

SINGLE-FAMILY DWELLING

33 RIPLEY STREET
WORCESTER, MA 01610

SHEET INDEX

No.	Title	Issue Date
C001	Cover Sheet	December 20, 2024
C101	Site Demo & Sediment and Erosion Control Plan	December 20, 2024
C102	Layout Plan	December 20, 2024
C103	Grading & Drainage Plan	December 20, 2024
C104	Utilities Plan	December 20, 2024
C501	Site Details - 1	December 20, 2024
C502	Site Details - 2	December 20, 2024

REVISIONS/ISSUES

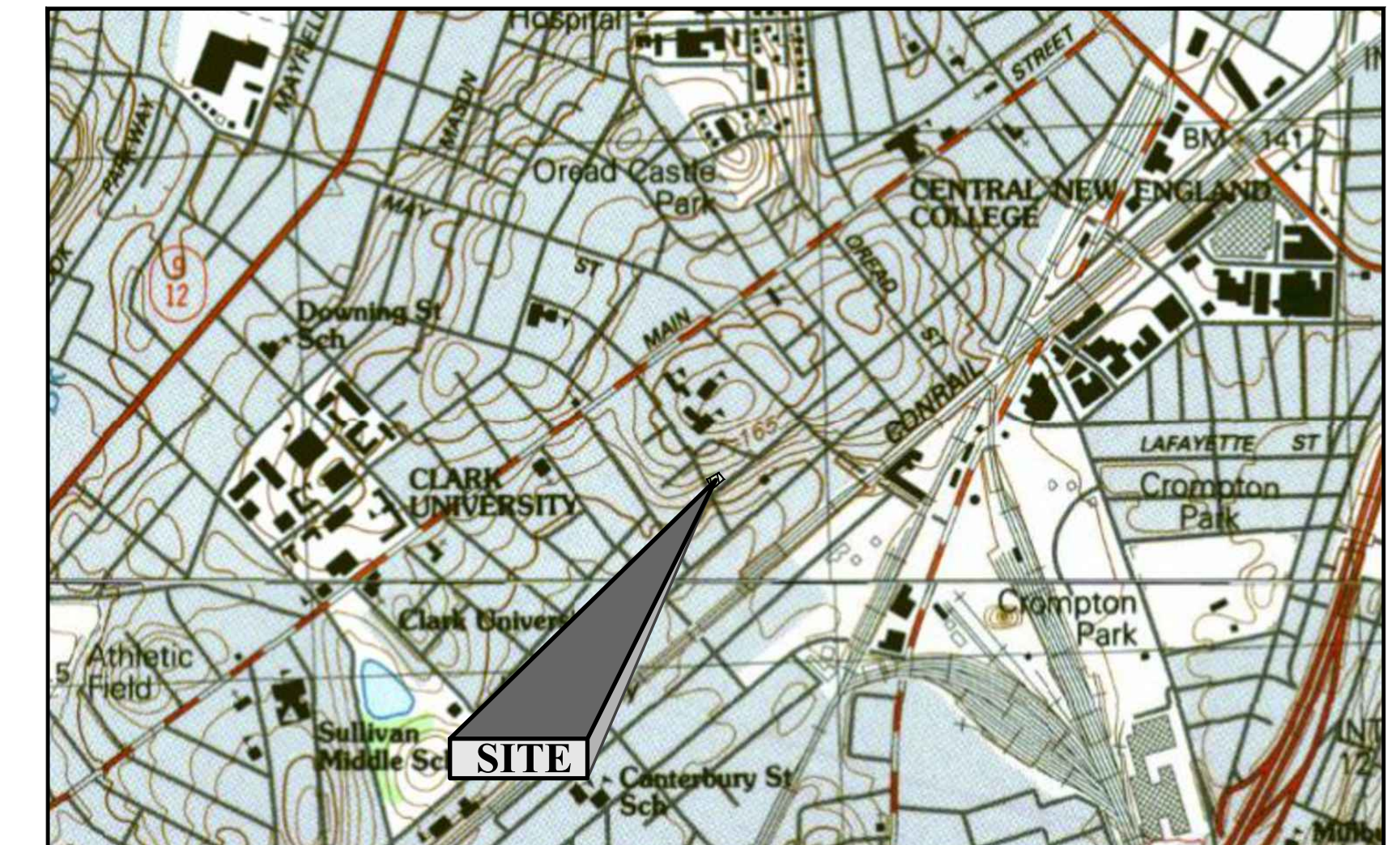
No.	Note	Date
1	Issued for Permitting	December 20, 2024

REFERENCE PLAN INDEX

No.	Title	Issue Date
E1	Existing Conditions Plan (B&R Survey, Inc.)	October 10, 2024
-	Construction Drawings (KMA, LLC)	January 16, 2024



LOCUS PLAN - AERIAL
SOURCE: GOOGLE EARTH
SCALE: 1"=1,000'



LOCUS PLAN - GIS
SOURCE: MASSGIS
SCALE: 1"=1,000'

OWNER/APPLICANT

Habitat for Humanity
640 Lincoln Street
Worcester, MA 01605

SURVEYOR

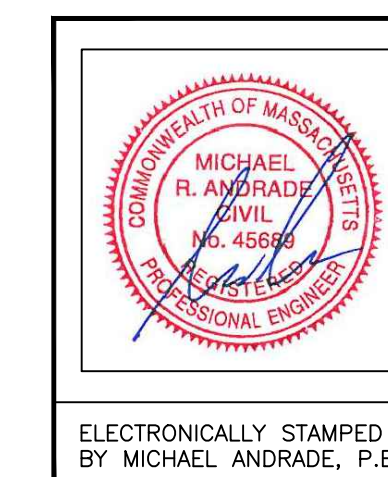
B&R Survey, Inc.
100 Grove Street
Worcester, MA 01605

ARCHITECT

KMA, LLC
1 Bridge Street
Newton, MA 02458



100 GROVE STREET | WORCESTER MA 01605
T 508-856-0321 | F 508-856-0357
gravesengineering.com



ELECTRONICALLY STAMPED
BY MICHAEL ANDRADE, P.E.

GENERAL NOTES

PARCEL DATA:
 STREET ADDRESS: 33 RIPLEY STREET, WORCESTER, MA 01610
 AREA: ±5,769 SQ. FT. (0.132 ACRES)
 OWNER: HABITAT FOR HUMANITY METROWEST/GREATER WORCESTER, INC.
 640 LINCOLN STREET
 WORCESTER, MA 01605 ZONE: RG-5 (RESIDENCE, GENERAL)

- NOTES:**
- 1) THIS PLAN WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND IS SUBJECT TO ANY FINDINGS SUCH A REPORT MIGHT DISCLOSE.
 - 2) LOCATION OF UNDERGROUND UTILITIES SHOWN HEREON ARE APPROXIMATE AND ARE BASED ON THE FIELD LOCATION OF VISIBLE STRUCTURES SUCH AS CATCH BASINS, MANHOLES, WATER GATES, ETC. 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. THE CITY OF WORCESTER SHALL ALSO BE CONTACTED FOR UTILITY MARKOUTS.
 - 3) PROPERTY LINE DATA AND TOPOGRAPHIC FEATURES ON THIS PLAN ARE BASED ON A PLAN PREPARED BY B&R SURVEY, INC., DATED OCTOBER 10, 2024.
 - 4) THE VERTICAL DATUM FOR THIS PROJECT IS NAVD 88; HORIZONTAL DATUM IS MASSACHUSETTS STATE PLANE COORDINATE SYSTEM. DATUMS ARE AS ESTABLISHED BY GPS METHODS.
 - 5) THE SITE IS NOT LOCATED WITHIN ANY DESIGNATED SPECIAL FLOOD ZONES AS SHOWN ON FIRM MAP 25027C0614E, DATED JULY 4, 2011.

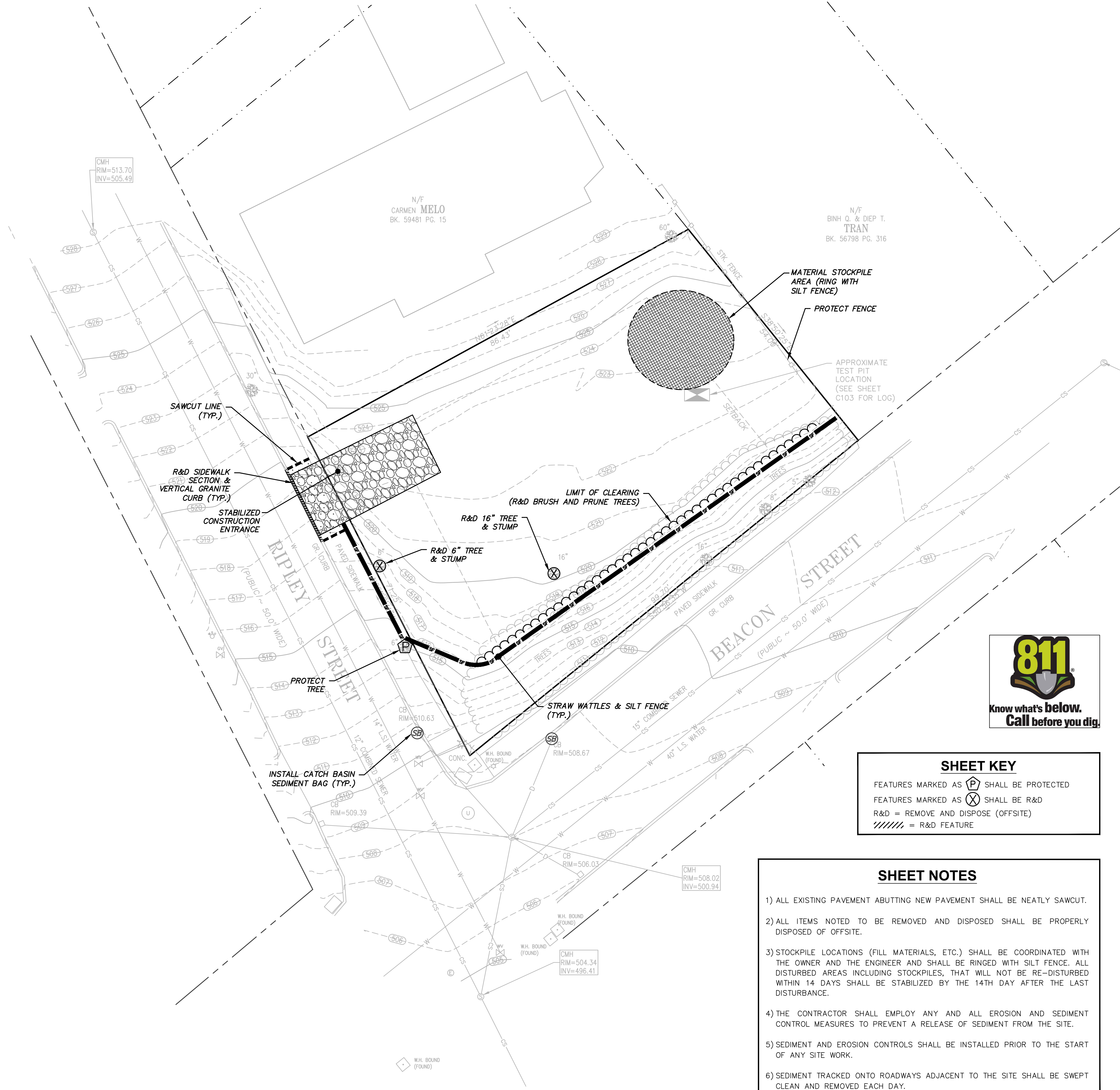
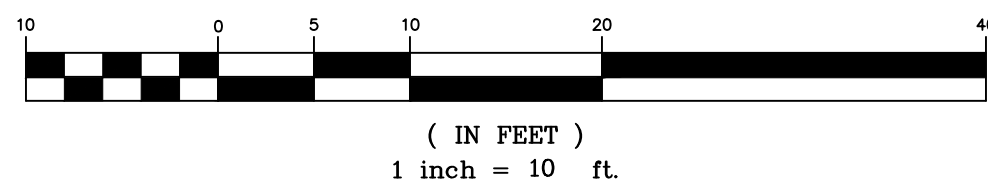
REFERENCES:
 PLAN BOOK/PAGE: 70864/298 (WORCESTER REGISTRY OF DEEDS)
 ASSESSORS REFERENCE: 06-034-00009

LEGEND

- UGE — UNDERGROUND ELECTRIC
- G — GAS
- D — DRAIN
- S — SEWER
- W — WATER
- ⊙ SEWER MANHOLE (SMH)
- CATCH BASIN (CB)
- ⊕ WATER GATE VALVE
- ⊕ HYDRANT
- ⊕ LIGHT POLE
- SOLID FENCE
- X— CHAIN LINK FENCE
- TREE LINE
- CONC. CONCRETE (CONC.)
- DEC. TREE, SIZE, DECIDUOUS (DEC.), CONIFEROUS (CON.)
- SF STRAW WATTLES & SILT FENCE
- SW STRAW WATTLES
- INV. INVERT
- XXX.XX SPOT ELEVATION
- NEW PAVEMENT AREA
- GENERAL DIRECTION OF RUNOFF
- EOP EDGE OF PAVEMENT
- M.E. MATCH EXISTING (ELEVATION)
- H.P. HIGH POINT (ELEVATION)
- L.P. LOW POINT (ELEVATION)



GRAPHIC SCALE



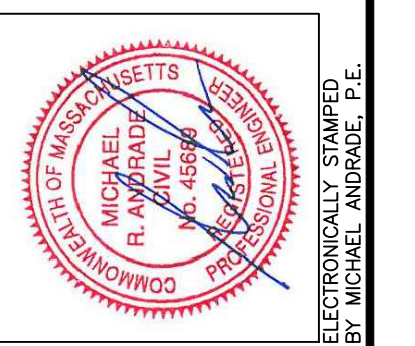
SHEET KEY

FEATURES MARKED AS SHALL BE PROTECTED
 FEATURES MARKED AS SHALL BE R&D
 R&D = REMOVE AND DISPOSE (OFFSITE)
 // = R&D FEATURE

- SHEET NOTES**
- 1) ALL EXISTING PAVEMENT ABUTTING NEW PAVEMENT SHALL BE NEATLY SAWCUT.
 - 2) ALL ITEMS NOTED TO BE REMOVED AND DISPOSED SHALL BE PROPERLY DISPOSED OF OFFSITE.
 - 3) STOCKPILE LOCATIONS (FILL MATERIALS, ETC.) SHALL BE COORDINATED WITH THE OWNER AND THE ENGINEER AND SHALL BE RINGED WITH SILT FENCE. ALL DISTURBED AREAS INCLUDING STOCKPILES, THAT WILL NOT BE RE-DISTURBED WITHIN 14 DAYS SHALL BE STABILIZED BY THE 14TH DAY AFTER THE LAST DISTURBANCE.
 - 4) THE CONTRACTOR SHALL EMPLOY ANY AND ALL EROSION AND SEDIMENT CONTROL MEASURES TO PREVENT A RELEASE OF SEDIMENT FROM THE SITE.
 - 5) SEDIMENT AND EROSION CONTROLS SHALL BE INSTALLED PRIOR TO THE START OF ANY SITE WORK.
 - 6) SEDIMENT TRACKED ONTO ROADWAYS ADJACENT TO THE SITE SHALL BE SWEEPED CLEAN AND REMOVED EACH DAY.

GRAVES ENGINEERING, Inc.
 100 GROVE STREET | WORCESTER MA 01605
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 gravesengineering.com

NO.	DATE	BY	DESCRIPTION
1	12/20/24	ROM	ISSUED FOR PERMITTING



SITE DEMO & SEDIMENT AND EROSION CONTROL PLAN
SINGLE-FAMILY DWELLING
33 RIPLEY STREET, WORCESTER, MA 01610

PREPARED FOR: HABITAT FOR HUMANITY
 640 LINCOLN STREET, WORCESTER, MA 01605

DATE: 12/20/24 SCALE: 1"=10'
 DES. BY: ROM DRW. BY: ROM CHK. BY: MRA PRJ. NO.: 24133

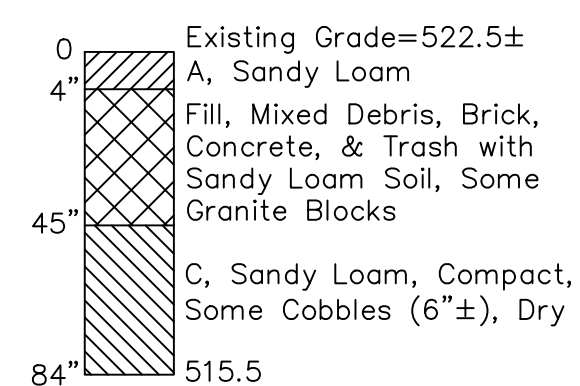
SHEET NOTES

- ADJUST ALL STRUCTURES (MANHOLES, WATER GATE VALVES, SHUTOFFS, ETC.) TO PROPOSED FINISH GRADES WITHIN THE LIMIT OF WORK.
- ALL DISTURBED AREAS OUTSIDE OF PAVEMENT SHALL BE RESTORED WITH 6 INCHES OF SCREENED LOAM AND SEEDED OR OTHERWISE LANDSCAPED.
- ALL FINISHED GRASSED SLOPES EQUAL TO OR STEEPER THAN A 3:1 SLOPE SHALL BE STABILIZED WITH AN EROSION CONTROL MATTING SUCH AS SC-150 BY NORTH AMERICAN GREEN, CURLX II BY AMERICAN EXCELSIOR, OR ENGINEER APPROVED EQUAL. COORDINATE MATTING LOCATIONS WITH THE PLANTINGS AND GROUND COVER MATERIALS.
- SPOT GRADE KEY:

(E) = EXISTING ELEVATION TO BE MAINTAINED	CB = CATCH BASIN
TC = TOP OF CURB FINISH ELEVATION	HP = HIGH POINT
BC = BOTTOM OF CURB FINISH ELEVATION	LP = LOW POINT
FFE = BUILDING FINISH FLOOR ELEVATION	ME = MATCH EXISTING
TW = TOP OF WALL (FINISH ELEVATION)	VIF = VERIFY IN FIELD
BW = BOTTOM OF WALL (FINISH ELEVATION)	
- SITE SOILS PER USDA-NRCS WEB SOIL SURVEY ARE URBAN LAND (MAP UNIT 602; HYDROLOGIC SOIL GROUP C). ONSITE SOIL TESTING WAS CONDUCTED ON NOVEMBER 22, 2024 (SEE LOG THIS SHEET).
- ALL NEW PAVEMENT AND CONCRETE SURFACES SHALL BE CONSTRUCTED TO PROPOSED GRADES AS SHOWN AND SHALL BE SMOOTH AND UNIFORM ELIMINATING DEFORMITIES, DEPRESSIONS, PUDDLES, AND TRIP HAZARDS. PROVIDE POSITIVE DRAINAGE ON ALL NEW PAVEMENT AND CONCRETE SURFACES, AWAY FROM BUILDINGS, AND TO EXISTING CATCH BASINS, OUTFALLS OR OTHER COLLECTION POINTS.
- FOUNDATION DRAINS, IF PROPOSED, SHALL EITHER DAYLIGHT TO GRADE OR CONNECT SEPARATELY TO THE ROOF INFILTRATION SYSTEM.
- UTILITY MATERIALS, CONSTRUCTION, AND TESTING SHALL COMPLY WITH THE WORCESTER DEPARTMENT OF PUBLIC WORKS SPECIFICATIONS, LATEST EDITION.
- 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.

SOIL TESTING DATA

TP-1

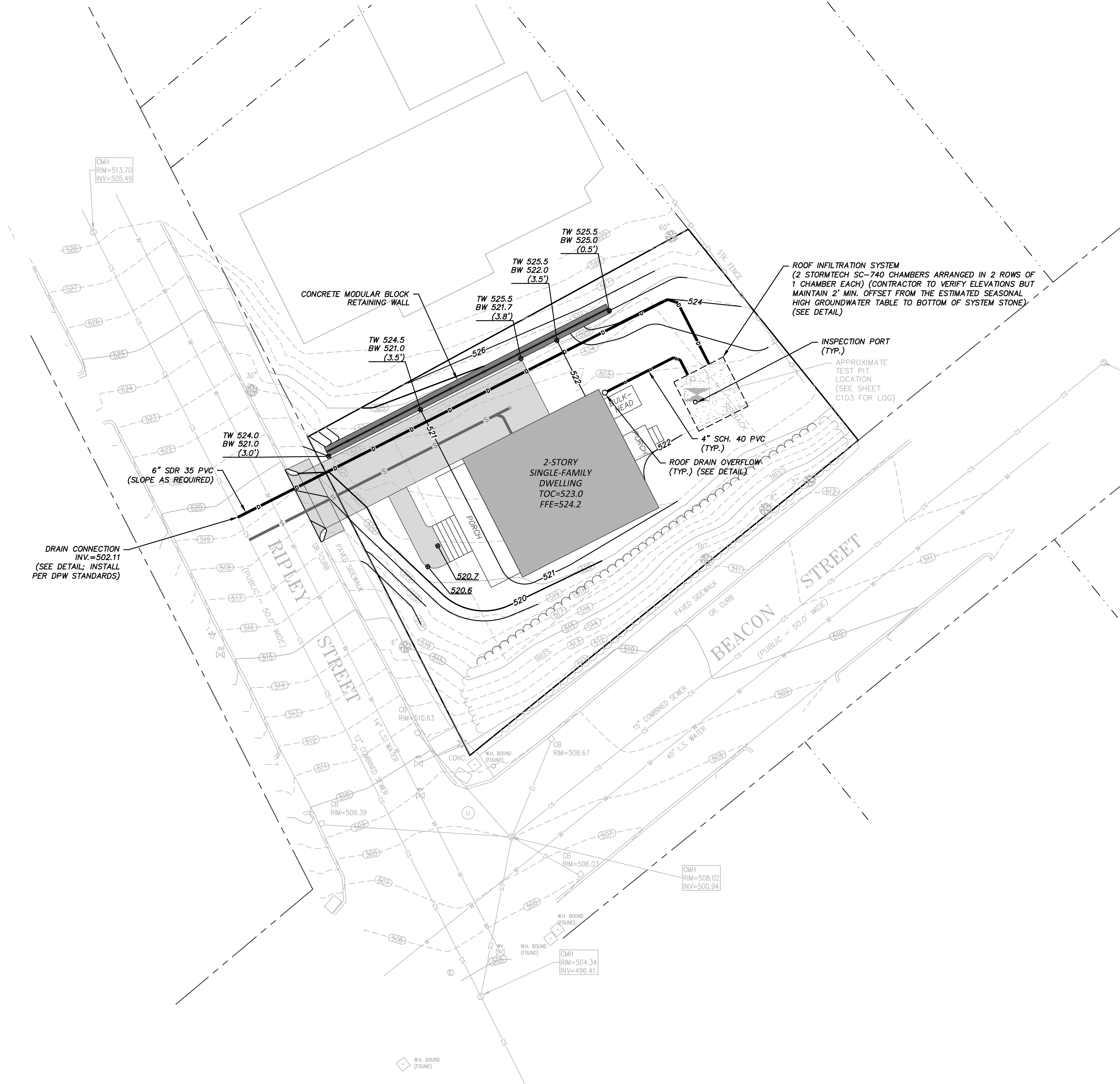
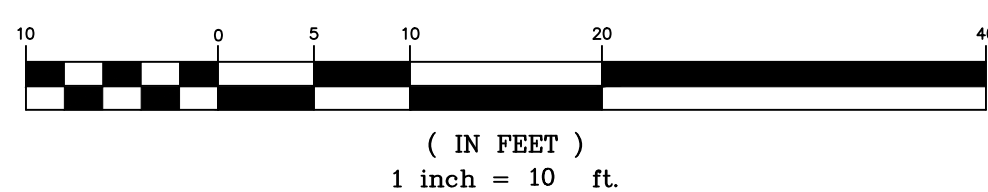


No Refusal
 No Weeping Observed
 No ESHGWT Observed

- NOTES:**
- SOIL TESTING TEST PIT WAS CONDUCTED BY MICHAEL ANDRADE, P.E., MASSDEP SOIL EVALUATOR #SE2681, OF GRAVES ENGINEERING ON 11/22/24. TEST PIT EXCAVATED BY SOPER CONSTRUCTION WITH A DEERE 350 MINI EXCAVATOR. TEST PIT WAS PERFORMED FOR STORMWATER MANAGEMENT DESIGN PURPOSES ONLY.
 - ESHGWT= ESTIMATED SEASONAL HIGH GROUNDWATER TABLE



GRAPHIC SCALE



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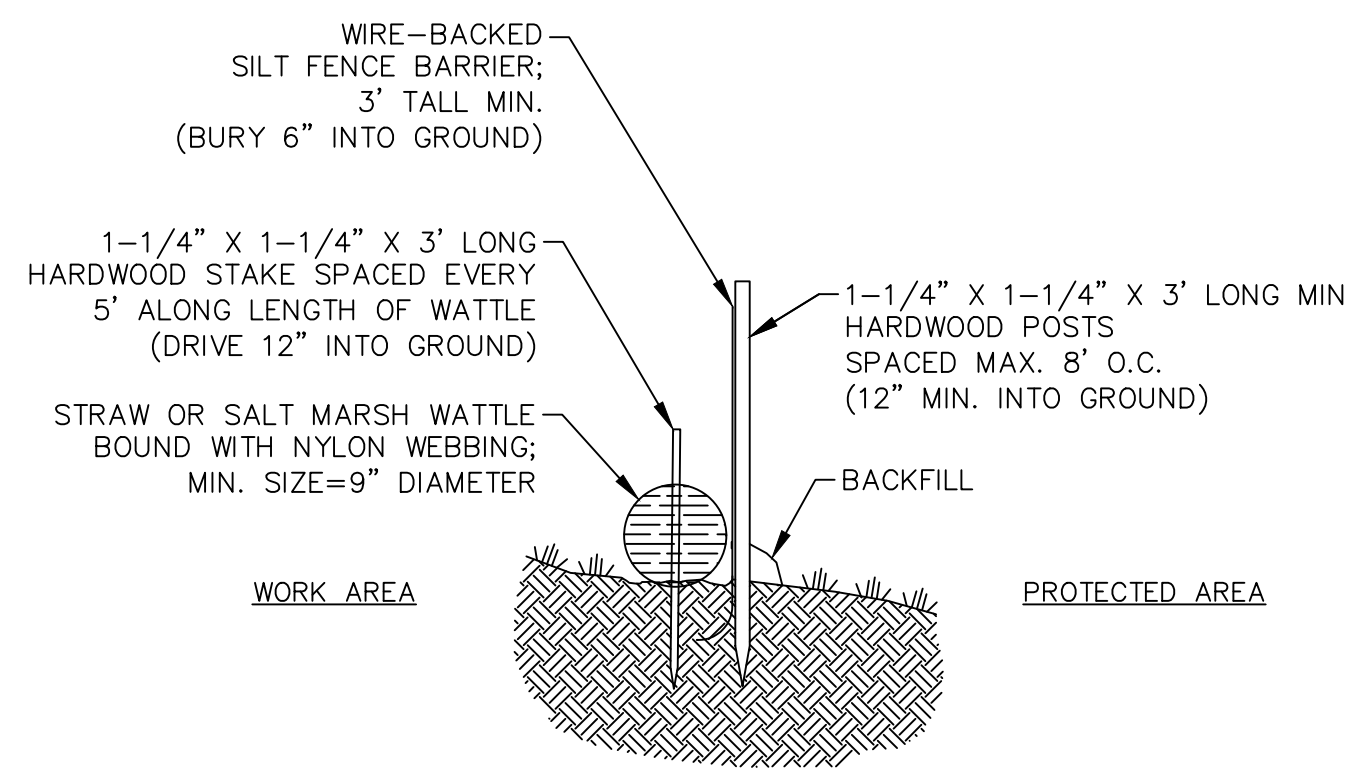
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GRADING & DRAINAGE PLAN
SINGLE-FAMILY DWELLING
33 RIPLEY STREET, WORCESTER, MA 01610

PREPARED FOR: HABITAT FOR HUMANITY
 640 LINCOLN STREET, WORCESTER, MA 01605

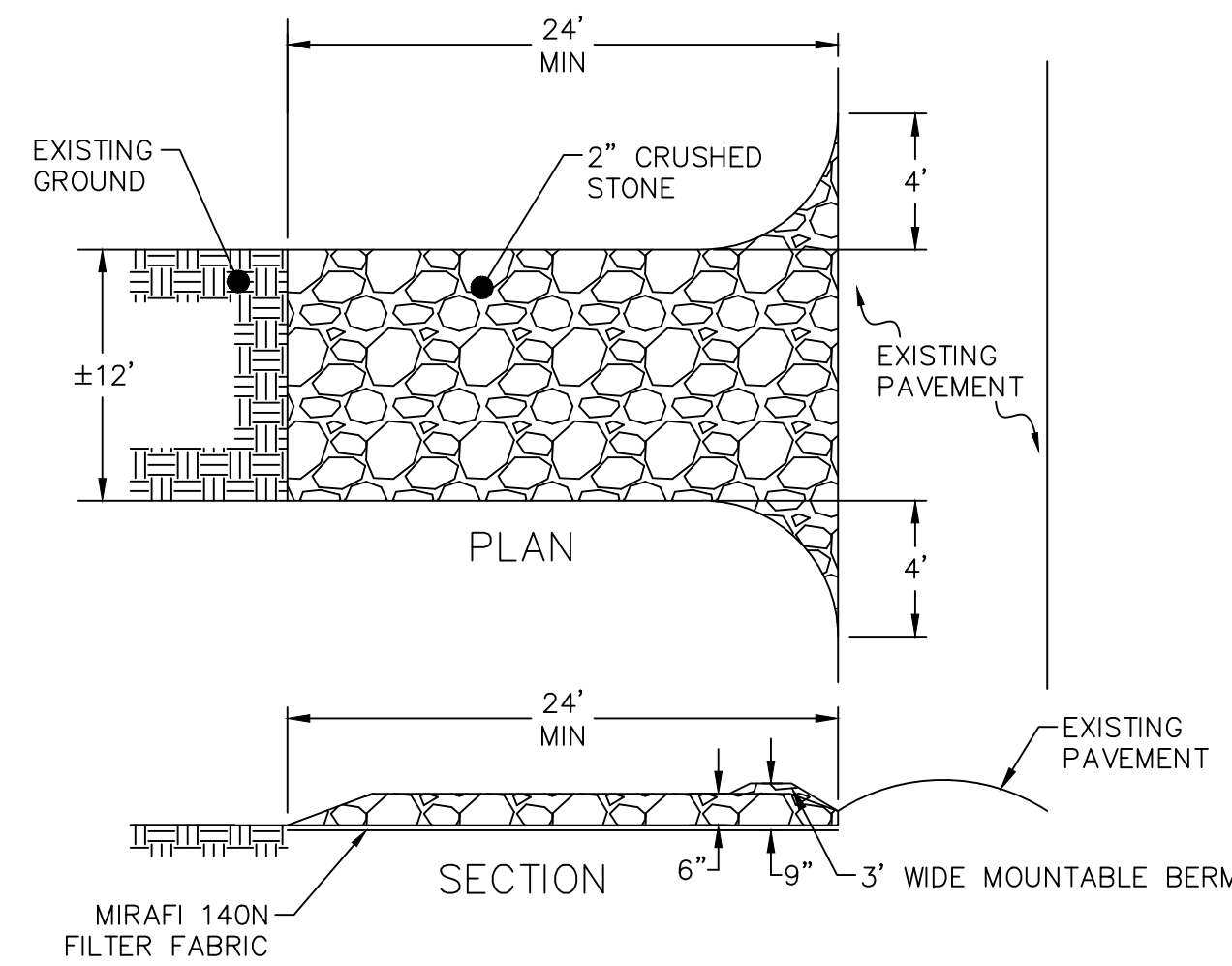
DATE: 12/20/24 SCALE: 1"=10'
 DES. BY: ROM DRW. BY: ROM CHK. BY: MRA PRJ. NO.: 24133



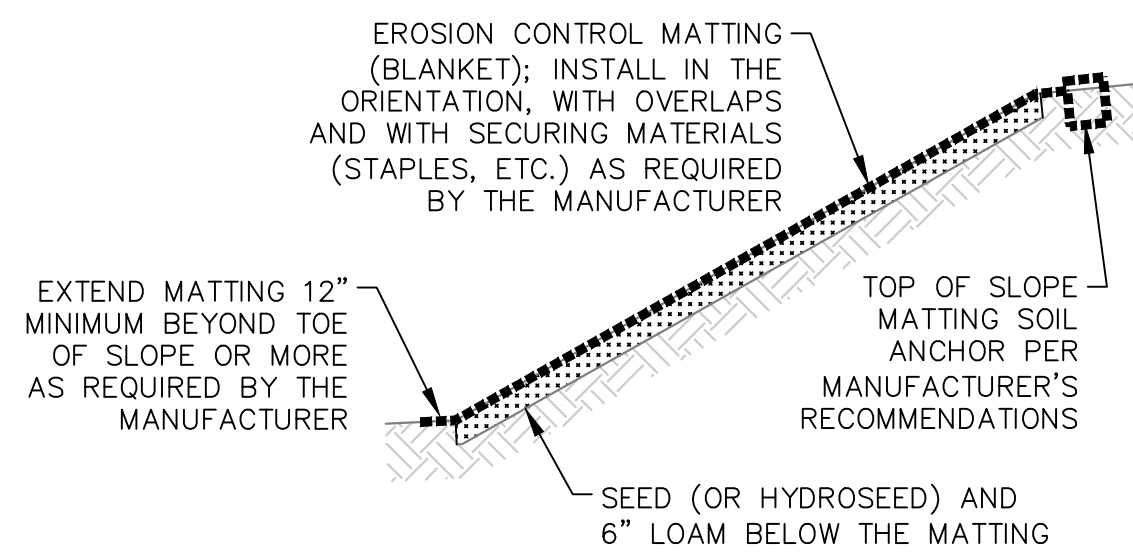
WATTLE & SILT FENCE NTS

NOTE:

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



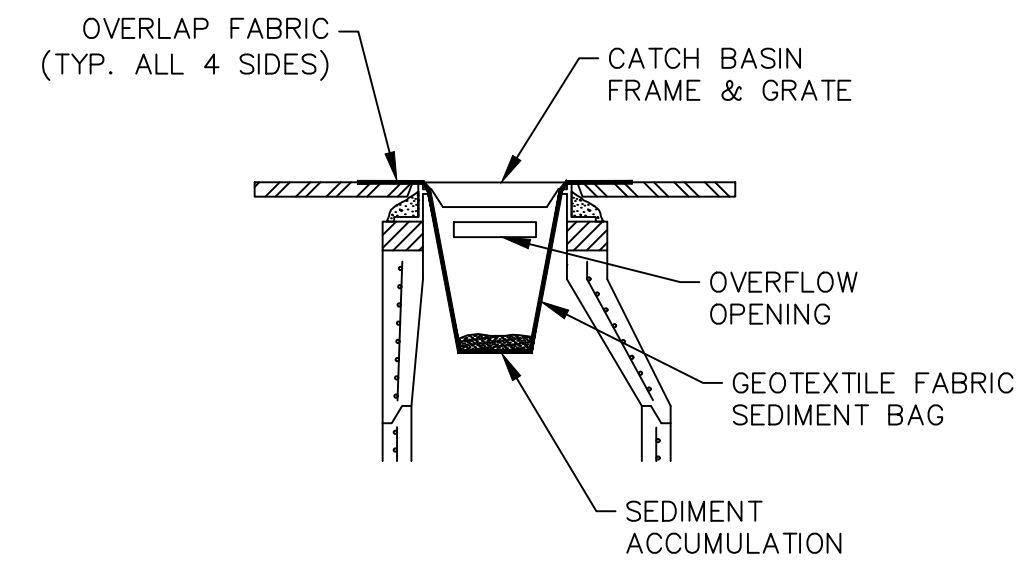
STABILIZED CONSTRUCTION ENTRANCE NTS



EROSION CONTROL BLANKET SLOPE STABILIZATION NTS

NOTES:

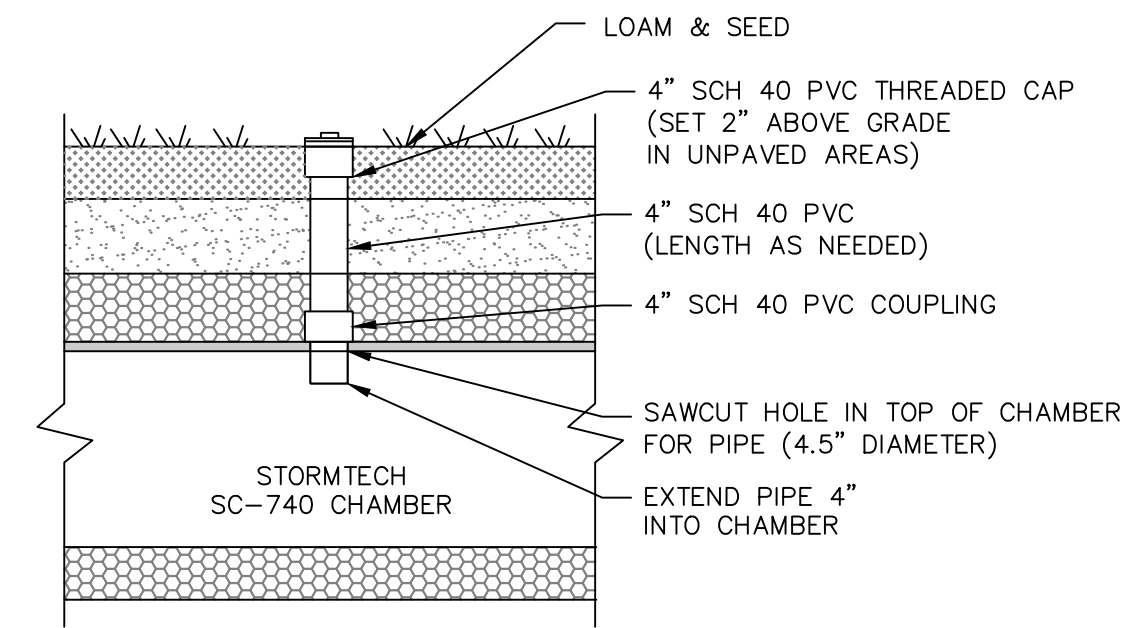
- 1) EROSION CONTROL MATTING (BLANKETS) SHALL BE INSTALLED ON ALL FINISHED SLOPES SHOWN EQUAL TO OR STEEPER THAN A 3:1 SLOPE (33.5%).
- 2) INSTALLATION SHALL STRICTLY FOLLOW THE MANUFACTURER'S RECOMMENDATIONS AND INSTRUCTIONS.
- 3) UNLESS OTHERWISE SPECIFIED ON THE DRAWINGS FOR A PARTICULAR LOCATION 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).



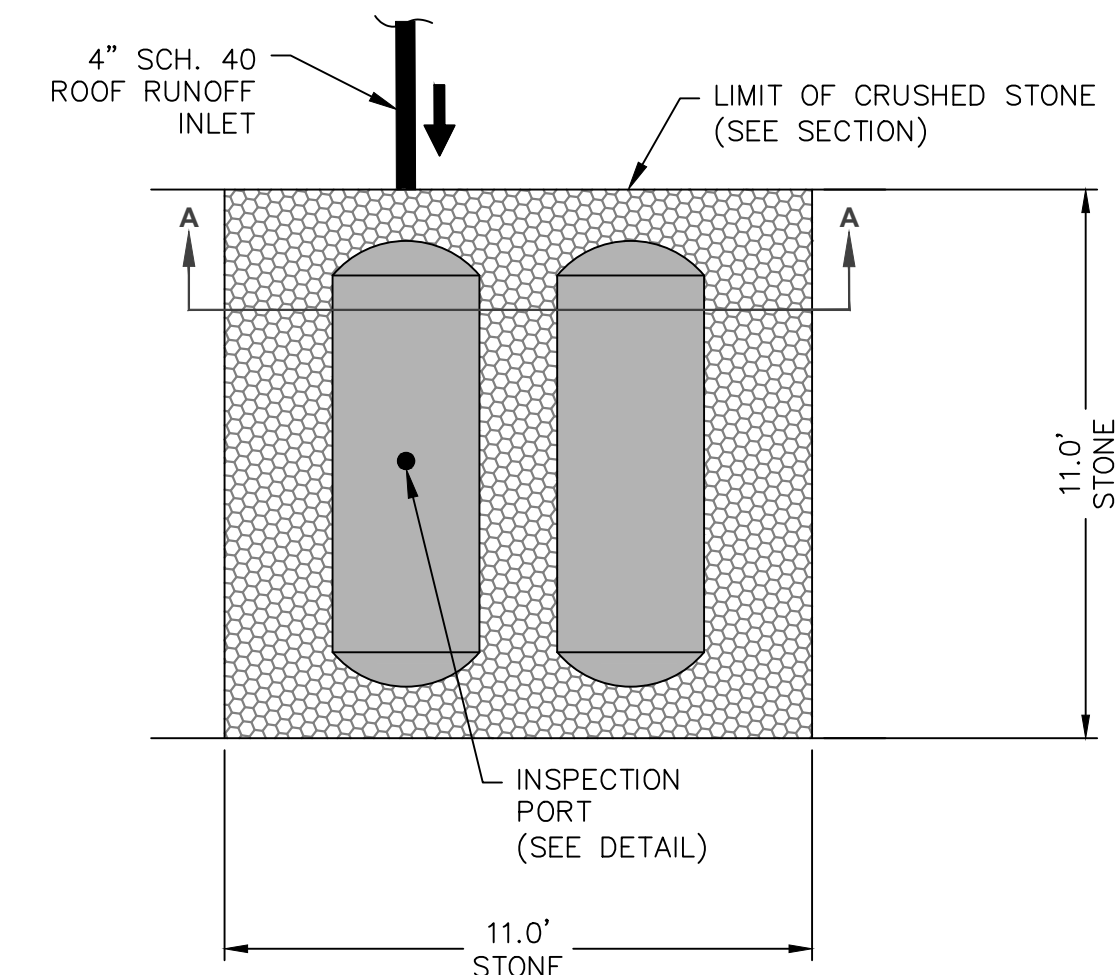
CATCH BASIN SEDIMENT BAG NTS

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.

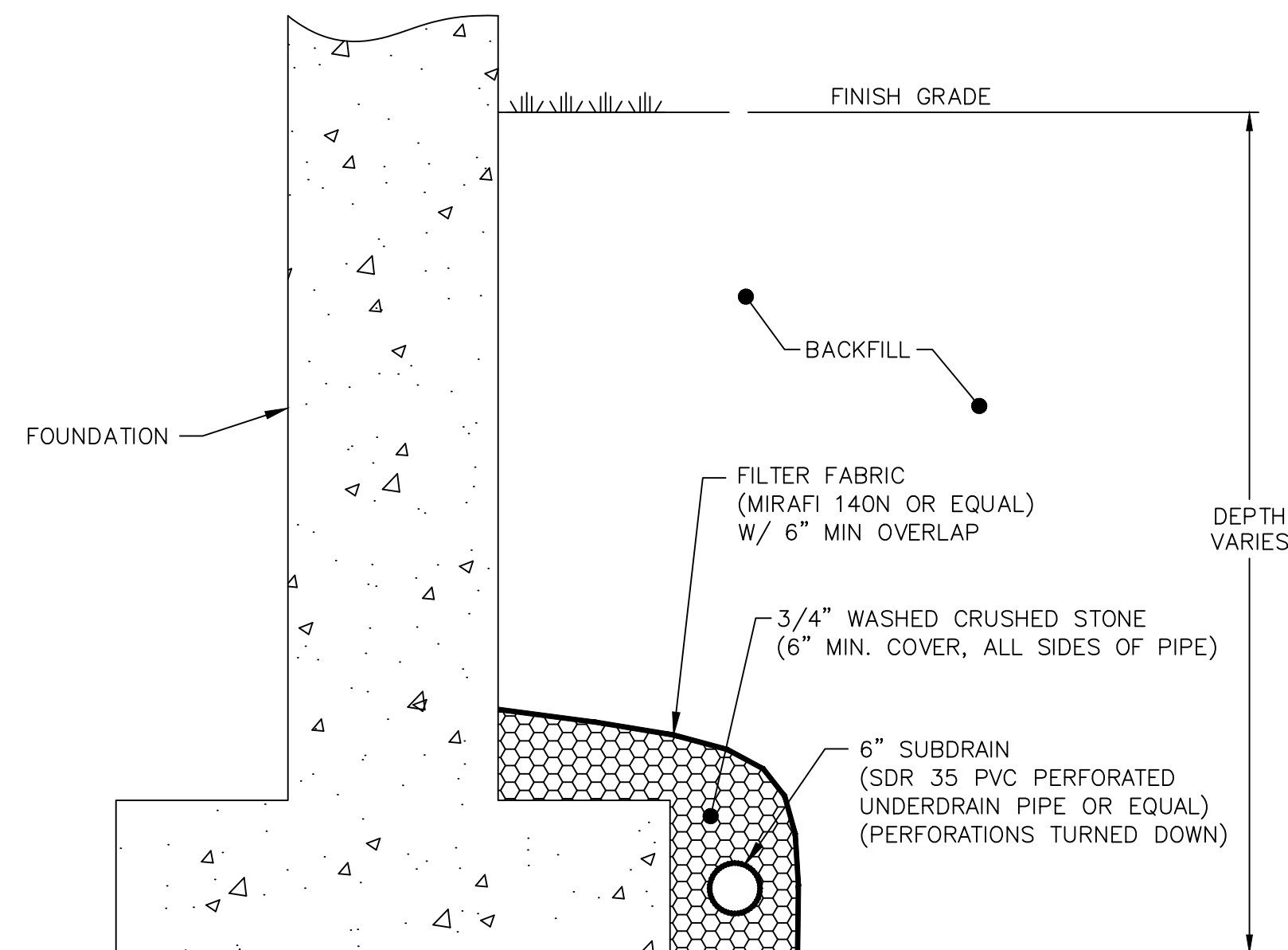


INSPECTION PORT NTS



2 STORMTECH SC-740 CHAMBERS, ARRANGED IN 2 ROWS OF 1 CHAMBER EACH WITH END CAPS
INSTALLED WITH 6" COVER STONE & 6" BASE STONE

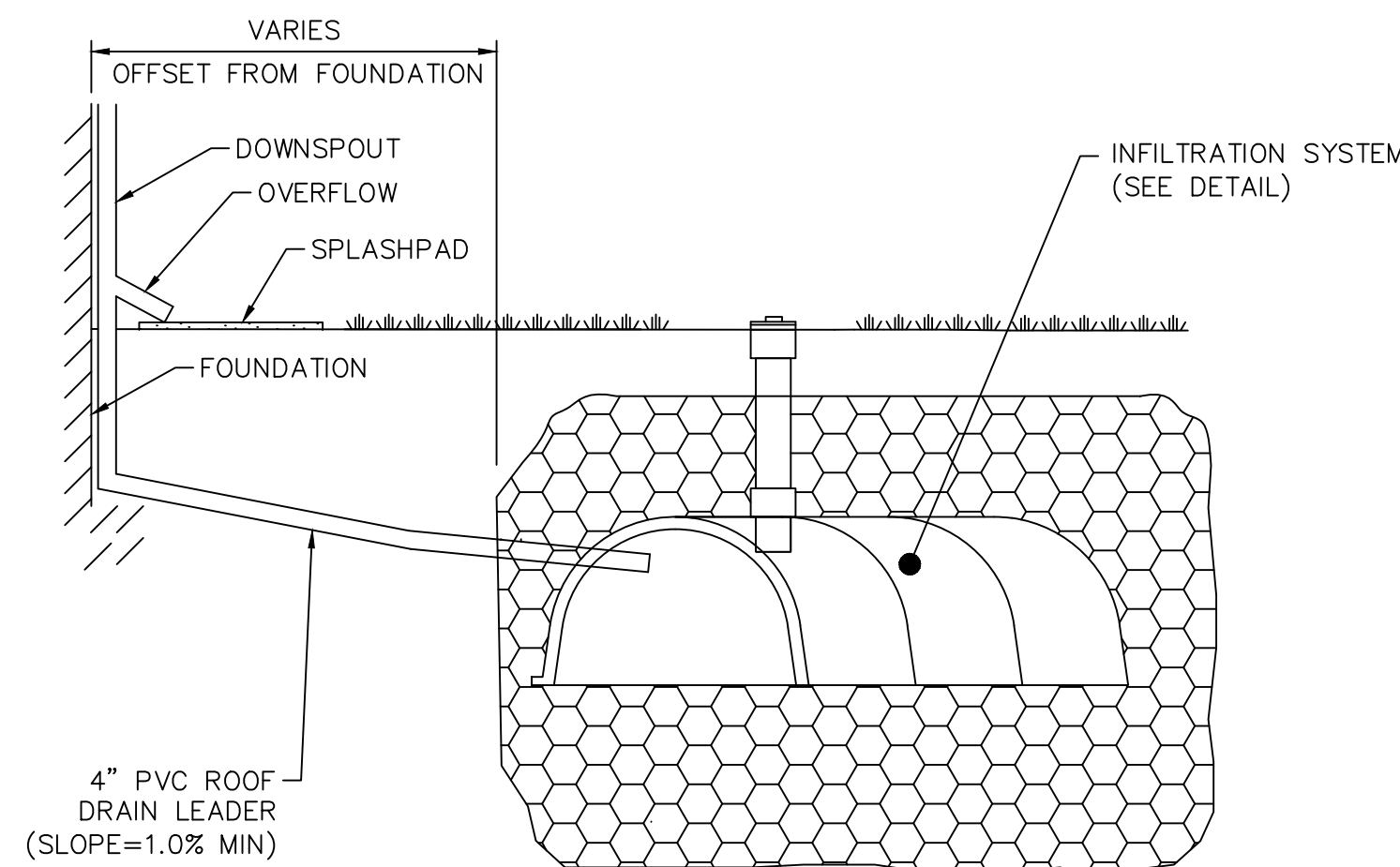
SYSTEM LAYOUT NTS



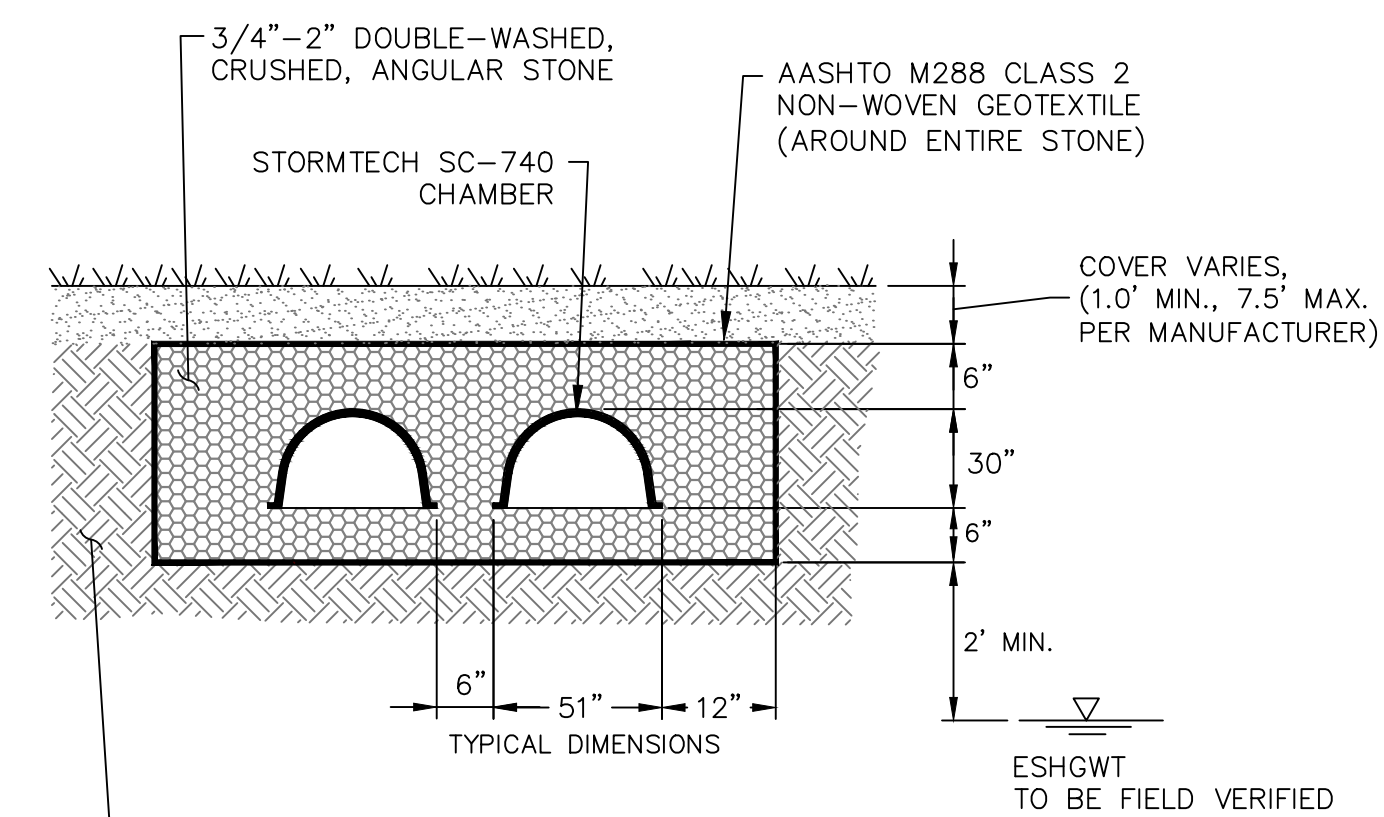
FOUNDATION DRAIN DETAIL NTS

NOTE:

- 1) SEE STRUCTURAL DRAWINGS FOR FOUNDATION DRAIN.



ROOF DRAIN OVERFLOW NTS



SECTION A-A NTS

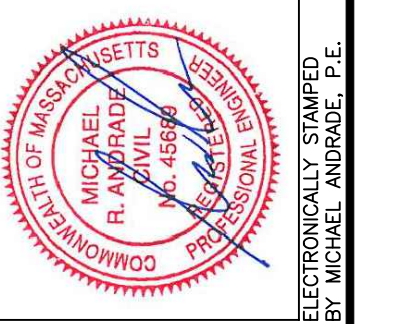
PROPOSED ELEVATIONS	
COMPONENT	ELEVATION
MAX. GRADE OVER CHAMBERS	522.8 (3.3' COVER)
MIN. GRADE OVER CHAMBERS	522.0 (2.5' COVER)
TOP OF STONE	520.00
TOP OF CHAMBERS	519.50
4" INLET (FROM ROOF DRAIN)	519.00
6" INLET (TO EXISTING DRAIN)	519.00
BOTTOM OF CHAMBERS	517.00
BOTTOM OF STONE	516.50

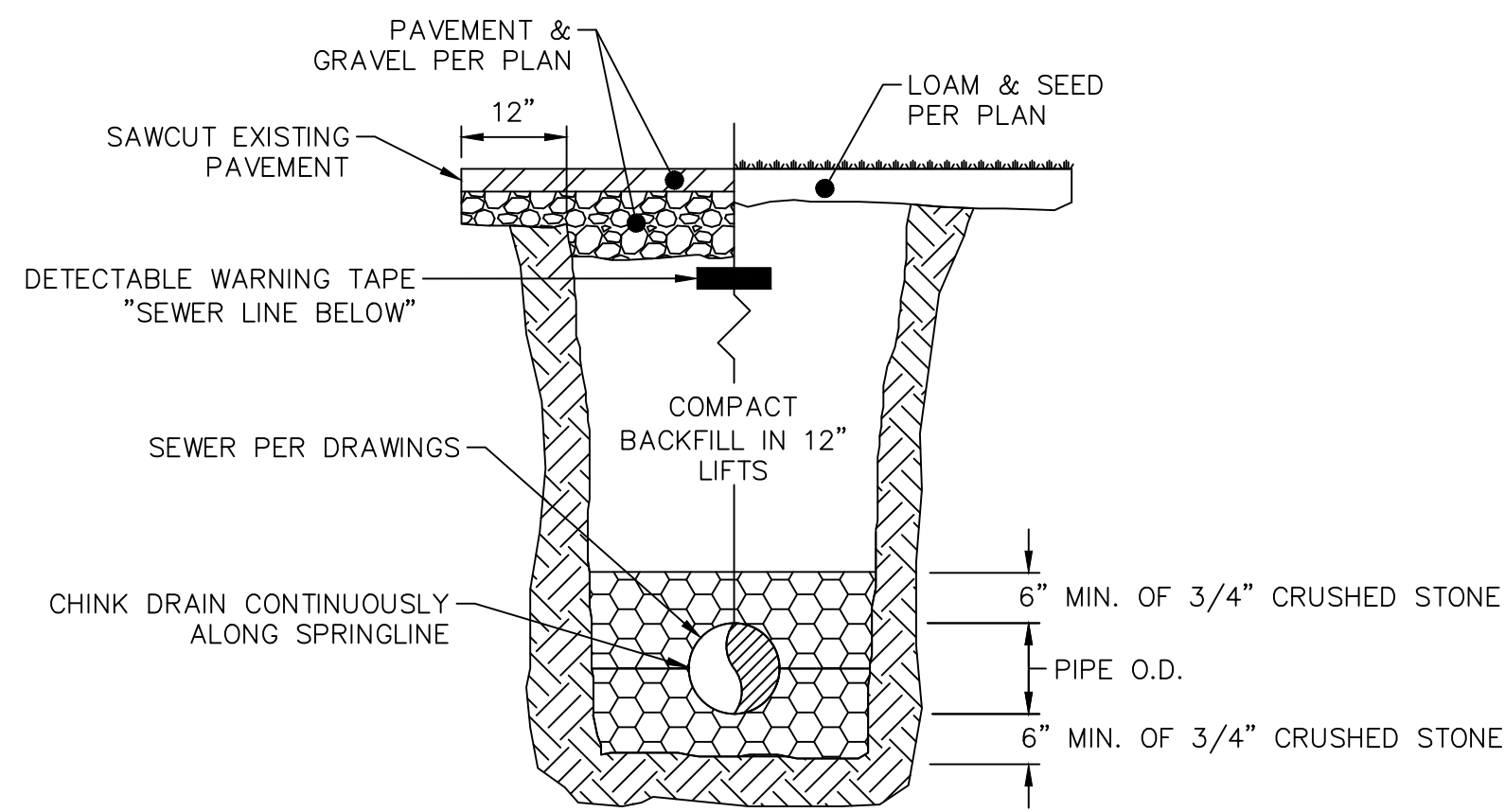
SUBSURFACE ROOF INFILTRATION SYSTEM NTS

NOTE:

- 1) THE SYSTEM STORAGE VOLUME IS 220 CU. FT.

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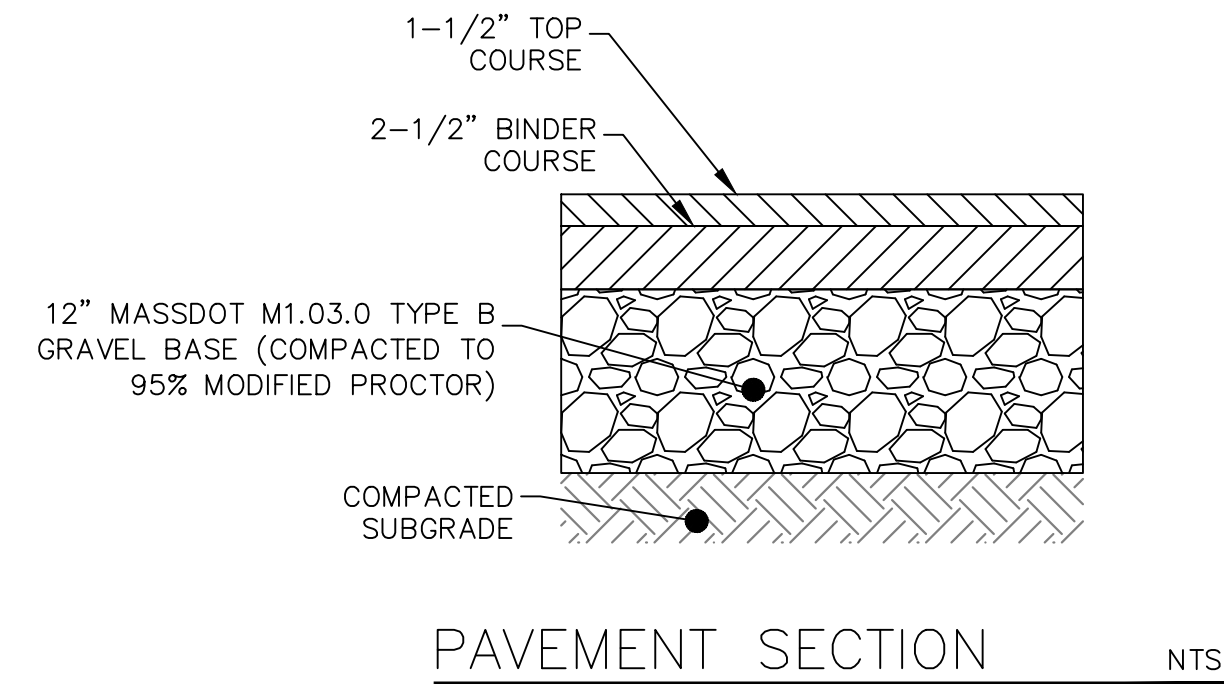




SEWER TRENCH SECTION NTS

NOTE:

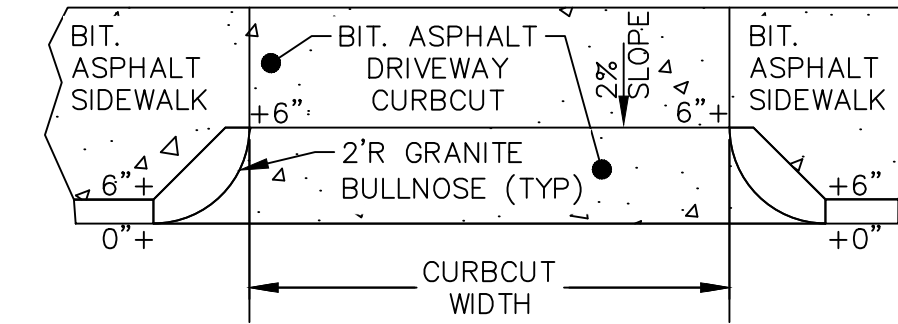
- 1) BACKFILL SHALL BE AN AASHTO CLASS III SOIL; EITHER TRENCH SPOILS OR AN IMPORTED SAND AND GRAVEL WITH FINES AND COMPACTED TO 90% OF THE PROCTOR DENSITY.



PAVEMENT SECTION NTS

NOTES:

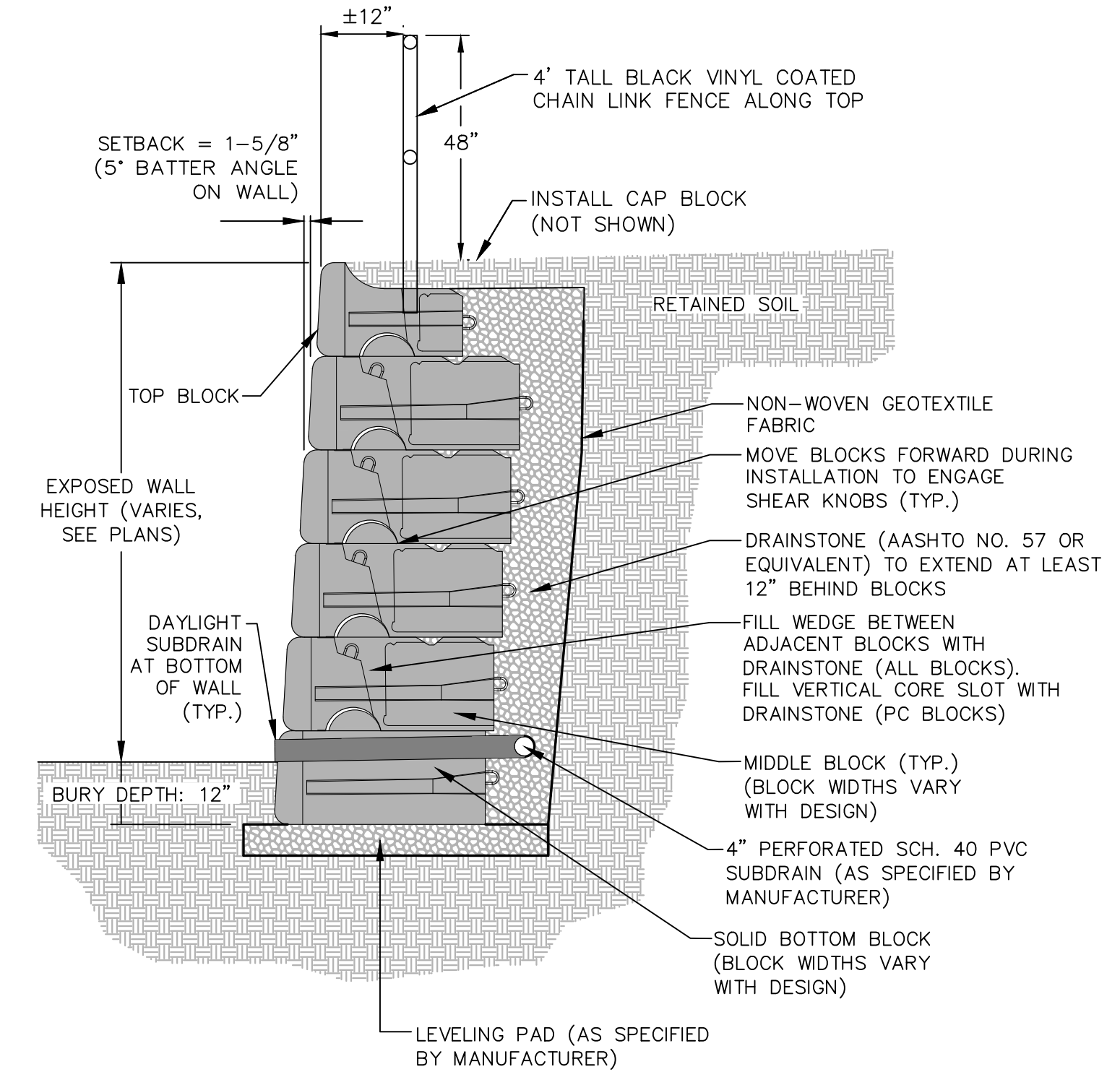
- 1) TAMP ALL ASPHALT EDGES THAT ABUT LAWN, LANDSCAPED AREA, OR OTHER SOFT SURFACE.
- 2) BINDER COURSE: - MASSDOT M3.11.03, TABLE A, "HMA INTERMEDIATE COURSE DENSE BINDER" OR SUPERPAVE INTERMEDIATE COURSE - 19.0MM (MIXTURE DESIGNATION SIC - 19.0).
- 3) TOP COURSE: - MASSDOT M3.11.03, TABLE A, "SURFACE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



WORCESTER STANDARD CURB CUT NTS

NOTE:

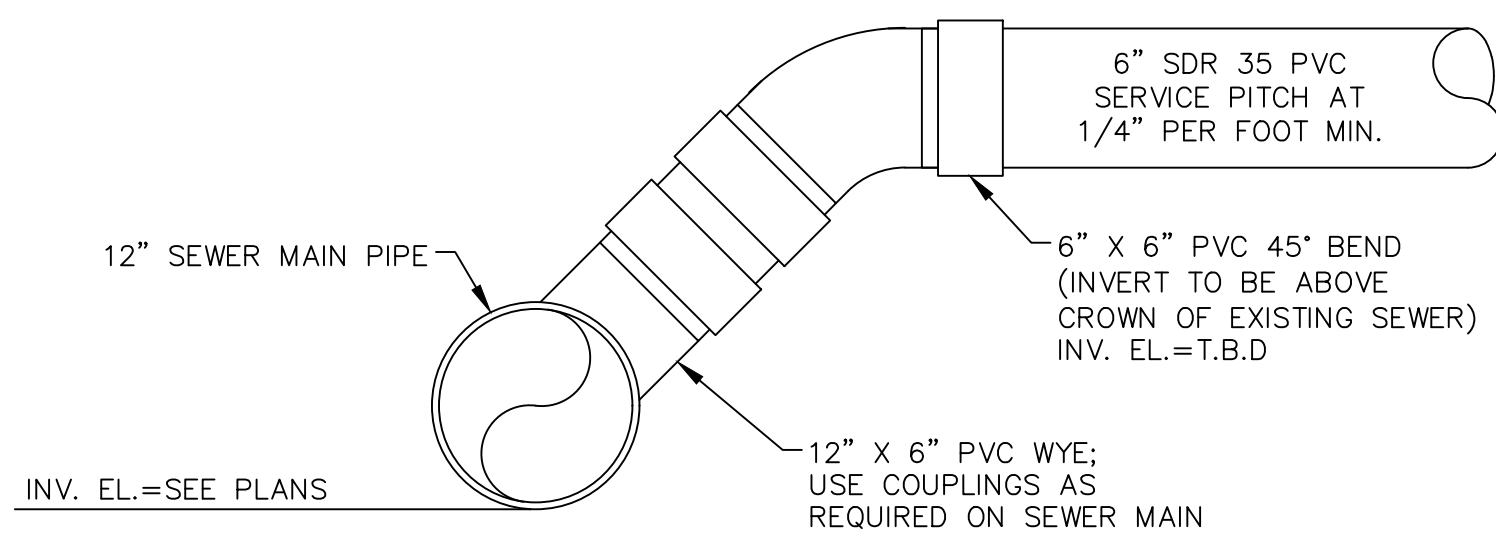
- 1) BIT. ASPHALT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PAVEMENT SECTION DETAIL ON THESE PLANS (6" THICKNESS ACROSS CURB CUTS).



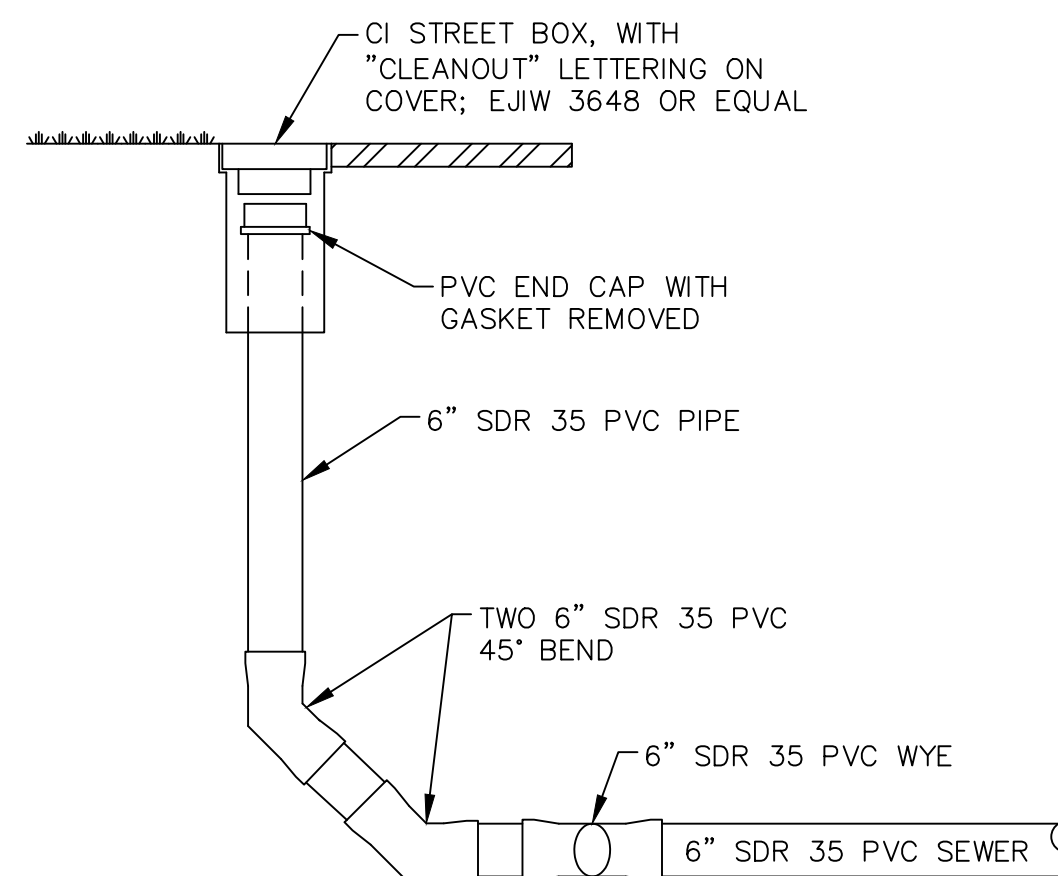
TYPICAL GRAVITY-TYPE PRECAST CONCRETE MODULAR BLOCK RETAINING WALL SECTION NTS

NOTES:

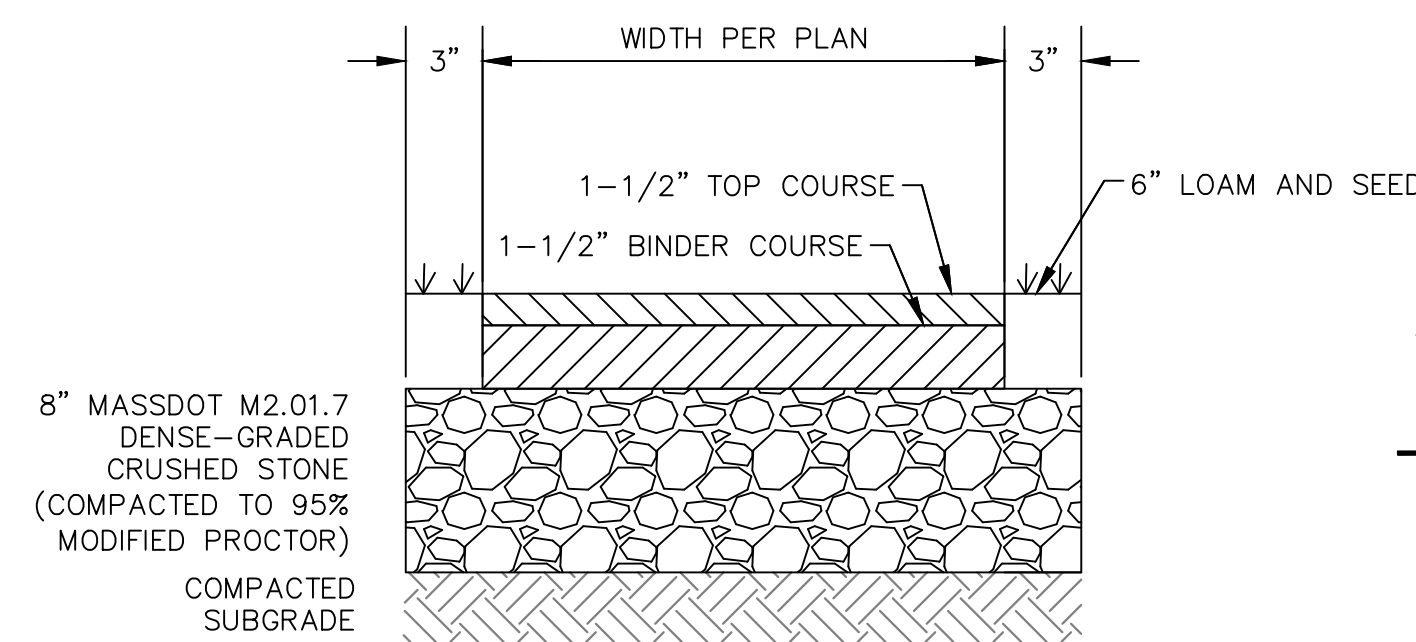
- 1) BLOCK TEXTURE (FINISH) SHALL BE SIMILAR TO "LIMESTONE" BY REDI-ROCK INTERNATIONAL, LLC. AND BASED ON CONTRACTOR-SELECTED WALL MANUFACTURER.
- 2) BLOCK COLOR SHALL BE GRAY.
- 3) CONTRACTOR IS RESPONSIBLE FOR WALL MANUFACTURER'S COST OF PREPARING STRUCTURAL ENGINEERING DRAWINGS.
- 4) CONTRACTOR IS RESPONSIBLE FOR OBTAINING A BUILDING PERMIT AS REQUIRED.
- 5) DESIGN SUBJECT TO CHANGE BASED ON STRUCTURAL ENGINEER-PREPARED DRAWINGS AND OWNER MATERIAL SELECTIONS.



SEWER SERVICE CONNECTION DETAIL NTS



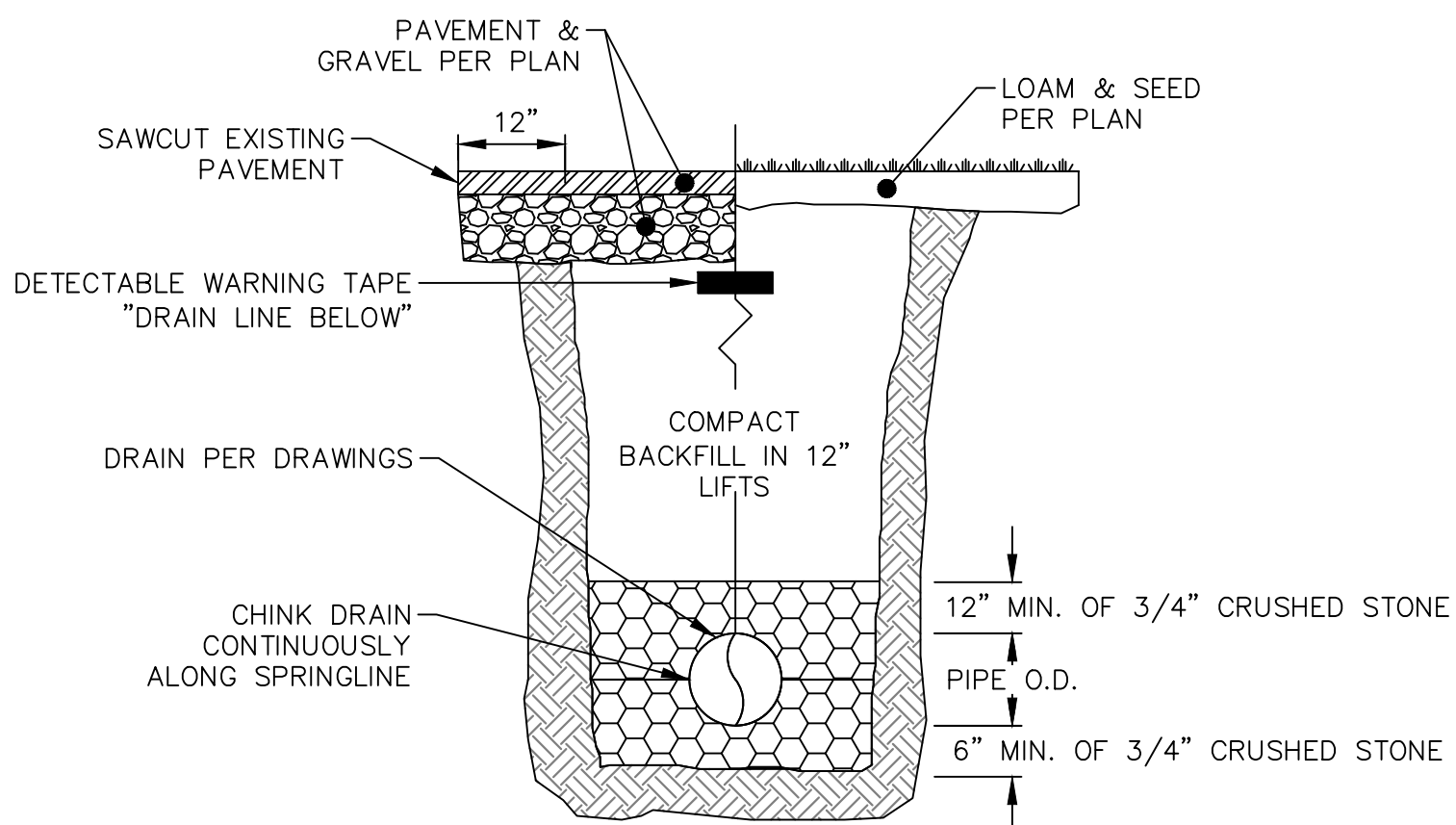
SEWER CLEANOUT NTS



BITUMINOUS WALKWAY SECTION NTS

NOTES:

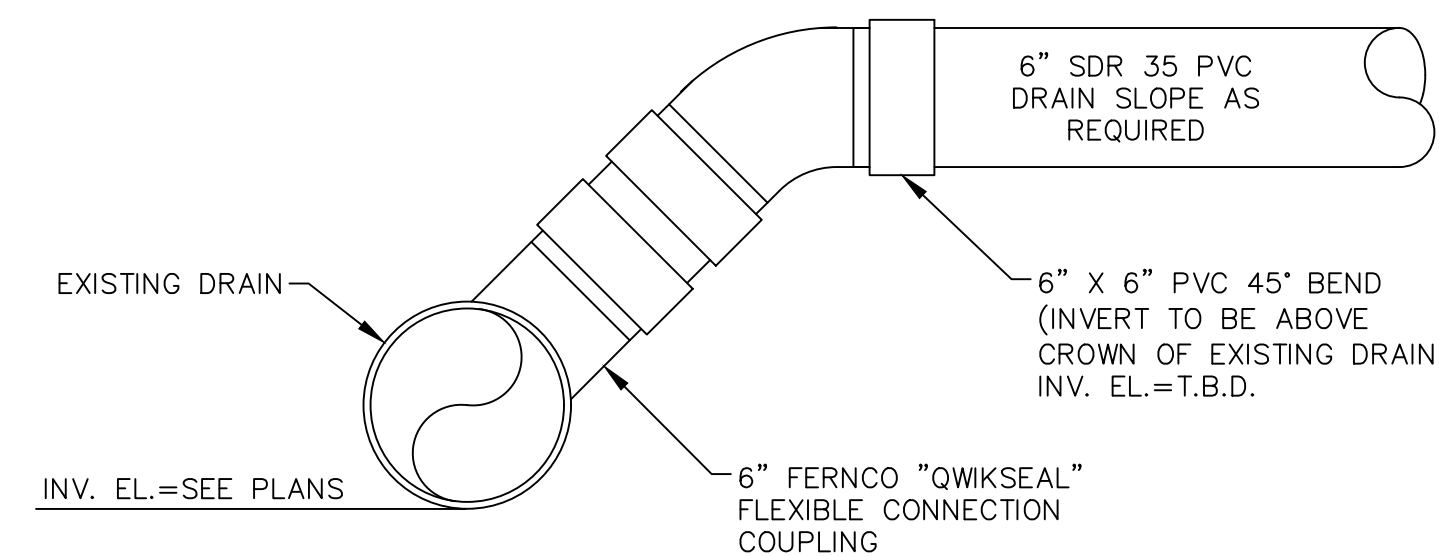
- 1) DO NOT EXTEND BASE GRAVEL AS SHOWN WHEN PAVED AREAS ARE ABUTTING ROAD, WALKWAY, OR OTHER HARD SURFACE.
- 2) BINDER COURSE: - MASSDOT M3.11.03, TABLE A, "HMA INTERMEDIATE COURSE DENSE BINDER" OR SUPERPAVE INTERMEDIATE COURSE - 19.0MM (MIXTURE DESIGNATION SIC - 19.0).
- 3) TOP COURSE: - MASSDOT M3.11.03, TABLE A, "SURFACE COURSE STANDARD TOP" OR SUPERPAVE SURFACE COURSE - 12.5MM (MIXTURE DESIGNATION SSC - 12.5).



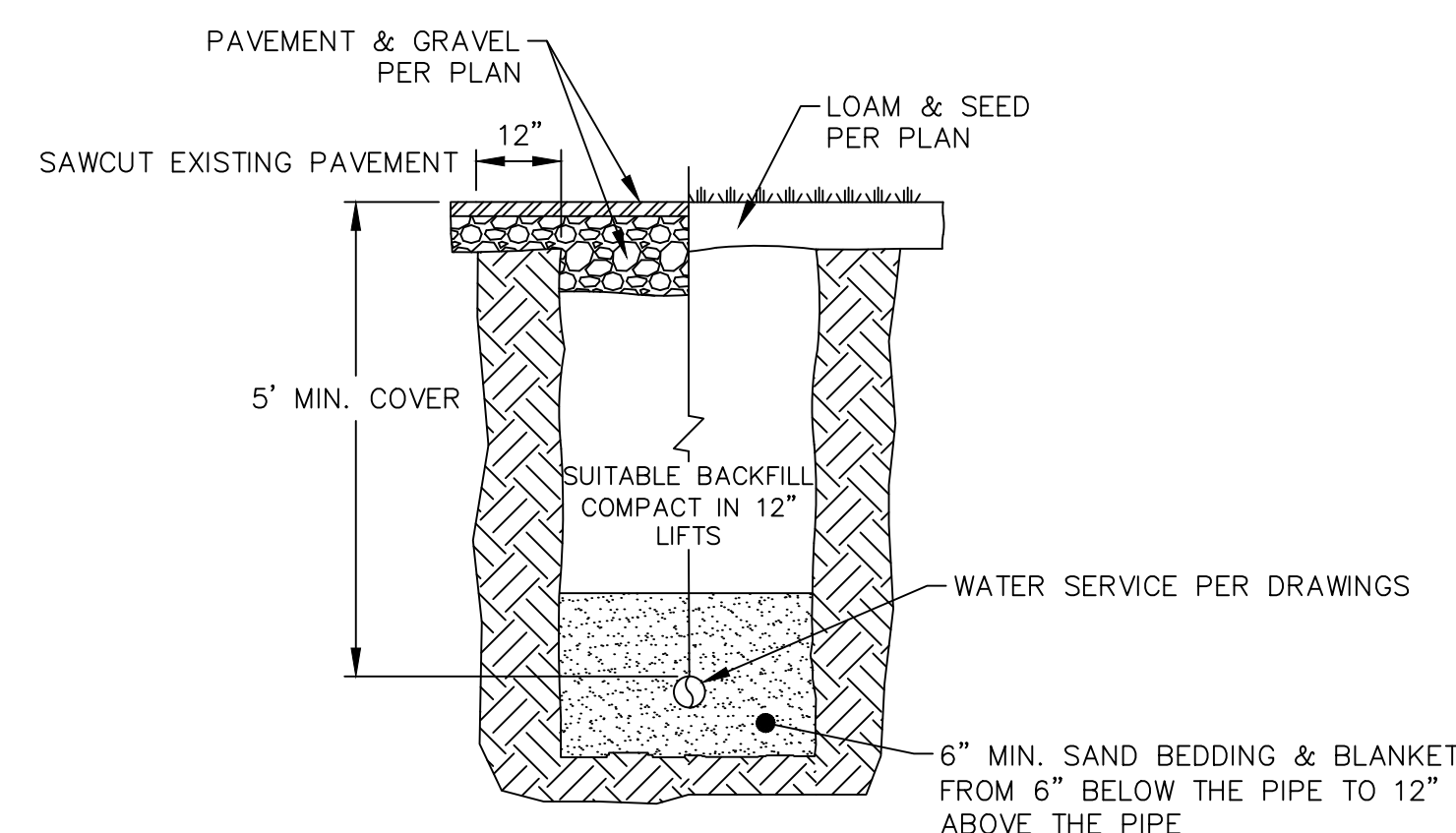
HDPE/PVC DRAIN TRENCH SECTION NTS

NOTES:

- 1) BACKFILL SHALL BE AN AASHTO CLASS III SOIL; EITHER TRENCH SPOILS OR AN IMPORTED SAND AND GRAVEL WITH FINES AND COMPACTED TO 90% OF THE PROCTOR DENSITY.
- 2) BACKFILL OF HDPE PIPE SHALL CONFORM TO ASTM D2321 AND/OR MANUFACTURER'S SPECIFICATIONS.



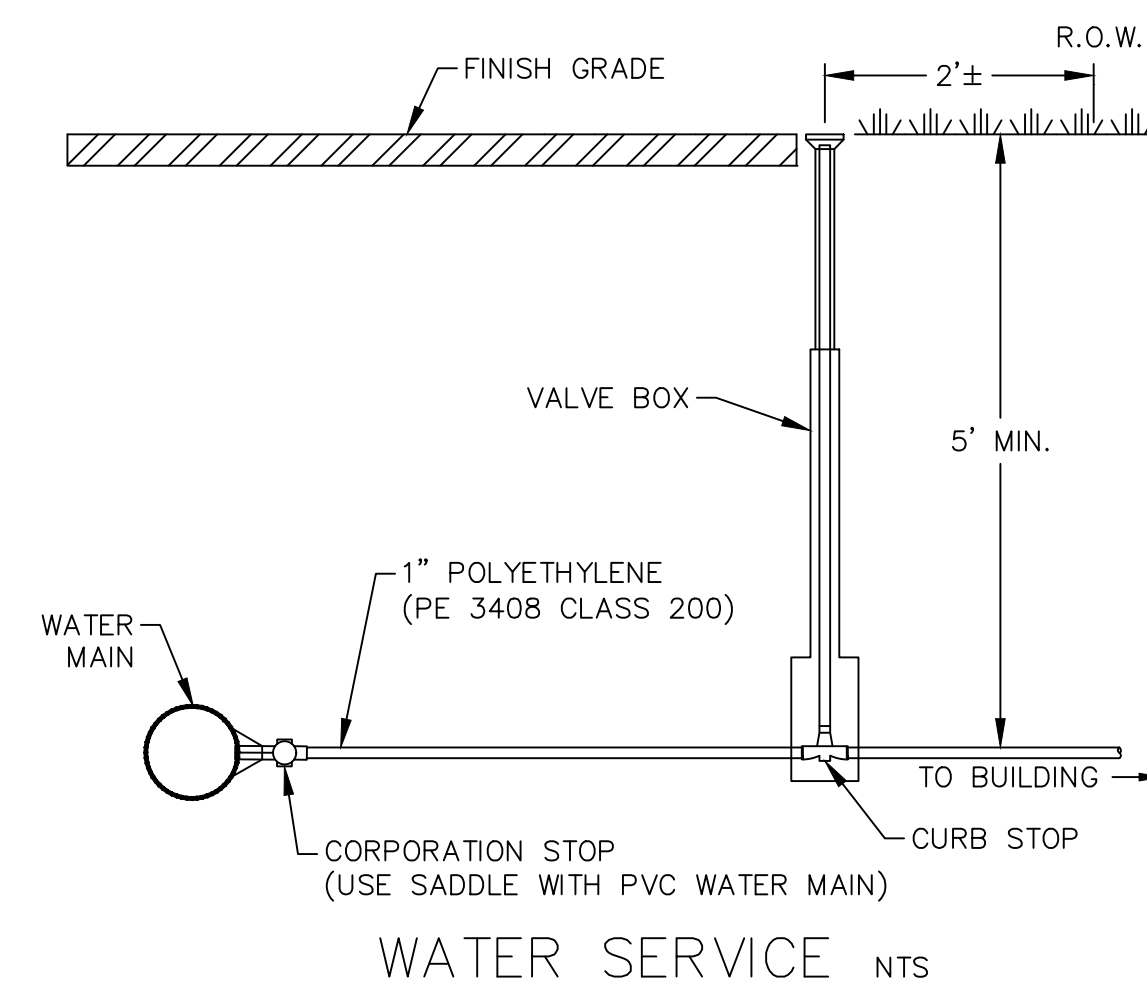
DRAIN CONNECTION DETAIL NTS



WATER SERVICE TRENCH SECTION NTS

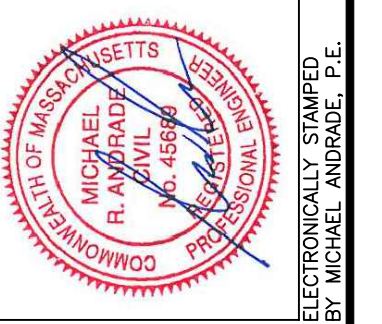
NOTE:

- 1) SUITABLE BACKFILL SHALL BE AN AASHTO CLASS III SOIL; EITHER TRENCH SPOILS OR AN IMPORTED SAND AND GRAVEL WITH FINES AND COMPACTED TO 90% OF THE PROCTOR DENSITY.

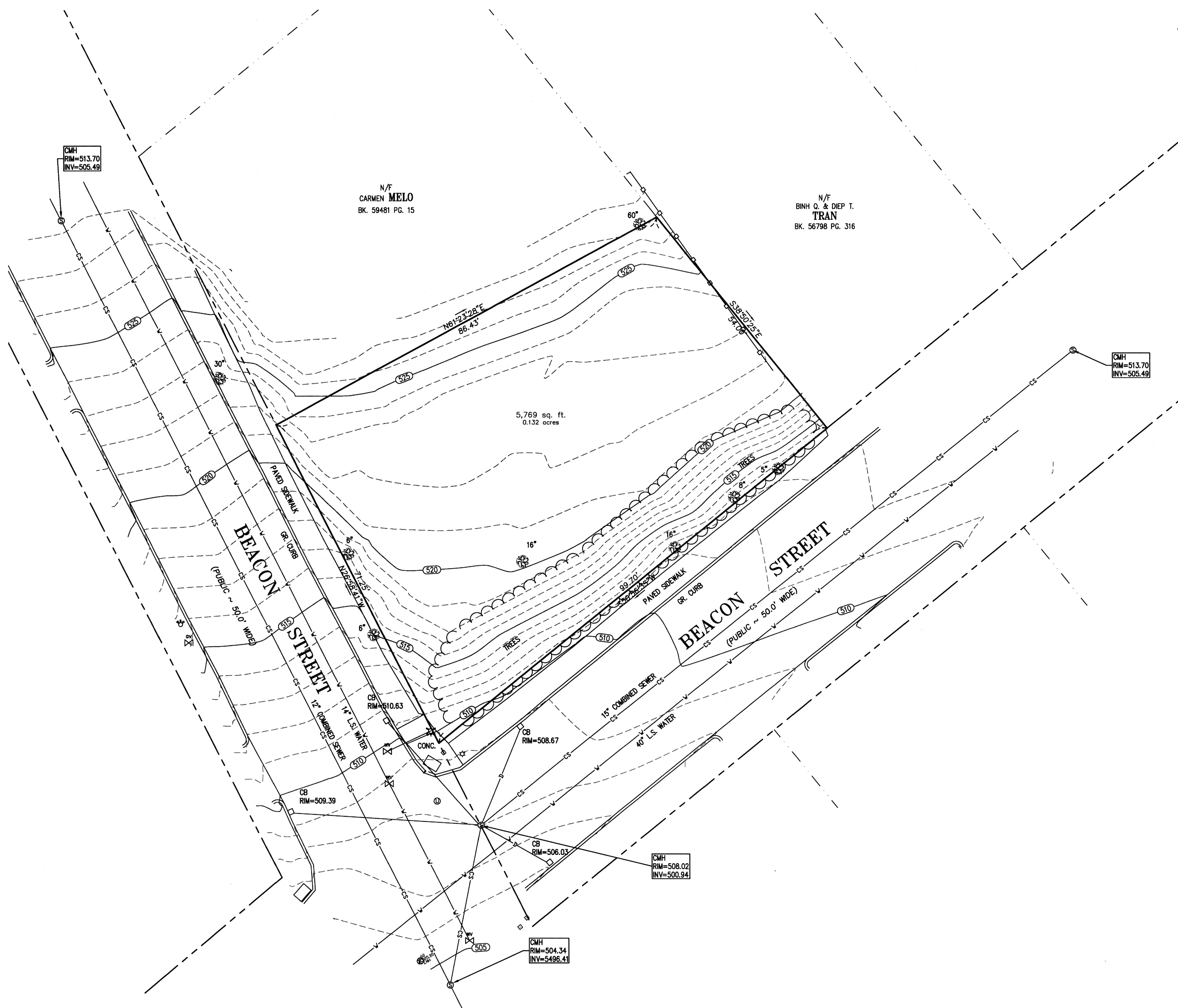


WATER SERVICE NTS

NO.	DATE	BY	DESCRIPTION	REVISIONS
1	12/20/24	MRA	ISSUED FOR PERMITTING	



PREPARED FOR:	HABITAT FOR HUMANITY
PROJECT:	SINGLE-FAMILY DWELLING
ADDRESS:	33 RIPLEY STREET, WORCESTER, MA 01610
DATE:	12/20/24
SCALE:	1"=10'
DESIGNED BY:	ROM
CHECKED BY:	MRA
PROJECT NO.:	24133

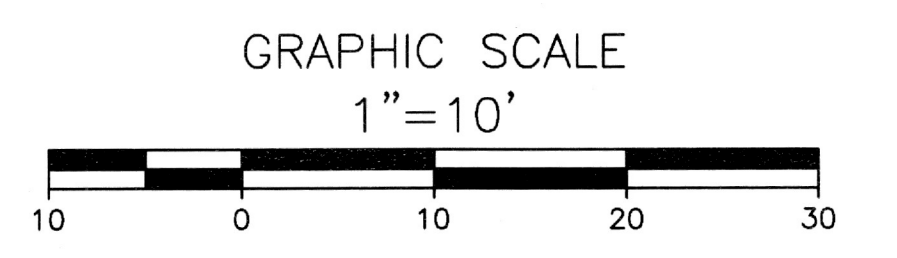


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 THIS PLAN WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND IS SUBJECT TO ANY FINDINGS SUCH A REPORT MIGHT DISCLOSE.
 LOCATION OF ALL UNDERGROUND UTILITIES SHOWN HEREON ARE APPROXIMATE AND ARE BASED ON THE FIELD LOCATION OF ALL VISIBLE STRUCTURES SUCH AS CATCH BASINS, MANHOLES, WATER GATES, ETC. AND COMPILING 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 OR CALL DIG-SAFE AT 1-888-344-7233.

REFERENCES:
 DEED BOOK 70864 PAGE 298
 ASSESSORS REFERENCE: 06-034-00009

ZONING:
 RG-5

ALL ABOVE DEEDS AND PLANS ARE RECORDED WITH THE WORCESTER DISTRICT REGISTRY OF DEEDS.



ROBERT SOUTH
 3883
 REGISTERED LAND SURVEYOR
 DATE: OCT 10, 2024

B&R SURVEY, INC.

100 GROVE STREET
 WORCESTER, MA 01605
 TEL 508-756-8579
 FAX 508-421-4797

EXISTING CONDITION SITE PLAN

LAND OWNED BY:
**HABITAT FOR HUMANITY
 METROWEST/GREATER
 WORCESTER, INC.**

33 RIPLEY STREET
 WORCESTER, MASSACHUSETTS

SCALE: 1"=10' DATE: OCTOBER 10, 2024

FIELD: RJS	CALC: RPB	CHECK: RJS
SHEET 1 OF 1		JOB #24-221