

217121.dwg (Z-2017)

LEGEND

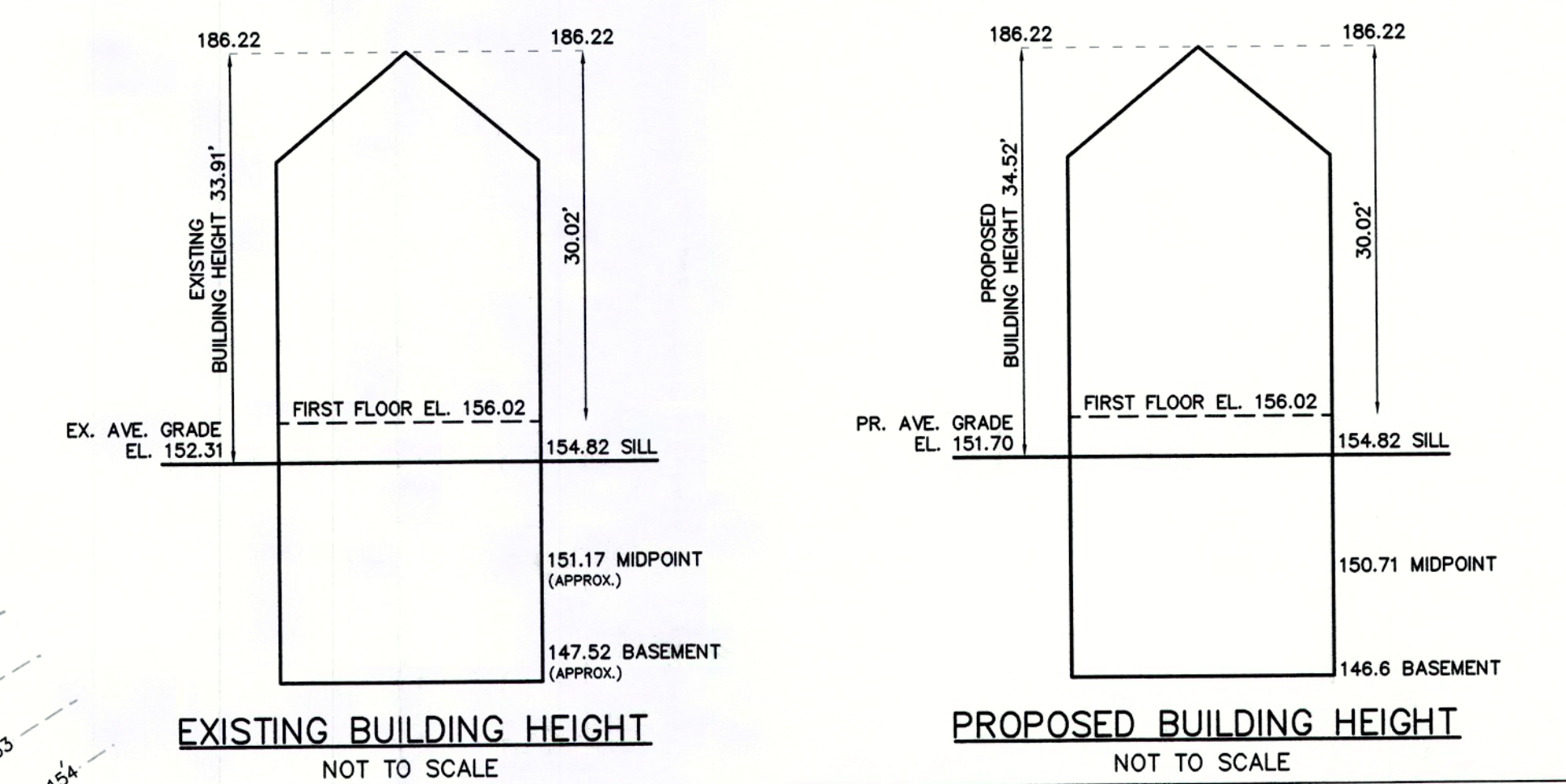
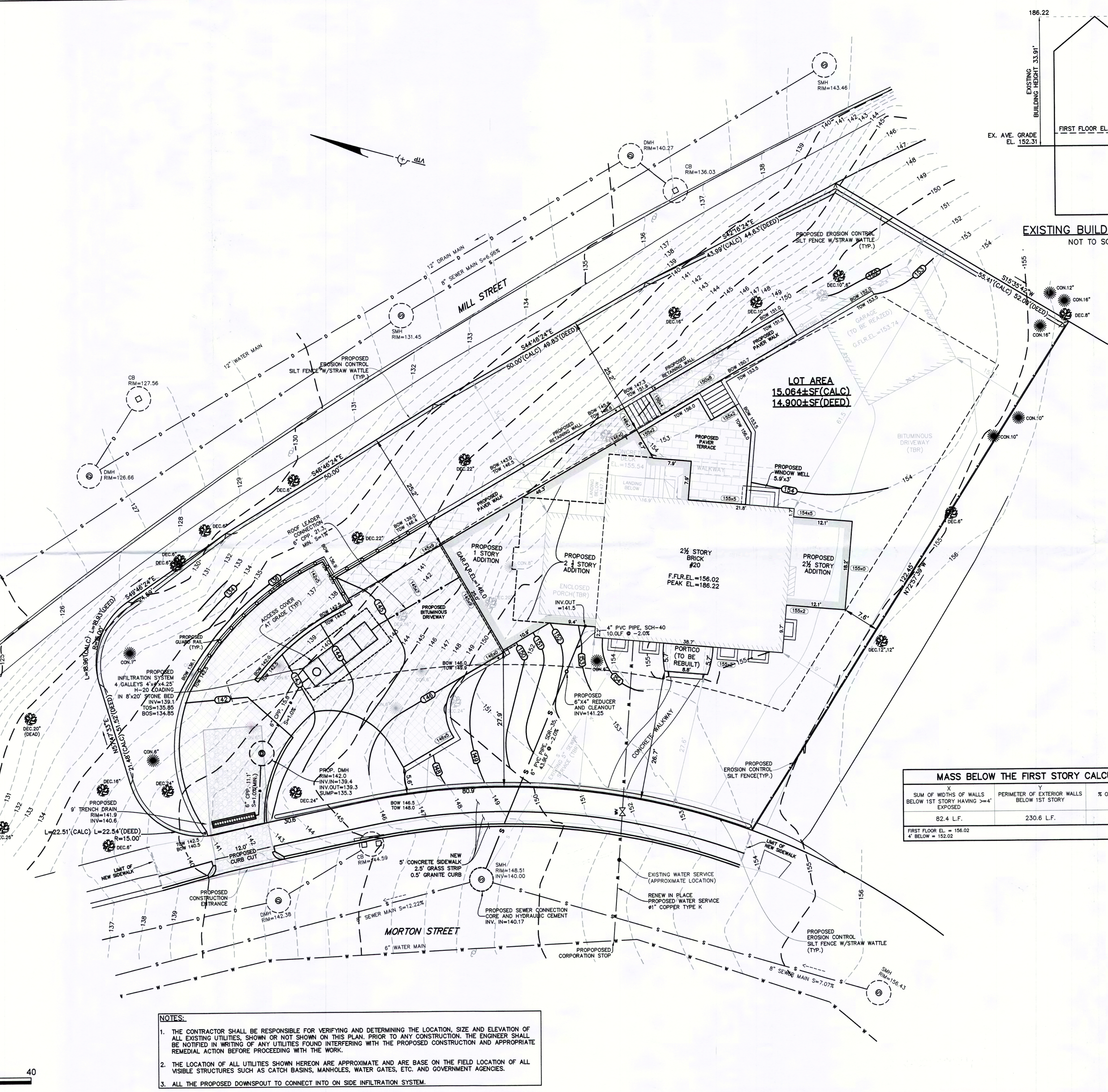
BUILDING	
PROPERTY LINE W/ BEARING DISTANCE	S81°56'34"E 116.23'
CONTOUR	70
STOCKADE FENCE	
CHAINLINK FENCE	
PICKET FENCE	
SEWER LINE	S
DRAIN LINE	D
WATER LINE	W
GAS LINE	G
GAS VALVE	
WATER VALVE	
DRAIN MANHOLE	
SEWER MANHOLE	
CATCH BASIN	
UTILITY POLE	
LIGHT POLE	
DECIDUOUS TREE	DEC. 22"
CONIFEROUS TREE	CON. 12"
HYDRANT	
STAKE & NAIL	
IRON PIPE	
MAG NAIL	

DIG SAFE

EXCAVATORS
BEFORE YOU DIG CONTACT THE DIG SAFE CENTER TO PREVENT DAMAGE TO TELEPHONE, GAS OR ELECTRIC UNDERGROUND FACILITIES OF MEMBER UTILITIES. CALL TOLL FREE 1-888-344-7233. MASSACHUSETTS STATE LAW REQUIRES NOTIFICATION AT LEAST THREE BUSINESS DAYS BEFORE YOU START DIGGING OPERATIONS. IN AN EMERGENCY, CALL IMMEDIATELY



SCALE: 1" = 10'



Length Weighted Mean Proposed Conditions Average Grade Calculation

A Segment	B Length Of Segment in Feet	C Height of High Point of Segment	D Height of Low Point of Segment	E=(C+D)/2 Average Segment Height	F=BxE
1	13.80	155.20	154.70	154.95	2138.31 Sq. Ft.
2	11.10	155.00	154.70	154.85	1718.84 Sq. Ft.
3	13.80	155.20	154.00	154.60	2133.48 Sq. Ft.
4	9.40	153.50	152.00	152.75	1435.85 Sq. Ft.
5	9.90	152.00	149.80	150.90	1493.91 Sq. Ft.
6	1.00	149.90	149.90	149.90	149.90 Sq. Ft.
7	25.00	145.80	145.80	145.80	3645.00 Sq. Ft.
8	46.30	146.00	145.50	145.75	6748.23 Sq. Ft.
9	6.70	155.20	155.20	155.20	1039.84 Sq. Ft.
10	7.90	155.30	155.20	155.25	1228.48 Sq. Ft.
11	7.90	155.50	155.20	155.35	1227.27 Sq. Ft.
12	11.80	155.50	155.40	155.45	1834.31 Sq. Ft.
13	1.00	156.00	156.00	156.00	156.00 Sq. Ft.
14	9.20	154.40	153.90	154.15	1418.18 Sq. Ft.
15	12.10	154.40	154.00	154.20	1865.82 Sq. Ft.
16	18.20	154.90	154.00	154.45	2810.99 Sq. Ft.
17	12.10	155.00	154.90	154.95	1874.90 Sq. Ft.
18	9.70	155.00	154.90	154.95	1503.02 Sq. Ft.
Total	226.90				34420.30 Sq. Ft.

Total Column F / Total Column B = Average Grade
Average Grade: 151.70'

IMPERVIOUS AREA CALCULATION

	EXISTING	PROPOSED
BUILDING	1,419.2sf.	2,339.4sf.
PORCH	48.6sf.	55.1sf.
DETACHED GARAGE	430.3sf.	0.0sf.
DRIVEWAY, CURBS	1,370.3sf.	1,995.0sf.
WALKWAYS/PATIOS	331.0sf.	986.7sf.
LANDING/STAIRS	110.4sf.	68.3sf.
AC CONC. PADS/BULKHEADS	0.0sf.	0.0sf.
RETAINING WALLS, WINDOW WELLS	73.6sf.	283.8sf.
TOTAL	3,783.5sf.	5,728.3sf.

INCREASE IN IMPERVIOUS AREA 1,944.8sf.
LOT AREA 15,064.0sf.
4% OF LOT AREA (OR 400sf. MAX.) 602.6sf.
USE 400sf. MAX.
1,944.8sf. > 400.0sf. ---> DRAINAGE REQUIRED.

ZONING CHART

NEWTON, MASSACHUSETTS

ZONE: SR-2 (OLD) SUBMISSION: BUILDING PERMIT

REGULATION	REQUIRED	EXISTING	PROPOSED
LOT AREA	10,000sf.	15,064sf.	N/C
LOT FRONTAGE	80.0'	111.57'	N/C
FRONT SETBACK	25.0'	27.6'	N/C
SIDE SETBACK	7.5'	13.9'	7.6'
REAR SETBACK	15.0'	61.5'	25.2'
BUILDING HEIGHT	36.0'	33.91'	34.52'
AVERAGE GRADE	-	152.31	151.70
LOT COVERAGE	30.0%	12.4%	15.9%
OPEN SPACE	50.0%	76.9%	70.9%

MASS BELOW THE FIRST STORY CALCULATION

SUM OF WIDTHS OF WALLS BELOW 1ST STORY HAVING >=4" EXPOSED	PERIMETER OF EXTERIOR WALLS BELOW 1ST STORY	% OF BASEMENT COUNTS TOWARDS F.A.R.
82.4 L.F.	230.6 L.F.	35.74%

FIRST FLOOR EL. = 156.02
4" BELOW = 152.02

ZONING PLAN
NEWTON, MASSACHUSETTS
SHOWING PROPOSED CONDITIONS AT #20 MORTON STREET
SCALE: 1in.=10ft. DATE: NOVEMBER 19, 2021; REVIS: DECEMBER 20, 2021; MARCH 2, 2022

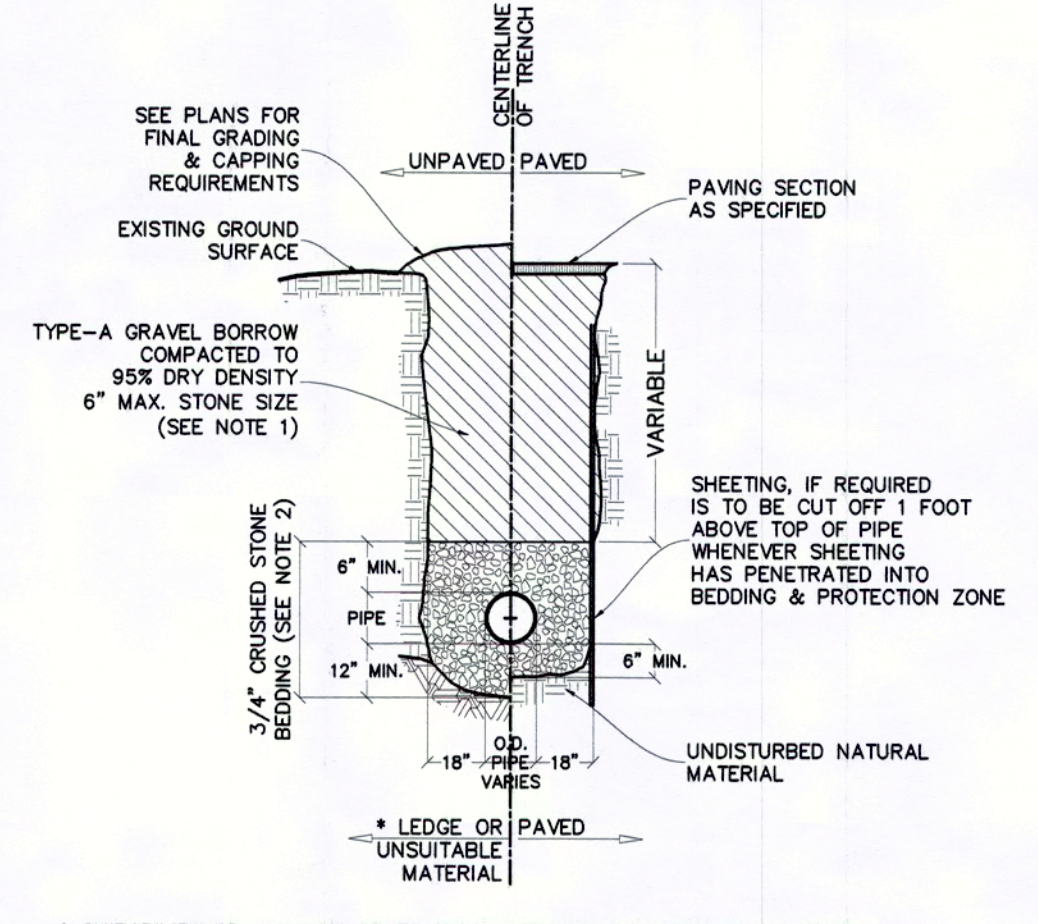
PROJECT: 217121
VTP ASSOCIATES INC.
LAND SURVEYORS - CIVIL ENGINEERS.
132 ADAMS STREET 2ND FLOOR SUITE 3
NEWTON, MA 02458
(617) 332-8271
SHEET 1 OF 2

- NOTES:**
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING AND DETERMINING THE LOCATION, SIZE AND ELEVATION OF ALL EXISTING UTILITIES, SHOWN OR NOT SHOWN ON THIS PLAN. PRIOR TO ANY CONSTRUCTION, THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES FOUND INTERFERING WITH THE PROPOSED CONSTRUCTION AND APPROPRIATE REMEDIAL ACTION BEFORE PROCEEDING WITH THE WORK.
 - THE LOCATION OF ALL 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 GOVERNMENT AGENCIES.
 - ALL THE PROPOSED DOWNSPOUT TO CONNECT INTO ON SIDE INFILTRATION SYSTEM.



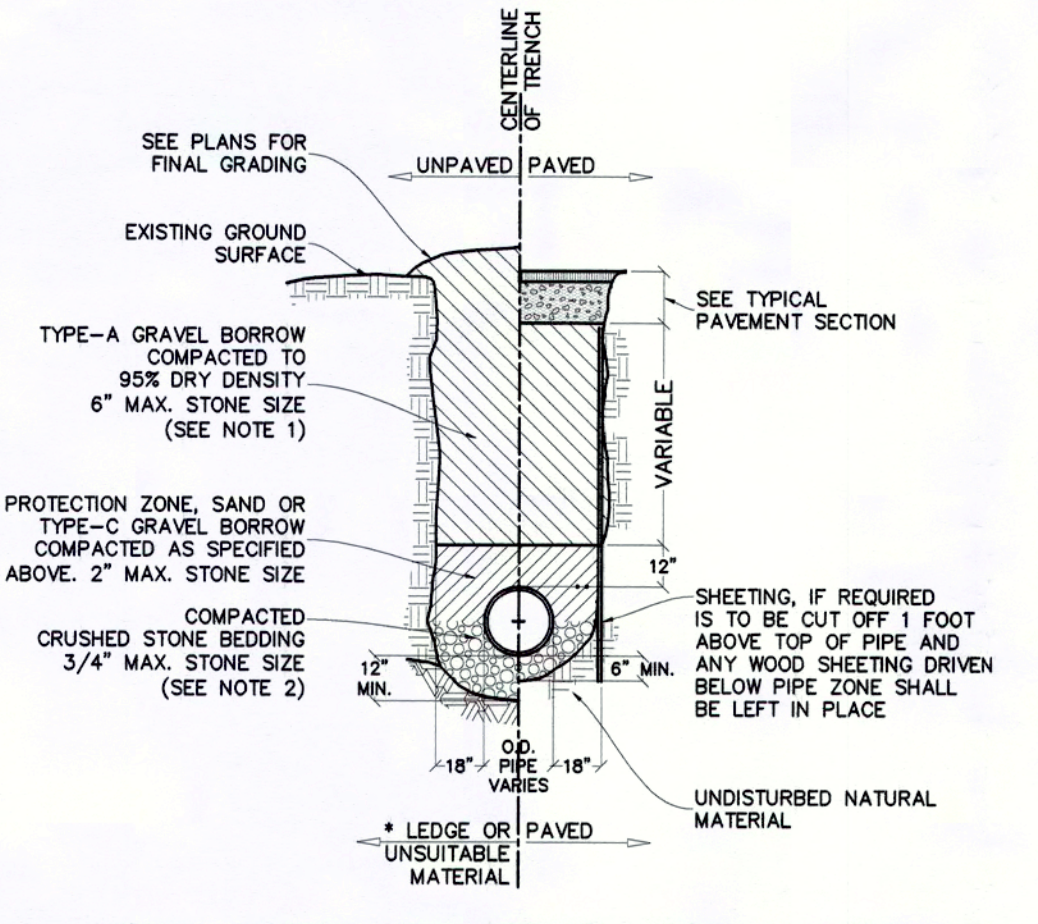
217121_1.dwg (2-2017)

- GENERAL & UTILITIES NOTES:**
- ALL NEW SEWER SERVICE AND/OR STRUCTURES SHALL BE PRESSURE TESTED OR VIDEO TAPED AFTER FINAL INSTALLATION IS COMPLETE. METHOD OF FINAL INSPECTION SHALL BE DETERMINED SOLELY BY THE CONSTRUCTION INSPECTOR FROM THE CITY ENGINEERING DIVISION. ALL SEWER MANHOLES SHALL BE VACUUM TESTED IN ACCORDANCE TO THE CITY'S CONSTRUCTION STANDARDS & SPECIFICATIONS. THE SEWER SERVICE WILL NOT BE ACCEPTED UNTIL ONE OF THE TWO METHODS STATED ABOVE IS COMPLETED. ALL TESTING MUST BE WITNESSED BY A REPRESENTATIVE OF THE ENGINEERING DIVISION. A CERTIFICATE OF OCCUPANCY WILL NOT BE RECOMMENDED UNTIL THIS TEST IS COMPLETED AND A WRITTEN REPORT IS RECEIVED BY THE CITY ENGINEER.
 - THE SEWER SERVICES AND WATER SERVICES NEED TO BE COMPLETELY REMOVED FROM THE MAINS TO THE EXISTING DWELING AND PROPERLY BACK-FILLED. THE CONTRACTOR SHALL MAKE ARRANGEMENTS TO HAVE THIS ABANDONMENT INSPECTED BY A REPRESENTATIVE OF THE ENGINEERING DIVISION, FAILING TO HAVING THESE INSPECTIONS MAY RESULT IN THE DELAY OR DENIAL OF ISSUING NEW UTILITY CONNECTION PERMITS.
 - AS OF MARCH 1, 2009, ALL TRENCH EXCAVATION CONTRACTORS SHALL COMPLY WITH MASSACHUSETTS GENERAL LAWS CHAPTER B2A, TRENCH EXCAVATION SAFETY REQUIREMENTS, TO PROTECT THE GENERAL PUBLIC FROM UNAUTHORIZED ACCESS TO UNATTENDED TRENCHES. TRENCH EXCAVATION PERMIT REQUIRED. THIS APPLIES TO ALL TRENCHES ON PUBLIC AND PRIVATE PROPERTY.
 - THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE ENGINEERING DIVISION AND SCHEDULING AN APPOINTMENT 48 HOURS PRIOR TO THE DATE WHEN THE UTILITIES WILL BE MADE AVAILABLE FOR AN INSPECTION OF WATER SERVICES, SEWER SERVICES, AND DRAINAGE SYSTEM INSTALLATION. THE UTILITY IS QUESTION SHALL BE FULLY EXPOSED FOR THE INSPECTOR TO VIEW. BACKFILLING SHALL ONLY TAKE PLACE WHEN THE CITY'S INSPECTOR HAS GIVEN THEIR APPROVAL.
 - THE APPLICANT WILL HAVE TO APPLY FOR STREET OPENING, SIDEWALK CROSSING, AND UTILITIES CONNECTING PERMITS WITH THE DEPARTMENT OF PUBLIC WORKS PRIOR TO ANY CONSTRUCTION.
 - PRIOR TO OCCUPANCY PERMIT BEING ISSUED, AN AS-BUILT PLAN SHALL BE SUBMITTED TO THE ENGINEERING DIVISION IN BOTH DIGITAL FORMAT AND HARD COPY. THE PLAN SHOULD SHOW ALL UTILITIES AND FINISH GRADES ANY CHANGES AND FINAL GRADING, IMPROVEMENTS AND LIMITS OF RESTORATION WORK. THE PLAN SHALL ALSO INCLUDE PROFILES OF THE VARIOUS NEW UTILITIES, INDICATING RIM & INVERT ELEVATIONS, SLOPES OF PIPES, PIPE MATERIAL, AND SWING TIES FROM PERMANENT BUILDING CORNERS.
 - NO EXCAVATION IS ALLOWED WITHIN ANY CITY RIGHT-OF-WAY BETWEEN NOVEMBER 15TH AND APRIL 15TH IF AN EMERGENCY EXISTS OR THERE ARE EXTENUATING CIRCUMSTANCES THAT MAY SEEK PERMISSION FOR SUCH WORK FROM THE CITY DPW COMMISSIONER VIA THE CITY ENGINEER. IF PERMISSION IS GRANTED, SPECIAL CONSTRUCTION STANDARDS WILL BE APPLIED. APPLICANT OR APPLICANT'S REPRESENTATIVE MUST CONTACT THE CITY OF NEWTON ENGINEERING DEPARTMENT PRIOR TO START OF WORK FOR CLARIFICATION.
 - ALL SITE WORK INCLUDING TRENCH RESTORATION MUST BE COMPLETED BEFORE A CERTIFICATION OF OCCUPANCY IS ISSUED.
 - THE APPLICANT WILL HAVE TO APPLY FOR STREET OPENING, UTILITY CONNECTION AND TRENCH PERMITS AS WELL AS AN INSTALL CURB & SIDEWALK PERMIT WITH THE DPW PRIOR TO START OF WORK.
 - WITH THE EXCEPTION OF GAS SERVICES, ALL UTILITY TRENCHES WITHIN THE CITY OF NEWTON RIGHT-OF-WAY WILL BE BACKFILLED WITH TYPE IE (EXCAVATABLE) CONTROLLED DENSITY FILL, AS SPECIFIED BY THE CITY OF NEWTON ENGINEERING SPECIFICATIONS.
 - APPROVAL OF THIS PLAN BY THE CITY OF NEWTON ENGINEERING DIVISION IMPLIES THAT THE PLAN MEETS THE MINIMAL DESIGN STANDARDS OF THE CITY OF NEWTON. HOWEVER, THE ENGINEERING DIVISION MAKES NO REPRESENTATIONS AND ASSUMES NO RESPONSIBILITY FOR THE DESIGN(S) IN TERMS OF SUITABILITY FOR THE PARTICULAR SITE CONDITIONS OR OF THE FUNCTIONABILITY OR PERFORMANCE OF ANY ITEMS CONSTRUCTED IN ACCORDANCE WITH THE DESIGN(S). THE CITY OF NEWTON ASSUMES NO LIABILITIES FOR DESIGN ASSUMPTION, ERRORS OR OMISSIONS BY THE ENGINEER OF RECORD.
 - THE ENGINEER OF RECORD IS RESPONSIBLE FOR THE ON-SITE INSPECTION(S) OF ALL SUBSURFACE STRUCTURES. THIS INCLUDES BUT IS NOT LIMITED TO DRAINAGE, UTILITIES (INCLUDING SEWER PIPE SLOPE), ROOF LEADER COLLECTION SYSTEM, TRENCH DRAINS, MANHOLES, ETC. ENGINEER OF RECORD MUST ALSO CONDUCT "BOTTOM OF HOLE" INSPECTIONS(S) PRIOR TO SUBSURFACE DRAINAGE SYSTEM(S) BEING INSTALLED.
 - 5 YEAR MORATORIUM - IF AT TIME OF CONSTRUCTION THE ROADWAY IS UNDER A 5-YEAR MORATORIUM, THE ROADWAY MUST BE MILLED AND PAVED GUTTER-TO-GUTTER FOR A DISTANCE OF 25 FEET IN EACH DIRECTION FROM THE OUTERMOST TRENCHES.
 - AFTER ALL ENGINEERING PERMITS ARE OBTAINED, THE CONTRACTOR NEEDS TO NOTIFY THE ENGINEERING DIVISION A MINIMUM OF 48-HOURS IN ADVANCE AND SCHEDULE AN APPOINTMENT TO HAVE SITE UTILITIES AND STORMWATER COMPONENTS INSPECTED. THE SYSTEM & UTILITIES MUST BE FULLY EXPOSED FOR THE INSPECTOR. ONCE THE INSPECTOR IS SATISFIED, THE SYSTEM & UTILITIES MAY BE BACKFILLED.
 - ALL WORK MUST BE DONE IN ACCORDANCE WITH "CITY OF NEWTON STANDARD SPECIFICATIONS" AND "CITY OF NEWTON CONSTRUCTION DETAILS", COPIES OF WHICH MAY BE OBTAINED AT THE ENGINEERING OFFICE. ALL WORK SHALL BE SUBJECT TO INSPECTION AND APPROVAL BY THE CITY OF NEWTON ENGINEERING DEPARTMENT.
 - PER CITY OF NEWTON ORDINANCE NO. B-42, COUNCIL ITEM #251-19, BUILDING SEWER, WATER SERVICE PIPE AND SIDEWALK/CURB REPLACEMENT ORANGE. THE APPLICANT IS REQUIRED TO INSTALL/REPLACE SIDEWALK AND CURB ALONG THE ENTIRE FRONTAGE. THIS SHALL INCLUDE APPROPRIATE TRANSITION TO ADJOINING CURBING AND WALKWAYS, INCLUDING ACCESSIBLE CURB CUTS AND OTHER ACCESS AS REQUIRED. THE ENGINEER OF RECORD MAKES A DETERMINATION, BASED ON THE MATERIAL AND MANNER OF CONSTRUCTION OF THE EXISTING SIDEWALK AND CURB, THAT THE EXISTING SIDEWALK AND CURB HAS THE ABILITY TO BE RE-SET OR REUSED WITHOUT REPLACEMENT.



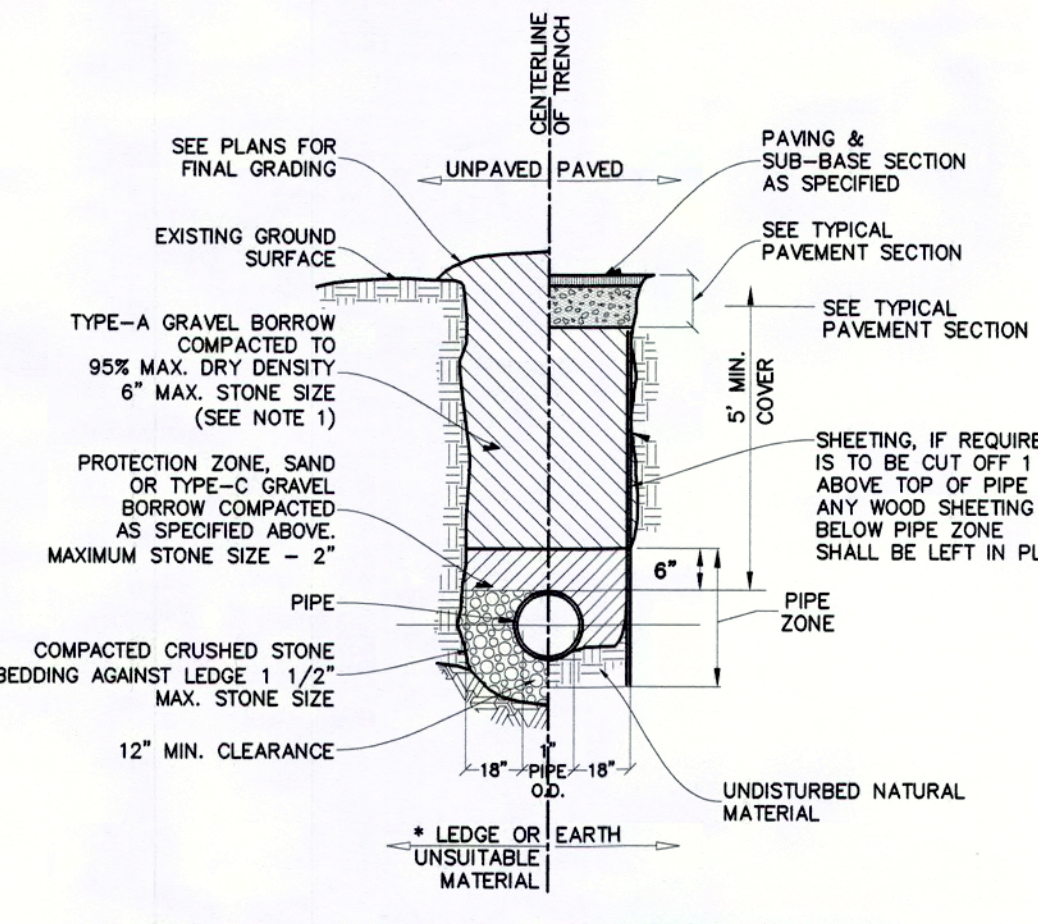
- * SUITABILITY OF MATERIAL IS TO BE DETERMINED BY THE CITY OF NEWTON.
- 1. GRAVEL BORROW SHALL CONFORM TO MASS HIGHWAY SPECIFICATION M1.03.0
- 2. CRUSHED STONE BEDDING SHALL CONFORM TO MASS HIGHWAY SPECIFICATION M2.01.1

GRAVITY SEWER TRENCH DETAIL
NOT TO SCALE



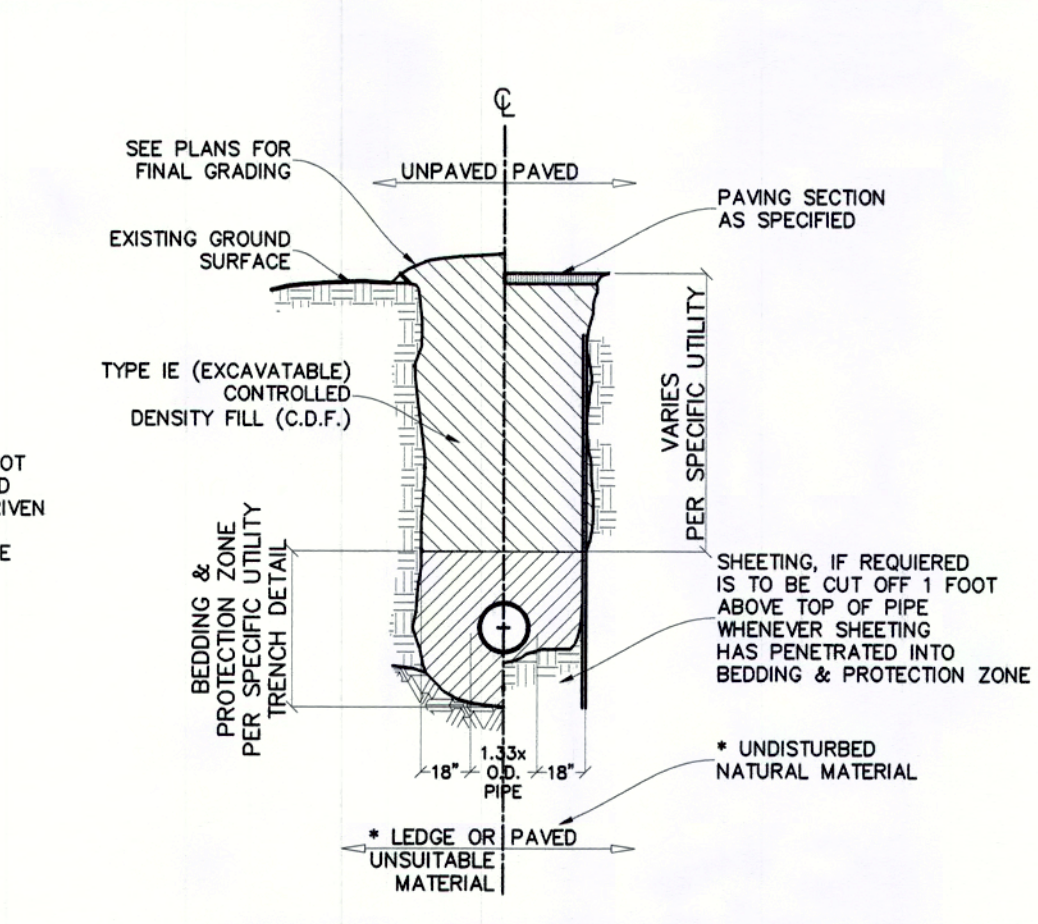
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P.V.C. DRAIN TRENCH DETAIL
NOT TO SCALE



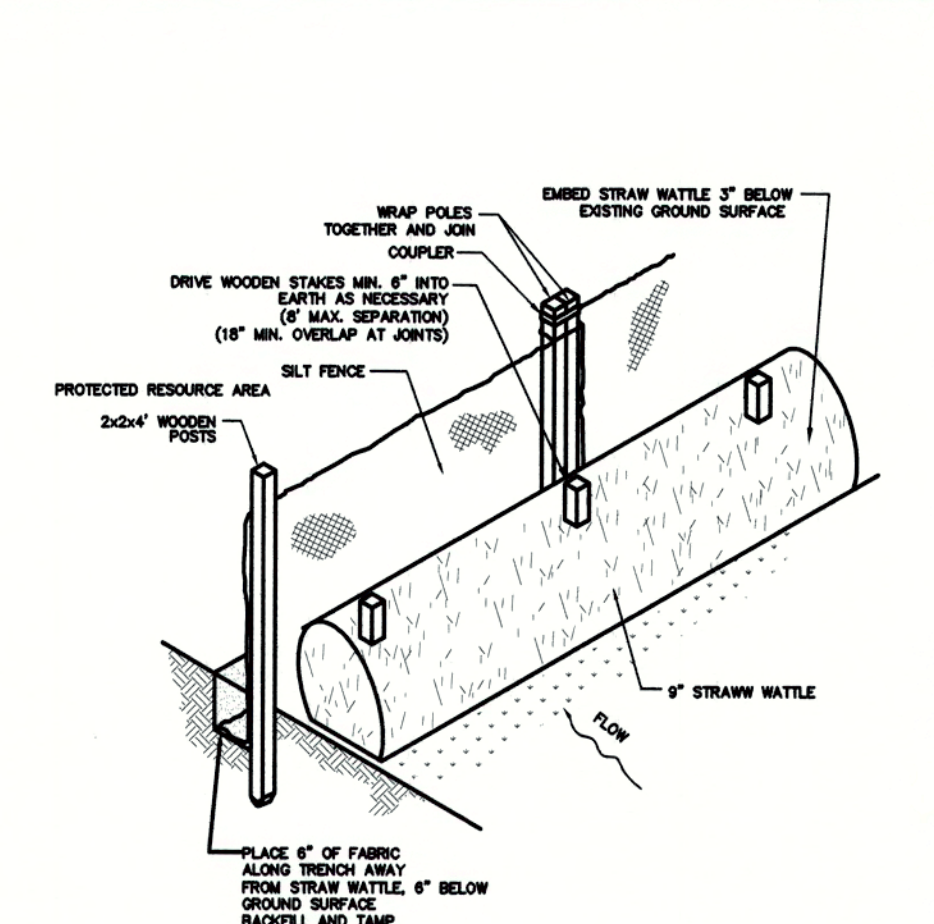
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WATER SERVICE TRENCH DETAIL
NOT TO SCALE

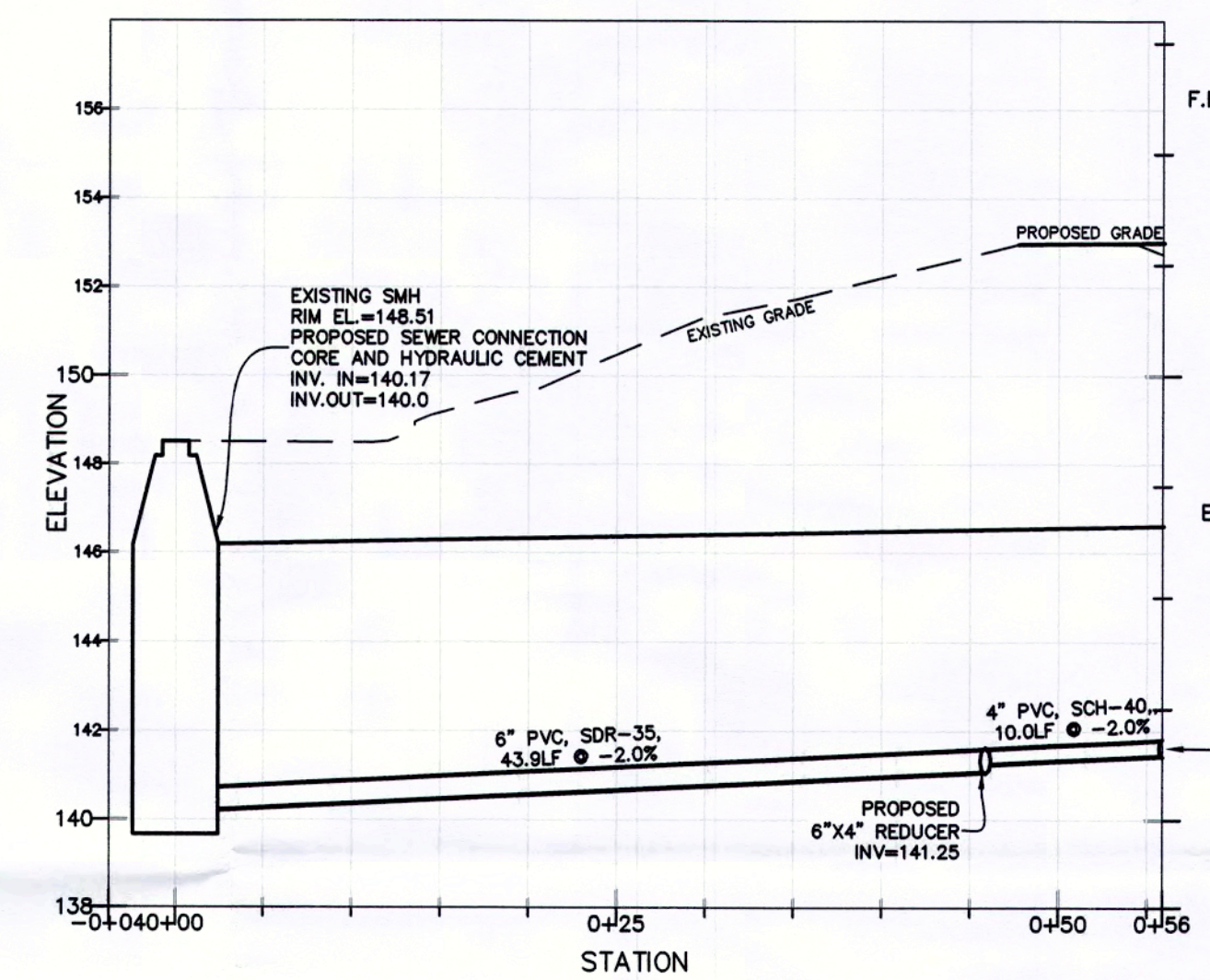


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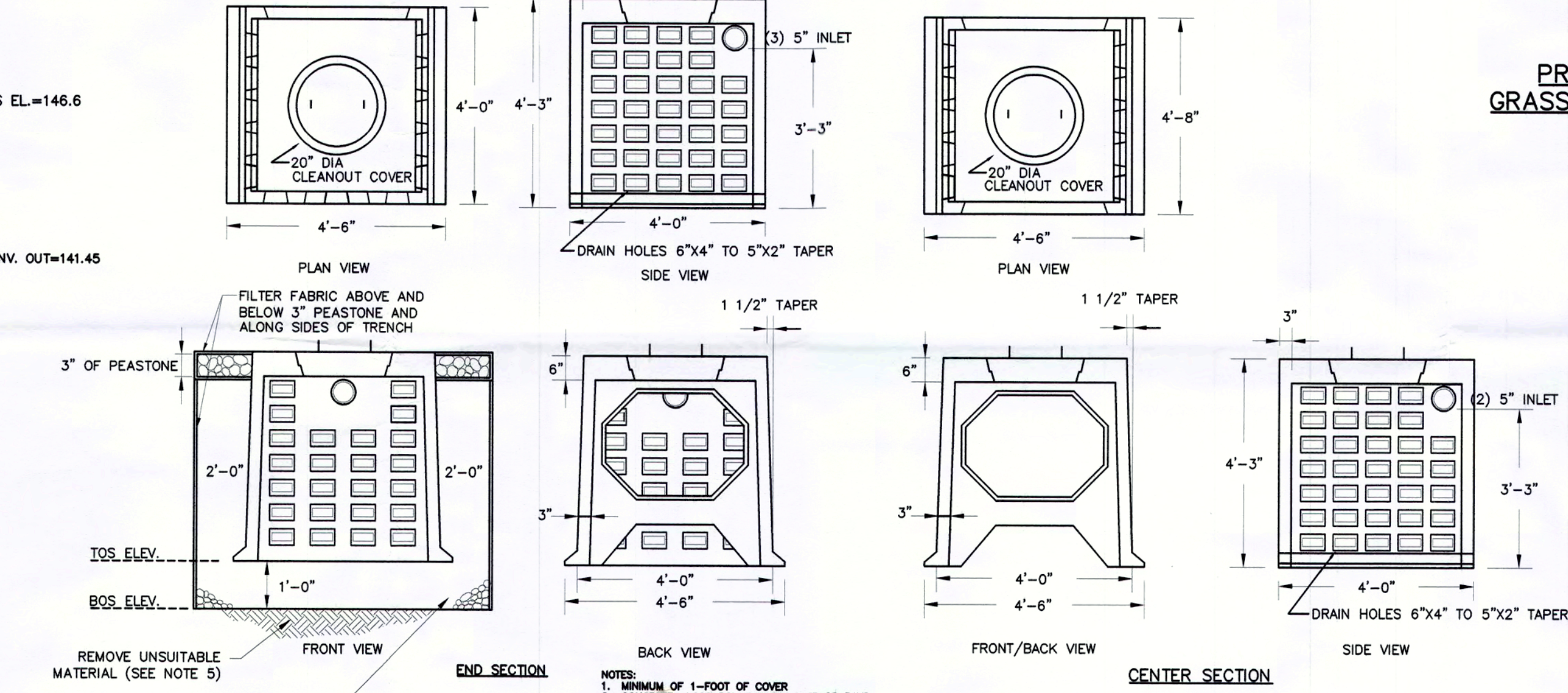
C.D.F. TRENCH DETAIL
NOT TO SCALE



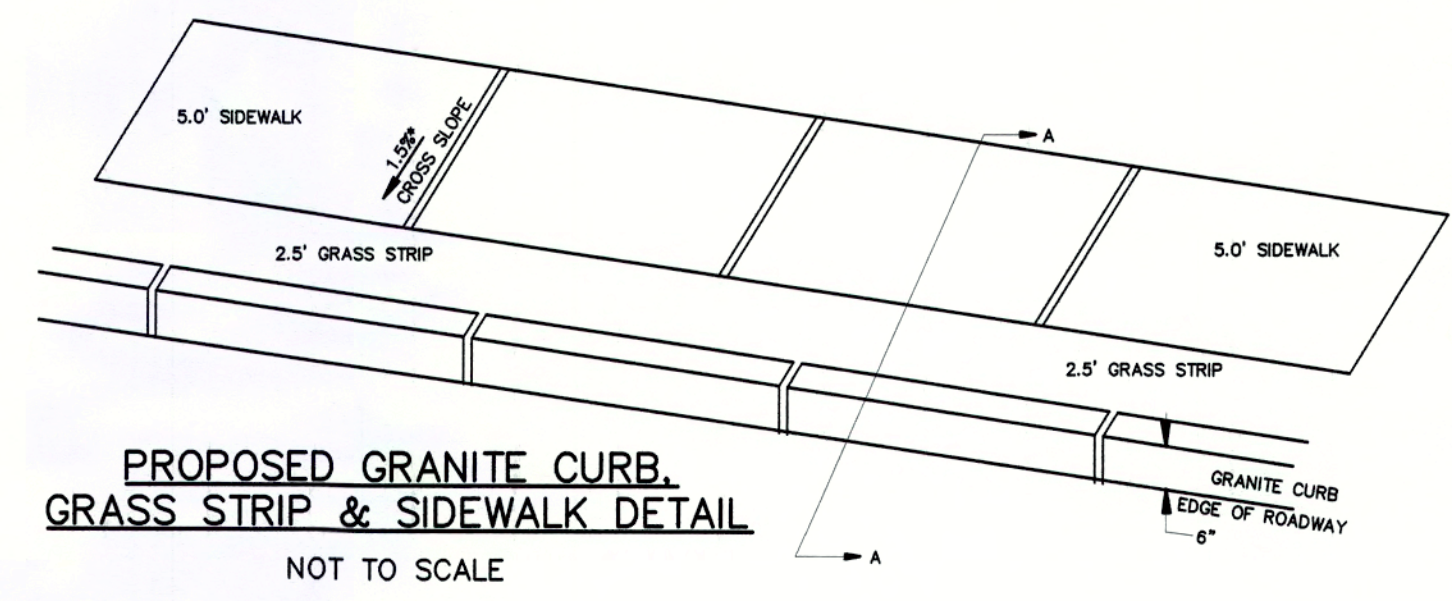
SILT FENCE AND COMPOST SOCK
NOT TO SCALE



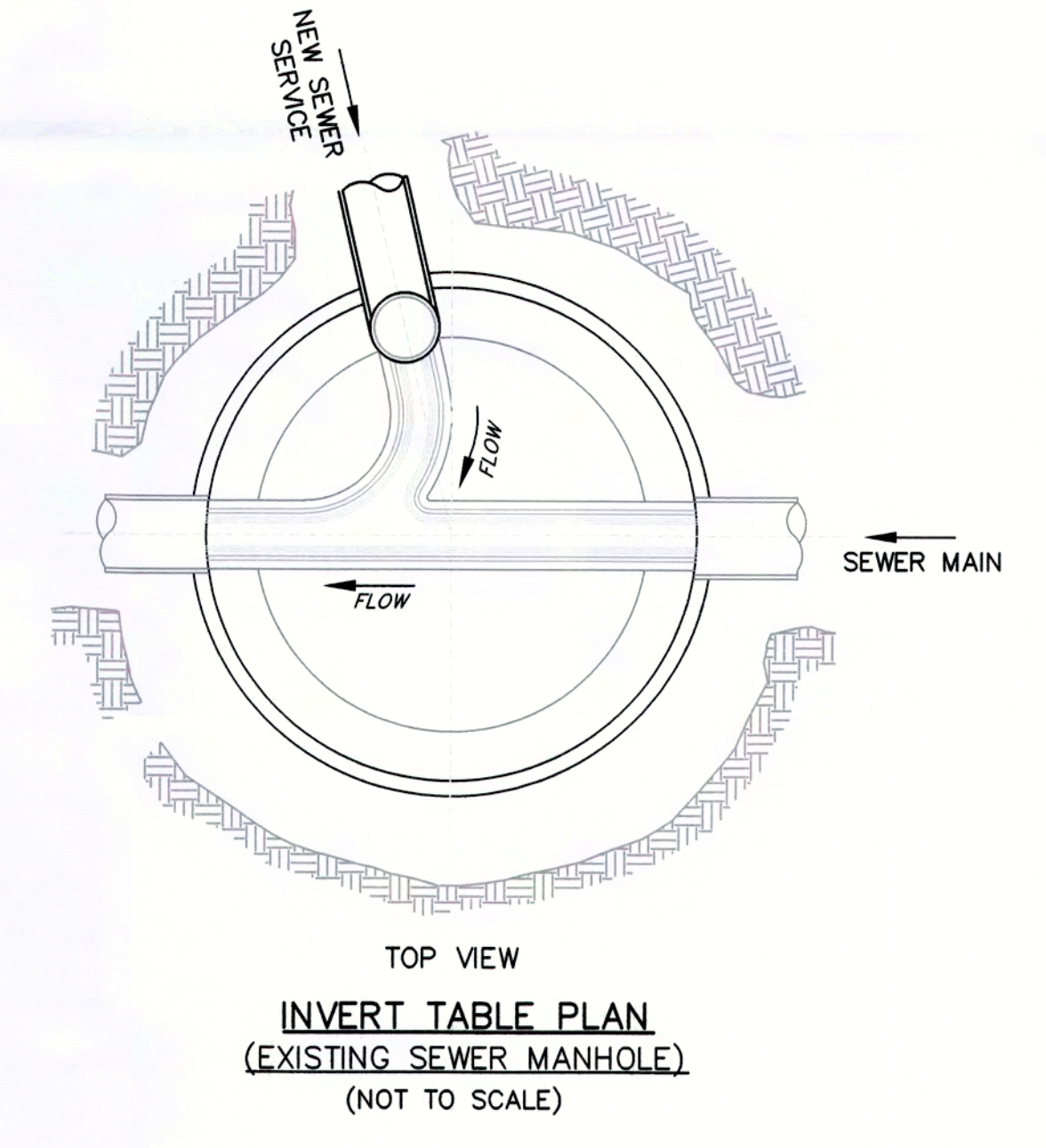
PROPOSED SEWER PROFILE
SCALE: 1"=10' (HORIZONTAL)
SCALE: 1"=4' (VERTICAL)



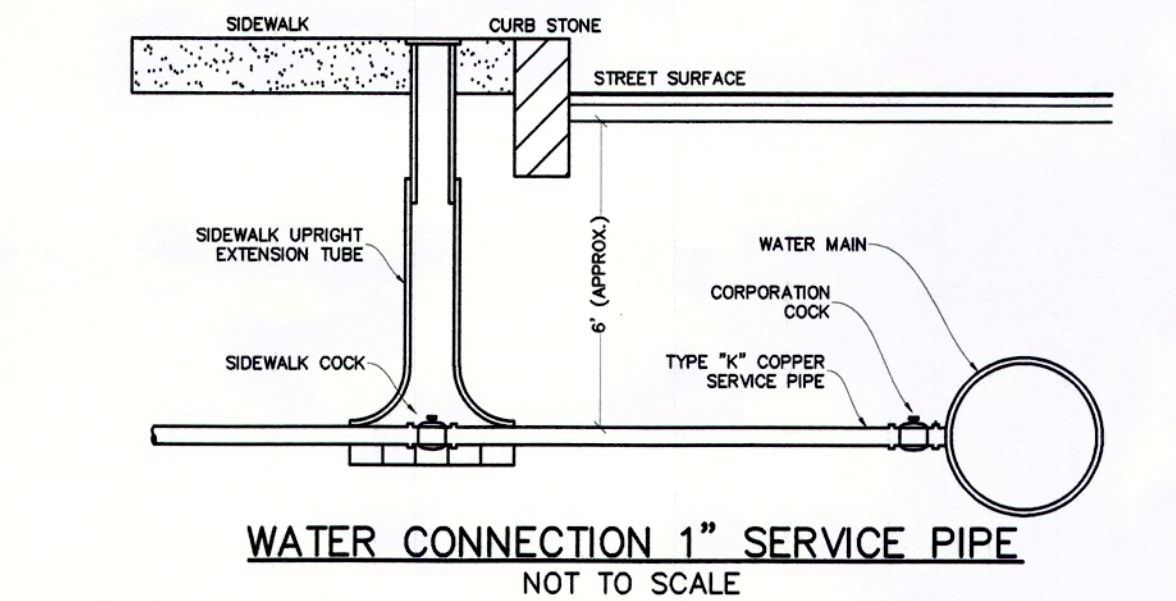
GALLEY SECTIONS
NOT TO SCALE



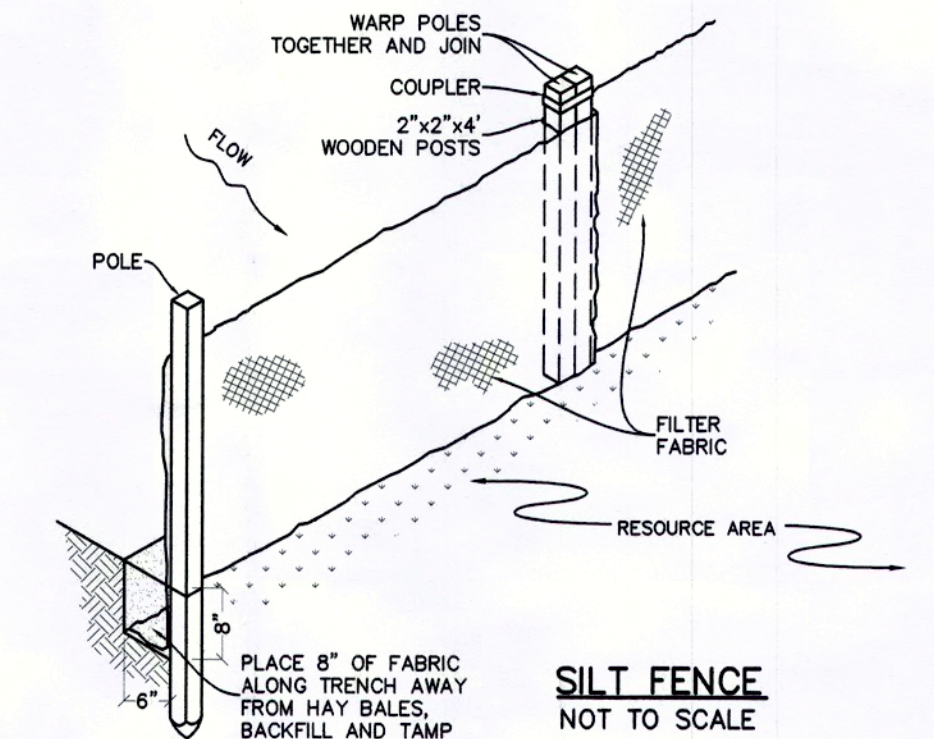
PROPOSED GRANITE CURB, GRASS STRIP & SIDEWALK DETAIL
NOT TO SCALE



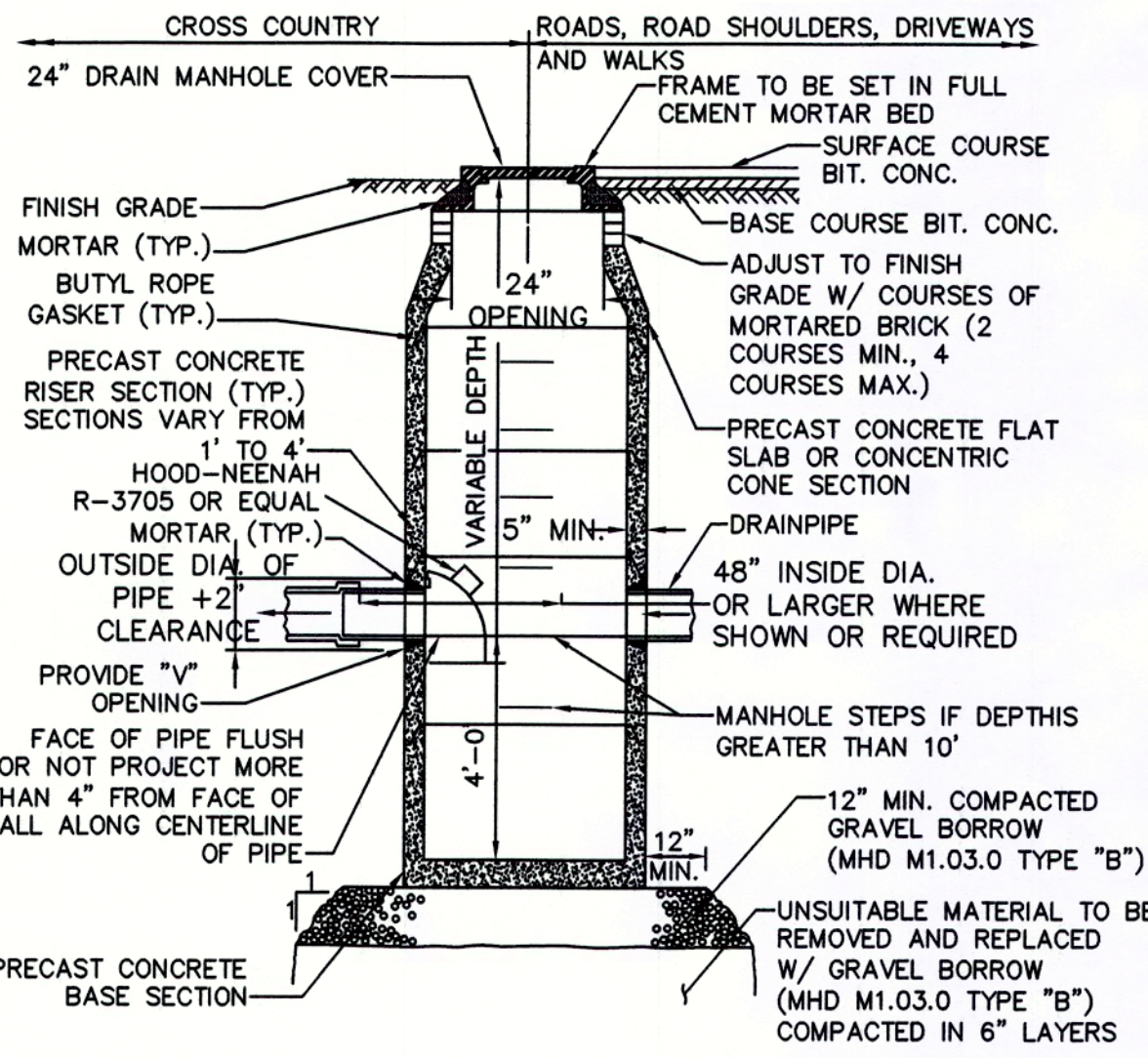
INVERT TABLE PLAN
(EXISTING SEWER MANHOLE)
(NOT TO SCALE)



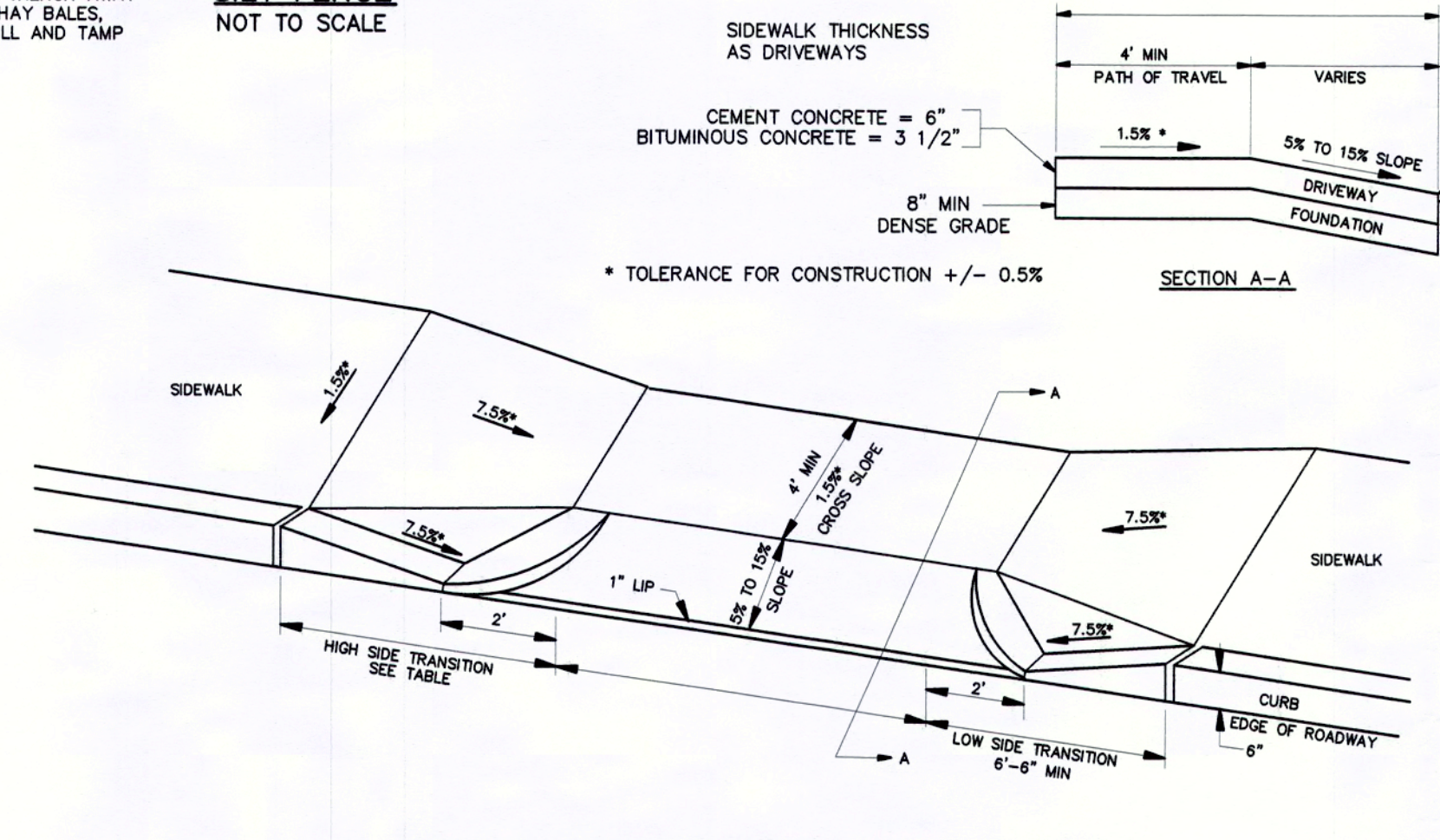
WATER CONNECTION 1\"/>



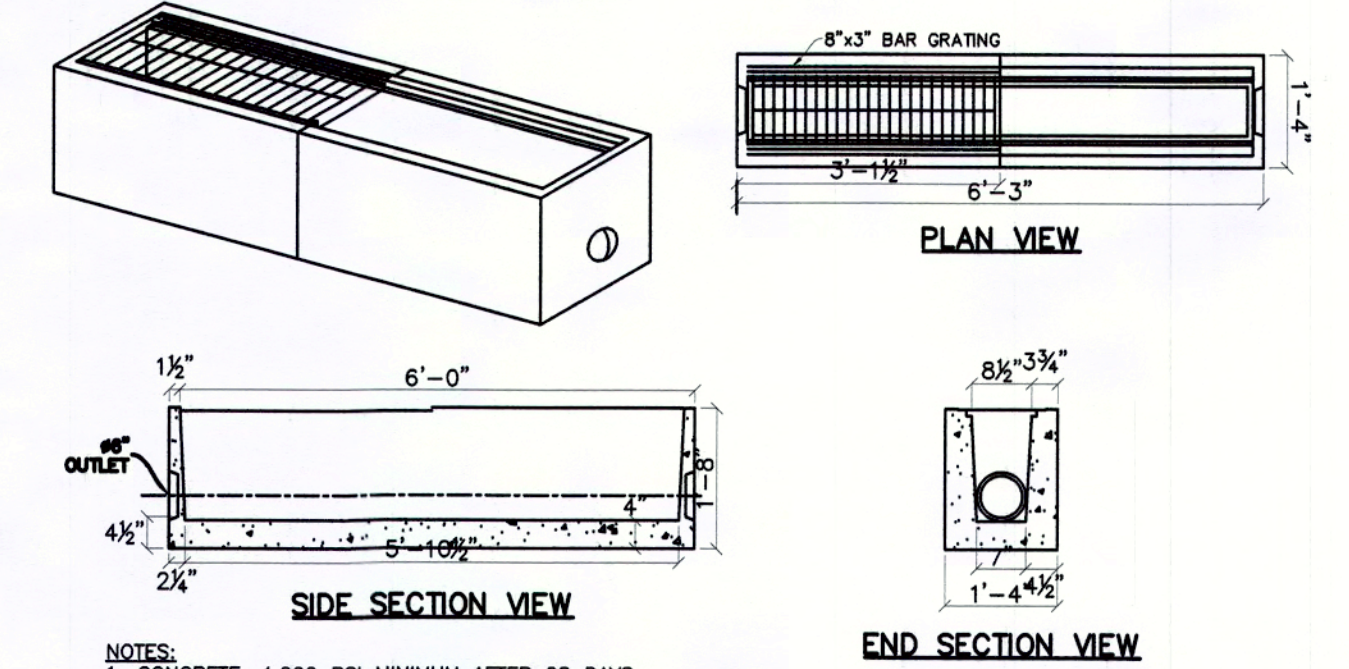
SILT FENCE
NOT TO SCALE



DRAIN MANHOLE WITH SUMP DETAIL
NOT TO SCALE

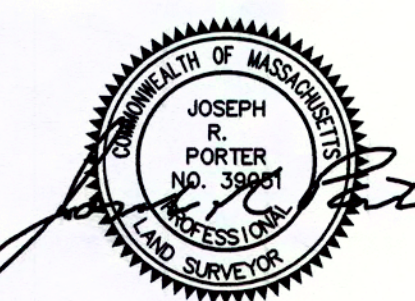


DRIVEWAY APRON WITH CORNER BLOCKS
NOT TO SCALE



TRENCH DRAIN DETAIL
NOT TO SCALE

DETAILS
NEWTON, MASSACHUSETTS
SHOWING PROPOSED CONDITIONS AT
#20 MORTON STREET
SCALE: 1in.=10ft. DATE: NOVEMBER 19, 2021
REVISED: MARCH 2, 2022



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VTP ASSOCIATES
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