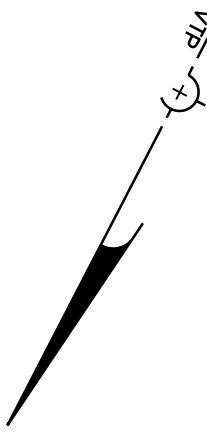


© 2020 VTP ASSOCIATES, INC.

**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"
FIRE HYDRANT	

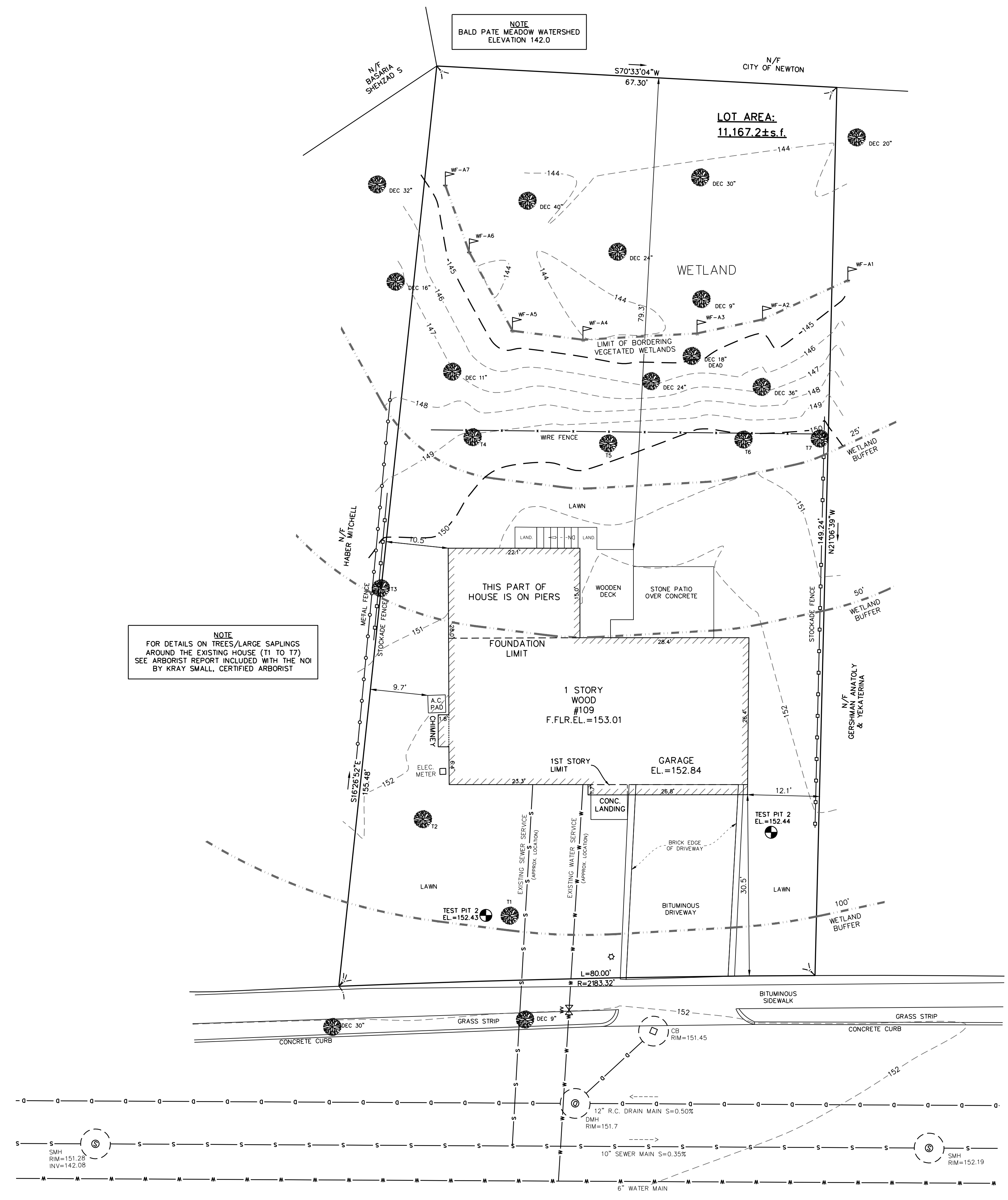
NOTE  
CITY OF NEWTON DATUM



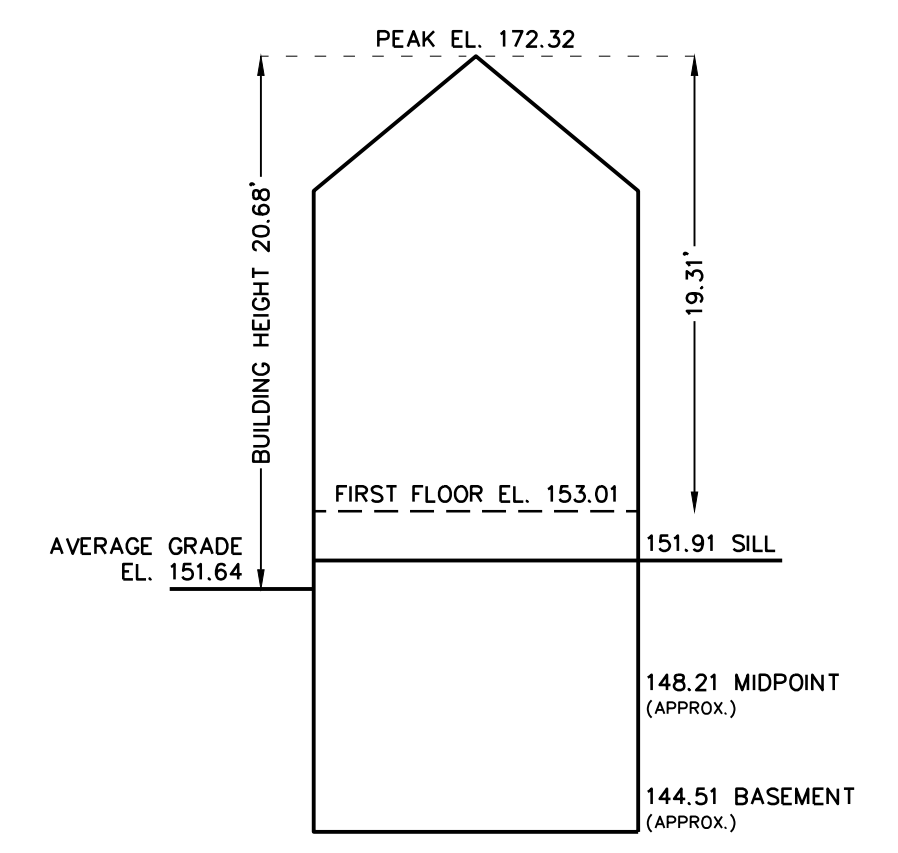
**TESTPIT LOG**

<b>TEST PIT 1 (EL.=152.43)</b>
0-10" TOPSOIL
10-96" FILL (LOAMY SAND)
96-108" TOPSOIL
108-120" SUBSOIL
120-126" SILTY CLAY LOAM
WATER @ 120"
NO REFUSAL
<b>TEST PIT 2 (EL.=152.44)</b>
0-8" TOPSOIL
8-84" FILL (LOAMY SAND)
84-948" TOPSOIL
94-120" SUBSOIL
120-132" SILTY CLAY LOAM
NO WATER
NO REFUSAL

NOTE  
FOR DETAILS ON TREES/LARGE SAPLINGS  
AROUND THE EXISTING HOUSE (T1 TO T7)  
SEE ARBORIST REPORT INCLUDED WITH THE NOI  
BY KRAY SMALL, CERTIFIED ARBORIST



NOTE  
ALL UTILITY INFORMATION SHOWN IS FROM  
AVAILABLE RECORDS. TO BE VERIFIED IN  
FIELD PRIOR TO ANY CONSTRUCTION



EXISTING BUILDING HEIGHT  
NOT TO SCALE

**Length Weighted Mean  
Existing 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 F=BxE
1	22.1	150.3	149.8	150.05	3315.99 Sq. Ft.
2	15.0	151.7	150.7	151.16	2267.40 Sq. Ft.
3	28.4	151.7	151.3	151.50	4302.60 Sq. Ft.
4	26.4	152.6	152.3	152.42	4023.89 Sq. Ft.
5	26.8	152.7	152.5	152.60	4089.68 Sq. Ft.
6	23.3	152.6	152.6	152.55	3554.42 Sq. Ft.
7	6.4	152.3	152.1	152.17	973.86 Sq. Ft.
8	28.0	151.7	149.8	150.77	4221.42 Sq. Ft.
<b>Total</b>	<b>176.40</b>				<b>26749.25 Sq. Ft.</b>

Total Column F / Total Column B = Average Grade  
**Average Grade: 151.64'**

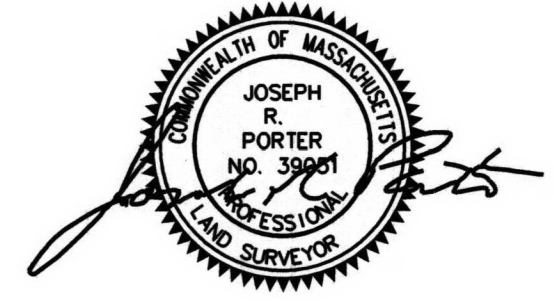
**ZONING CHART**  
NEWTON, MASSACHUSETTS  
ZONE: SR-3 (NEW) SUBMISSION: EXISTING

REGULATION	REQUIRED	EXISTING
LOT AREA	10,000s.f.	11,167.2±s.f.
LOT FRONTAGE	80.0'	80.0'
FRONT SETBACK	30.0'	30.5'
SIDE SETBACK	10.0'	10.5'
REAR SETBACK	15.0'	79.3'
BUILDING HEIGHT	36.0'	20.68'
AVERAGE GRADE	-	151.64
LOT COVERAGE	30.0%	14.6%
OPEN SPACE	50.0%	78.7%

TOPOGRAPHIC SITE PLAN  
NEWTON, MASSACHUSETTS  
SHOWING EXISTING CONDITIONS AT  
#109 HARWICH ROAD

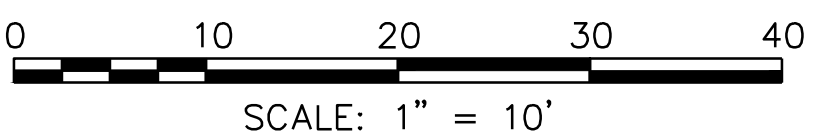
SCALE: 1in.=10ft. DATE: SEPTEMBER 8, 2023

PROJECT: 223150



**VTP**  
ASSOCIATES  
INC.

LAND SURVEYORS - CIVIL ENGINEERS.  
132 ADAMS STREET 2ND FLOOR SUITE 3  
NEWTON, MA 02458  
(617) 332-8271

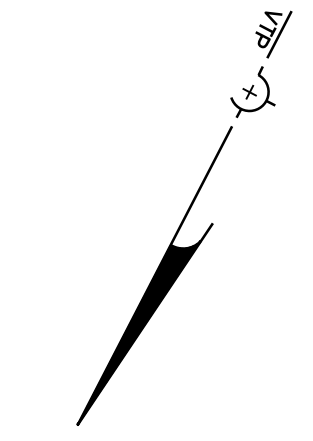


223150\_top.dwg

LEGEND

Table with 2 columns: Symbol and Description. Includes Building, Property Line, Contour, Stockade Fence, Chainlink Fence, Picket Fence, Sewer Line, Drain Line, Water Line, Gas Line, Gas Valve, Water Valve, Drain Manhole, Sewer Manhole, Catch Basin, Utility Pole, Light Pole, Deciduous Tree, Coniferous Tree, Fire Hydrant.

NOTE CITY OF NEWTON DATUM



TESTPIT LOG

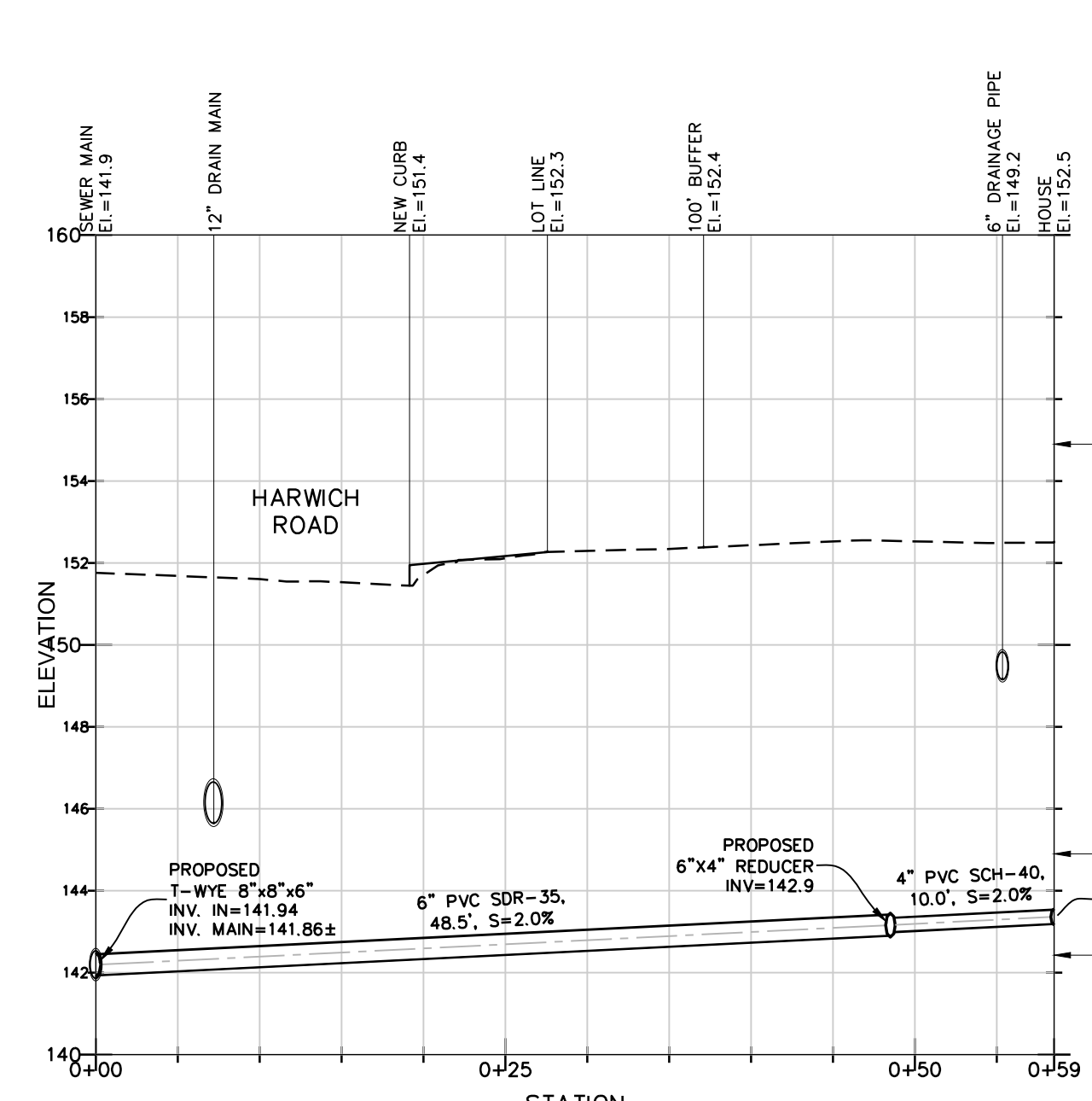
Table with 2 columns: Test Pit ID and Log Description. Includes TEST PIT 1 (EL=152.4) and TEST PIT 2 (EL=152.4) with soil layer details.

- NOTES: 1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING AND DETERMINING THE LOCATION, SIZE AND ELEVATION OF ALL EXISTING UTILITIES... 2. THE LOCATION OF ALL UTILITIES SHOWN HEREON ARE APPROXIMATE AND ARE BASED ON THE FIELD LOCATION OF ALL VISIBLE STRUCTURES... 3. ALL THE PROPOSED DOWNSPOUTS TO CONNECT INTO ONSITE INFILTRATION SYSTEMS.

DIG SAFE EXCAVATORS BEFORE YOU DIG CONTACT THE DIG SAFE CENTER TO PREVENT DAMAGE TO TELEPHONE, GAS OR ELECTRIC UNDERGROUND FACILITIES OF MEMBER UTILITIES...

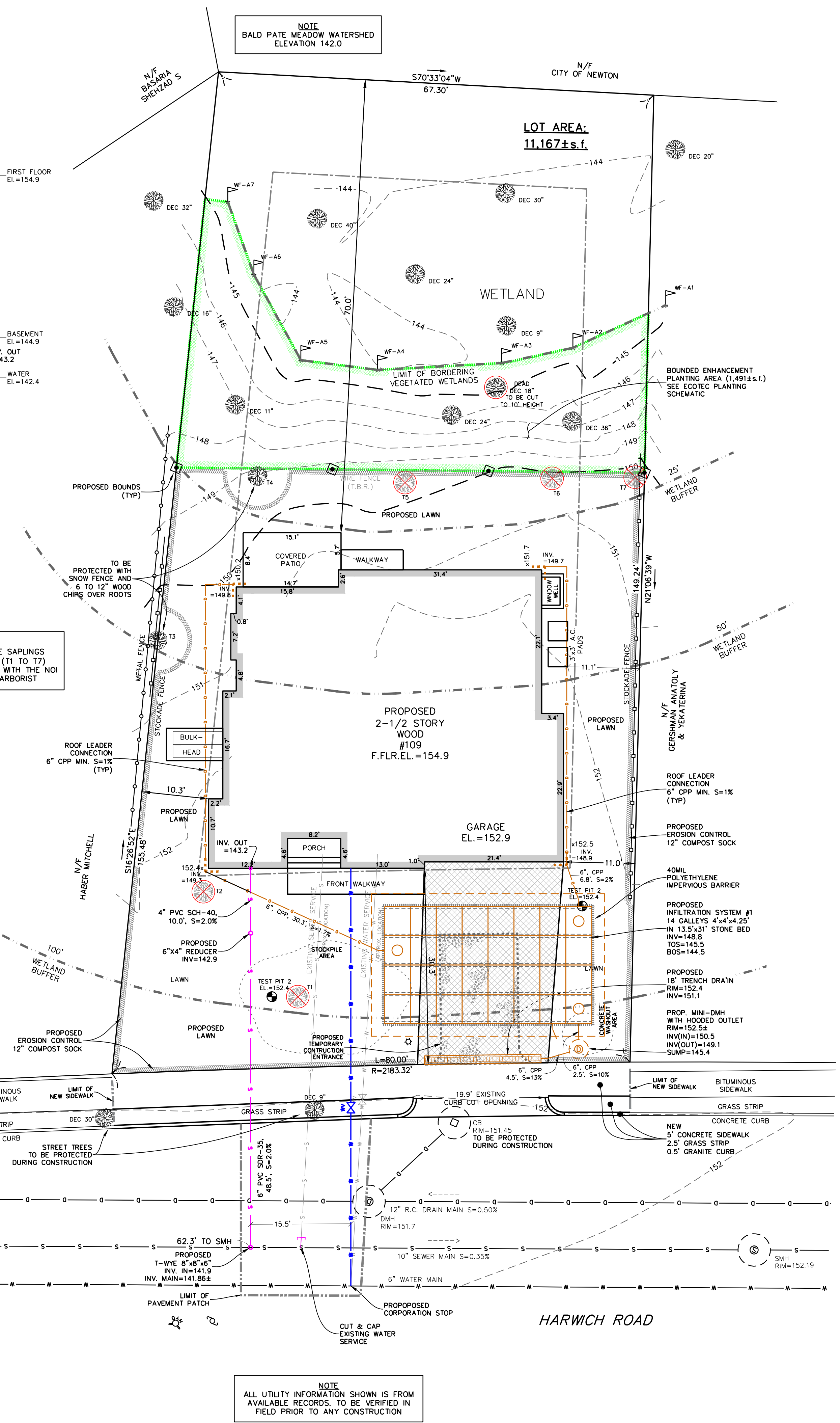


SCALE: 1" = 10'



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

NOTE FOR DETAILS ON TREES/LARGE SAPLINGS AROUND THE EXISTING HOUSE (T1 TO T7) SEE ARBORIST REPORT INCLUDED WITH THE NOI BY KRAY SMALL, CERTIFIED ARBORIST



NOTE ALL UTILITY INFORMATION SHOWN IS FROM AVAILABLE RECORDS. TO BE VERIFIED IN FIELD PRIOR TO ANY CONSTRUCTION

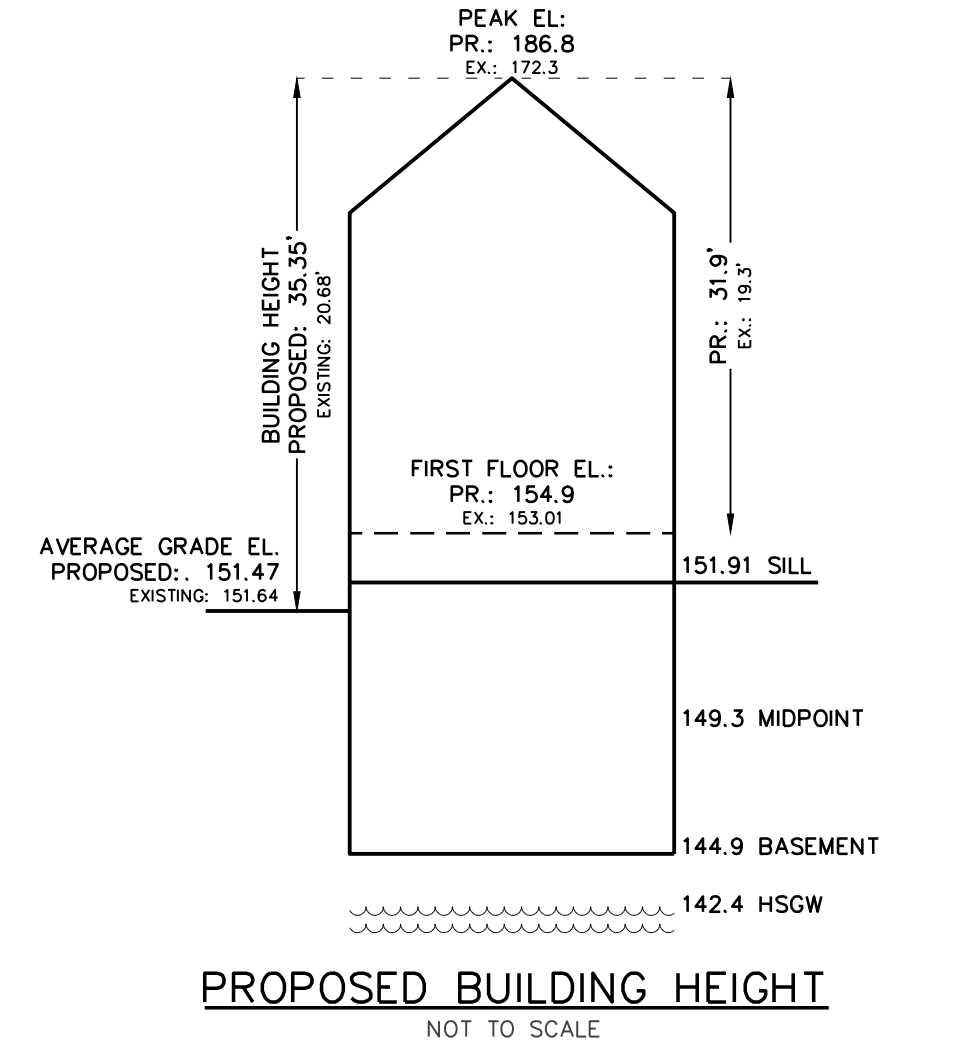


Table: Length Weighted Mean Proposed Conditions Average Grade Calculation. Columns: Segment, Length of Segment, Height of High Point, Height of Low Point, Average Segment Height, Area. Total Area: 30005.87 Sq. Ft. Average Grade: 151.47'

Table: IMPERVIOUS AREA CALCULATION and PHOSPHORUS LOAD CALCULATION. Shows existing vs. proposed impervious areas and phosphorus load reduction calculations.

Table: ZONING CHART. Columns: Regulation, Required, Existing, Proposed. Rows: Lot Area, Lot Frontage, Front Setback, Side Setback, Rear Setback, Building Height, Average Grade, Lot Coverage, Open Space.



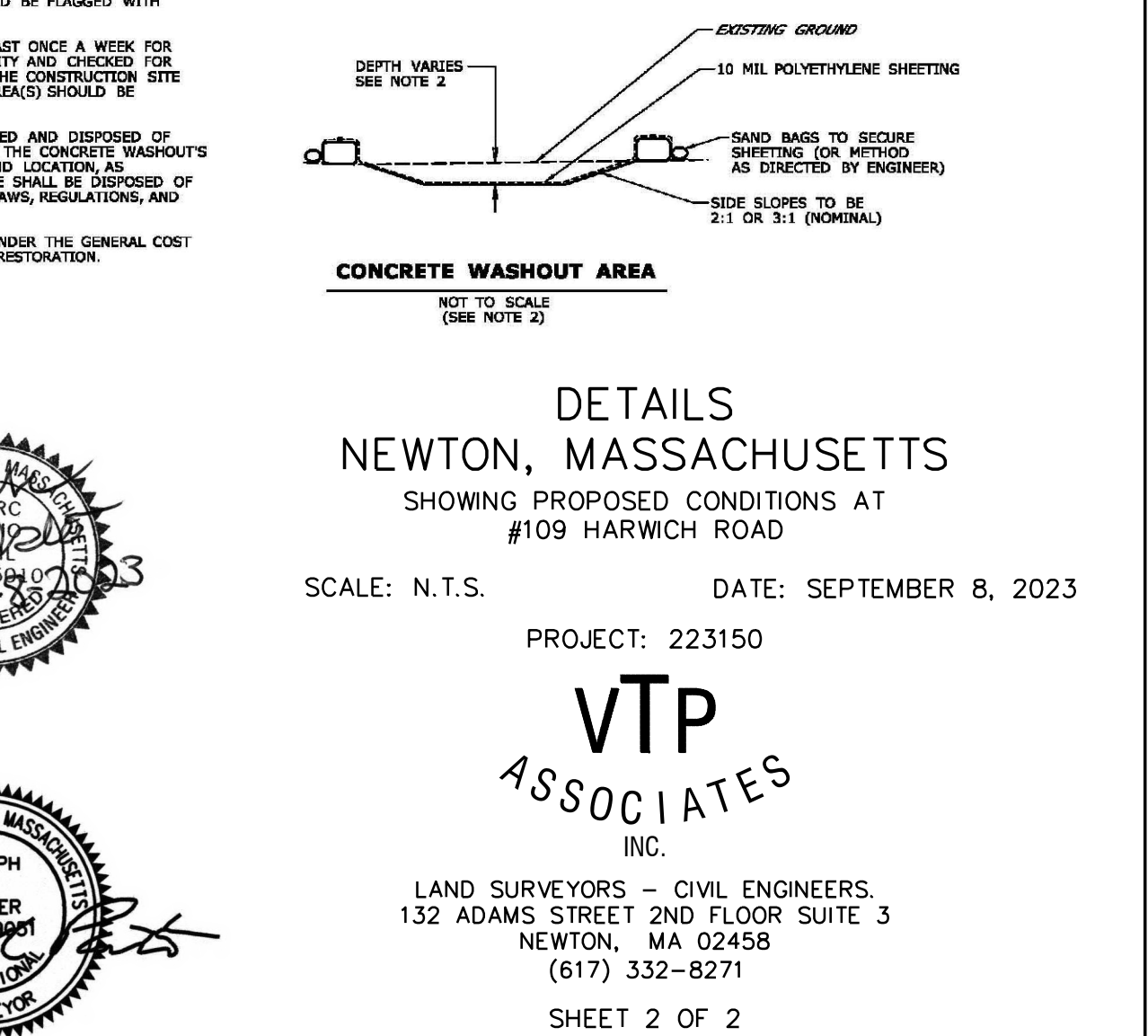
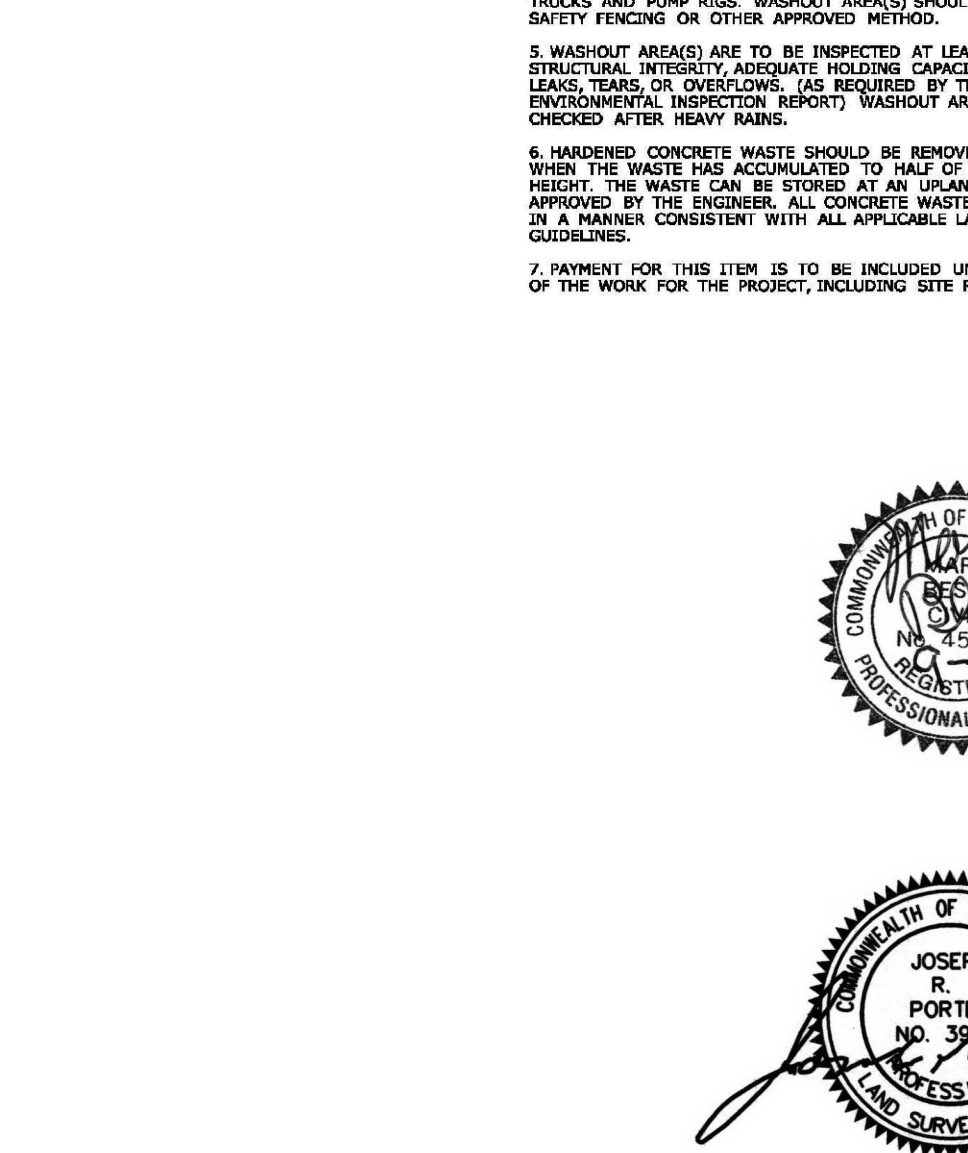
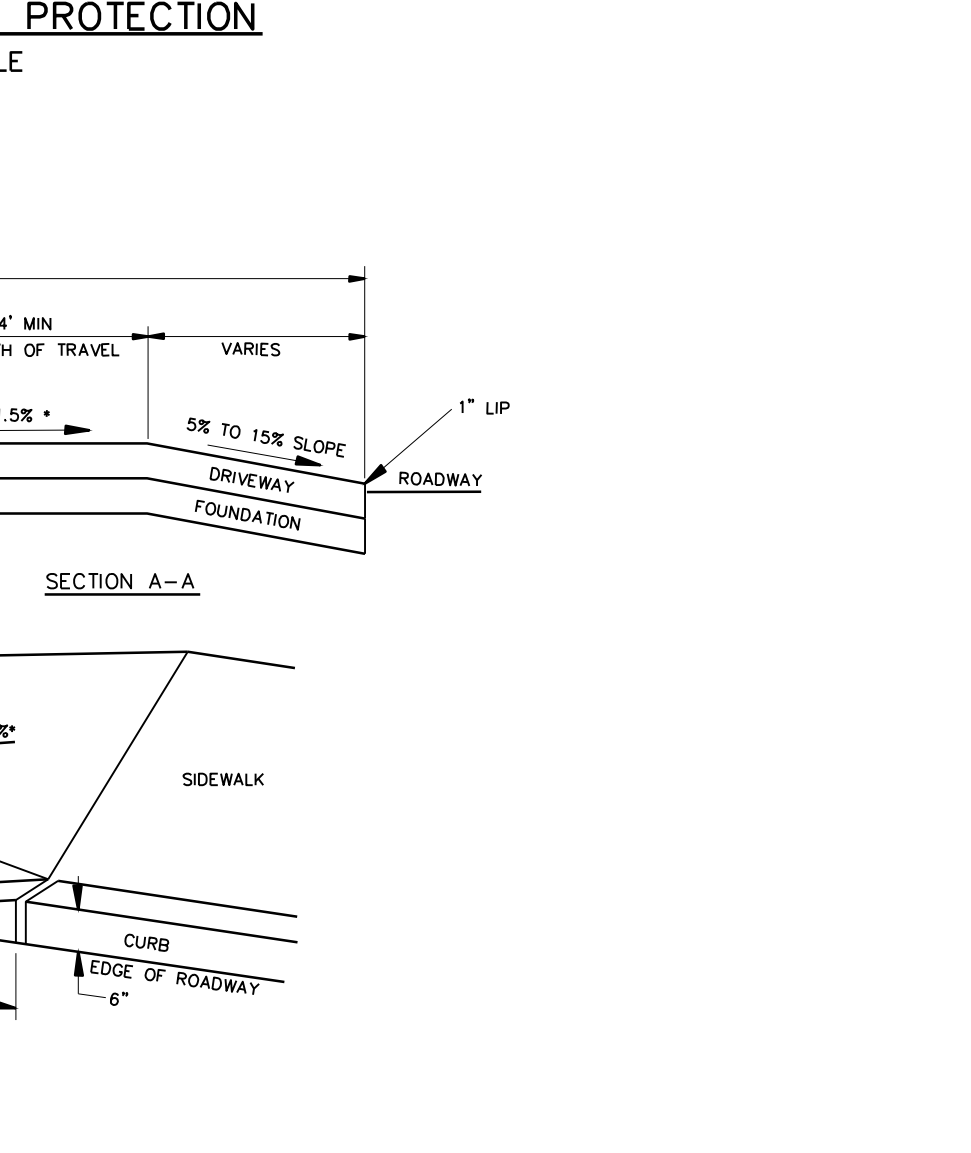
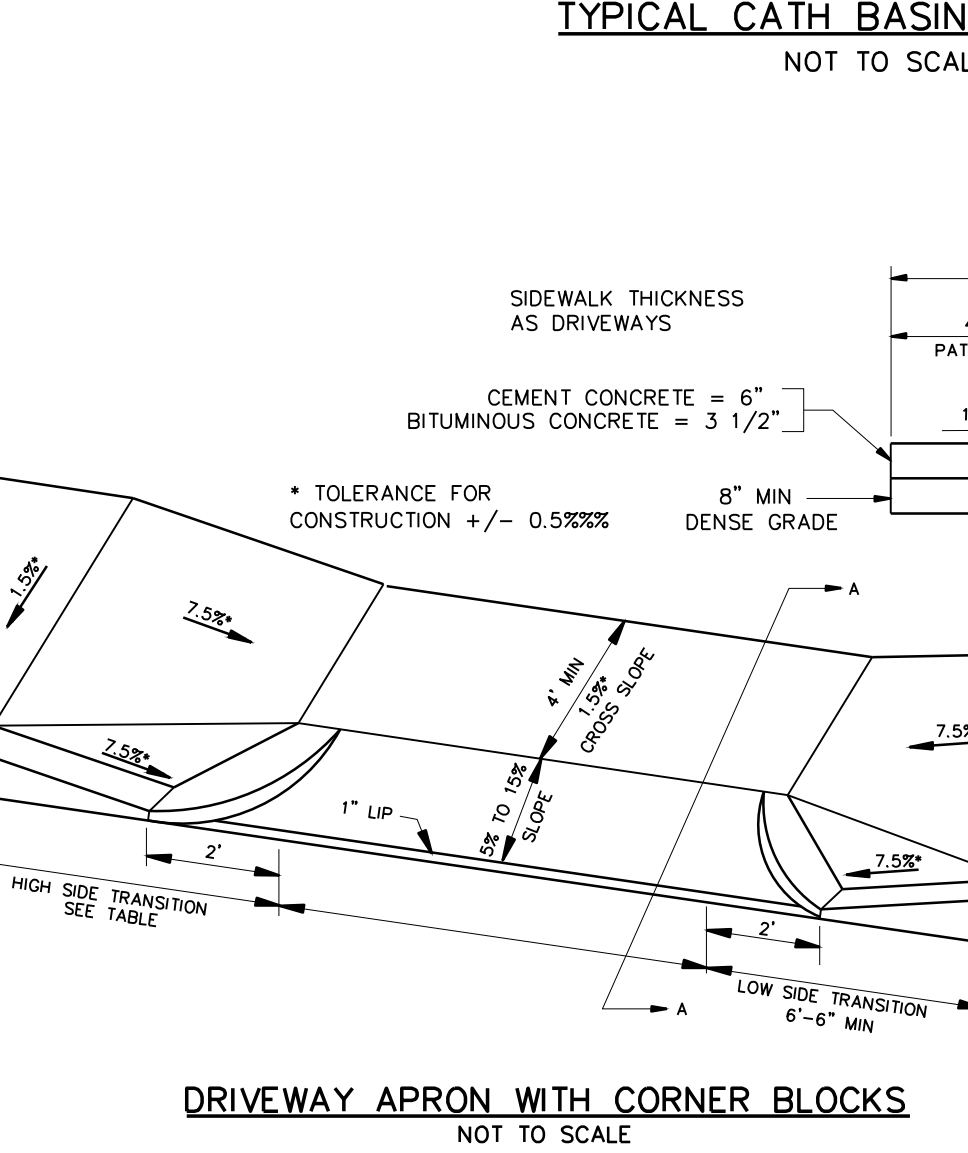
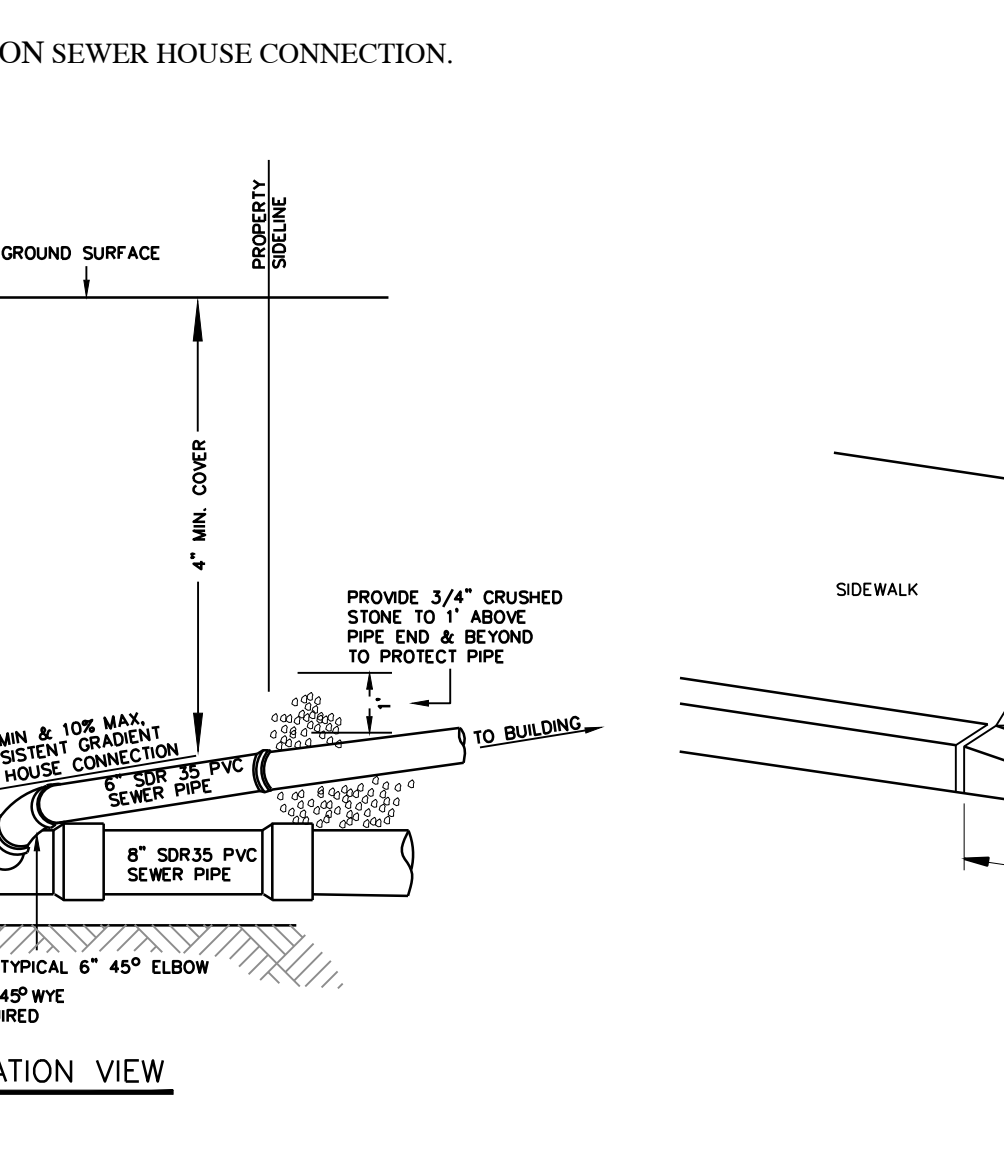
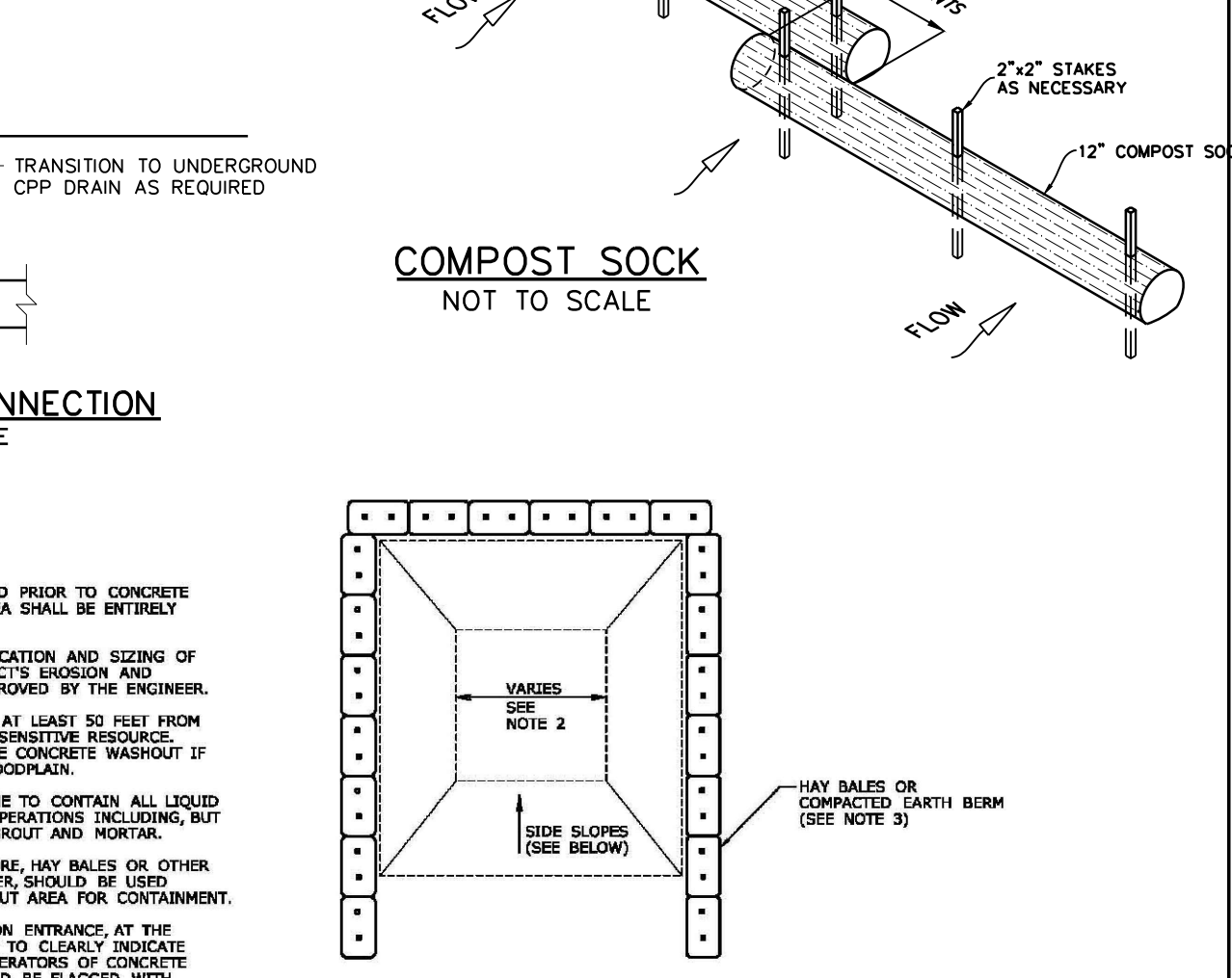
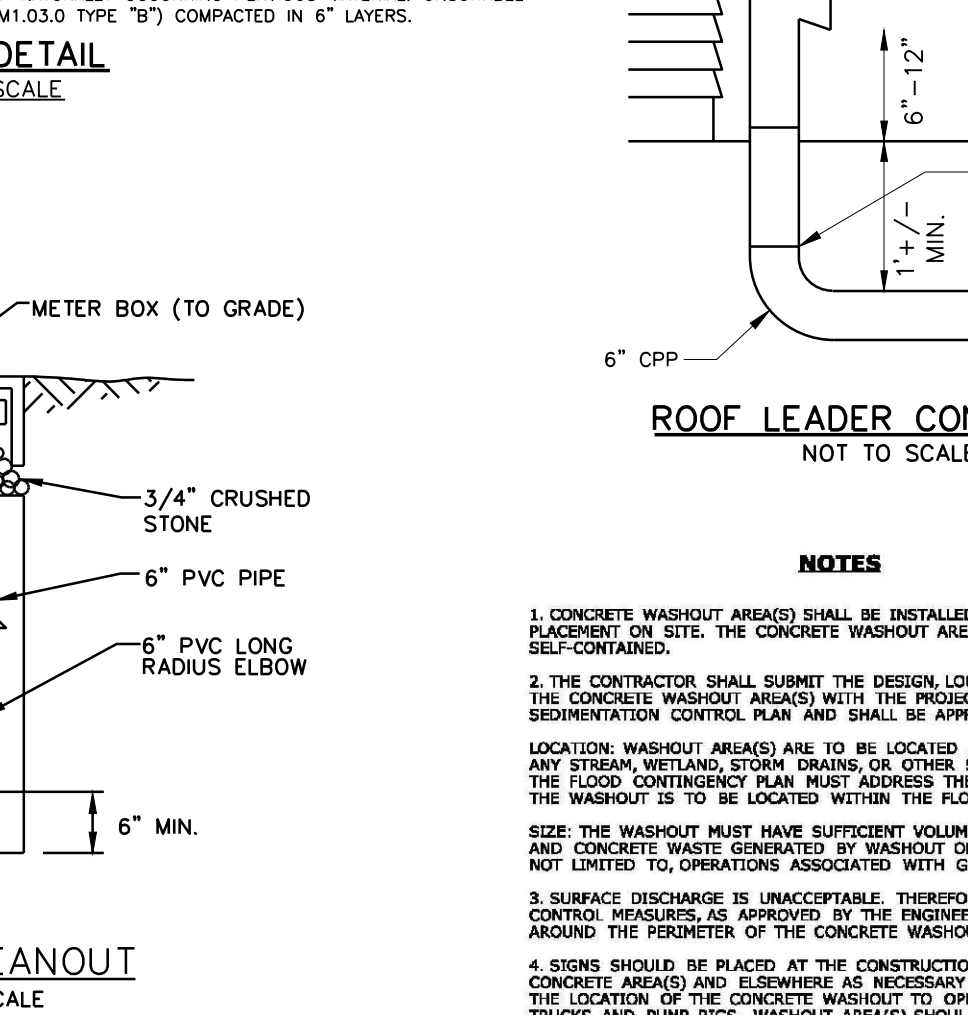
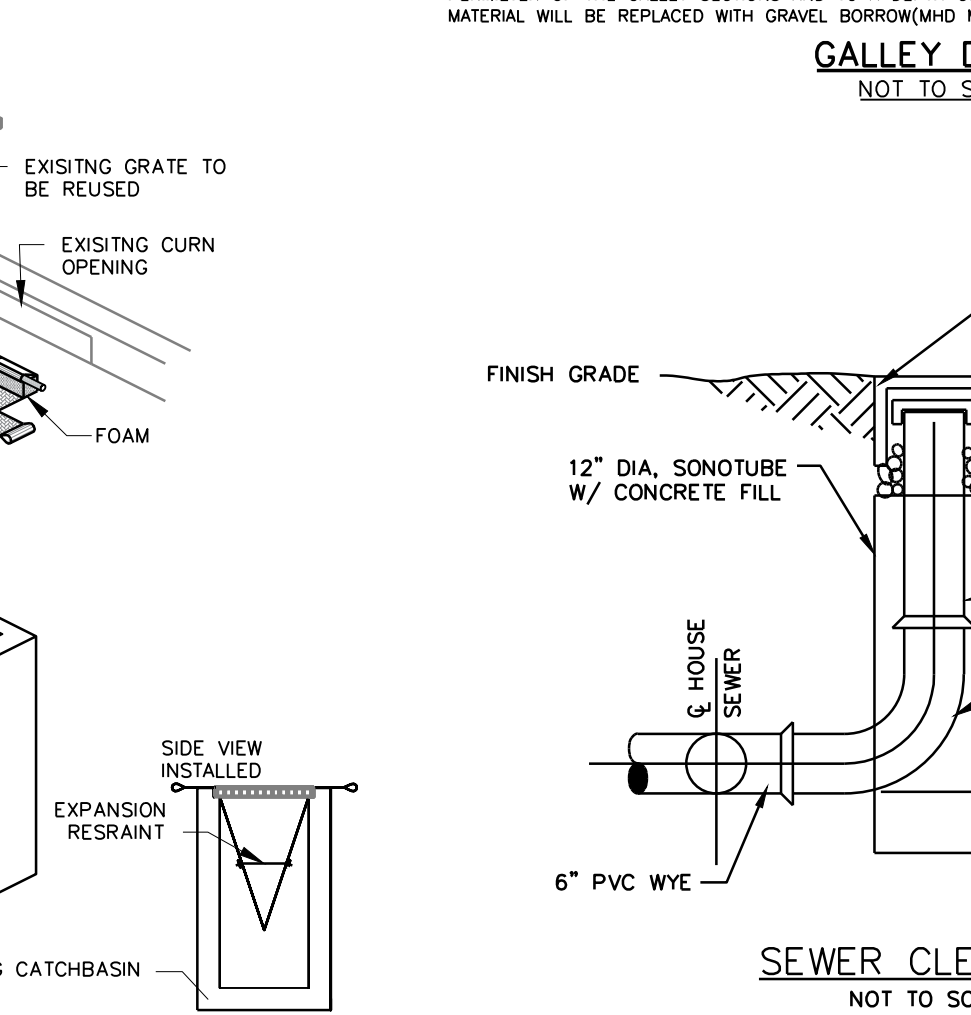
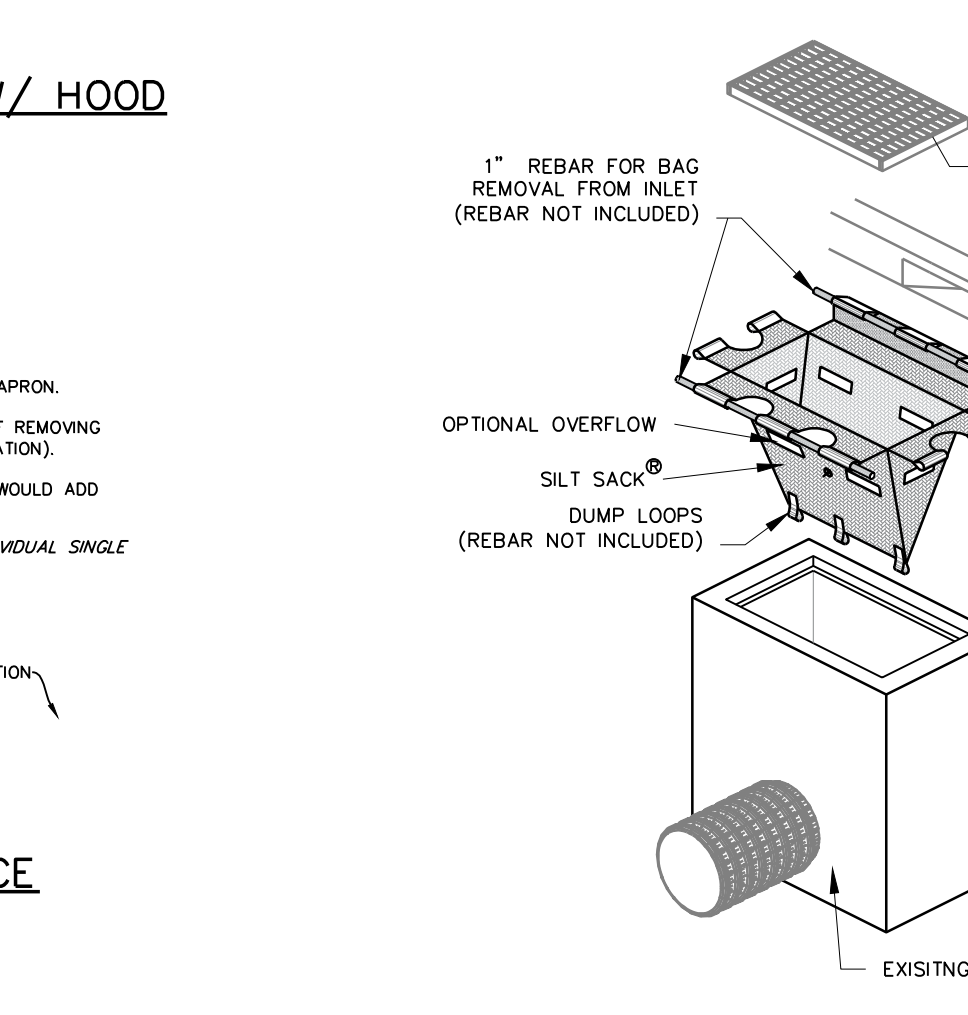
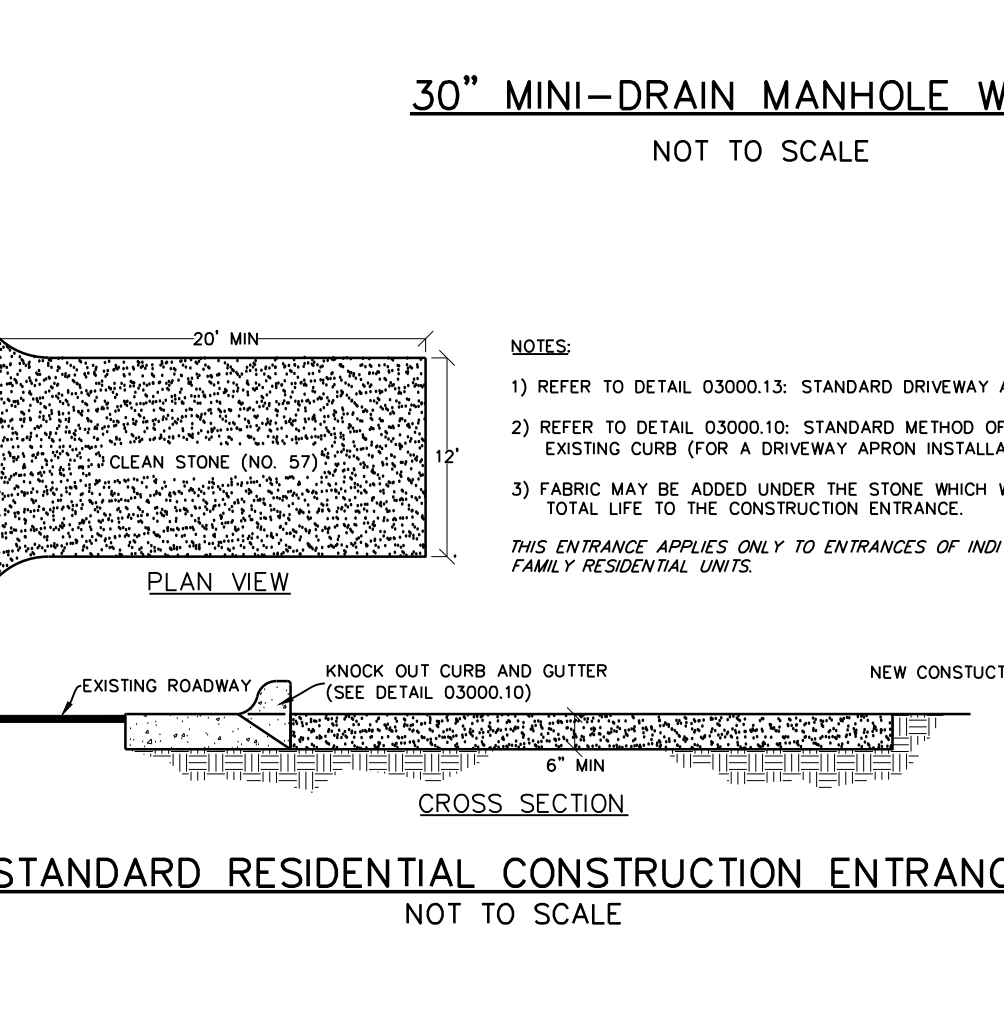
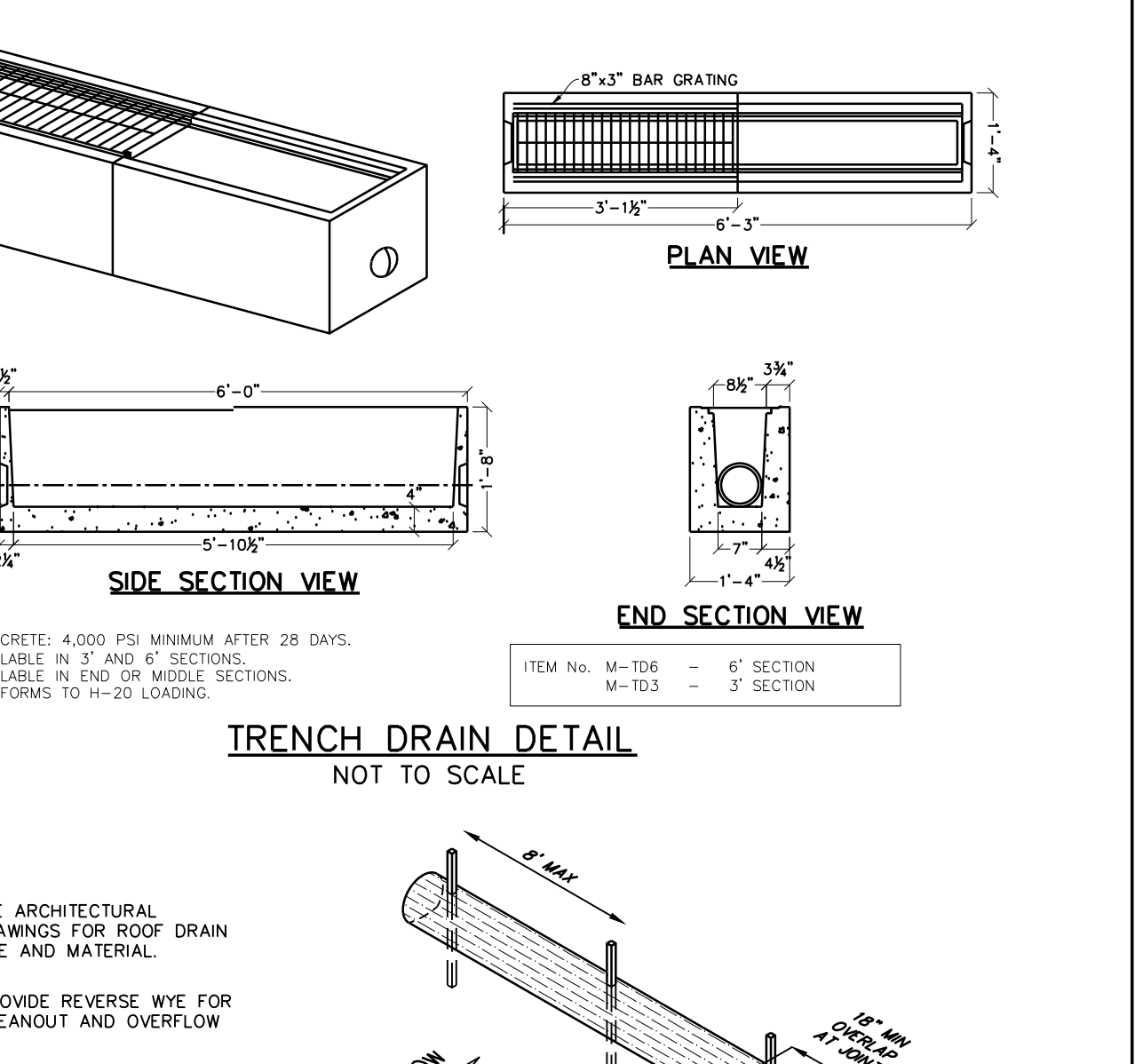
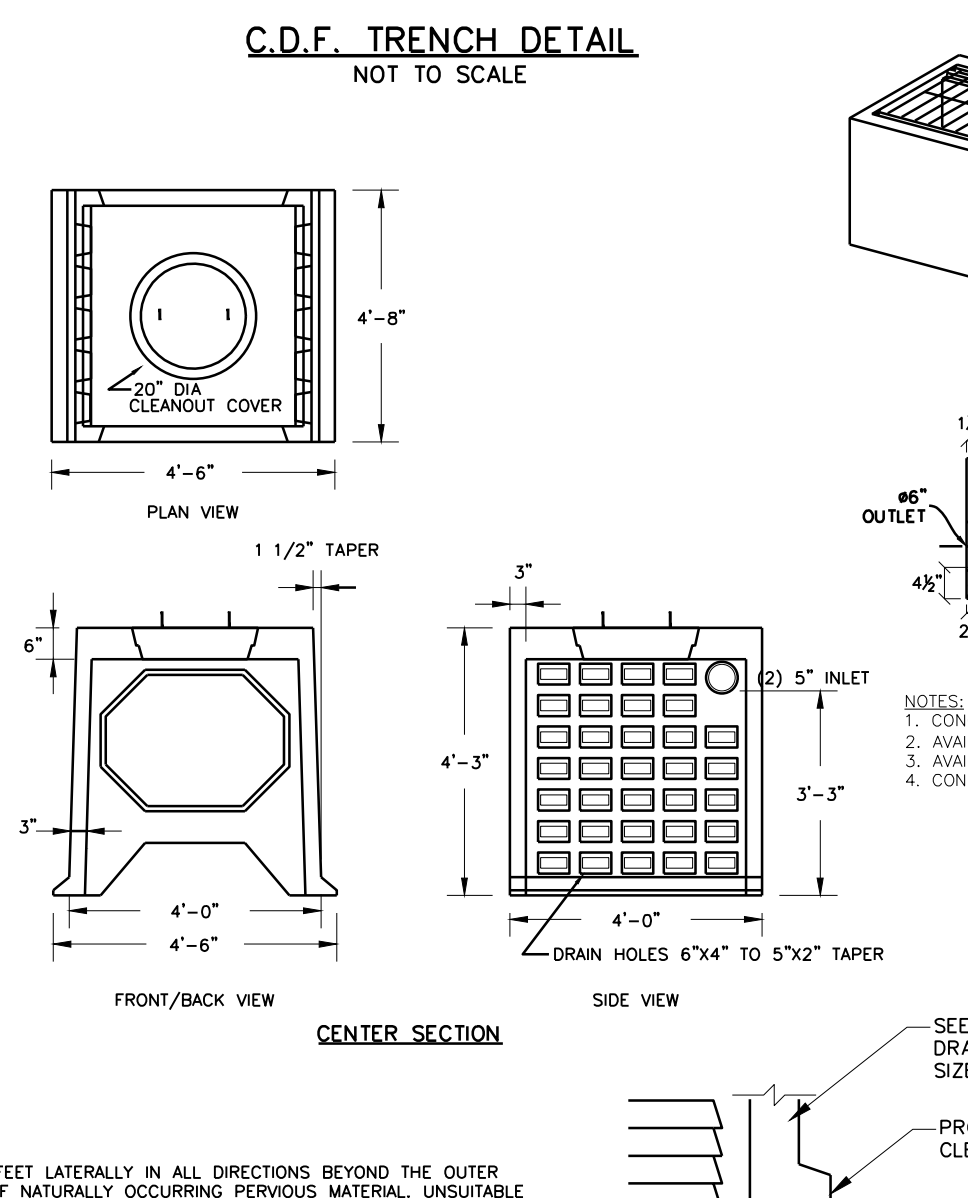
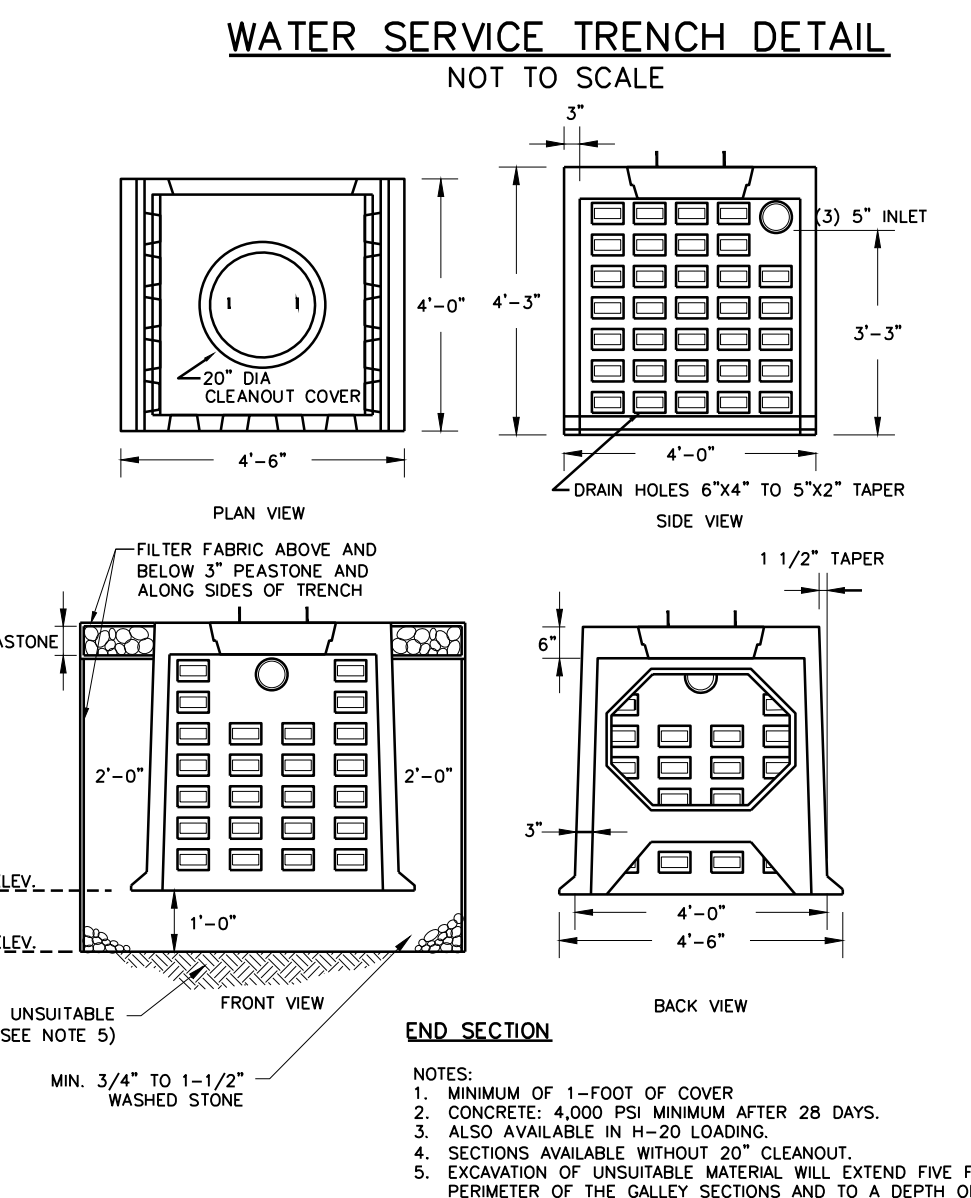
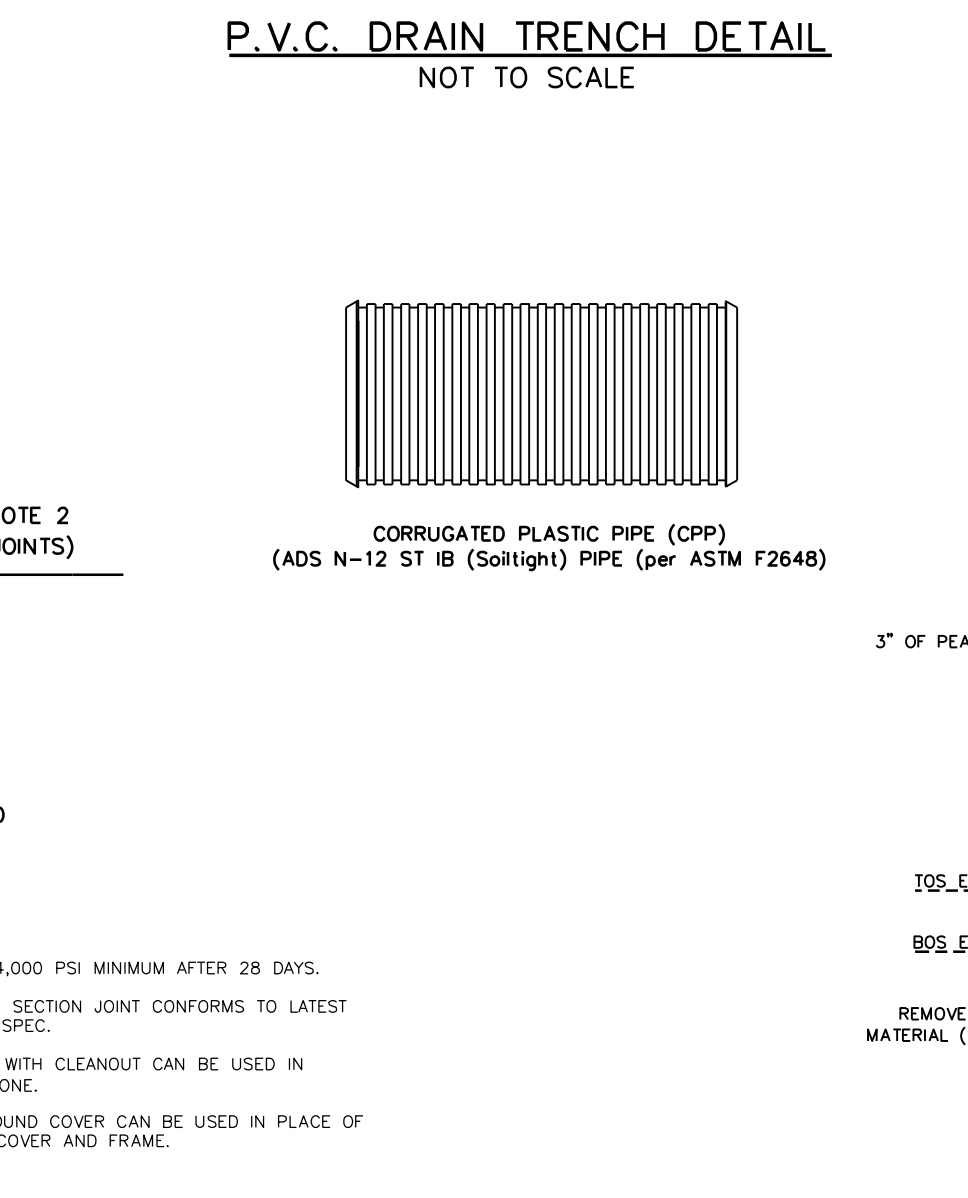
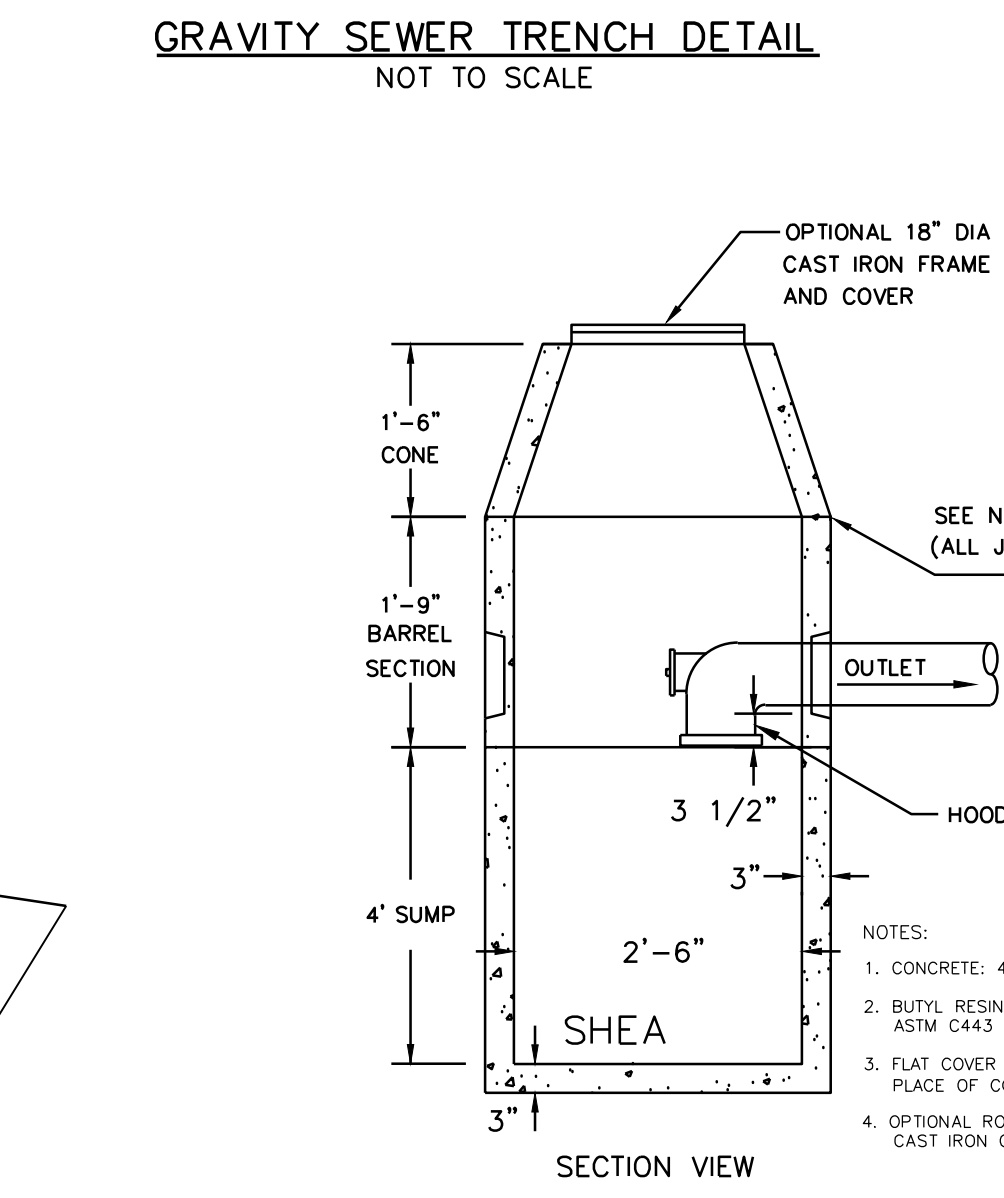
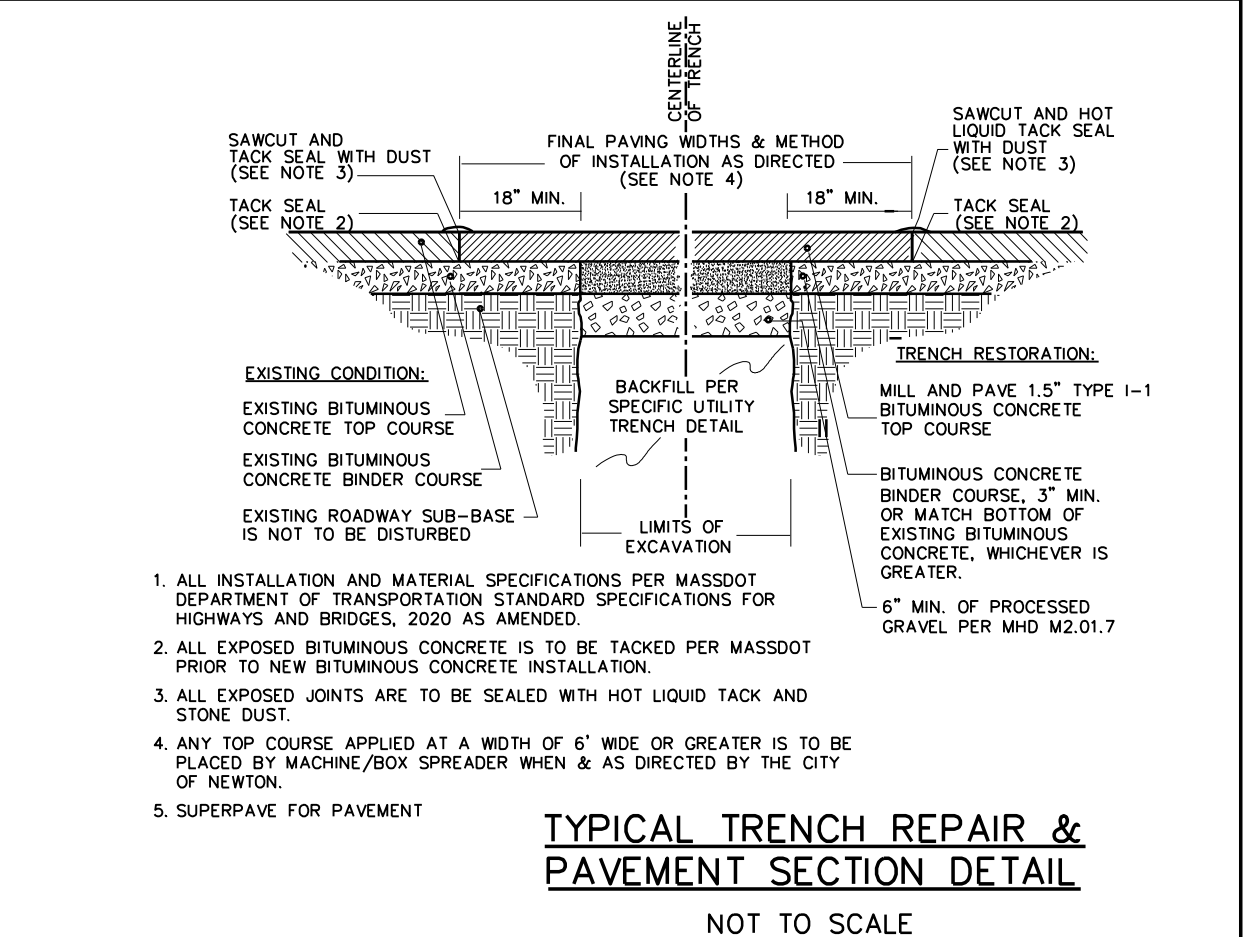
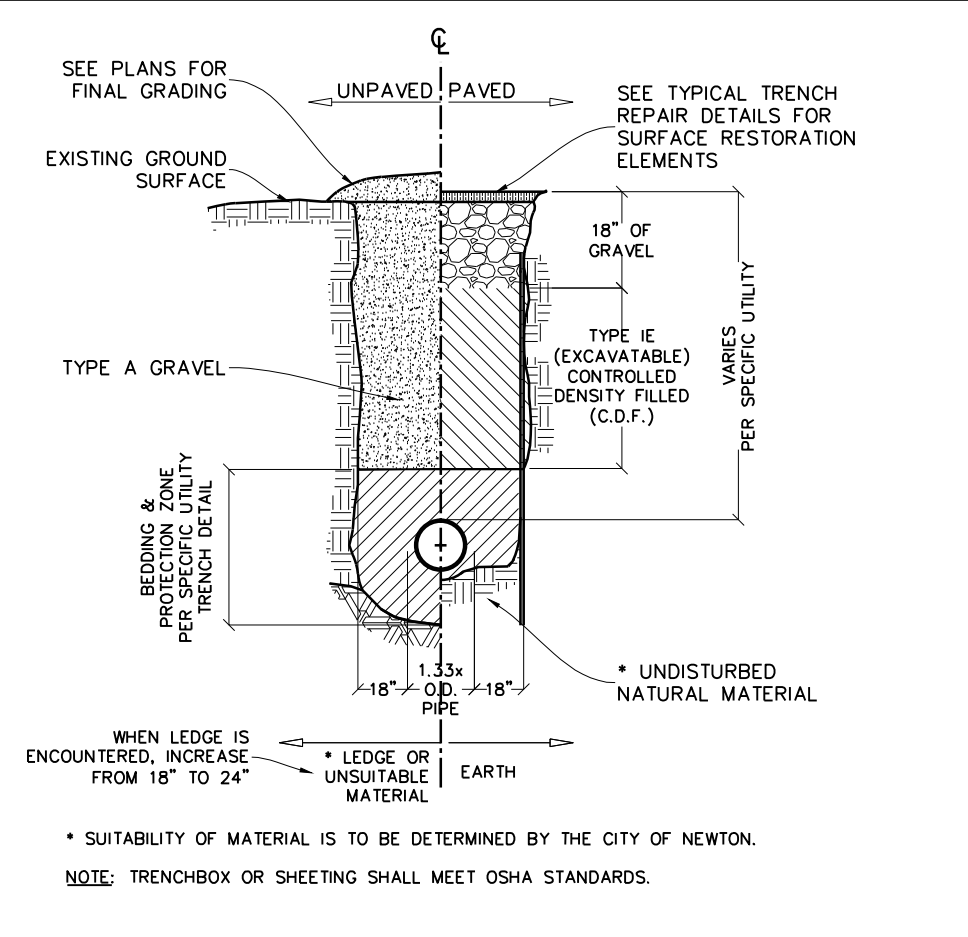
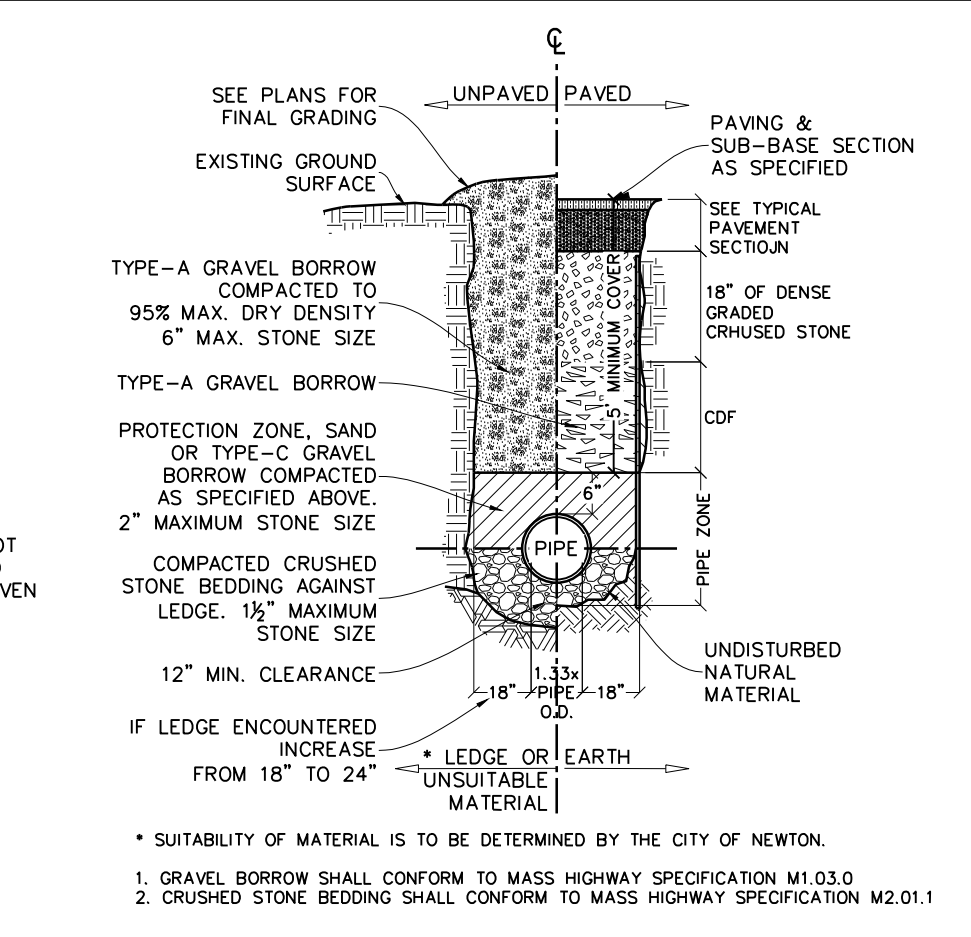
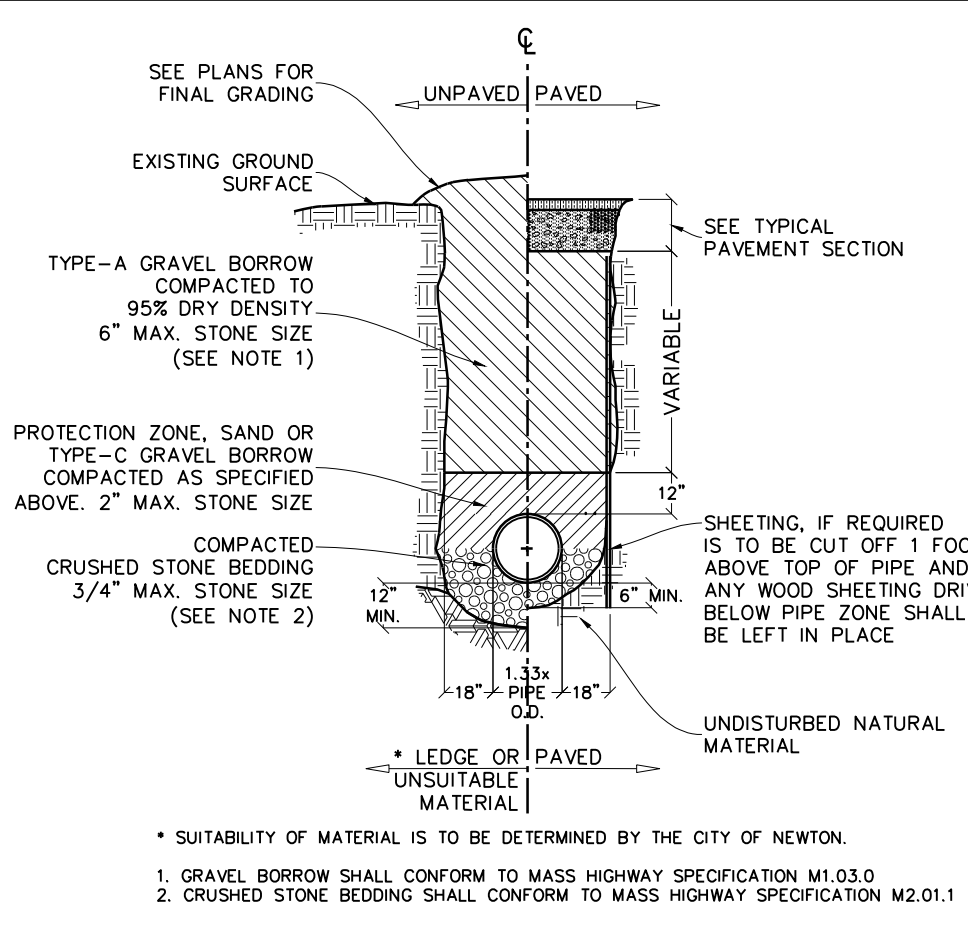
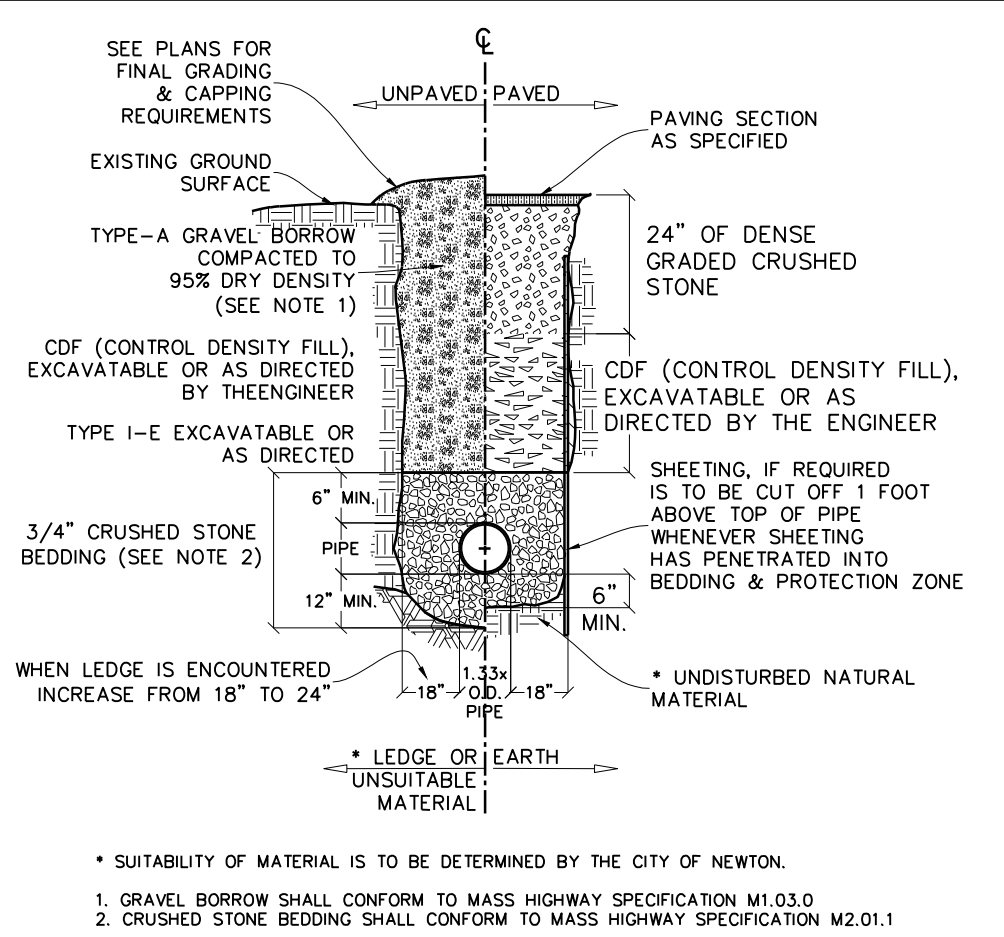
TOPOGRAPHIC SITE PLAN NEWTON, MASSACHUSETTS SHOWING PROPOSED CONDITIONS AT #109 HARWICH ROAD

SCALE: 1in.=10ft. DATE: SEPTEMBER 8, 2023

PROJECT: 223150 VTP ASSOCIATES INC. LAND SURVEYORS - CIVIL ENGINEERS. 132 ADAMS STREET 2ND FLOOR SUITE 3 NEWTON, MA 02458 (617) 332-8271 SHEET 1 OF 2

**GENERAL & UTILITIES NOTES:**

1. THE APPLICANT WILL HAVE TO APPLY FOR STREET OPENING, UTILITY CONNECTION, AND AN INSTALL CURB & SIDEWALK PERMITS WITH THE DPW PRIOR TO START OF WORK.
2. AFTER ALL ENGINEERING PERMITS ARE OBTAINED, THE CONTRACTOR NEEDS TO NOTIFY THE ENGINEERING DIVISION CONSTRUCTION INSPECTOR 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 SYSTEM & UTILITIES MAY BE BACKFILLED.
3. THE CONTRACTOR MUST PROVIDE POLICE DETAILS, SCHEDULED 48 HOURS IN ADVANCE, FOR THE DIRECTION AND CONTROL OF TRAFFIC, AS REQUIRED BY THE CITY ENGINEER. ALL ROADS AFFECTED BY CONSTRUCTION SHALL ALWAYS REMAIN OPEN TO EMERGENCY VEHICLES. CONTRACTORS TO COORDINATE WITH POLICE DEPARTMENT TO ENSURE PUBLIC SAFETY.
4. 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.
5. AS OF JANUARY 1, 2009, ALL TRENCH EXCAVATION CONTRACTORS SHALL COMPLY WITH MASSACHUSETTS GENERAL LAWS CHAPTER 82A, TRENCH EXCAVATION SAFETY REQUIREMENTS, TO PROTECT THE PUBLIC FROM UNAUTHORIZED ACCESS TO UNATTENDED TRENCHES. TRENCH EXCAVATION PERMIT REQUIRED. THIS APPLIES TO ALL TRENCHES, BOTH ON PUBLIC AND/OR PRIVATE PROPERTY.
6. 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, APPLICANT 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.
7. THE EXISTING WATER SERVICE MUST BE COMPLETELY REMOVED FROM THE DWELLING TO THE CORPORATION AT THE MAIN. THE CORPORATION SHALL BE CAPPED, AND A NEW TAP SHALL BE MADE FOR THE NEW SERVICE. EACH PHASE OF THIS PROCESS MUST BE INSPECTED BY A REPRESENTATIVE OF THE ENGINEERING DIVISION. FAILURE TO HAVING THESE INSPECTIONS PERFORMED, MAY RESULT IN THE DELAY OR DENIAL OF A WATER SERVICE PERMIT.
8. THE EXISTING SEWER SERVICE ABANDONMENT MUST BE WITNESSED BY THE CITY OF NEWTON HEALTH DEPARTMENT PER REGULATIONS. THE REMAINING PORTIONS OF THE SERVICE MUST BE COMPLETELY REMOVED FROM THE CESSPOOL TO THE DWELLING. THE NEW SEWER SERVICE CONNECTION TO CITY MAIN SEWER MUST BE INSPECTED BY A REPRESENTATIVE OF THE ENGINEERING DIVISION. FAILURE TO HAVING THESE INSPECTIONS PERFORMED, MAY RESULT IN THE DELAY OR DENIAL OF A SEWER SERVICE PERMIT.
9. THE EXISTING SEWER SERVICE MUST BE COMPLETELY REMOVED FROM THE DWELLING TO THE MAIN. THE REMOVAL, ALONG WITH THE NEW CONNECTION TO CITY MAIN SEWER MUST BE INSPECTED BY THE ENGINEERING DIVISION. FAILURE TO HAVING THESE INSPECTIONS PERFORMED, MAY RESULT IN THE DELAY OR DENIAL OF A SEWER SERVICE PERMIT.
10. THE NEW SEWER SERVICE(S) AND/OR STRUCTURE(S) 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. THE SEWER SERVICE WILL NOT BE ACCEPTED UNTIL ONE OF THE TWO METHODS STATED ABOVE IS COMPLETED. A CERTIFICATE OF OCCUPANCY WILL NOT BE RECOMMENDED UNTIL ALL PIPING AND STRUCTURES ARE TESTED AND PASS.
11. THE NEW WATER SERVICE SHALL BE INSTALLED IN CONJUNCTION WITH THE CITY OF NEWTON UTILITIES DIVISION. THE OWNER/CONTRACTOR MAY OBTAIN A WATER SERVICE APPLICATION BY CONTACTING THE UTILITIES DIVISION (617) 796-1640 OR BY VISITING THE CITY OF NEWTON WEBSITE AND CLICK THE LINK FOR PUBLIC WORKS / UTILITIES DIVISION. AFTER THE APPLICATION IS PAID IN FULL, THE OWNER/CONTRACTOR SHALL FOLLOW THE INSTRUCTIONS PLAN NOTES MENTIONED AND FOLLOWING.
12. EXCEPT FOR GAS SERVICES, ALL UTILITY TRENCHES WITHIN THE CITY OF NEWTON RIGHT-OF-WAY WILL BE BACK FILLED WITH TYPE I/E (EXCAVATABLE) CONTROLLED DENSITY FILL AS SPECIFIED BY THE CITY OF NEWTON ENGINEERING SPECIFICATIONS. EXCAVATABLE FLOW FILL WITH EXTEND TO WITHIN 18" OF ROADWAY ASPHALT.
13. PER CITY OF NEWTON ORDINANCE NO. B-42, COUNCIL ITEM #251-19, BUILDING SEWER, WATER SERVICE PIPE AND SIDEWALK/CURB REPLACEMENT ORDINANCE. THE APPLICANT IS REQUIRED TO INSTALL/REPLACE SIDEWALK AND CURB ALONG THE ENTIRE FRONTAGE. THIS SHALL INCLUDE APPROPRIATE TRANSITION TO ADJOINING CURBS AND WALKWAYS, INCLUDING ACCESSIBLE CURB CUTS AND OTHER ACCESS AS REQUIRED. THE ENGINEERING CONSTRUCTION INSPECTOR DECIDES, BASED ON THE MATERIAL AND MANNER OF CONSTRUCTION OF THE EXISTING SIDEWALK AND CURB, THAT THE EXISTING SIDEWALK AND CURB CAN BE RE-SET OR REUSED WITHOUT REPLACEMENT.
14. 5 YEAR MORATORIUM APPLIES - IF AT TIME OF CONSTRUCTION THE ROADWAY IS UNDER A 5-YEAR MORATORIUM, THE ROADWAY MUST BE MILLED AND PAVED OUTER-TO-OUTER UP TO 25 FEET IN EACH DIRECTION FROM THE OUTERMOST TRENCHES.
15. THE CONTRACTOR IS RESPONSIBLE FOR NOTIFYING THE DESIGN ENGINEER FOR INSPECTIONS AND AS-BUILT LOCATIONS; THE ENGINEER OF RECORD IS RESPONSIBLE FOR THE ON-SITE INSPECTIONS OF ALL SUBSURFACE STRUCTURES. THIS INCLUDES BUT NOT LIMITED TO DRAINAGE UTILITIES (INCLUDING SEWER PIPE SLOPES), ROOF LEADER COLLECTION SYSTEM, TRENCH DRAINS, MANHOLES, ETC. ENGINEER OF RECORD MUST ALSO CONDUCT BOTTOM OF HOLE INSPECTIONS PRIOR TO SUBSURFACE DRAINAGE SYSTEM(S) BEING INSTALLED. CONTRACTOR TO NOTIFY ENGINEER BEFORE BACKFILLING OR SIGN OFF CANNOT OCCUR WITHOUT RE-EXCAVATION.
16. PLEASE SEE SECTION 6-C REQUIREMENT #6 OF THE STORMWATER MANAGEMENT AND EROSION CONTROL RULES & REGULATIONS PAGE 11 OF 17. POST CONSTRUCTION OPERATION AND MAINTENANCE PLAN (O&M). THE O & M PLAN MUST BE RECORDED AT THE APPROPRIATE REGISTRY OF DEEDS AND THAT PROOF OF RECORDING MUST BE PROVIDED TO THE ENGINEERING DIVISION PRIOR TO THE RECOMMENDATION OF THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY.
17. PRIOR TO THE ENGINEERING DIVISION RECOMMENDING THAT A CERTIFICATE OF OCCUPANCY BE ISSUED, AN AS-BUILT PLAN MUST BE SUBMITTED IN BOTH DIGITAL AND IN HARD COPY TO THE ASSIGNED ENGINEERING CONSTRUCTION INSPECTOR. THE AS-BUILT PLAN MUST SHOW DIMENSIONAL TIES FROM FIXED POINTS (FOUNDATION CORNERS) TO ALL SUBSURFACE COMPONENTS AS WELL AS FINAL GRADING. THE AS-BUILT PLAN MUST BE STAMPED, SIGNED, AND DATED BY THE ENGINEER OF RECORD.
18. THE FOLLOWING STATEMENT MUST BE ON ALL AS-BUILT PLANS SUBMITTED TO THE ENGINEERING DIVISION (SIGNED, DATED, AND STAMPED):  
I CERTIFY THAT THE CONSTRUCTION SO SHOWN WAS INSPECTED PRIOR TO BACKFILL AND THAT ALL WORK CONFORMS WITH THE APPROVED PLAN AND MEETS OR EXCEEDS THE CITY OF NEWTON CONSTRUCTION STANDARDS.  
SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_



END VIEW  
ELEVATION VIEW

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE

NOT TO SCALE