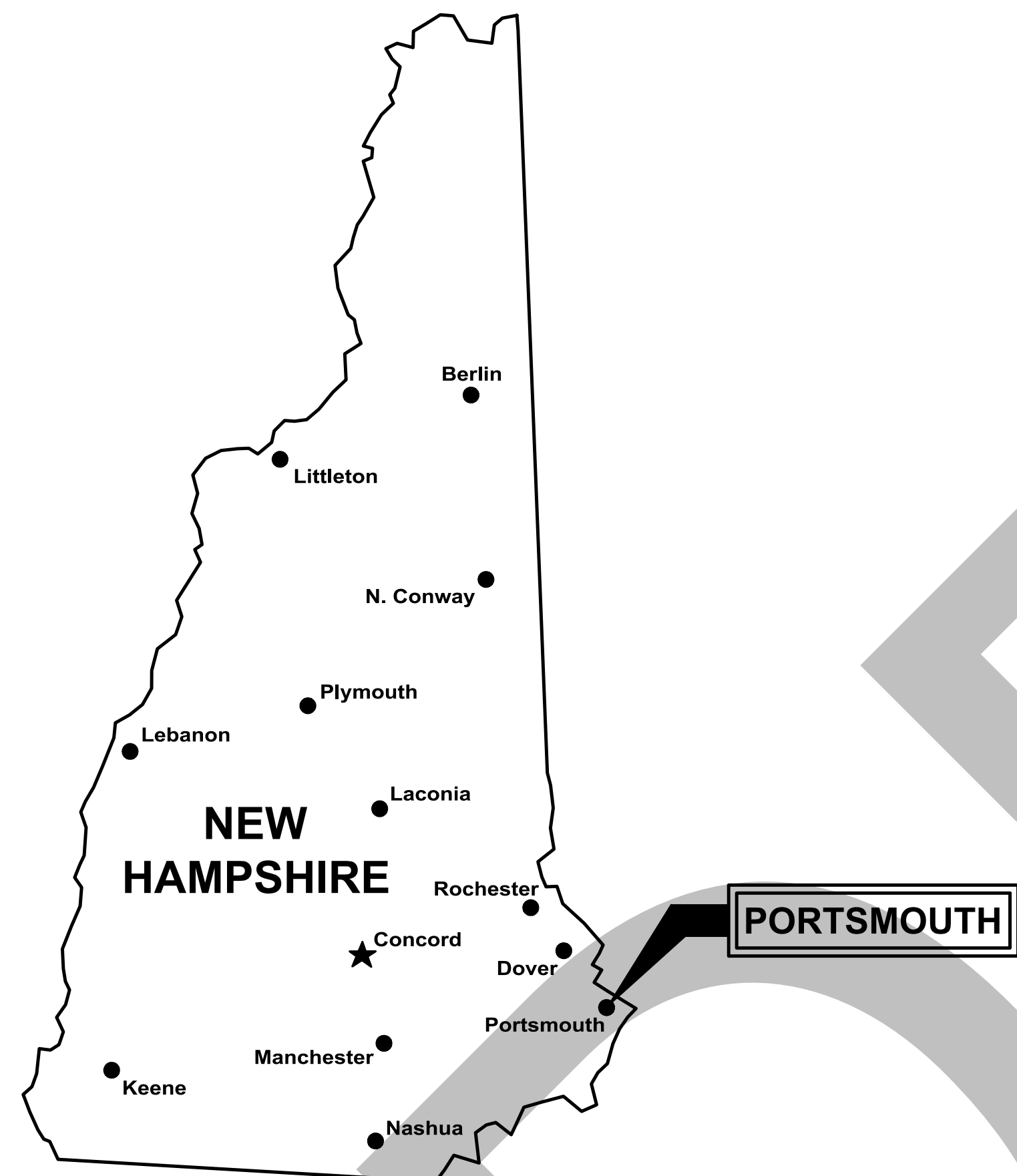


CITY OF PORTSMOUTH, NEW HAMPSHIRE

DEPARTMENT OF PUBLIC WORKS

SAGAMORE AVENUE SEWER EXTENSION PROJECT

FEBRUARY, 2021
CONTRACT NO. XXXXXX
CWSRF #CS-330106-17



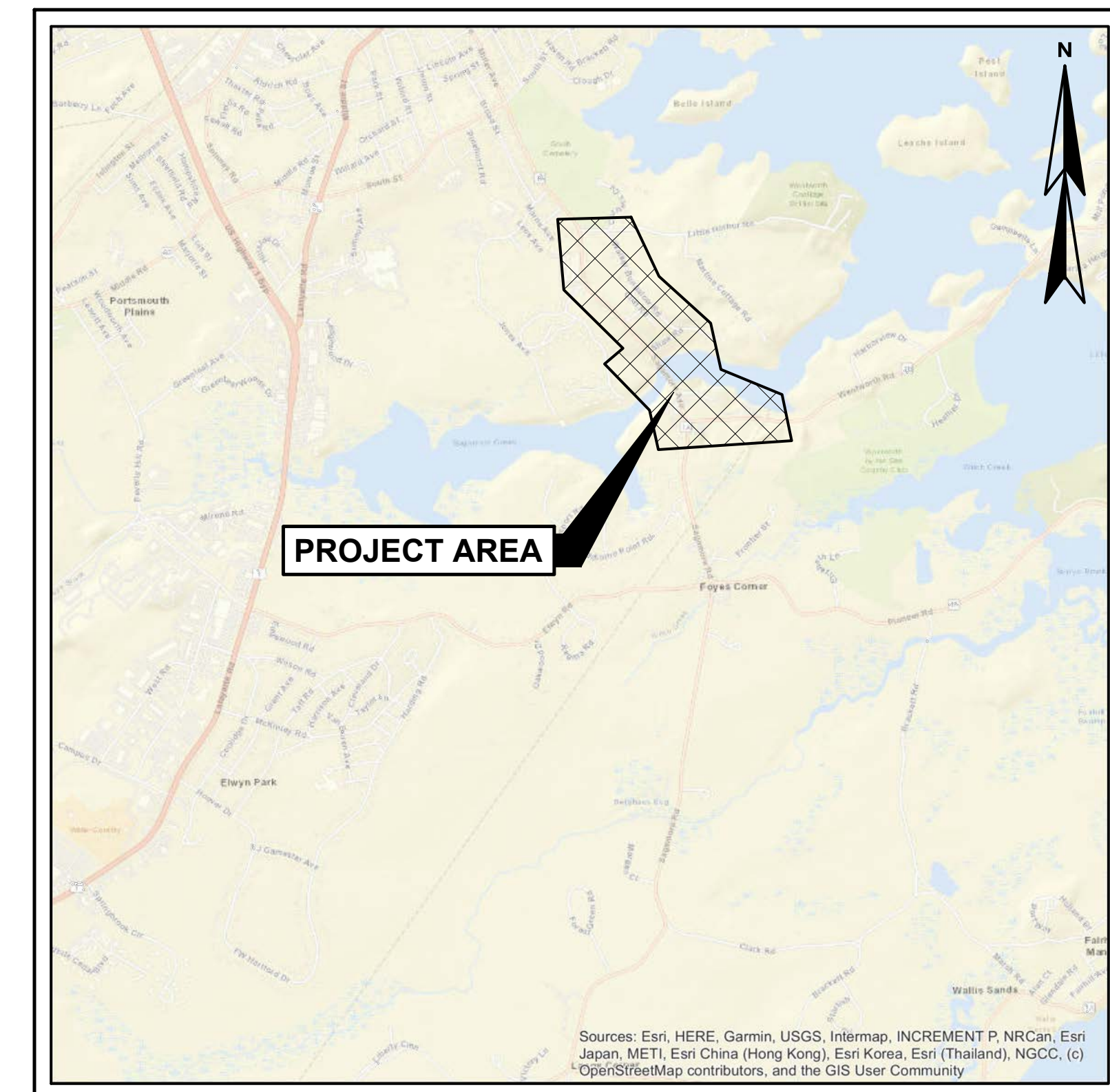
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LOCATION PLAN
SCALE: 1"=2,000'



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FOR REVIEW _____

FOR BIDDING _____

WP PROJECT No. 11304A

GENERAL NOTES

- 1. THE OWNER WILL BE RESPONSIBLE FOR OBTAINING THE PERMITS LISTED IN THE SUPPLEMENTARY OR SPECIAL CONDITIONS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO BE FAMILIAR WITH THE APPLICABLE PROVISIONS OF EACH PERMIT AS THEY APPLY TO THE WORK PRIOR TO BIDDING AND ABIDE BY THOSE PROVISIONS DURING CONSTRUCTION. COPIES OF ALL OBTAINED PERMITS ARE AVAILABLE FOR REVIEW FROM THE OWNER. ALL OTHER PERMITS ARE THE RESPONSIBILITY OF THE CONTRACTOR.
2. THE OWNER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY RIGHTS OF WAY AND EASEMENTS. THE CONTRACTOR SHALL VERIFY THAT THE NECESSARY EASEMENTS HAVE BEEN SECURED BY THE OWNER. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO BE FAMILIAR WITH THE APPLICABLE PROVISIONS OF EACH EASEMENT AS THEY APPLY TO THE WORK PRIOR TO BIDDING AND ABIDE BY THOSE PROVISIONS DURING CONSTRUCTION. COPIES OF ALL RIGHTS_OF_WAY AND EASEMENTS ARE AVAILABLE FOR REVIEW FROM THE OWNER.
3. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING TRAFFIC FLOW AT ALL TIMES. CONTRACTOR SHALL INSTALL AND MAINTAIN TRAFFIC CONTROL SIGNS IN ACCORDANCE WITH THE MUTCD AND ALL STATE AND LOCAL REGULATIONS. THE CONTRACTOR IS REQUIRED TO SUBMIT A TRAFFIC CONTROL PLAN TO THE OWNER PRIOR TO COMMENCING CONSTRUCTION. THE POLICE DEPARTMENT AND FIRE DEPARTMENT ARE TO BE NOTIFIED AT LEAST 24-HOURS IN ADVANCE OF ANY STREET CLOSING OR DETOUR. REFER TO SPECIFICATION SECTION 01570.
4. CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE REGULATIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA).
5. CONTRACTOR SHALL COMPLY WITH THE COORDINATION REQUIREMENTS AND RELATED COSTS, IF ANY, AS SPECIFIED IN SPECIFICATION SECTION 01050.
6. CONTRACTOR SHALL NOTE THAT, IN GENERAL, ALL EXISTING CONDITION INFORMATION ON THE DRAWINGS ARE SHOWN WITH A LIGHTER LINE WEIGHT AND WITH A SLANTED TYPE TEXT.
7. ALL EXISTING SEWER, STORM DRAIN LINES, AND WATER MAINS LINES ENCOUNTERED DURING CONSTRUCTION ARE TO REMAIN IN SERVICE. ANY EXISTING SEWERS, STORM DRAIN LINES, CULVERTS, OR WATER MAINS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER, EXCEPT WHEN IN DIRECT CONFLICT WITH THE NEW SEWER OR WHEN NOT SHOWN OR INDICATED.
8. ALL STRUCTURES AND PIPELINES LOCATED ADJACENT TO TRENCH EXCAVATION SHALL BE PROTECTED AND FIRMLY SUPPORTED BY THE CONTRACTOR UNTIL THE TRENCH IS BACKFILLED. INJURY TO ANY SUCH STRUCTURES CAUSED BY OR RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. ALL UTILITIES REQUIRING REPAIR, RELOCATION OR ADJUSTMENT AS A RESULT OF THE PROJECT SHALL BE COORDINATED THROUGH THE RESPECTIVE UTILITY.
9. IN THOSE INSTANCES WHERE POWER OR TELEPHONE POLE SUPPORT IS REQUIRED, THE CONTRACTOR SHALL PROVIDE A MINIMUM 48-HOUR NOTICE TO THE RESPECTIVE UTILITY POLE OWNER. NO ADDITIONAL PAYMENT WILL BE PROVIDED FOR TEMPORARY BRACING OF UTILITIES.
10. NEW HAMPSHIRE STATE HIGHWAYS: THE FOLLOWING ROADWAYS FALL WITHIN THE JURISDICTION OF THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION. ALL WORK CONDUCTED WITHIN THESE ROADWAYS SHALL CONFORM TO NHDOT STANDARDS AND ROAD OPENING PERMIT REQUIREMENTS. NEW HAMPSHIRE STATE HIGHWAYS WITHIN THE PROJECT AREA ARE AS FOLLOWS:
- ROUTE 1A (SAGAMORE AVENUE)
- ROUTE 1B (WENTWORTH ROAD)
11. ALL TEST PITS SHALL BE EXCAVATED PRIOR TO CONSTRUCTION LAYOUT AND RESULTS REPORTED TO THE ENGINEER FOR REVIEW FOR CONFORMANCE WITH THE PLANS. TESTS PITS ARE REQUIRED WHERE SHOWN ON THE DRAWINGS AND AS DIRECTED BY THE ENGINEER. TEST PITS WILL BE DUG PRIOR TO CONNECTING PROPOSED SEWERS TO EXISTING SEWERS. THE RESULTS OF TEST PITS DUG TO DETERMINE EXISTING SEWER ELEVATIONS AND LOCATIONS WILL BE REPORTED TO THE ENGINEER. ADJUSTMENTS TO LENGTHS, LENGTHS, AND SLOPES OF PROPOSED SEWER MAY BE REQUIRED AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LAYOUT OF ALL PROPOSED LINES AND STRUCTURES AS SHOWN ON THE DRAWINGS. THE LAYOUT PLAN SHALL BE REVIEWED BY THE ENGINEER PRIOR TO CONSTRUCTION. THE HORIZONTAL ALIGNMENT OF THE NEW SEWERS AND FORCE MAINS WILL BE ADJUSTED IN THE FIELD SUBJECT TO PRIOR APPROVAL OF THE ENGINEER. ALL ELEVATIONS REFER TO THE NATIONAL GEODETIC VERTICAL DATUM. THE CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY ALL ELEVATION REFERENCE INFORMATION PRIOR TO USE IN CONSTRUCTION.
12. LOW PRESSURE SEWER SERVICE CONNECTIONS ARE SHOWN FOR ESTIMATING PURPOSES ONLY. THE ACTUAL NUMBER, LENGTH, AND LOCATION SHALL BE AS FIELD DETERMINED AT THE TIME OF CONSTRUCTION. FOR EVERY PROPERTY, A NEW LOW PRESSURE SEWER SERVICE WITH THE LATERAL ASSEMBLY SHALL BE INSTALLED FROM THE NEW LOW PRESSURE SEWER MAIN LINE BACK TO THE PROPERTY LINE OR THE EDGE OF THE PERMANENT EASEMENT BUT NO CLOSER THAN 5-FEET TO EXISTING BUILDINGS. THE NEW LOW PRESSURE SEWER SERVICES SHALL BE 1.5-INCH DIAMETER UNLESS OTHERWISE INDICATED. FOR EACH PROPERTY THAT CHOSE TO CONNECT TO THE NEW LOW PRESSURE SEWER SYSTEM, A NEW LOW PRESSURE SEWER SERVICE SHALL BE INSTALLED FROM THE LATERAL ASSEMBLY TO THE NEW GRINDER PUMP STATION, WHICH SHALL NOT BE CLOSER THAN 5-FEET TO THE EXISTING BUILDINGS.
13. GRAVITY SEWER SERVICE CONNECTIONS ARE SHOWN FOR ESTIMATING PURPOSES ONLY. THE ACTUAL NUMBER, LENGTH, AND LOCATION SHALL BE AS FIELD DETERMINED AT THE TIME OF CONSTRUCTION. FOR EACH PROPERTY THAT CHOSE TO CONNECT TO THE LOW PRESSURE SEWER SYSTEM, A GRAVITY SEWER SERVICE SHALL BE INSTALLED FROM THE NEW GRINDER PUMP STATION TO THE EXISTING GRAVITY SEWER SERVICE, WHICH MAY BE OUTSIDE OF THE BUILDING OR INSIDE THE FOUNDATION. THE NEW GRAVITY SEWER SERVICES SHALL MATCH EXISTING DIAMETER UNLESS OTHERWISE INDICATED. THE MINIMUM GRAVITY SEWER SERVICE SHALL BE A 4-INCH DIAMETER.
14.
15. INSULATE OVER ANY GRAVITY SEWER OR FORCE MAIN PIPE WHEN COVER IS LESS THAN 5-FEET, OR THERE IS LESS THAN 2-FEET BETWEEN THE SEWER OR FORCE MAIN AND A CULVERT.
16. INITIAL PAVING SHALL BE CONDUCTED WITHIN TWO WEEKS OF COMPLETION OF PLACEMENT OF FINAL BACKFILL UNLESS OTHERWISE AUTHORIZED BY ENGINEER. INITIAL PAVEMENT SHALL BE INSTALLED AND MAINTAINED BY CONTRACTOR FOR A MINIMUM PERIOD OF TWO MONTHS BEFORE FINAL PAVEMENT IS PLACED. FINAL PAVEMENT MAY BE PLACED OVER THE INITIAL PAVING PROVIDED INITIAL PAVING COURSE IS IN GOOD REPAIR. CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING AND SHIMMING THE INITIAL PAVEMENT AS NECESSARY TO ACCEPT THE FINAL PAVING COURSE. IF CONDITIONS WARRANT, THE CONTRACTOR MAY BE REQUIRED TO REMOVE AND REPLACE INITIAL PAVING PRIOR TO FINAL PAVING.
17. FORCE MAINS SHALL SLOPE UNIFORMLY BETWEEN ELEVATIONS INDICATED ON THE DRAWINGS. NO CRESTS IN NEW PIPING WILL BE PERMITTED UNLESS OTHERWISE NOTED ON THE DRAWINGS. ALL BENDS SHALL BE SUITABLY RESTRAINED BY CAST-IN-PLACE CONCRETE THRUST BLOCKS.

EXISTING SITE CONDITIONS

- 1. THE LOCATIONS OF UNDERGROUND UTILITIES AND STRUCTURES, AS SHOWN ON THE DRAWINGS, ARE APPROXIMATE AND MAY NOT BE COMPLETE. NO GUARANTEE IS MADE THAT UTILITIES OR STRUCTURES WILL BE ENCOUNTERED WHERE SHOWN, OR THAT ALL UNDERGROUND UTILITIES AND STRUCTURES ARE SHOWN. ALL LOCATIONS AND SIZES OF EXISTING UTILITIES AND STRUCTURES SHALL BE VERIFIED IN THE FIELD WITH TEST PITS AS REQUIRED PRIOR TO BEGINNING CONSTRUCTION OF NEW FACILITIES OR PIPING THAT MAY BE AFFECTED. THE CONTRACTOR WILL REALIGN NEW PIPE LOCATIONS AS REQUIRED TO CONFORM TO EXISTING LINES AND AS APPROVED BY THE ENGINEER.
2. BELOW GRADE UTILITY INFORMATION IS BASED ON INFORMATION PROVIDED BY EACH UTILITY. LOCATION OF PUBLIC UTILITIES SHOWN IS ONLY APPROXIMATE AND MAY NOT BE COMPLETE. PRIVATE UNDERGROUND UTILITIES SUCH AS, BUT NOT LIMITED TO, SEWER LINES, WATER LINES AND BURIED ELECTRICAL SERVICE ENTRANCES ARE NOT SHOWN. THE CONTRACTOR SHALL ASCERTAIN THE LOCATION AND SIZE OF EXISTING UTILITIES IN THE FIELD WITH THE RESPECTIVE UTILITY COMPANY REPRESENTATIVE PRIOR TO COMMENCING WORK. REFER TO SPECIFICATION SECTION 01050. ADDITIONAL TEST PITS, BEYOND THOSE SHOWN, MAY BE REQUIRED. UTILITY CONTACTS ARE AS FOLLOWS:

Table with 3 columns: ELECTRIC, WATER/SEWER/DRAIN, GAS. Lists contact information for City of Portsmouth, 680 Pevery Hill Road, Portsmouth, NH 03801.

Table with 3 columns: TELEPHONE/CABLE, DIG SAFE, NHDOT DISTRICT 6. Lists contact information for Fairpoint Communications and location details for Durham, NH 03824.

SITE DEMOLITION

- 1. REFER TO THE EXISTING SITE PLAN, FOR ADDITIONAL INFORMATION REGARDING EXISTING FACILITIES. REFER TO THE LAYOUT DRAWING FOR LIMITS OF WORK.
2. REFER TO SPECIFICATION SECTION 01010A WHICH CONTAINS INFORMATION ON CONSTRAINTS OF CONSTRUCTION SEQUENCING.
3. DEMOLISH/REMOVE EXISTING PIPING AS REQUIRED FOR CONSTRUCTION OF NEW FACILITIES. ALL PIPING, EQUIPMENT AND MATERIALS TO BE DEMOLISHED AND/OR REMOVED FROM SERVICE SHALL BE COORDINATED WITH THE OWNER AND ENGINEER BEFORE COMMENCING THAT WORK. EXISTING PIPING THAT NEEDS TO BE REMOVED TO CONSTRUCT THE NEW FACILITIES, BUT IS TO REMAIN, SHALL BE REINSTALLED/REPLACED AS NEEDED. EXISTING PIPES AND CONDUIT DESIGNATED AS "ABANDONED" MAY BE REMOVED IF THE CONTRACTOR SO CHOOSES. IF ABANDONED PIPE CONFLICTS WITH NEW SITE PIPING OR FACILITIES, THEN A PORTION OF THE ABANDONED PIPE SHALL BE REMOVED, AND THE NEW ENDS OF ABANDONED PIPE CAPPED OR PLUGGED WITH CONCRETE.
4. ALL EXISTING PIPING AND UTILITIES WHICH ARE BENEATH PROPOSED STRUCTURES, AND ARE TO BE ABANDONED, SHALL BE REMOVED TO A MINIMUM OF 5- FEET OUTSIDE OF THE STRUCTURE. PIPE AND UTILITIES BENEATH PROPOSED STRUCTURES THAT ARE TO REMAIN SHALL BE CONCRETE ENCASED, UNLESS OTHERWISE INDICATED.
5. SEVERING OF EXISTING UTILITIES FOR ABANDONMENT, OR REMOVAL OF A SEGMENT FROM SERVICE, SHALL BE PERFORMED IN SUCH A MANNER AS TO ALLOW THE REMAINING ACTIVE SEGMENT TO CONTINUE IN ITS INTENDED SERVICE. CAP ACTIVE SEGMENTS WITH APPROPRIATE FITTINGS, JOINT RESTRAINT, ETC. TO ENSURE THEIR INTEGRITY. PLUG ENDS OF ABANDONED PIPE SEGMENTS WITH CONCRETE UNLESS SPECIAL CIRCUMSTANCES DICTATE PLUGGING ABANDONED PIPES WITH BLIND FLANGES, RESTRAINED MECHANICAL JOINT PLUGS, ETC. AS APPROPRIATE.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND DISPOSING OF ALL DEMOLISHED PIPING, EQUIPMENT AND MATERIALS. DISPOSAL SHALL BE IN ACCORDANCE WITH ALL STATE AND LOCAL REGULATIONS.
7. THE CONTRACTOR SHALL KEEP A RECORD OF DEMOLITION AS PART OF THE PROJECT RECORD DOCUMENTS IN ACCORDANCE WITH SPECIFICATION SECTION 01720.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE APPROPRIATE DISPOSAL OF FLOWS RESULTING FROM PRECIPITATION AND GROUNDWATER DEWATERING OPERATIONS.

SITE CLEARING, GRUBBING AND GRADING

- 1. STRIPPING OF TOPSOIL (LOAM) SHALL BE IN ACCORDANCE WITH SPECIFICATION SECTION 02115.
2. CONTRACTOR SHALL MINIMIZE CLEARING OPERATIONS. CLEARING AND GRUBBING SHALL BE IN ACCORDANCE WITH SPECIFICATION SECTION 02110. CLEARING LIMITS SHALL BE AS INDICATED ON THE DRAWINGS. ALL CLEARING AND GRUBBING MATERIAL SHALL BE THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF AT A SITE PROVIDED BY THE CONTRACTOR IN COMPLIANCE WITH ALL STATE AND LOCAL LAWS.
3. THE CONTRACTOR SHALL FOLLOW ALL ENDANGERED SPECIES ACT 4(D) RULES REGARDING THE NORTHERN LONG EARED BAT. THIS INCLUDES AVOIDANCE OF TREE REMOVAL DURING THE MONTHS OF JUNE AND JULY. CONTRACTOR SHALL PLAN ACCORDINGLY.
4. CONTRACTOR SHALL PROVIDE PROPER EROSION CONTROL AND DRAINAGE MEASURES IN ALL AREAS OF WORK, AND CONFINE SOIL SEDIMENT TO WITHIN THE LIMITS OF EXCAVATION AND GRADING. PRIOR TO BEGINNING EXCAVATION WORK, EROSION CONTROL FENCE SHALL BE INSTALLED AT THE DOWN GRADIENT PERIMETER OF THE ACTUAL LIMITS OF GRUBBING AND/OR GRADING, AND AS SHOWN ON THE DRAWINGS. EROSION CONTROL MEASURES SHOWN ON THE DRAWINGS ARE A MINIMUM, CONTRACTOR SHALL TAKE ALL OTHER NECESSARY MEASURES. EROSION CONTROL FENCE SHALL ALSO BE INSTALLED AT THE DOWN GRADIENT PERIMETER OF THE TOPSOIL STOCKPILES. ALL DISTURBED EARTH SURFACES SHALL BE STABILIZED IN THE SHORTEST PRACTICAL TIME AND TEMPORARY EROSION CONTROL DEVICES SHALL BE EMPLOYED UNTIL SUCH TIME AS ADEQUATE SOIL STABILIZATION HAS BEEN ACHIEVED. TEMPORARY STORAGE OR EXCAVATED MATERIAL SHALL BE STABILIZED IN A MANNER THAT WILL MINIMIZE EROSION. ALL INSTALLED EROSION CONTROL FACILITIES SHALL BE REMOVED AT THE END OF THE PROJECT. REFER TO SPECIFICATION SECTION 02270.
5. ALL STORM DRAINAGE INLETS SHALL BE PROTECTED BY HAY BALE FILTERS TO PREVENT ENTRY OF SEDIMENT FROM RUNOFF WATERS DURING CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL AND DISPOSAL OF ALL COLLECTED SEDIMENT, AND THAT WHICH COLLECTS IN THE STORM DRAIN SYSTEM. REFER TO THE CIVIL DETAIL DRAWINGS.
6. THE GEOTECHNICAL DATA REPORT FOR THE PROJECT SITE IS INCLUDED IN APPENDIX A AND IS DESCRIBED IN SPECIFICATION SECTION 00800 (SUPPLEMENTAL CONDITIONS).
7. CONTRACTOR SHALL CONTROL DUST ON THE CONSTRUCTION SITE TO A REASONABLE LIMIT, AS DETERMINED BY THE ENGINEER, AND AS OUTLINED IN SPECIFICATION SECTION 01562.
8. CONTRACTOR SHALL NOT TRACK OR SPILL EARTH, DEBRIS OR OTHER CONSTRUCTION MATERIAL ON PUBLIC OR PRIVATE STREETS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE IMMEDIATE ASSOCIATED CLEAN UP.
9. ALL CATCH BASINS, MANHOLES, VALVE PITS, VALVE BOXES AND OTHER BURIED FACILITIES WITH SURFACE ACCESS SHALL BE ADJUSTED TO MATCH FINAL GRADES, UNLESS OTHERWISE INDICATED.
10. THE CONTRACTOR SHALL NOT HAVE ANY RIGHT OF PROPERTY IN ANY MATERIALS TAKEN FROM ANY EXCAVATION. SUITABLE EXCAVATED MATERIAL MAY BE INCORPORATED IN THE PROJECT, WITH EXCESS MATERIAL DISPOSED OF AT A LOCATION PROVIDED BY THE CONTRACTOR. THESE PROVISIONS SHALL IN NO WAY RELIEVE THE CONTRACTOR OF OBLIGATIONS TO PROPERLY DISPOSE OF AND REPLACE ANY MATERIAL DETERMINED BY THE ENGINEER TO BE UNSUITABLE FOR BACKFILLING. THE CONTRACTOR SHALL DISPOSE OF UNSUITABLE AND EXCESS MATERIAL IN ACCORDANCE WITH THE APPLICABLE SECTIONS OF THE CONTRACT DOCUMENTS.
11. CONTRACTOR SHALL REMOVE AND REPLACE, OR REPAIR, ALL CURBS, SIDEWALKS, PAVEMENT AND OTHER ITEMS DAMAGED BY CONSTRUCTION ACTIVITIES TO AT LEAST THEIR ORIGINAL CONDITION, TO THE SATISFACTION OF THE OWNER AND ENGINEER.
12. WHERE EXISTING PAVEMENT IS REMOVED AND REPLACED, MATCH EXISTING GRADES TO THE EXTENT POSSIBLE. COORDINATE FINE GRADING WITH THE ENGINEER.
13. ALL ROAD AND DRIVE CROSS SLOPES SHALL PITCH 1/4-INCH PER FOOT MINIMUM. ALL PAVED SURFACES SHALL PITCH 1% UNLESS OTHERWISE NOTED. REFER TO THE CIVIL DETAIL DRAWINGS.
14. ALL NON-ROADWAY AREAS THAT ARE EXCAVATED, FILLED, OR OTHERWISE DISTURBED BY THE CONTRACTOR SHALL BE TOPSOILED, GRADED, LIMED, FERTILIZED, SEEDED AND MULCHED, UNLESS OTHERWISE NOTED. THE TOP 4-INCHES OF SOIL SHALL BE TOPSOIL. REFER TO SPECIFICATION SECTION 02480, LANDSCAPING.

CIVIL SITE LAYOUT

- 1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THIS PROVIDED LAYOUT INFORMATION THROUGHOUT THE COURSE OF CONSTRUCTION. REPORT ANY LAYOUT DISCREPANCIES IMMEDIATELY TO THE ENGINEER.
2. REFER TO THE PLAN AND PROFILE DRAWINGS FOR ADDITIONAL LAYOUT INFORMATION.
3. THE LOCATIONS AND LIMITS OF ALL ON-SITE WORK AND STORAGE AREAS SHALL BE REVIEWED/COORDINATED WITH, AND ACCEPTABLE TO, THE OWNER AND ENGINEER. THE CONTRACTOR SHALL LIMIT ACTIVITIES TO THESE AREAS.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RE-ESTABLISHING AND RESETTING ALL EXISTING PROPERTY MONUMENTATION DISTURBED BY CONSTRUCTION. THIS WORK SHALL BE DONE BY A LAND SURVEYOR REGISTERED IN THE STATE OF NEW HAMPSHIRE, AT NO ADDITIONAL COST TO THE OWNER.
5. WRITTEN DIMENSIONS SHALL PREVAIL. DO NOT SCALE DISTANCES FROM THE DRAWINGS. REPORT ANY DISCREPANCIES IMMEDIATELY TO THE ENGINEER.
6. ALL ELEVATIONS REFER TO THE NAVD83 DATUM. ORIENTATION IS GRID NORTH ON THE NEW HAMPSHIRE STATE PLANE (2800) NAD83 (2011) COORDINATE SYSTEM. PROJECT BENCH MARK IS SHOWN ON THE DRAWINGS AND IS DERIVED FROM ON-THE-GROUND INSTRUMENT SURVEY. CONTRACTOR SHALL VERIFY BENCHMARK ELEVATIONS PRIOR TO USING IN CONSTRUCTION.
7. EXISTING CONDITIONS SITE PLAN DEVELOPED FROM SURVEY DRAWING PREPARED BY DOUCET SURVEYING, DATED 11/14/2019, AND EXISTING RECORD DRAWING INFORMATION.
8. WETLAND BOUNDARIES DELINEATED BY MARC JACOBS IN WINTER 2021.

CIVIL SITE PIPING

- 1. ALL BURIED CONNECTIONS TO STRUCTURES SHALL HAVE SLEEVE TYPE FLEXIBLE CONNECTIONS APPROXIMATELY 4- FEET FROM THE STRUCTURES. ALL SLEEVE TYPE COUPLINGS ON PRESSURE LINES SHALL BE RESTRAINED (SOLID SLEEVE).
2. PROVIDE CAST OR DUCTILE IRON WALL CASTINGS, OR GALVANIZED STEEL PIPE SLEEVES, FOR ALL PIPE PENETRATIONS MADE THROUGH CONCRETE FOUNDATIONS, WALLS AND SLABS. ALL WALL SLEEVES AND WALL CASTINGS SHALL HAVE WATERSTOPS. NEW PENETRATIONS THROUGH EXISTING STRUCTURE WALLS SHALL BE BY CORING MACHINE AND LINK-TYPE SEALS, UNLESS OTHERWISE INDICATED. OPENINGS TO BE COMPATIBLE WITH REQUIRED PIPING AND STANDARD LINK SEAL SIZES. SEE DETAIL DRAWINGS.
3. MANHOLES ARE 4- FEET IN DIAMETER UNLESS OTHERWISE NOTED. THE TOP OF MANHOLE FRAMES SHALL BE SET FLUSH WITH FINISH GRADE, UNLESS OTHERWISE NOTED ON DRAWINGS. SEWER MANHOLE INVERTS SHOWN ON THE DRAWINGS ARE TO THE INSIDE FACE OF THE MANHOLE.
4. CONTRACTOR SHALL RE-SHAPE INVERTS AS REQUIRED WHEN CONNECTING INTO EXISTING MANHOLES.
5. REFER TO SPECIFICATION SECTION 02200 FOR PIPE AND STRUCTURE BEDDING AND BACKFILL REQUIREMENTS.
6. COMPACTION TESTS WILL BE PERFORMED IN ACCORDANCE WITH SPECIFICATION SECTION 02200. ANY SETTLEMENT OCCURRING WITHIN ONE-YEAR OF FINAL COMPLETION OF THE WORK SHALL BE CORRECTED BY THE CONTRACTOR AT NO ADDITIONAL COST.
7. OPEN TRENCHES IN THE ROADWAY MUST BE BACKFILLED AT THE END OF THE WORKDAY. OPEN TRENCHES OUTSIDE OF THE WAY MAY BE LEFT OPEN IF THE CONTRACTOR PROVIDES ADEQUATELY SAFE BARRICADING AND LIGHTS
8. WHERE NEW PIPING IS TO BE CONNECTED TO EXISTING PIPING, THE CONTRACTOR SHALL FURNISH AND INSTALL ALL ADAPTERS, FITTINGS, AND ADDITIONAL PIPE AS REQUIRED TO COMPLETE THE CONNECTION. CONTRACTOR SHALL VERIFY LOCATION, ELEVATION, ORIENTATION AND MATERIAL OF CONSTRUCTION. TEST PITS SHALL BE USED AS REQUIRED.
9. ALL EXISTING UTILITIES ENCOUNTERED DURING CONSTRUCTION ARE TO REMAIN IN SERVICE UNLESS OTHERWISE NOTED ON THE CIVIL EXISTING CONDITIONS AND DEMOLITION PLAN. ANY EXISTING UTILITIES DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
10. WHERE POSSIBLE, WATER LINES SHOULD BE INSTALLED OVER WASTEWATER LINES. A MINIMUM SEPARATION OF 18-INCHES BETWEEN THE BOTTOM OF THE WATER LINE AND THE TOP OF THE WASTEWATER OR SLUDGE LINE SHALL BE MAINTAINED, IF POSSIBLE. WHERE 18-INCHES OF VERTICAL SEPARATION IS NOT POSSIBLE, THE CONTRACTOR SHALL OBTAIN A SEPARATION REQUIREMENT WAIVER FROM NHDES. WHERE A WATER LINE CROSSES UNDER A WASTEWATER LINE, A FULL LENGTH OF PIPE SHALL BE CENTERED ABOVE THE WATER LINE SO THAT BOTH JOINTS WILL BE AS FAR FROM THE WATER LINE AS POSSIBLE.

WATER MAIN GENERAL NOTES

- 1. WHERE NEW PIPING IS TO BE CONNECTED TO EXISTING PIPING, THE CONTRACTOR SHALL FURNISH AND INSTALL ALL ADAPTERS, FITTINGS, AND ADDITIONAL PIPE AS REQUIRED TO COMPLETE THE CONNECTION. CONTRACTOR SHALL VERIFY LOCATION, ELEVATION, ORIENTATION AND MATERIAL OF CONSTRUCTION. TEST PITS SHALL BE USED AS REQUIRED.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LAYOUT OF THE NEW WATER MAIN. LAYOUT SHALL BE REVIEWED AND ACCEPTED BY THE OWNER AND ENGINEER. THE NEW WATER MAIN MUST BE LOCATED WITHIN THE RIGHTS-OF-WAY SHOWN ON THE DRAWINGS.
3. MINIMUM DEPTH OF COVER SHALL BE 5'-0" [NTS - VERIFY DEPTH.] AND MAXIMUM DEPTH OF COVER SHALL BE 7'-0" [NTS - VERIFY DEPTH.] UNLESS SHOWN OTHERWISE ON THE DRAWINGS. THE NEW MAIN SHALL GENERALLY FOLLOW THE GROUND CONTOUR, HOWEVER, ABRUPT CHANGES IN GRADE SHALL BE AVOIDED. AT LOCAL HIGH POINTS OR WHERE AIR RELEASE VALVES ARE SHOWN, THE CONTRACTOR SHALL SLOPE NEW MAIN AS NEEDED TO MAINTAIN HIGH POINT AT AIR RELEASE VALVE. IF LEDGE IS ENCOUNTERED THE MINIMUM DEPTH OF COVER SHALL BE 5'-0".
4. IF MINIMUM COVER CANNOT BE ATTAINED DUE TO UTILITY CONFLICTS, THE DEPTH OF COVER SHALL NOT BE LESS THAN 4'-0" AND PRE-INSULATED WATER MAIN PIPING AND FITTINGS SHALL BE USED AS DETAILED.
5. ALL BENDS, TEES, REDUCERS, AND PLUGS SHALL BE RESTRAINED BY USING CONCRETE THRUST BLOCKS AND GRIP-RINGS OR OTHER METHOD AS SHOWN ON THE DRAWINGS.
6. TEST PRESSURES FOR THE COMBINATION PRESSURE AND LEAKAGE TESTS SHALL BE 150 PSI. TEST DURATION SHALL BE TWO HOURS.
7. CONNECTIONS TO EXISTING WATER MAIN SHALL BE COORDINATED WITH THE OWNER.
8. ALL WATER MAINS THAT ARE DISCONNECTED FROM THE WATER SYSTEM AND ARE TO BE LEFT IN PLACE SHALL BE CAPPED WITH A M.J. CAP OR PLUG.
9. ALL EXISTING WATER SERVICES ARE TO BE CONNECTED TO THE NEW MAIN. EXISTING SERVICES, AS SHOWN ON THE DRAWINGS, ARE FOR THE CONTRACTOR'S REFERENCE. THE CONTRACTOR SHALL VERIFY LOCATION, SIZE AND TYPE OF ALL SERVICES. IF NOT LABELED ON THE PLAN, THE SERVICE SHALL BE ASSUMED TO BE A MINIMUM SERVICE SIZE OF 1-INCH.
10. SEWER VALVES SHALL OPEN LEFT, WATER VALVES SHALL OPEN RIGHT.

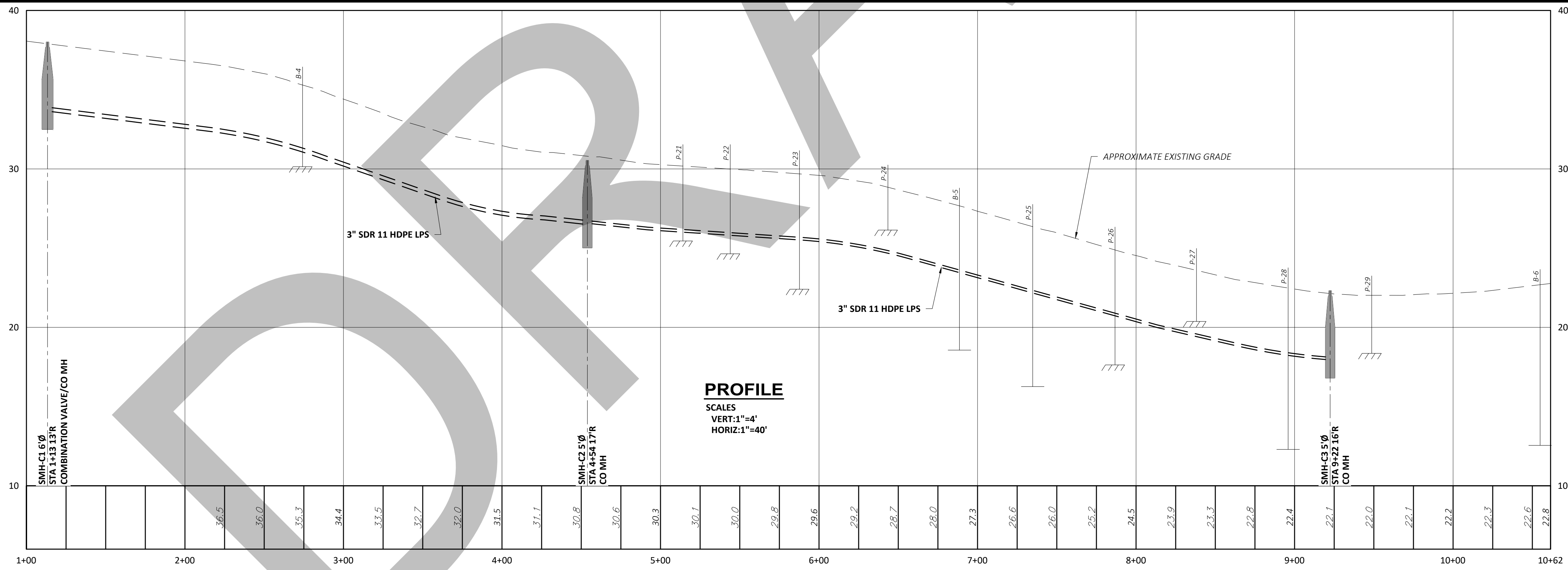
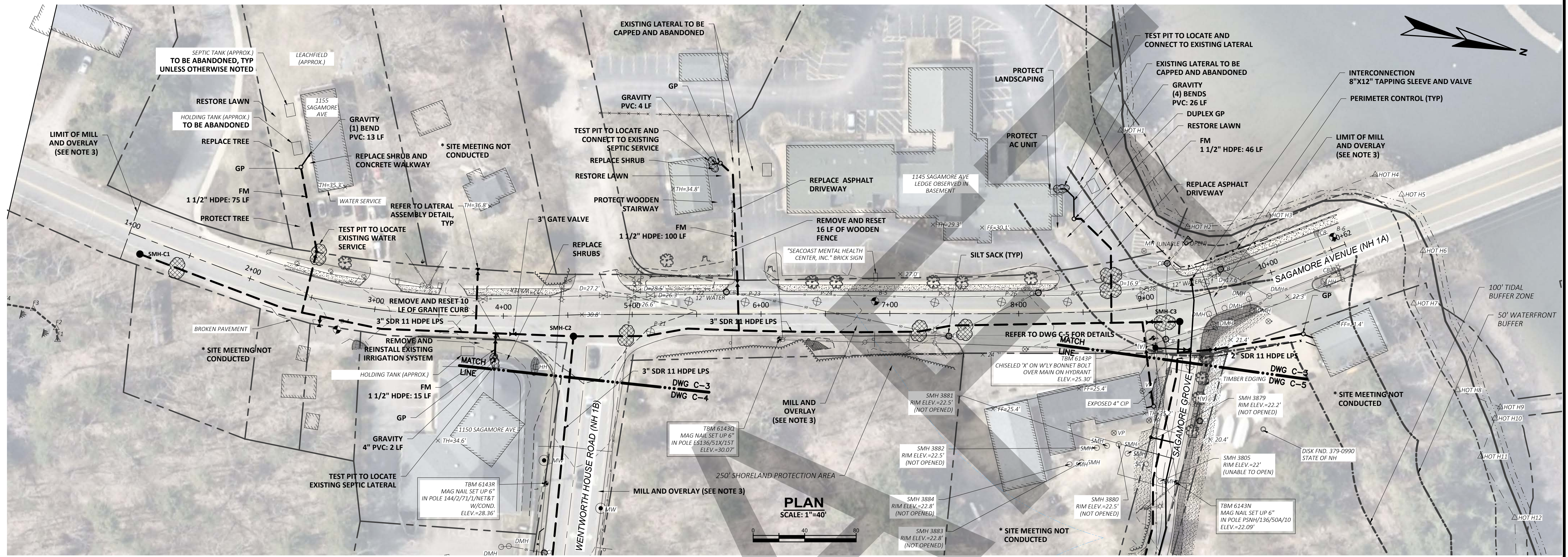
CIVIL ABBREVIATIONS

Table listing abbreviations for various items: & DIA, NO APP'D BLDG, CB, CEN, CFS, CI, CL, CMO, CPO, CONC, COR, CY, DEMO, DMH, DI, DR, DWG, EL, EMH, FM, FT, G, HYD, IN, INF, INV, LBS, MAX, MH, MIN, MW, N/A, N/S, OD, PC, PSF, PSI, PS, PT, PVC, RCP, RD, REQ'D, S, SD, SF, SMH, SQ, STA, T, XFMR, TBM, THK, TOS, TYP, UD, UG, UGE, VC, W/, W. Includes descriptions like DIAMETER, NUMBER, APPROVED BUILDING, etc.

LEGEND

Table with columns for EXISTING and PROPOSED symbols. Lists symbols for PROPERTY/ROW LINE, SETBACK LINE, EASEMENT LINE, CENTERLINE, EDGE OF PAVEMENT, CURBING, EDGE OF GRAVEL, EDGE OF CONCRETE, CONTOUR, BUILDING, STONEWALL, TREELINE, CHAIN LINK FENCE, STOCKADE FENCE, BARB WIRE FENCE, RETAINING WALL, GUARDRAIL, SEWER, SEWER FORCE MAIN, GAS, WATER, STORM DRAIN, UNDERDRAIN, CULVERT, UNDERGROUND ELECTRIC, OVERHEAD ELECTRIC, UNDERGROUND TELEPHONE, UNDERGROUND CABLE TV, IRON PIPE/REBAR, DRILLHOLE, MONUMENT, SURVEY CONTROL POINT, SPOT ELEVATION, SEWER MANHOLE, DRAINAGE MANHOLE, CATCH BASIN, ELECTRIC MANHOLE, TELEPHONE MANHOLE, SHUTOFF VALVE, WATER SERVICE SHUTOFF, YARD HYDRANT, HYDRANT, GAS SERVICE SHUTOFF, GAS GATE VALVE, UTILITY POLE, UTILITY POLE W/ GUY, UTILITY POLE W/ LIGHT, LIGHT POLE, BOLLARD, FLAGPOLE, CONIFEROUS TREE, DECIDUOUS TREE, SHRUB, WETLAND FLAG, EDGE OF WATER, STREAM, EDGE OF WETLANDS, FLOODPLAIN, WETLANDS, DRAINAGE FLOW, DRAINAGE SWALE, PAVEMENT MARKINGS, SIGN, MAILBOX, TEMPORARY BENCH MARK, TEST PIT, TEST BORING, TEST PROBE, MONITORING WELL, LIMIT OF WORK, SILT FENCE, RIPRAP, RAILROAD, MATCHLINE, ROCK OUTCROP.

Project information block including: CITY OF PORTSMOUTH, NH; SAGAMORE AVENUE SEWER EXTENSION PROJECT; DRAWING C-1; WRIGHT-PIERCE logo; 888.621.8156 | www.wright-pierce.com; and a table for SUBMISSIONS/REVIEWS with columns for NO, DATE, and DESCRIPTION.



- NOTES:**
1. WORK OUTSIDE CITY OWNED EASEMENTS AND RIGHTS OF WAY ARE NOT AUTHORIZED UNTIL HOMEOWNER AND CITY SIGN OFFS ARE EXECUTED.
 2. ALL AREAS (EXCEPT GRAVEL DRIVEWAYS) THAT ARE EXCAVATED, FILLED OR OTHERWISE DISTURBED BY THE CONTRACTOR AND ARE NOT TO BE PAVED OR FILLED WITH GRAVEL OR RIPRAP SHALL BE LOAMED, GRADED, FERTILIZED, SEEDED AND MULCHED. ALL AREAS ARE TO RECEIVE A MINIMUM OF 4" OF TOPSOIL. REFER TO SPECIFICATION SECTION 02480.
 3. SAGAMORE AVENUE (NH 1A), WENTWORTH HOUSE ROAD (NH 1B) AND SAGAMORE GROVE TO BE FULL WIDTH MILLED AND OVERLAID TO WITHIN LIMITS SHOWN.
 4. CONTRACTOR TO CONDUCT TEST PITS AT ALL SUBSURFACE UTILITY CROSSINGS.

APP'D	DATE
K.GAR	01-21
SUBMISSIONS/REVISIONS	
NO	PERMITTING
DESIGNED BY: J.LOC	DESIGNED BY: J.LOC
CAD CORP: J.MIC	CAD CORP: J.MIC
CHECKED BY: K.LOBE	CHECKED BY: K.LOBE
DATE: 08-21	DATE: 08-21
APPROVED BY: K.GAR	APPROVED BY: K.GAR
DATE: 08-21	DATE: 08-21
PROJECT NO: 11304C	PROJECT NO: 11304C

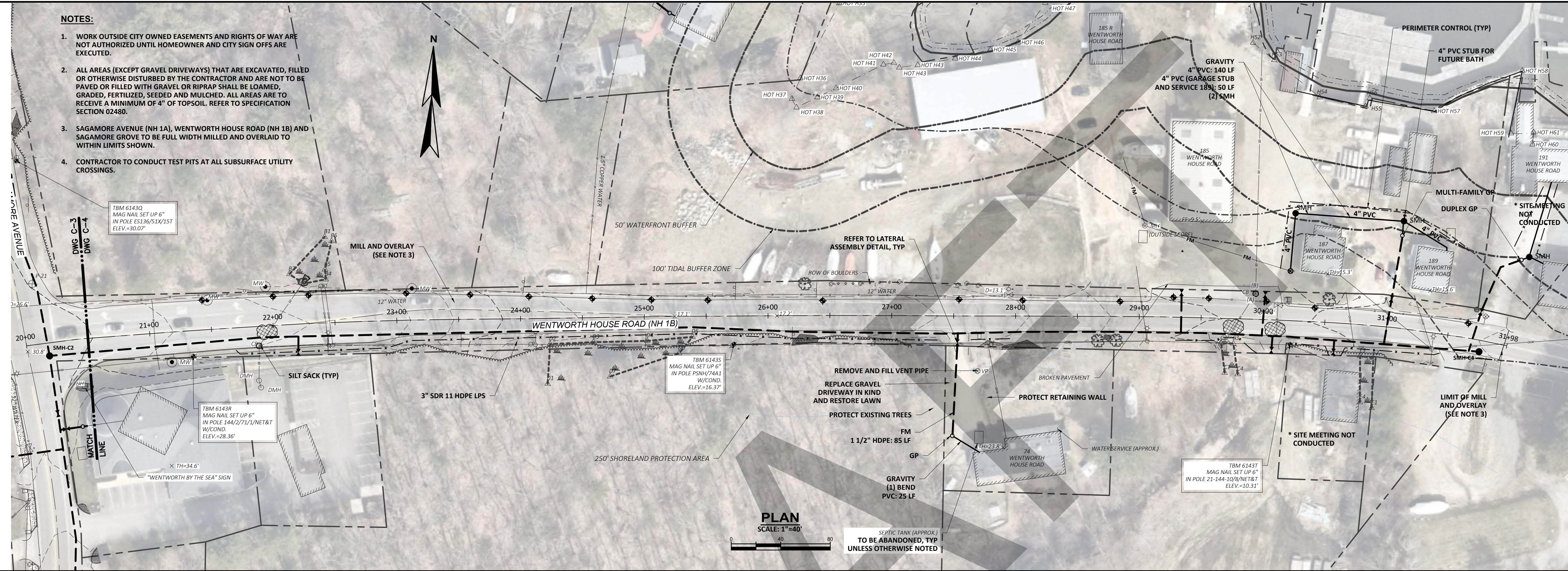
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CITY OF PORTSMOUTH, NH
SAGAMORE AVENUE SEWER EXTENSION
PROJECT

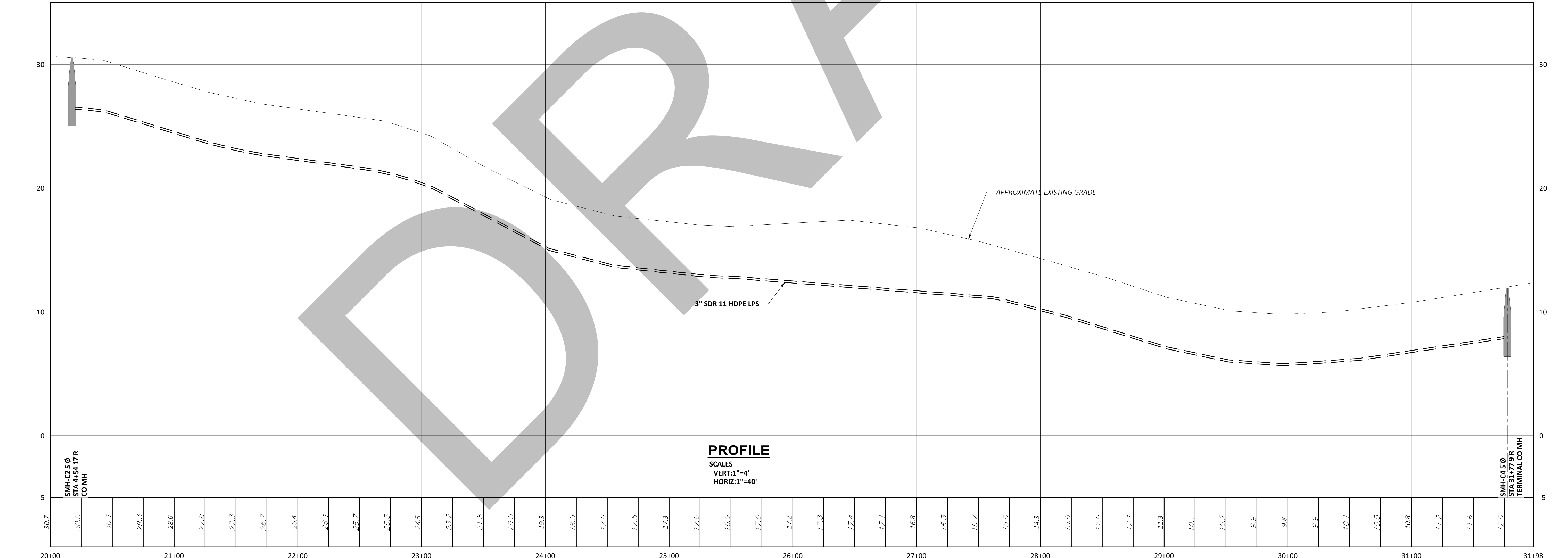
PLAN AND PROFILE: SAGAMORE AVE
 STA 1+00 TO STA 10+37

DRAWING
 C-3

- NOTES:**
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PLAN
SCALE: 1"=40'



PROFILE
SCALES
VERT: 1"=4'
HORIZ: 1"=40'

NO	PERMITTING	DESIGNED BY: J.LOC	APP'D DATE
1		J.LOC	K.GAR 01-21
2		D.FUD	
3		K.LOBE	
4		K.GAR	
5		K.GAR	
6			
7			
8			
9			
10			

DESIGNED BY: J.LOC
 CAD CORP: J.LOC
 CHECKED BY: K.LOBE
 DATE: 01-21
 APPROVED BY: K.GAR
 DATE: 01-21
 PROJECT NO: 130404

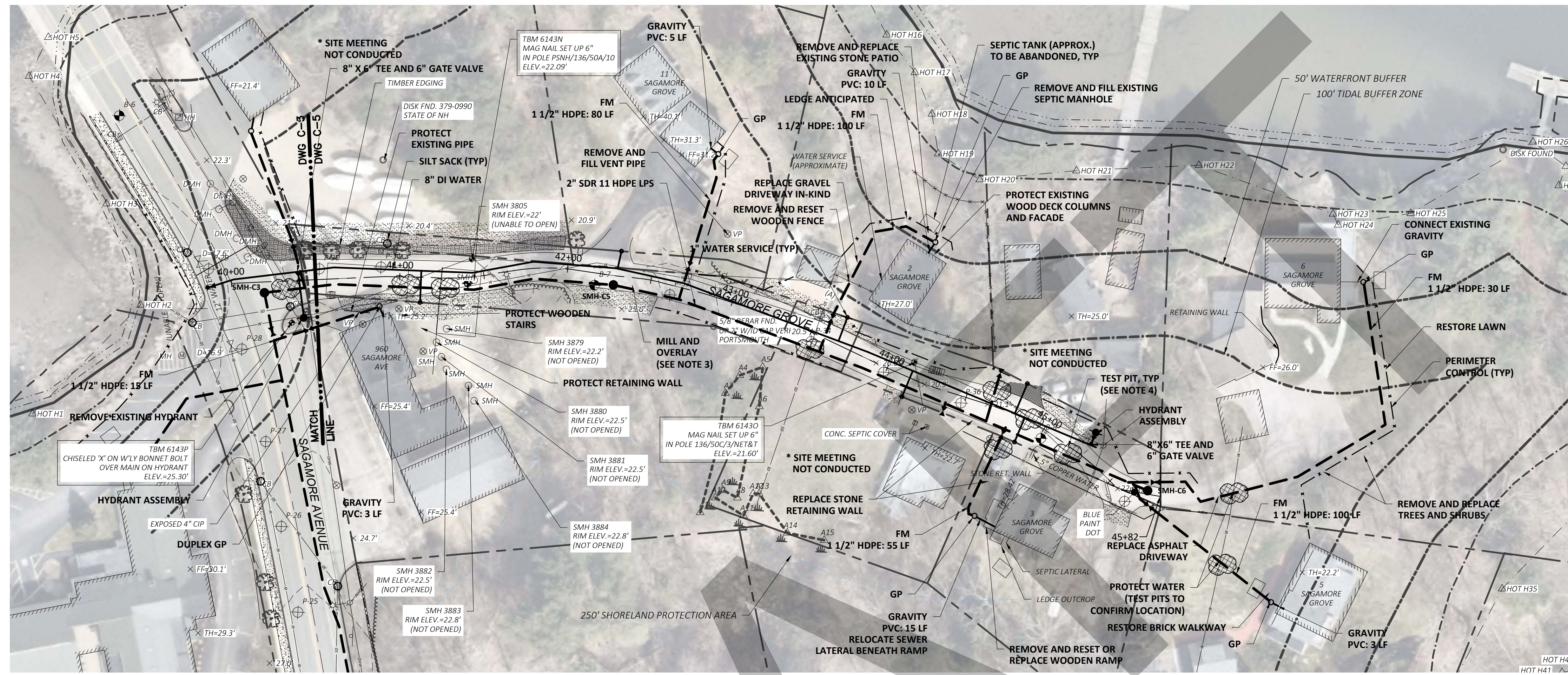
PERIMETER CONTROL (TYP)
 4" PVC STUB FOR FUTURE BATH
 MULTI-FAMILY OR DUPLEX GP
 * SITE MEETING NOT CONDUCTED
 LIMIT OF MILL AND OVERLAY (SEE NOTE 3)

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CITY OF PORTSMOUTH, NH
SAGAMORE AVENUE SEWER EXTENSION
PROJECT

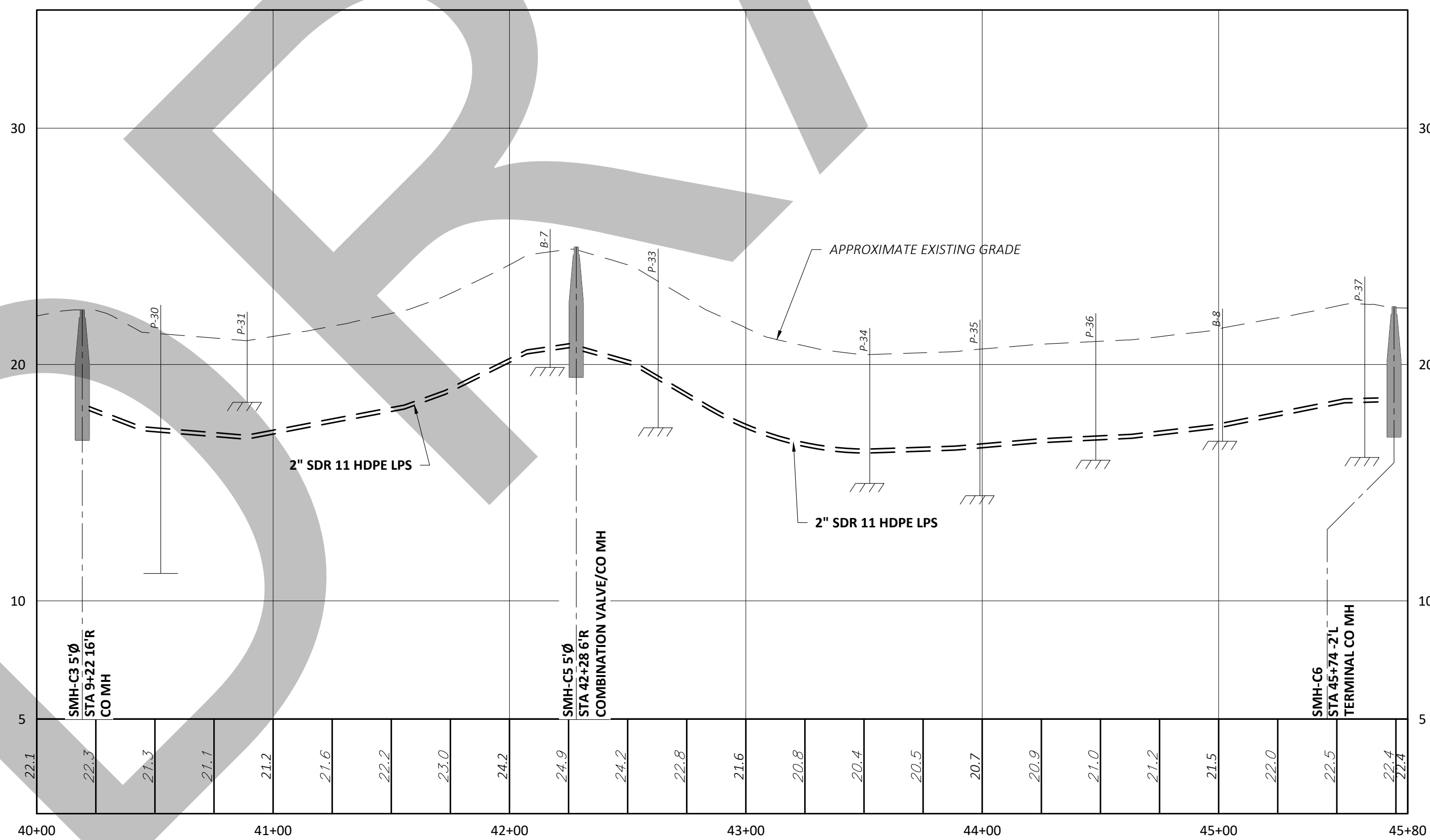
PLAN AND PROFILE: WENTWORTH RD
 STA 20+00 TO STA 31+98

DRAWING
 C-4



PLAN

SCALE: 1"=40'



PROFILE

SCALE: VERT: 1"=4'
HORIZ: 1"=40'

NOTES:

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NO	PERMITTING	DESIGNED BY: J.LLOC	APP'D DATE
1		CAD CORP: J.MIC	K.GAR 01-21
2		CD: D.FUD	
3		CHECKED BY: K.LOBE	
4		DATE: 02-21	
5		APPROVED BY: K.GAR	
6		DATE: 02-21	
7		PROJECT NO: 11304C	

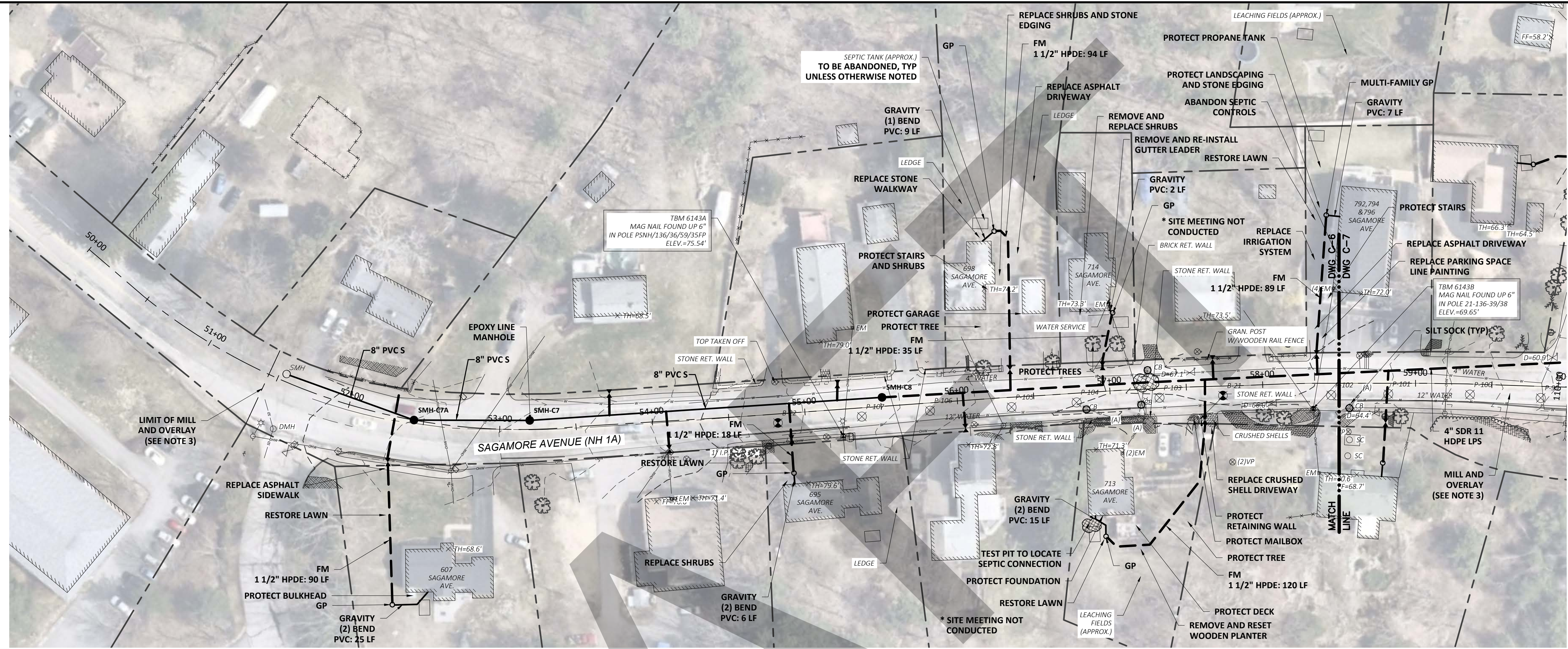
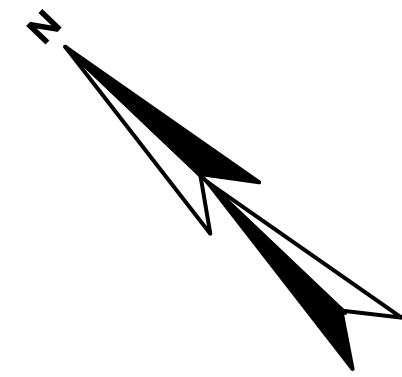
NO	REVISIONS

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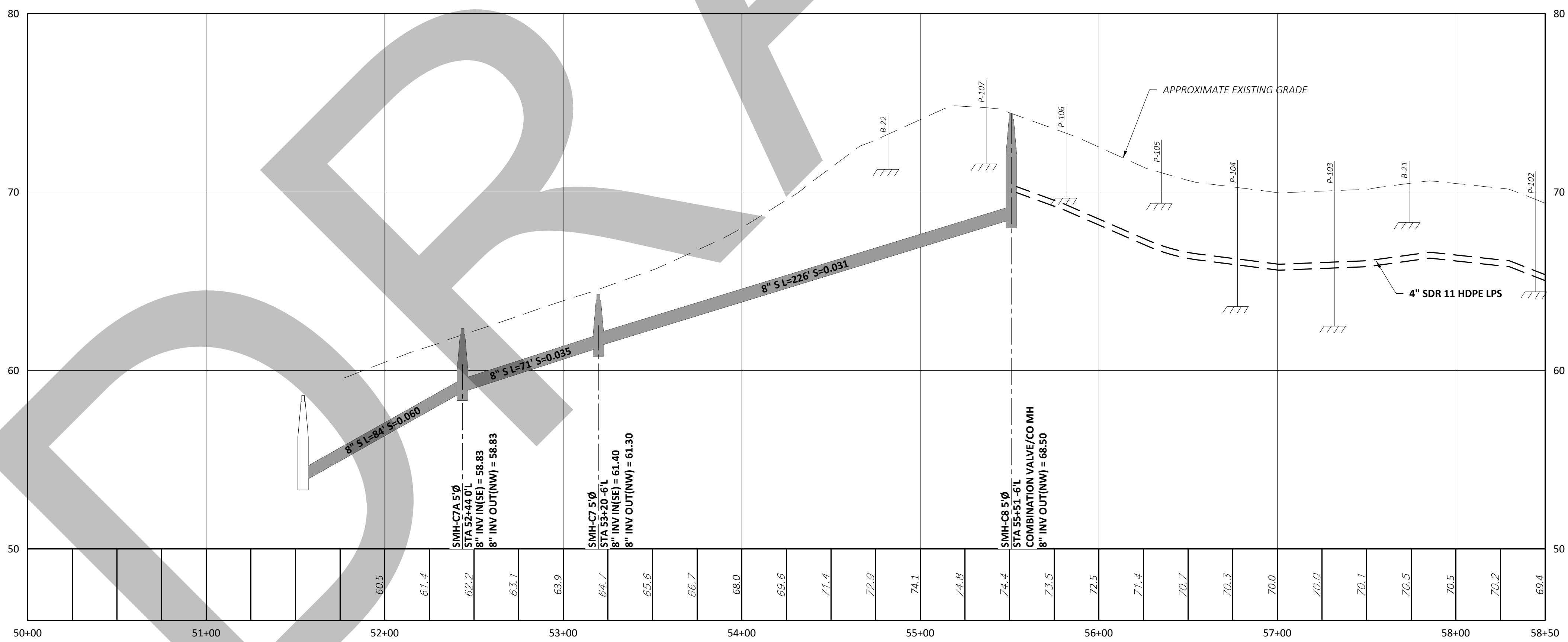
CITY OF PORTSMOUTH, NH
SAGAMORE AVENUE SEWER EXTENSION
PROJECT

PLAN AND PROFILE: SAGAMORE GROVE
STA 40+00 TO STA 45+56

DRAWING
C-5



PLAN
SCALE: 1"=40'



PROFILE
SCALES
VERT: 1"=4'
HORIZ: 1"=40'

- NOTES:**
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NO	PERMITTING	NO	DESIGNED BY:	J.LLOC
			CAD CORP:	J.MIC
			CHKD BY:	D.FUD
			CREATED BY:	K.LOBE
			DATE:	02-21
			APPROVED BY:	K.GAR
			DATE:	02-21
			PROJECT NO.:	11304C

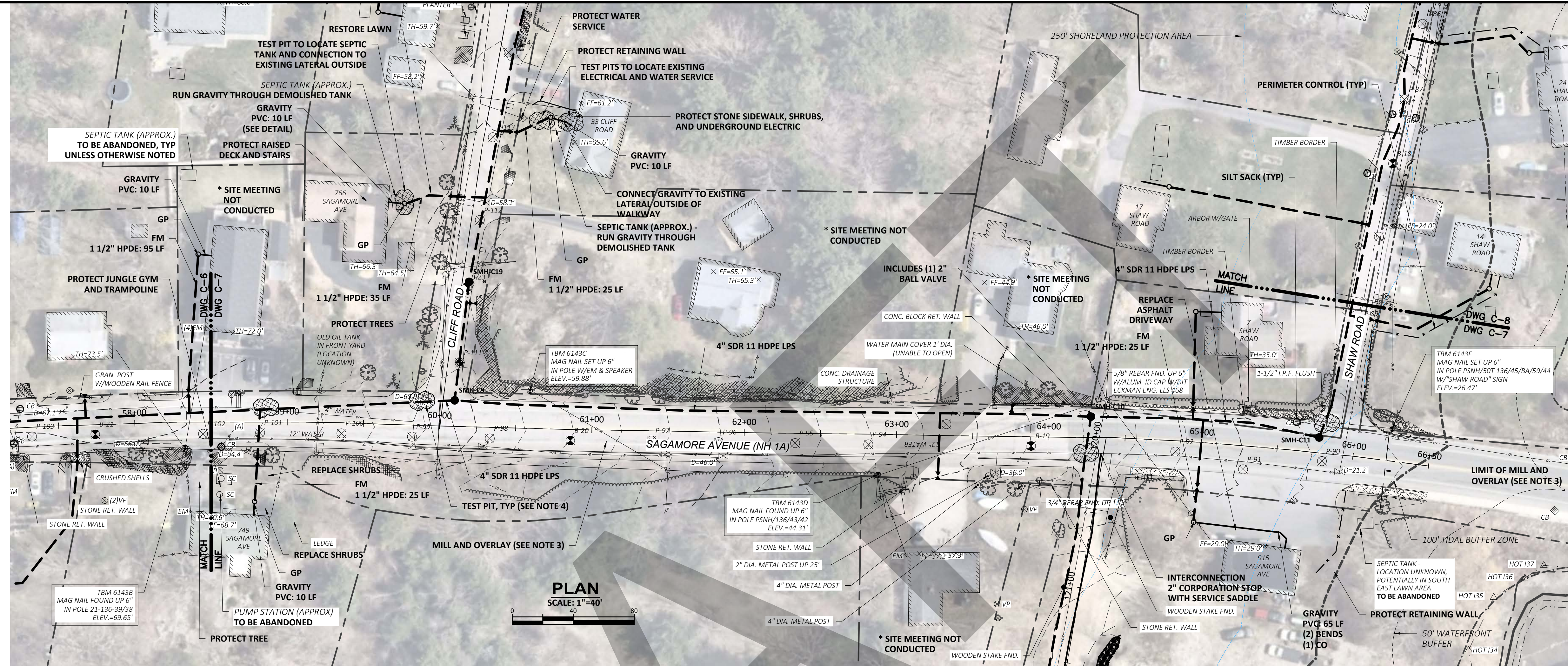
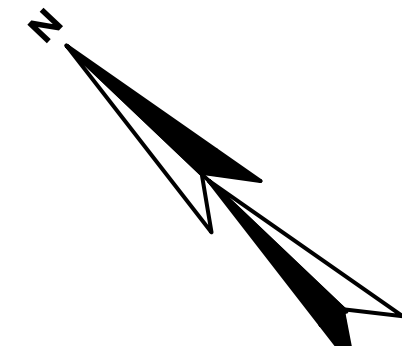
APPD	DATE
K.GAR	01-21

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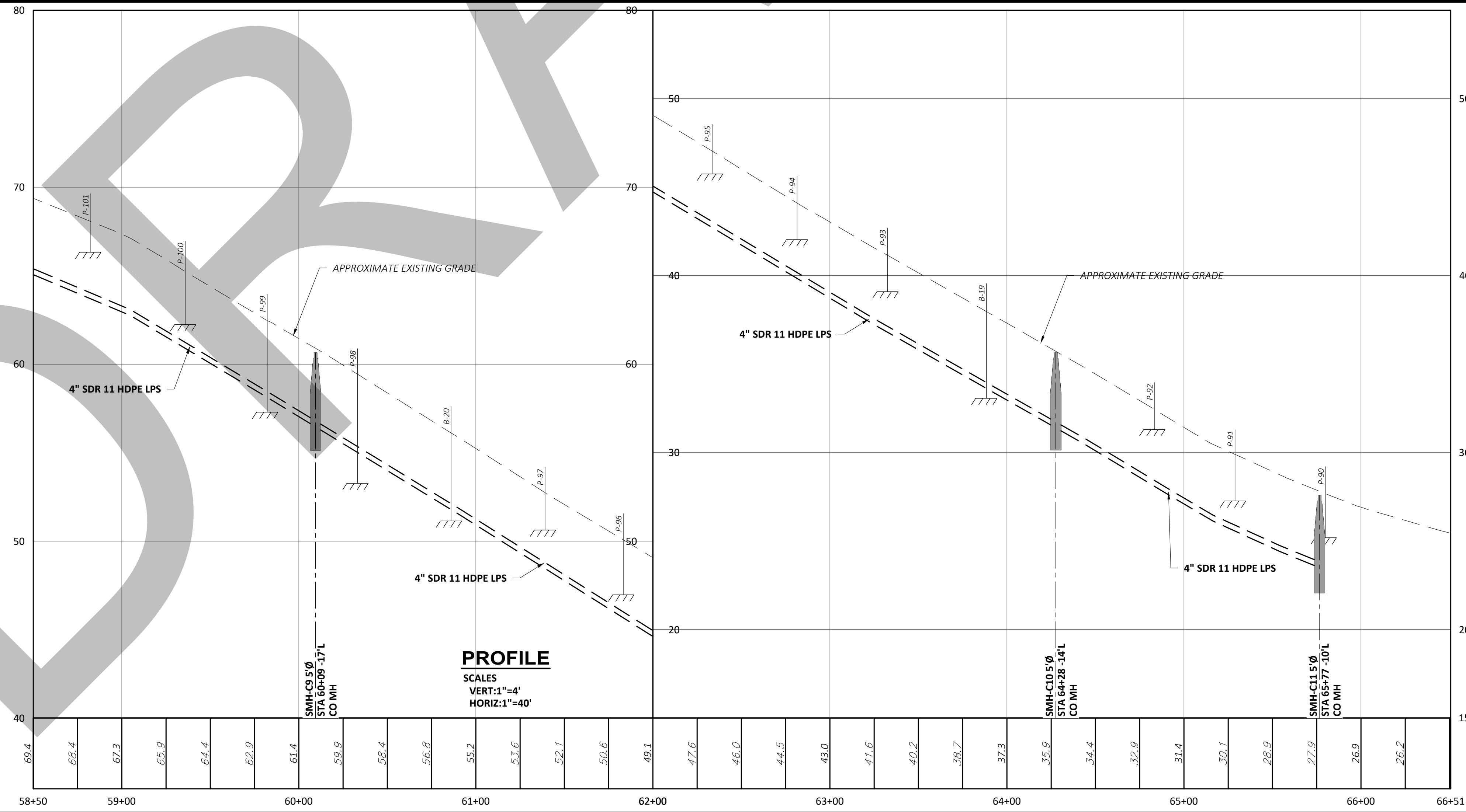
CITY OF PORTSMOUTH, NH
SAGAMORE AVENUE SEWER EXTENSION
PROJECT

PLAN AND PROFILE: SAGAMORE AVE
STA 50+00 TO STA 58+50

DRAWING
C-6



PLAN
SCALE: 1"=40'



PROFILE
SCALES
VERT: 1"=4'
HORIZ: 1"=40'

NOTES:

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NO	PERMITTING	DESIGNED BY: J.L.O.C.	APP'D DATE
1		CHD: D.F.U.D.	K.GAR 01-21
2		CHECKED BY: K.LOBE	
3		DATE: 02-21	
4		APPROVED BY: K.GAR	
5		DATE: 02-21	
6		PROJECT NO: 11304C	

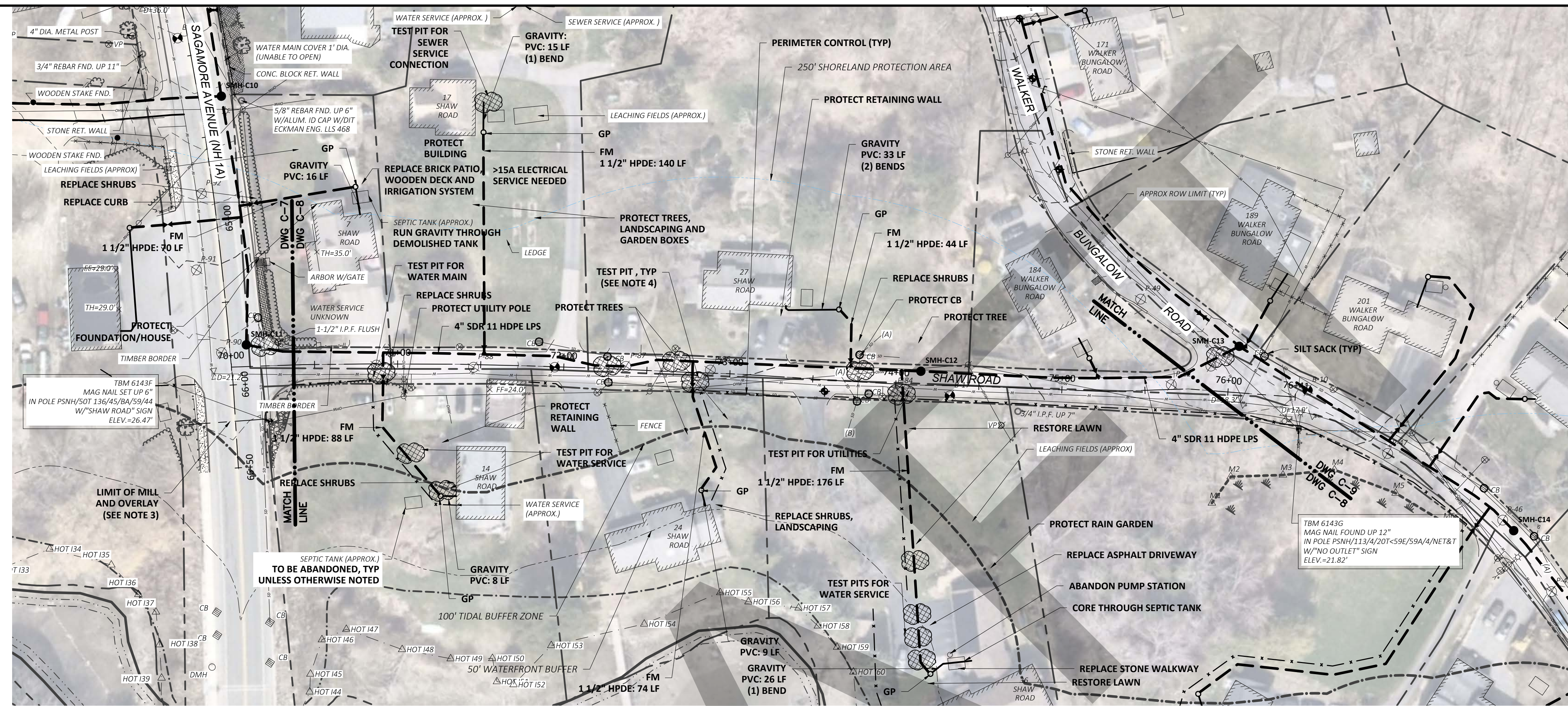
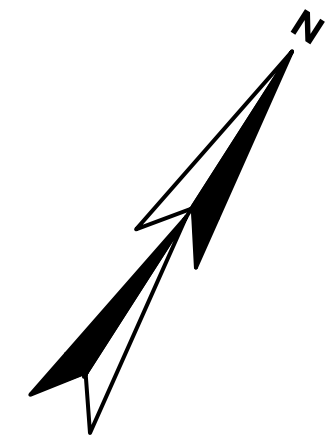
NO	PERMITTING	DESIGNED BY: J.L.O.C.	APP'D DATE
1		CHD: D.F.U.D.	K.GAR 01-21
2		CHECKED BY: K.LOBE	
3		DATE: 02-21	
4		APPROVED BY: K.GAR	
5		DATE: 02-21	
6		PROJECT NO: 11304C	

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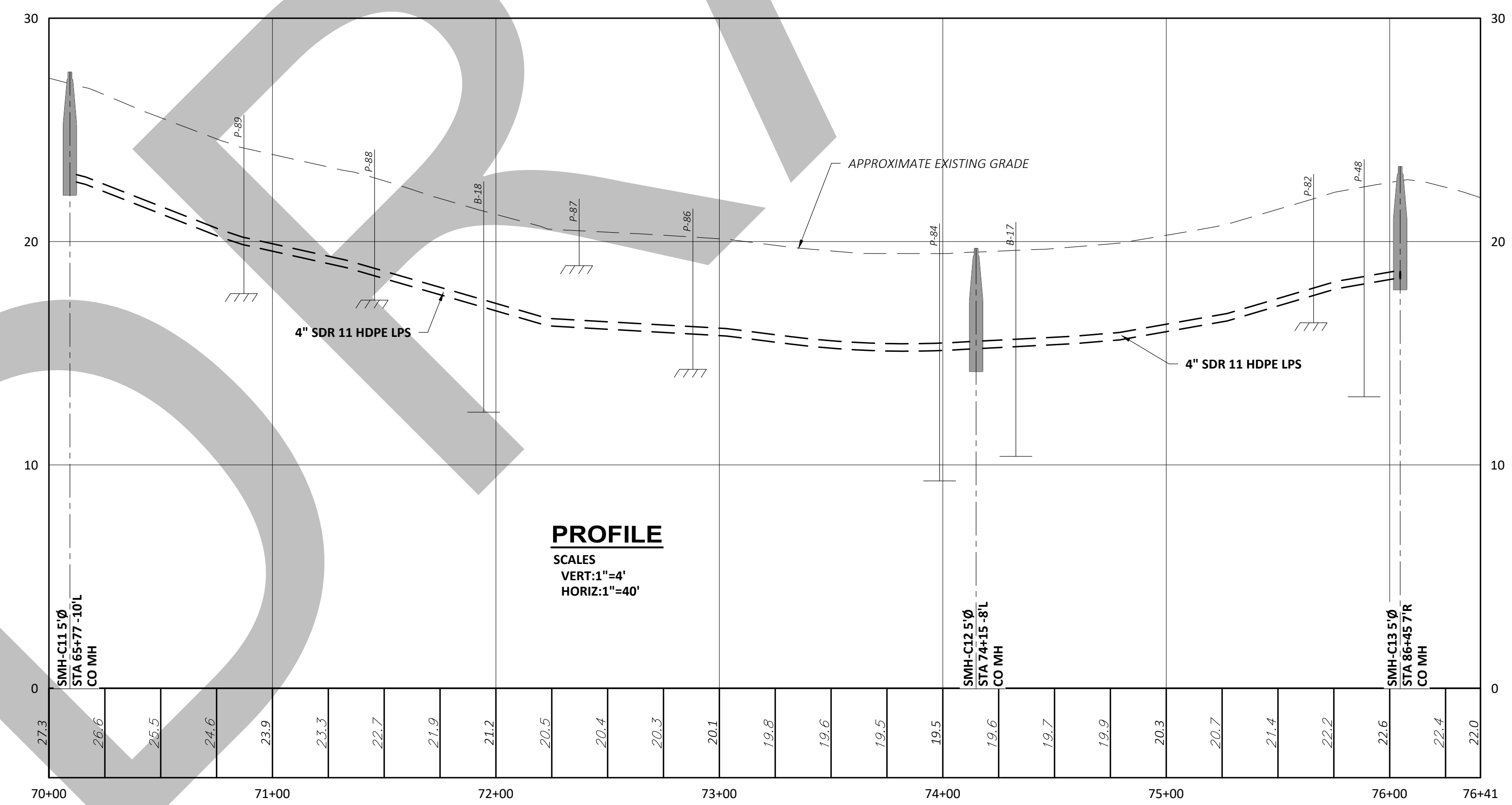
CITY OF PORTSMOUTH, NH
SAGAMORE AVENUE SEWER EXTENSION
PROJECT

DRAWING
C-7

PLAN AND PROFILE: SAGAMORE AVE
STA 58+50 TO STA 66+50



PLAN
SCALE: 1"=40'

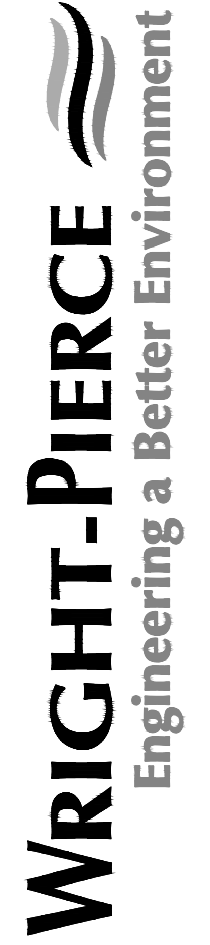


PROFILE
SCALES
VERT: 1"=4'
HORIZ: 1"=40'

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NO	PERMITTING	DESIGNED BY: J.LLOC	DATE
1		J.LLOC	01-21
2		D.FUID	
3		K.LOBE	
4		K.GAR	
5		K.GAR	

SUBMISSIONS/REVISIONS
 NO PERMITTING
 DESIGNED BY: J.LLOC
 CAD CORP: J.LLOC
 CD: D.FUID
 CHECKED BY: K.LOBE
 DATE: 01-21
 APPROVED BY: K.GAR
 DATE: 01-21
 PROJECT NO: 1304C

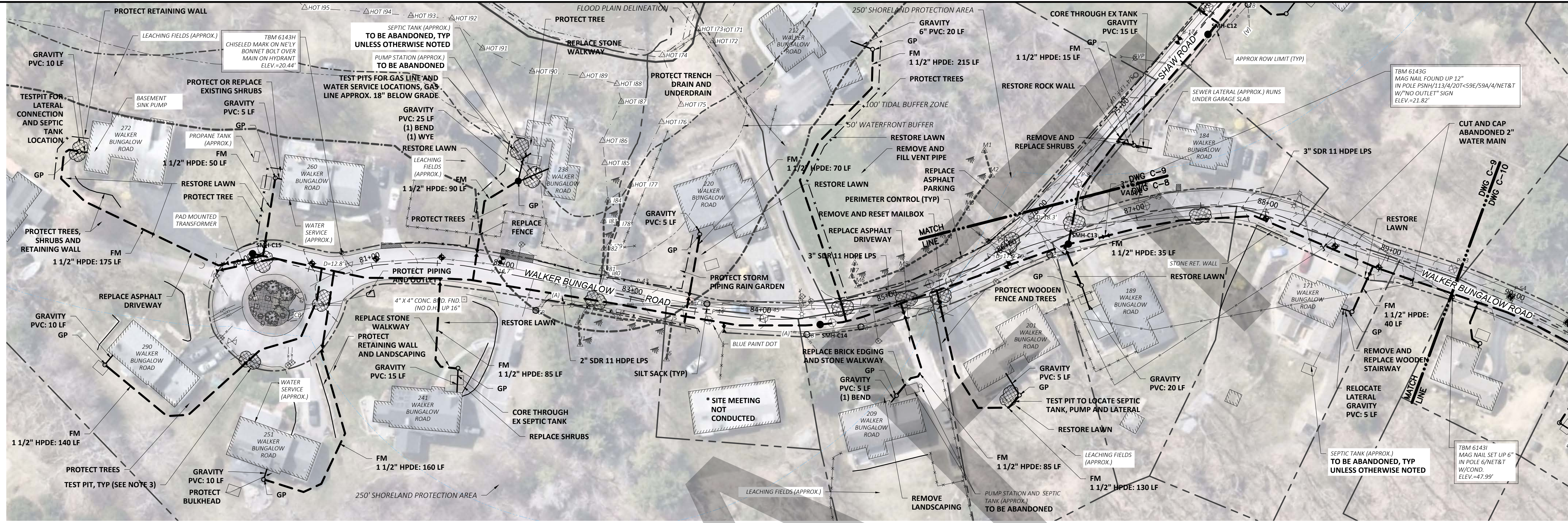


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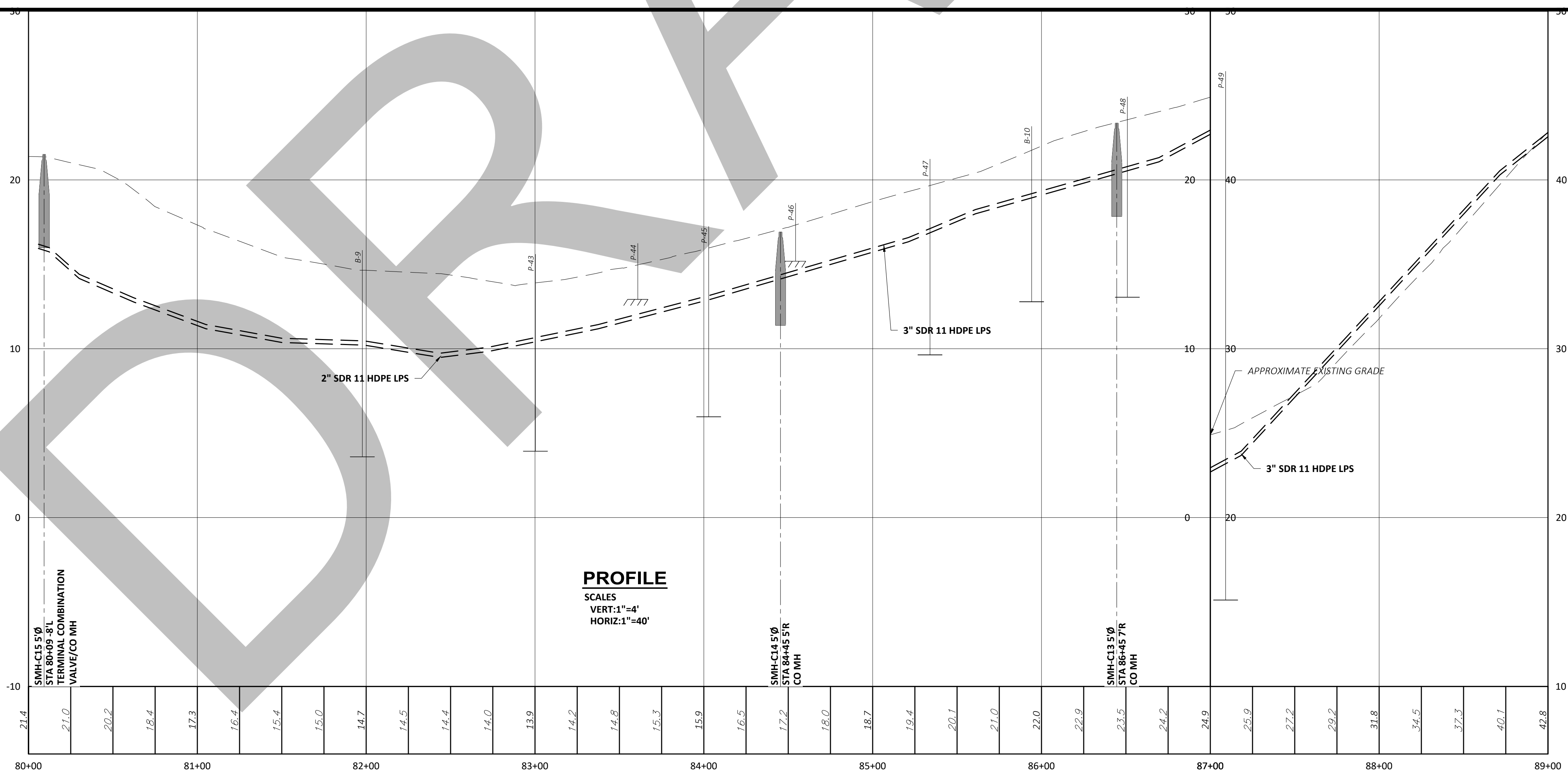
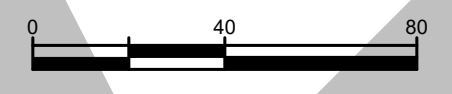
CITY OF PORTSMOUTH, NH
SAGAMORE AVENUE SEWER EXTENSION
PROJECT

PLAN AND PROFILE: SHAW RD
 STA 70+00 TO STA 76+41

DRAWING
C-8



PLAN SCALE: 1"=40'



PROFILE SCALES VERT: 1"=4' HORIZ: 1"=40'

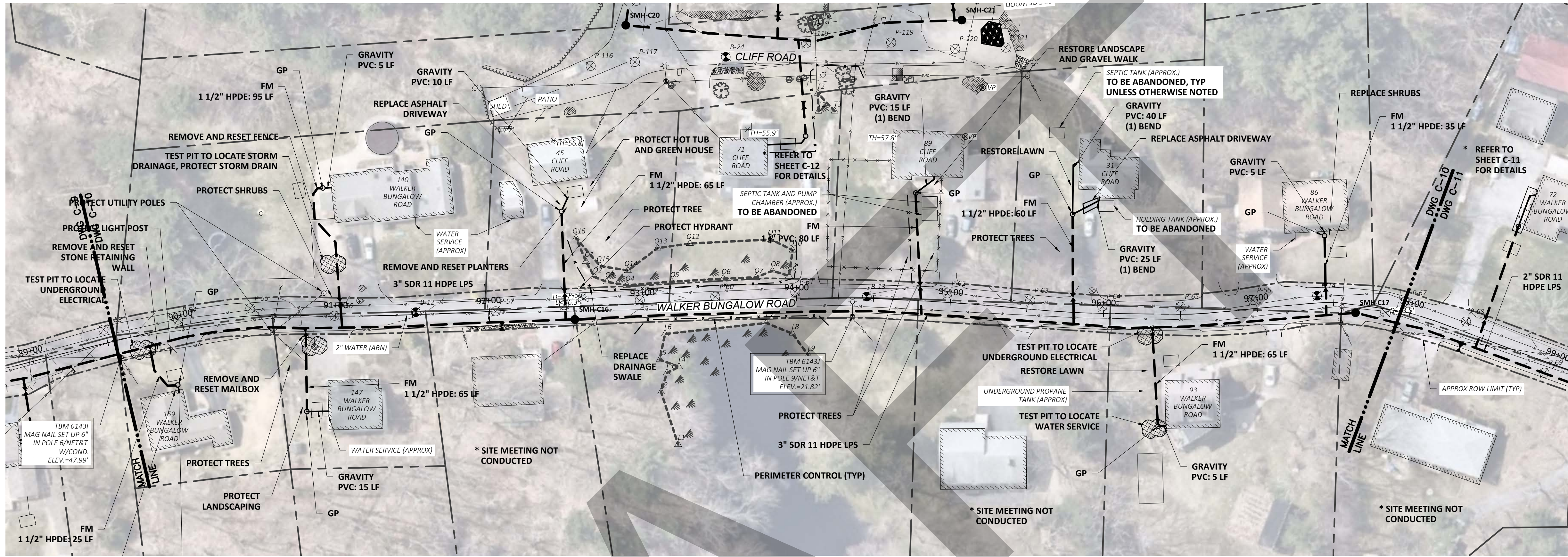
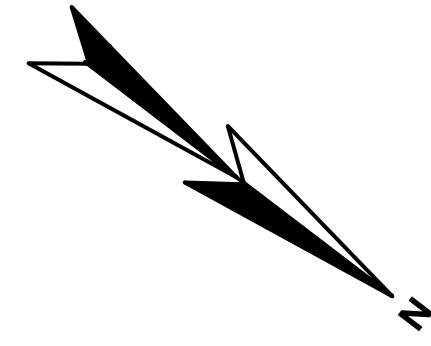
- NOTES:**
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 3. CONTRACTOR TO CONDUCT TEST PITS AT ALL SUBSURFACE UTILITY CROSSINGS.

NO.	PERMITTING	DESIGNED BY: J.L.O.C.	APP'D DATE
1		CD: J.M.C.	K.G.A.R. 01-21
2		CD: D.F.U.D.	
3		CHECKED BY: K.L.O.B.E.	
4		DATE: 02-21	
5		APPROVED BY: K.G.A.R.	
6		DATE: 02-21	
7		PROJECT NO.: 11304C	

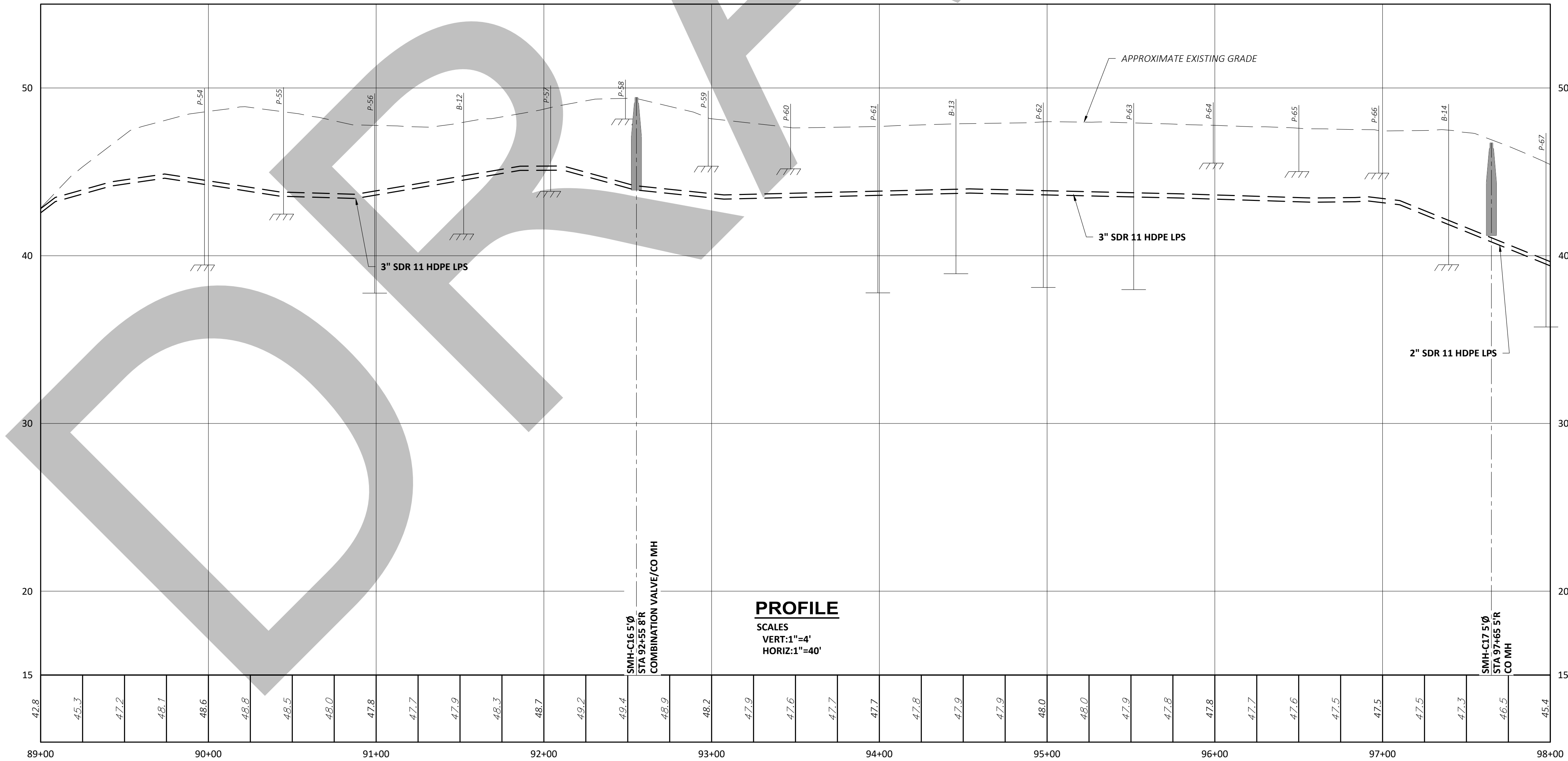
CITY OF PORTSMOUTH, NH
SAGAMORE AVENUE SEWER EXTENSION
PROJECT

PLAN AND PROFILE: WALKER BUNGALOW RD
STA 80+00 TO STA 89+00

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PLAN
SCALE: 1"=40'



PROFILE
SCALES
VERT: 1"=4'
HORIZ: 1"=40'

NOTES:

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NO	PERMITTING	SUBMISSIONS/REVISIONS	APP'D	DATE
1			K.GAR	03-21

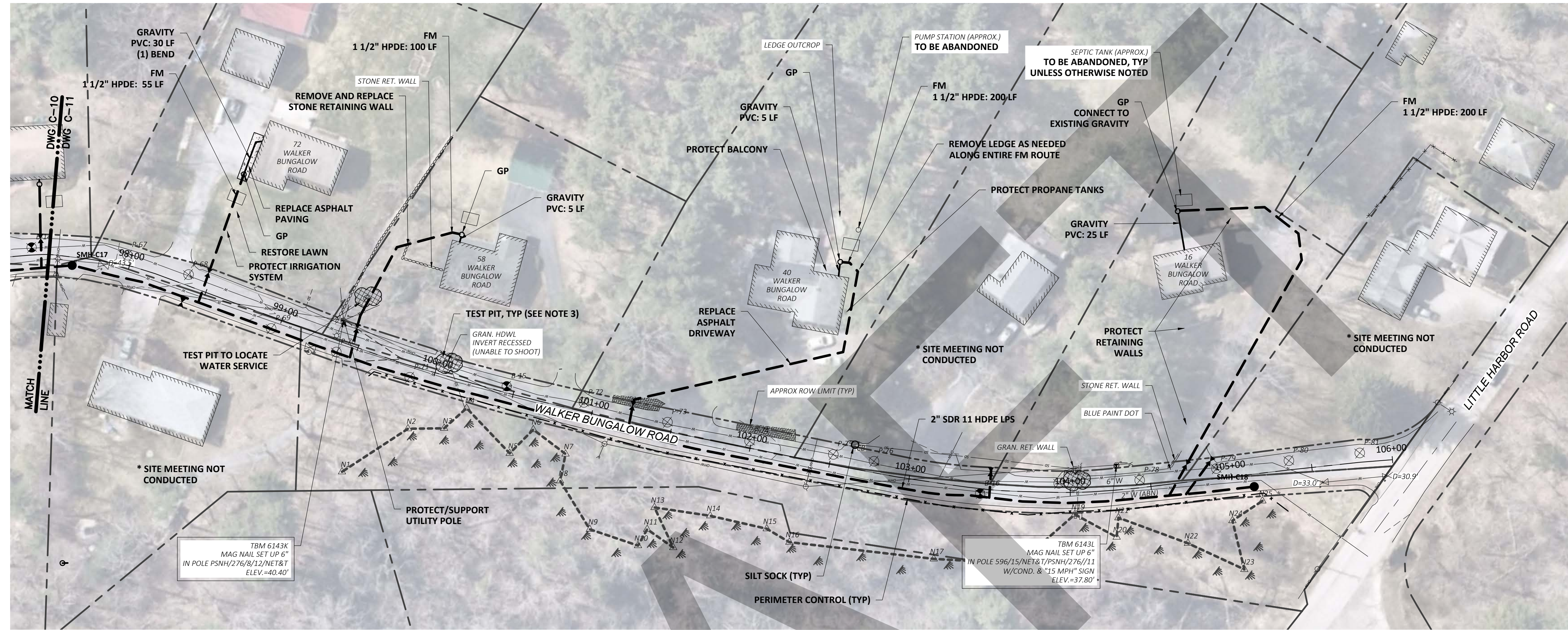
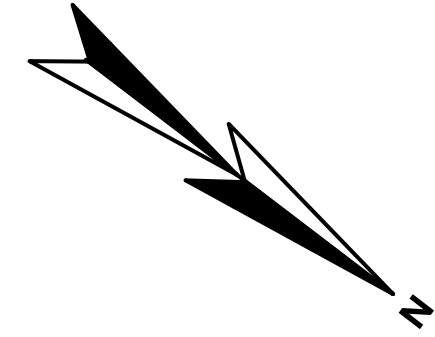
DESIGNED BY: J.LOC
 CAD CORP: J.MIC
 CD: D.FUD
 CHECKED BY: K.LOBE
 DATE: 02-21
 APPROVED BY: K.GAR
 DATE: 02-21
 PROJECT NO.: 1304C

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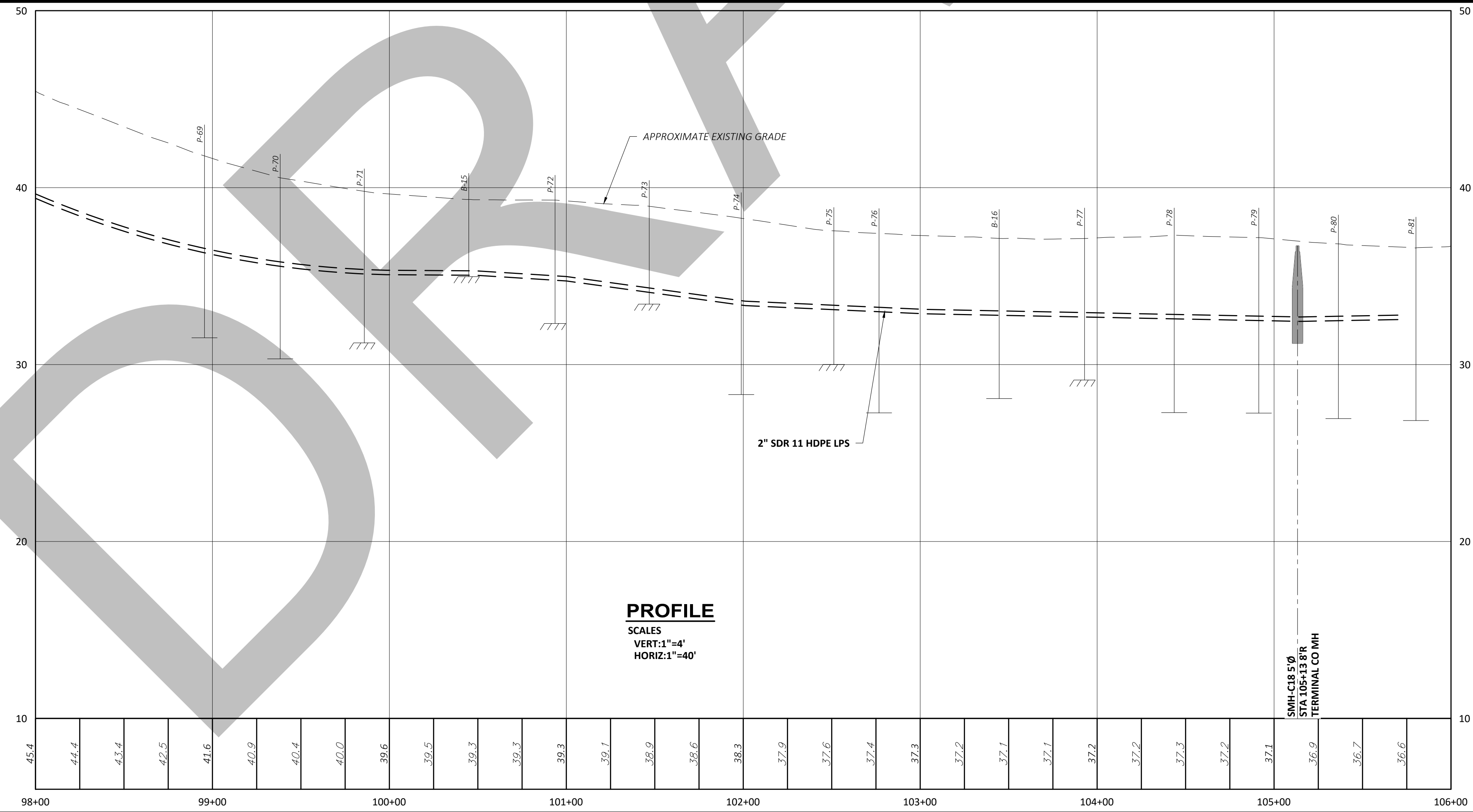
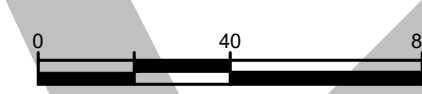
CITY OF PORTSMOUTH, NH
SAGAMORE AVENUE SEWER EXTENSION
PROJECT

PLAN AND PROFILE: WALKER BUNGALOW RD
 STA 89+00 TO STA 98+00

DRAWING
C-10



PLAN
SCALE: 1"=40'



PROFILE
SCALES
VERT: 1"=4'
HORIZ: 1"=40'

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NO	PERMITTING	NO	DESIGNED BY: J.LOC	APP'D DATE
1			CD: J.MIC	K.GAR 01-21
2			CD: D.FUD	
3			CD: K.LOBE	
4			DATE: 02-21	
5			DATE: 02-21	
6			DATE: 02-21	
7			DATE: 02-21	
8			DATE: 02-21	
9			DATE: 02-21	
10			DATE: 02-21	

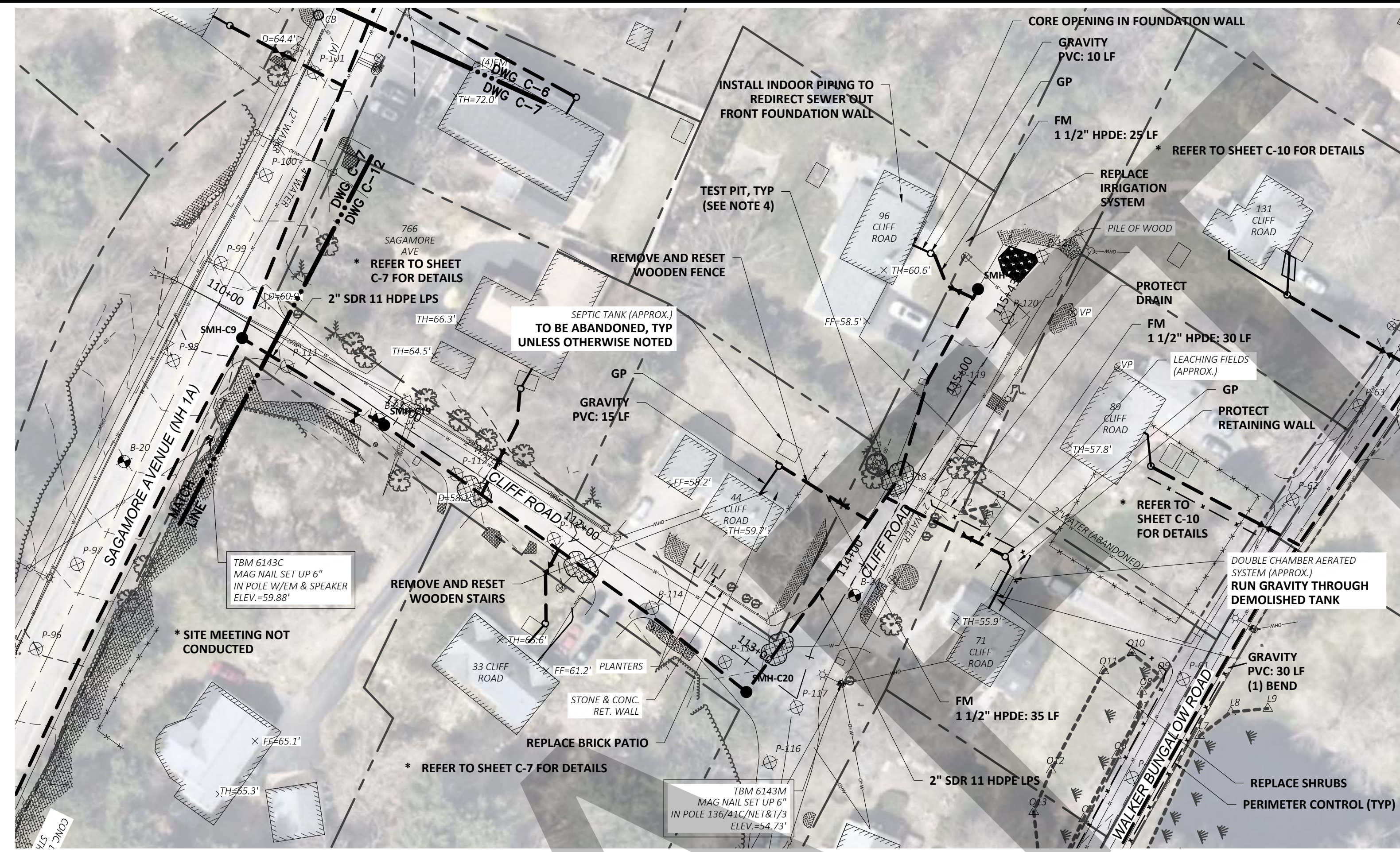
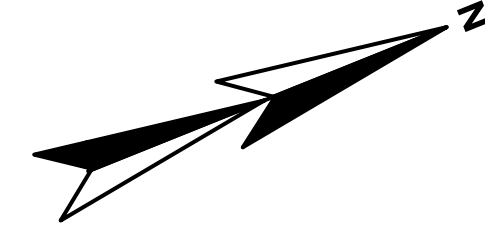
NO	PERMITTING	NO	DESIGNED BY: J.LOC
1			CD: J.MIC
2			CD: D.FUD
3			CD: K.LOBE
4			DATE: 02-21
5			DATE: 02-21
6			DATE: 02-21
7			DATE: 02-21
8			DATE: 02-21
9			DATE: 02-21
10			DATE: 02-21

NO	PERMITTING	NO	DESIGNED BY: J.LOC
1			CD: J.MIC
2			CD: D.FUD
3			CD: K.LOBE
4			DATE: 02-21
5			DATE: 02-21
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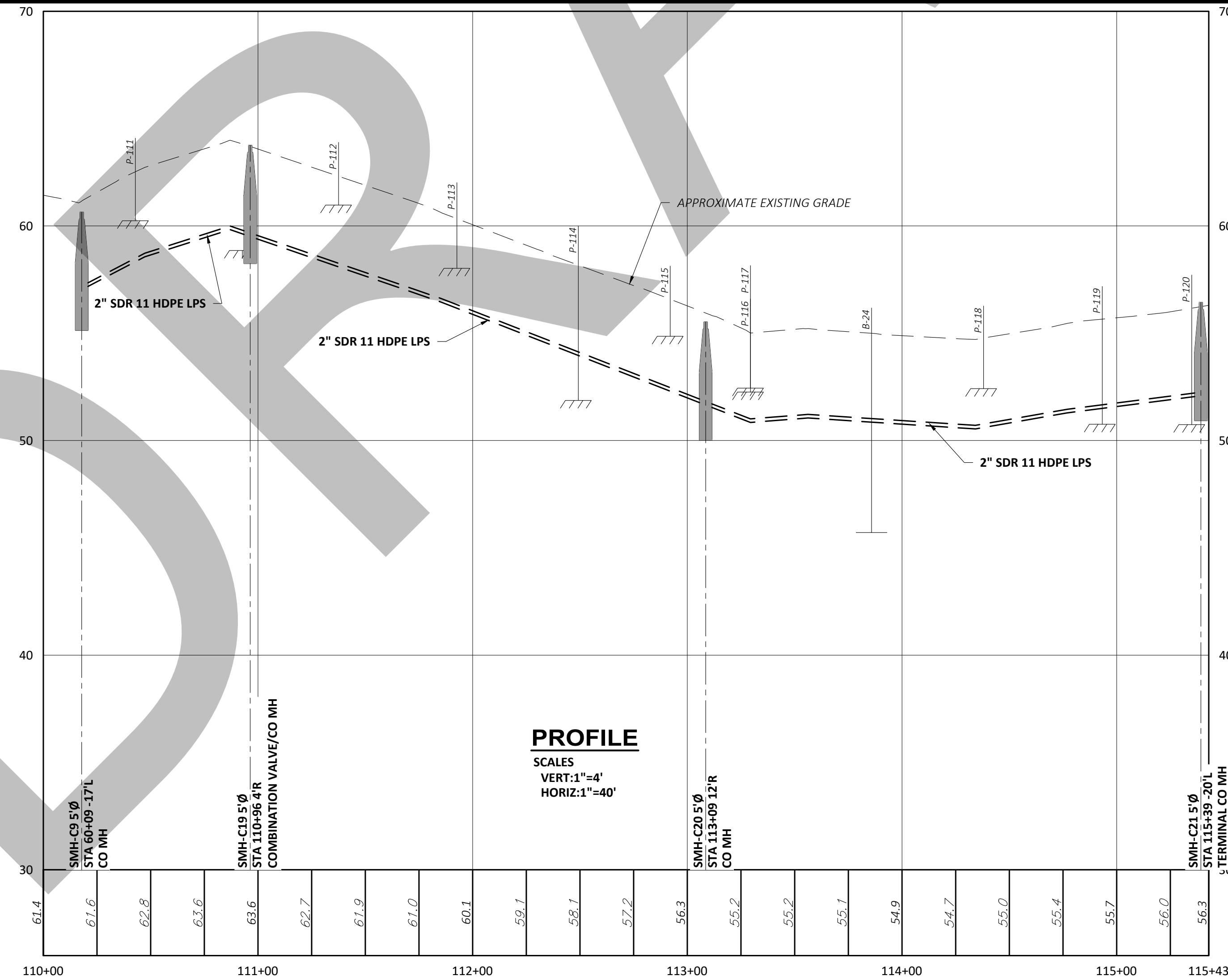
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CITY OF PORTSMOUTH, NH
SAGAMORE AVENUE SEWER EXTENSION PROJECT
PLAN AND PROFILE: WALKER BUNGALOW RD
STA 98+00 TO STA 106+00

DRAWING
C-11



PLAN
SCALE: 1"=40'



PROFILE
SCALES
VERT: 1"=4'
HORIZ: 1"=40'

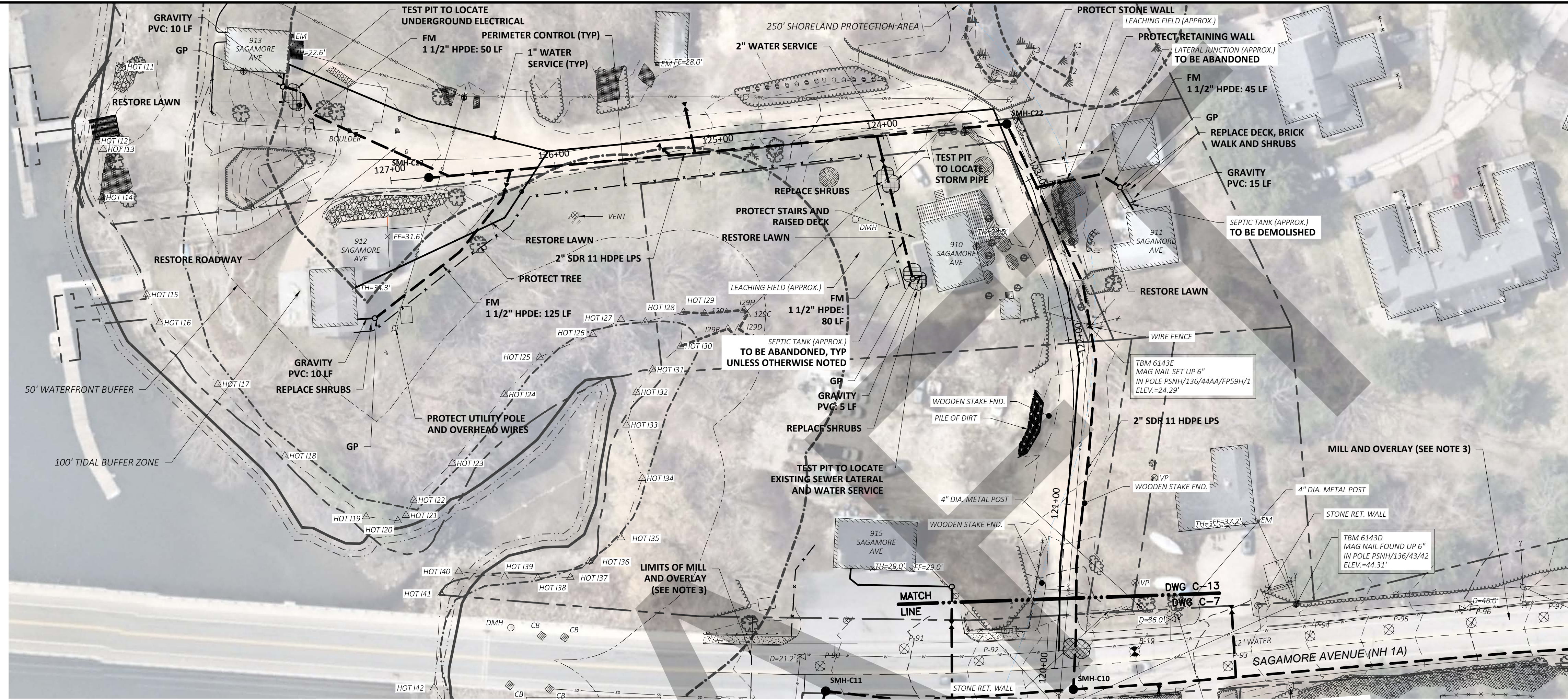
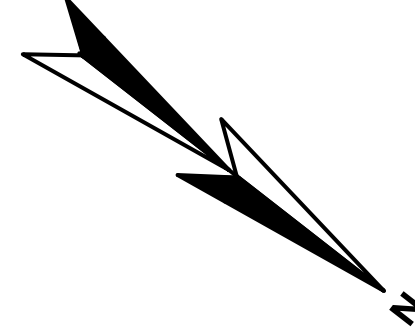
NOTES:

1. WORK OUTSIDE CITY OWNED EASEMENTS AND RIGHTS OF WAY ARE NOT AUTHORIZED UNTIL HOMEOWNER AND CITY SIGN OFFS ARE EXECUTED.
2. ALL AREAS (EXCEPT GRAVEL DRIVEWAYS) THAT ARE EXCAVATED, FILLED OR OTHERWISE DISTURBED BY THE CONTRACTOR AND ARE NOT TO BE PAVED OR FILLED WITH GRAVEL OR RIPRAP SHALL BE LOAMED, GRADED, FERTILIZED, SEEDED AND MULCHED. ALL AREAS ARE TO RECEIVE A MINIMUM OF 4" OF TOPSOIL. REFER TO SPECIFICATION SECTION 02480.
3. SAGAMORE AVENUE (NH 1A), WENTWORTH HOUSE ROAD (NH 1B) AND SAGAMORE GROVE TO BE FULL WIDTH MILLED AND OVERLAID TO WITHIN LIMITS SHOWN.
4. CONTRACTOR TO CONDUCT TEST PITS AT ALL SUBSURFACE UTILITY CROSSINGS.

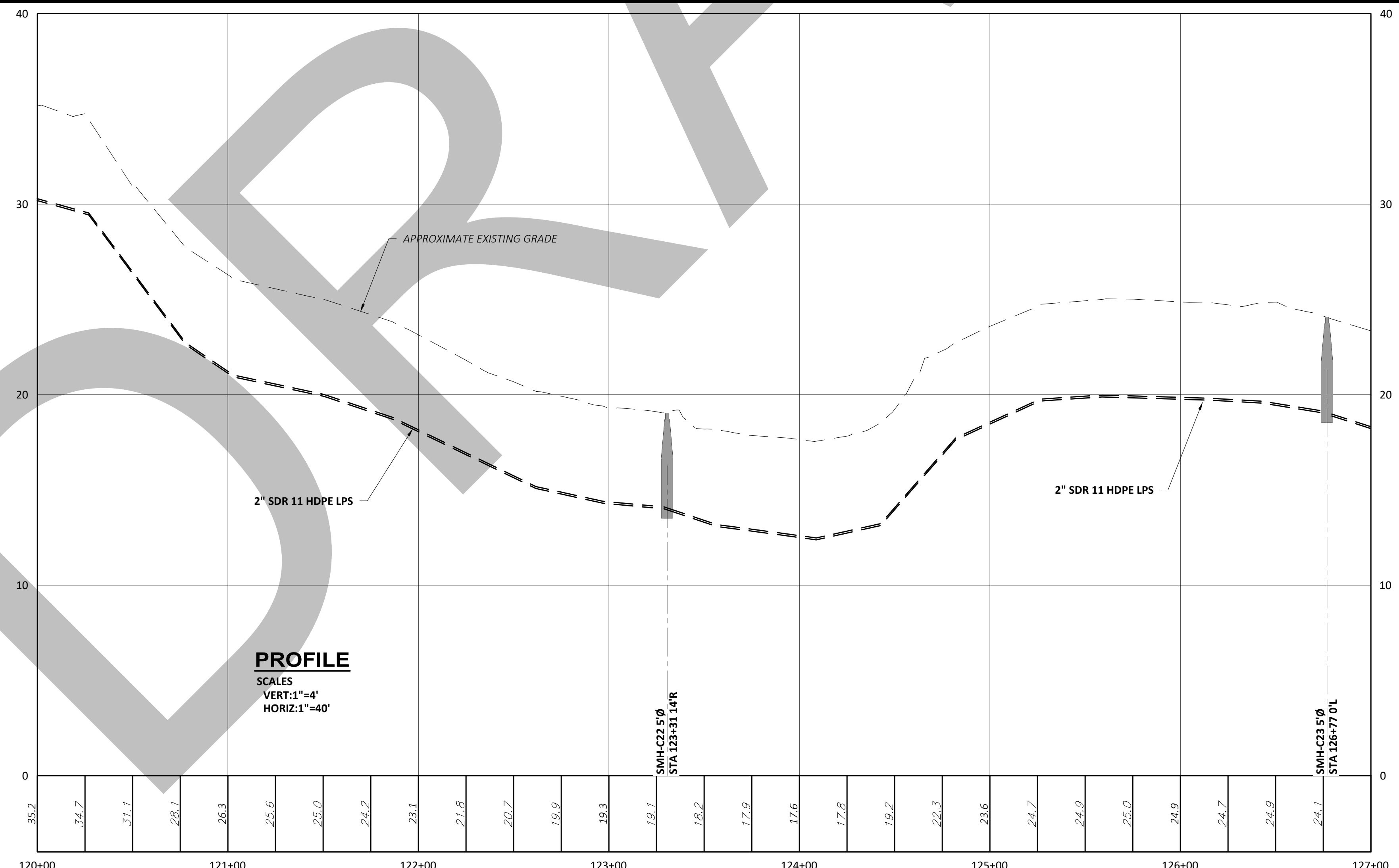
NO	PERMITTING	DESIGNED BY: J.LOC	APP'D DATE
		CAD CORP: J.MIC <td>K.GAR 01-21</td>	K.GAR 01-21
		CHKD: D.FUD <td></td>	
		CHECKED BY: K.LOBE <td></td>	
		DATE: 02-21 <td></td>	
		APPROVED BY: K.GAR <td></td>	
		DATE: 02-21 <td></td>	
		PROJECT NO: 11304C <td></td>	

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CITY OF PORTSMOUTH, NH
SAGAMORE AVENUE SEWER EXTENSION
PROJECT
PLAN AND PROFILE: CLIFF RD
STA 110+00 TO STA 115+43



PLAN
SCALE: 1"=40'



PROFILE
SCALE
VERT: 1"=4'
HORIZ: 1"=40'

- NOTES:**
1. WORK OUTSIDE CITY OWNED EASEMENTS AND RIGHTS OF WAY ARE NOT AUTHORIZED UNTIL HOMEOWNER AND CITY SIGN OFFS ARE EXECUTED.
 2. ALL AREAS (EXCEPT GRAVEL DRIVEWAYS) THAT ARE EXCAVATED, FILLED OR OTHERWISE DISTURBED BY THE CONTRACTOR AND ARE NOT TO BE PAVED OR FILLED WITH GRAVEL OR RIPRAP SHALL BE LOAMED, GRADED, FERTILIZED, SEEDED AND MULCHED. ALL AREAS ARE TO RECEIVE A MINIMUM OF 4" OF TOPSOIL. REFER TO SPECIFICATION SECTION 02480.
 3. SAGAMORE AVENUE (NH 1A), WENTWORTH HOUSE ROAD (NH 18) AND SAGAMORE GROVE TO BE FULL WIDTH MILLED AND OVERLAID TO WITHIN LIMITS SHOWN.
 4. CONTRACTOR TO CONDUCT TEST PITS AT ALL SUBSURFACE UTILITY CROSSINGS.

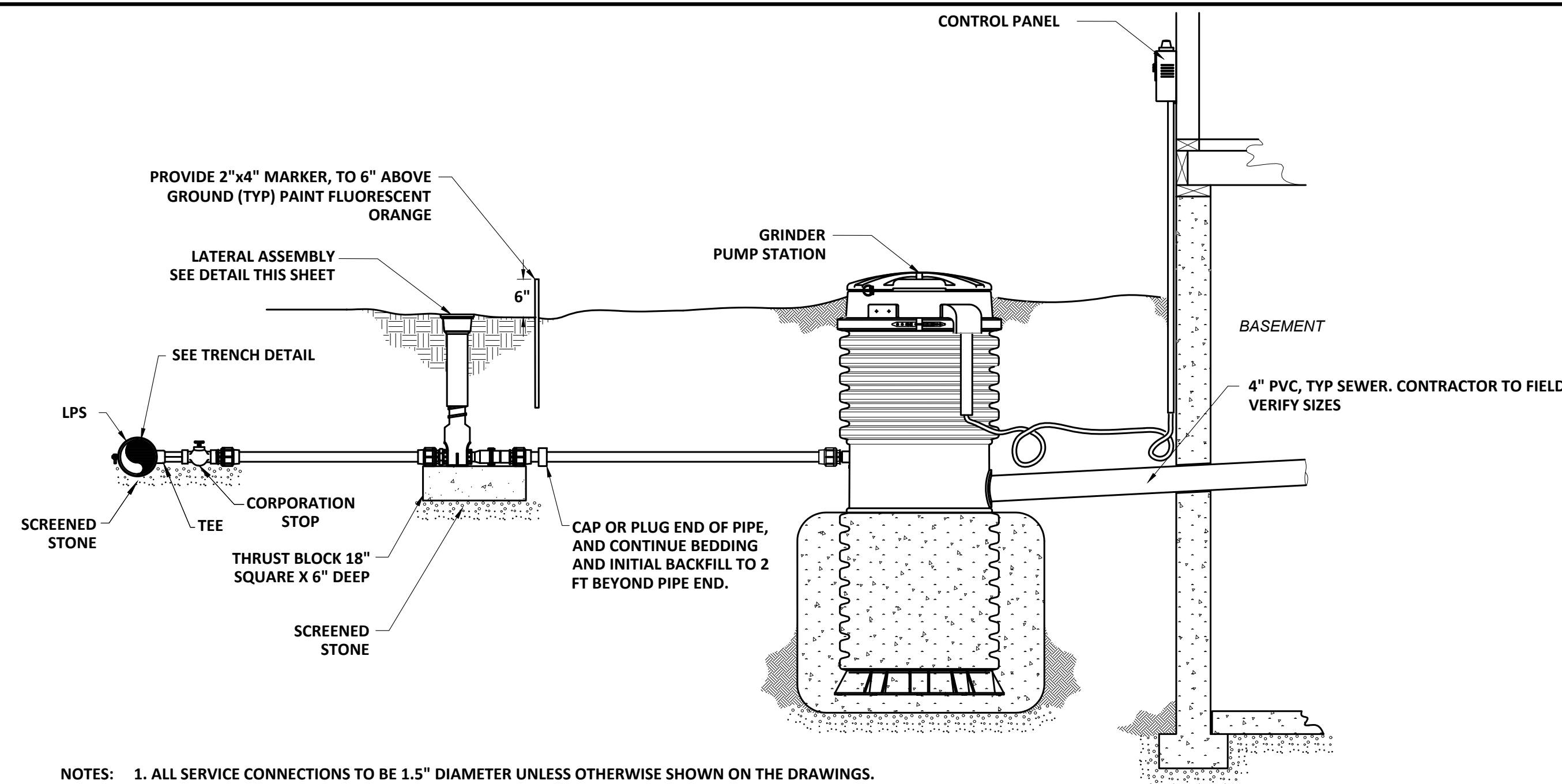
NO	PERMITTING	DESIGNED BY:	NO	DATE
1	▲	J. MICHAUD	1	01-21
2	▲	J. MICHAUD	2	01-21
3	▲	J. MICHAUD	3	01-21
4	▲	J. MICHAUD	4	01-21

DESIGNED BY: J. MICHAUD
 CAD CORP.: J. MICHAUD
 CHECKED BY: J. MICHAUD
 DATE: 01-21
 APPROVED BY: J. MICHAUD
 DATE: 01-21
 PROJECT NO.: 11304C

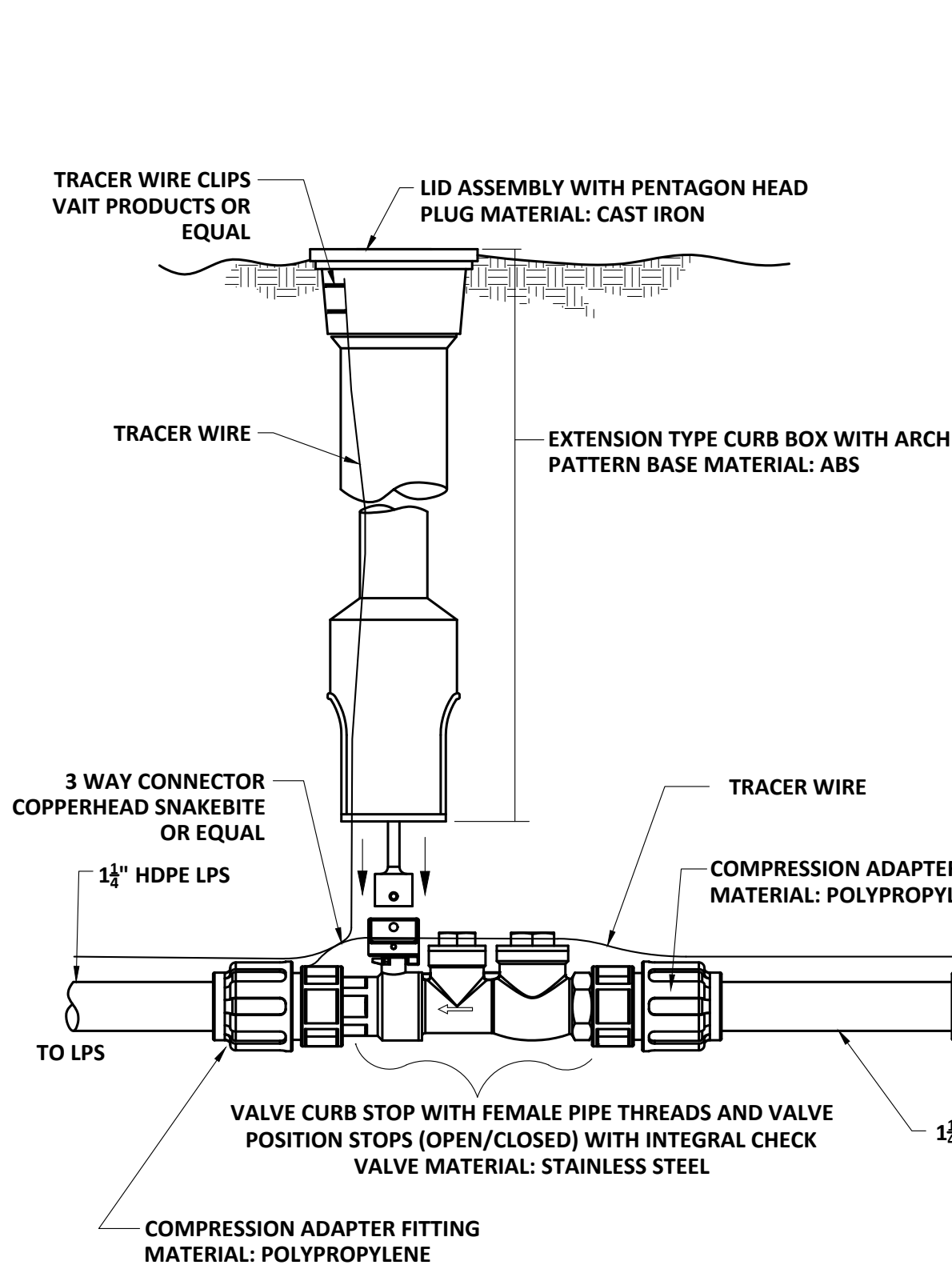
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CITY OF PORTSMOUTH, NH
SAGAMORE AVENUE SEWER EXTENSION
PROJECT

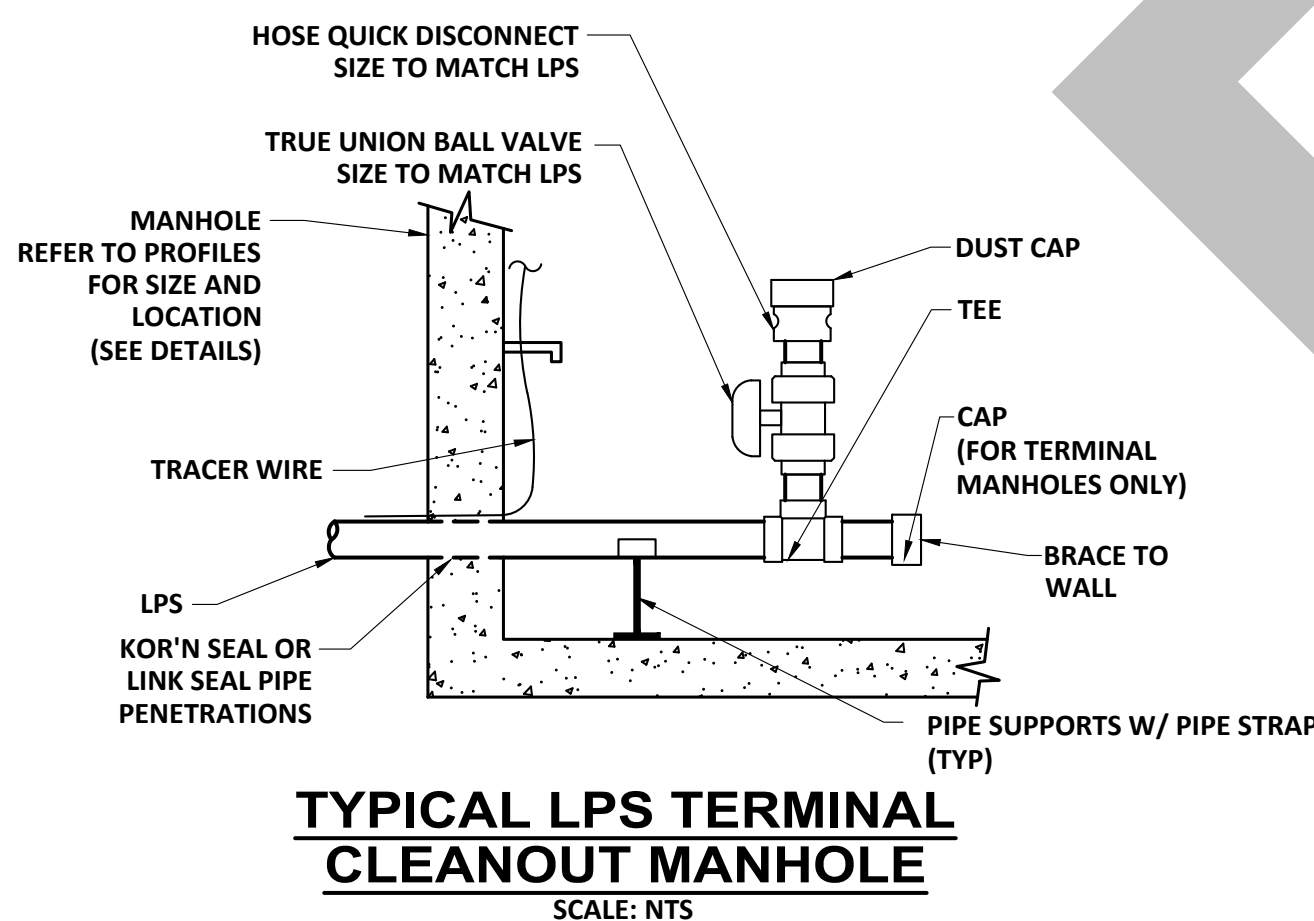
PLAN AND PROFILE: SAGAMORE AVE (WEST)
 STA 120+00 TO STA 125+60



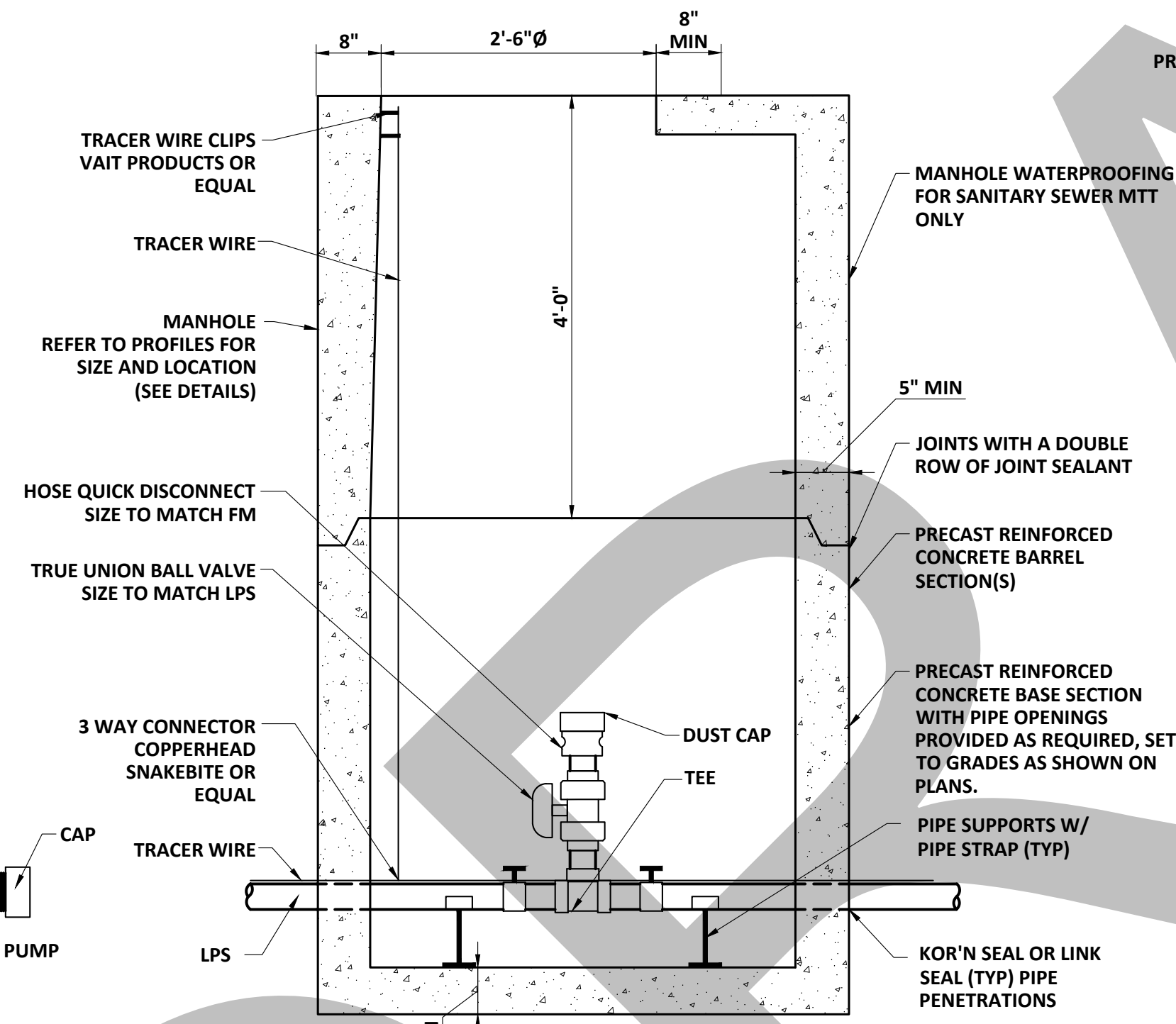
LPS SERVICE CONNECTION DETAIL
SCALE: NTS



LATERAL ASSEMBLY DETAIL
SCALE: NTS

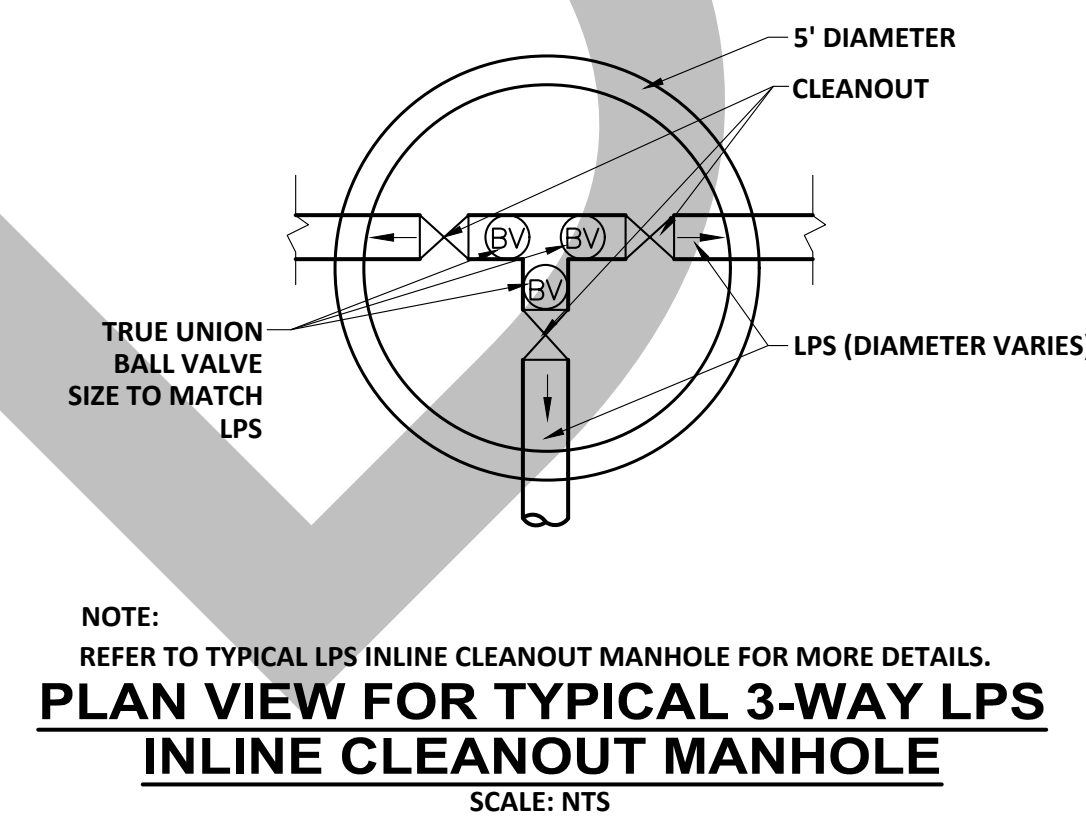


TYPICAL LPS TERMINAL CLEANOUT MANHOLE
SCALE: NTS

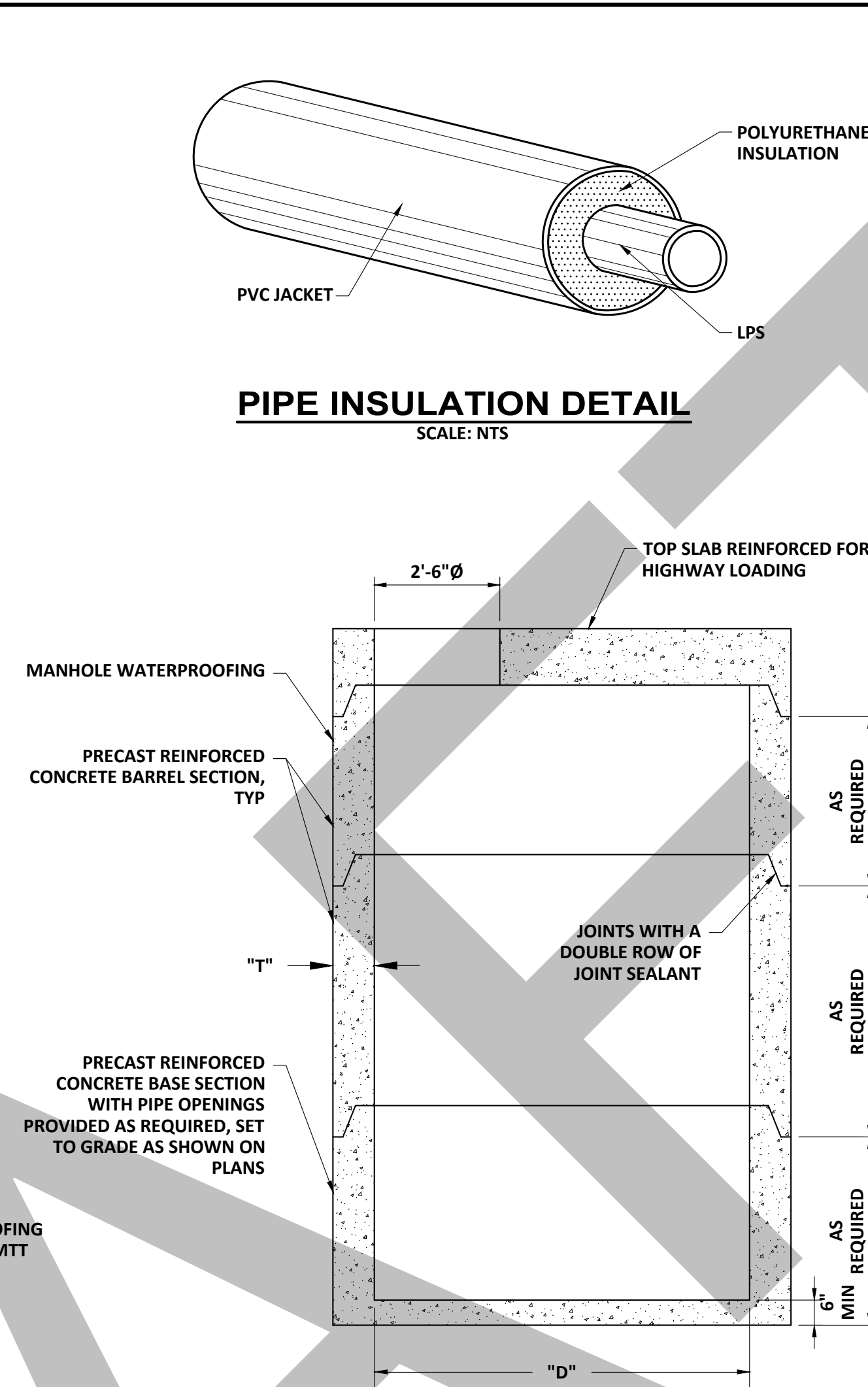


TYPICAL LPS INLINE CLEANOUT MANHOLE
SCALE: NTS

- NOTES:
1. PRATT STREET CLEANOUT MANHOLES WILL HAVE TWO CLEANOUTS (ONE FOR EACH PIPE)
2. USE A FLAT SLAB TOP MANHOLE WHEN THE HEIGHT DIFFERENCE BETWEEN THE HIGHEST INVERT AND RIM IS LESS THAN 6'-0" AND WHEN MANHOLE DIAMETER IS GREATER THAN 4'-0".

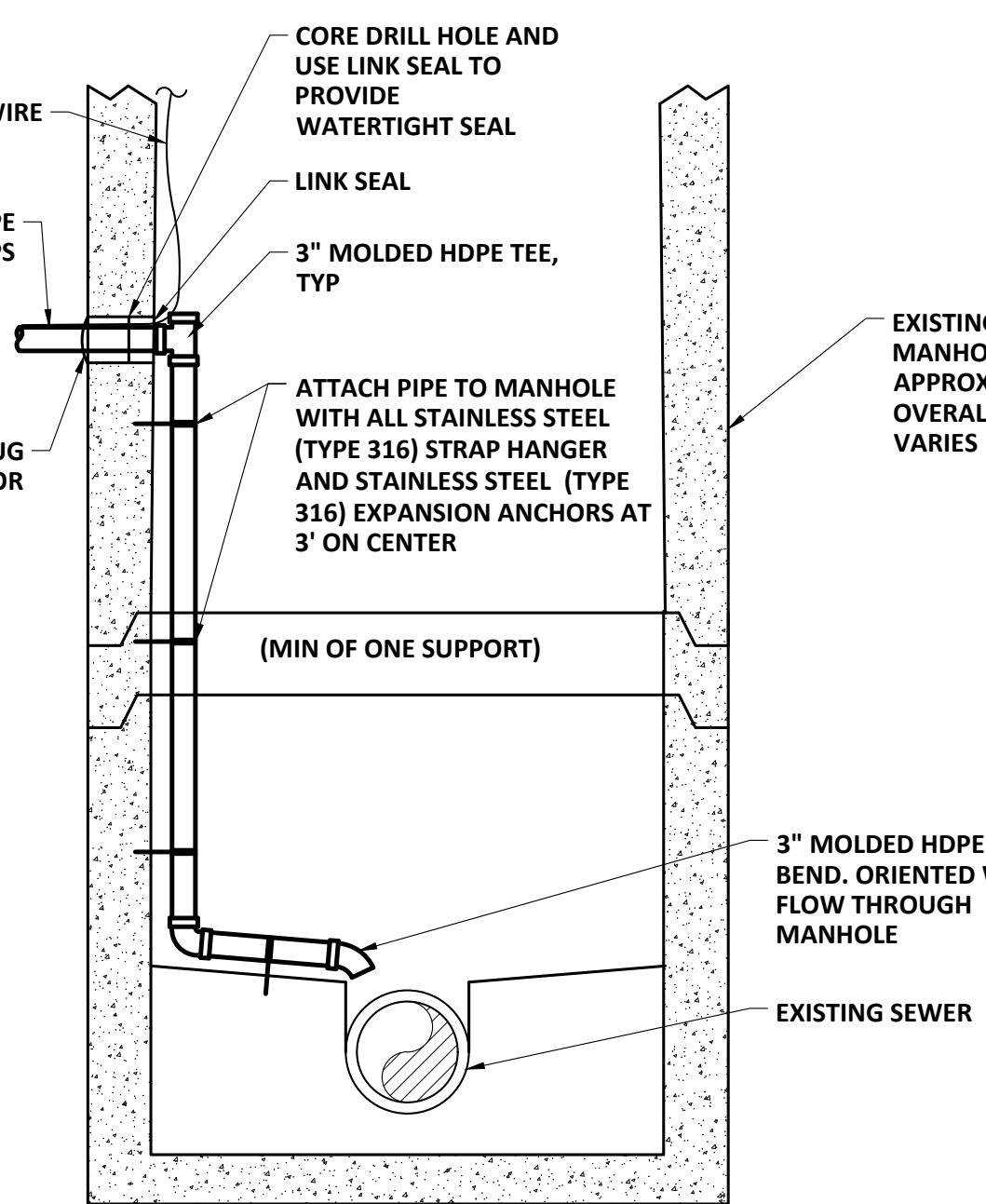


PLAN VIEW FOR TYPICAL 3-WAY LPS INLINE CLEANOUT MANHOLE
SCALE: NTS

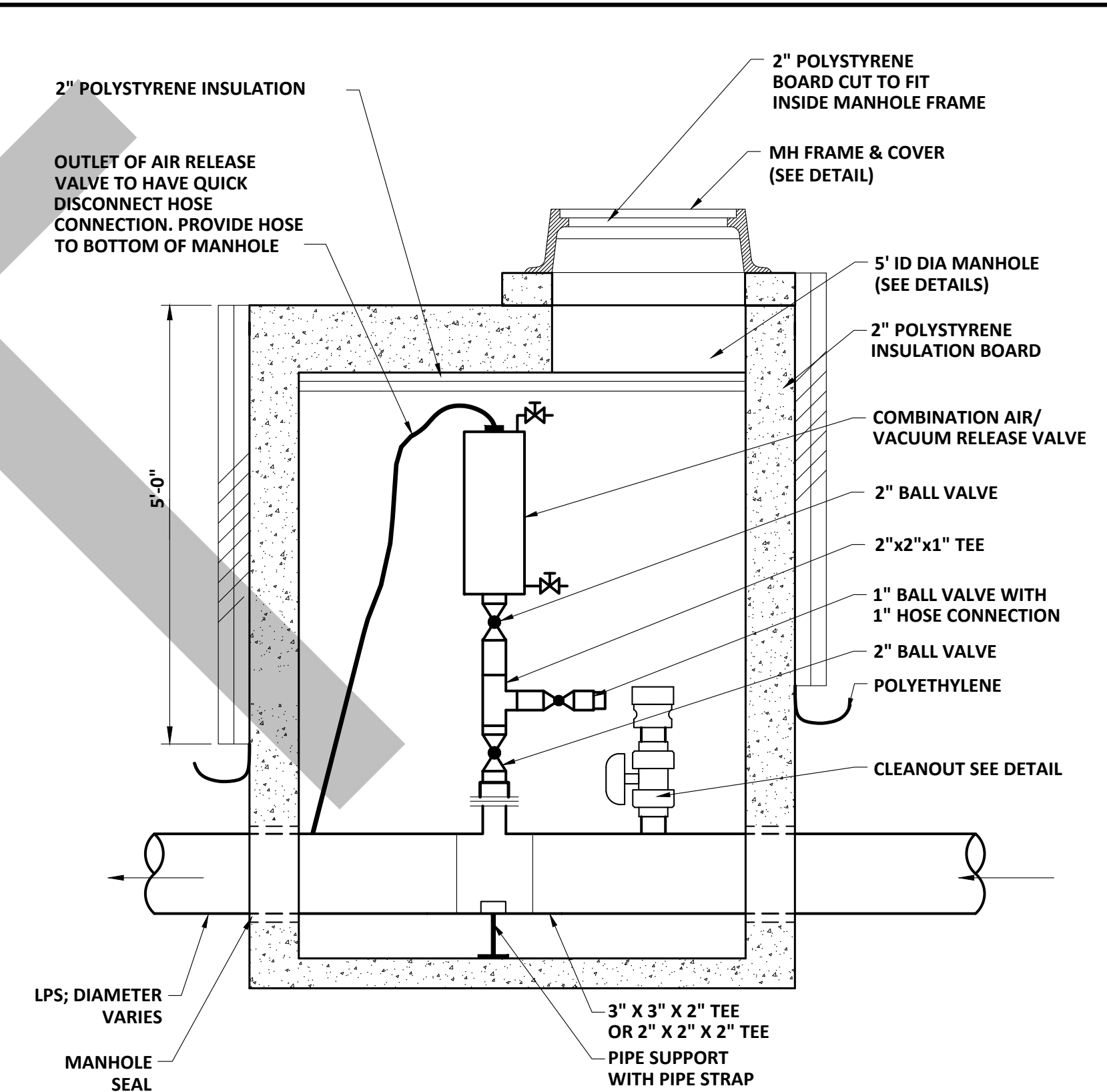


FLAT SLAB TOP LPS CLEANOUT MANHOLE
SCALE: NTS

DIAMETER ("D")	MAX PIPE DIAMETER STRAIGHT THRU TO 45° DEFLECTION	MINIMUM WALL THICKNESS ("T")
48"	UP TO 30" O.D.	5"
60"	UP TO 44" O.D.	6"
72"	UP TO 51" O.D.	7"
96"	UP TO 72" O.D.	9"

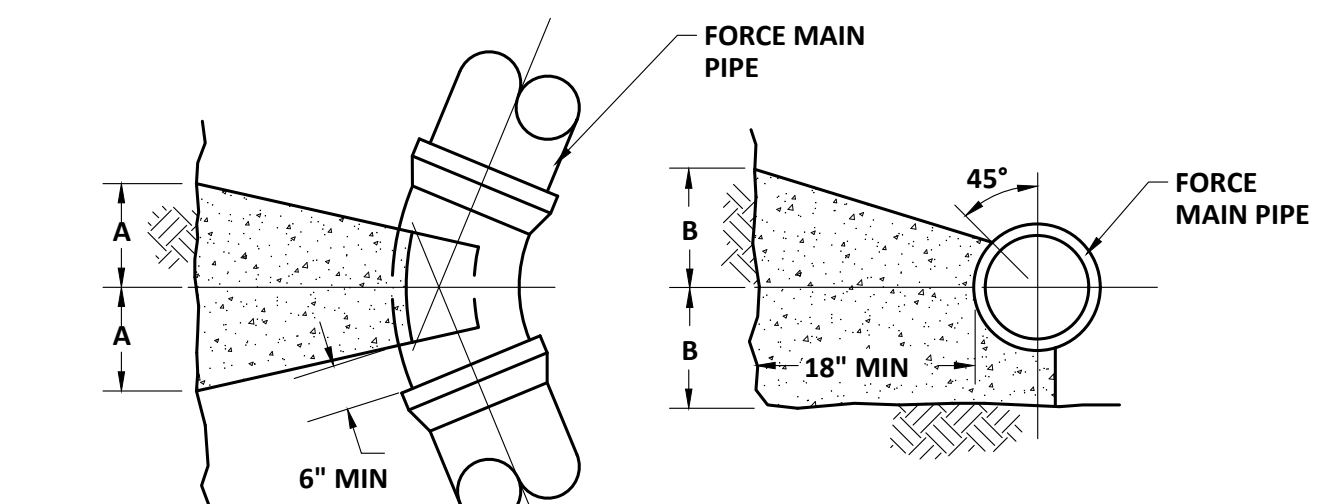


LPS DISCHARGE INTO EXISTING MH
SCALE: NTS



- NOTE:
PROVIDE SS TYPE 316 PIPE SUPPORTS FOR 3" LPS AND AIR/VACUUM RELEASE VALVE AS REQUIRED.

5' DIAMETER COMBINATION VALVE CLEANOUT MANHOLE
SCALE: NTS



LPS THRUST BLOCK
SCALE: NTS

- NOTES:
1. THRUST BLOCK SIZES ABOVE ARE BASED ON A SOIL BEARING CAPACITY OF 1000 PSF AND TEST PRESSURES OF 100 PSI. CONTRACTOR SHALL NOTIFY THE ENGINEER IF LOW BEARING STRENGTH SOILS ARE ENCOUNTERED.

PIPE SIZE	90° BEND		45° BEND		22 1/2° BEND	
	A	B	A	B	A	B
2"	9"	9"	9"	9"	6"	6"
4"	18"	12"	12"	9"	9"	9"
6"	18"	12"	12"	9"	9"	9"
8"	24"	15"	15"	12"	12"	12"
10"	24"	20"	15"	15"	12"	12"
12"	24"	24"	18"	15"	15"	12"
14"	27"	27"	21"	15"	15"	15"
16"	30"	30"	24"	18"	18"	18"

NO.	PERMITTING	NO.	DESIGNED BY:	DATE:
1		1	J. LOC	03-21
2		2	L. MIC	
3		3	D. FUD	
4		4	K. LOBE	
5		5	K. GAR	
6		6		
7		7		
8		8		
9		9		
10		10		

PROJECT NO.: 11304C

APPROVED BY: K. GAR

DATE: 03-21

CHECKED BY: K. LOBE

DATE: 03-21

CD: D. FUD

CAD CORP: J. MIC

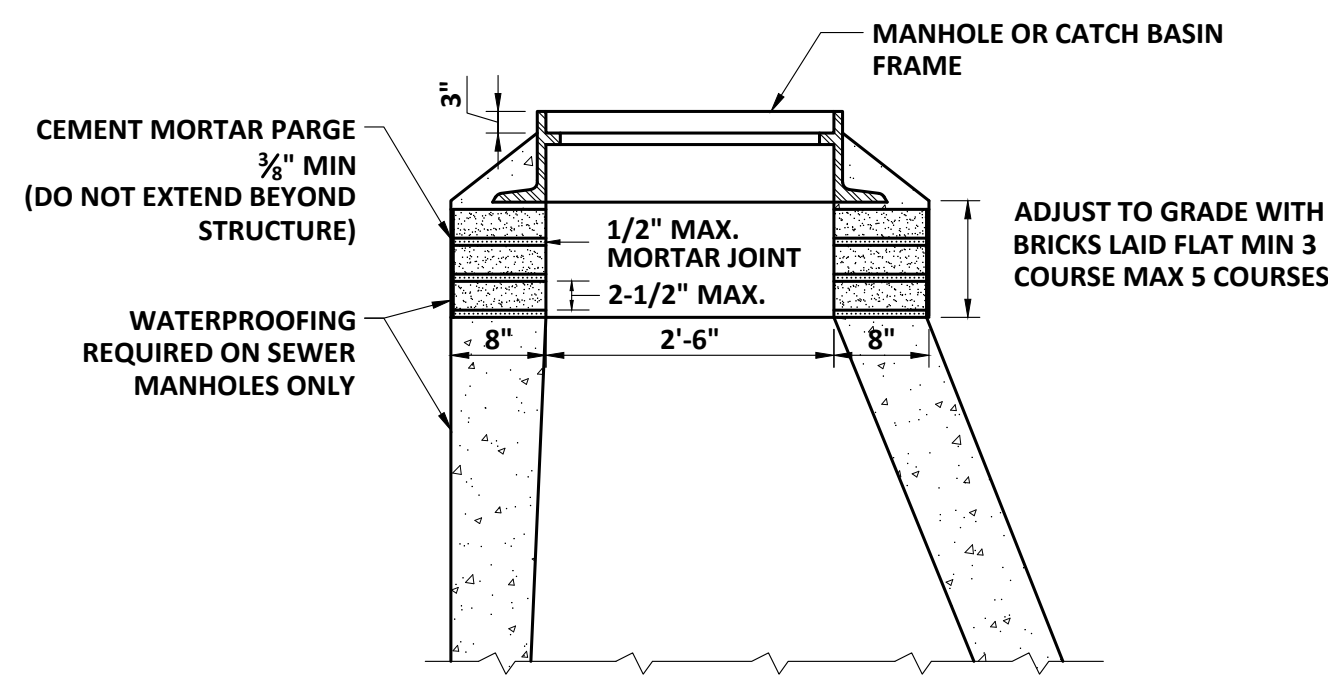
DESIGNED BY: J. LOC

NO. PERMITTING

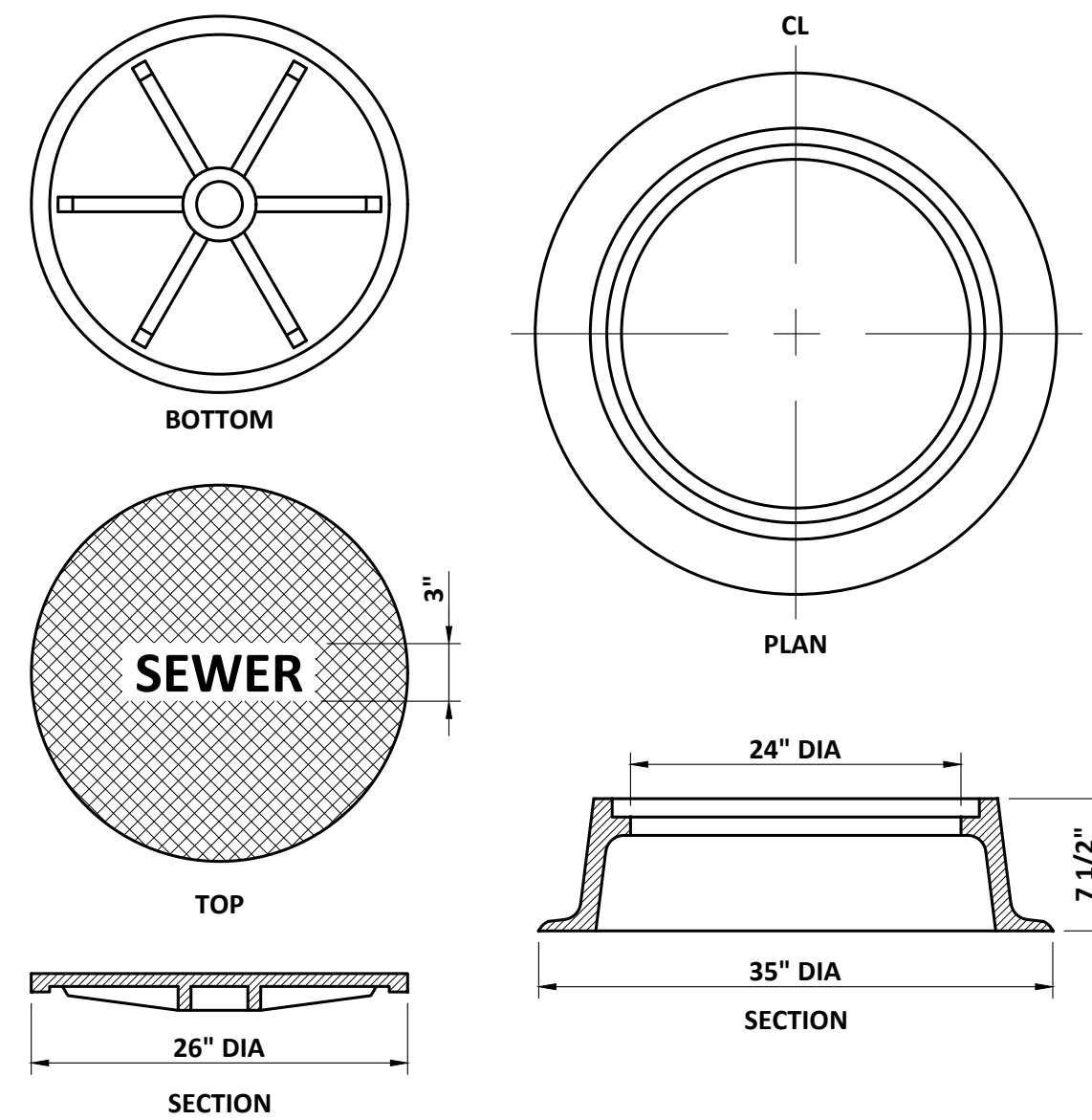
NO. SUBMISSIONS/REVISIONS

APP'D DATE

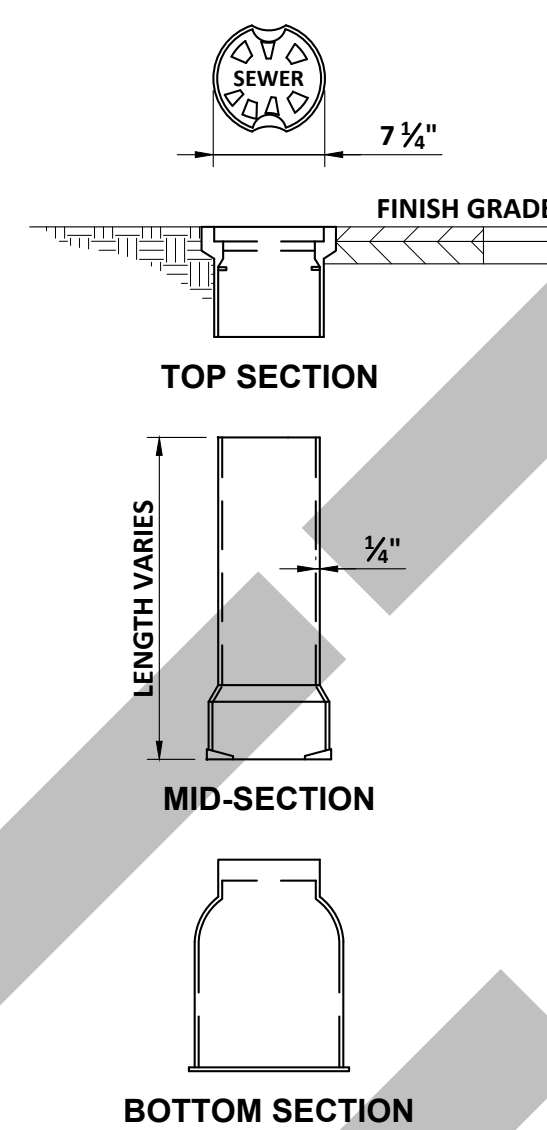
K. GAR 03-21



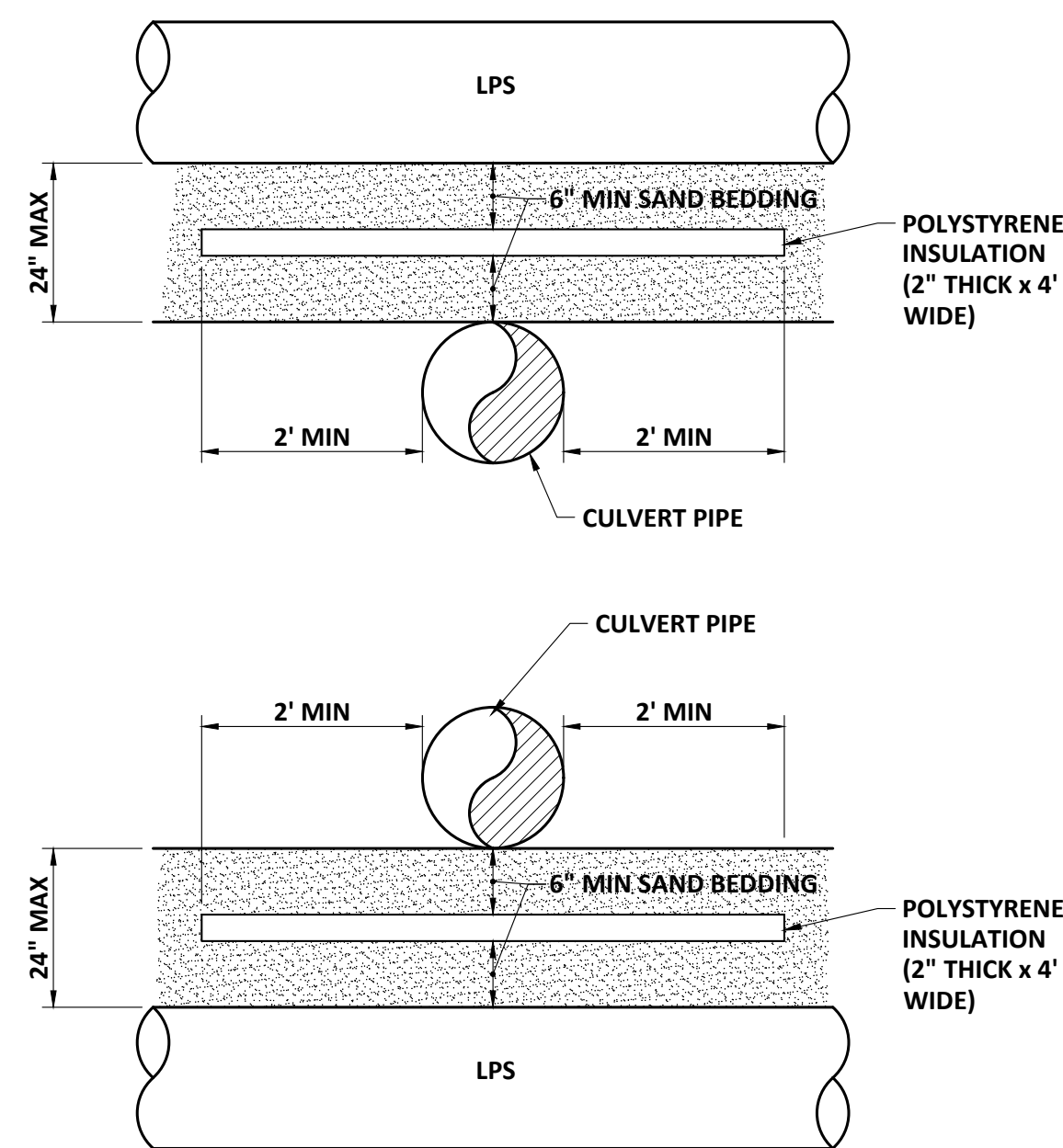
MANHOLE FRAME INSTALLATION
SCALE: NTS



MANHOLE STANDARD COVER AND FRAME
SCALE: NTS

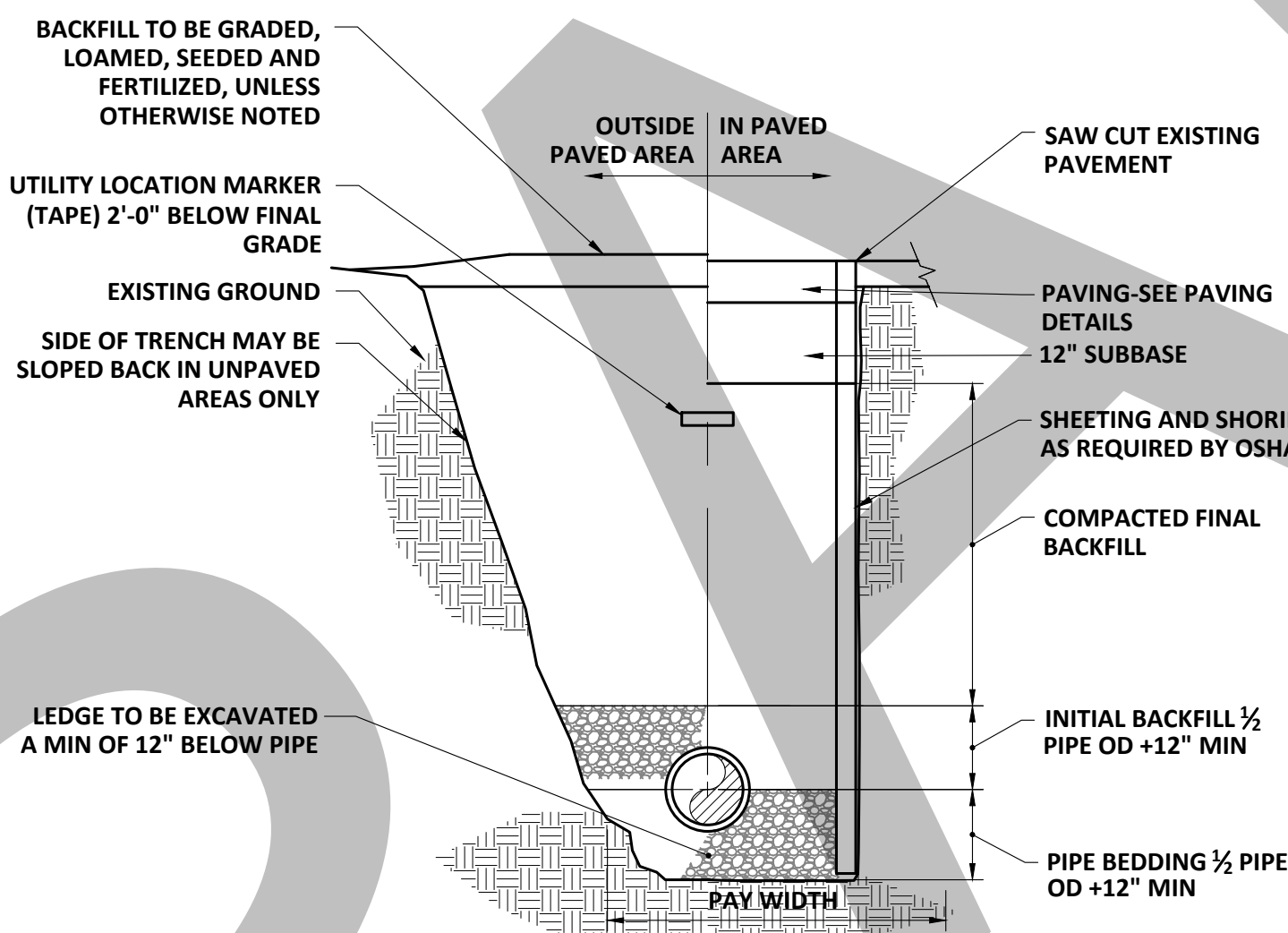


VALVE BOX (FM)
SCALE: NTS



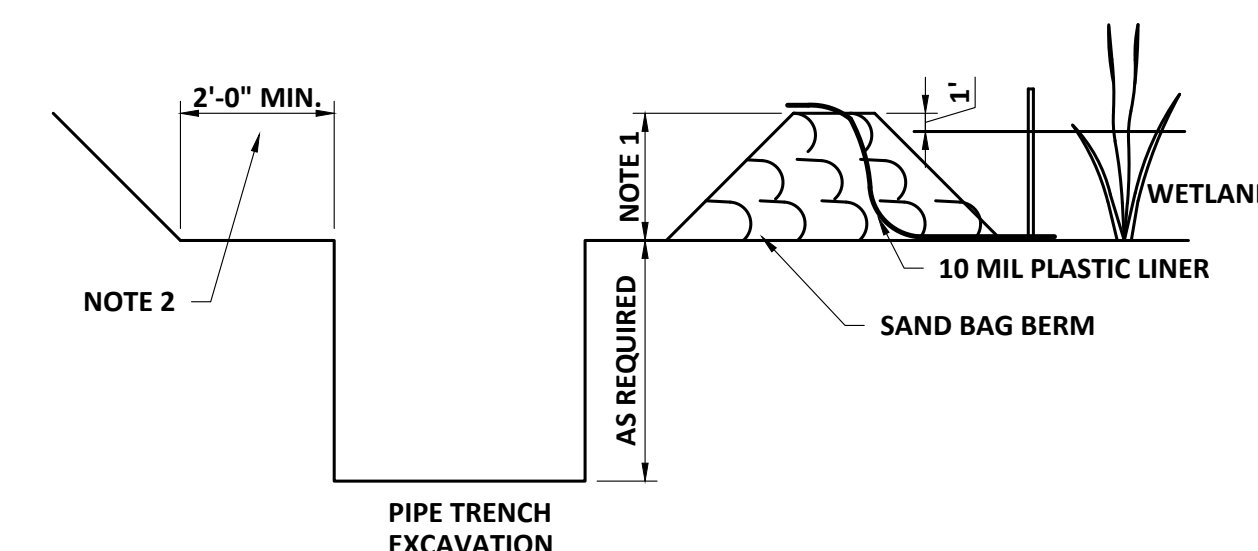
NOTE:
INSULATION TO BE USED WHERE PIPE SEPARATION IS 24" OR LESS.

CULVERT CROSSING
SCALE: NTS



- NOTES:
- ALL EXCAVATION MUST MEET OSHA STANDARDS.
 - INSTALL 3 FOOT LONG IMPERVIOUS MATERIAL DAM IN BEDDING/INITIAL BACKFILL MATERIAL EVERY 100' TO PREVENT TRENCH GROUNDWATER FROM BEING CHANNELLED ALONG BEDDING/INITIAL BACKFILL.
 - SEE SPECIFICATIONS FOR BEDDING AND BACKFILL REQUIREMENTS.

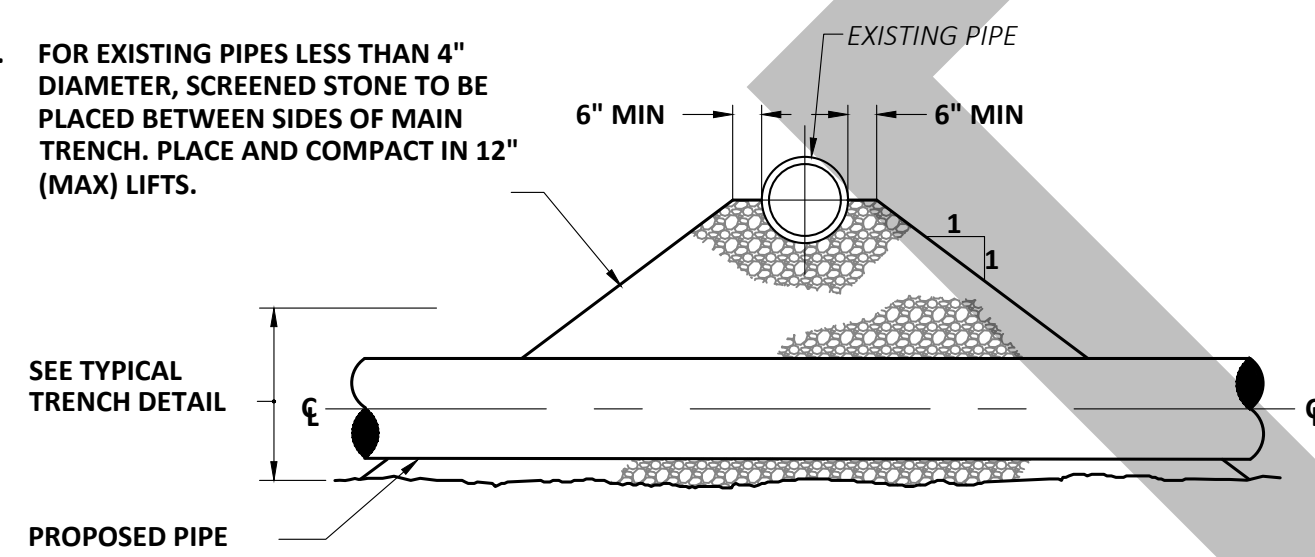
PIPE TRENCH
SCALE: "NTS"



- NOTE:
- HEIGHT OF BERM TO BE CONSTRUCTED BASED ON DEPTH OF WATER SO AS TO MAINTAIN 1' MINIMUM FREE BOARD.
 - SPOIL FROM TRENCH EXCAVATION AND SAND BAG BERM TO BE KEPT BACK AT A MINIMUM OF 2 FEET FROM EDGE OF TRENCH AS PER OSHA REGULATIONS.

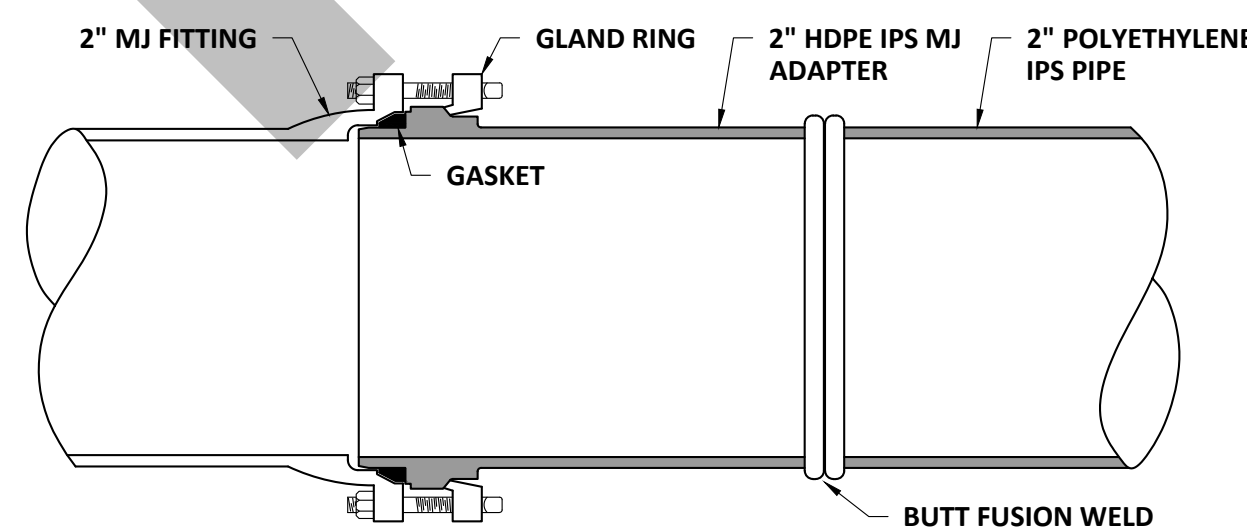
WETLANDS PIPE TRENCH EXCAVATION
SCALE: NTS

- FOR EXISTING PIPES 4" DIAMETER AND GREATER, FLOWABLE FILL SHALL BE PLACED BETWEEN SIDES OF MAIN TRENCH, UNLESS AS DIRECTED BY ENGINEER TO INSTALL SCREENED STONE.
- FOR EXISTING PIPES LESS THAN 4" DIAMETER, SCREENED STONE TO BE PLACED BETWEEN SIDES OF MAIN TRENCH. PLACE AND COMPACT IN 12" (MAX) LIFTS.

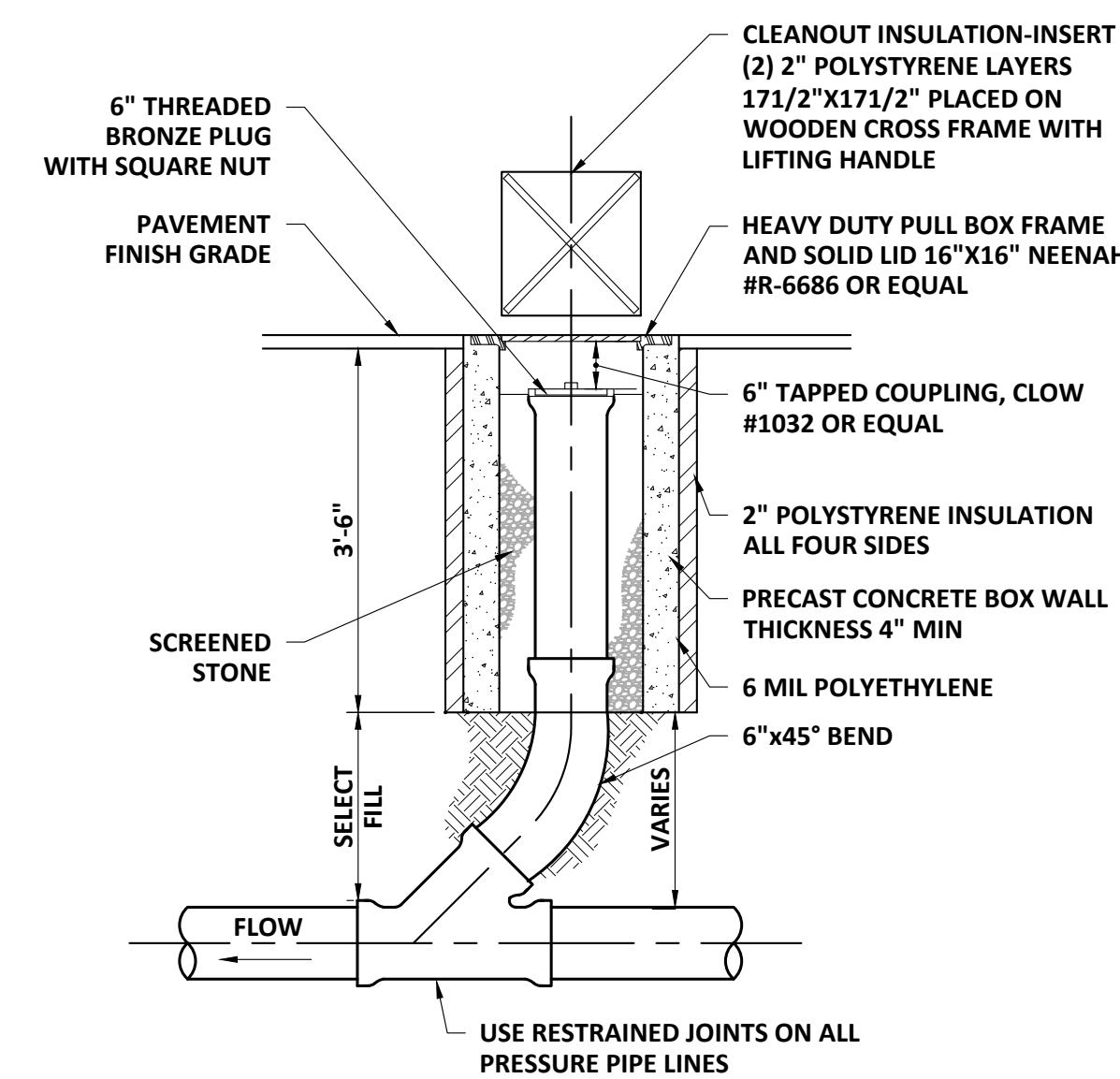


NOTE:
JOINTS ON EACH PIPE TO BE AS FAR FROM INTERSECTION AS POSSIBLE.

PIPE CROSSING
SCALE: "NTS"

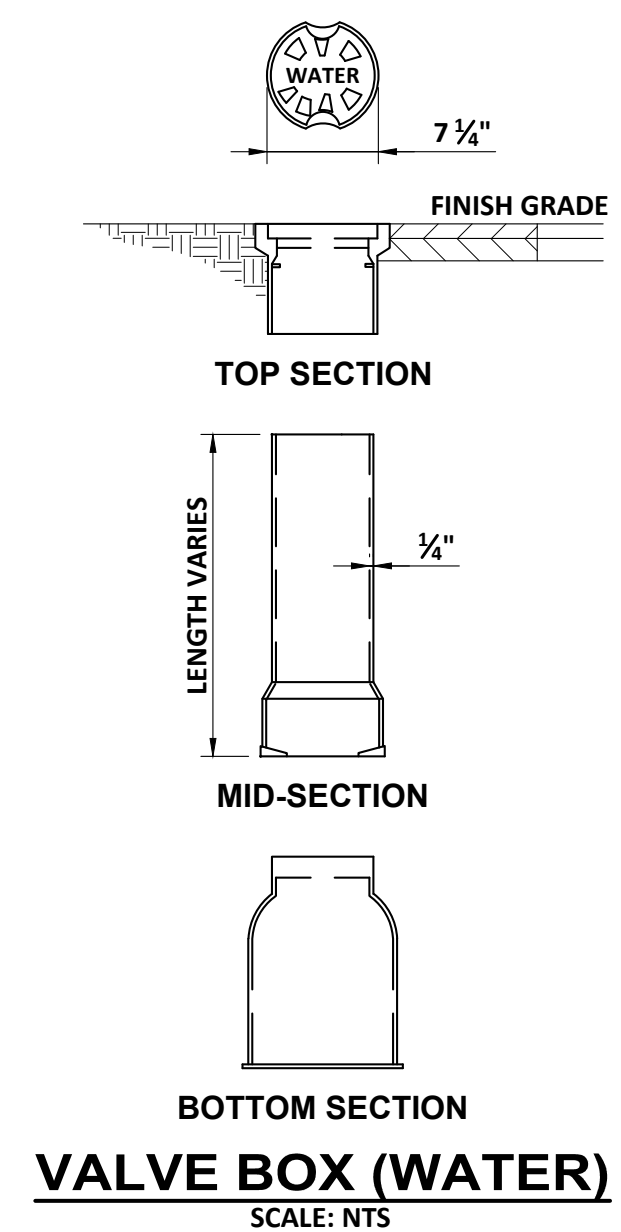


HIGH DENSITY POLYETHYLENE PIPE TO MECHANICAL JOINT CONNECTION DETAIL
SCALE: NTS

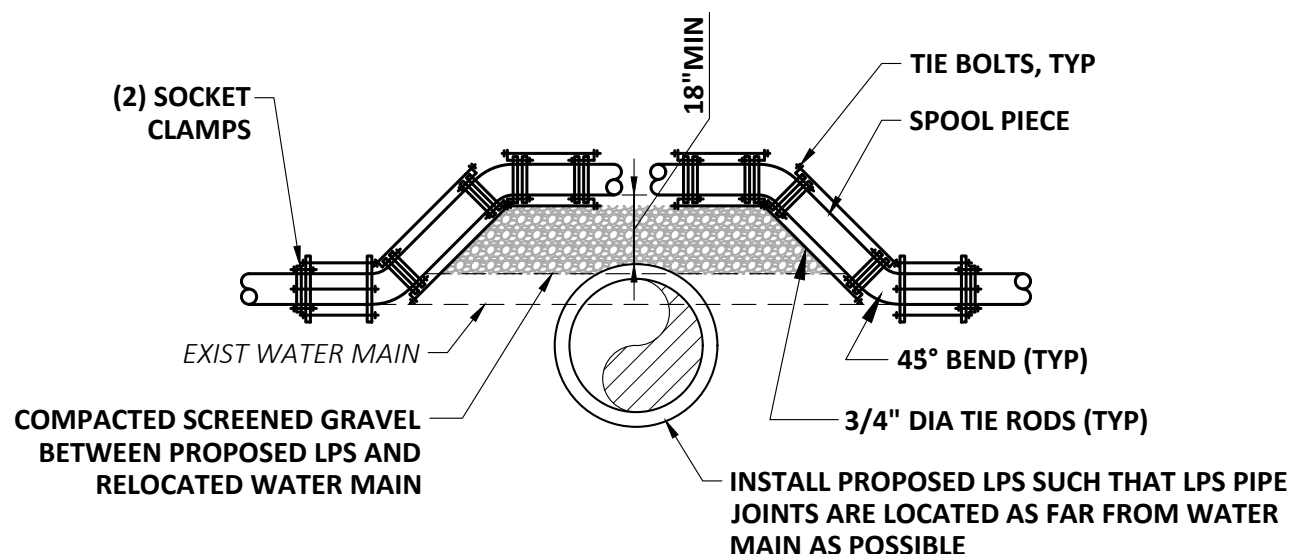


TYPICAL CLEANOUT
SCALE: NTS

APP'D	DATE	SUBMISSIONS/REVISIONS
K.GAR	01-21	
NO	PERMITTING	DESIGNED BY: J.LOC C&D CORP.: J.MIC C&D: D.FUD CHECKED BY: K.LOBE DATE: 01-21 APPROVED BY: K.GAR DATE: 01-21 PROJECT NO.: 11304C
NO	PERMITTING	
<p>WRIGHT-PIERCE Engineering a Better Environment 888.621.8156 www.wright-pierce.com</p>		
<p>CITY OF PORTSMOUTH, NH SAGAMORE AVENUE SEWER EXTENSION PROJECT</p>		
<p>DETAILS II</p>		
<p>DRAWING C-15</p>		

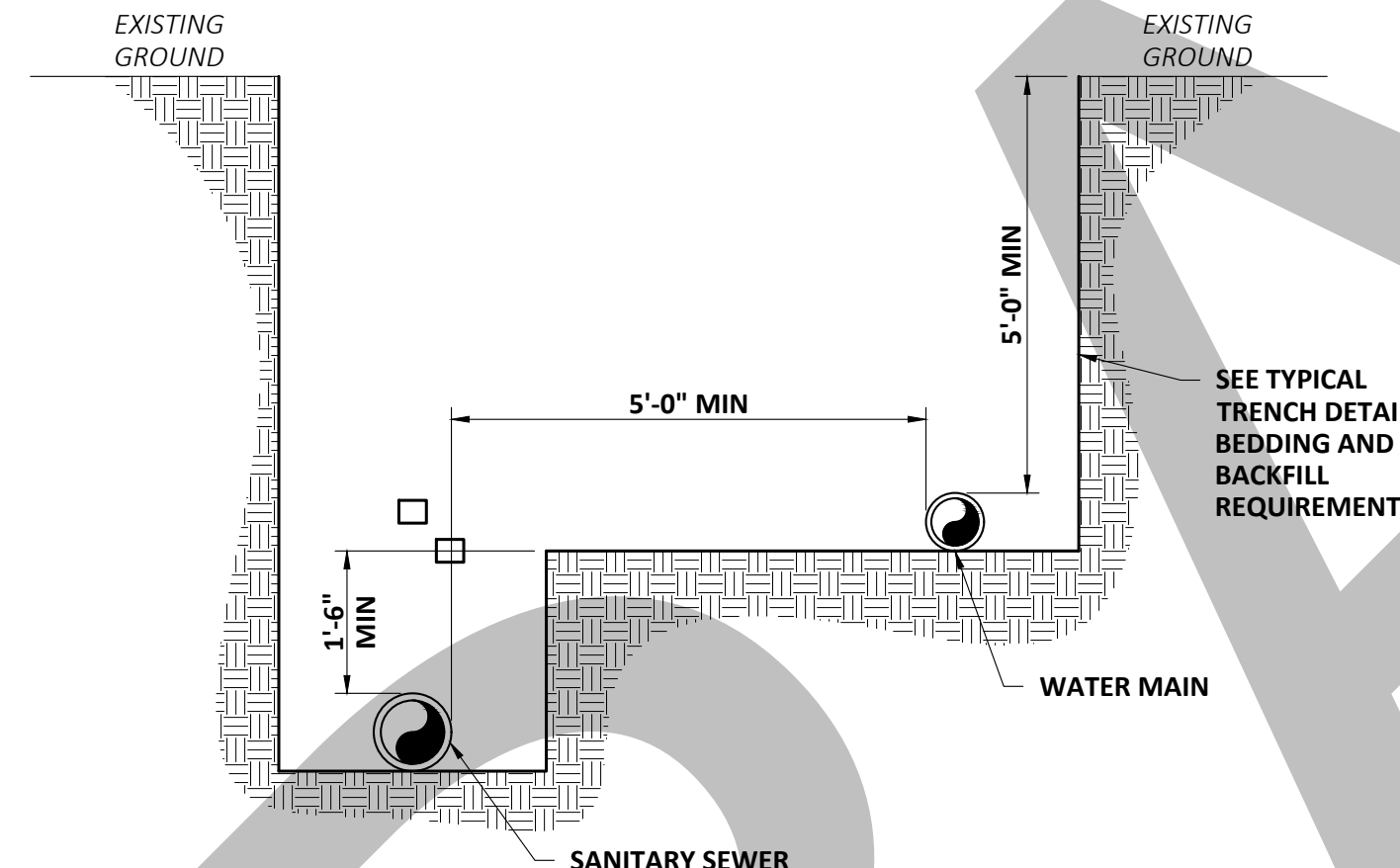


VALVE BOX (WATER)
SCALE: NTS



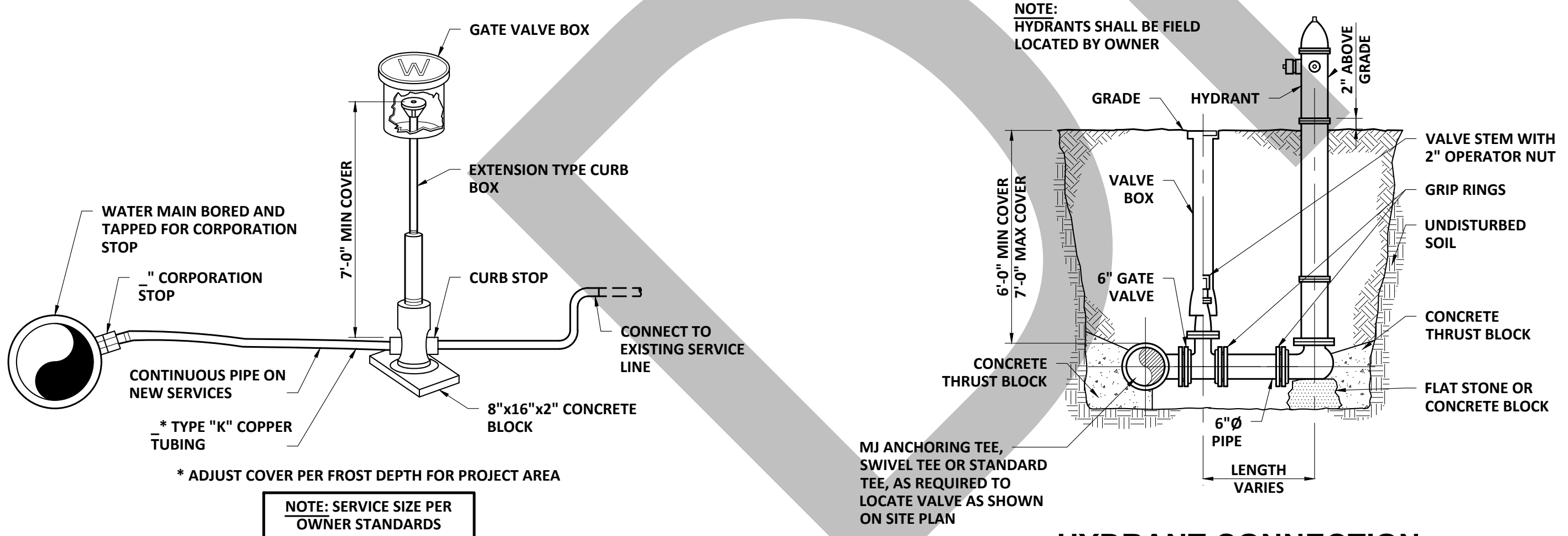
- NOTES:**
1. WATER MAIN MATERIALS TO BE CLASS 52 DUCTILE IRON. JOINT RESTRAINT TO BE BY MECHANICAL JOINT WITH RETAINER GLANDS, OR WITH TIE BOLTS AS SHOWN.
 2. TIE RODS, TIE BOLTS, SOCKET CLAMPS AND BRIDLES SHALL BE COATED WITH A BITUMINOUS PAINT AFTER ASSEMBLY OR IF NECESSARY PRIOR TO ASSEMBLY.
 3. TIE RODS: 10" DIA WATER MAIN OR LARGER - 4 REQUIRED. 8" DIA WATER MAIN OR SMALLER - 2 REQUIRED.
 4. EXISTING WATER MAINS TO BE RELOCATED OVER NEW LPS WHEREVER SUFFICIENT GROUND COVER EXISTS (5' MINIMUM COVER).

WATER MAIN RELOCATION
SCALE: NTS



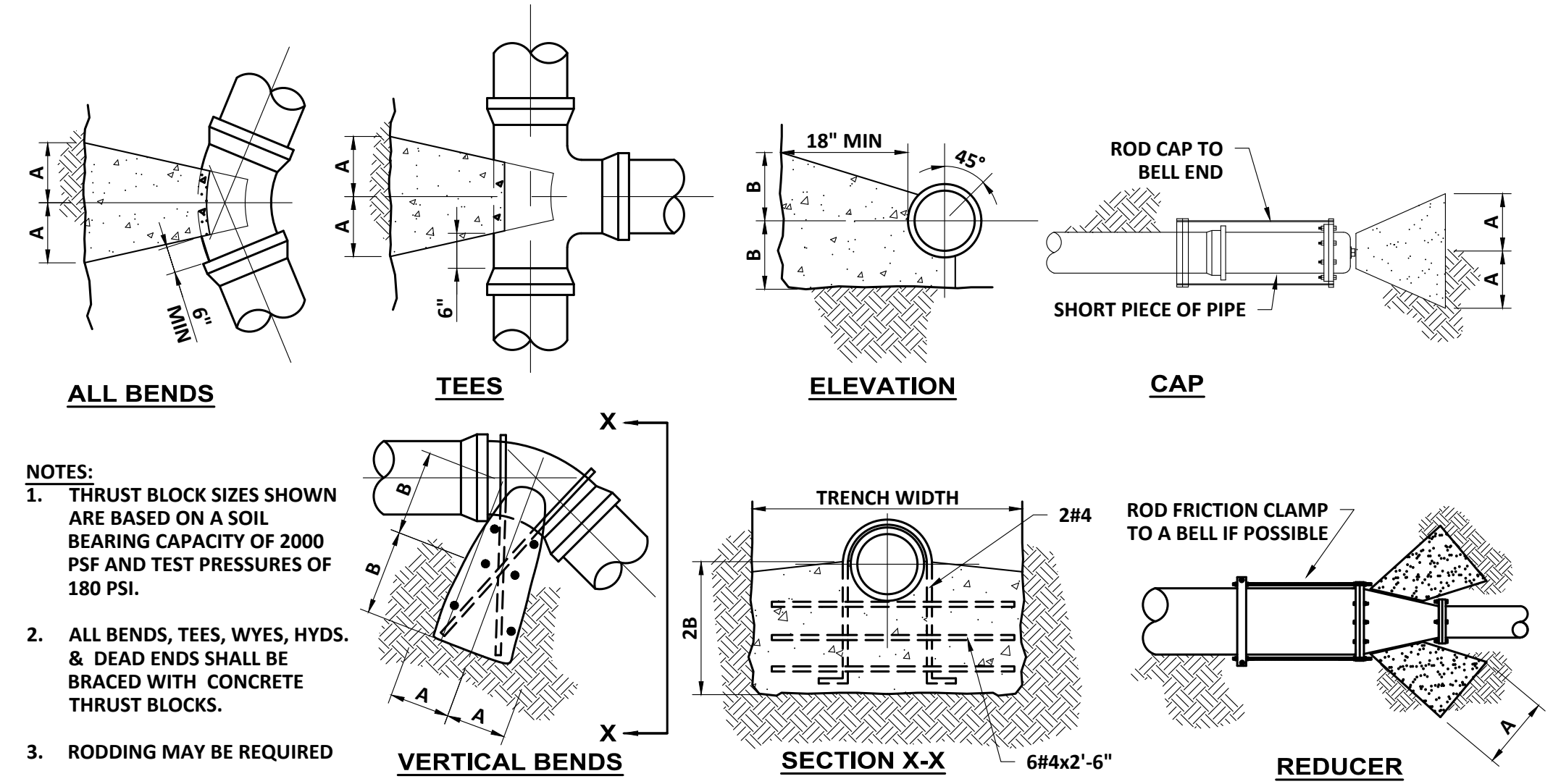
- NOTES:**
1. INSTALL WATER AND SEWER MAINS WITH 10-FOOT SPACING WHERE POSSIBLE.

MINIMUM WATER / SEWER PIPE SPACING
SCALE: NTS



WATER SERVICE CONNECTION
SCALE: NTS

HYDRANT CONNECTION
SCALE: NTS



- NOTES:**
1. THRUST BLOCK SIZES SHOWN ARE BASED ON A SOIL BEARING CAPACITY OF 2000 PSF AND TEST PRESSURES OF 180 PSI.
 2. ALL BENDS, TEES, WYES, HYDS. & DEAD ENDS SHALL BE BRACED WITH CONCRETE THRUST BLOCKS.
 3. RODDING MAY BE REQUIRED

PIPE SIZE	90° BEND		45° BEND		22 1/2° BEND		11 1/4° BEND		TEE		VERTICAL BEND (DOWN)		PLUG		REDUCER	
	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B
4"	15"	12"	12"	9"	9"	6"	6"	6"	12"	12"	24"	21"	12"	12"	12"	12"
6"	15"	12"	12"	9"	9"	6"	6"	6"	12"	12"	24"	21"	12"	12"	12"	12"
8"	20"	15"	14"	12"	9"	9"	9"	6"	18"	12"	33"	24"	14"	14"	18"	12"
10"	21"	21"	18"	15"	15"	9"	9"	9"	20"	18"	40"	27"	16"	16"	20"	18"
12"	27"	24"	23"	15"	15"	12"	12"	9"	25"	18"	48"	30"	18"	18"	25"	18"
16"	37"	30"	30"	21"	21"	15"	13"	12"	32"	24"	57"	36"	22"	22"	32"	24"

THRUST BLOCKS
NTS

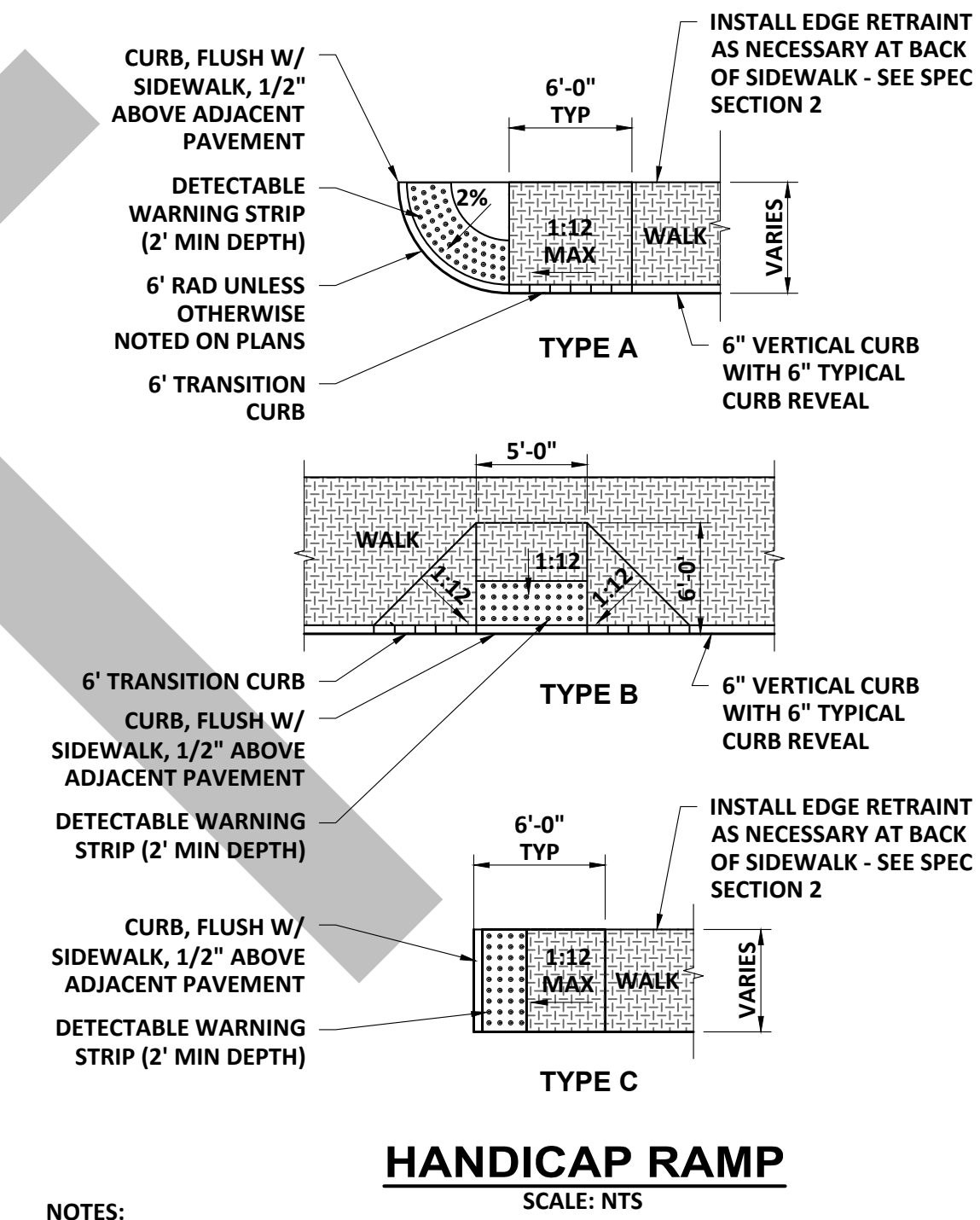
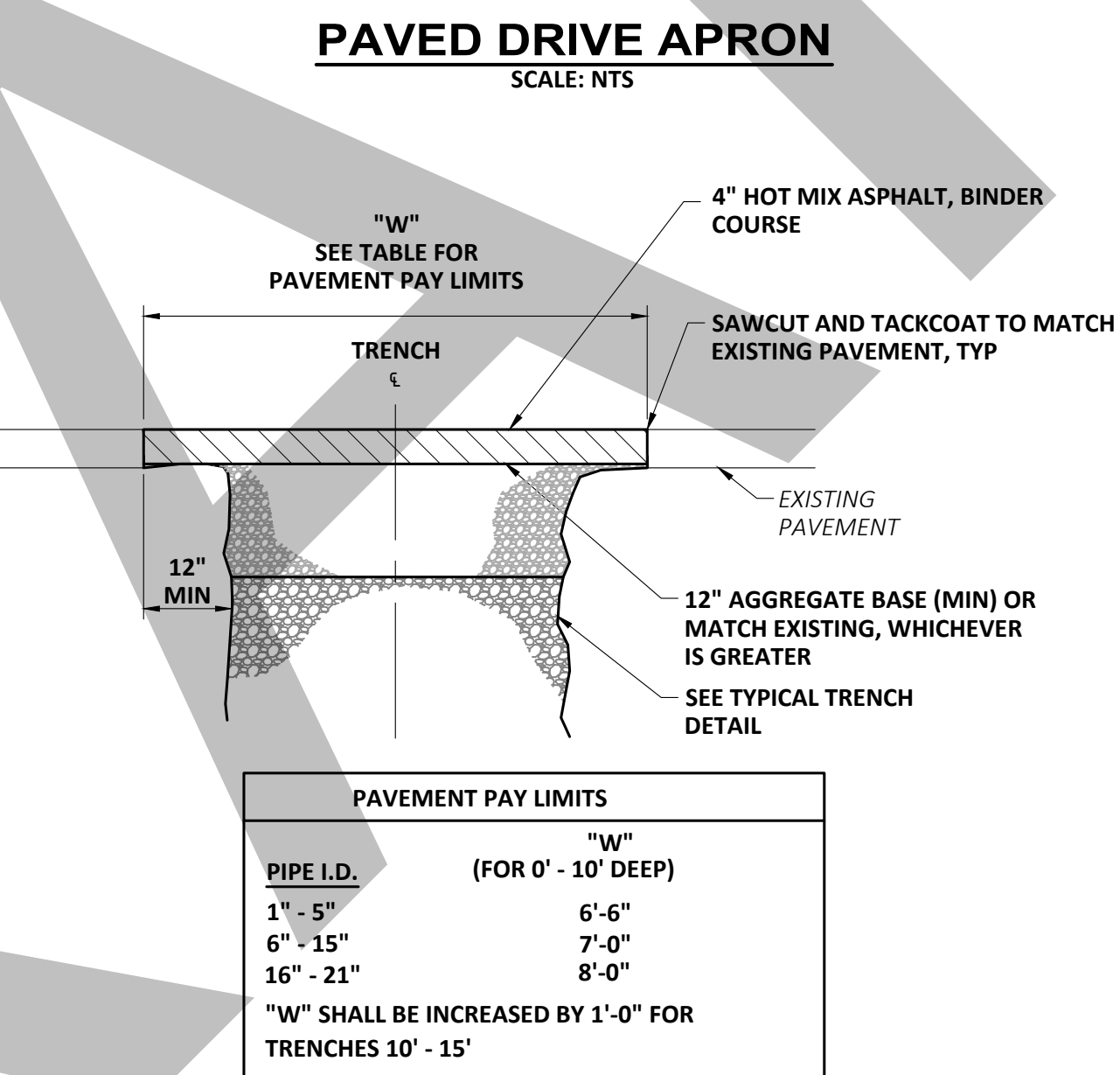
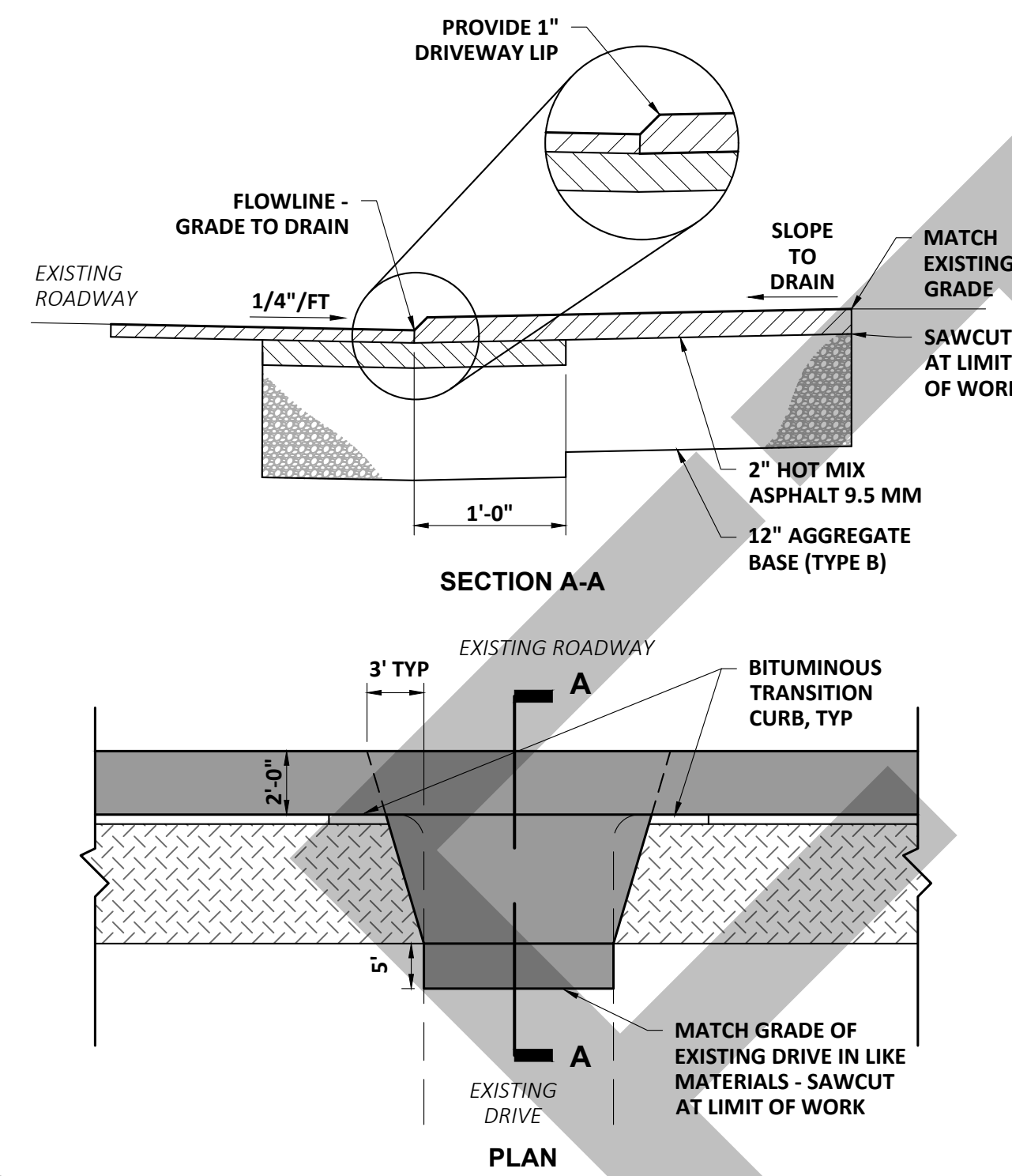
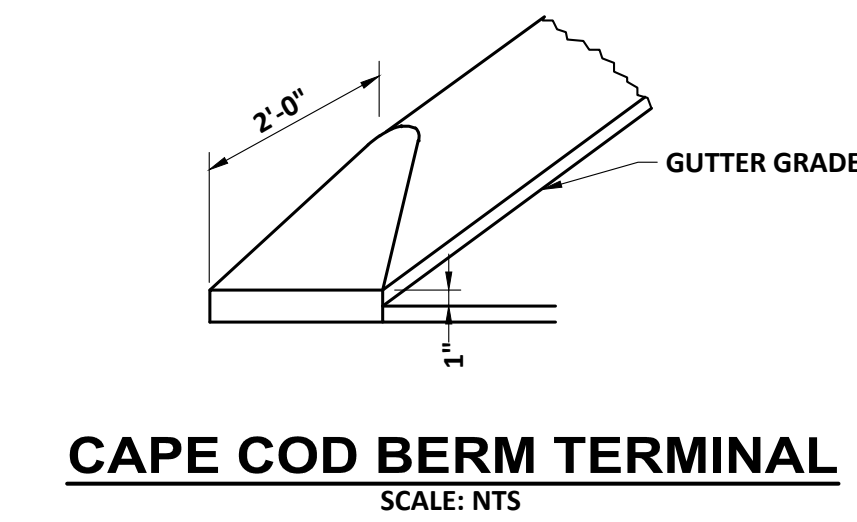
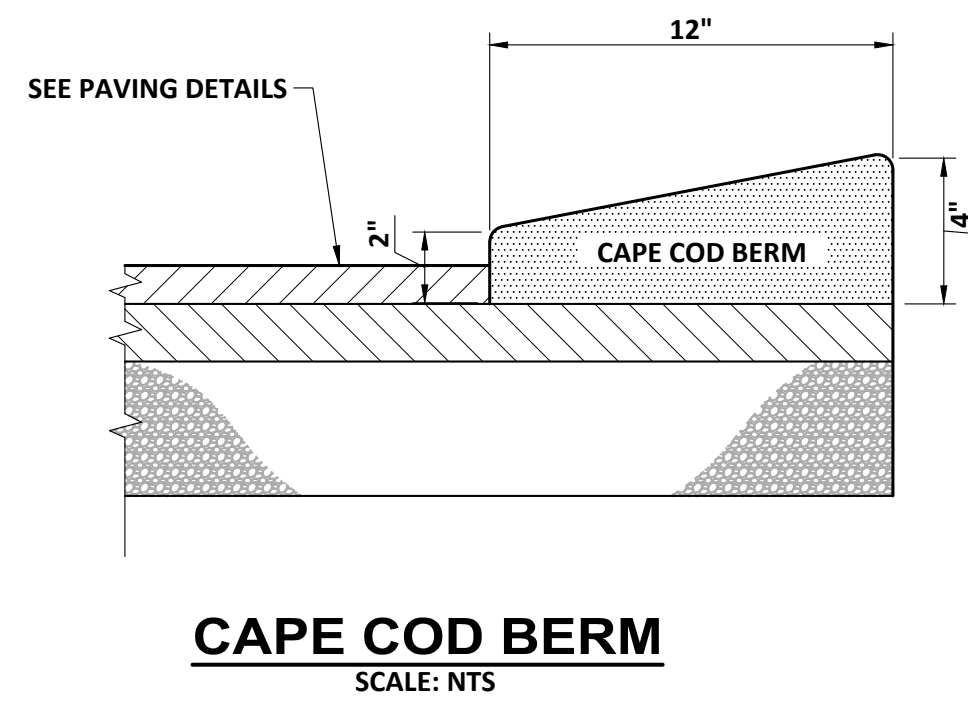
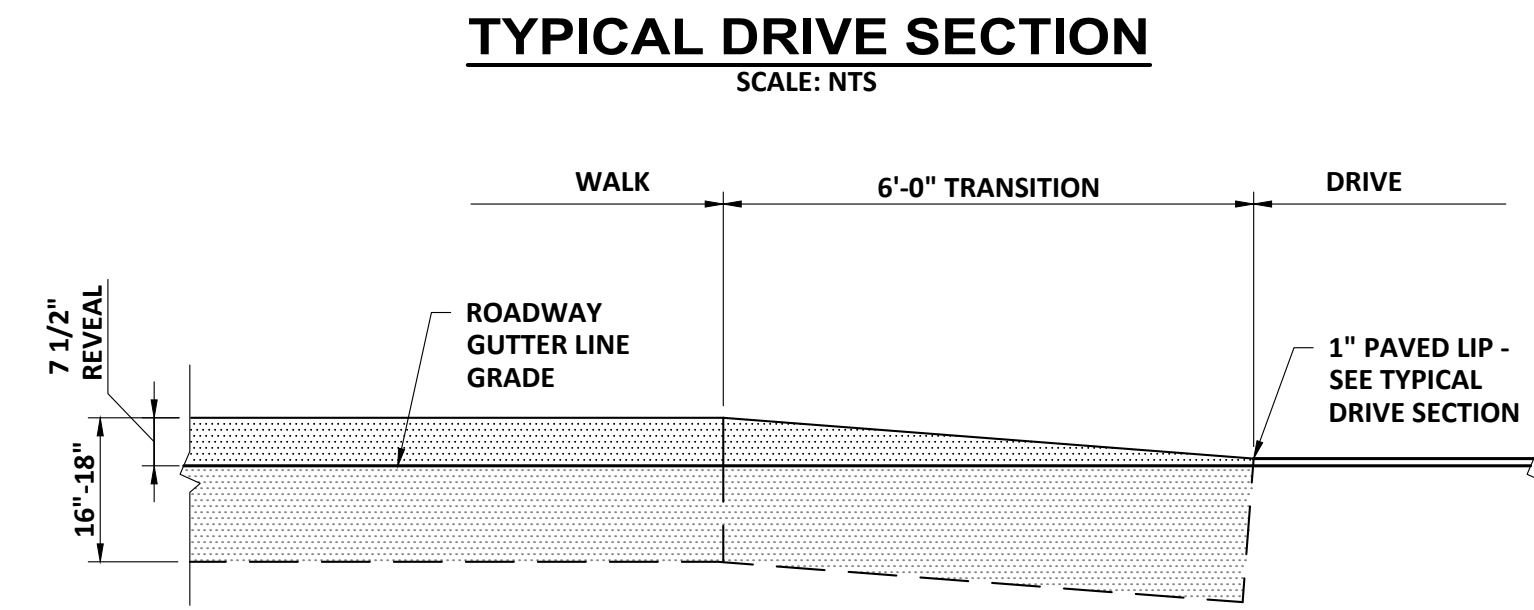
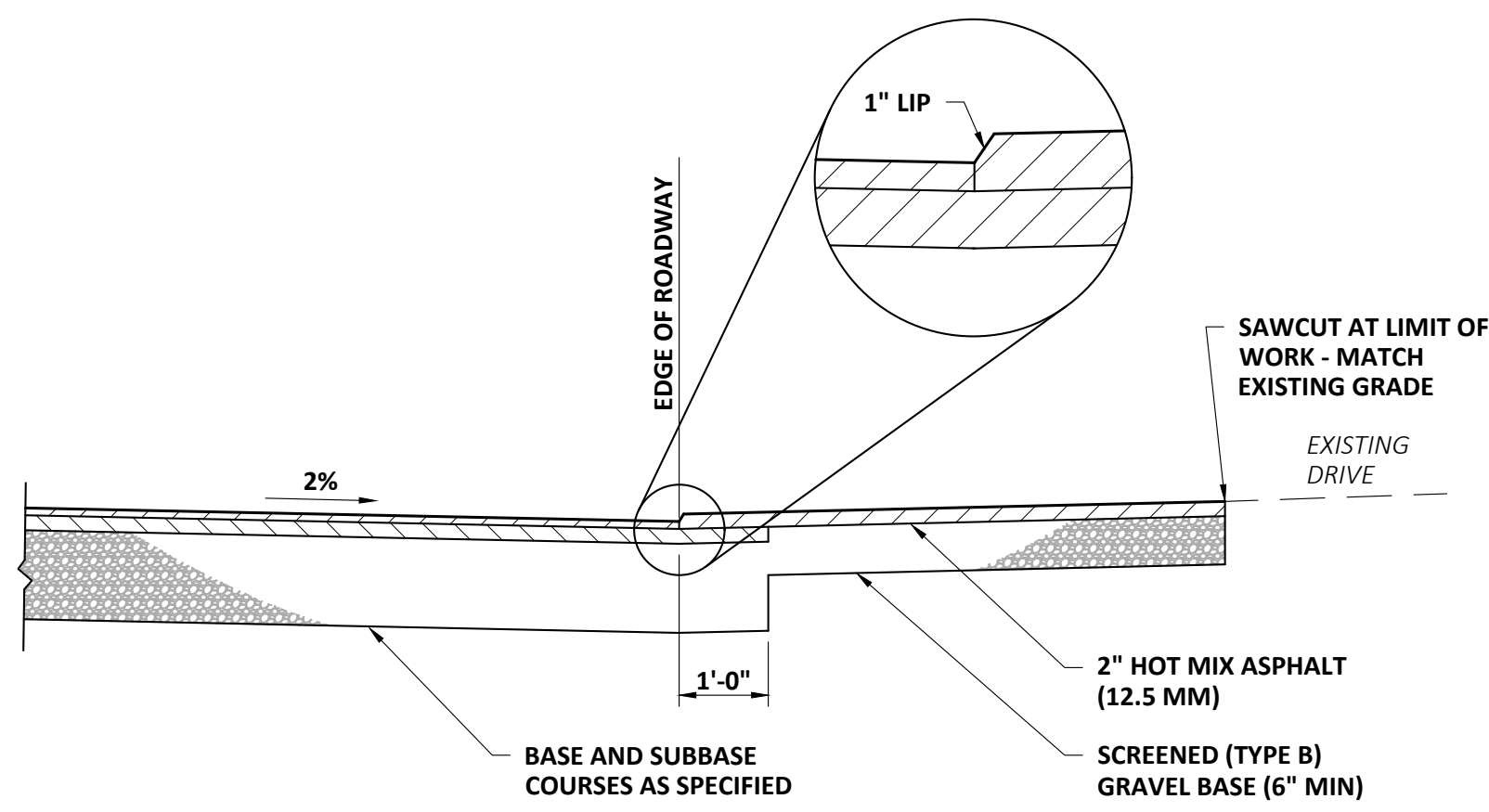
APP'D	DATE
K.GAR	03-21
SUBMISSIONS/REVISIONS	
NO	PERMITTING
DESIGNED BY: J.LOC	CAD CORP: J.MIC
CHKD BY: D.FUD	CHECKED BY: K.LOBE
DATE: 02-21	DATE: 02-21
APPROVED BY: K.GAR	PROJECT NO: 11304C
DATE: 02-21	

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CITY OF PORTSMOUTH, NH
SAGAMORE AVENUE SEWER EXTENSION PROJECT

DETAILS III

DRAWING
C-16

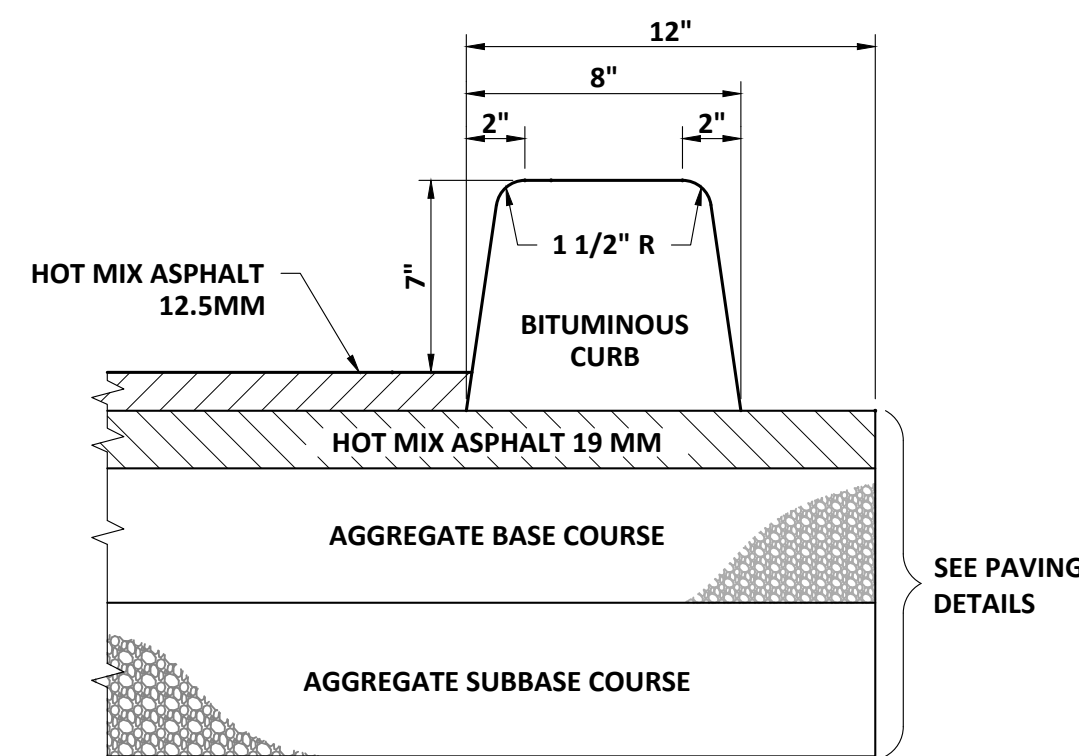


- NOTES:
1. RAMPS SHALL CONFORM TO THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT (ADA).
2. DETECTABLE WARNING STRIPS REQUIRED ON ALL RAMPS INDICATED ON THE DRAWINGS AND AS DIRECTED BY THE ENGINEER.

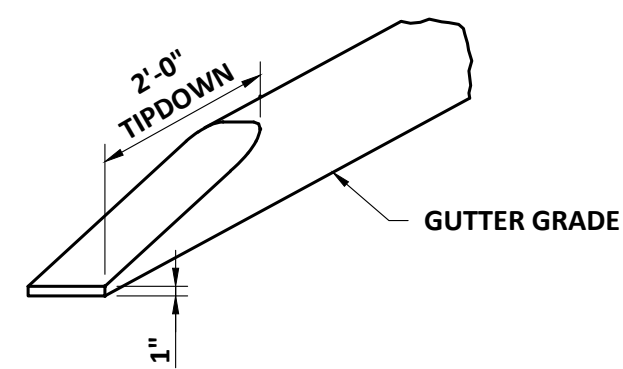
PAVEMENT PAY LIMITS	
PIPE I.D.	"W" (FOR 0' - 10' DEEP)
6" - 15"	7'-0"
16" - 21"	8'-0"

"W" SHALL BE INCREASED BY 1'-0" FOR TRENCHES 10' - 15', AND BY 2'-0" FOR TRENCHES 15' - 20' DEEP.

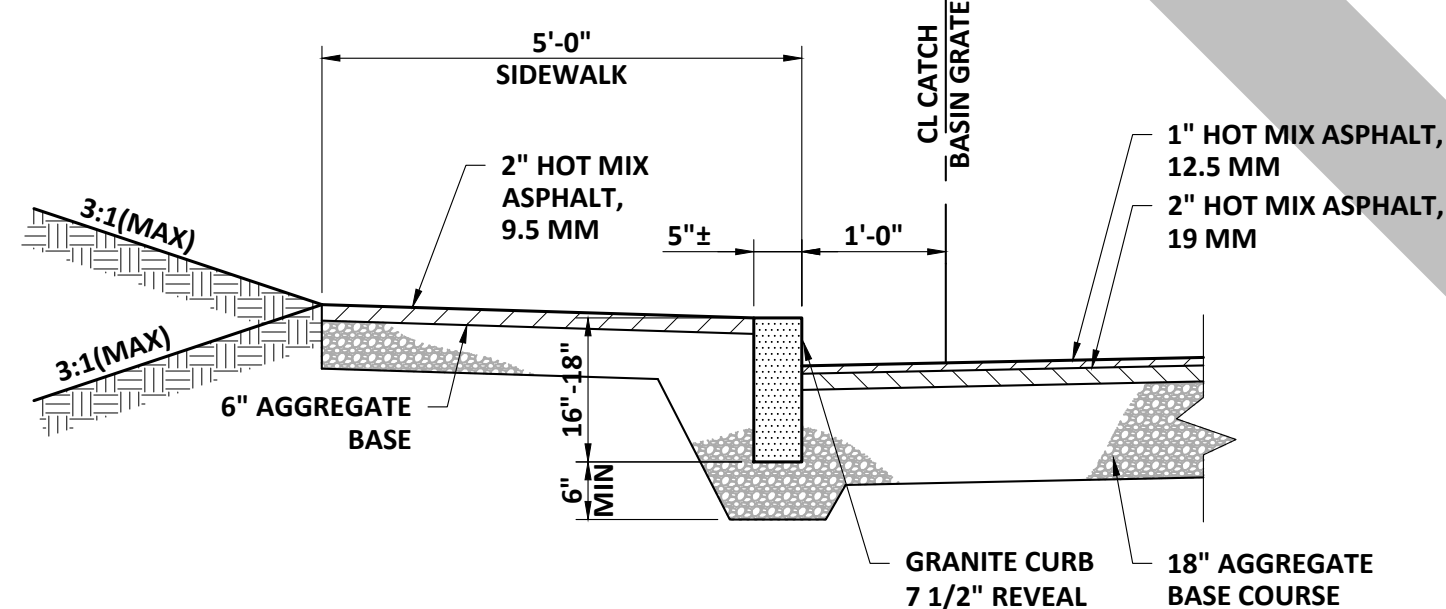
GRANITE CURB TRANSITION
SCALE: NTS



BITUMINOUS CURB
SCALE: NTS



BITUMINOUS TERMINAL CURB
SCALE: NTS

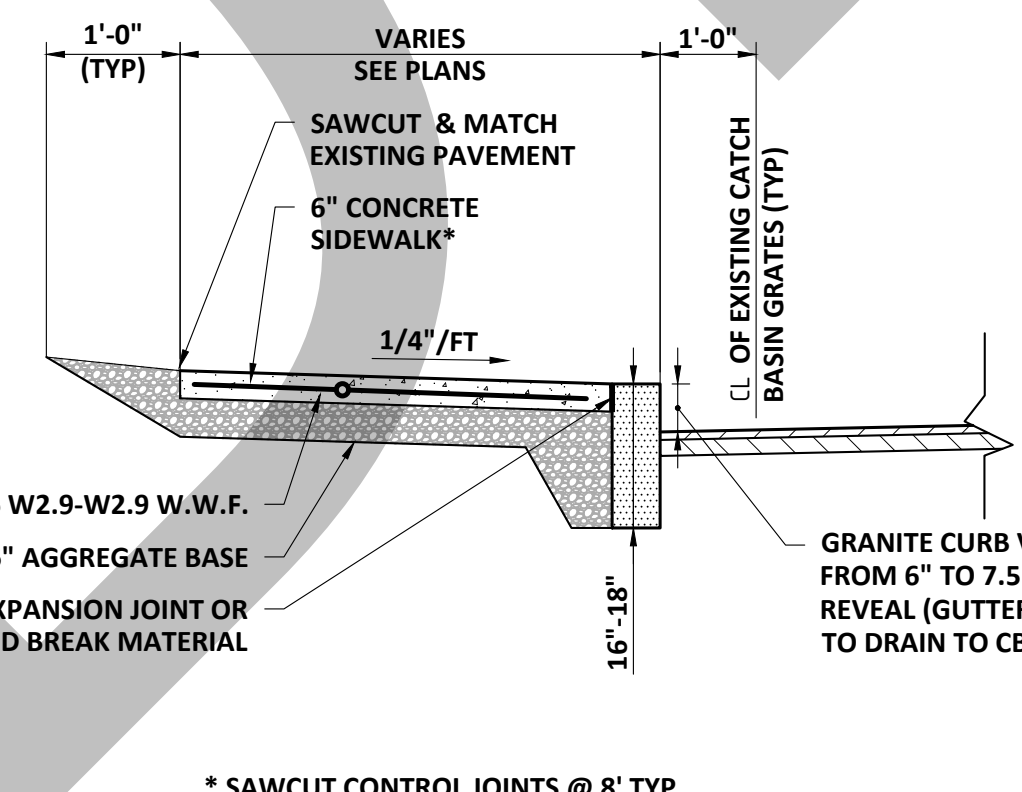


SIDEWALK WITH GRANITE CURB
SCALE: NTS

NOTE: PROVIDE HANDICAP RAMPS AT SITE ENTRANCE.

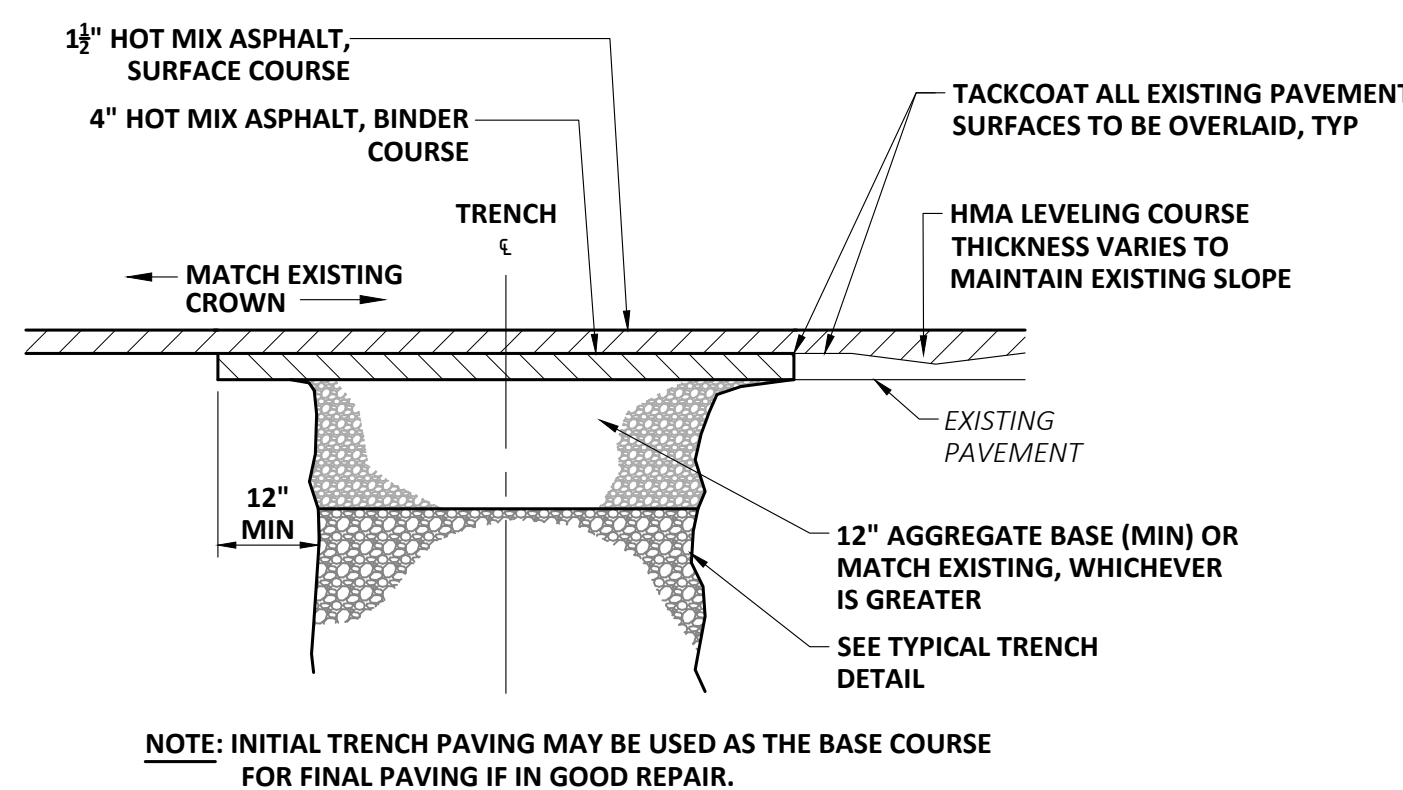
HANDICAP DETECTABLE WARNING STRIP
SCALE: NTS

NOTE: DETAIL REPRESENTS "DETECTABLE WARNING PAVERS" BY HANOVER. EQUIVALENT SUBSTITUTE MAY BE USED SUCH AS IT CONFORMS TO THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT (ADA).



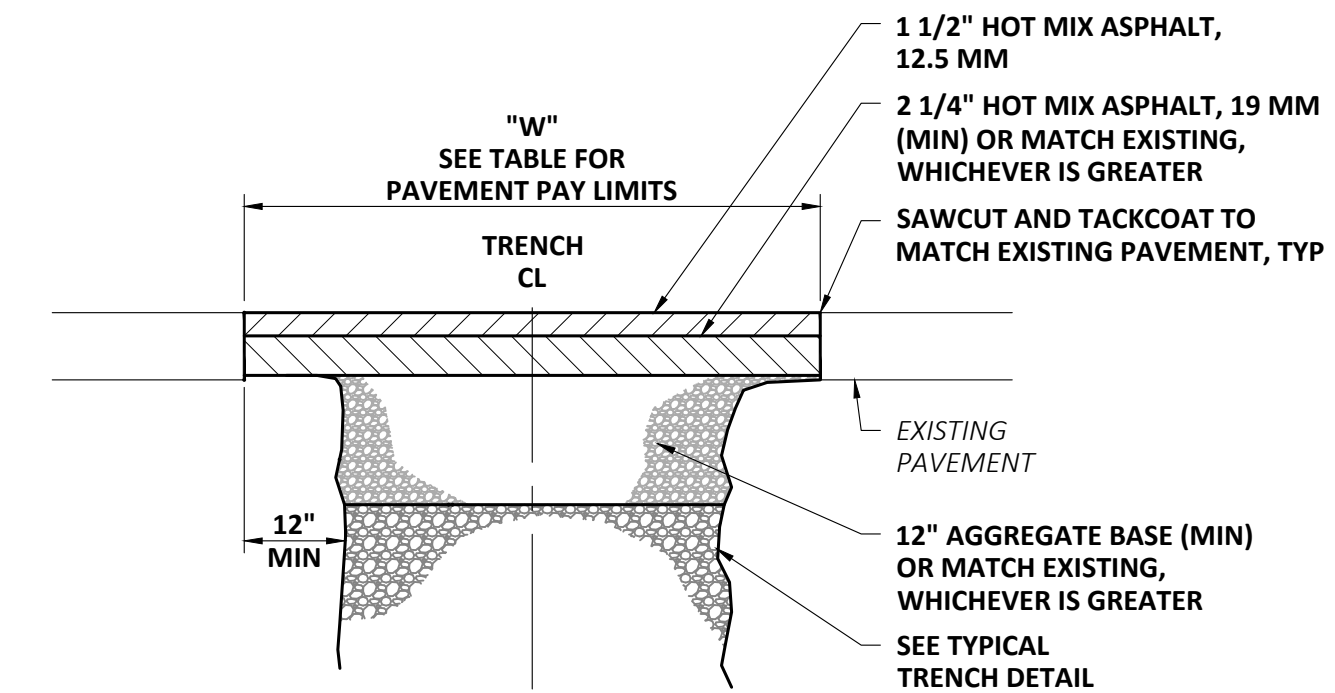
CONCRETE SIDEWALK WITH GRANITE CURB
SCALE: NTS

INITIAL TRENCH PAVING (WITH OVERLAY)
SCALE: NTS



NOTE: INITIAL TRENCH PAVING MAY BE USED AS THE BASE COURSE FOR FINAL PAVING IF IN GOOD REPAIR.

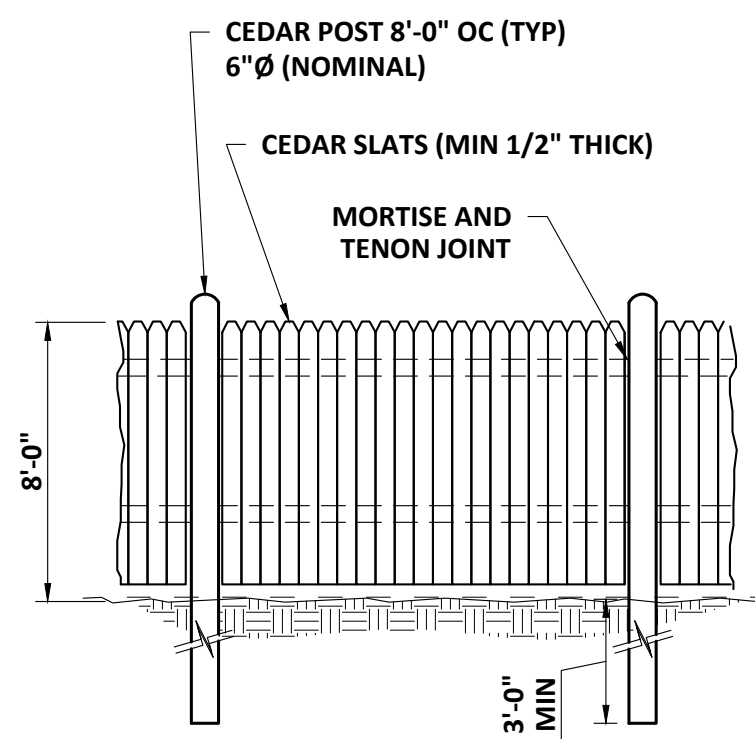
FINAL TRENCH PAVING (WITH OVERLAY)
SCALE: NTS



NOTE: INITIAL TRENCH PAVING MAY BE USED AS THE BASE COURSE FOR FINAL PAVING IF IN GOOD REPAIR.

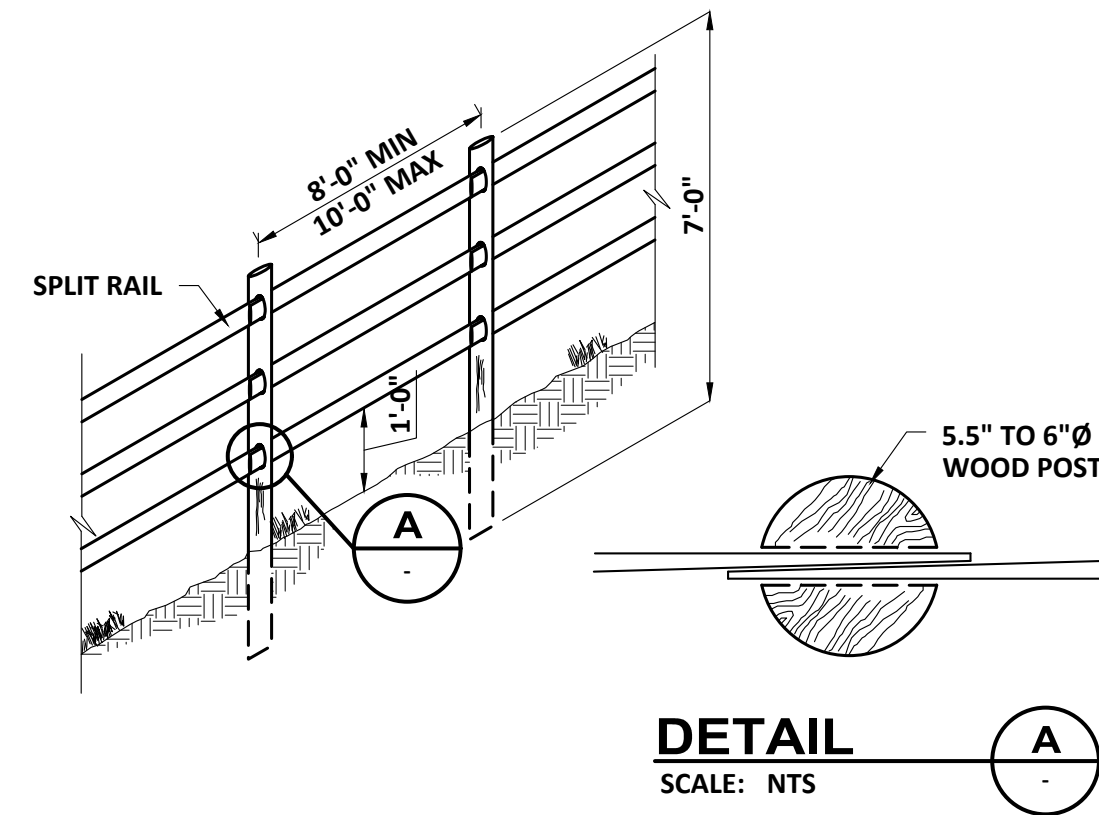
TRENCH PATCH - DRIVES
SCALE: NTS

NO	PERMITTING	DESIGNED BY	J.L.O.C.
		CDR CORP.	J.M.I.C.
		CHKD BY	D.F.U.D.
		CREATED BY	K.L.O.B.E.
		DATE	02-21
		APPROVED BY	K.G.A.R.
		DATE	02-21
		PROJECT NO.	11304C

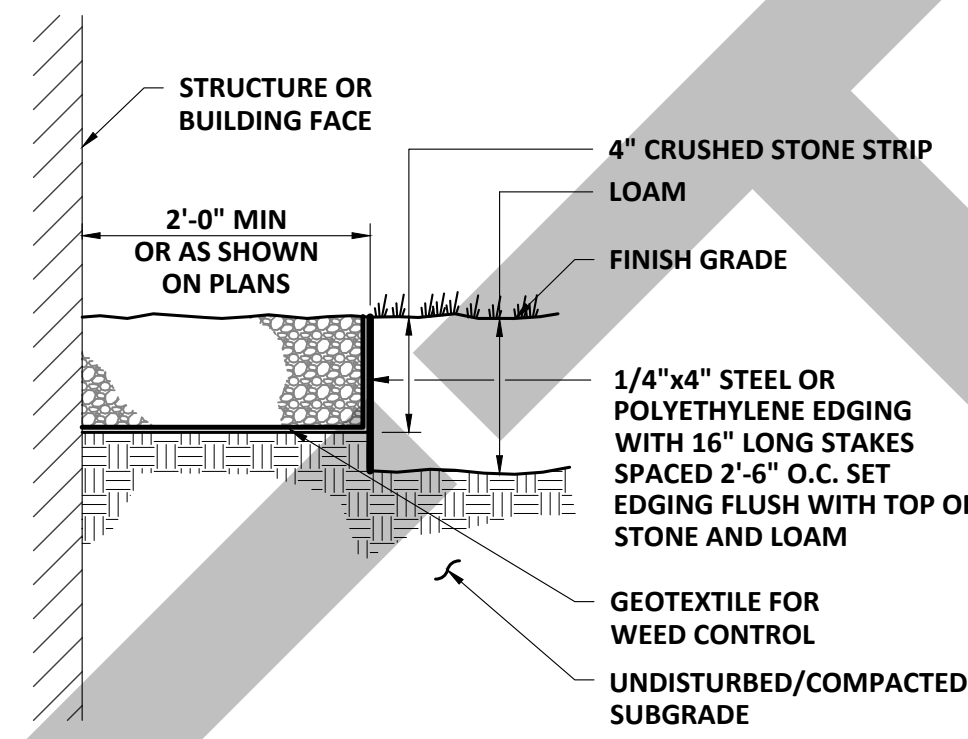


- NOTES:**
1. ALL METAL FASTENINGS TO BE HOT DIPPED GALVANIZED OR STAINLESS STEEL.
 2. SUBMIT DETAILS FOR GATE FRAMING AND HARDWARE FOR ENGINEER'S APPROVAL PRIOR TO FABRICATION.
 3. CONTRACTOR TO APPLY SEMI-TRANSPARENT PRESERVATIVE STAIN, COLOR TO BE COORDINATED WITH OWNER.

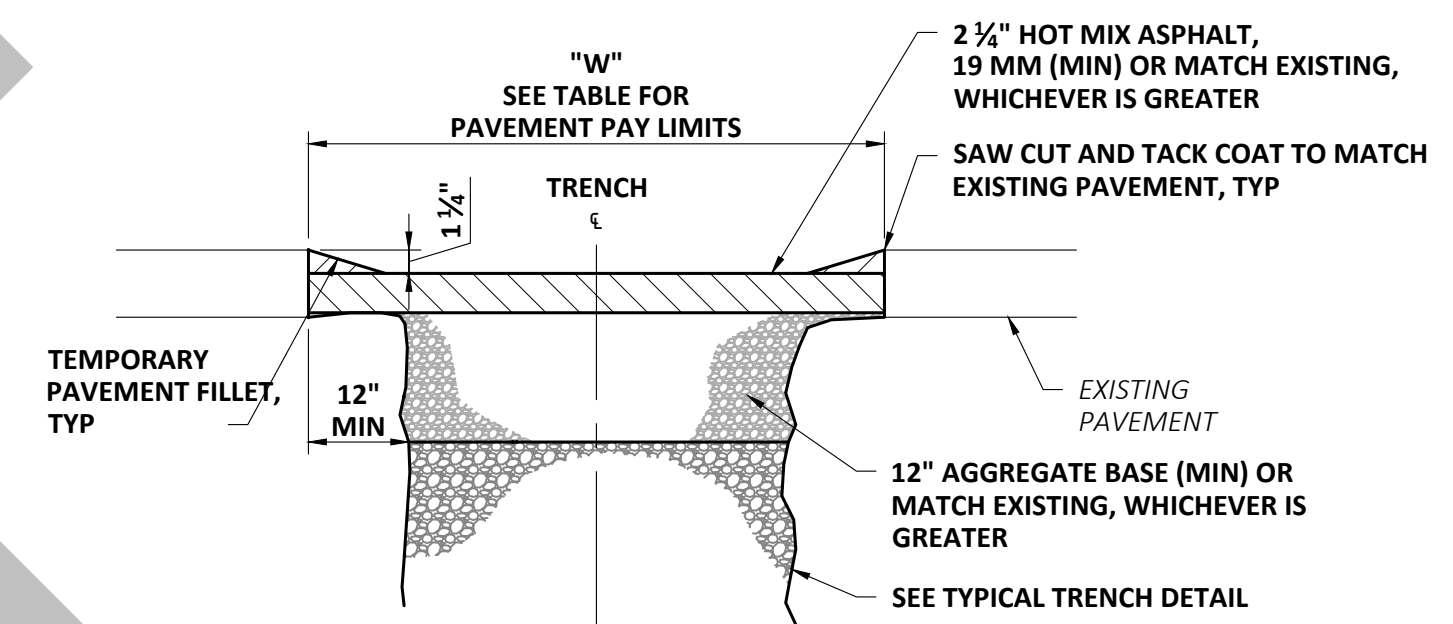
STOCKADE FENCE
SCALE: NTS



SPLIT RAIL FENCE
SCALE: NTS

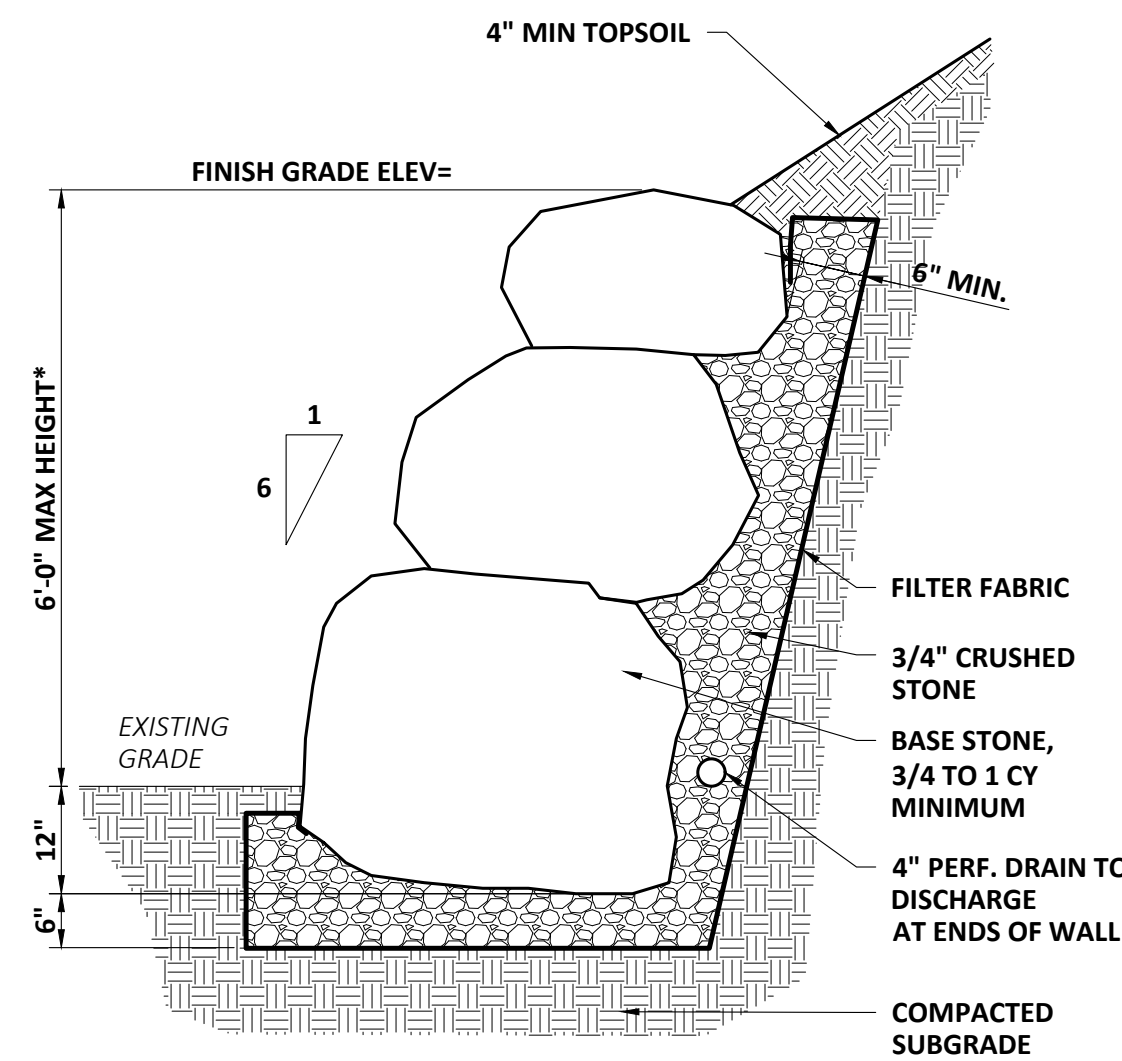


CRUSHED STONE MOWING STRIP
SCALE: "NTS"

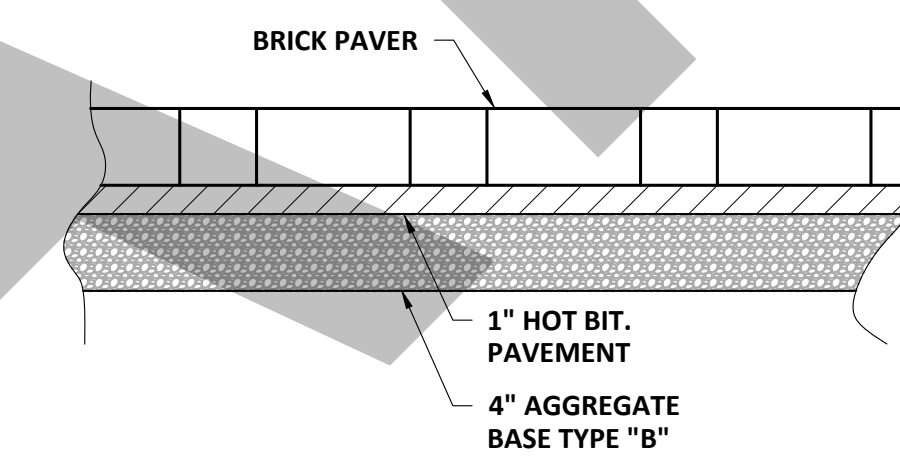


PAVEMENT PAY LIMITS	
PIPE I.D.	"W" (FOR 0'-10' DEEP)
6" - 15"	7'-0"
16" - 21"	8'-0"
"W" SHALL BE INCREASED BY 1'-0" FOR TRENCHES 10' - 15', AND BY 2'-0" FOR TRENCHES 15' - 20' DEEP.	

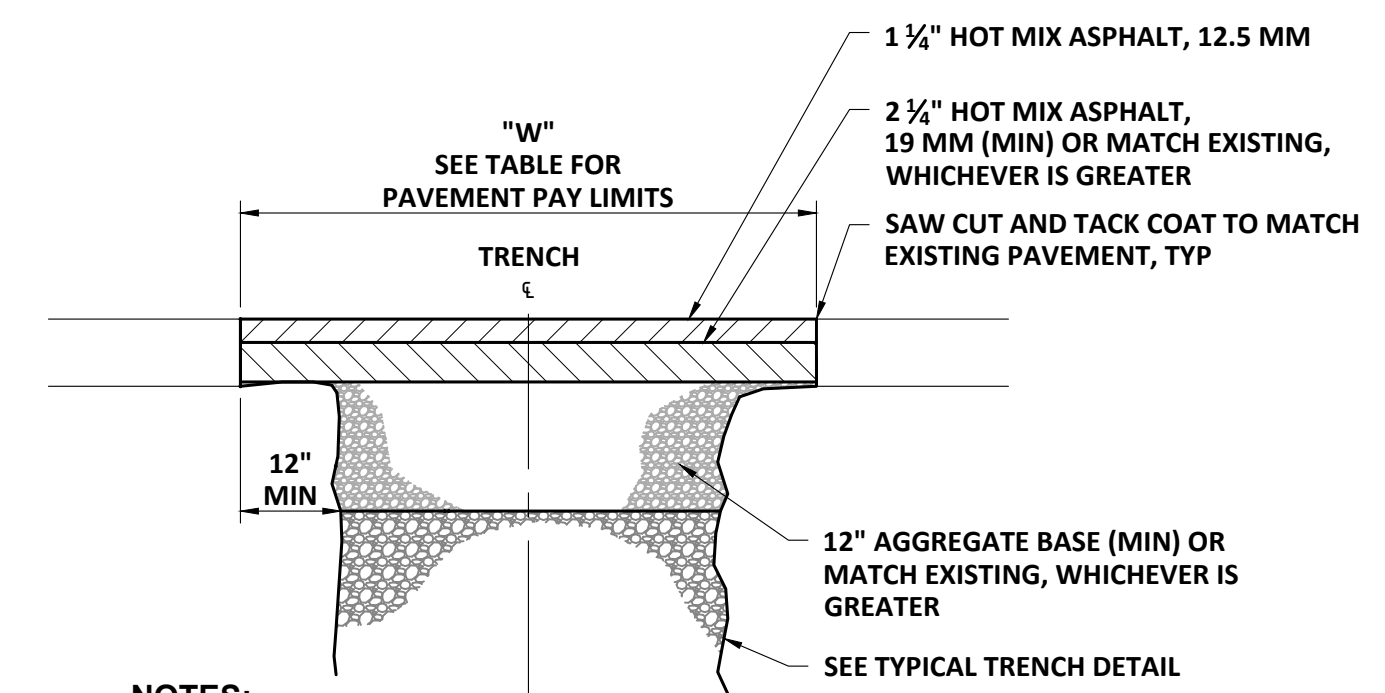
INITIAL TRENCH PAVING (FOR STATE HIGHWAYS)
SCALE: NTS



*ADJUST HEIGHT TO MATCH FIELD CONDITIONS
SLOPED STONE RETAINING WALL DETAIL
SCALE: NTS

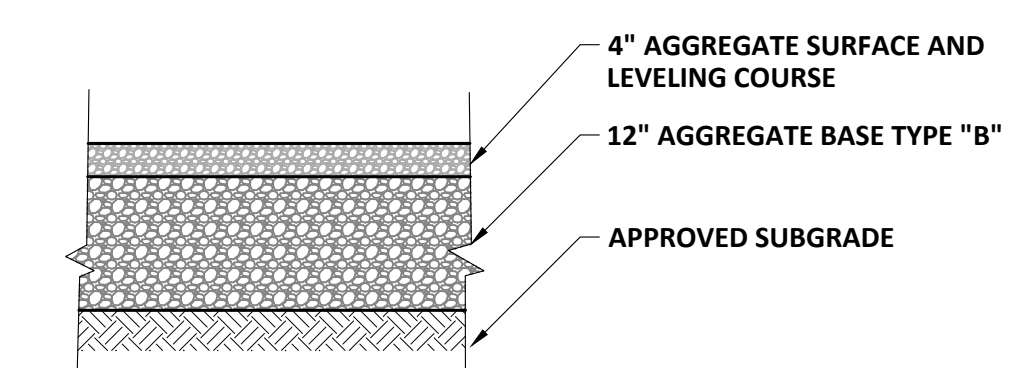


BRICK PAVER WALKWAY
SCALE: NTS

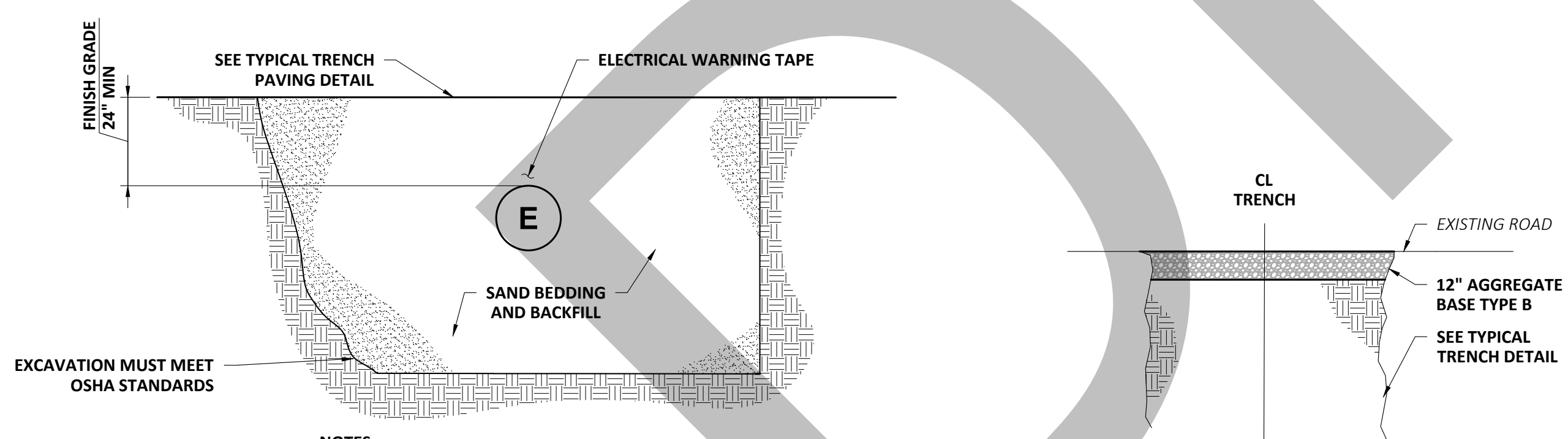


- NOTES:**
1. INITIAL TRENCH PAVING MAY BE USED AS THE BASE COURSE FOR FINAL PAVING IF IN GOOD REPAIR AND IF THE MINIMUM REQUIRED THICKNESS (MIN 2" OR MATCH EXISTING PAVEMENT, WHICHEVER IS GREATER).

FINAL TRENCH PAVING (FOR STATE HIGHWAYS)
SCALE: NTS



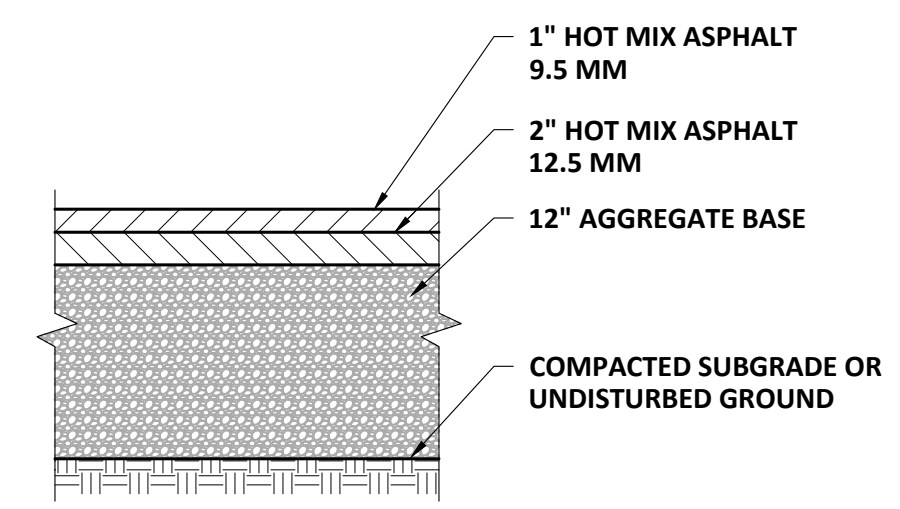
TYPICAL SECTION OF GRAVEL AREAS
SCALE: NTS



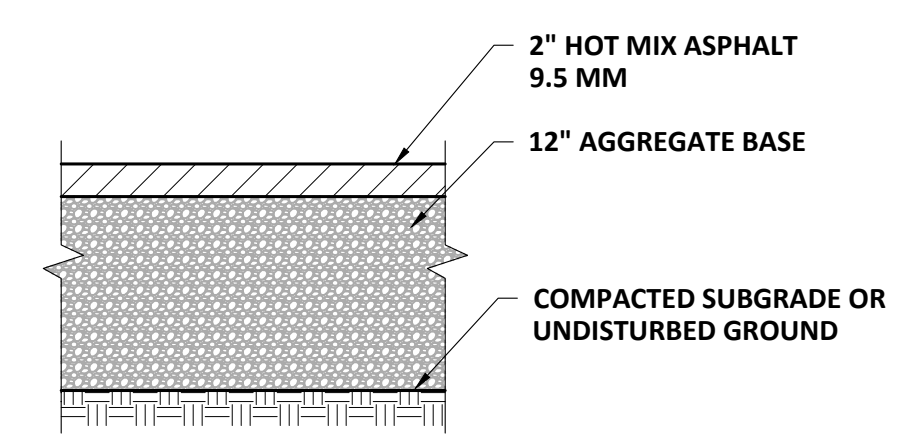
- NOTES:**
1. ALL CONDUITS TO BE 1 1/2" Ø PVC OR STEEL MEETING THE REQUIREMENTS OF THE NEC.
 2. CONCRETE ENCASE CONDUITS UNDER STREETS AND WHERE REQUIRED AS NOTED IN THE SPECIFICATIONS.

SINGLE ELECTRICAL CONDUIT TRENCH SECTION
SCALE: NTS

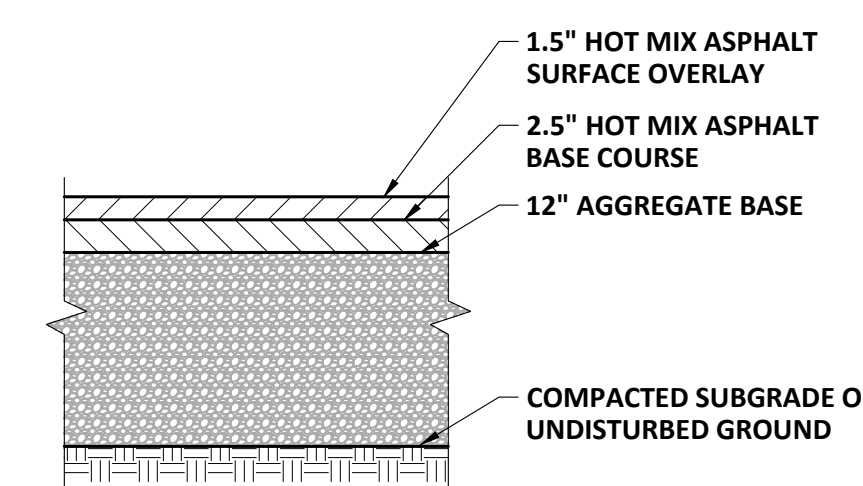
TRENCH - GRAVEL ROAD
SCALE: NTS



PARKING LOT PAVEMENT
SCALE: "NTS"



WALKWAY PAVEMENT
SCALE: "NTS"



DRIVEWAY PAVEMENT
SCALE: "NTS"

NO	PERMITTING	DESIGNED BY: J.LLOC	CAD CORP: J.MIC	CHKD BY: D.FUD	CREATED BY: K.LOBE	DATE: 02-21	APPROVED BY: K.GAR	DATE: 02-21	PROJECT NO: 11304C

NO	REVISIONS	DATE

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SAGAMORE AVENUE SEWER EXTENSION PROJECT
DETAILS V

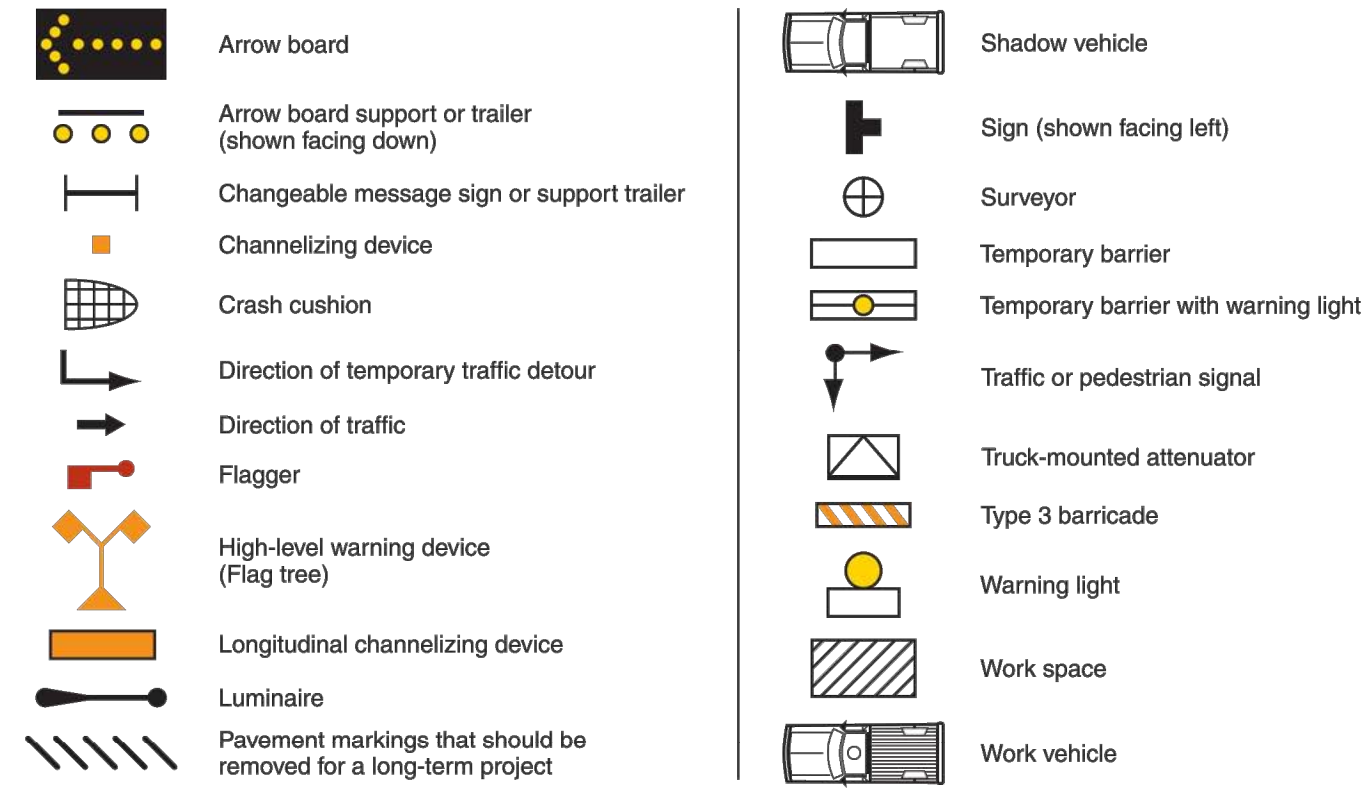


TABLE 6H-2 MEANING OF SYMBOLS

SCALE: NTS

Road Type	Distance Between Signs**		
	A	B	C
Urban (low speed)*	100 feet	100 feet	100 feet
Urban (high speed)*	350 feet	350 feet	350 feet
Rural	500 feet	500 feet	500 feet
Expressway / Freeway	1,000 feet	1,500 feet	2,640 feet

* Speed category to be determined by highway agency
 ** The column headings A, B, and C are the dimensions shown in Figures 6H-1 through 6H-6. The A dimension is the distance from the transition or point of restriction to the first sign. The B dimension is the distance between the first and second signs. The C dimension is the distance between the second and third signs. (The "first sign" is the sign in a three-sign series that is closest to the TTC zone. The "third sign" is the sign that is furthest upstream from the TTC zone.)

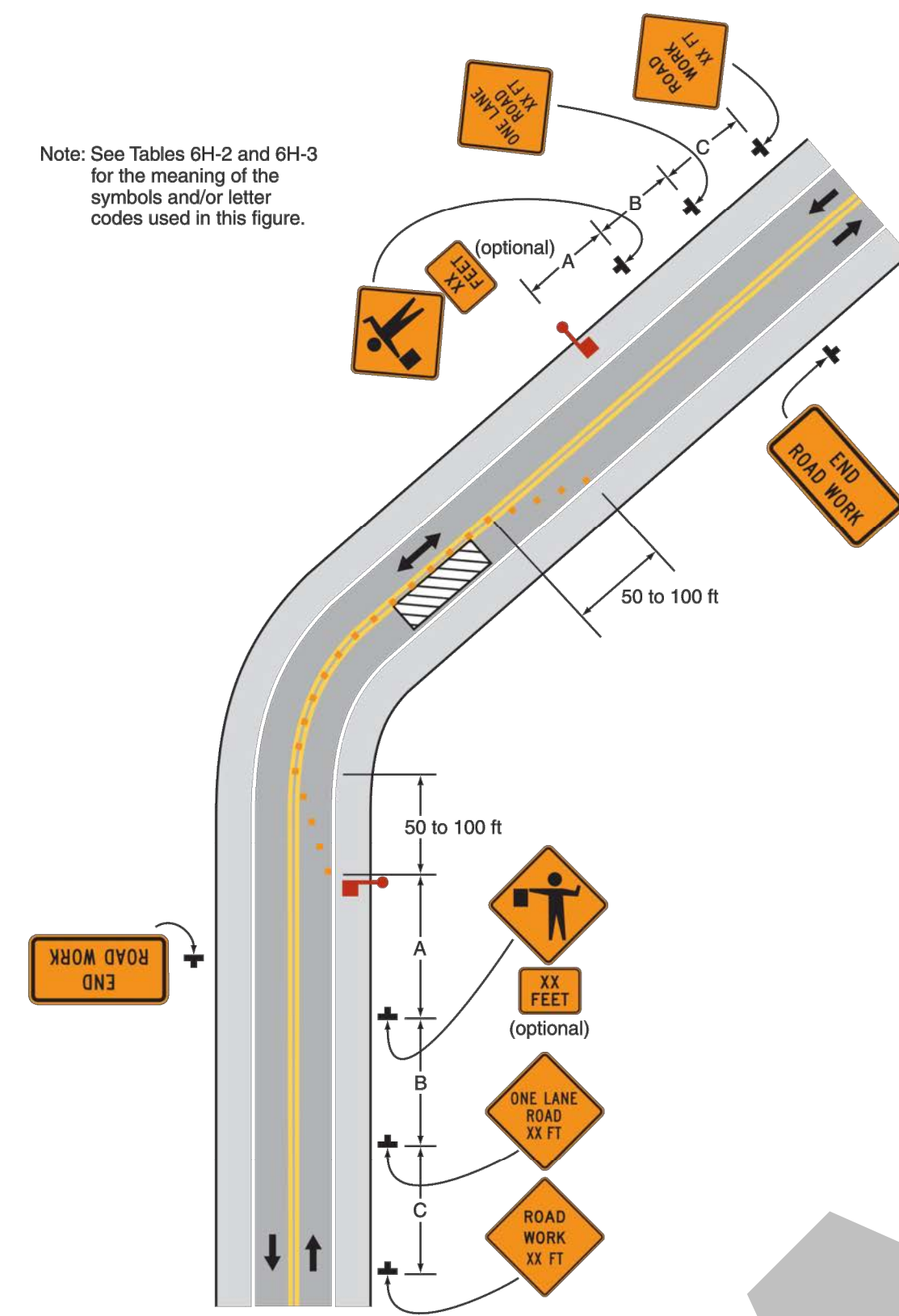
TABLE 6H-3 MEANING OF LETTER CODES

SCALE: NTS

Speed (S)	Taper Length (L) in feet
40 mph or less	$L = \frac{WS^2}{60}$
45 mph or more	$L = WS$

Where: L = taper length in feet
 W = width of offset in feet
 S = posted speed limit, or off-peak 85th-percentile speed prior to work starting, or the anticipated operating speed in mph

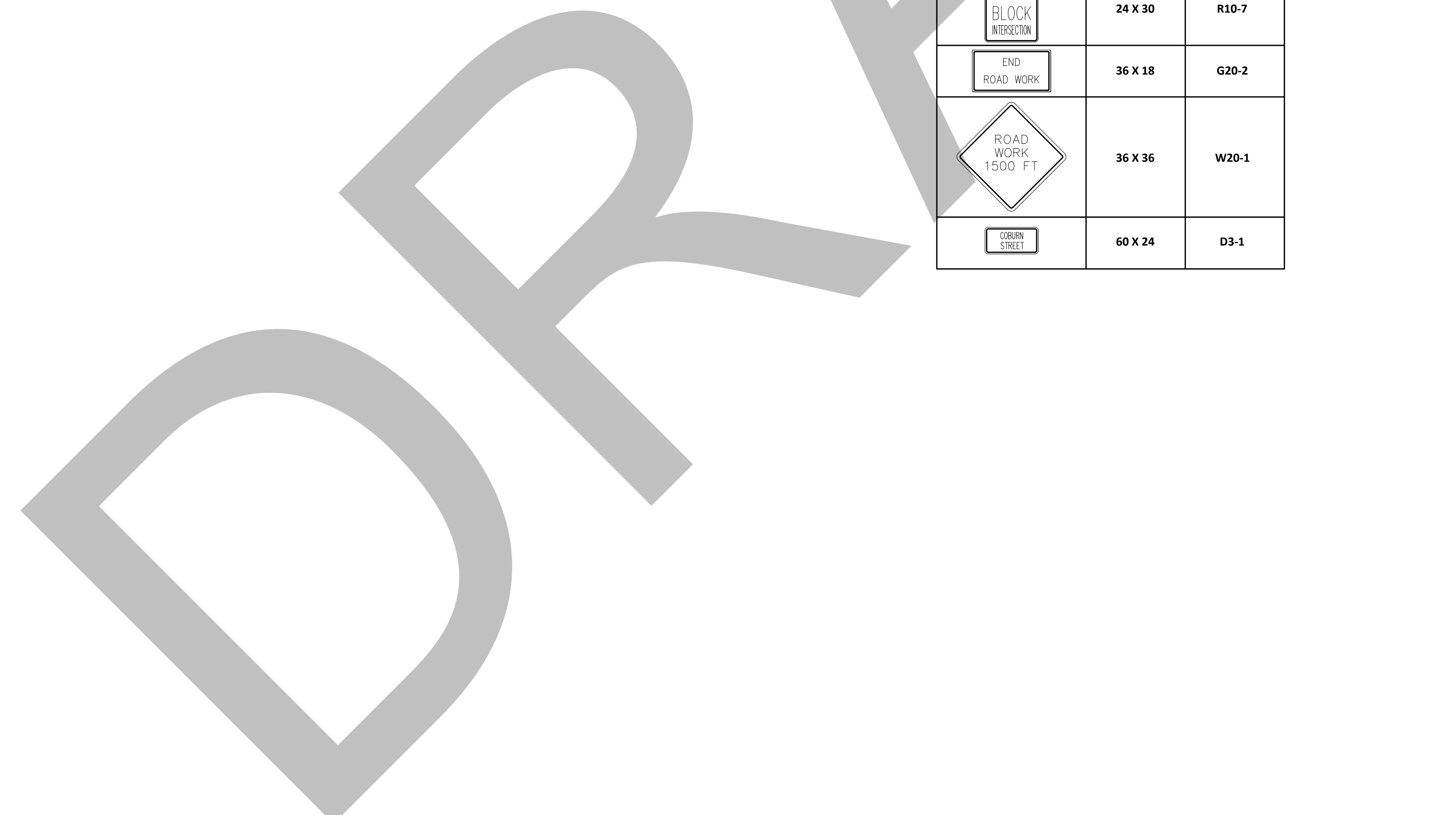
Note: See Tables 6H-2 and 6H-3 for the meaning of the symbols and/or letter codes used in this figure.



TYPICAL TRAFFIC CONTROL PLAN

SCALE: NTS

CONSTRUCTION SIGN		
TEXT	SIZE OF SIGN	M.U.T.C.D. NO.
	36 X 36	W20-1
	36 X 36	W3-5
	24 X 30	R2-10a
	36 X 36	W20-4
	24 X 24	W13-1
	36 X 36	W3-4
	36 X 36	W3-3
	24 X 36	R10-6L
	24 X 30	R10-7
	36 X 18	G20-2
	36 X 36	W20-1
	60 X 24	D3-1



APP'D	DATE
K.GAR	03-21
SUBMISSIONS/REVISIONS	
NO	PERMITTING
DESIGNED BY: J.L.O.C.	CAD CORP.: J.M.C.
CD: D.F.U.D.	CHECKED BY: K.L.O.B.E.
DATE: 03-21	APPROVED BY: K.GAR
DATE: 03-21	PROJECT NO.: 11304C
WRIGHT-PIERCE Engineering a Better Environment 888.621.8156 www.wright-pierce.com	
CITY OF PORTSMOUTH, NH SAGAMORE AVENUE SEWER EXTENSION PROJECT	
DRAWING	
C-20	
DETAILS VII	

EROSION AND SEDIMENTATION CONTROL NOTES

THIS PLAN HAS BEEN DEVELOPED AS A STRATEGY TO CONTROL SOIL EROSION AND SEDIMENTATION DURING AND AFTER CONSTRUCTION. THE PROPOSED LOCATION OF EROSION AND SEDIMENT CONTROLS ARE DEPICTED IN THE PLANS WHERE WORK ABUTS ENVIRONMENTALLY SENSITIVE LOCATIONS. ADDITIONAL CONTROLS MAY BE NEEDED TO MEET THE REQUIREMENTS OF THE BELOW REFERENCED DOCUMENTS. THIS PLAN IS BASED ON THE NEW HAMPSHIRE STORMWATER MANUAL BY THE NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES.

PROVIDE SILT FENCE, STONE CHECK DAMS AND OTHER EROSION CONTROL MEASURES AS REQUIRED TO ADEQUATELY PREVENT SEDIMENT TRANSPORT. ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL BE DONE IN ACCORDANCE WITH THE LATEST VERSIONS OF THE NEW HAMPSHIRE STORMWATER MANAGEMENT MANUAL AND THE NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES, ENV-Wq 1500: ALTERATION OF TERRAIN.

- THOSE AREAS UNDERGOING ACTUAL CONSTRUCTION, IN NO CASE AT MORE THAN 5 ACRES AT A TIME, WILL BE MAINTAINED IN AN UNTREATED OR UN-VEGETATED CONDITION FOR THE MINIMUM TIME REQUIRED. IN GENERAL, AREAS TO BE VEGETATED SHALL BE PERMANENTLY STABILIZED WITHIN 3 DAYS OF FINAL GRADING AND TEMPORARILY STABILIZED WITHIN 45 DAYS OF INITIAL DISTURBANCE OF THE SOIL.
- TEMPORARY STORAGE OF STOCKPILED MATERIAL SHALL BE STABILIZED IN A MANNER THAT WILL MINIMIZE EROSION.
- EROSION CONTROL MEASURES SUCH AS SEDIMENT BARRIERS (SILT FENCE, STONE CHECK DAMS, ETC.) AND OUTLET PROTECTION (WHERE APPLICABLE) SHOULD BE INSTALLED PRIOR TO ANY SOIL DISTURBANCE OR EARTH MOVING OPERATIONS OF UPGRADIENT DRAINAGE AREAS.
- FUGITIVE DUST MUST BE CONTROLLED IN ACCORDANCE WITH NEW HAMPSHIRE STANDARDS.
- ALL EROSION CONTROL STRUCTURES WILL BE INSPECTED, REPLACED AND/OR REPAIRED EVERY 7 DAYS AND IMMEDIATELY FOLLOWING ANY SIGNIFICANT RAINFALL OR SNOW MELT OR WHEN NO LONGER SERVICEABLE DUE TO SEDIMENT ACCUMULATION OR DECOMPOSITION. SEDIMENT DEPOSITS MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE THIRD THE HEIGHT OF THE BARRIER. SEDIMENT CONTROL DEVICES SHALL REMAIN IN PLACE AND BE MAINTAINED BY THE CONTRACTOR UNTIL AREAS UPSLOPE ARE PERMANENTLY STABILIZED AND/OR WILL NOT ERODE UNDER THE CONDITIONS OF A 10-YEAR STORM. STABILIZATION SHALL BE DEFINED AS ONE OF THE FOLLOWING:
 - A. BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED;
 - B. A MINIMUM OF 85% VEGETATIVE GROWTH HAS BEEN ESTABLISHED;
 - C. A MINIMUM OF 3" OF NON-EROSIVE MATERIALS SUCH AS STONE OR RIPRAP HAS BEEN INSTALLED; OR
 - D. EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.
- NO SLOPES, EITHER PERMANENT OR TEMPORARY, SHALL NOT BE STEEPER THAN THREE HORIZONTAL TO ONE VERTICAL (3 TO 1) UNLESS STABILIZED WITH PERMANENT EROSION CONTROL MEASURES. IF MOWING IS TO OCCUR, MAXIMUM SLOPE ANGLE SHALL BE THREE HORIZONTAL TO ONE VERTICAL (3 TO 1). ON SLOPES FOUR HORIZONTAL TO ONE VERTICAL (4 TO 1), FINAL PREPARATION SHOULD INCLUDE SURFACE ROUGHING.
- DURING THE CONSTRUCTION PHASE, INTERCEPTED SEDIMENT WILL BE RETURNED TO THE SITE AND RE-GRADED ONTO OPEN AREAS. POST SEEDING SEDIMENT, IF ANY, WILL BE DISPOSED OF IN AN ACCEPTABLE MANNER. AT NO TIME SHALL THE INTEGRITY OF THE EROSION CONTROL FENCE BE IN DANGER DUE TO BUILD UP OF SEDIMENT.
- RE-VEGETATION MEASURES WILL COMMENCE UPON COMPLETION OF CONSTRUCTION. ALL DISTURBED AREAS NOT OTHERWISE STABILIZED WILL BE GRADED, SMOOTHED, AND RE-VEGETATED.
- AN AREA SHALL BE CONSIDERED TO HAVE BEEN STABILIZED WHEN EXPOSED SURFACES HAVE BEEN EITHER MULCHED WITH STRAW OR HAY AT A RATE OF 2 BALES (70-90 LBS) PER 1,000 SQUARE FEET OR 1.5 TO 2 TONS (90-100 BALES) PER ACRE TO COVER 75 TO 90% OF THE GROUND SURFACE.
- DITCHES AND SWALES SHALL BE STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM.
- SEED MIX SELECTION AND APPLICATION RATES WILL BE CONSISTENT WITH THE FOLLOWING TABLES AS REFERENCED FROM MINNICK, E.L. AND H.T. MARSHALL, STORMWATER MANAGEMENT AND EROSION CONTROL FOR URBAN AND DEVELOPING AREAS IN NEW HAMPSHIRE, ROCKINGHAM COUNTY CONSERVATION DISTRICT, AUGUST 1992, AND TABLES 4-1 THROUGH 4-3 OF SECTION 3 IN THE NEW HAMPSHIRE STORMWATER MANUAL. NOTE: REED CANARY GRASS SHALL NOT BE USED.
- ALL TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED ONCE THE WORK AREA IS STABILIZED.
- WETLANDS (EXCEPT THOSE WHICH ARE TO BE FILLED IN ACCORDANCE WITH STATE AND FEDERAL REGULATIONS) WILL BE PROTECTED WITH SILT FENCE INSTALLED AT THE EDGE OF THE WETLAND OR THE BOUNDARY OF WETLAND DISTURBANCE.
- IN GENERAL, AREAS WITHIN 100 FEET OF DELINEATED WETLANDS OR STREAMS SHALL HAVE A MAXIMUM PERIOD OF EXPOSURE OF NOT MORE THAN 15 DAYS.
- FOLLOW APPROPRIATE EROSION CONTROL MEASURES PRIOR TO EACH STORM IN ALL AREAS WITHIN 100 FEET OF DELINEATED WETLANDS OR STREAMS.

EROSION CONTROL DURING WINTER CONSTRUCTION

- WINTER CONSTRUCTION PERIOD DEFINED: NOVEMBER 1 THROUGH MAY 1
- WINTER EXCAVATION AND EARTHWORK SHALL BE DONE SUCH THAT NO MORE THAN 1 ACRE OF THE SITE IS WITHOUT STABILIZATION AT ANY ONE TIME.
- EXPOSED AREAS SHOULD BE LIMITED TO WHICH CAN BE MULCHED IN ONE DAY PRIOR TO ANY PRECIPITATION EVENT.
- ALL PROPOSED VEGETATED AREAS THAT DO NOT EXHIBIT A MINIMUM OF 85 PERCENT VEGETATIVE GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE STABILIZED BY SEEDING AND INSTALLING EROSION CONTROL BLANKETS ON SLOPES GREATER THAN 3:1, AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURED WITH ANCHORED NETTING, ELSEWHERE. THE INSTALLATION OF EROSION CONTROL BLANKETS OR MULCH AND NETTING SHALL NOT OCCUR OVER ACCUMULATED SNOW OR ON FROZEN GROUND AND SHALL BE COMPLETED IN ADVANCE OF THAW OR SPRING MELT EVENTS.
- ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85 PERCENT VEGETATIVE GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE STABILIZED TEMPORARILY WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS.
- AFTER NOVEMBER 15, INCOMPLETE ROAD OR PARKING SURFACES, WHERE WORK HAS STOPPED FOR THE WINTER SEASON, SHALL BE PROTECTED WITH A MINIMUM OF 3 INCHES OF CRUSHED GRAVEL PER NHDOT ITEM 304.3

LIME AND FERTILIZER SCHEDULE

SEEDING TYPE	SEED DATES	LIME RATE (TONE/ACRE)	FERTILIZER RATE/RATIO (TYPE) [LBS/1,000 SQ. FT.]
PERMANENT AND/OR TEMPORARY	MAY. 1 - SEPT. 15	3	600/ENGINEER APPROVED (N-P205-K20)

NOTES:

- USE LOW PHOSPHATE FERTILIZER AT ALL TIMES AND SLOW RELEASE NITROGEN FERTILIZER WHEN BETWEEN 25 AND 250 FEET OF A SURFACE WATER BODY.
- NO FERTILIZER EXCEPT LIMESTONE SHOULD BE APPLIED WITHIN 25 FEET OF THE SURFACE WATER.
- APPLY LIMESTONE AT 50 PERCENT CALCIUM PLUS MAGNESIUM OXIDE.

TEMPORARY VEGETATION (TABLE 4-1)

ADDITIONAL TEMPORARY SEED MIXTURE (FOR PERIODS LESS THAN 12 MONTHS)

DATES	SEED	RATE
PRIOR TO MAY 15	OATS	80 LBS/ACRE
AUG. 15 - SEP. 15	ANNUAL RYE GRASS	40 LBS/ACRE
AUG. 15 - SEP. 15	WINTER RYE GRASS	112 LBS/ACRE
APR. 1 - JUN. 1 (AUG. 15 - SEP. 15)	PERENNIAL RYE GRASS	40 LBS/ACRE

PERMANENT VEGETATION (TABLE 4-2)

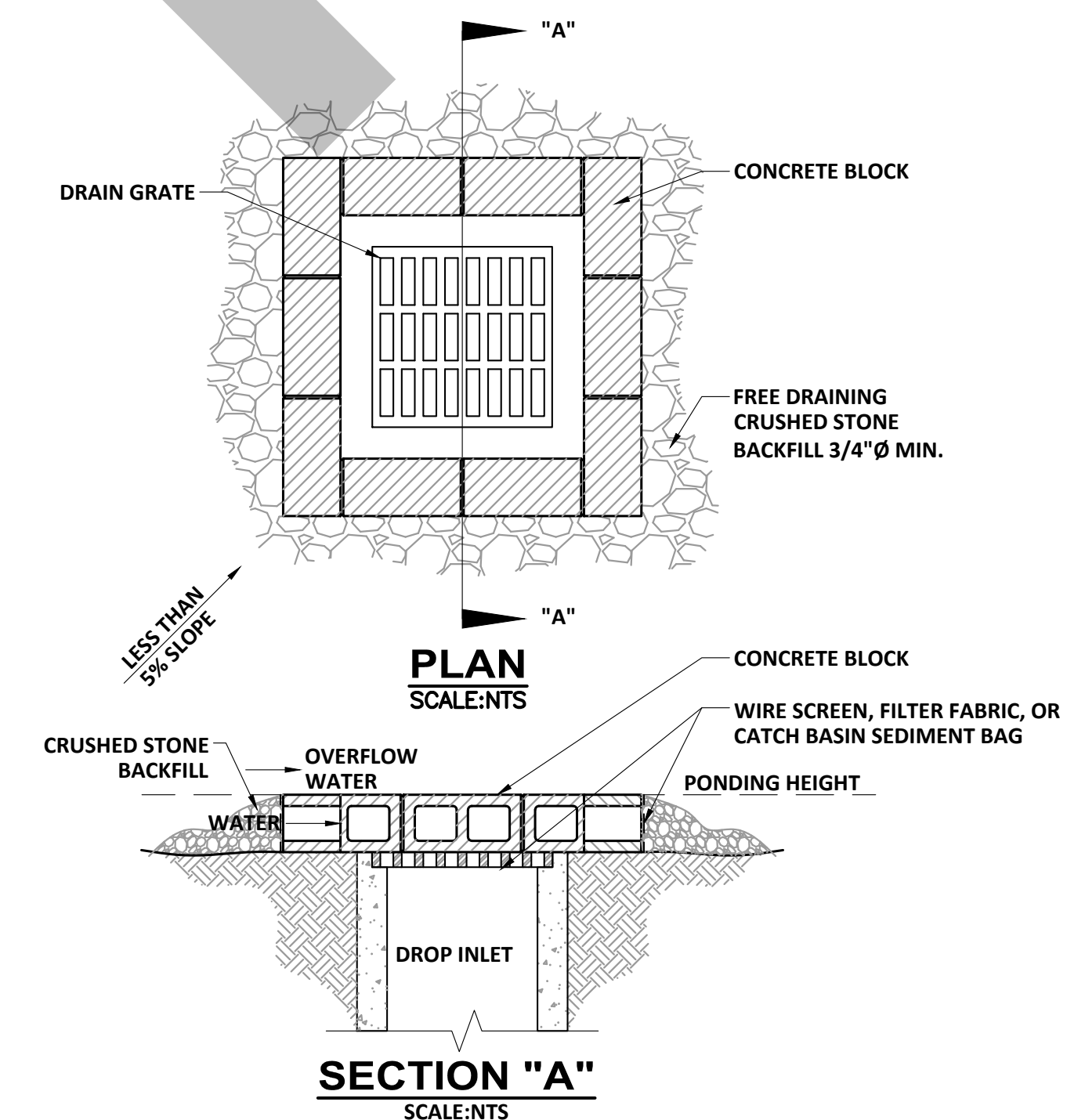
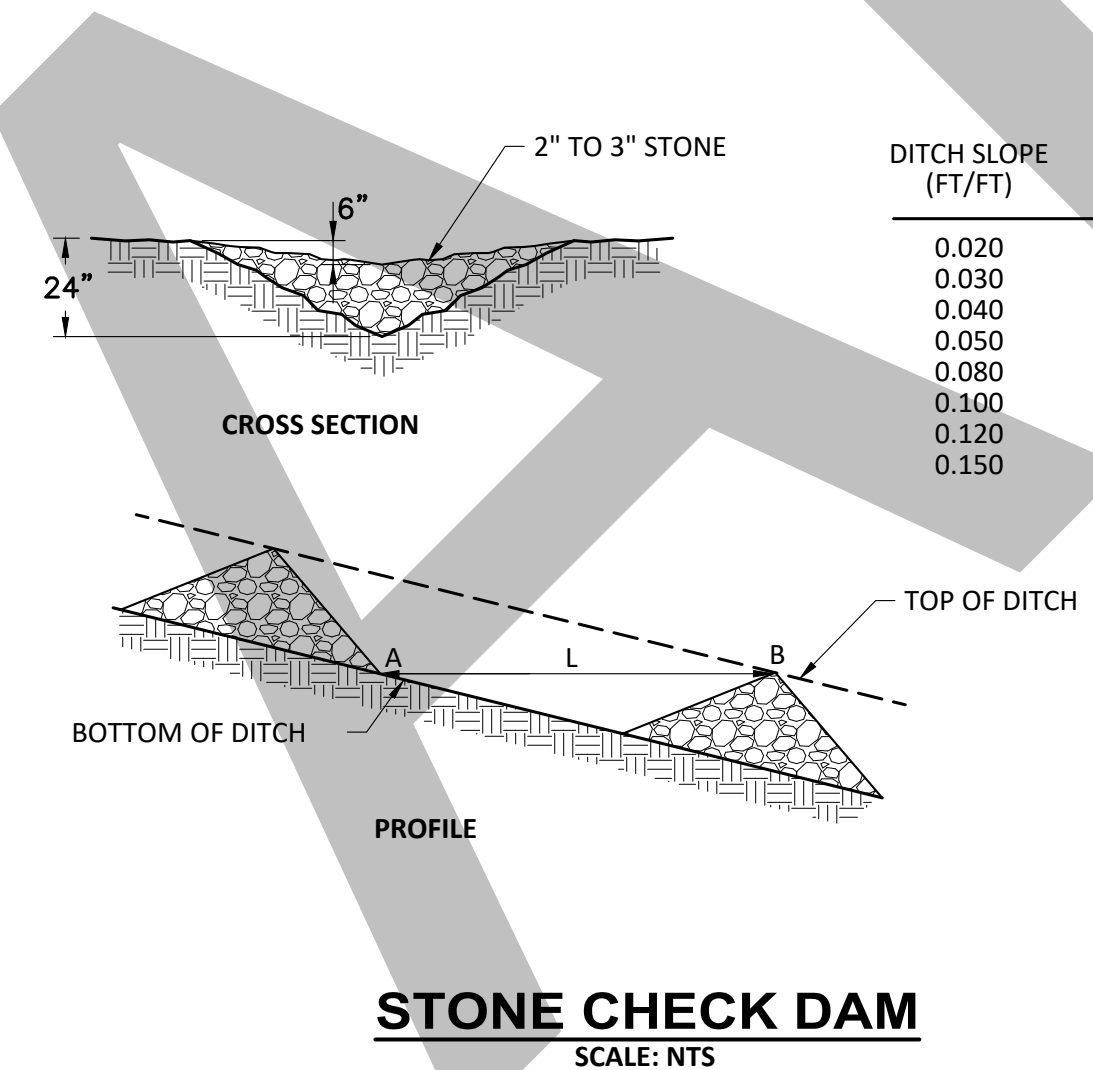
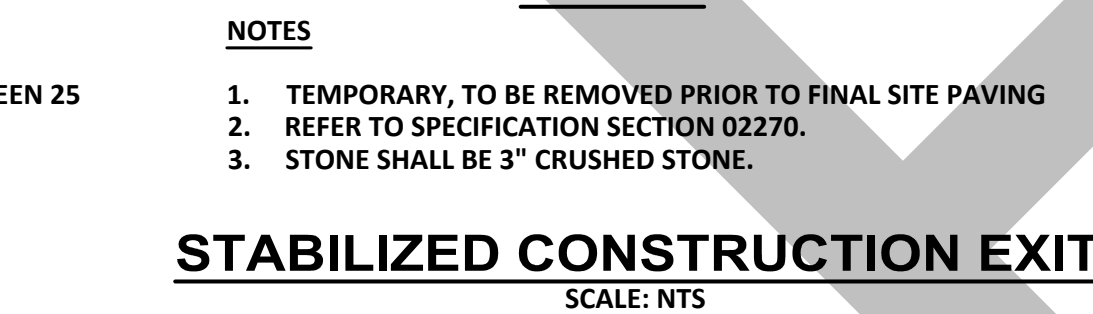
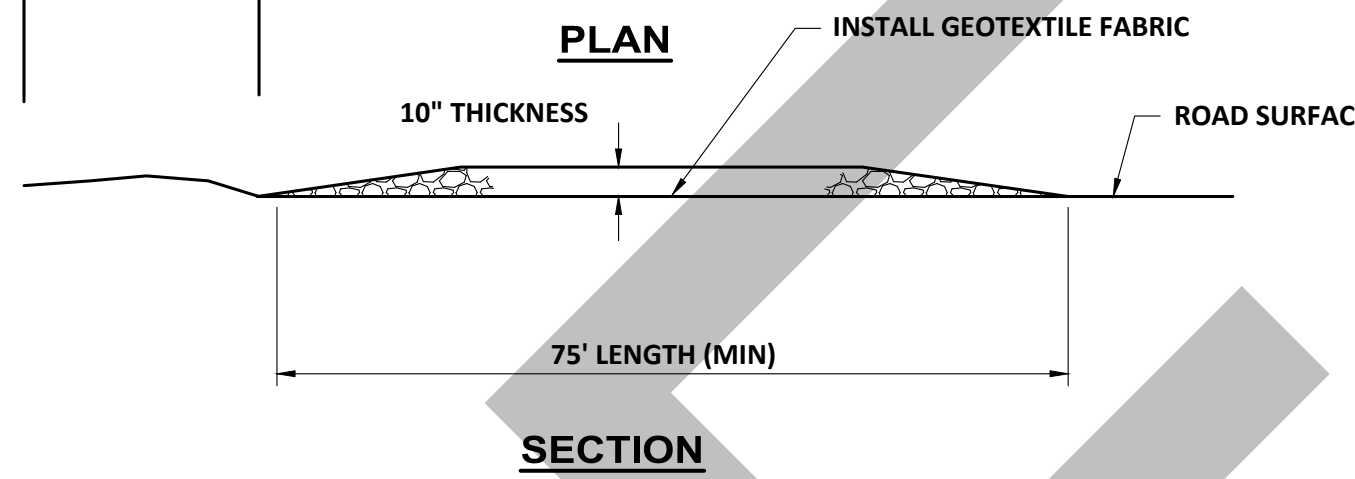
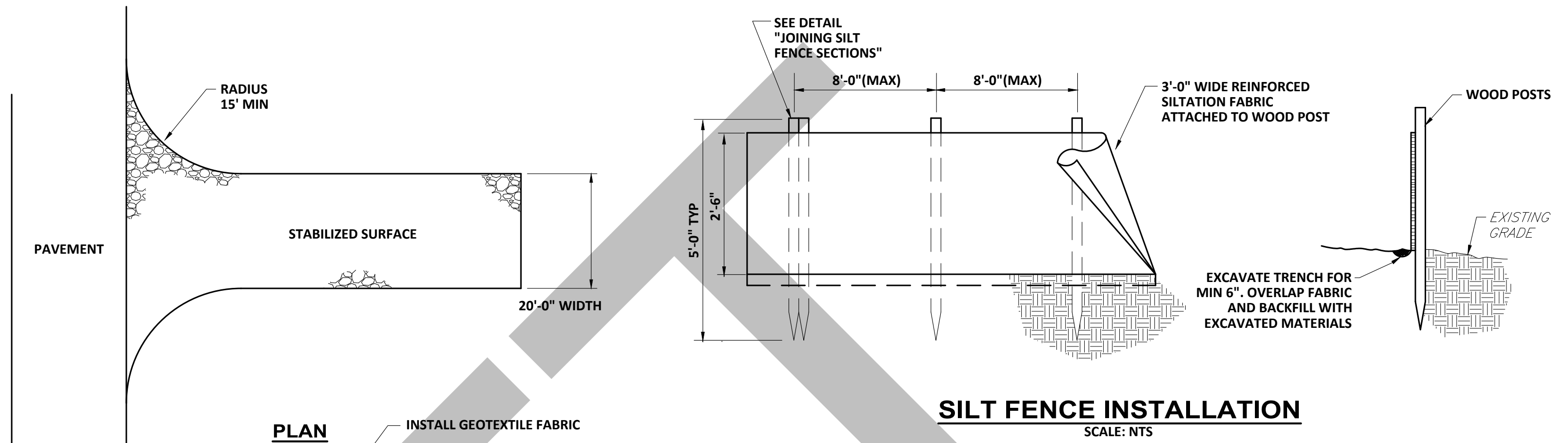
USE	MIXTURE TABLES	SOIL DRAINAGE			
		I.	II.	III.	IV.
STEEP CUTS AND FILLS, BORROW AND DISPOSAL AREAS	A	FAIR	GOOD	GOOD	FAIR
	B	POOR	GOOD	FAIR	FAIR
	C	POOR	GOOD	EXC.	GOOD
	E	FAIR	EXC.	EXC.	POOR
WATERWAYS, EMERGENCY SPILLWAYS AND OTHER CHANNELS WITH FLOWING WATER	A	GOOD	GOOD	GOOD	FAIR
	C	GOOD	EXC.	EXC.	FAIR
LIGHTLY USED PARKING LOTS, ODD AREAS, UNUSED LANDS, AND LOW INTENSITY USE RECREATION SITES	A	GOOD	GOOD	GOOD	FAIR
	B	GOOD	GOOD	FAIR	POOR
	C	GOOD	EXC.	EXC.	FAIR
PLAY AREAS AND ATHLETIC FIELDS. (TOPSOIL IS ESSENTIAL FOR GOOD TURF)	F	FAIR	EXC.	EXC.	
	G	FAIR	EXC.	EXC.	

NOTES:

- I. DROUGHTY
II. WELL DRAINED
III. MODERATELY WELL DRAINED
IV. POORLY DRAINED
- EXC. = EXCELLENT
- REFER TO TABLE 4-3 FOR SEED MIXTURE AND APPLICATION RATES

PERMANENT VEGETATION (TABLE 4-3)

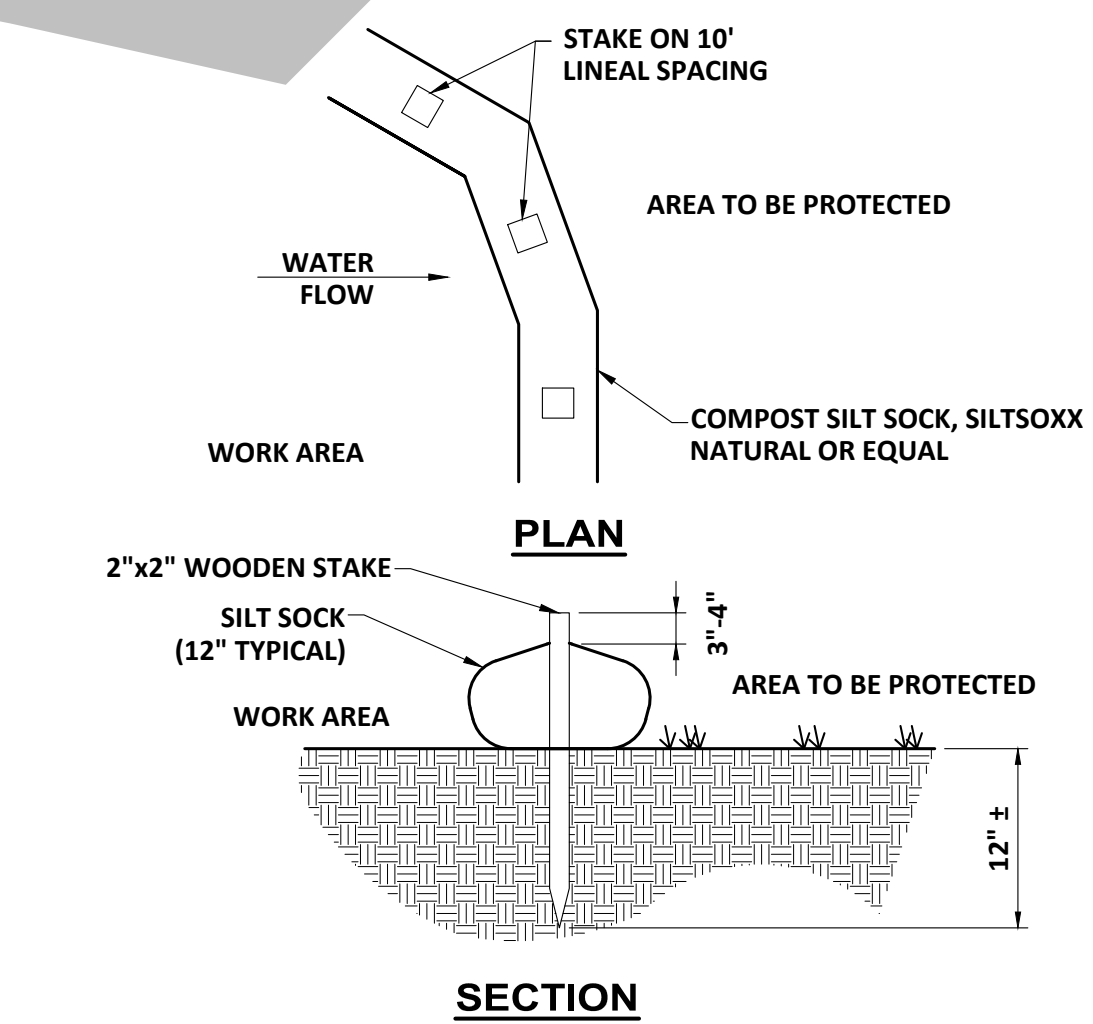
MIXTURE	SPECIES	RATE-POUNDS PER 1,000 SQ. FT.	
A	TALL FESCUE	20	0.45
	CREeping RED FESCUE	20	0.45
	REDTOP	2	0.05
	TOTAL	42	0.95
B	TALL FESCUE	15	0.35
	CREeping RED FESCUE	10	0.25
	CROWN VETCH/OR FLATPEA	15	0.35
	TOTAL	40 OR 55	0.95 OR 1.35
C	TALL FESCUE	20	0.45
	CREeping RED FESCUE	20	0.45
	BIRDSFOOT TREFOIL	8	0.2
	TOTAL	48	1.10
E	CREeping RED FESCUE	50	1.15
	KENTUCKY BLUEGRASS	50	1.15
	TOTAL	100	2.30
	F	TALL FESCUE	150



NOTES:

- DROP INLET SEDIMENT BARRIERS ARE TO BE USED FOR SMALL, NEARLY LEVEL DRAINAGE AREAS(LESS THAN 3%).
- EXCAVATE A BASIN OF SUFFICIENT SIZE ADJACENT TO THE DROP INLET.
- THE TOP OF THE STRUCTURE, PONDING HEIGHT, MUST BE WELL BELOW THE GROUND ELEVATION DOWNSLOPE TO PREVENT RUNOFF FROM BYPASSING THE INLET. A TEMPORARY DIKE MAY BE NECESSARY ON THE DOWNSLOPE SIDE OF THE STRUCTURE.
- SILT BAGS MAY ALSO BE USED FOR CB GRATE INLET PROTECTION.

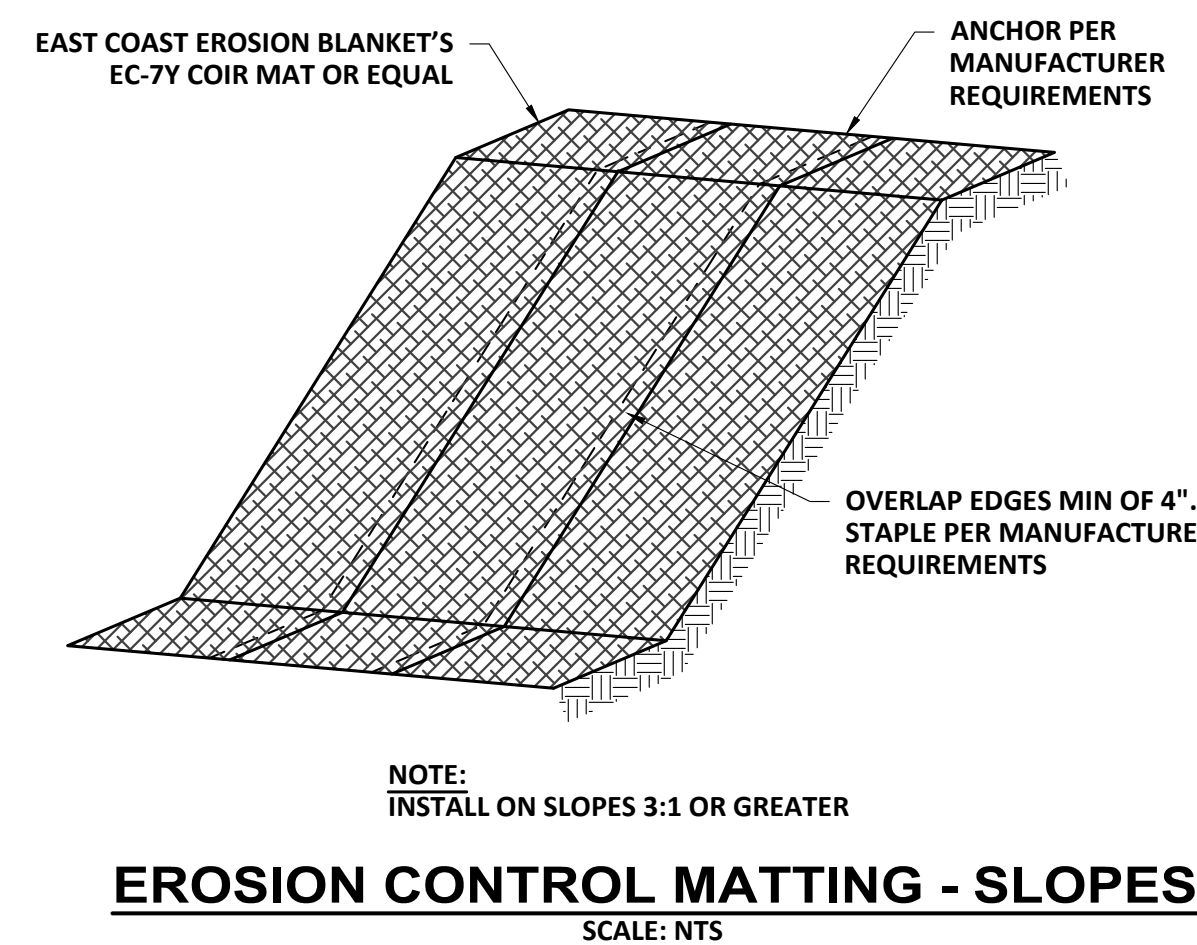
DROP INLET SEDIMENT BARRIER DETAIL
SCALE: NTS



NOTES:

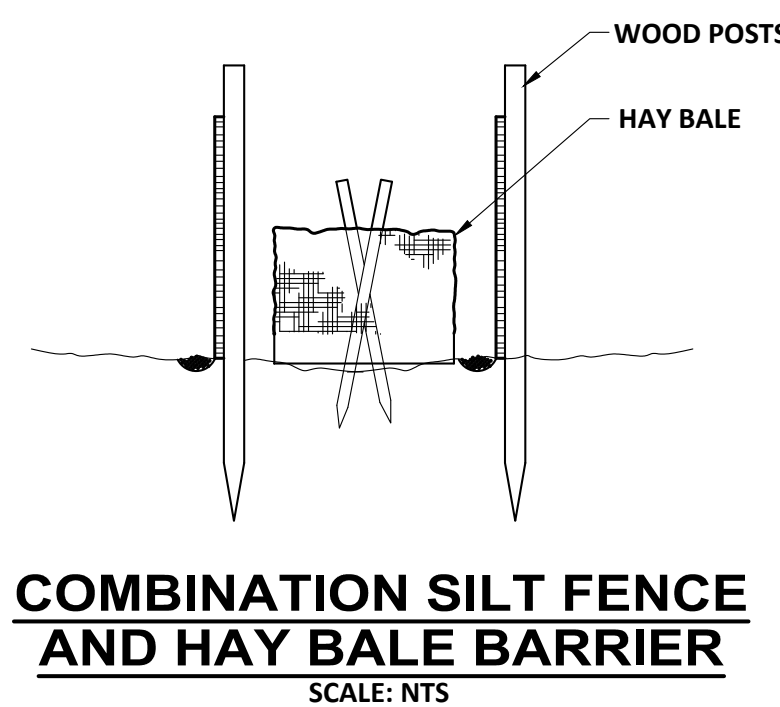
- ALL MATERIAL TO MEET SPECIFICATIONS
- SILT SOCK COMPOST/SOIL/ROCK/SEED FILL TO MEET APPLICATION REQUIREMENTS
- SILT SOCK DEPICTED IS FOR MINIMUM SLOPES. GREATER SLOPES MAY REQUIRE LARGER SOCKS PER THE ENGINEER
- COMPOST MATERIAL TO BE DISPERSED ON SITE, AS DETERMINED BY ENGINEER.

COMPOST SILT SOCK DETAIL
SCALE: NTS



NOTE:
INSTALL ON SLOPES 3:1 OR GREATER

EROSION CONTROL MATTING - SLOPES
SCALE: NTS



COMBINATION SILT FENCE AND HAY BALE BARRIER
SCALE: NTS

NO	PERMITTING	DESIGNED BY: J.L.O.C.	APP'D DATE
1		CAD CORP.: J.M.I.C. <td>K.G.A.R. 01-21</td>	K.G.A.R. 01-21
2		CHKD.: D.F.U.D. <td></td>	
3		CHECKED BY: K.L.O.B.E. <td></td>	
4		DATE: 02-21 <td></td>	
5		APPROVED BY: K.G.A.R. <td></td>	
6		DATE: 02-21 <td></td>	
7		PROJECT NO.: 11304C <td></td>	

NO	REVISIONS
1	
2	
3	
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CITY OF PORTSMOUTH, NH
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DETAILS VIII