PUBLIC WORKS DEPARTMENT
CITY OF PORTSMOUTH
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ADDENDUM NUMBER 2
Bid 26-24
Bartlett Street Area Reconstruction

Issued February 2, 2024

This addendum forms part of the original document marked **"Contract Documents and Specifications for Bartlett Street Area Reconstruction Bid #26-24**".

Revised Drawings:
The following are revised drawings (Revision 1) based on comments from NHDES and clarifications requested.

- Cover Sheet – Deletes sheet G-102 and adds PE Stamp.
- G-101 – Notes that are kept from sheet G-102 are now on sheet G-101.
- G-102 – Notes regarding Sewer By-Pass pumping were inadvertently included in the plan set notes. Sewer By-Pass pumping is not anticipated for the project. This sheet is deleted from the Contract Drawing Set.
- C-401 – Clarifications were made on water tie-in at Dennett Street. Added note per NHDES request. Clarified core & boot invert information at EX-SMH5418 per NHDES request.
- C-404 - Added note per NHDES request. Clarified core & boot invert information at EX-SMH1397, EX-SMH5530 and EX-SNH5532 per NHDES request.
- C-405 – PSMH13 structure was identified as PSMHxx in Plan View and top of structure was shown as below grade in Profile view, both issues are corrected. Clarified core & boot invert information at EX-SMH1409 per NHDES request. PSMH3 in Profile View included an invert in elevation. There is no invert in on this structure.
- C-406A – Per NHDES request, added note specifying that information obtained from the test pit location at Woodbury & Morning must be provided to the Engineer. And if any design changes are required based on the information, the design is required to be re-submitted to NHDES for approval prior to constructing.
- C-401 to C-406B – Per NHDES request, invert elevations for all new sewer structures are now shown to the 0.01 significant digit (i.e. 45.5 changed to 45.50). Per NHDES request, structure data to be shown only in Profile View and not in both Plan View and Profile View. Call-outs for the structures in Plan View were altered for consistency. These changes are not rev-clouded as changes are clerical and do not change design.
- C-401 to C-406B – Notes were added to each sheet regarding requirements for any non-gasketed pipe connections (i.e. FERNCO).
- C-604 – Utility Trench Detail – Per NHDES request, a note was added to clarify the location of rigid foam above the utility and the minimum width of foam when depth requirements are not met.

Revised Specifications:
The following are revised specifications (Revision 1) based on comments from NHDES.

Section 02085 - PVC Gravity Pipe and Fittings
3.02(A)(6) Added to include visual and lamp test requirements.

Bidder Questions:

Question #1:
There are several locations where a utility tie-in is required, but sizes are not shown. Dennett, Thornton, Pine and Woodbury.

Answer #1:
Dennett Street – Existing water main is 12"DI. Scope of work shall include removal of existing 12x12x6 tee and 6"GV. Replace with new 12x12x8 tee and 8"GV.
Thornton Street – Existing water main as stated in the drawings is 6" CI.
Pine Street – Existing water main as stated in the drawings is 4" CI.
Woodbury Avenue – Existing water main as stated in the drawings is 12" CI.

Question #2:
Are there size requirements for the temporary water bypass? Or will that be at the discretion of the Contractor?

Answer #2:
As stated in the specification Section 02511 "The temporary water system shall consist of mains, services and fire department outlets adequately sized to provide uninterrupted water and fire service to all water customers."
Note 1: On Bartlett Street between stations 11+75 to 16+25 there are two active water mains that service buildings.

Acknowledge this addendum within your proposal. Failure to do so may subject bidder to disqualification.

End of Addendum #2

SUPPLEMENTAL SPECIFICATION

SECTION 02085

POLYVINYL CHLORIDE GRAVITY PIPE AND FITTINGS

PART 1 - GENERAL

1.01 WORK INCLUDED:

This section covers the furnishing and installation of Polyvinyl Chloride (PVC) pipe and fittings, as indicated on the drawings and as specified herein. Pre and post CCTV inspection shall be performed by the Contractor and reviewed by the Engineer.

1.02 RELATED WORK:

A. Section 02252, SUPPORT OF EXCAVATION

B. Section 02300, EARTHWORK

C. Section 02518, TRACER TAPE

D. Section 02631, PRECAST MANHOLES

1.03 REFERENCES:

A. The following standards form a part of these specifications as referenced:

American Society for Testing and Materials (ASTM)

ASTM	D2321	Recommended Practice for Underground Installation of Flexible Thermoplastic Sewer Pipe
ASTM	D3034	Specification for Type PSM Polyvinyl Chloride (PVC) Sewer Pipe and Fittings
ASTM	D3212	Specification for Joints for Drain and Sewer Plastic Pipes Using Flexible Elastomeric Seals
ASTM	F679	Specification for Polyvinyl Chloride (PVC) Large Diameter Plastic Gravity Sewer Pipe and Fittings

1.04 SUBMITTALS: IN ACCORDANCE WITH REQUIREMENTS OF GENERAL SPECIFICATIONS, SUBMIT THE FOLLOWING:

Six sets of manufacturer's literature of the materials of this section shall be submitted to the Engineer for review.

PART 2 - PRODUCTS

2.01 MATERIALS:

A. PVC nonpressure sewer pipe 4-inches through 15-inches diameter shall conform to ASTM D3034, 18-inches through 60-inches diameter to ASTM F679, all with SDR of 35 unless noted, and shall meet the specific requirements and exceptions to the aforementioned specifications that follow.

B. PVC nonpressure sewer pipe shall be furnished in standard lengths.

C. One pipe bell consisting of an integral wall section with a solid cross section rubber ring, factory assembled, shall be furnished with each standard, random and short length of pipe. Rubber rings shall be provided to the requirements of ASTM D32l2.

D. The rubber ring shall be retained within the bell of the pipe by a precision formed groove or recess designed to resist fishmouthing or creeping during assembly of joints.

E. Spigot pipe ends shall be supplied with bevels from the manufacturer to ensure proper insertion. Each spigot end shall have an "assembly stripe" imprinted thereon to which the bell end of the mated pipe will extend upon proper jointing of the two pipes.

F. PVC fittings shall be provided with bell and/or spigot configurations with rubber gasketed joints compatible with that of the pipe. Bend fittings with spigot ends shorter than the pipe recess bells will not be allowed. The shorter spigot end would not allow proper seating of the spigot in the mating bell and would permit undesired contact between the mating bell and the outside of the fitting bell.

G. All pipe delivered to the job site shall be accompanied by independent testing laboratory reports certifying that the pipe and fittings conform to the above-mentioned specifications. In addition, the pipe shall be subject to thorough inspection and tests, the right being reserved for the Engineer to apply such of the tests specified as he may from time to time deem necessary.

H. All cutting of pipe shall be done with a machine suitable for cutting PVC pipe. Cut ends shall be beveled when recommended by the pipe manufacturer.

PART 3 - EXECUTION

3.01 INSTALLATION:

A. Except as modified herein, installation of the PVC pipe shall be in accordance with ASTM D232l.

B. Each pipe length shall be inspected before being laid to verify that it is not cracked. Pipe shall be laid to conform to the lines and grades indicated on the drawings or given by the Engineer. Each pipe shall be so laid as to form a close joint with the next adjoining pipe and bring the inverts continuously to the required grade.

C. The pipe shall be supported by compacted crushed stone. Crushed stone shall be as specified under Section 02300, EARTHWORK.

D. The pipe shall not be driven down to grade by striking it with a shovel handle, timber, rammer, or other unyielding object. When each pipe has been properly bedded, enough of the backfill material shall be placed and compacted between the pipe and the sides of the trench to hold the pipe in correct alignment.

E. Before a joint is made, the pipe shall be checked to assure that a close joint with the next adjoining pipe has been maintained and that inverts are matched and conform to the required line and grade.

F. For pipe placed on crushed stone, immediately after the joint is made, the jointing area shall be filled with suitable materials so placed and compacted that the ends of either pipe will not settle under backfill load.

G. No pipe or fitting shall be permanently supported on saddles, blocking, or stones.

H. Branches and fittings shall be laid by the Contractor as indicated on the drawings, and/or as required by the Engineer. Open ends of pipe and branches shall be closed with PVC caps secured in place with premolded gasket joints or as required by the Engineer.

I. All pipe joints shall be made as nearly watertight as practicable. There shall be no visible leakage at the joints and there shall be no sand, silt, clay, or soil of any description entering the pipeline at the joints. Where there is evidence of water or soil entering the pipeline, connecting pipes, or structures, the defects shall be repaired to the satisfaction of the Engineer.

J. The Contractor shall build a tight bulkhead in the pipeline where new work enters an existing sewer. This bulkhead shall remain in place until the Engineer authorizes its removal.

K. Care shall be taken to prevent earth, water, and other materials from entering the pipe, and when pipe laying operations are suspended, the Contractor shall maintain a suitable stopper in the end of the pipe and also at openings for manholes.

L. As soon as possible after the pipe and manholes are completed on any street, the Contractor shall flush out the new pipeline using a rubber ball ahead of the water, and none of the flushing water or debris shall be permitted to enter any existing sewer.

3.02 QUALITY ASSURANCE

A. LEAKAGE TESTING:

1. On completion of a section of sewer, including building connections installed to the property line, the Contractor shall install suitable bulkheads as required, dewater and test the sewer for leakage.

2. Unless otherwise approved, the section shall be tested using low pressure air test procedures.

3. The air test procedures shall conform to the Uni-Bell Recommended Practice for Low Pressure Air Testing of Installed Sewer Pipe, UNI-B-6. The starting air pressure for the test shall be 4 psig (greater than the average groundwater back pressure of any groundwater above the pipe, but not greater than 9.0 psig). The minimum duration permitted for the prescribed

low pressure air exfiltration pressure drop between two consecutive manholes shall not be less than provided in Table I or Table II of UNI-B-6. The two tables are reproduced on the following pages.

4. Using the air pressure test, if there has been no leakage (zero psig drop) after one hour of testing, the section undergoing test shall have passed.

5. The Contractor shall be responsible for the satisfactory watertightness of the entire section of sewer. Should the sections under test fail to meet the requirements, the Contractor shall do all work of locating and repairing leaks and retesting as the Engineer may require without additional compensation. A plan of the method of repairing any leaks that are found shall be submitted to the Engineer for review.

6. All new gravity sewers shall be:
   (1) Cleaned and visually inspected using a lamp test and by introducing water to determine that there is no standing water in the sewer; and
   (2) True to line and grade following installation and prior to use.

B. PIPE DEFLECTION MEASUREMENT:

1. In accordance with ASTM D3034, no less than 30 days after completion of the PVC sewer pipe installation, the Contractor shall test the pipeline for deflection using a "go/no-go" deflection mandrel having a minimum of nine evenly spaced arms or prongs. The "go/no-go" gauge shall be hand pulled through all sections of the pipeline by the Contractor. The Contractor shall submit drawings of the "go/no-go" gauge to the Engineer for approval prior to testing. Complete dimensions of the gauge for each diameter of pipe to be tested shall be in accordance with ASTM D3034.

2. Any section of pipe found to exceed 5 percent deflection shall be deemed a failed pipe and shall be excavated and replaced by the Contractor at his own expense.

TABLE I

MINIMUM SPECIFIED TIME REQUIRED FOR A 1.0 PSIG PRESSURE DROP
FOR SIZE AND LENGTH OF PIPE INDICATED FOR Q=0.0015

Pipe Diameter	Minimum Time	Length for Min.	Time for Longer Length	Specification Time for Length (L) shown (min:sec)							
(in)	(min:sec)	Time (ft)	(sec)	100 ft	150 ft	200 ft	250 ft	300 ft	350 ft	400 ft	450 ft
4	3:46	597	0.380 L	3:46	3:46	3:46	3:46	3:46	3:46	3:46	3:46
6	5:40	398	0.854 L	5:40	5:40	5:40	5:40	5:40	5:40	5:42	6:24
8	7:34	298	1.52 L	7:34	7:34	7:34	7:34	7:36	8:52	10:08	11:24
10	9:26	239	2.374 L	9:26	9:26	9:26	9:53	11:52	13:51	15:49	17:48
12	11:20	199	3.418 L	11:20	11:20	11:24	14:15	17:05	19:56	22:47	25:38
15	14:10	159	5.342 L	14:10	14:10	17:48	22:15	26:42	31:09	35:36	40:04
18	17:00	133	7.692 L	17:00	19:13	25:38	32:03	38:27	44:52	51:16	57:41
21	19:50	114	10.470 L	19:50	26:10	34:54	43:37	52:21	61:00	69:48	78:31
24	22:40	99	13.674 L	22:47	34:11	45:34	56:58	68:22	79:46	91:10	102:33
27	25:30	88	17.306 L	28:51	43:16	57:41	72:07	86:32	100:57	115:22	129:48
30	28:20	80	21.366 L	35:37	53:25	71:13	89:02	106:50	124:38	142:26	160:15
33	31:10	72	25.852 L	43:05	64:38	86:10	107:43	129:16	150:43	172:21	193:53
36	34:00	66	30.768 L	51:17	76:55	102:34	128:12	153:50	179:29	205:07	230:46
42	39:48	57	41.883 L	69:48	104:42	139:37	174:30	209:24	244:19	279:13	314:07
48	45:34	50	54.705 L	91:10	136:45	182:21	227:55	273:31	319:06	364:42	410:17
54	51:02	44	69.236 L	115:24	173:05	230:47	288:29	346:11	403:53	461:34	519:16
60	56:40	40	85.476 L	142:28	213:41	284:55	356:09	427.23	498:37	569:50	641:04

TABLE II

MINIMUM SPECIFIED TIME REQUIRED FOR A 0.5 PSIG PRESSURE DROP
FOR SIZE AND LENGTH OF PIPE INDICATED FOR Q=0.0015

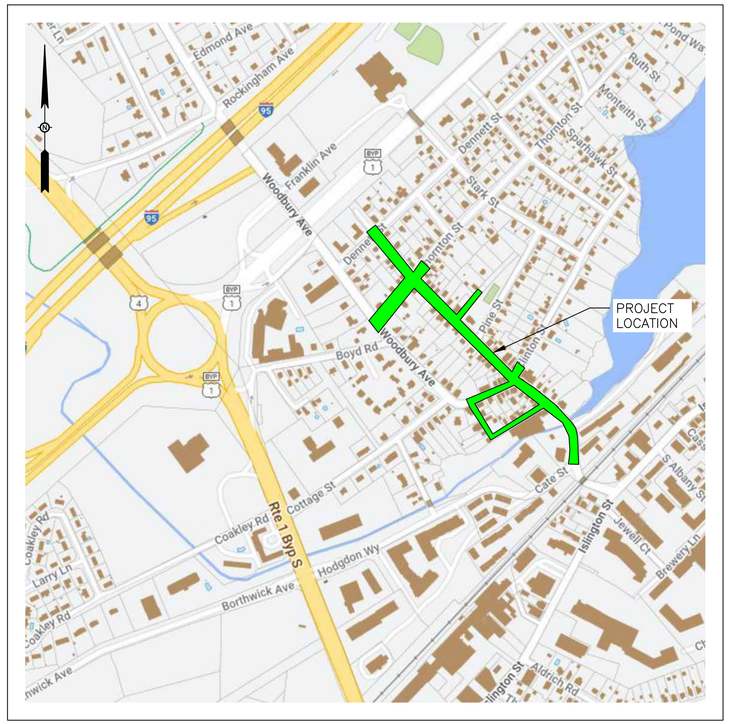
Pipe Diameter (in)	Minimum Time (min:sec)	Length for Min. Time (ft)	Time for Longer Length (sec)	Specification Time for Length (L) shown (min:sec)							
				100 ft	150 ft	200 ft	250 ft	300 ft	350 ft	400 ft	450 ft
4	1:53	597	0.190 L	1:53	1:53	1:53	1:53	1:53	1:53	1:53	1:53
6	2:50	398	0.427 L	2:50	2:50	2:50	2:50	2:50	2:50	2:51	3:12
8	3:47	298	0.760 L	3:47	3:47	3:47	3:47	3:48	4:26	5:04	5:42
10	4:43	239	1.187 L	4:43	4:43	4:43	4:57	5:56	6:55	7:54	8:54
12	5:40	199	1.709 L	5:40	5:40	5:42	7:08	8:33	9:58	11:24	12:50
15	7:05	159	2.671 L	7:05	7:05	8:54	11:08	13:21	15:35	17:48	20:02
18	8:30	133	3.846 L	8:30	9:37	12:49	16:01	19:14	22:26	25:38	28:51
21	9:55	114	5.235 L	9:55	13:05	17:27	21:49	26:11	30:32	34:54	39:16
24	11:20	99	6.837 L	11:24	17:57	22:48	28:30	34:11	39:53	45:35	51:17
27	12:45	88	8.653 L	14:25	21:38	28:51	36:04	43:16	50:30	57:42	64:54
30	14:10	80	10:683 L	17:48	26:43	35:37	44:31	53:25	62:19	71:13	80:07
33	15:35	72	12:926 L	21:33	32:19	43:56	53:52	64:38	75:24	86:10	96:57
36	17:00	66	15:384 L	25:39	38:28	51:17	64:06	76:55	89:44	102:34	115:23
42	19:54	57	20.942 L	34:54	52:21	69:49	87:15	104:42	122:10	139:37	157:04
48	22:47	50	27.352 L	45:35	68:23	91:11	113:58	136:46	159:33	182:21	205:09
54	25:31	44	34.618 L	57:42	86:33	115:24	144:15	173:05	201:56	230:47	259:38
60	28:20	40	42.738 L	71:14	106:51	142:28	178:05	213:41	249:18	284:55	320:32

END OF SECTION

BARTLETT STREET AREA RECONSTRUCTION
PORTSMOUTH, NEW HAMPSHIRE
Project #7238

SPRING 2024

DEPARTMENT OF
PUBLIC WORKS
CITY OF PORTSMOUTH, NH
680 PEVERLY HILL ROAD
603-427-1530



LOCATION MAP
SCALE: N.T.S

SURVEY BY:
TFMORAN, INC.
170 COMMERCE WAY, SUITE 102
PORTSMOUTH, NH 03801

DESIGN BY:
CITY OF PORTSMOUTH
DEPARTMENT OF PUBLIC WORKS
680 PEVERLY HILL ROAD
PORTSMOUTH, NH 03801

STATE OF NEW HAMPSHIRE
MARC R. BATCHELDER
No. 12526
LICENSED PROFESSIONAL ENGINEER

ISSUED FOR BID
2/2/2024

LEGEND:

EXISTING	PROPOSED	
		PROPERTY LINE
		RIGHT–OF–WAY
		BUILDING
		EDGE OF PAVEMENT
	VGC	CURB
		SIDEWALK (CONCRETE)
		SIDEWALK (OTHER)
		ADA TRUNCATED DOME PANEL
M		ADA SYMBOL
		SIGN
		MAILBOX
	SWL	SINGLE WHITE LINE
	DYCL	DOUBLE YELLOW CENTERLINE
		RETAINING WALL
		LOOSE STONE WALL
		FENCE
		GUARDRAIL
		SHRUB
		TREE
53		TEMPORARY BENCHMARK
	52	1' CONTOUR
		WETLANDS
A 14		WETLANDS BOUNDARY
D		DRAINAGE
W W	W W	WATER
S S	S S	GRAVITY SEWER
UT	UT	UNDERGROUND TELE.
UGE	PE PE	U/G POWER
	PE&C PE&C	U/G POWER & COMM.
OHW		OVERHEAD WIRES
GAS GAS	GAS GAS	GAS
		FIRE HYDRANT
		UTILITY POLE
		UTILITY POLE w/ LIGHT
		CATCHBASIN
T D S	D S	MANHOLE
WSO	WSO	WATER SHUT OFF
		WATER VALVE
		RIP–RAP APRON
		EROSION CONTROL
		SAWCUT
	B1	BORING LOCATION

DEMOLITION NOTES:

1. LOCATIONS OF UNDERGROUND UTILITIES ARE APPROXIMATE AND NOT GUARANTEED. CONTRACTOR SHALL LOCATE ALL UTILITIES, ANTICIPATE CONFLICTS, REPAIR AND/OR RELOCATE EXISTING UTILITIES REQUIRED TO COMPLETE THE WORK.
2. MATERIAL TO BE REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR UNLESS OTHERWISE NOTED. DISPOSAL SHALL BE IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS.
3. ANY DAMAGE BY THE CONTRACTOR DURING DEMOLITION AND/OR CONSTRUCTION SHALL BE REPAIRS OR REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
4. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS AND FEES NECESSARY TO COMPLETE THE WORK. FEES FOR CITY PERMITS WILL NOT BE CHARGED.
5. CONTRACTOR SHALL REMOVE TREES AND BRUSH AS INDICATED AND AS REQUIRED FOR COMPLETION OF THE WORK. ALL STUMBS SHALL BE REMOVED AND SURFACES GRUBBED WITHIN THE LIMITS OF WORK.
6. ALL WORK WITHIN THE PUBLIC RIGHT OF WAY SHALL BE COORDINATED WITH THE CITY OF PORTSMOUTH.
7. CONTRACTOR SHALL PROTECT ALL FIELD STONE WALLS, FENCES, MAILBOXES, STRUCTURES, ETC. THROUGHOUT THE COMPLETION OF THE WORK.
8. EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO THE START OF ANY CLEARING OR DEMOLITION WORK. THIS INCLUDES SILT FENCE / SILT SOCK AND INLET PROTECTION BARRIERS.
9. CONTRACTOR SHALL SAWCUT PAVEMENT AT EDGES OF TRENCHES FOR CLEAN VERTICAL EDGES.
10. CONTRACTOR SHALL PHASE DEMOLITION AND CONSTRUCTION AS REQUIRED TO PROVIDE CONTINUOUS ACCESS TO RESIDENTIAL PROPERTIES THROUGHOUT THE CONSTRUCTION PERIOD.
11. PAVEMENT RECLAMATION LIMITS ARE SHOWN FOR CONTRACTOR'S CONVENIENCE. ADDITIONAL RECLAMATION MAY BE REQUIRED. CONTRACTOR TO VERIFY FULL LIMITS OF PAVEMENT RECLAMATION.
12. CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL EXISTING STRUCTURES, CONCRETE PADS, PAVEMENT, PIPES AND HEADWALLS WITHIN THE LIMITS OF CONSTRUCTION.
13. CONTRACTOR SHALL COORDINATE WITH ALL APPLICABLE UTILITIES. WORK ASSOCIATED WITH UTILITIES, BUT NOT LIMITED TO, RELOCATION OF UTILITY POLES.
14. CONTRACTOR SHALL NOTIFY DIG–SAFE 72 HOURS PRIOR TO ANY WORK STARTING. CONTRACTOR REQUIRED TO MAINTAIN AN ACTIVE DIG–SAFE PERMIT THROUGHOUT THE DURATION OF CONSTRUCTION.
15. ALL ABANDONED PIPES 12" DIAMETER AND LARGER, OR ABANDONED PIPES TO REMAIN UNDER OTHER INFRASTRUCTURE, SHALL BE FILLED WITH FLOWABLE FILL UNLESS OTHERWISE NOTED. ABANDONED PIPE REMOVED IN ORDER TO INSTALL NEW PIPE, REMOVAL IS INCIDENTAL TO THE NEW PIPE PAY ITEM WITH THE EXCEPTION OF AC PIPE REMOVAL.
16. CONTRACTOR SHALL INSPECT ALL STRUCTURES THAT ARE TO REMAIN TO IDENTIFY ANY REPAIRS REQUIRED.

GRADING NOTES:

1. CONTRACTOR SHALL PROVIDE A FINISH PAVEMENT SURFACE FREE OF LOW SPOTS AND PONDING AREAS. THE INTENT OF FINAL GRADING IS TO CREATE SIDEWALKS AND ROADS TO MATCH STOOPS OF HOMES AND GRADES OF EXISTING DRIVEWAYS TO THE BEST EXTENT POSSIBLE.
2. EXISTING MANHOLES AND CATCHBASINS WITHIN LIMITS OF CONSTRUCTION SHALL BE ADJUSTED TO FINISH GRADES.
3. ALL WATER SHUT OFF VALVES WITHIN THE LIMITS OF CONSTRUCTION SHALL BE ADJUSTED TO FINISH GRADES.
4. CONTRACTOR SHALL CLEAN ALL STRUCTURES WITHIN THE CONSTRUCTION LIMITS IMMEDIATELY UPON COMPLETION OF THE WORK. ALL SEDIMENT AND DEBRIS SHALL BE DISPOSED OF PER FEDERAL, STATE AND LOCAL REGULATIONS.
5. STORM DRAIN PIPING, UNLESS OTHERWISE NOTED, SHALL BE HIGH DENSITY POLTYETHYLENE (HANCOR HI–Q, ADS N–12 OR APPROVED EQUAL).
6. PROPOSED CATCHBASINS SHALL BE EQUIPPED WITH OIL/WATER SEPARATOR HOODS UNLESS OTHERWISE NOTED. ALL CATCHBASINS (EXISTING AND NEW) WITHIN THE CITY R.O.W. SHALL RECEIVE A POLYLINER.
7. ALL DISTURBED AREAS THAT ARE NOT TO BE PAVED OR OTHERWISE TREATED SHALL RECEIVE 6" LOAM, SEED FERTILIZER AND MULCH.
8. CONTRACTOR SHALL PROVIDE THE FOLLOWING MINIMUM REQUIREMENTS FOR COMPACTION:

BELOW PAVEMENT AND CONCRETE AREAS:	95%
TRENCH BEDDING AND BACKFILL:	95%
BELOW LOAM AND SEED AREAS:	90%

COMPACTION PERCENTAGES SHALL BE THE MAXIMUM DRY DENSITY AT OPTIMUM MOISTURE CONTENT IN ACCORDANCE WITH ASTM D–1557, METHOD C. FIELD DENSITY TESTS SHALL BE CONDUCTED IN ACCORDANCE WITH ASTM D–1556 OR ASTM–2922.

9. STORM DRAIN CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION (NHDOT) AND CITY OF PORTSMOUTH DPW STANDARD SPECIFICATIONS.
10. CONTRACTOR SHALL GRADE SLOPES TO THE LINES AND GRADES SHOWN ON THE PLANS. SLOPES STEEPER THAN 2:1 SHALL INCLUDE 6" RIP–RAP STONE FOR A DEPTH OF 18". SLOPES FROM 4:1 TO 2:1, CONTRACTOR SHALL PROVIDE A SLOPE STABILIZATION BLANKET.

SITE NOTES:

1. ALL DIMENSIONS ARE TO THE FACE OF CURB UNLESS OTHERWISE SPECIFIED.
2. ALL WORK SHALL CONFORM TO THE CITY OF PORTSMOUTH DEPARTMENT OF PUBLIC WORKS STANDARD SPECIFICATIONS.
3. CONTRACTOR WILL BE PROVIDED CAD (.DWG FORMAT) FILE OF THE PROJECT FOR THEIR USE TO LAYOUT.
4. CONTRACTOR SHALL PROVIDE AS–BUILT PLANS (.DWG FORMAT AUTOCAD FILES IN NH STATE PLANE COORDINATES) TO THE CITY OF PORTSMOUTH UPON COMPLETION OF THE PROJECT.
5. MATERIALS AND CONSTRUCTION SHALL COMPLY TO ALL APPLICABLE FEDERAL, STATE AND LOCAL CODES AND SPECIFICATIONS.
6. CONTRACTOR IS RESPONSIBLE TO MAINTAIN ALL VERTICAL AN HORIZONTAL CONTROL FOR THE PROJECT.
7. PAVEMENT MARKINGS AND SIGNS SHALL CONFORM TO THE "MANUAL ON UNIFORM CONTROL DEVICES'. "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKINGS".
8. CONTRACTOR SHALL APPLY FOR AN EXCAVATION & FLAGGING PERMIT FOR ALL WORK WITHIN CITY PROPERTY. THE PERMIT APPLICATION SHALL INCLUDE A MAINTENANCE OF TRAFFIC PLAN. CITY OF PORTSMOUTH – DPW TO REVIEW FOR APPROVAL.
9. CONTRACTOR SHALL BE FAMILIAR WITH ALL AMERICAN WITH DISABILITY ACT (ADA) REQUIREMENTS FOR ACCESSIBILITY.
10. PAVEMENT MARKINGS SUCH AS CROSSWALKS, STOP BARS, LEGENDS AND SYMBOLS SHALL BE THERMOPLASTIC PER AASHTO M249. CENTERLINE AND EDGE STRIPING SHALL BE TRAFFIC PAINT PER AASHTO M248 TYPE 'F'. TRAFFIC PAINT COLOR AS INDICATED IN THE PLANS.

GRAVITY SEWER NOTES:

1. ORDERED EXCAVATION OF UNSUITABLE MATERIAL BELOW GRADE: BACKFILL AS STATED IN THE TECHNICAL SPECIFICATIONS OR AS SHOWN ON THE DRAWINGS.
2. BEDDING: SEE NOTE 7 OF STANDARD MANHOLE NOTES. WHERE ORDERED BY THE ENGINEER TO STABILIZE THE TRENCH BASE, GRADED SCREENED GRAVEL OR CRUSHED STONE 1/2 INCH TO 1–1/2 INCH SHALL BE USED.
3. SAND BLANKET: CLEAN SAND FREE FROM ORGANIC MATTER, SO GRADED THAT 90–100% PASSES A 1/2 INCH SIEVE AND NOT MORE THAN 15% WILL PASS A #200 SIEVE. NO STONE LARGER THAN 2" SHOULD BE IN CONTACT WITH THE PIPE.
4. SUITABLE MATERIAL: IN ROADS, ROAD SHOULDERS, WALKWAYS AND TRAVELED WAYS, SUITABLE MATERIAL FOR TRENCH BACKFILL SHALL BE THE NATURAL MATERIAL EXCAVATED DURING THE COURSE OF CONSTRUCTION, BUT SHALL EXCLUDE DEBRIS; PIECES OF PAVEMENT; ORGANIC MATTER; TOP SOIL; ALL WET OR SOFT MUCK, PEAT, OR CLAY; ALL EXCAVATED LEDGE MATERIAL; ALL ROCKS OVER 6 INCHES IN LARGEST DIMENSION; AND ANY MATERIAL WHICH, AS DETERMINED BY THE ENGINEER, WILL NOT PROVIDE SUFFICIENT SUPPORT OR MAINTAIN THE COMPLETED CONSTRUCTION IN A STABLE CONDITION. IN CROSS–COUNTRY CONSTRUCTION, SUITABLE MATERIAL SHALL BE AS DESCRIBED ABOVE, EXCEPT THAT THE ENGINEER MAY PERMIT THE USE OF TOP SOIL, LOAM, MUCK, OR PEAT, IF HE IS SATISFIED THAT THE COMPLETED CONSTRUCTION WILL BE ENTIRELY STABLE AND PROVIDED THAT EASY ACCESS TO THE SEWER, FOR MAINTENANCE AND POSSIBLY RECONSTRUCTION, WILL BE PRESERVED.
5. BASE COURSE AND PAVEMENT SHALL MEET THE REQUIREMENTS OF THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION'S LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES – DIVISIONS 300 AND 400 RESPECTIVELY AND LOCAL REGULATION.
6. WOOD SHEETING, IF REQUIRED: WHERE SHEETING IS PLACED ALONGSIDE THE PIPE AND EXTENDS BELOW MID–DIAMETER, IT SHALL BE CUT OFF AND LEFT IN PLACE TO AN ELEVATION 1 FOOT ABOVE THE TOP OF PIPE. WHERE SHEETING IS ORDERED BY THE ENGINEER TO BE LEFT IN PLACE, IT SHALL BE CUT OFF AT LEAST 3 FEET BELOW FINISHED GRADE, BUT NOT LESS THAN 1 FOOT ABOVE THE TOP OF THE PIPE.
7. W = MAXIMUM ALLOWABLE TRENCH PAYMENT WIDTH FOR LEDGE EXCAVATION AND FOR ORDERED EXCAVATION BELOW GRADE. FOR PIPES 15 INCHES NOMINAL DIAMETER OR LESS, W SHALL BE NO MORE THAN 36 INCHES. FOR PIPES GREATER THAN 15 INCHES IN NOMINAL DIAMETER, W SHALL BE 24 INCHES PLUS PIPE OUTSIDE DIAMETER (O.D.) ALSO, W SHALL BE THE PAYMENT WIDTH.

UTILITY NOTES:

1. CONTRACTOR SHALL IDENTIFY AND RECORD SWING TIES TO ALL EXISTING UTILITY STRUCTURES, INCLUDING, BUT NOT LIMITED TO WATER SHUT OFF VALVES, MANHOLES, FIRE HYDRANTS.
2. CONTRACTOR SHALL COORDINATE UTILITY WORK WITH THE APPROPRIATE UTILITY COMPANY.
   - ELECTRIC – EVERSOURCE
   - TELEPHONE – FAIRPOINT
   - WATER/SEWER – CITY OF PORTSMOUTH
   - GAS – UNITIL
3. LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE APPROXIMATE AND NOT GUARANTEED. CONTRACTOR SHALL LOCATE ALL UTILITIES, ANTICIPATE CONFLICTS, REPAIR AND/OR RELOCATE EXISTING UTILITIES REQUIRED TO COMPLETE THE WORK.
4. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS, ARRANGE ALL INSPECTIONS, AND SUBMIT CERTIFICATES OF ACCEPTANCE TO THE OWNER PRIOR TO COMPLETION OF THE PROJECT.
5. CONTRACTOR SHALL NOTIFY DIG–SAFE 72 HOURS PRIOR TO ANY WORK STARTING. CONTRACTOR REQUIRED TO MAINTAIN AN ACTIVE DIG–SAFE PERMIT THROUGHOUT THE DURATION OF CONSTRUCTION.
6. CONTRACTOR SHALL PROVIDE AND INSTALL ALL MANHOLES, CATCHBASINS, FRAMES, GRATES & COVERS, AND OTHER MISCELLANEOUS ITEMS NOT NECESSARILY DETAILED ON THESE DRAWINGS TO RENDER INSTALLATION OF THE UTILITY COMPLETE AND OPERATIONAL.
7. CONTRACTOR IS RESPONSIBLE TO PROVIDE THE CITY OF PORTSMOUTH AS–BUILT DRAWINGS (AUTOCAD FORMAT) FOR THE PROPOSED WATER, SEWER AND DRAINAGE SYSTEMS. DRAIN AND SEWER AS–BUILT SHALL INCLUDE X,Y,Z COORDINATES FOR ALL UTILITY (DRAIN AND SEWER) STRUCTURES INCLUDING INVERTS. WATER SYSTEM AS–BUILT SHALL INCLUDE X,Y,Z COORDINATES FOR ALL SURFACE STRUCTURES AS WELL AS ALL PIPE BENDS, SLEEVES, ETC.
8. CONTRACTOR SHALL COORDINATE WITH ENGINEER TO PROVIDE SWING TIES AND PHOTOS FOR ALL PROPERTY SERVICES (WATER, SEWER AND DRAIN) NECESSARY TO CREATE CITY STANDARD SWING TIE SHEETS.
9. ALL HYDRANTS AND VALVES SHALL BE INSPECTED AND MUST MEET CITY OF PORTSMOUTH STANDARDS.
10. CONTRACTOR TO VERIFY SEWER AND WATER LATERAL LOCATIONS FOR TIE–INS AND COORDINATE WITH HOMEOWNERS.
11. MINIMUM OF 12" CLEARANCE BETWEEN ALL CROSSING UTILITIES. IN THE EVENT <12" IS NEEDED, RIGID INSULATION SHALL BE PLACED BETWEEN THE UTILITIES.
12. WATER CROSSING ABOVE SEWER SHALL HAVE A MINIMUM OF 18" CLEARANCE.
13. SEWER AND WATER MAINS SHALL BE SEPARATED HORIZONTALLY BY A MINIMUM OF 10'.
14. NEW FRAMES, GATE VALVES AND CURB STOPS SHALL BE ADJUSTED TO GRADE. ADJUSTMENTS (TEMP. & FINAL) ARE INCIDENTAL TO THE PAY ITEM.
15. REMOVAL OF EXISTING ABANDONED PIPE IN CONFLICT WITH NEW PIPE SHALL BE INCIDENTAL TO THE NEW PIPE PAY ITEM.
16. NEW SEWER MAIN LOCATIONS ONLY – SEWER SERVICE LINES SHALL BE CONNECTED TO EXISTING AT CITY RIGHT–OF–WAY WITH A WYE EXTENDING VERTICALLY TO THE SURFACE. SEE DETAIL FOR COVER REQUIREMENTS IN PAVEMENT VS. GRASS.
17. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL UTILITY STRUCTURES THROUGHOUT THE PROJECT. AT THE CITY REQUEST, THE CONTRACTOR SHALL PROVIDE ADEQUATE ACCESS TO ANY STRUCTURE WHERE THEIR WORK IMPEDES ACCESS. THIS MAY INCLUDE EXCAVATING FOR STRUCTURES BURIED BY THE CONTRACTOR, AT NO ADDITIONAL COST TO THE CITY.
18. CONTRACTOR SHALL PROVIDE THE CITY WITH A TEMPORARY WATER PLAN FOR REVIEW AND APPROVAL. THIS SHALL BE PROVIDED AT ALL LOCATIONS WHERE A TEMPORARY WATER MAIN AND SERVICES WILL BE REQUIRED BASED ON THE CONTRACTORS MEANS AND METHODS.
19. ALL CORING OF STRUCTURES SHALL BE DONE WITH A CORE DRILL. CORES SHALL BE PROVIDED WITH RUBBER BOOT SEALS WHERE ANNULAR SPACE BETWEEN THE BOOT AND PIPE ARE FILLED IN WITH MORTAR.

GENERAL NOTES:

1. THE LIMITS OF THIS PROJECT ARE NOT WITHIN THE FEMA 100–YR FLOOD PLAIN. TECHNICAL SPECIFICATIONS OR AS SHOWN ON THE DRAWINGS. NORTH MILL POND IS IN ZONE AE (EL 8).

⚠1

ADD/ALT DESCRIPTIONS:

⚠1

ADD/ALT 1:

ADD/ALT TO RECONSTRUCT UNDERGROUND UTILITIES AND ROADWAY OF MORNING STREET FROM BARTLETT STREET TO WOODBURY AVENUE. UTILITIES (WATER, DRAIN AND SEWER) WILL BE INSTALLED AND STUBBED FOR FUTURE CONNECTIONS APPROXIMATELY 80' INTO MORNING STREET FROM BARTLETT STREET UNDER THE BASE BID.

ADD/ALT 2:

ADD/ALT TO PROVIDE A 2–WAY STOP (THORNTON STREET) WITH A RAISED INTERSECTION AT BARTLETT STREET & THORNTON STREET INTERSECTION IN PLACE OF THE 4–WAY STOP INTERSECTION.

ABBREVIATIONS:

R&R	REMOVE AND RESET
F&G	FRAME AND GRATE
F&C	FRAME AND COVER
ADJ	ADJUST FRAME
REM	REMOVE
DSYL	DOUBLE SOLID YELLOW LINE
SSYL	SINGLE SOLID YELLOW LINE
SDYL	SINGLE DASHED YELLOW LINE
SSWL	SINGLE SOLID WHITE LINE
SDWL	SINGLE DASHED WHITE LINE

NO.	REVISIONS	APP'D	DATE
1	REV. PER NHDES & ADDENDUM	MRB	2/2/24
0	ISSUED FOR BID	MRB	12/9/23

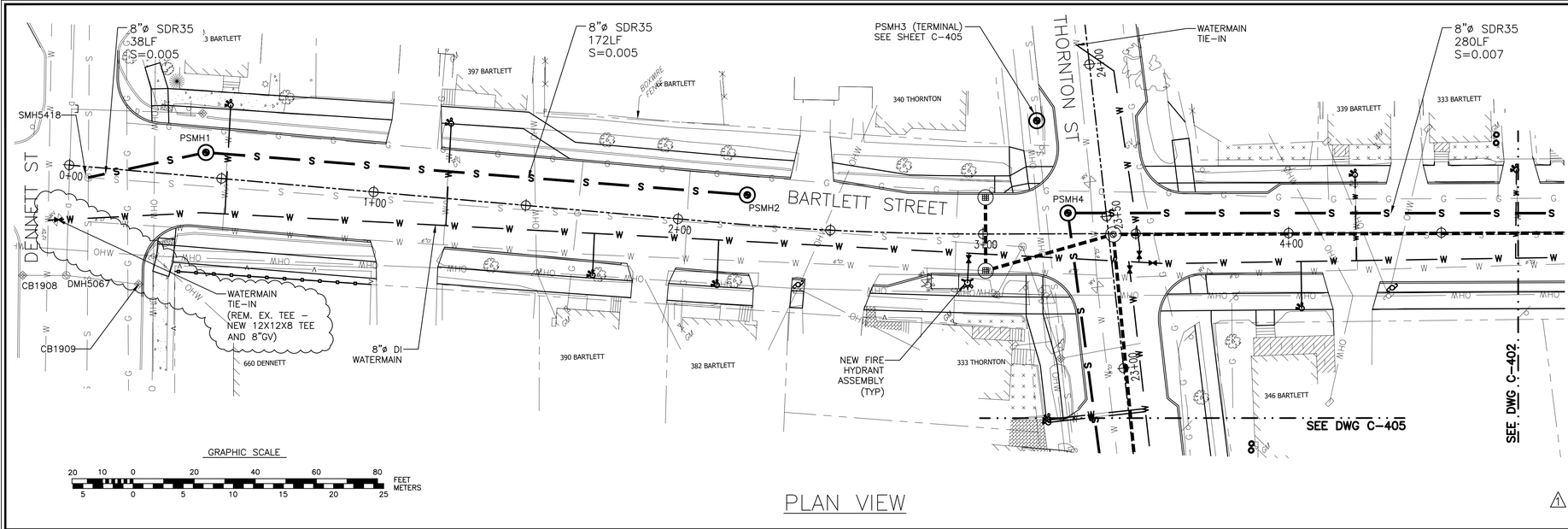
DEPARTMENT OF PUBLIC WORKS
CITY OF PORTSMOUTH, NH
680 PEVERLY HILL ROAD
603–427–1530

DATE: JANUARY 2023
SCALE: AS SHOWN
PROJ. NO.: 7238
APVD BY: MRB

PROJECT: BARTLETT STREET AREA RECONSTRUCTION

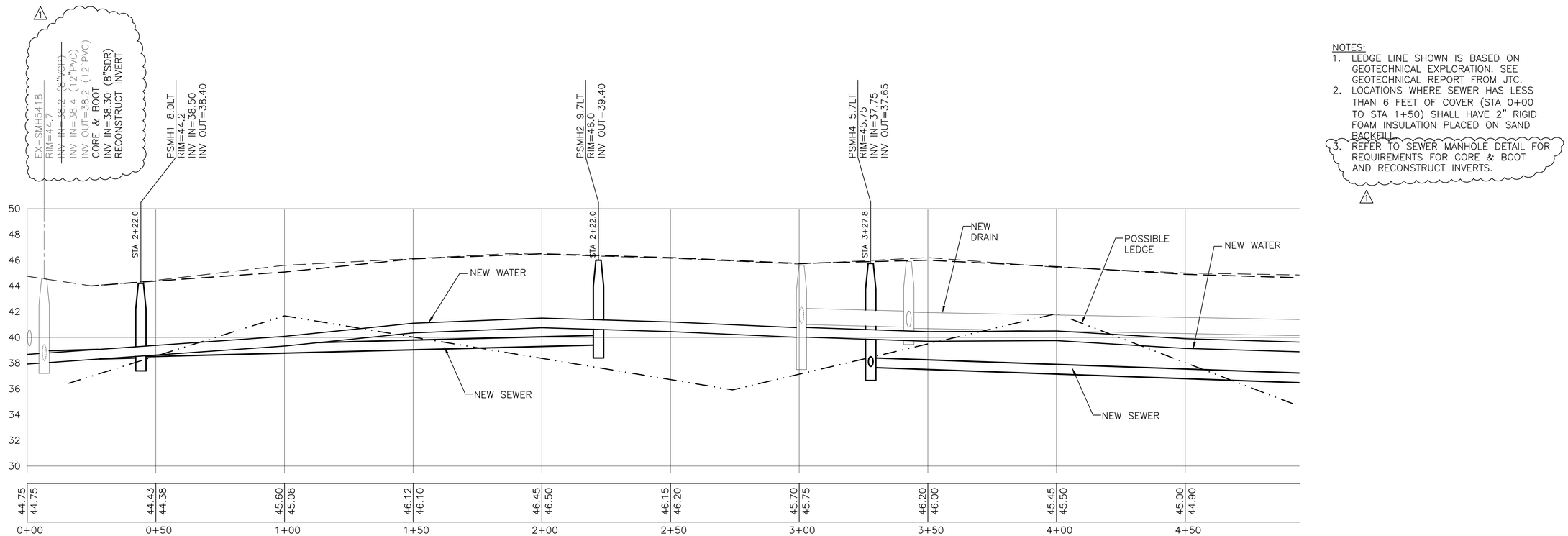
TITLE: LEGEND & GENERAL NOTES

SHEET: G–101



PLAN VIEW

NOTES:
1. CONTRACTOR SHALL VERIFY SEWER SERVICES TO 333 AND 340 THORNTON ST. PRIOR TO FABRICATING PSMH2.
2. SEWER SERVICES ARE NOT SHOWN FOR CLARITY. CONTRACTOR TO FIELD LOCATE TIE-IN LOCATIONS AND MAKE CONNECTIONS TO THE NEW MAIN.
3. CONTRACTOR SHALL VERIFY LOCATION AND MATERIAL OF WATER AND SEWER SERVICES FOR EACH PARCEL.
4. CONTRACTOR SHALL TEST PIT AT PSMH3 TO VERIFY PIPE ELEVATION AND ALIGNMENT PRIOR TO ORDERING ANY SEWER STRUCTURES.
5. WATER-SEWER CROSSINGS SHALL HAVE 18" (MIN) VERTICAL CLEARANCES AND SHALL CROSS AS CLOSE AS TO 90-DEG ANGLE POSSIBLE. SEWER PIPE SHALL BE SPACED SO THAT CROSSING IS AT MID-POINT OF THE SEWER PIPE LENGTH.
6. RUBBER BOOT CONNECTIONS (FERNCO) ONLY ALLOWED WHEN A GASKETED COUPLING IS NOT MANUFACTURED FOR THE APPLICATION. RUBBER BOOT CONNECTIONS REQUIRE A 16x8x2 SOLID PAVER BLOCK PLACED UNDER THE BOOT, CENTERED ON THE JOINT.



PROFILE

NOTES:
1. LEDGE LINE SHOWN IS BASED ON GEOTECHNICAL EXPLORATION. SEE GEOTECHNICAL REPORT FROM JTC.
2. LOCATIONS WHERE SEWER HAS LESS THAN 6 FEET OF COVER (STA 0+00 TO STA 1+50) SHALL HAVE 2" RIGID FOAM INSULATION PLACED ON SAND BACKFILL.
3. REFER TO SEWER MANHOLE DETAIL FOR REQUIREMENTS FOR CORE & BOOT AND RECONSTRUCT INVERTS.

NO.	REVISIONS	APP'D	DATE
1	REV. PER NHDES & ADDENDUM	MRB	2/2/24
0	ISSUED FOR BID	MRB	12/9/23

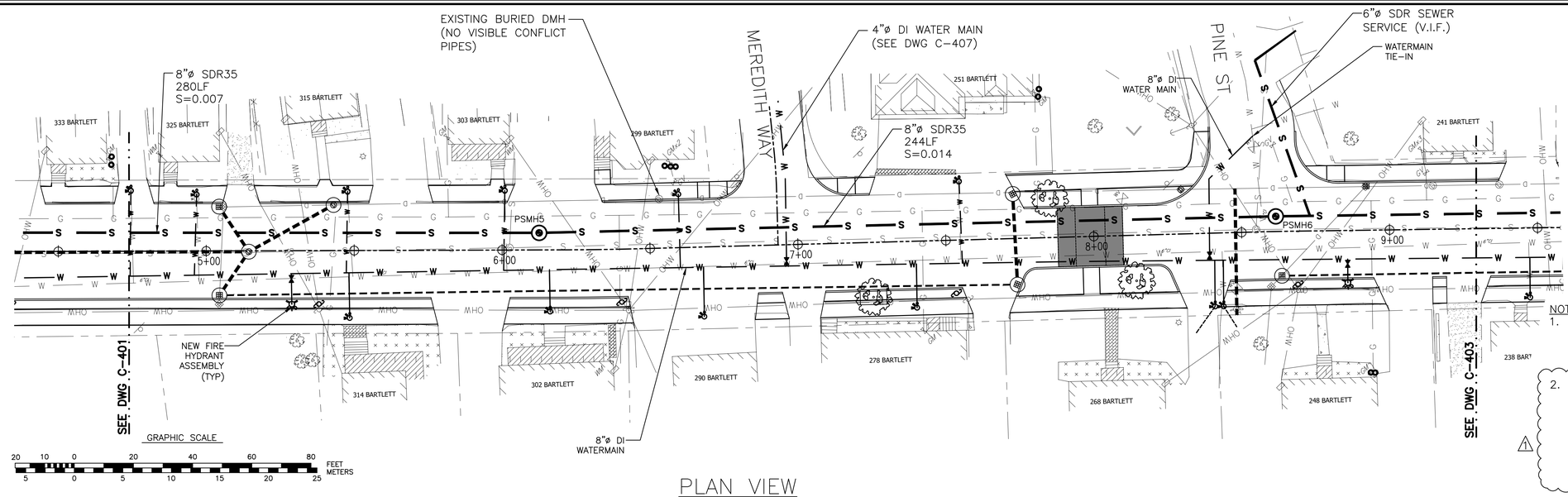
DEPARTMENT OF
PUBLIC WORKS
CITY OF PORTSMOUTH, NH
680 PEVERLY HILL ROAD
603-427-1530

DATE: JANUARY 2023
SCALE: AS SHOWN
PROJ. NO.: 7238
APVD BY: MRB

PROJECT:
BARTLETT STREET AREA
RECONSTRUCTION

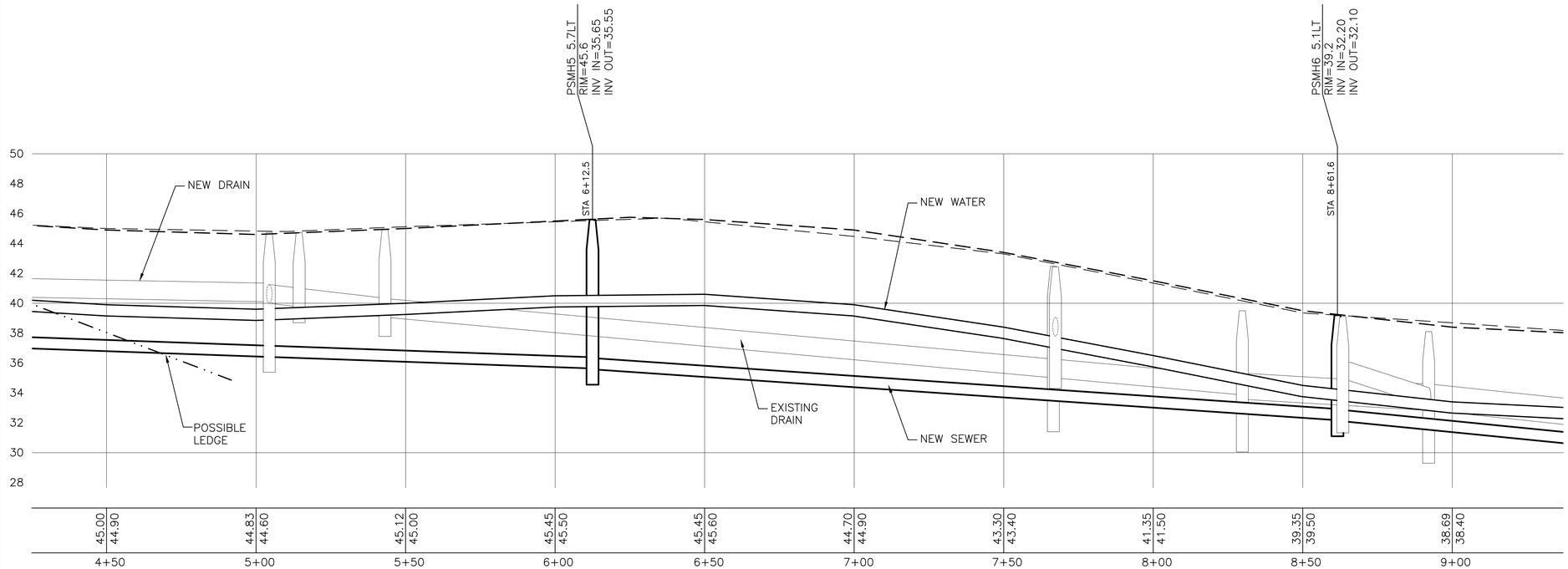
TITLE:
UTILITY & PROFILE PLAN

SHEET:
C-401



PLAN VIEW

NOTES:
1. SEWER SERVICES SHOWN ARE FOR REFERENCE ONLY. CONTRACTOR TO FIELD LOCATE TIE-IN LOCATIONS AND MAKE CONNECTIONS TO NEW MAIN.
2. RUBBER BOOT CONNECTIONS (FERNCO) ONLY ALLOWED WHEN A GASKETED COUPLING IS NOT MANUFACTURED FOR THE APPLICATION. RUBBER BOOT CONNECTIONS REQUIRE A 16x8x2 SOLID PAVER BLOCK PLACED UNDER THE BOOT, CENTERED ON THE JOINT.



PROFILE

NOTES:
1. LEDGE LINE SHOWN IS BASED ON GEOTECHNICAL EXPLORATION. SEE GEOTECHNICAL REPORT FROM JTC.

NO.	REVISIONS	APP'D	DATE
1	REV. PER NHDES & ADDENDUM	MRB	2/2/24
0	ISSUED FOR BID	MRB	12/9/23

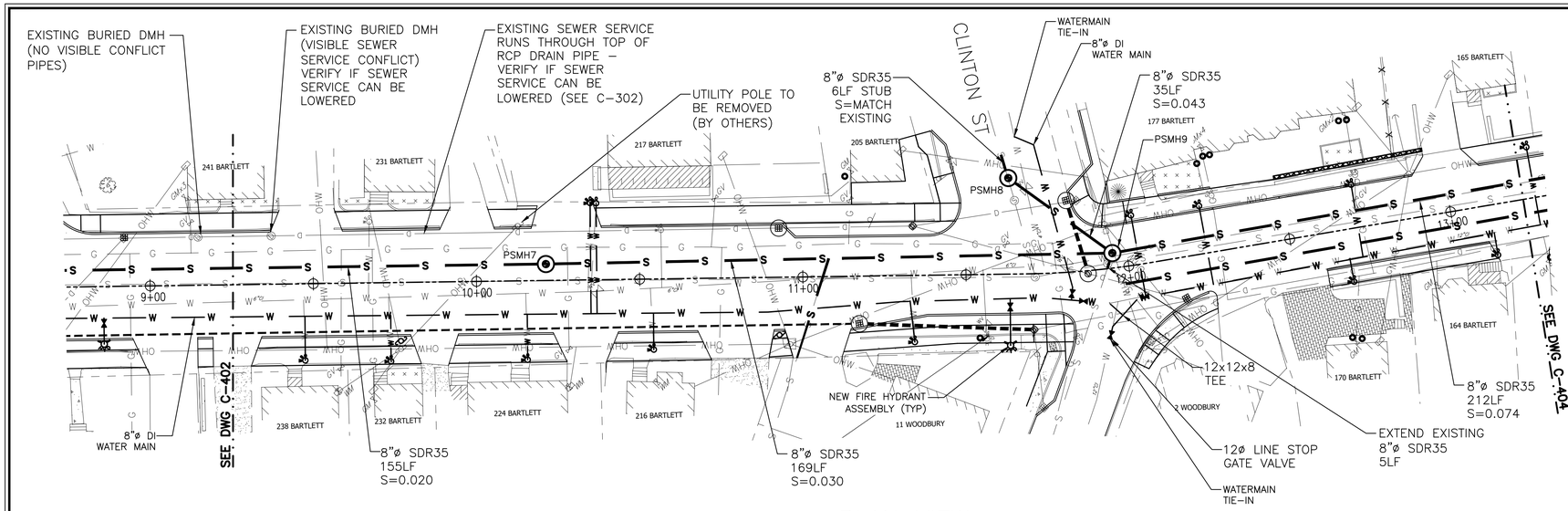
DEPARTMENT OF
PUBLIC WORKS
CITY OF PORTSMOUTH, NH
680 PEVERLY HILL ROAD
603-427-1530

DATE: JANUARY 2023
SCALE: AS SHOWN
PROJ. NO.: 7238
APVD BY: MRB

PROJECT:
BARTLETT STREET AREA
RECONSTRUCTION

TITLE:
UTILITY & PROFILE PLAN

SHEET:
C-402

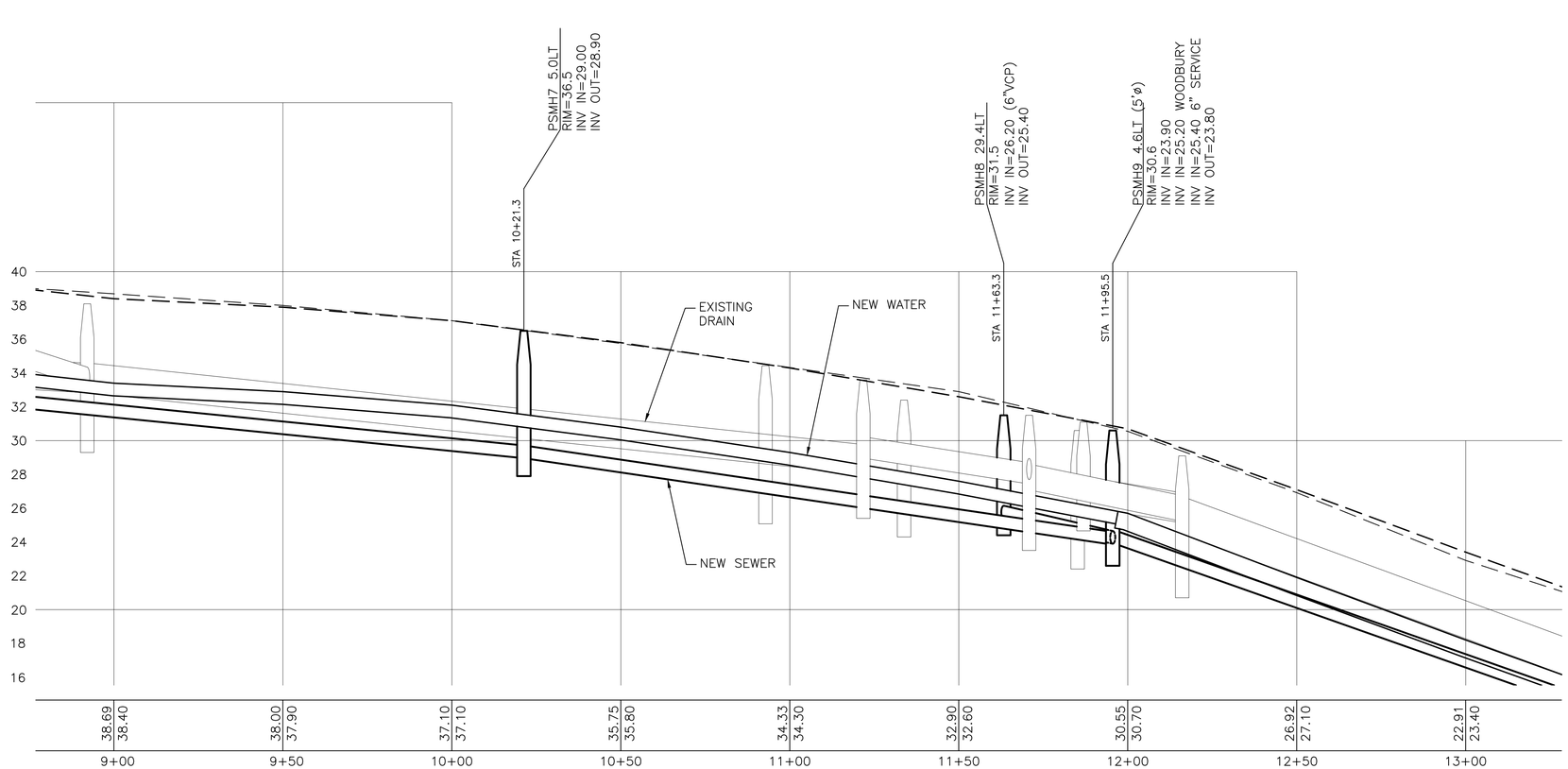


PLAN VIEW

NH STATE PLANE COORDINATE SYSTEM
NAD 1983

NOTES:
1. SEWER SERVICES SHOWN ARE FOR REFERENCE ONLY. CONTRACTOR TO FIELD LOCATE TIE-IN LOCATIONS AND MAKE CONNECTIONS TO NEW MAIN.
2. RUBBER BOOT CONNECTIONS (FERNCO) ONLY ALLOWED WHEN A GASKETED COUPLING IS NOT MANUFACTURED FOR THE APPLICATION. RUBBER BOOT CONNECTIONS REQUIRE A 16x8x2 SOLID PAVER BLOCK PLACED UNDER THE BOOT, CENTERED ON THE JOINT.

GRAPHIC SCALE
20 10 0 20 40 60 80 FEET
5 0 5 10 15 20 25 METERS



PROFILE

NOTES:
1. LOCATIONS WHERE SEWER HAS LESS THAN 6 FEET OF COVER (STA 12+00 TO STA 16+50) SHALL HAVE 2" RIGID FOAM INSULATION PLACED ON SAND BACKFILL.

NO.	REVISIONS	APP'D	DATE
1	REV. PER NHDES & ADDENDUM	MRB	2/2/24
0	ISSUED FOR BID	MRB	12/9/23

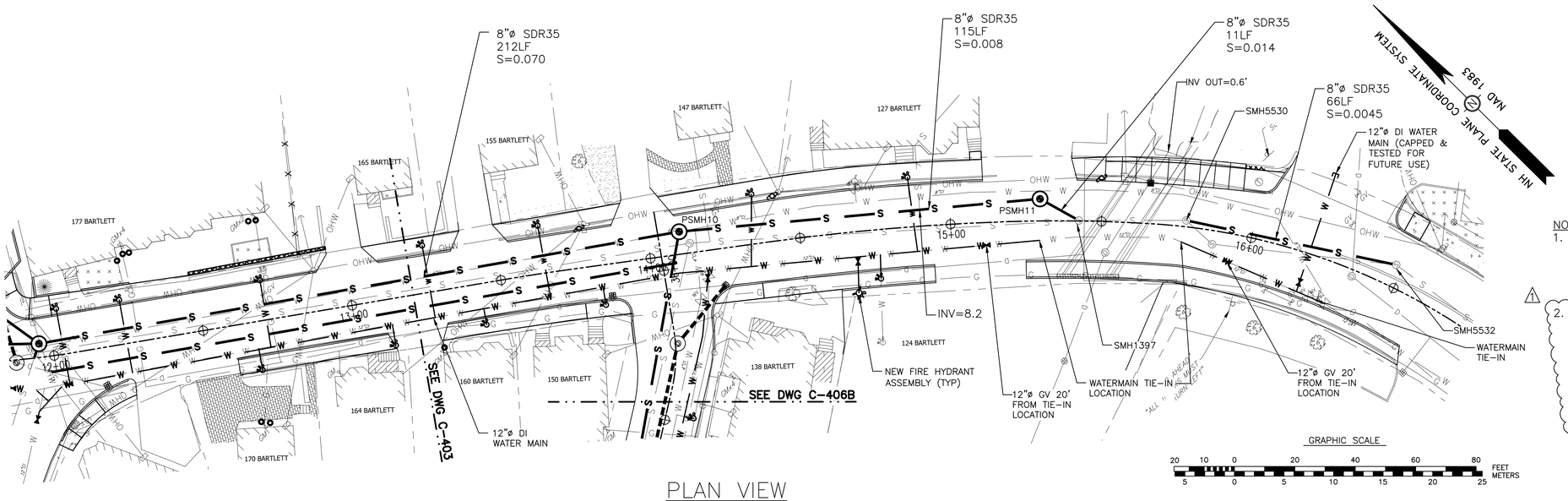
DEPARTMENT OF PUBLIC WORKS
CITY OF PORTSMOUTH, NH
680 PEVERLY HILL ROAD
603-427-1530

DATE: JANUARY 2023
SCALE: AS SHOWN
PROJ. NO.: 7238
APVD BY: MRB

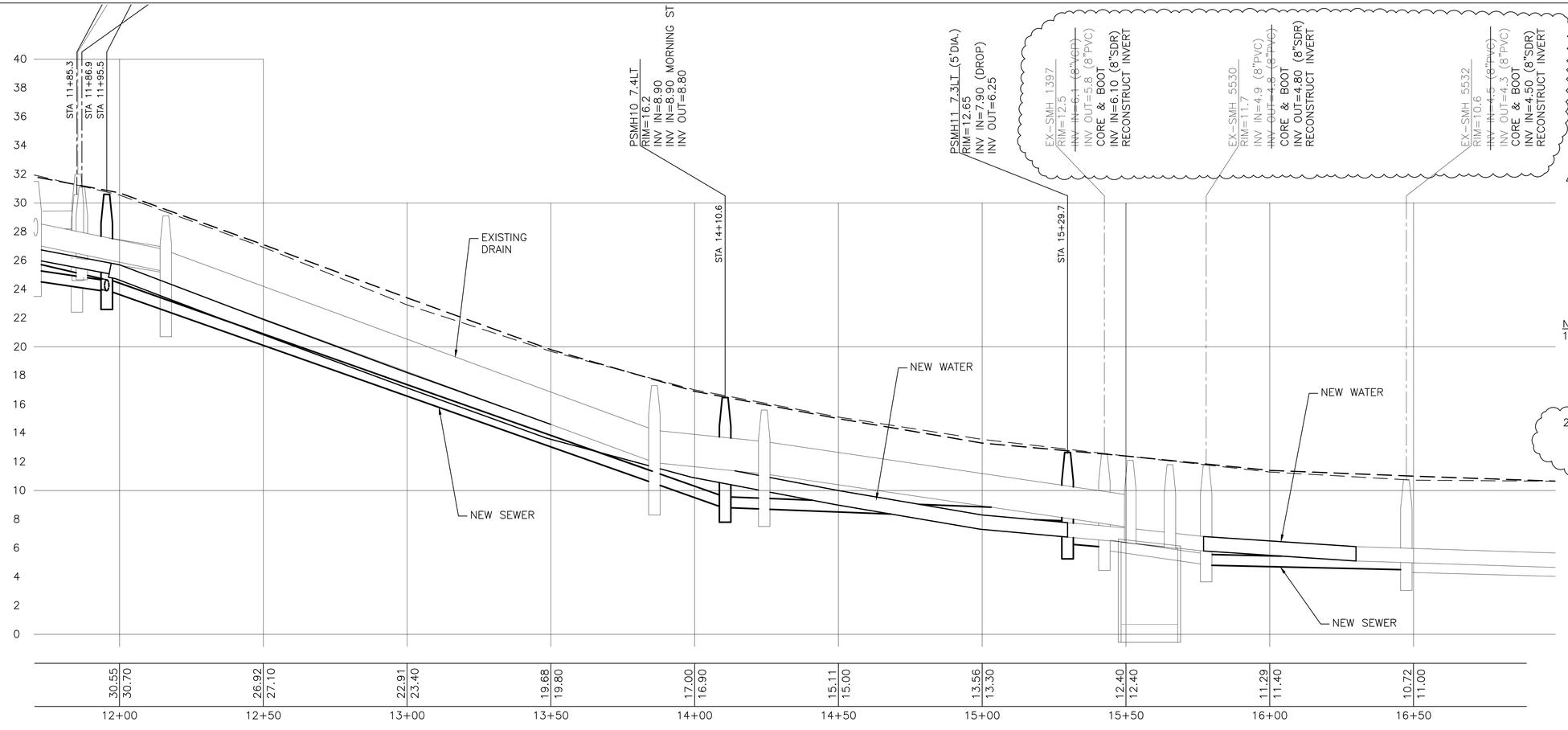
PROJECT: BARTLETT STREET AREA RECONSTRUCTION

TITLE: UTILITY & PROFILE PLAN

SHEET: C-403



PLAN VIEW



NOTES:
1. SEWER SERVICES SHOWN ARE FOR REFERENCE ONLY. CONTRACTOR TO FIELD LOCATE TIE-IN LOCATIONS AND MAKE CONNECTIONS TO NEW MAIN.
2. RUBBER BOOT CONNECTIONS (FERNCO) ONLY ALLOWED WHEN A GASKETED COUPLING IS NOT MANUFACTURED FOR THE APPLICATION. RUBBER BOOT CONNECTIONS REQUIRE A 16x8x2 SOLID PAVER BLOCK PLACED UNDER THE BOOT, CENTERED ON THE JOINT.

NOTES:
1. LOCATIONS WHERE SEWER HAS LESS THAN 6 FEET OF COVER (STA 12+00 TO STA 16+50) SHALL HAVE 2" RIGID FOAM INSULATION PLACED ON SAND BACKFILL.
2. REFER TO SEWER MANHOLE DETAIL FOR REQUIREMENTS FOR CORE & BOOT AND RECONSTRUCT INVERTS.

NO.	REVISIONS	APP'D	DATE
1	REV. PER NHDES & ADDENDUM	MRB	2/2/24
0	ISSUED FOR BID	MRB	12/9/23

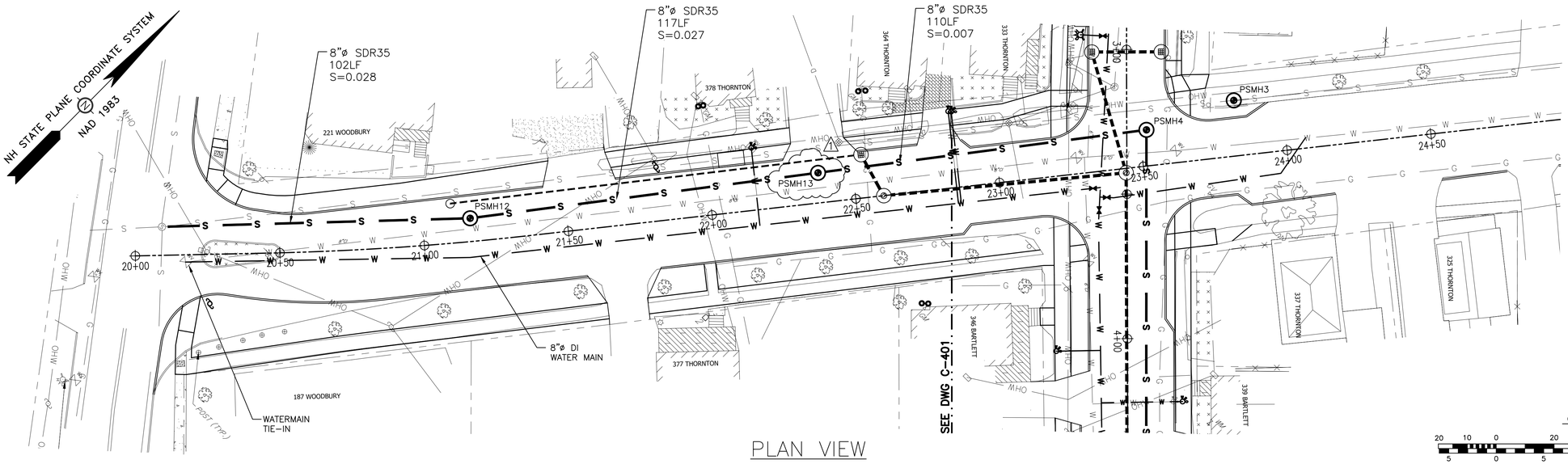
DEPARTMENT OF PUBLIC WORKS
CITY OF PORTSMOUTH, NH
680 PEVERLY HILL ROAD
603-427-1530

DATE: JANUARY 2023
SCALE: AS SHOWN
PROJ. NO.: 7238
APVD BY: MRB

PROJECT: BARTLETT STREET AREA RECONSTRUCTION

TITLE: UTILITY & PROFILE PLAN

SHEET: C-404

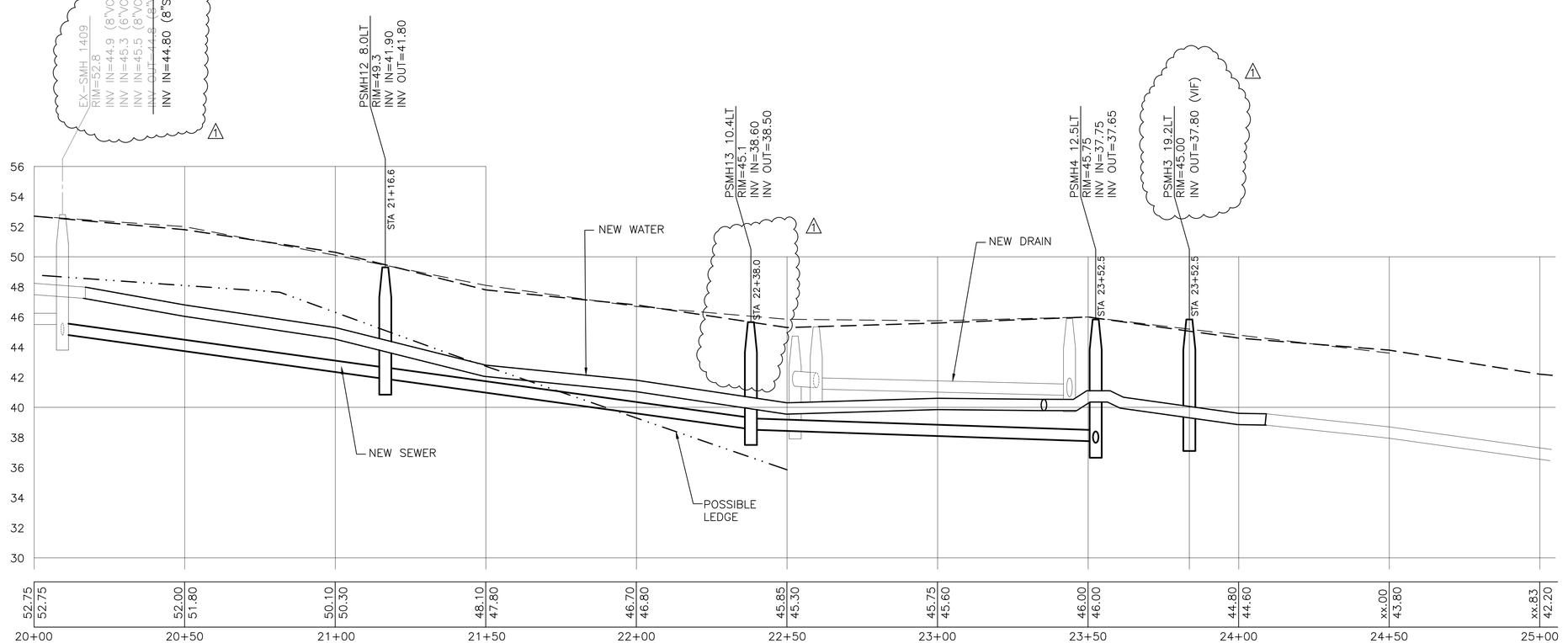


PLAN VIEW

NOTES:
1. CONTRACTOR SHALL VERIFY SEWER SERVICES TO 333 AND 340 THORNTON ST. PRIOR TO FABRICATING PSMH2.
2. SEWER SERVICES SHOWN ARE FOR REFERENCE ONLY. CONTRACTOR TO FIELD LOCATE TIE-IN LOCATIONS AND MAKE CONNECTIONS TO NEW MAIN.
3. CONTRACTOR SHALL TEST PIT AT PSMH3 TO VERIFY PIPE ELEVATION AND ALIGNMENT PRIOR TO ORDERING ANY SEWER STRUCTURES.
4. RUBBER BOOT CONNECTIONS (FERNCO) ONLY ALLOWED WHEN A GASKETED COUPLING IS NOT MANUFACTURED FOR THE APPLICATION. RUBBER BOOT CONNECTIONS REQUIRE A 16x8x2 SOLID PAVER BLOCK PLACED UNDER THE BOOT, CENTERED ON THE JOINT

GRAPHIC SCALE
20 10 0 20 40 60 80 FEET
5 0 5 10 15 20 25 METERS

NOTES:
1. LEDGE LINE SHOWN IS BASED ON GEOTECHNICAL EXPLORATION. SEE GEOTECHNICAL REPORT FROM JTC.



PROFILE

NO.	REVISIONS	APP'D	DATE
1	REV. PER NHDES & ADDENDUM	MRB	2/2/24
0	ISSUED FOR BID	MRB	12/9/23

DEPARTMENT OF
PUBLIC WORKS
CITY OF PORTSMOUTH, NH
680 PEVERLY HILL ROAD
603-427-1530

DATE: JANUARY 2023
SCALE: AS SHOWN
PROJ. NO.: 7238
APVD BY: MRB

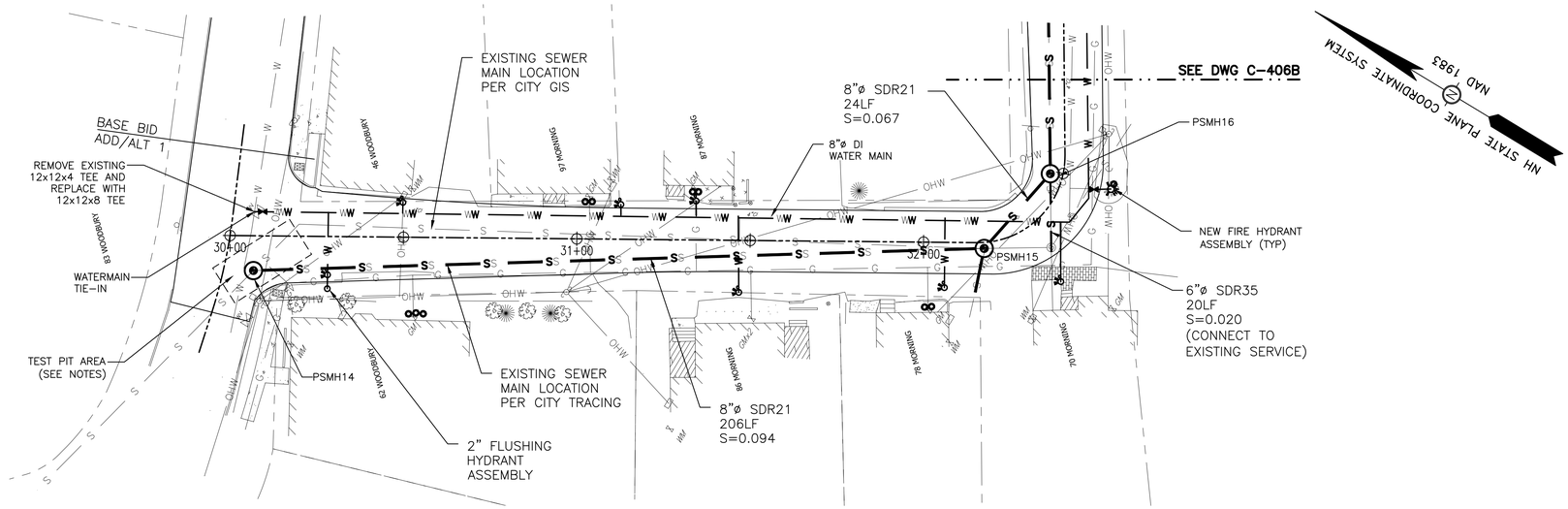
PROJECT:
BARTLETT STREET AREA
RECONSTRUCTION

TITLE:
UTILITY & PROFILE PLAN

SHEET:
C-405

NOTES:

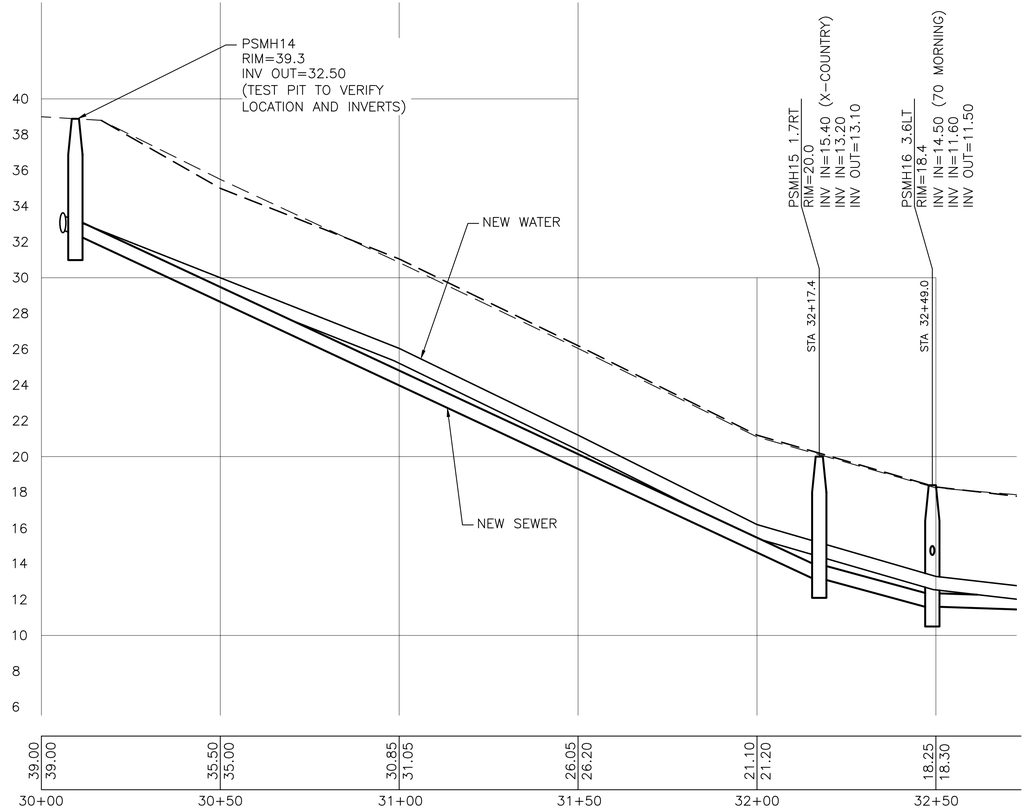
1. DURING ON-SITE TRACING OF SEWER MAIN DPW CREW COULD ONLY TRACE TO STA 30+25 AND CHANGE IN DIRECTION OF MAIN LOCATION COULD NOT BE IDENTIFIED.
2. CONTRACTOR SHALL TEST PIT AREA AT WOODBURY & MORNING INTERSECTION TO VERIFY LOCATION WHERE EXISTING SEWER MAIN MAKES TURN DOWN MORNING STREET. THIS IS THE PROPOSED FINAL LOCATION FOR NEW SMH. CONTRACTOR SHALL WORK WITH CITY DPW TO VERIFY OPTIMAL LOCATION FOR SMH PRIOR TO ORDERING STRUCTURE.
3. SEWER MAIN PIPE RUNS THAT HAVE LESS THAN 10' OF SEPARATION FROM WATER MAIN DUE TO THE NARROW ROAD HAVE BEEN IDENTIFIED AS PVC SDR21 PRESSURE PIPE.
4. SEWER PIPE RUNS GREATER THAN 7.0% SHALL HAVE RIPLEY DAMS PLACED EVERY 25' OF THE TRENCH.
5. CONTRACTOR SHALL NOTIFY ENGINEER OF FINAL PSMH14 LOCATION AND INVERT INFORMATION. ENGINEER MAY NEED TO REVISE THE DESIGN TO ACCOMMODATE THE PLACEMENT OF PSMH14 AND SUBMIT TO NHDES FOR APPROVAL.
6. SEWER SERVICES SHOWN ARE FOR REFERENCE ONLY. CONTRACTOR TO FIELD LOCATE TIE-IN LOCATIONS AND MAKE CONNECTIONS TO NEW MAIN.
7. RUBBER BOOT CONNECTIONS (FERNCO) ONLY ALLOWED WHEN A GASKETED COUPLING IS NOT MANUFACTURED FOR THE APPLICATION. RUBBER BOOT CONNECTIONS REQUIRE A 16x8x2 SOLID PAVER BLOCK PLACED UNDER THE BOOT, CENTERED ON THE JOINT.



PLAN VIEW

GRAPHIC SCALE

20 10 0 20 40 60 80 FEET
5 0 5 10 15 20 25 METERS



PROFILE

NO.	REVISIONS	APP'D	DATE
1	REV. PER NHDES & ADDENDUM	MRB	2/2/24
0	ISSUED FOR BID	MRB	12/9/23

DEPARTMENT OF PUBLIC WORKS
CITY OF PORTSMOUTH, NH
680 PEVERLY HILL ROAD
603-427-1530

DATE: JANUARY 2023
SCALE: AS SHOWN
PROJ. NO.: 7238
APVD BY: MRB

PROJECT: BARTLETT STREET AREA RECONSTRUCTION

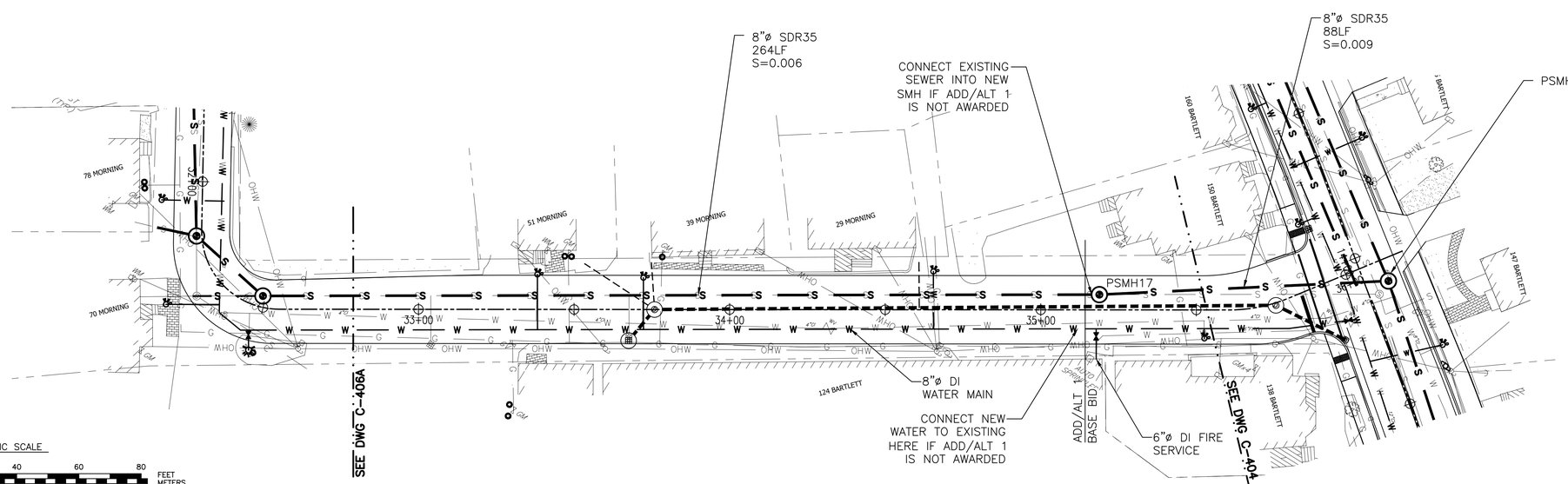
TITLE: UTILITY & PROFILE PLAN

SHEET: C-406A

NH STATE PLANE COORDINATE SYSTEM
NAD 1983

NOTES:
1. SEWER SERVICES SHOWN ARE FOR REFERENCE ONLY. CONTRACTOR TO FIELD LOCATE TIE-IN LOCATIONS AND MAKE CONNECTIONS TO NEW MAIN.
2. RUBBER BOOT CONNECTIONS (FERNCO) ONLY ALLOWED WHEN A GASKETED COUPLING IS NOT MANUFACTURED FOR THE APPLICATION. RUBBER BOOT CONNECTIONS REQUIRE A 16x8x2 SOLID PAVER BLOCK PLACED UNDER THE BOOT, CENTERED ON THE JOINT.

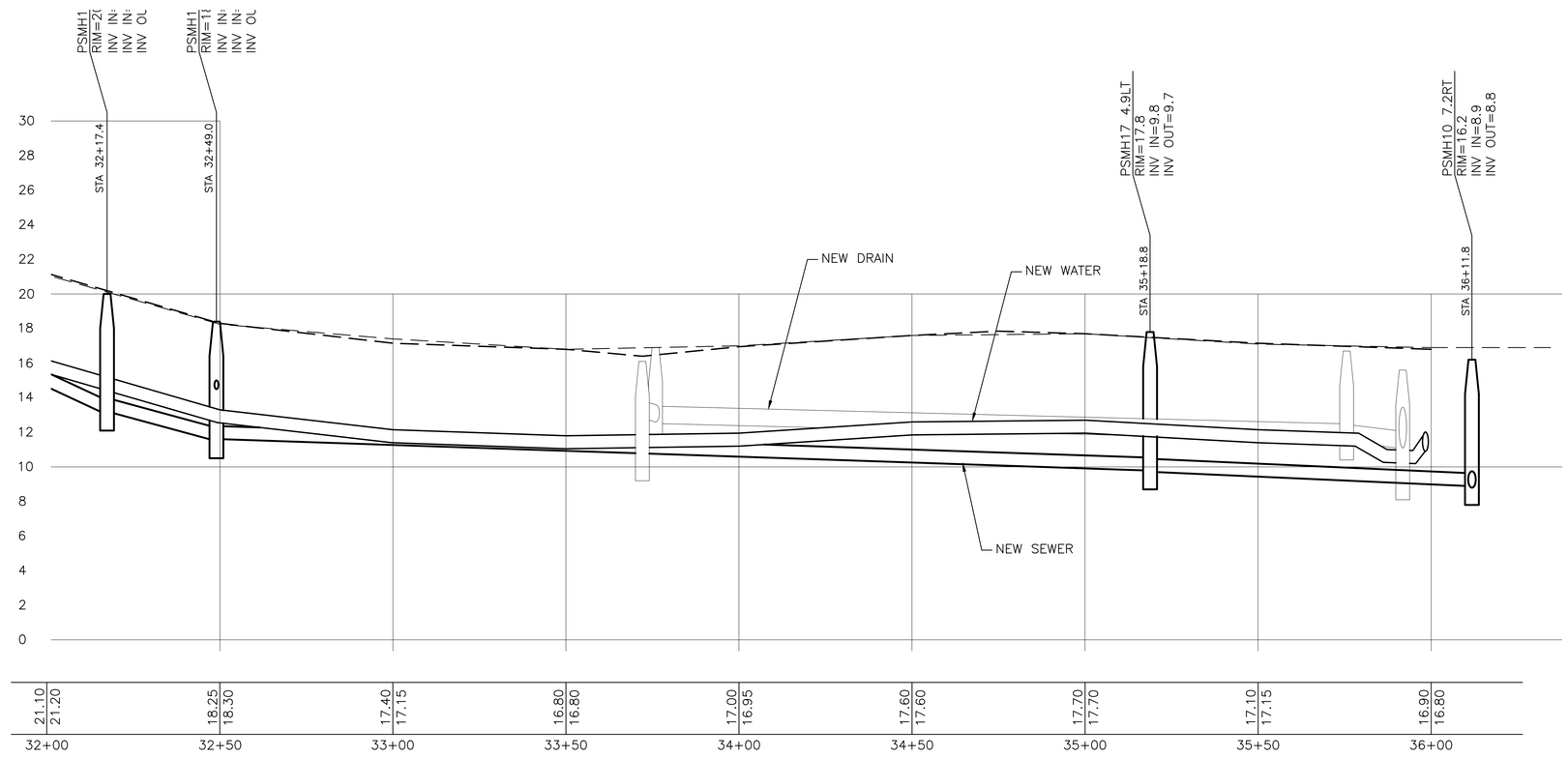
1



GRAPHIC SCALE
20 10 0 20 40 60 80 FEET
5 0 5 10 15 20 25 METERS

PLAN VIEW

NOTES:
1. LOCATIONS WHERE SEWER HAS LESS THAN 6 FEET OF COVER (STA 32+50 TO STA 34+25) SHALL HAVE 2" RIGID FOAM INSULATION PLACED ON SAND BACKFILL.



PROFILE

NO.	REVISIONS	APP'D	DATE
1	REV. PER NHDES & ADDENDUM	MRB	2/2/24
0	ISSUED FOR BID	MRB	12/9/23

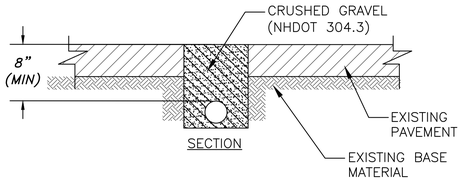
DEPARTMENT OF PUBLIC WORKS
CITY OF PORTSMOUTH, NH
680 PEVERLY HILL ROAD
603-427-1530

DATE: JANUARY 2023
SCALE: AS SHOWN
PROJ. NO.: 7238
APVD BY: MRB

PROJECT: BARTLETT STREET AREA RECONSTRUCTION

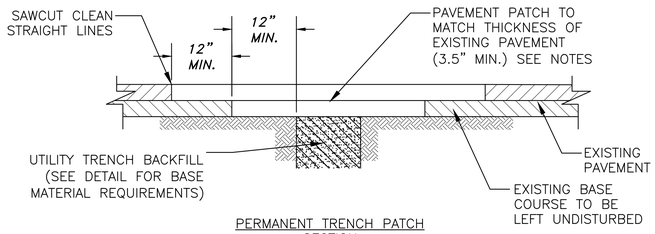
TITLE: UTILITY & PROFILE PLAN

SHEET: C-406B

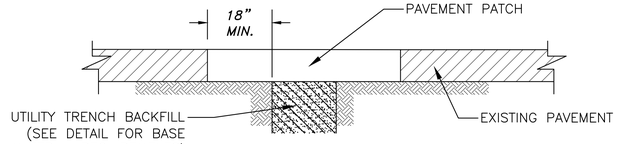


NOTES:
1. CONTRACTOR SHALL PLACE TEMPORARY WATER IN TRENCH AT ALL ROADWAY AND DRIVEWAY CROSSINGS. COST OF TRENCH IS INCIDENTAL TO THE TEMPORARY WATER PAY ITEM.

TEMPORARY WATER PIPE TRENCH
SCALE: N.T.S



PERMANENT TRENCH PATCH
SECTION

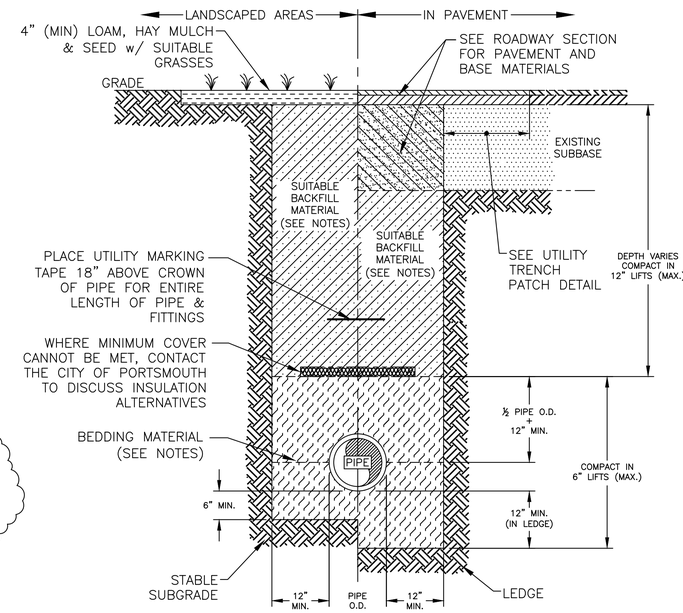


TEMPORARY TRENCH PATCH
SECTION

NOTES:
1. TEMPORARY ASPHALT PLACED FOR UTILITY TRENCHES ARE SUBSIDIARY TO THE PIPE INSTALLATION PAY ITEM.
2. TEMPORARY PAVEMENT PATCH SHALL BE 3/4" BINDER (2" THK MIN.). PERMANENT PAVEMENT PATCH SHALL MATCH EXISTING THICKNESS, OR 3.5", WHICH EVER IS GREATER.
3. TEMPORARY PAVEMENT PATCHES SHALL BE MAINTAINED REGULARLY. CONTRACTOR SHALL REPLACE TEMPORARY PAVEMENT PATCHES AT THE DISCRETION OF THE ENGINEER.
4. TRENCHES MAY REMAIN GRAVEL DURING THE WORK WEEK. NO TRENCHES SHALL REMAIN GRAVEL OVER THE WEEKEND, TEMPORARY PAVEMENT IS REQUIRED.

UTILITY TRENCH PATCH
SCALE: N.T.S

NOTES:
1. DRAIN AND SEWER PIPE SHALL HAVE CRUSHED STONE (NHDOT 304.4) BEDDING FOR FULL WIDTH OF TRENCH UP TO 12" ABOVE TOP OF PIPE. SAND SHALL NOT BE DIRECTLY PLACED ON CRUSHED STONE. IN THE EVENT FINELY GRADED BACKFILL OR SAND IS USED ABOVE STONE, GEOTEXTILE FABRIC SHALL BE PLACED TO SEPARATE.
2. WATER PIPE SHALL HAVE SAND (NHDOT 304.1) BEDDING FOR FULL WIDTH OF TRENCH UP TO 12" ABOVE TOP OF PIPE.
3. BEDDING, FABRIC, AND COVER MATERIAL FOR ALL PIPE IS SUBSIDIARY TO THE PIPE PAY ITEM.
4. SUITABLE MATERIAL FOR TRENCH BACKFILL SHALL BE THE NATURAL MATERIAL EXCAVATED DURING CONSTRUCTION, BUT SHALL EXCLUDE DEBRIS, PIECES OF PAVEMENT, ORGANIC MATTER, TOP SOIL, ALL WET OR SOFT MUCK, PEAT OR CLAY, ALL EXCAVATED LEDGE MATERIAL, AND ALL ROCKS OVER SIX INCHES IN LARGEST DIMENSION, OR ANY MATERIALS DEEMED TO BE UNACCEPTABLE BY THE ENGINEER.
5. DEPTH OF COVER SHALL BE:
   WATER – 5' MIN. & 7' MAX. (<5' REQ. RIGID INS.)
   SEWER – AS INDICATED ON PLANS (<6' REQ. RIGID INS.)
   DRAIN – AS INDICATED ON PLANS (<3' REQ. RIGID INS.)
6. WATER MAIN SHALL BE POLY WRAPPED AND HAVE THREE BRASS WEDGES AT ALL NON MECHANICAL CONNECTIONS.
7. ALL PIPES GREATER THAN 12" DIA. WITH STONE BEDDING, BEDDING SHALL BE WRAPPED IN GEOTEXTILE FABRIC. GEOTEXTILE FABRIC SHALL BE MIRAFI 140N OR APPROVED EQUAL. FABRIC SHALL BE WRAPPED COMPLETELY AROUND STONE w/12" (MIN) OVERLAP AT SEAMS.
8. 2" RIGID FOAM INSULATION SHALL BE PLACED ON TOP OF BEDDING MATERIAL. BEDDING MATERIAL SHALL BE MADE SMOOTH TO ALLOW FOAM BOARD TO SIT WITHOUT VOIDS BENEATH. FOAM SHALL BE INSTALLED THE FULL WIDTH OF THE TRENCH, NOT TO EXCEED 4' WIDE.



UTILITY TRENCH
SCALE: N.T.S

NO.	REVISIONS	APP'D	DATE
1	REV. PER NHDES & ADDENDUM	MRB	2/2/24
0	ISSUED FOR BID	MRB	12/9/23

DEPARTMENT OF
PUBLIC WORKS
CITY OF PORTSMOUTH, NH
680 PEVERLY HILL ROAD
603-427-1530

DATE: JANUARY 2023
SCALE: AS SHOWN
PROJ. NO.: 7238
APVD BY: MRB

PROJECT: BARTLETT STREET AREA RECONSTRUCTION

TITLE: DETAIL SHEET GENERAL UTILITY

SHEET: C–604