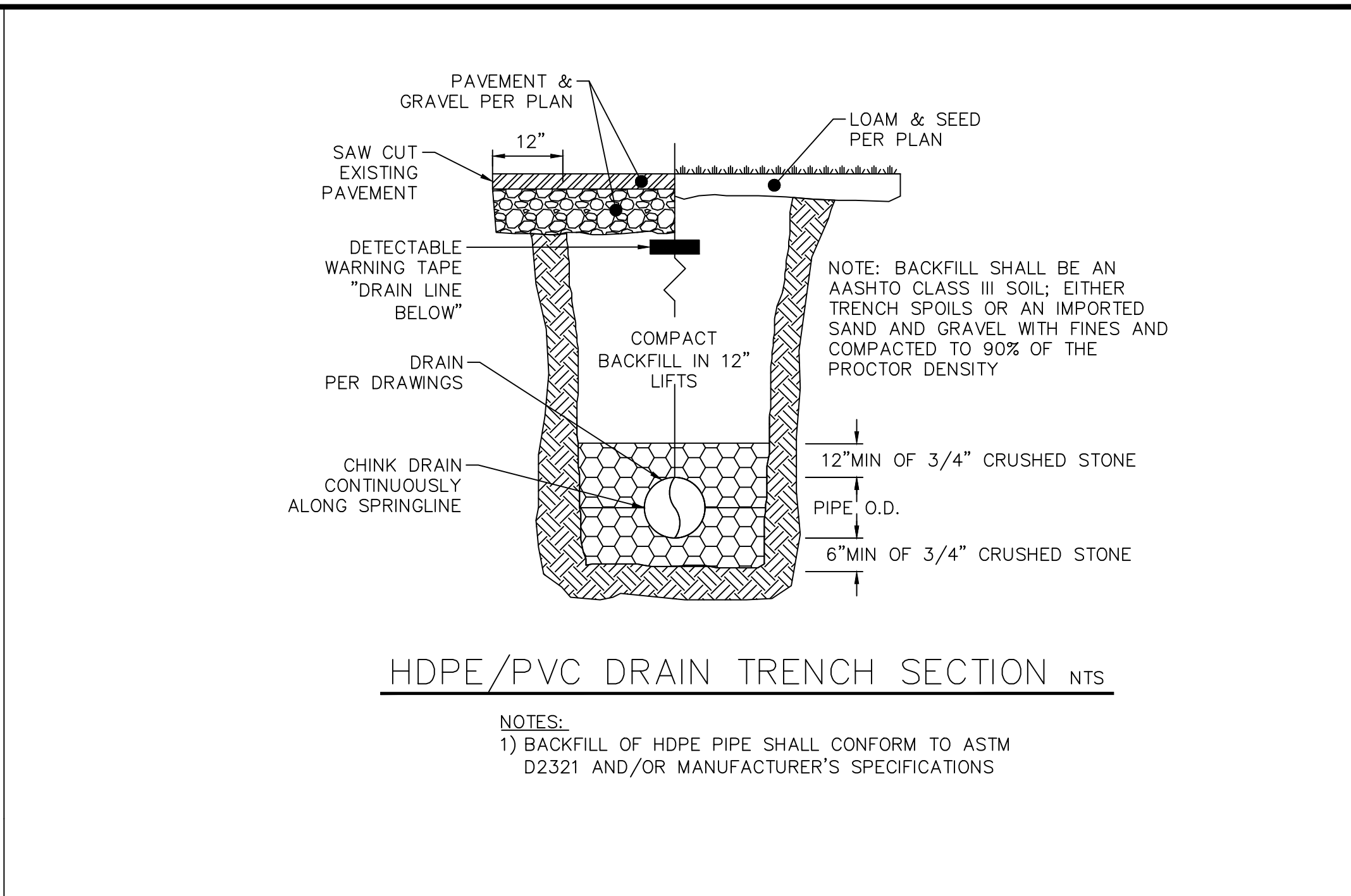
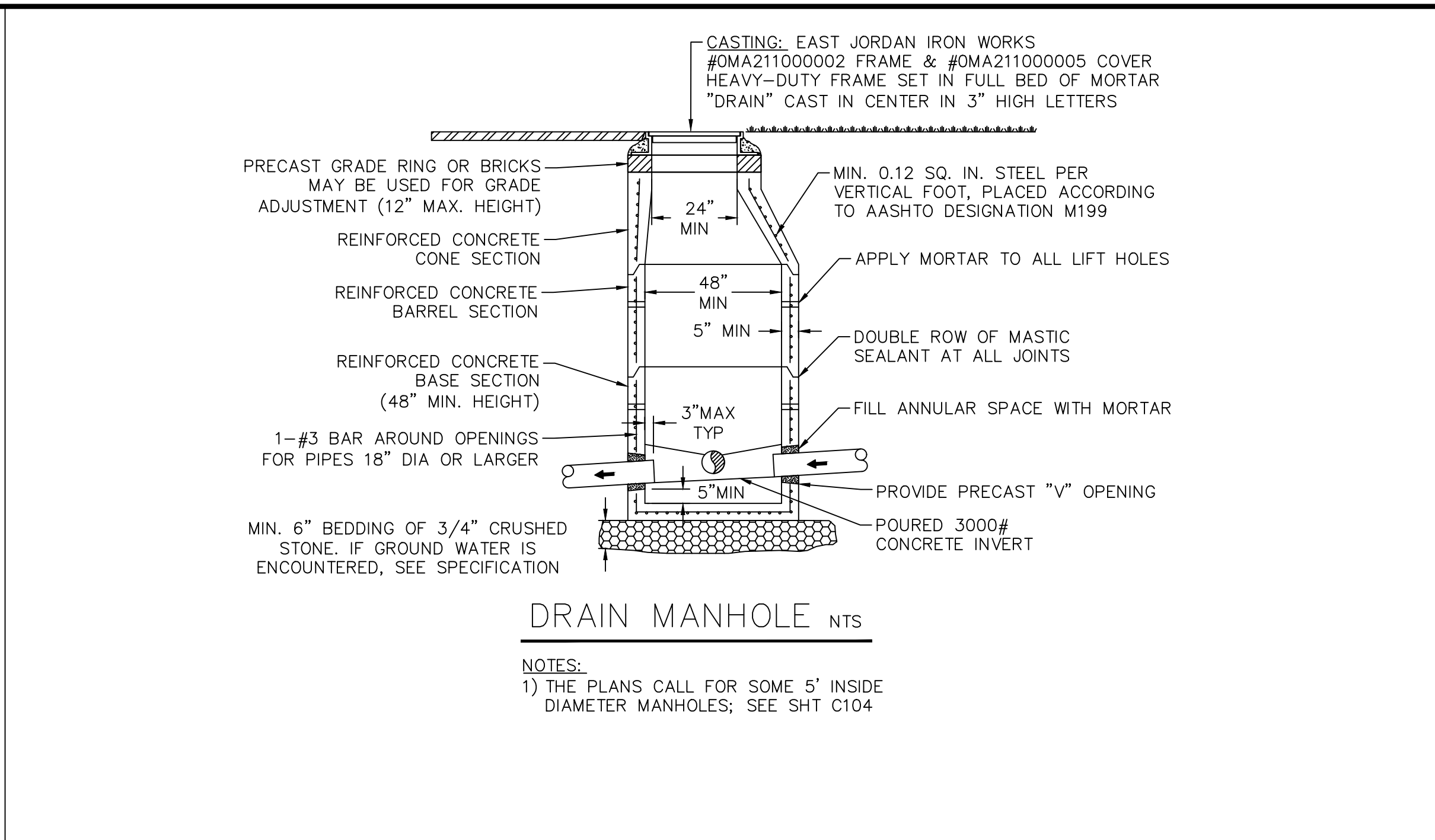
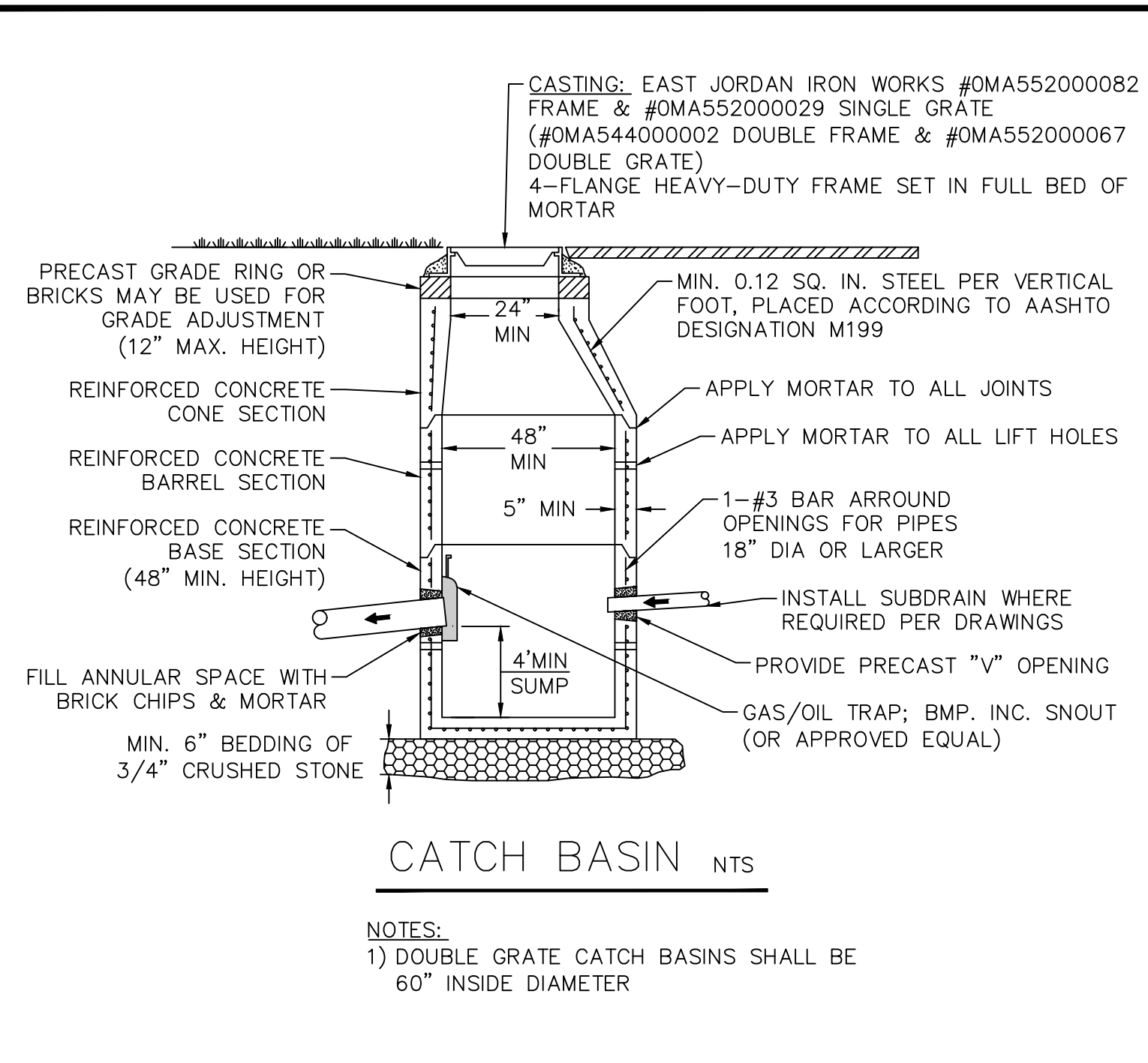


ELECTRONICALLY STAMPED BY MICHAEL R. GRAVES, PE. 09/27/2021

SITE DETAILS - 1
MAINTENANCE FACILITY EXPANSION
CHARLES RIVER COUNTRY CLUB
483 DEDHAM STREET, NEWTON, MA 02459

CLIENT: CHARLES RIVER COUNTRY CLUB
483 DEDHAM STREET, NEWTON, MA 02459

DATE: 09/27/21 SCALE: NTS
DES. BY: OAG
CHK. BY: MRA
DRW. BY: OAG
PRJ. NO.: 20141



GRAVES ENGINEERING, Inc.

100 GROVES STREET | WORCESTER MA 01605
T 508-858-0321 | F 508-858-0357
gravesengineering.com

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| 1 | 09/27/21 | MRA | ISSUED FOR CITY OF NEWTON PERMITTING |



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SITE DETAILS - 2

MAINTENANCE FACILITY EXPANSION

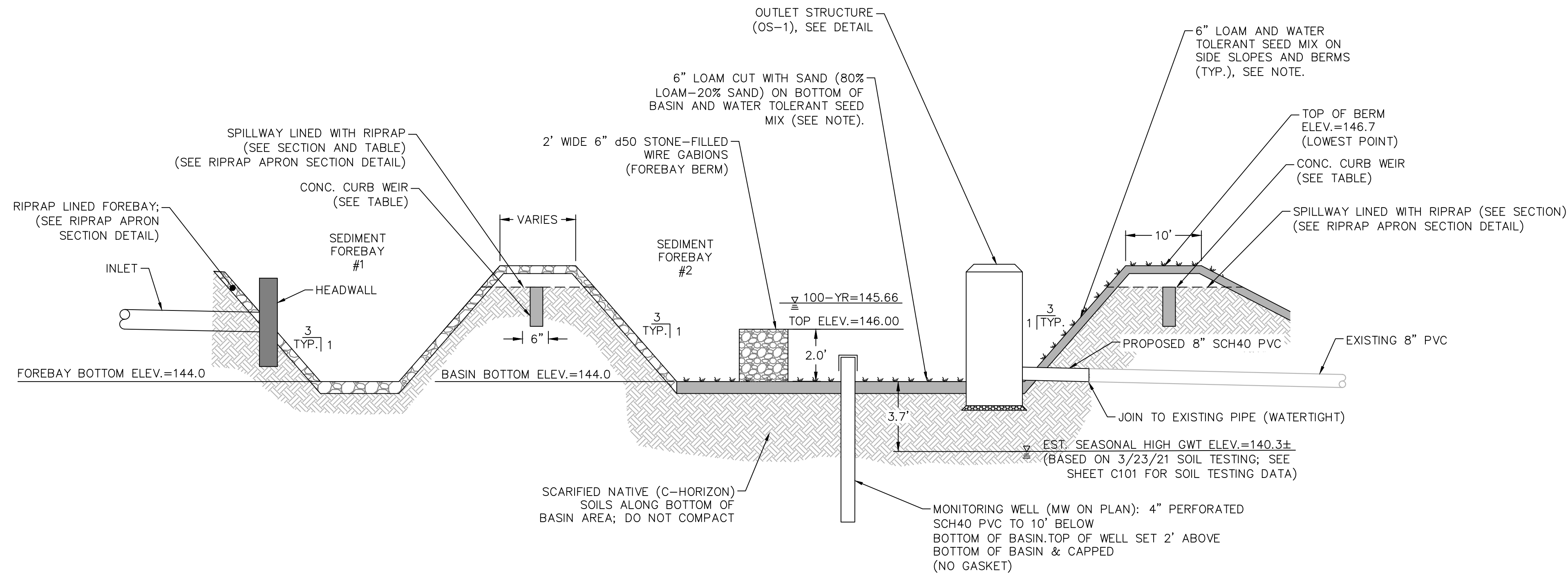
CHARLES RIVER COUNTRY CLUB, 483 DEDHAM STREET, NEWTON, MA

CLIENT: CHARLES RIVER COUNTRY CLUB, 483 DEDHAM STREET, NEWTON, MA 02459

DATE: 09/27/21 SCALE: NTS DES. BY: OAG DRW. BY: OAG CHK. BY: MRA PRJ. NO.: 20141

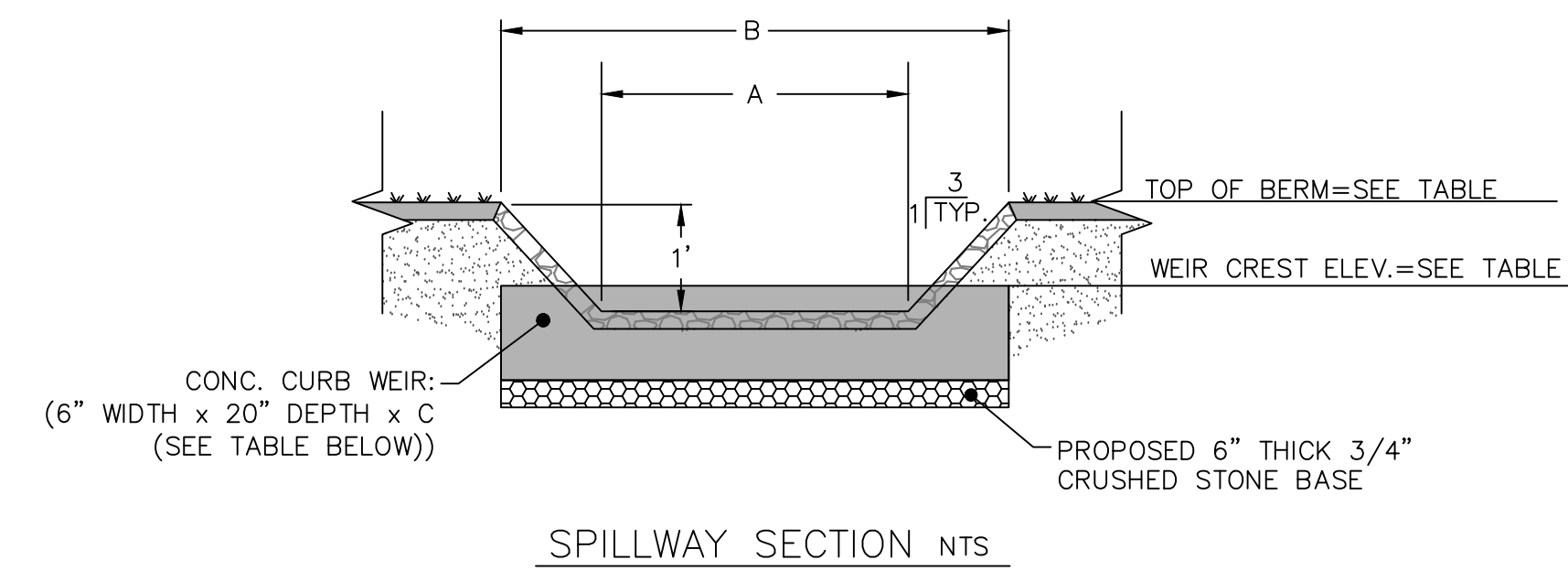
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SHEET 8 OF 9

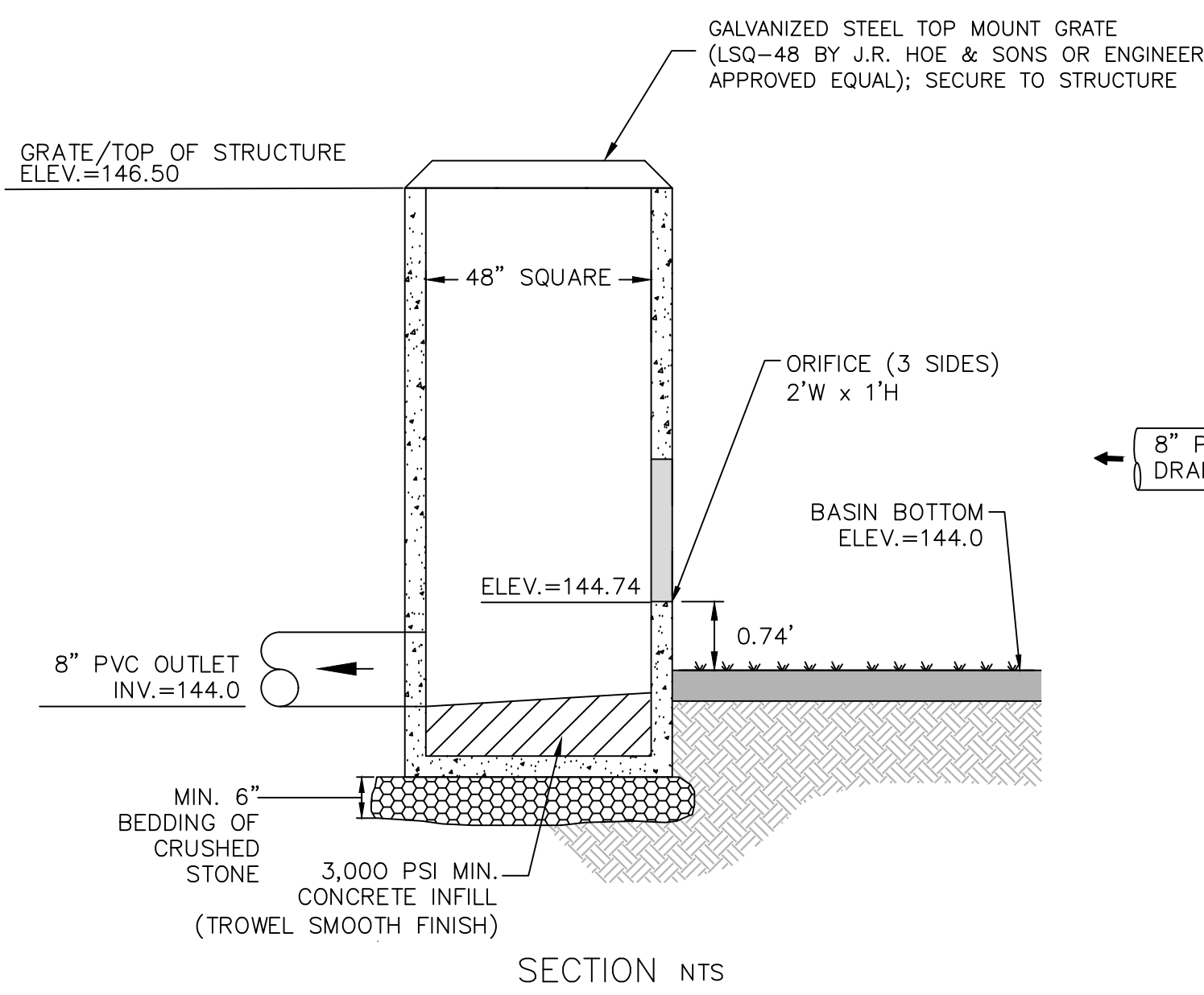


STORMWATER INFILTRATION BASIN NTS

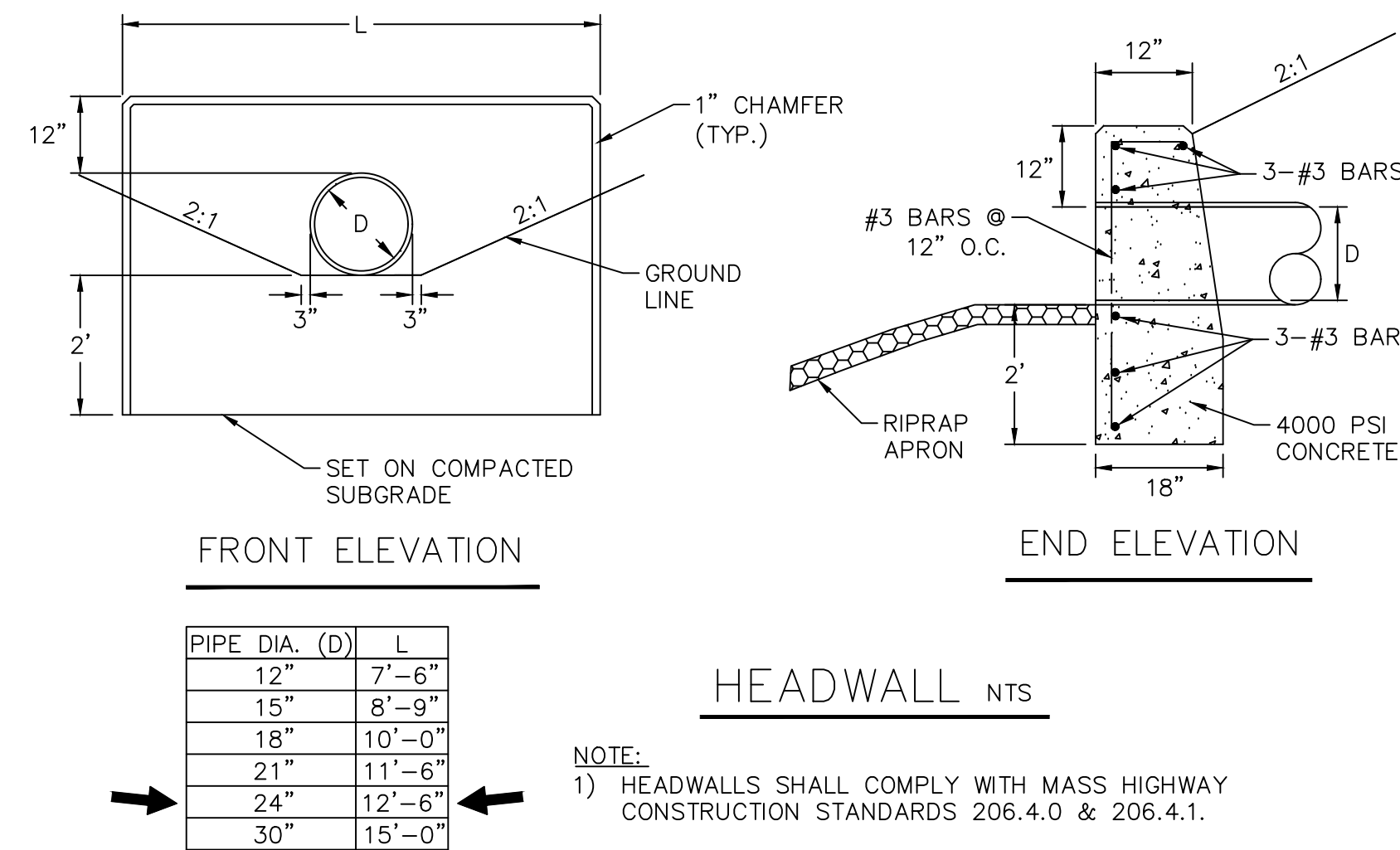
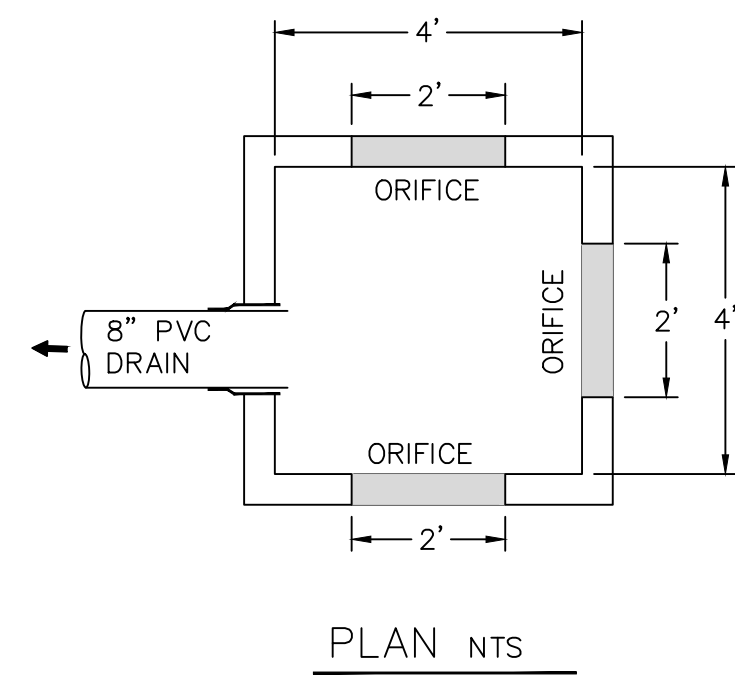
- NOTES:
 1) SEED MIX TO BE USED IN THE BASIN (BOTTOM & SIDES) SHALL BE "NEW ENGLAND EROSION CONTROL/RESTORATION MIX FOR DETENTION BASINS AND WET SITES" BY NEW ENGLAND WETLAND PLANTS, INC. OR ENGINEER APPROVED EQUAL.



| SPILLWAY TABLE | | | | | |
|----------------|-----|-----|-----|----------------------|-----------------------|
| | A | B | C | WEIR CREST ELEVATION | TOP OF BERM ELEVATION |
| FOREBAY #1 | 6' | 12' | 16' | 145.66 | 146.7 |
| BASIN | 18' | 24' | 28' | 145.66 | 146.7 |



OUTLET STRUCTURE (OS-1) NTS



HEADWALL NTS

- NOTE:
 1) HEADWALLS SHALL COMPLY WITH MASS HIGHWAY CONSTRUCTION STANDARDS 206.4.0 & 206.4.1.

| NO. | DATE | BY | DESCRIPTION |
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SITE DETAILS - 3
MAINTENANCE FACILITY EXPANSION
 CHARLES RIVER COUNTRY CLUB, 483 DEDHAM STREET, NEWTON, MA
 CLIENT: CHARLES RIVER COUNTRY CLUB
 483 DEDHAM STREET, NEWTON, MA 02459
 DATE: 09/27/21 SCALE: NTS DES. BY: OAG DRW. BY: OAG CHK. BY: MRA PRJ. NO.: 20141