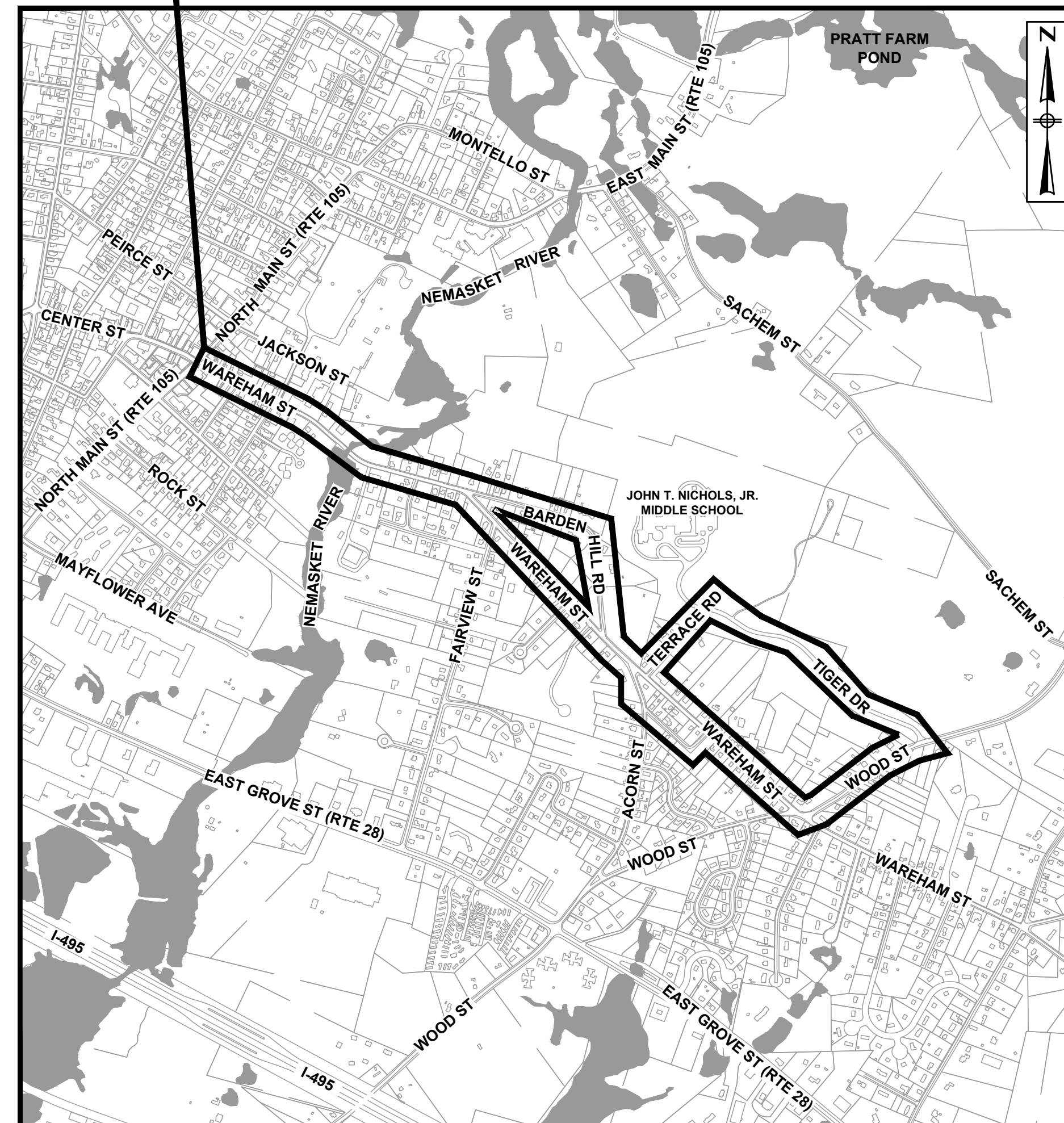


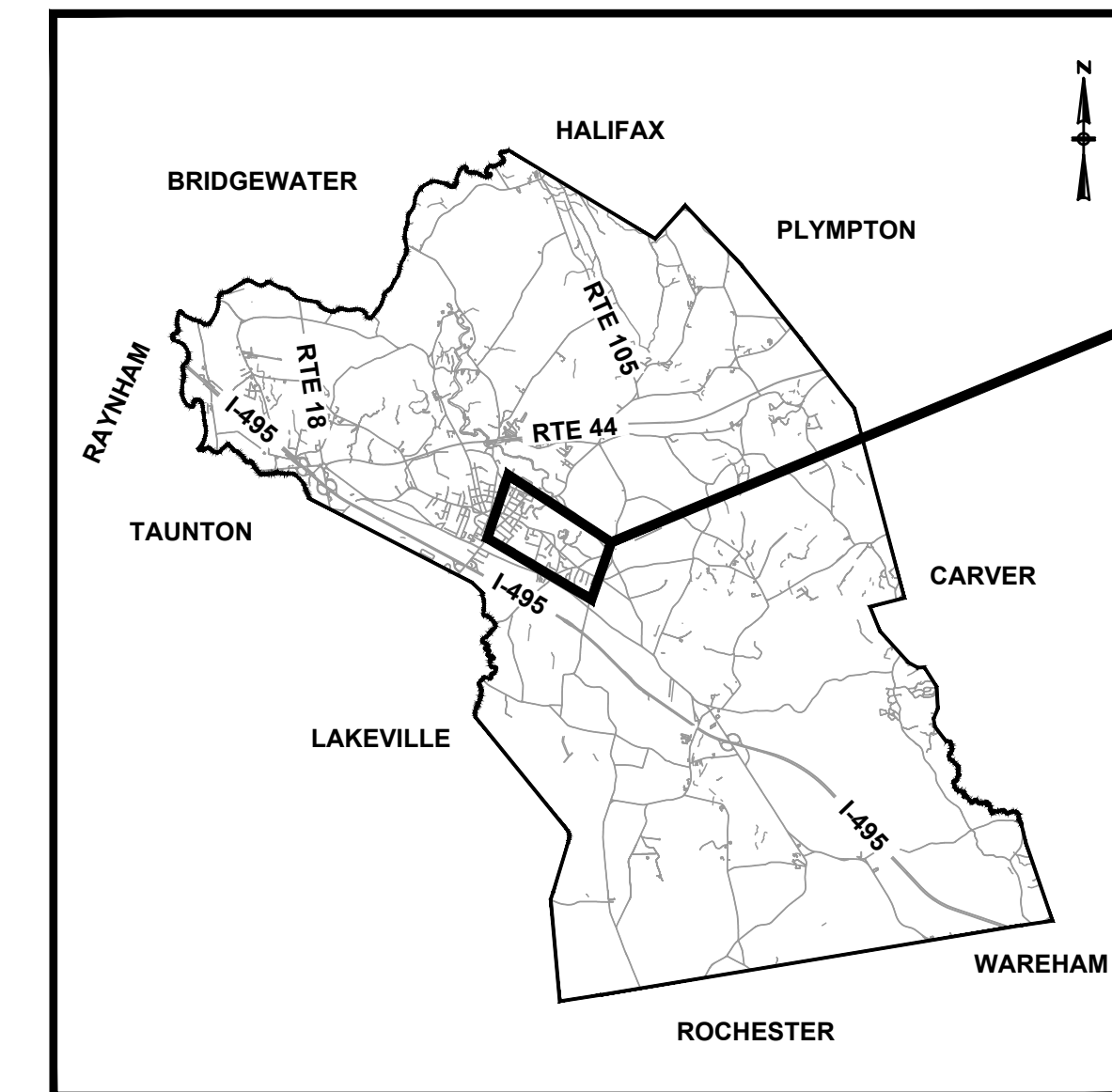
MIDDLEBOROUGH, MA WAREHAM STREET WATER MAIN REPLACEMENT DECEMBER 2023



Approx. Limit
of Work



LOCATION MAP
NOT TO SCALE



LOCUS MAP
NOT TO SCALE

Project
Location

JAMES MCGRAIL

TOWN MANAGER

MARK GERMAIN
BRIAN GIOVANNI
NEIL ROSENTHAL
THOMAS WHITE

SELECT BOARD CHAIR
SELECT BOARD VICE CHAIR
SELECT BOARD MEMBER
SELECT BOARD MEMBER

CHRISTOPHER PECK
MICHAEL BUMPUS

DPW DIRECTOR
WATER SUPERINTENDENT

PREPARED BY:



REGISTERED PROFESSIONAL

12/13/2023

DATE

LEGEND

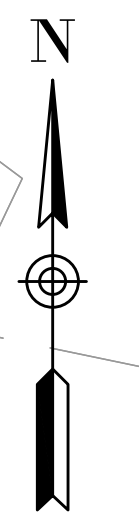
EXISTING	PROPOSED	ABBREVIATIONS
--- 10" DI W ---	WATER MAIN	ABD. ABANDON / ABANDONED
--- WS ---	WATER SERVICE	BB. BITUMINOUS BERM
--- 10" VC S ---	SEWER MAIN	BCC. BITUMINOUS CONCRETE CURB
--- SS ---	SEWER SERVICE	BDF. BOARD FENCE
--- 10" RCP D ---	DRAIN PIPE	BDR. BOULDER
--- DS ---	DRAIN SERVICE	BIT. BITUMINOUS
--- 6" PE G ---	GAS MAIN	BOS. BOTTOM OF STRUCTURE
--- GS ---	GAS SERVICE	BRW. BRICK RETAINING WALL
--- EOH ---	ELECTRIC OVERHEAD	C-H. CURB TO HOUSE
--- EUG ---	ELECTRIC UNDERGROUND	CB. CATCH BASIN
--- ES ---	ELECTRIC SERVICE	CC. CONCRETE CURB
--- 2x2 TELE. ---	TELEPHONE UNDERGROUND	CI. CAST IRON
WG	WATER GATE	CL. CEMENT LINED STEEL PIPE
W _{SO}	WATER HYDRANT	CLDI. CEMENT LINED DUCTILE IRON PIPE
W _{SO}	CURB STOP	CLS2. CLASS 52
W _M	WATER MANHOLE	CLF. CHAIN LINK FENCE
W _M	WATER METER WELL	CONC. CONCRETE
---] ---	CAP / BULKHEAD	CONC. CONCRETE RETAINING WALL
---) ---	PIPE CONTINUES BEYOND LIMITS SHOWN	CRW. CONNECT TO EXISTING
⊙	SEWER MANHOLE	CU. COPPER
⊙	DRAIN MANHOLE	DI. DUCTILE IRON
⊙	CATCH BASIN	DI CL. DUCTILE IRON CEMENT LINED
⊙	GAS GATE	DMH. DRAIN MANHOLE
⊙	ELECTRIC MANHOLE	DWY. DRIVEWAY
⊙	TELEPHONE MANHOLE	EBX. ELECTRICAL BOX
⊙	UTILITY POLE	EL. / ELEV. ELEVATION
⊙	UTILITY POLE WITH LIGHT	ELEC. ELECTRIC
•	GUY POLE	EM. ELECTRIC METER
•	LIGHT POLE	EOP. EDGE OF PAVEMENT
⊙	BUILDING WITH WATER SERVICE INFO.	EX. / EXIST. EXISTING
--- #B2-100 --- #B2-101 ---	PROPERTY LINE	FGP. FLAGPOLE
---	RIGHT OF WAY	GG. GAS GATE
---	TOP OF RIVERBANK	GM. GAS METER
---	200' RIVERFRONT LIMIT	GRA. GRASS
---	100' BVW BUFFER LIMIT	GRV. GRAVEL
---	EDGE OF PAVEMENT / DRIVEWAY	GRW. GUARDRAIL WOOD
---	CURB / BERM (TYPE AS NOTED)	HDP. HIGH DENSITY POLYETHYLENE
---	WOOD FENCE	HMA. HOT MIX ASPHALT
---	CHAINLINK FENCE	HR. HANDRAIL
---	GUARDRAIL	H.P. HIGH PRESSURE
○	IRON PIPE / IRON ROD	INV. INVERT
■	BOUND	PIF. PICKET FENCE
□ MB #123	MAILBOX	PL. PLASTIC
⊙	TRAFFIC / STREET SIGN	LA. LANDSCAPING AREA
~	TREELINE	L.P. LOW PRESSURE
⊙	SHRUB	LWB. LANDSCAPING WALL BRICK
⊙ 15"	TREE (DIAMETER AS NOTED)	M-C. MAIN TO CURB
○	BOULDER	MAX. MAXIMUM
		MB. MINIMUM
		MIN. MINIMUM
		MTL. METAL
		MJ. MECHANICAL JOINT
		MTL. METAL
		O.C. ON CENTER
		PE. POLYETHYLENE
		PIF. PICKET FENCE
		PROP. PROPOSED
		PVC. POLYVINYL CHLORIDE
		RC / RCP. REINFORCED CONCRETE PIPE
		R&D. REMOVE & DISPOSE
		RRT. RAILROAD TIE
		RRW. RAILROAD TIE RETAINING WALL
		SGC. SLOPE GRANITE CURBING
		SHT. SHEET
		SMH. SEWER MANHOLE
		STL. STEEL
		STP. STEP
		SRW. STONE RETAINING WALL
		STW. STONE WALL
		TBX. TELEPHONE BOX
		TELE. TELEPHONE
		TYP. TYPICAL
		UP / UPOLE. UTILITY POLE
		UNK. UNKNOWN
		WG. WATER GATE
		WM. WATER METER
		WRW. WOOD RETAINING WALL
		WSO. WATER SHUT OFF
		VC / VCP. VITRIFIED CLAY PIPE
		VGC. VERTICAL GRANITE CURB

NOTES

GENERAL NOTES	TEST PITS	REMOVAL AND DISPOSAL
<p>1. CONTRACTOR SHALL REFER TO AND COORDINATE THE PROJECT REQUIREMENTS AS INDICATED ON THE GENERAL, CIVIL, AND STANDARD DETAIL DRAWINGS AND SPECIFICATIONS.</p> <p>2. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL STRUCTURES AND PIPING AGAINST FLOODING, FLOTATION AND OTHER DAMAGE DURING CONSTRUCTION.</p> <p>3. THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO PREVENT DAMAGE TO ADJACENT AND NEARBY STRUCTURES DURING CONSTRUCTION. ALL DAMAGE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE AND APPROVED BY THE ENGINEER.</p> <p>4. CONTRACTOR SHALL CALL "DIG SAFE" AT 1(888)-DIG-SAFE, AT LEAST 72 HOURS (EXCLUDING SATURDAYS, SUNDAYS AND HOLIDAYS) PRIOR TO ANY EXCAVATION TO OBTAIN ACCURATE UTILITY LOCATIONS.</p> <p>5. ALL AREAS AND UTILITIES DISTURBED BY THE CONTRACTOR BEYOND PAYMENT LIMITS SHOWN SHALL REQUIRE PRIOR AUTHORIZATION FROM THE ENGINEER AND SHALL BE RESTORED AT NO ADDITIONAL COST TO THE OWNER.</p> <p>6. SEWER, WATER AND OTHER UTILITIES HAVE BEEN SHOWN ON THE SITE PLANS WHERE INFORMATION IS AVAILABLE.</p> <p>7. PIPING WHICH IS EXPOSED DURING EXCAVATION AND THAT IS NOT TO BE RELOCATED, ABANDONED, OR DEMOLISHED SHALL BE SUPPORTED IN-PLACE, BRACED, OR OTHERWISE PROTECTED DURING CONSTRUCTION ACTIVITIES.</p> <p>8. CONTRACTOR SHALL FIELD VERIFY EXISTING STRUCTURE ELEVATIONS AND LOCATIONS.</p> <p>9. CONTRACTOR SHALL VERIFY EXISTING GRADE ELEVATIONS. IF ANY ADJUSTMENT IS REQUIRED DUE TO DIFFERENT EXISTING GRADES FOUND IN THE FIELD, THE CONTRACTOR SHALL NOTIFY AND OBTAIN THE APPROVAL OF THE ENGINEER PRIOR TO PERFORMING THE WORK.</p> <p>11. THESE GENERAL NOTES ARE NOT INTENDED TO REPLACE THE SPECIFICATIONS FOR THIS CONTRACT. SEE SPECIFICATIONS FOR OTHER REQUIREMENTS IN ADDITION TO THE GENERAL NOTES.</p> <p>12. THE CONTRACTOR SHALL CONFINE ALL ACTIVITIES FOR CONSTRUCTION PURPOSES WITHIN THE RIGHT OF WAY AS SHOWN IN THE CONTRACT DRAWINGS. ALL SURFACES DAMAGED OUTSIDE THE PROJECT LIMITS AND/OR PRIVATE PROPERTY SHALL BE REPLACED IN KIND AT CONTRACTOR'S EXPENSE.</p> <p>13. DUST CONTROL, USING CALCIUM CHLORIDE, SHALL BE PROVIDED FOR ALL SURFACES OF BACK FILLED AREAS, ALL EQUIPMENT ACCESS ROADWAYS AND/OR AS OTHERWISE DIRECTED BY THE OWNER/ENGINEER.</p> <p>14. LIMITS SHOWN FOR THE CONNECTIONS TO THE EXISTING WATER MAIN ARE BASED ON THE LIMITS FOR FUTURE PAVEMENT AND ROADWAY RECONSTRUCTION (BY OTHERS).</p>	<p>1. THE CONTRACTOR MUST NOTIFY DIG-SAFE PRIOR TO ANY EXCAVATION OR DEMOLITION WORK IN PUBLIC OR PRIVATE WAYS OR UTILITY COMPANY RIGHT-OF-WAY OR EASEMENT.</p> <p>2. PRIOR TO THE START OF ANY CONSTRUCTION, THE CONTRACTOR SHALL CONDUCT TEST PITS AS SHOWN, AT LOCATIONS WHERE CONFLICTS BETWEEN EXISTING PIPING OR STRUCTURES AND PROPOSED PIPING MAY OCCUR, AND WHERE DIRECTED BY THE ENGINEER. CONDUCT TEST PITS TO FIELD VERIFY THE EXACT SIZE, MATERIAL, LOCATION, UTILITY ELEVATION AND ALIGNMENT (VERTICAL AND HORIZONTAL) OF EXISTING UNDERGROUND PIPES AND STRUCTURES. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY CONFLICTS BETWEEN PROPOSED PIPING AND EXISTING PIPING PRIOR TO STARTING INSTALLATION OF THE PROPOSED PIPING. OTHER TEST PITS MAY BE REQUIRED DURING THE COURSE OF WORK.</p> <p>3. ALL DIMENSIONS AND JOB RELATED CONDITIONS ARE TO BE VERIFIED BY THE CONTRACTOR. ANY DISCREPANCIES FOUND ARE TO BE BROUGHT TO THE ATTENTION OF THE OWNER/ENGINEER AND PROPERLY RESOLVED BEFORE PROCEEDING WITH THAT PORTION OF THE WORK. CONTINUATION WITH OTHER ASPECTS OF THE WORK SHALL PROCEED WITHOUT DELAY OR CAUSE FOR CLAIM.</p>	<p>1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND LEGALLY DISPOSING (R&D) ALL MATERIALS INDICATED ON THE PLANS TO BE DISPOSED, INCLUDING BUT NOT LIMITED TO, PIPING, CONCRETE AND BITUMINOUS PAVEMENT, COBBLES, ROCK, TREES AND STUMPS, ETC. ALL DEMOLITION MATERIAL INCLUDING CONCRETE, PIPE, AND BRICK SHALL BE DISPOSED OF IN ACCORDANCE WITH MASSEDP REQUIREMENTS.</p> <p>2. NOTIFY APPROPRIATE UTILITY COMPANY TO TURN OFF AFFECTED SERVICES PRIOR TO REMOVAL AND DISPOSAL.</p> <p>3. UNDERGROUND PIPING TO BE ABANDONED AND REMAIN SHALL BE PROPERLY CAPPED UNLESS IT INTERFERES WITH NEW STRUCTURES, PIPES OR AS INDICATED, SPECIFIED AND DIRECTED BY ENGINEER.</p> <p>4. REMOVE AND DISPOSE OF ALL EXISTING BITUMINOUS CONCRETE AND CEMENT CONCRETE, AS REQUIRED.</p>
<p>EXISTING UTILITIES</p> <p>1. EXISTING UTILITIES ENCOUNTERED DURING CONSTRUCTION SHALL BE PROTECTED AND SUPPORTED AT ALL TIMES BY THE CONTRACTOR. THE CONTRACTOR SHALL CONDUCT HIS OPERATIONS TO INTERFERE AS LITTLE AS POSSIBLE WITH EXISTING UTILITIES. PAYMENT FOR PROVIDING SAID PROTECTION AND SUPPORTS SHALL BE CONSIDERED A PART OF AND PAID FOR UNDER THE APPROPRIATE PIPE OR STRUCTURE ITEMS UNLESS OTHERWISE INDICATED AND/OR DIRECTED BY THE OWNER. THE CONTRACTOR SHALL HAVE NO CLAIM FOR ADDITIONAL COMPENSATION BY REASON OF DELAY AND/OR INCONVENIENCE IN ADAPTING HIS OPERATIONS ACCORDINGLY.</p> <p>2. WHERE AN EXISTING UTILITY IS FOUND TO BE IN CONFLICT WITH THE PROPOSED WORK, THE LOCATION, ELEVATION AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED TO THE ENGINEER FOR THE RESOLUTION OF THE CONFLICT.</p> <p>3. THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS FOR THE ALTERATION, RELOCATION AND ADJUSTMENT OF WATER, GAS, ELECTRIC, TELEPHONE, CABLE TV, FIRE ALARM, AND ANY OTHER PRIVATE UTILITIES BY THE UTILITY COMPANIES AS REQUIRED.</p>	<p>UTILITY EXCAVATION AND BACKFILL</p> <p>1. EXCAVATE TRENCHES TO DEPTHS PERMITTING THE PIPE TO BE LAID AT THE ELEVATIONS, SLOPES, OR DEPTHS OF COVER INDICATED ON THE DRAWINGS, AND AT UNIFORM SLOPES BETWEEN INDICATED ELEVATIONS.</p> <p>2. IF ANY EXCAVATION IS EXPANDED BEYOND THE HORIZONTAL LIMITS INDICATED OR PRESCRIBED, THE RESULTING Voids SHALL BE BACKFILLED AT THE CONTRACTOR'S SOLE EXPENSE WITH THOROUGHLY COMPACTED APPROVED GRAVEL BORROW.</p> <p>3. AS THE EXCAVATION APPROACHES EXISTING UTILITIES, PIPES, CONDUITS, OR OTHER UNDERGROUND STRUCTURES, DIGGING BY MACHINERY SHALL BE DISCONTINUED AND THE EXCAVATION SHALL BE DONE BY MEANS OF HAND TOOLS. SUCH MANUAL EXCAVATION WHEN INCIDENTAL TO NORMAL EXCAVATION SHALL BE INCLUDED IN THE WORK TO BE DONE UNDER ITEMS INVOLVING NORMAL EXCAVATION. DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED AT THE CONTRACTOR'S SOLE EXPENSE.</p> <p>4. IF THE IN-SITU MATERIAL AT OR BELOW THE GRADE TO WHICH EXCAVATION WOULD NORMALLY BE CARRIED IN ACCORDANCE WITH THE DRAWINGS IS UNSUITABLE FOR FOUNDATION OF THE UTILITY (I.E. NOT MEETING THE MINIMUM MIDDLEBOROUGH WATER DEPARTMENT STANDARDS, THE CONTRACTOR SHALL REMOVE AND DISPOSE OF SUCH MATERIAL TO THE REQUIRED WIDTH AND DEPTH AND REPLACE IT WITH THOROUGHLY COMPACTED SAND IN ACCORDANCE WITH THE TRENCH SECTION DETAILS.</p> <p>5. THE FILL AND BACKFILL MATERIALS SHALL BE PLACED IN LAYERS NOT EXCEEDING SIX (6) INCHES THICKNESS MEASURED PRIOR TO COMPACTION, UNLESS OTHERWISE INDICATED OR SPECIFIED, EACH LAYER SHALL BE COMPACTED TO 95% MAXIMUM RELATIVE DENSITY (MRD) IN ACCORDANCE WITH ASTM D1557.</p> <p>6. BACKFILL WITH THE MATERIALS AND TO THE LIMITS INDICATED ON THE DRAWINGS.</p> <p>7. BACKFILL MATERIALS AROUND THE PIPE SHALL BE COMPACTED TO A MINIMUM OF 95% MRD.</p> <p>8. LENGTH OF TRENCH TO BE OPEN AT ANY ONE TIME WILL BE CONTROLLED BY SITE CONDITIONS, SUBJECT TO ANY LIMITS THAT MAY BE PRESCRIBED BY THE ENGINEER.</p> <p>9. WHENEVER ANY TRENCH OBSTRUCTS PEDESTRIAN AND VEHICULAR TRAFFIC IN OR TO ANY PUBLIC STREET, PRIVATE DRIVEWAY OR PROPERTY ENTRANCE, OR ON PRIVATE PROPERTY, CONTRACTOR SHALL TAKE SUCH MEANS AS MAY BE NECESSARY TO MAINTAIN PEDESTRIAN AND VEHICULAR TRAFFIC AND ACCESS.</p> <p>10. STREETS AND PREMISES ARE TO BE KEPT FREE FROM UNNECESSARY OBSTRUCTIONS, DEBRIS AND ALL OTHER MATERIALS.</p> <p>11. ANY EXCAVATIONS (WHETHER ON OR OFF-ROAD) WHICH MUST REMAIN UN-BACKFILLED AT THE END OF A GIVEN DAY SHALL BE COMPLETELY COVERED AND PROTECTED AT THE END OF EACH DAY BY MEANS OF STEEL PLATES OR SOME OTHER SATISFACTORY COVER OF ADEQUATE SIZE AND STRENGTH SUITABLY HELD IN PLACE TO KEEP ALL PEDESTRIANS, ANIMALS AND TRAFFIC OUT OF EXCAVATIONS. PERIMETER BARRIERS (E.G. CAUTION TAPE, FENCES) MAY ALSO BE USED, BUT SHALL NOT ALONE BE ADEQUATE PROTECTION OF OPEN EXCAVATIONS.</p>	<p>SOIL EROSION AND SEDIMENTATION CONTROL</p> <p>1. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO FURNISH AND MAINTAIN ALL SOIL EROSION AND SEDIMENT CONTROLS ON THE PROJECT SITE FOR THE ENTIRE DURATION OF CONSTRUCTION. THE CONTRACTOR SHALL FOLLOW THE DIRECTION OF THE ENGINEER WITH REGARD TO INSTALLATION, MAINTENANCE, AND REPAIR OF ALL SOIL EROSION AND SEDIMENTATION CONTROLS ON THE PROJECT SITE. TEMPORARY SOIL EROSION AND SEDIMENTATION CONTROLS (STRAW WATTLES, SILT FENCE, ETC.) SHALL BE MAINTAINED UNTIL ALL EXPOSED SOILS ARE SATISFACTORILY STABILIZED, AS DETERMINED BY THE OWNER AND ENGINEER.</p> <p>2. ALL EROSION AND SEDIMENTATION (E&S) CONTROL MEASURES WILL BE INSTALLED BY THE CONTRACTOR AND INSPECTED BY THE ENGINEER PRIOR TO THE START OF CONSTRUCTION. THE E&S CONTROLS SHALL BE CLEANED AND MAINTAINED THROUGHOUT THE DURATION OF CONSTRUCTION OPERATIONS AND UNTIL ALL DISTURBED AREAS ARE STABILIZED AFTER CONSTRUCTION IS COMPLETE. E&S CONTROLS SHALL BE INSPECTED AND CLEANED AFTER ALL STORM EVENTS AND UPON THE REQUEST OF THE OWNER OR ENGINEER. CONTRACTOR WILL MAINTAIN AN ADEQUATE SUPPLY OF EROSION AND SEDIMENTATION CONTROL DEVICES TO BE INSTALLED IN AREAS WHERE EXISTING E&S CONTROLS HAVE FAILED OR AS DETERMINED NECESSARY BY THE ENGINEER. NO WORK OR STORAGE OF CONSTRUCTION EQUIPMENT WILL BE PERMITTED OUTSIDE THE LIMIT OF DISTURBANCE.</p> <p>3. DUST CONTROL, USING CALCIUM CHLORIDE, SHALL BE PROVIDED FOR ALL SURFACES OF BACKFILLED AREAS, ALL EQUIPMENT ACCESS ROADWAYS AND/OR AS OTHERWISE DIRECTED BY THE OWNER/ENGINEER.</p>
<p>MAPPING</p> <p>1. COORDINATE VALUES REFER TO NORTH AMERICAN DATUM OF 1983 (NAD 83), MASSACHUSETTS STATE PLANE COORDINATE SYSTEM.</p> <p>2. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).</p> <p>3. BASE MAPPING BASED ON SURVEY BY LIGHTHOUSE LAND SURVEYING, LLC., 27 JEFFERSON STREET, TAUNTON MA IN FEBRUARY 2023. BASE MAPPING IS SUPPLEMENTED BY GEOGRAPHIC INFORMATION SYSTEMS (GIS) DATA, DATA DIGITIZED FROM AERIAL, AND DATA COLLECTED VIA GPS BY BETA GROUP, INC.</p> <p>4. THE LOCATION, SIZE, AND MATERIAL OF EXISTING PIPES, DUCTS, CONDUITS AND OTHER UNDERGROUND STRUCTURES AND/OR UTILITIES SHOWN ON THESE PLANS ARE FROM THE BEST SOURCES AVAILABLE AT PRESENT AND ARE NOT WARRANTED TO BE EXACT, NOR IS IT WARRANTED THAT ALL UNDERGROUND PIPES, UTILITIES OR STRUCTURES ARE SHOWN. EXACT LOCATION TO BE DETERMINED BY CONTRACTOR IN FIELD.</p> <p>5. EXISTING UTILITIES HAVE BEEN PLOTTED FROM THE BEST AVAILABLE DATA AND ARE APPROXIMATE ONLY. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL VERIFY LOCATIONS OF ALL EXISTING UTILITIES AND NOTIFY ALL UTILITY COMPANIES (PUBLIC AND PRIVATE).</p> <p>6. THE LOCATIONS OF DEPICTED PROPERTY LINES ARE APPROXIMATE, AND ARE NOT GUARANTEED TO BE COMPLETE OR ACCURATE. WHERE PROPOSED WORK MAY ENCRoACH ONTO PRIVATE PROPERTY, REFER TO REQUIREMENTS UNDER "WORK ON OR NEAR PRIVATE PROPERTY" NOTE SECTION (THIS SHEET).</p>	<p>PAVEMENT RESTORATION</p> <p>1. ALL EXISTING PAVEMENT DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED DAILY WITH TEMPORARY PAVEMENT AS DETAILED.</p>	<p>WORK ON OR NEAR PRIVATE PROPERTY</p> <p>1. CONTRACTOR SHALL RESTORE ANY AND ALL DISTURBED AREAS ON PRIVATE PROPERTY TO AS GOOD OR BETTER CONDITION THAN ORIGINAL, TO THE SATISFACTION OF THE PROPERTY OWNER. FOR ROUTINE RESTORATION (I.E. LAWNS, DRIVEWAYS, ETC.), SAID WORK SHALL BE PAID FOR UNDER THE CONTRACT ITEMS FOR SAME.</p> <p>2. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR REPAIRING ANY AND ALL DAMAGE TO EXISTING ITEMS / FEATURES ON PRIVATE PROPERTY, OR FOR REPLACING DAMAGED ITEMS IF SAID ITEMS CANNOT BE REPAIRED, AT NO ADDITIONAL EXPENSE TO THE OWNER.</p> <p>3. CONTRACTOR SHALL TAKE PRE AND POST-CONSTRUCTION VIDEO OF ALL PRIVATE PROPERTIES IMPACTED BY THE WORK (WHETHER PLANNED OR UNPLANNED) IN ACCORDANCE WITH SPECIFICATION SECTION 01381.</p> <p>4. SEE APPENDIX A OF THE SPECIFICATIONS FOR LETTER OF AUTHORIZATION FOR PRIVATE PROPERTY ACCESS.</p>
		<p>AREA OF ENVIRONMENTAL CONCERN (AOEC)</p> <p>1. IMPACTED SOIL ASSOCIATED WITH RELEASE TRACKING NUMBER 4-0351 AND 4-15054 MAY BE ENCOUNTERED WITHIN AREA OF ENVIRONMENTAL CONCERN - 1 (AOEC-1) DEPICTED ON SHEET C-1.</p> <p>2. IMPACTED SOIL ASSOCIATED WITH RELEASE TRACKING NUMBER 4-14418 MAY BE ENCOUNTERED WITHIN AREA OF ENVIRONMENTAL CONCERN - 2 (AOEC-2) DEPICTED ON SHEET C-2.</p> <p>3. ALL EXCESS SOIL FROM WITHIN AOEC-1 AND AOEC-2 IS TO BE MANAGED AND STOCKPILED SEPARATELY. SEE SPECIFICATION SECTION 02080 FOR REQUIREMENTS.</p>

12/13/2023 12:05 AM J:\02-10710 MIDDLEBORO - WAREHAM STREET WATER MAIN REPLACEMENT\AUTOCAD\PLAN SET\GENERAL-COVER_INDEX_LEGEND_NOTES.DWG (BETA STB RW STB)

	DRAWN BY: CJM	REGISTERED PROFESSIONAL	PREPARED BY: 	SUBCONSULTANT	SCALE NONE	TITLE Middleborough, MA Wareham Street Water Main Replacement	BETA JOB NO. 10710
	DESIGNED BY: RTG					LEGEND & GENERAL NOTES	ISSUE DATE DECEMBER 2023
	CHECKED BY: AJG						
NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS			



LEGEND
 ● HYDRANT (VALVES NOT SHOWN FOR CLARITY)
 —+— WATER MAIN WITH GATE VALVE

NOTE: LOCATION OF VALVES, HYDRANTS, AND WATER MAIN SHOWN THIS SHEET ARE FROM GIS INFORMATION AND ARE APPROXIMATE ONLY.

12/13/2023 12:07 AM J:\22-10710 MIDDLEBORO - WAREHAM STREET WATER MAIN REPLACEMENT\AUTOCAD\PLAN SET\GENERAL_COVER_INDEX_LEGEND_NOTES.DWG (BETA STB BW STB)

NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS

DRAWN BY:
CJM

DESIGNED BY:
RTG

CHECKED BY:
AJG



REGISTERED PROFESSIONAL PREPARED BY

SUBCONSULTANT

SCALE

1" = 200'

UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

TITLE

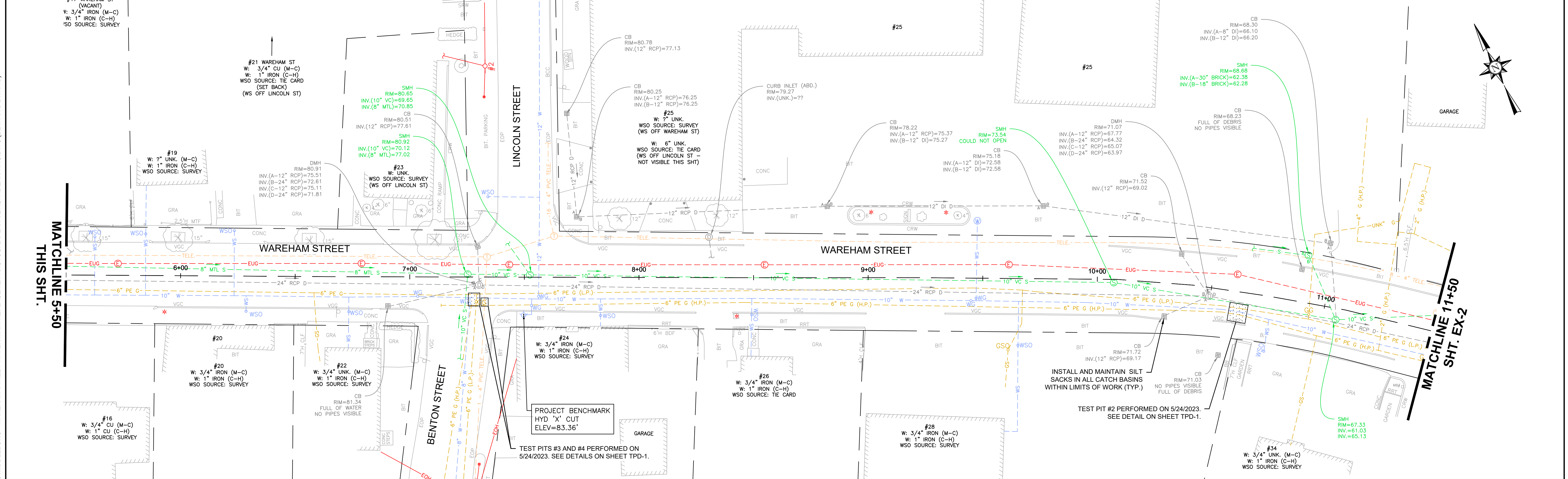
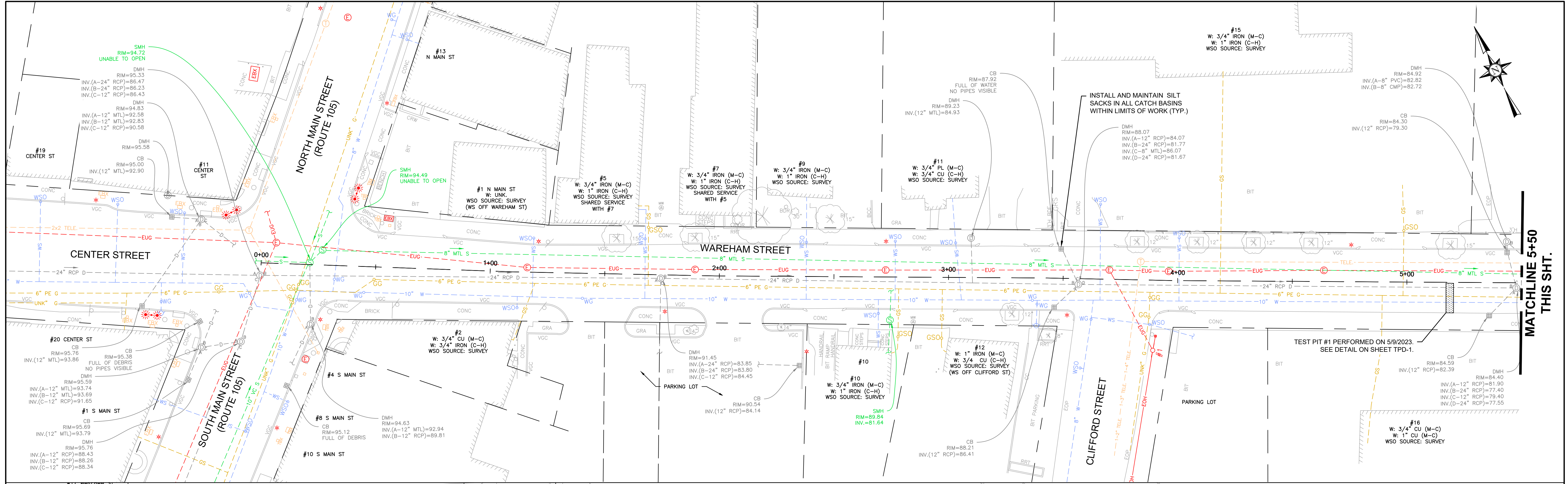
Middleborough, MA
Wareham Street Water Main Replacement

HYDRANT & VALVE LOCATION PLAN
 AND STAGING AREA PLAN

BETA JOB NO. 10710

ISSUE DATE DECEMBER 2023

SHEET NO. G-3

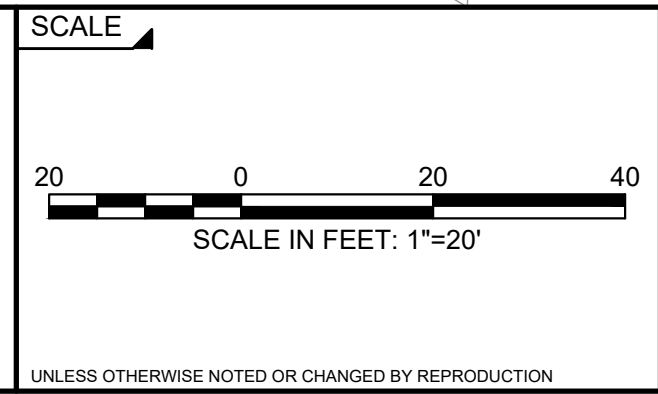


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RTG
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AJG

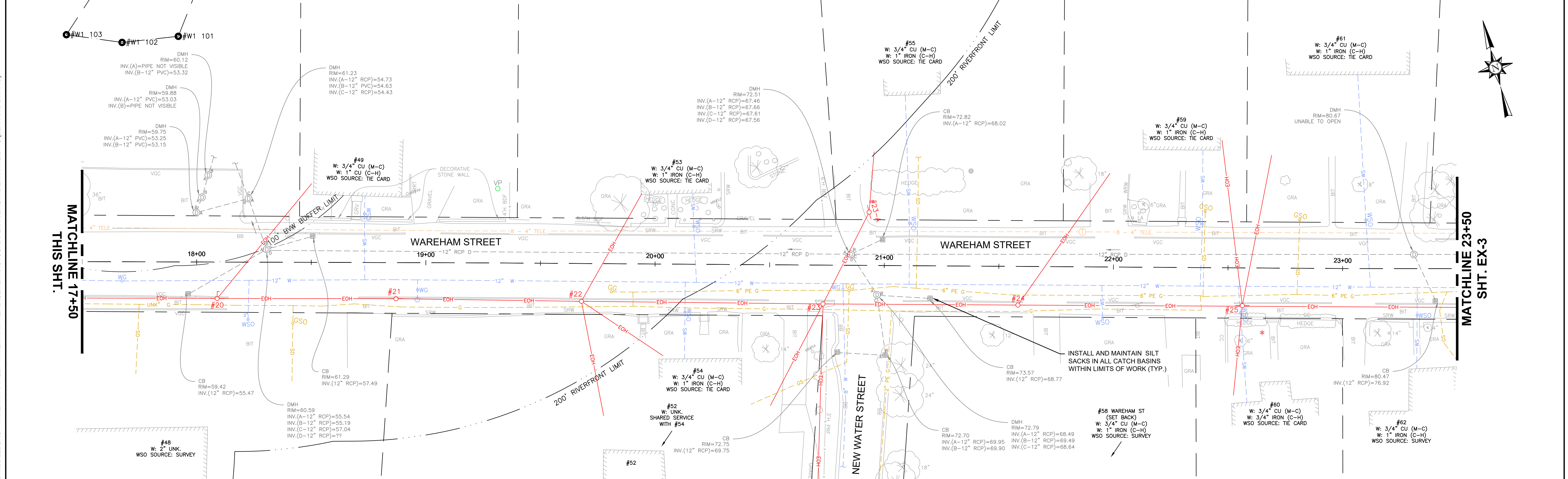
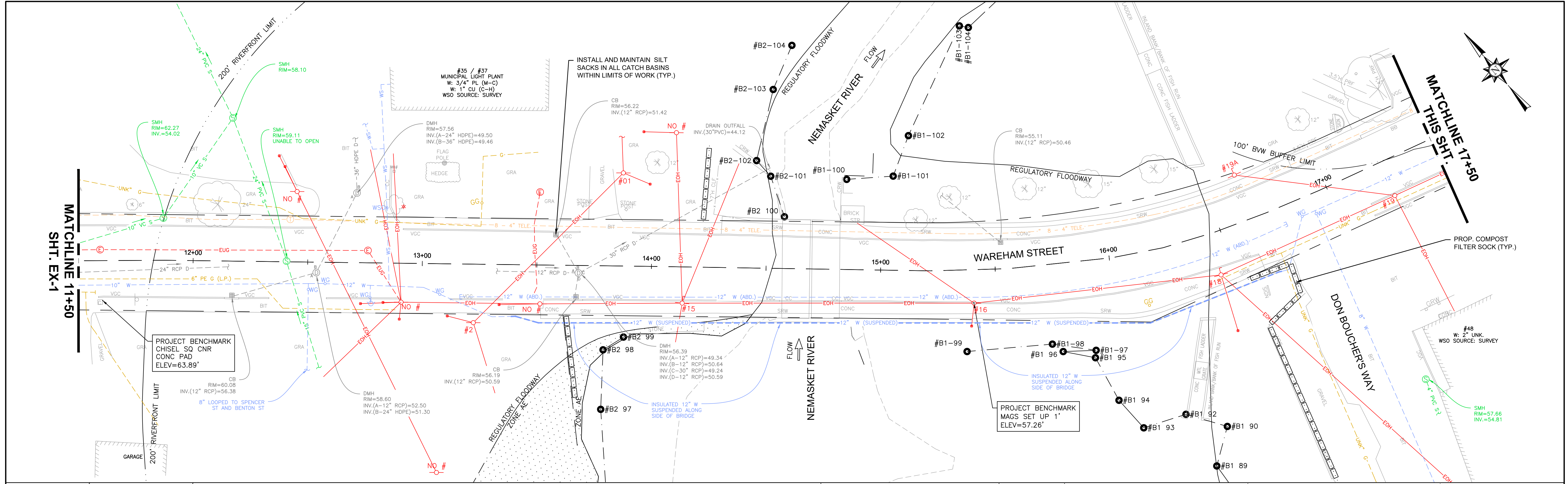


PREPARED BY:
SUBCONSULTANT



Middleborough, MA
Wareham Street Water Main Replacement
 EXISTING CONDITION PLAN
 WAREHAM ST - STA. 0+00 TO 11+50

BETA JOB NO. 10710
 ISSUE DATE DECEMBER 2023
 SHEET NO. EX-1

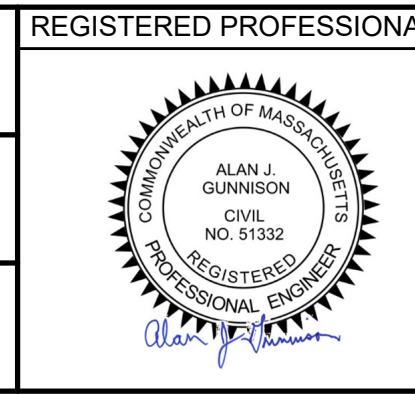


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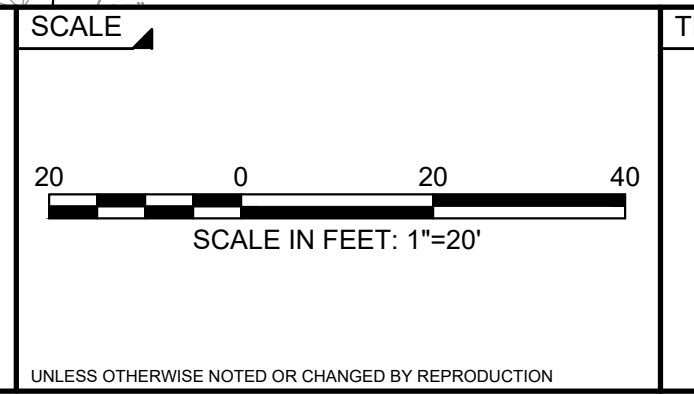
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RTG

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AJG



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SCALE

TITLE

Middleborough, MA
Wareham Street Water Main Replacement

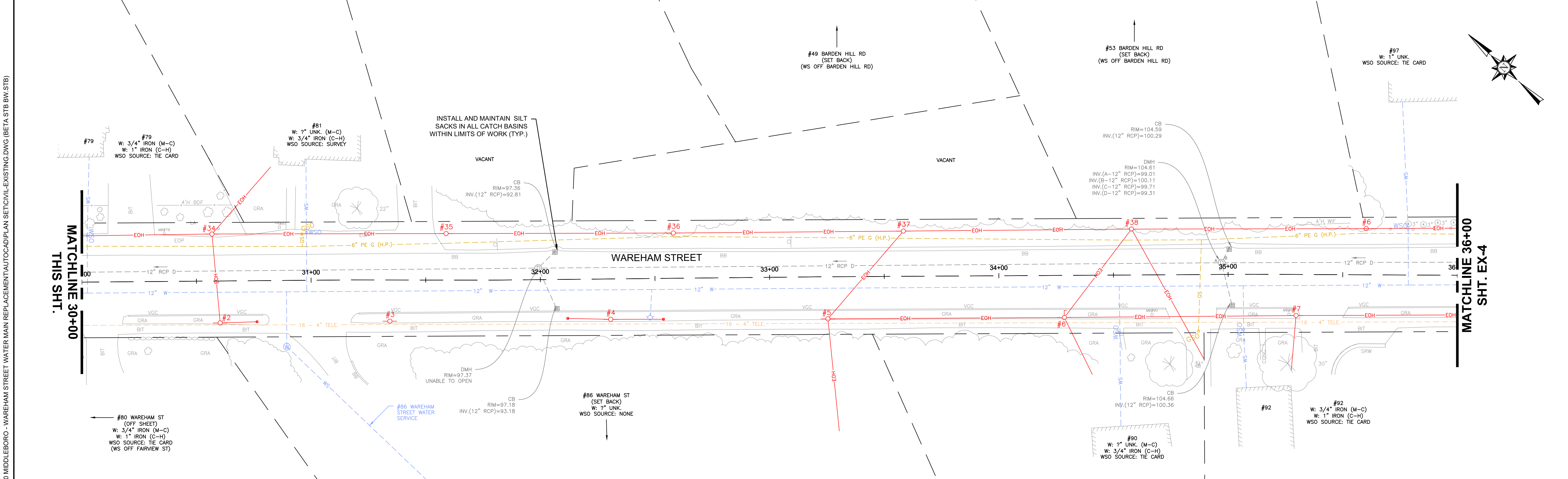
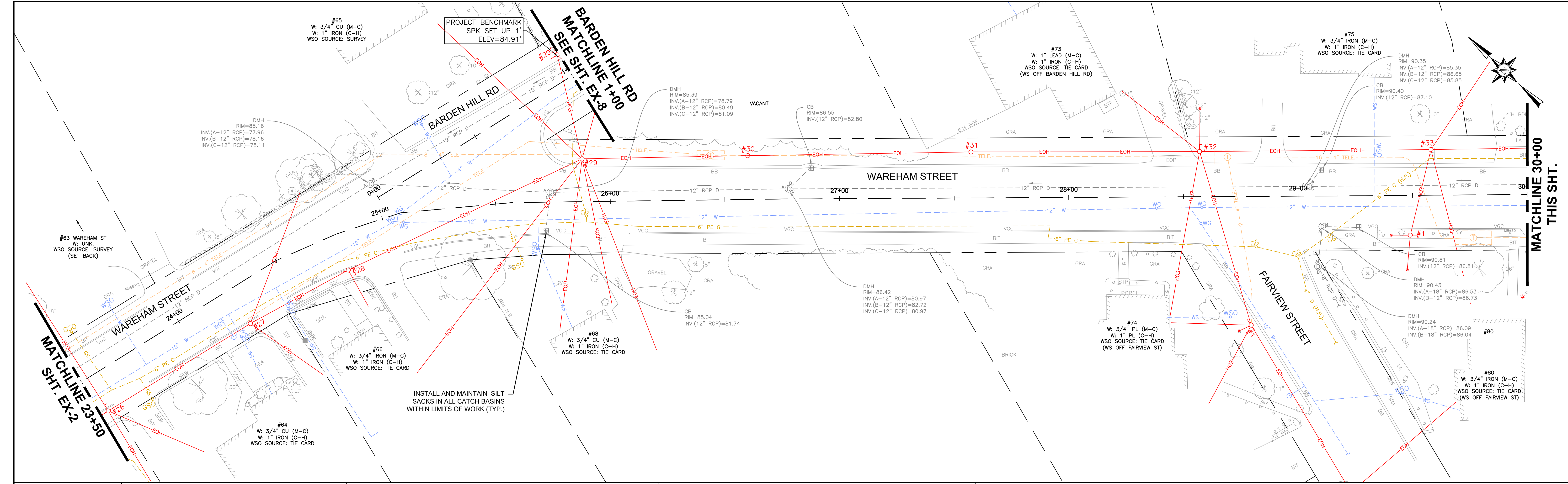
EXISTING CONDITION PLAN
WAREHAM ST - STA. 11+50 TO 23+50

BETA JOB NO. 10710

ISSUE DATE DECEMBER 2023

SHEET NO. EX-2

12/13/2023 12:09 AM J:\02-10710 MIDDLEBORO - WAREHAM STREET WATER MAIN REPLACEMENT\AUTOCAD\PLAN SET\CIVIL-EXISTING.DWG (BETA STB BW STB)



NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS

DRAWN BY:
CJM

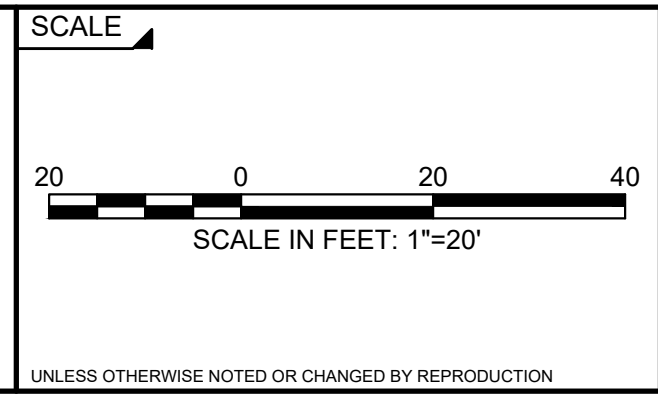
DESIGNED BY:
RTG

CHECKED BY:
AJG



REGISTERED PROFESSIONAL PREPARED BY

SUBCONSULTANT



TITLE

Middleborough, MA
Wareham Street Water Main Replacement

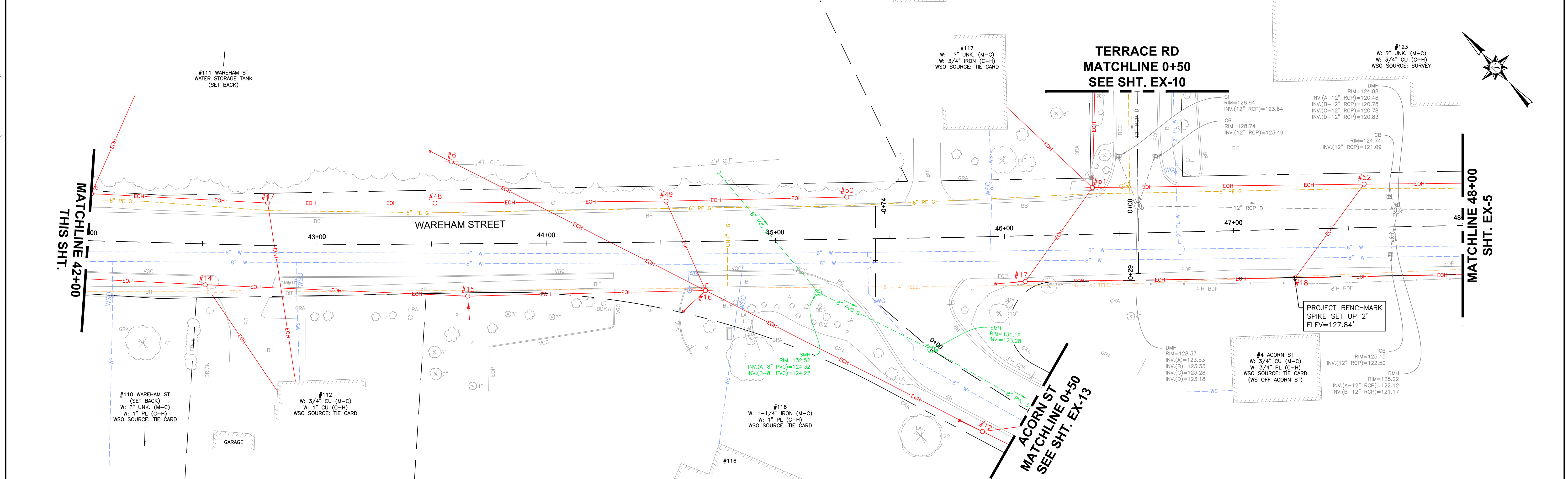
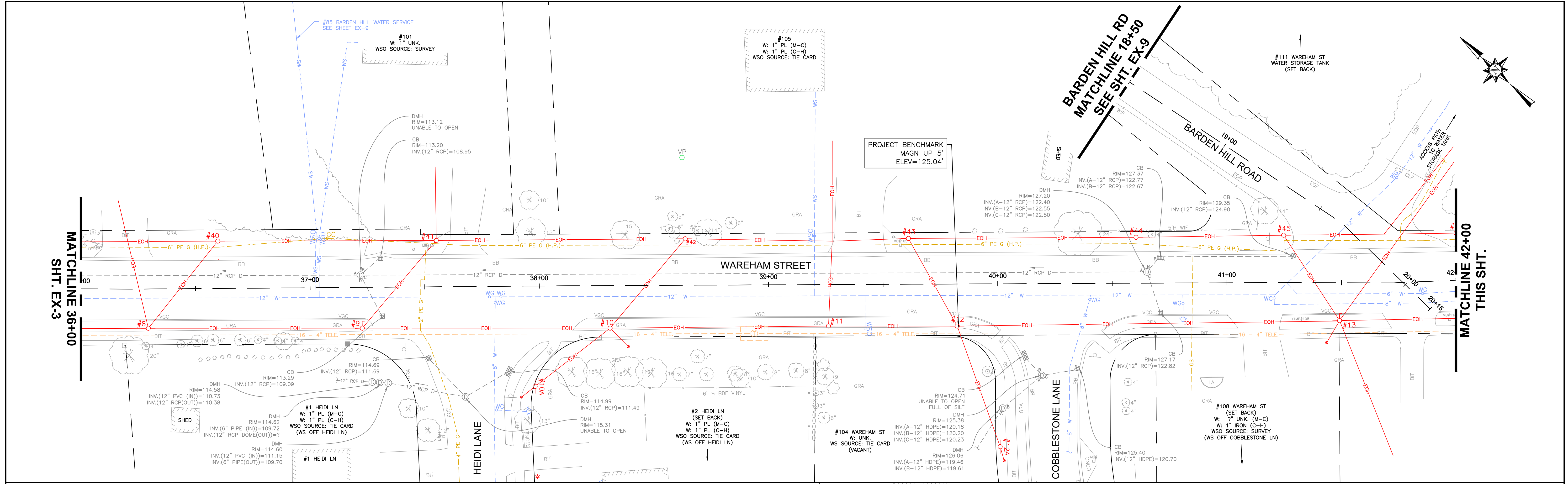
EXISTING CONDITION PLAN
WAREHAM ST - STA. 23+50 TO 36+00

BETA JOB NO. 10710

ISSUE DATE DECEMBER 2023

SHEET NO. EX-3

12/13/2023 12:10 AM J:\22-10710 MIDDLEBORO - WAREHAM STREET MAIN REPLACEMENT\AUTOCAD\PLAN SET\CIVIL-EXISTING.DWG (BETA STB BW STB)

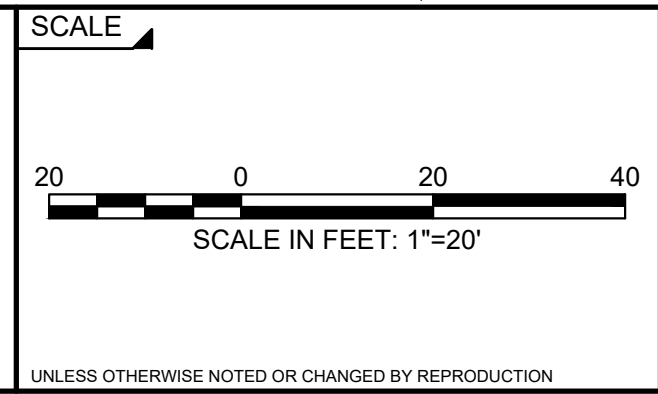


NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS

DRAWN BY:
CJM
 DESIGNED BY:
RTG
 CHECKED BY:
AJG



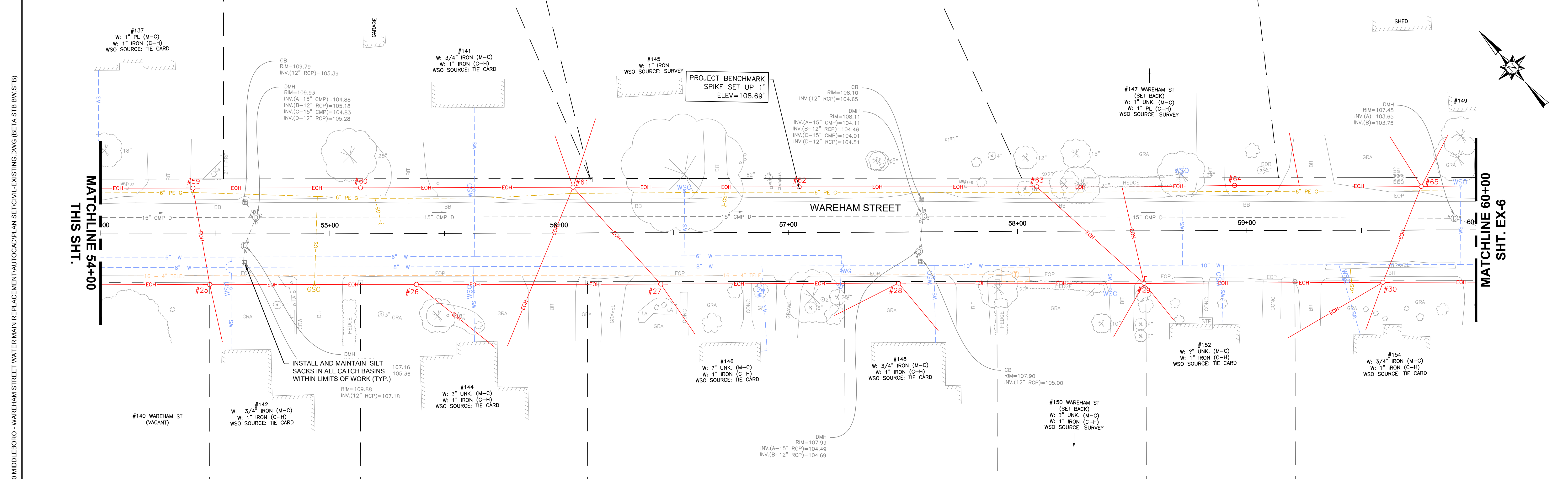
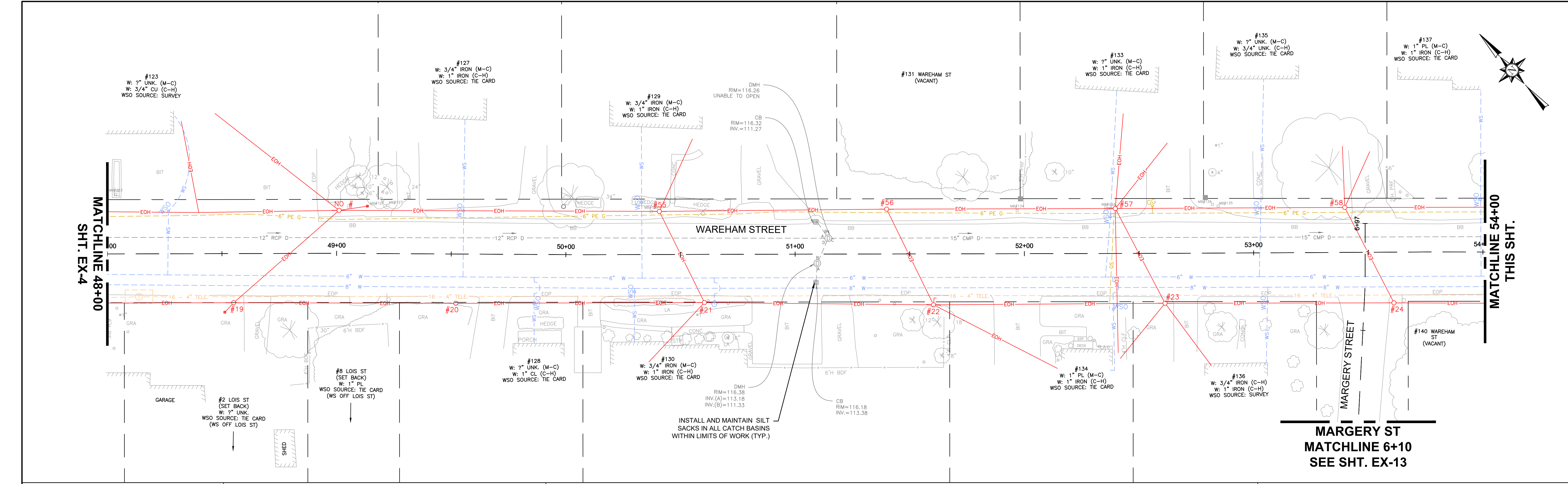
REGISTERED PROFESSIONAL PREPARED BY
 SUBCONSULTANT



Middleborough, MA
Wareham Street Water Main Replacement
 EXISTING CONDITION PLAN
 WAREHAM ST - STA. 36+00 TO 48+00

BETA JOB NO. 10710
 ISSUE DATE DECEMBER 2023
 SHEET NO. EX-4

12/13/2023 12:11 AM J:\02-10710 MIDDLEBORO - WAREHAM STREET WATER MAIN REPLACEMENT\AUTOCAD\PLAN SET\CIVIL-EXISTING.DWG (BETA STB BW STB)



NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS

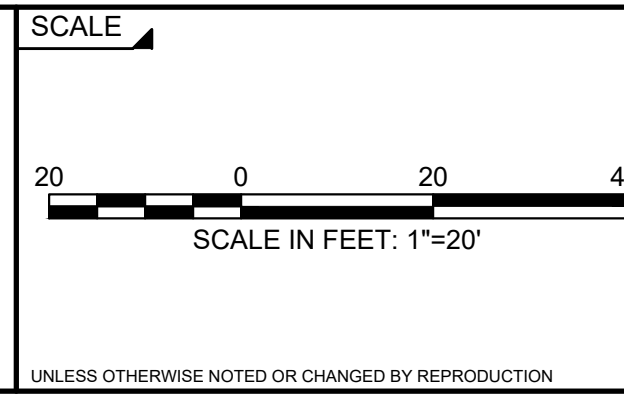
DRAWN BY:
CJM

DESIGNED BY:
RTG

CHECKED BY:
AJG



REGISTERED PROFESSIONAL
PREPARED BY
SUBCONSULTANT



TITLE
Middleborough, MA
Wareham Street Water Main Replacement

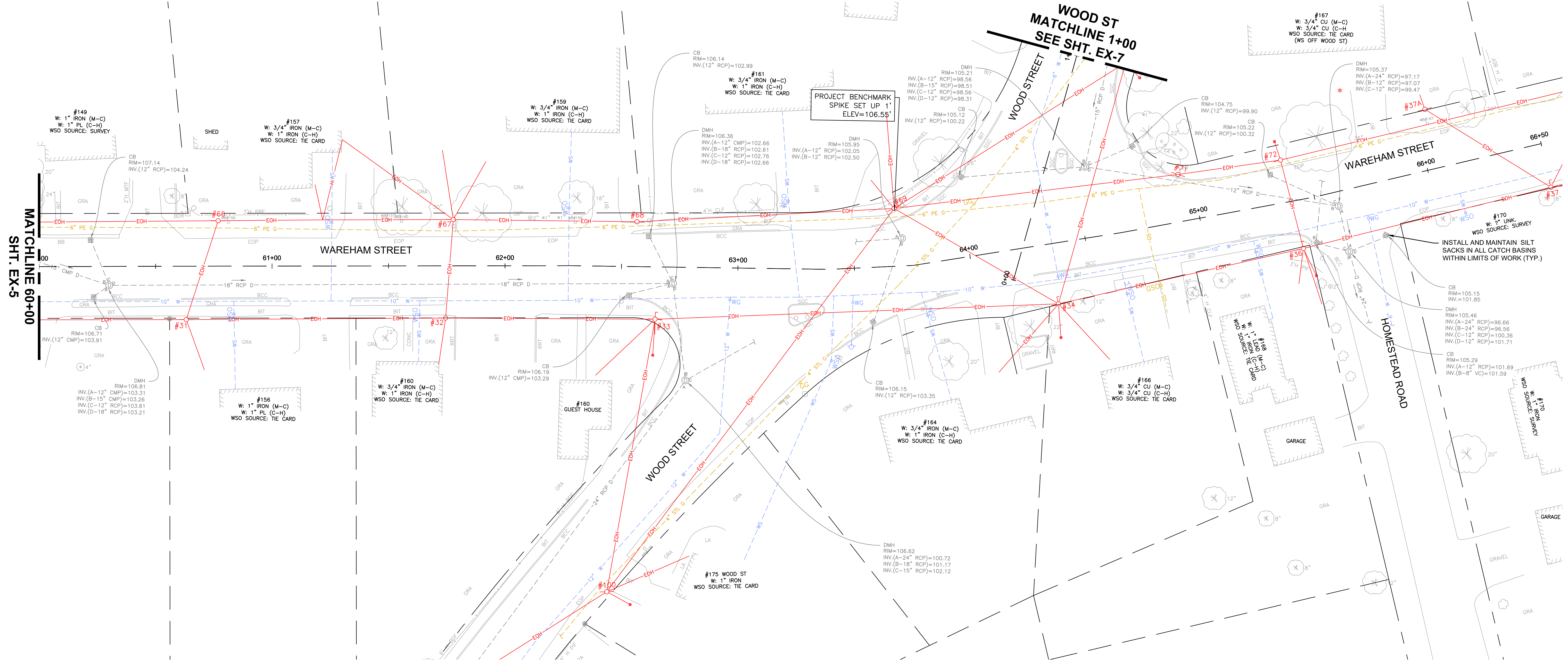
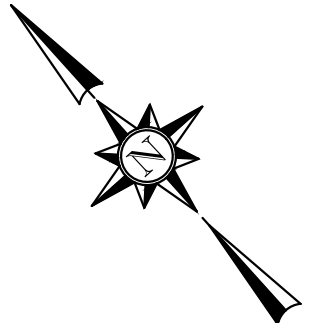
EXISTING CONDITION PLAN
WAREHAM ST - STA. 48+00 TO 60+00

BETA JOB NO. 10710

ISSUE DATE DECEMBER 2023

SHEET NO. EX-5

12/13/2023 12:12 AM J:\02-10710 MIDDLEBORO - WAREHAM STREET WATER MAIN REPLACEMENT\AUTOCAD\PLAN SET\CIVIL-EXISTING.DWG (BETA STB BW.STB)



MATCHLINE 60+00
SHT. EX-5

WOOD ST
MATCHLINE 1+00
SEE SHT. EX-7

PROJECT BENCHMARK
SPIKE SET UP 1'
ELEV=106.55'

INSTALL AND MAINTAIN SILT
SACKS IN ALL CATCH BASIN
WITHIN LIMITS OF WORK (TYP.)

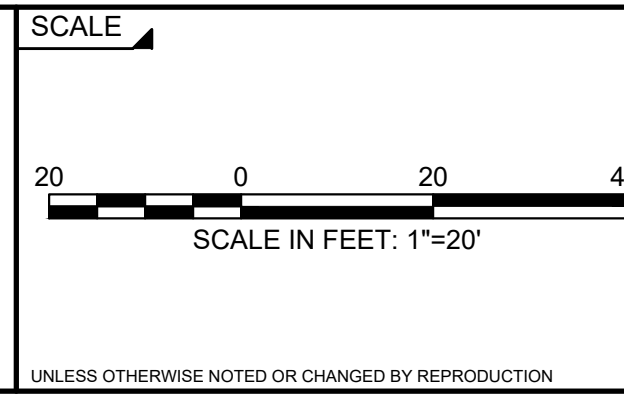
12/13/2023 12:12 AM J:\02:10710 MIDDLEBORO - WAREHAM STREET WATER MAIN REPLACEMENT\AUTOCAD\PLAN SET\CIVIL-EXISTING.DWG (BETA STB BW STB)

NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS

DRAWN BY:
CJM
DESIGNED BY:
RTG
CHECKED BY:
AJG

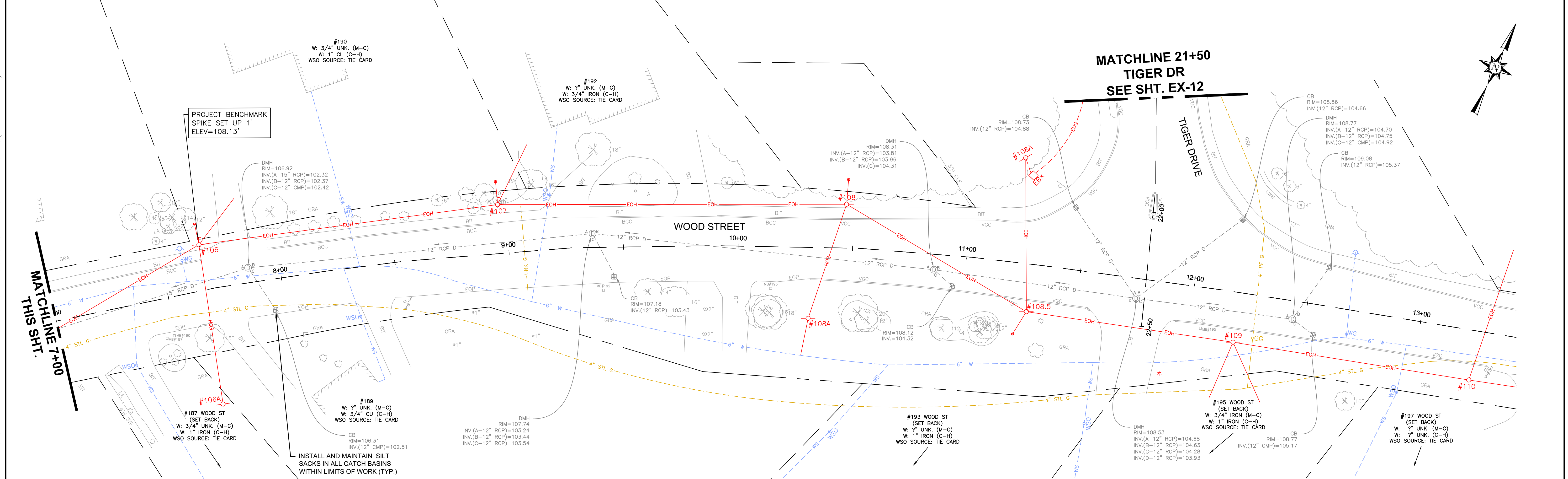
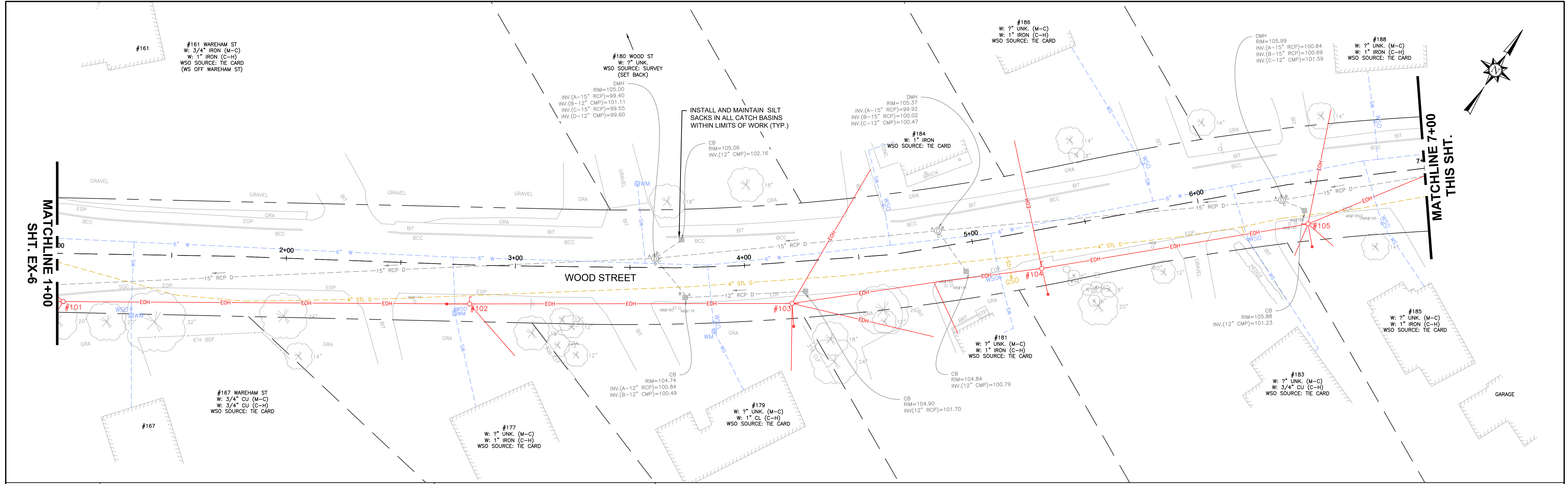


REGISTERED PROFESSIONAL PREPARED BY
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Middleborough, MA
Wareham Street Water Main Replacement
EXISTING CONDITION PLAN
WAREHAM ST - STA. 60+00 TO 66+50

BETA JOB NO. 10710
ISSUE DATE DECEMBER 2023
SHEET NO. EX-6



NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS

DRAWN BY:
CJM
 DESIGNED BY:
RTG
 CHECKED BY:
AJG



SUBCONSULTANT
 SCALE

 SCALE IN FEET: 1"=20'
UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

TITLE
Middleborough, MA
Wareham Street Water Main Replacement
 EXISTING CONDITION PLAN
 WOOD ST - STA. 1+00 TO 13+50

BETA JOB NO. 10710
 ISSUE DATE DECEMBER 2023
 SHEET NO. EX-7

12/13/2023 12:13 AM J:\02-10710 MIDDLEBORO - WAREHAM STREET WATER MAIN REPLACEMENT\AUTOCAD\PLAN SET\CIVIL-EXISTING.DWG (BETA STB BW STB)

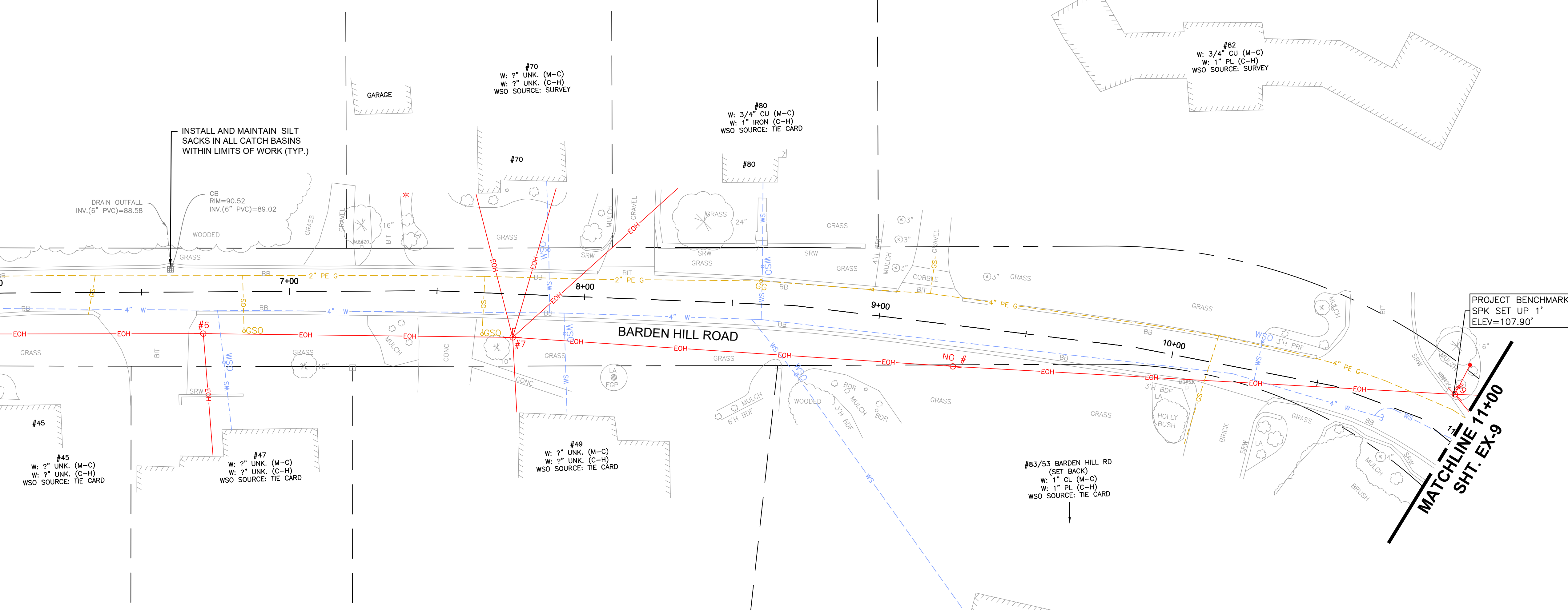
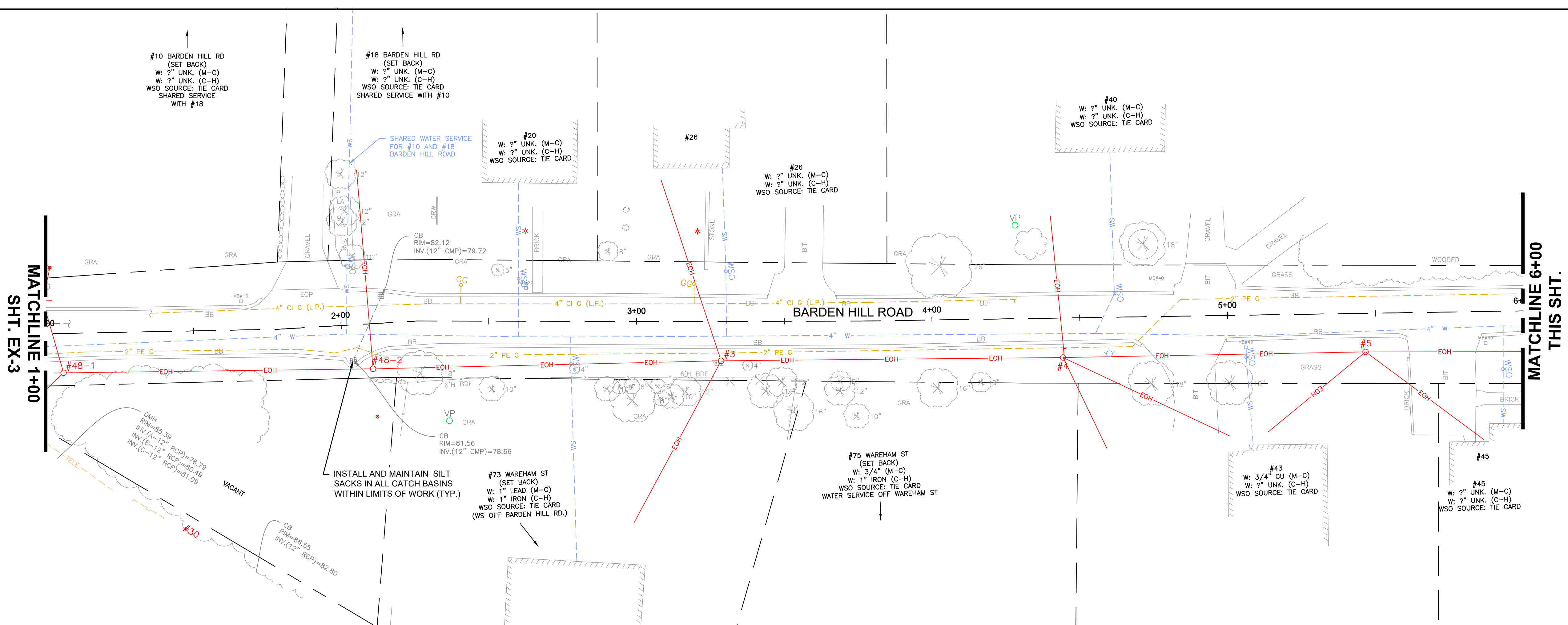
12/13/2023 12:14 AM J:\02-10710 MIDDLEBORO - WAREHAM STREET WATER MAIN REPLACEMENT\AUTOCAD\PLAN SET\CIVIL-EXISTING.DWG (BETA STB BW STB)

MATCHLINE 1+00
SHT. EX-3

MATCHLINE 6+00
THIS SHT.

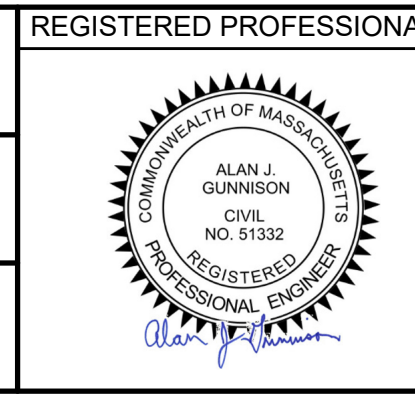
MATCHLINE 6+00
THIS SHT.

MATCHLINE 11+00
SHT. EX-9

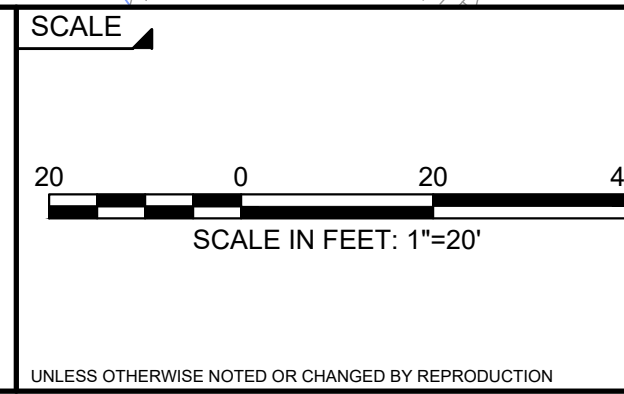


NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS

DRAWN BY:
CJM
DESIGNED BY:
RTG
CHECKED BY:
AJG

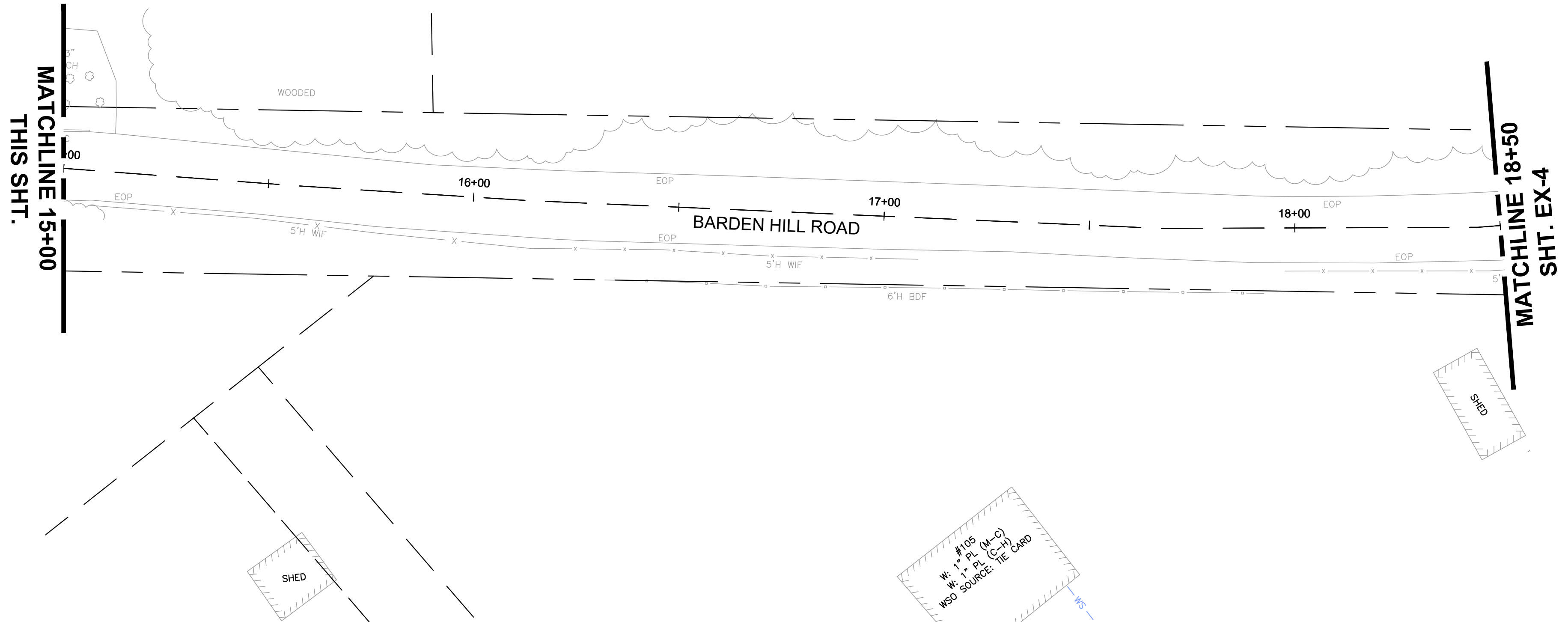
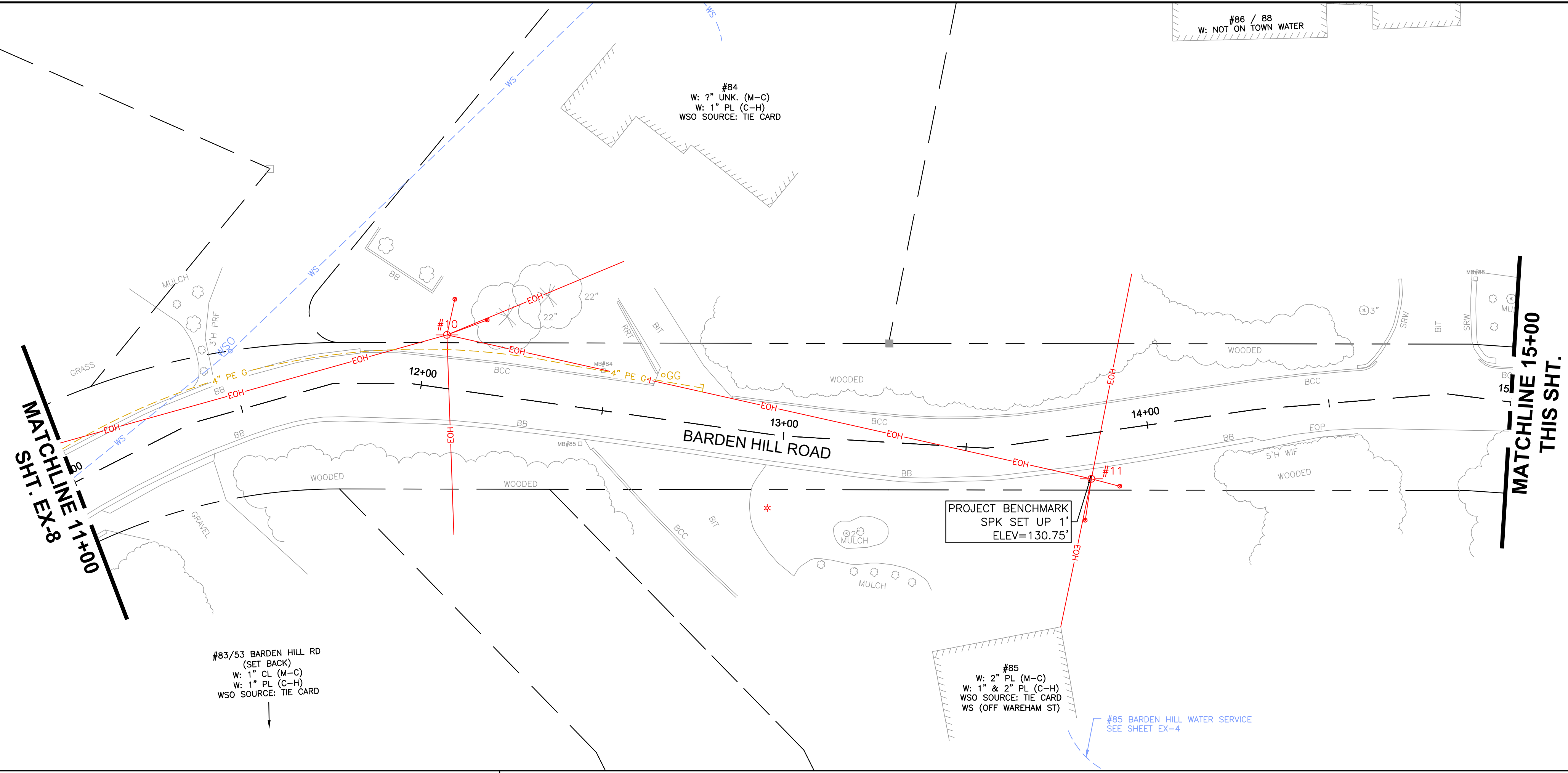


REGISTERED PROFESSIONAL PREPARED BY
SUBCONSULTANT



Middleborough, MA
Wareham Street Water Main Replacement
EXISTING CONDITION PLAN
BARDEN HILL RD - STA. 1+00 TO 11+00

BETA JOB NO. 10710
ISSUE DATE DECEMBER 2023
SHEET NO. EX-8



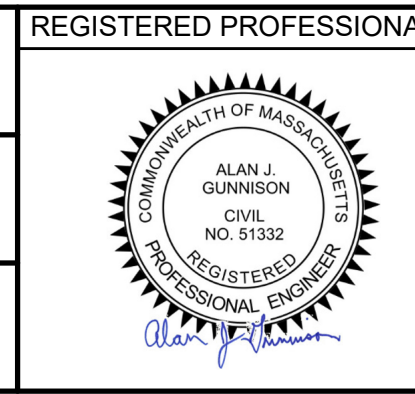
12/13/2023 12:15 AM J:\02-10710 MIDDLEBORO - WAREHAM STREET WATER MAIN REPLACEMENT\AUTOCAD\PLAN SET\CIVIL-EXISTING.DWG (BETA STB BW STB)

NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS

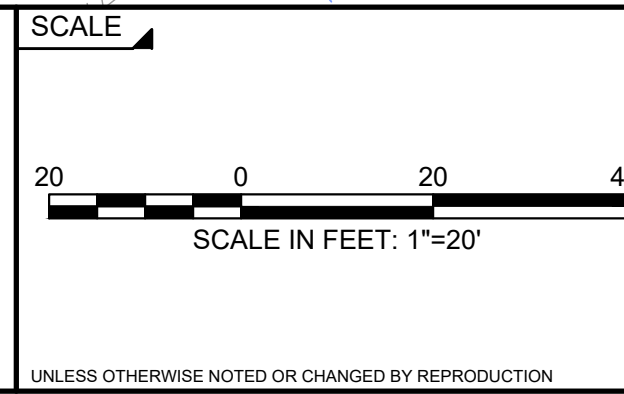
DRAWN BY:
CJM

DESIGNED BY:
RTG

CHECKED BY:
AJG



PREPARED BY:
SUBCONSULTANT



TITLE

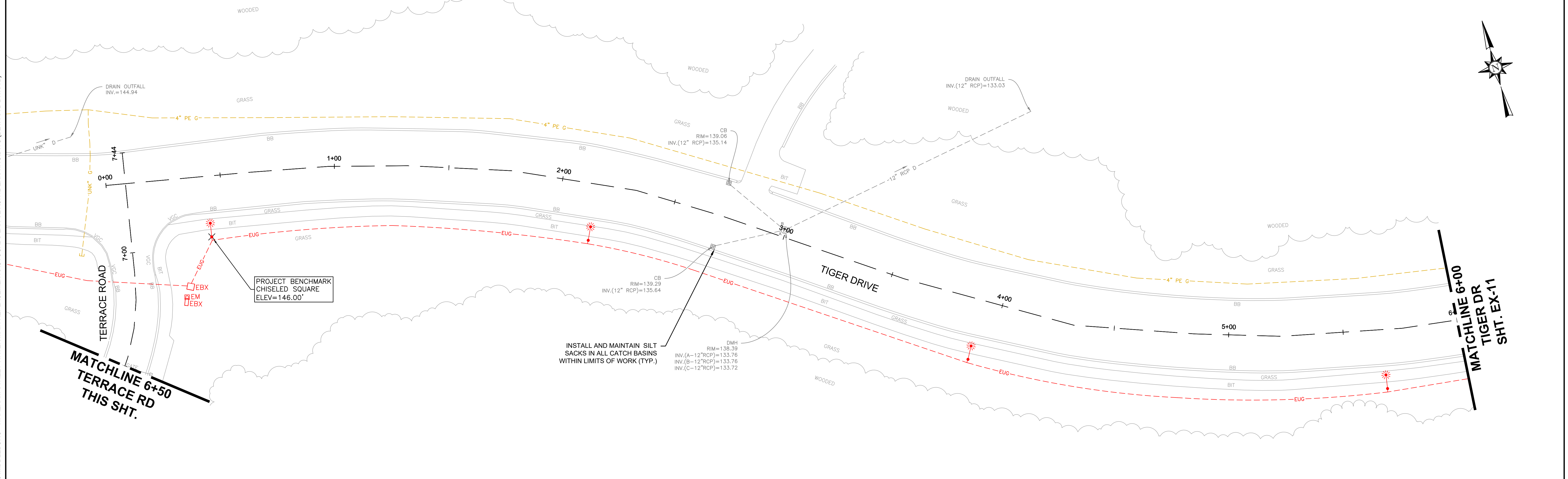
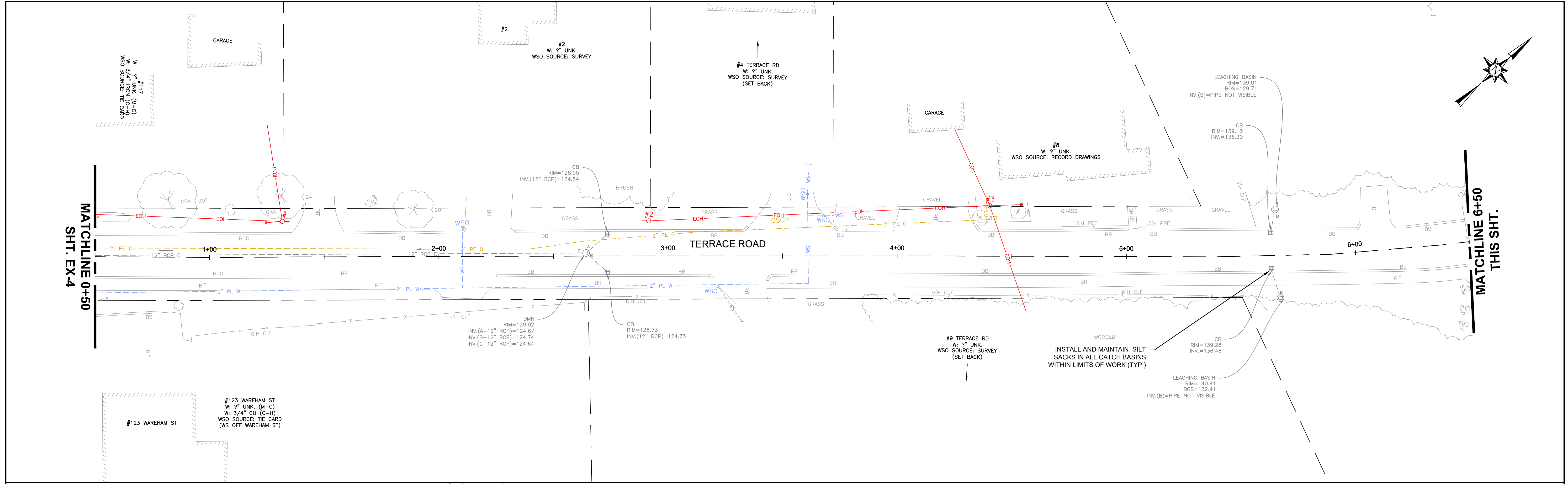
Middleborough, MA
Wareham Street Water Main Replacement

EXISTING CONDITION PLAN
BARDEN HILL RD - STA. 11+00 TO 18+50

BETA JOB NO. 10710

ISSUE DATE DECEMBER 2023

SHEET NO. EX-9



NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS

DRAWN BY:
CJM

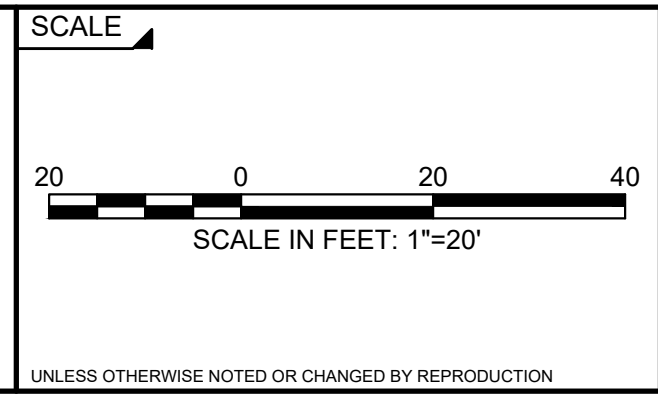
DESIGNED BY:
RTG

CHECKED BY:
AJG



PREPARED BY

SUBCONSULTANT



TITLE

Middleborough, MA
Wareham Street Water Main Replacement
 EXISTING CONDITION PLAN
 TERRACE RD - STA. 0+50 TO 7+50
 TIGER DR - STA 0+00 TO 6+00

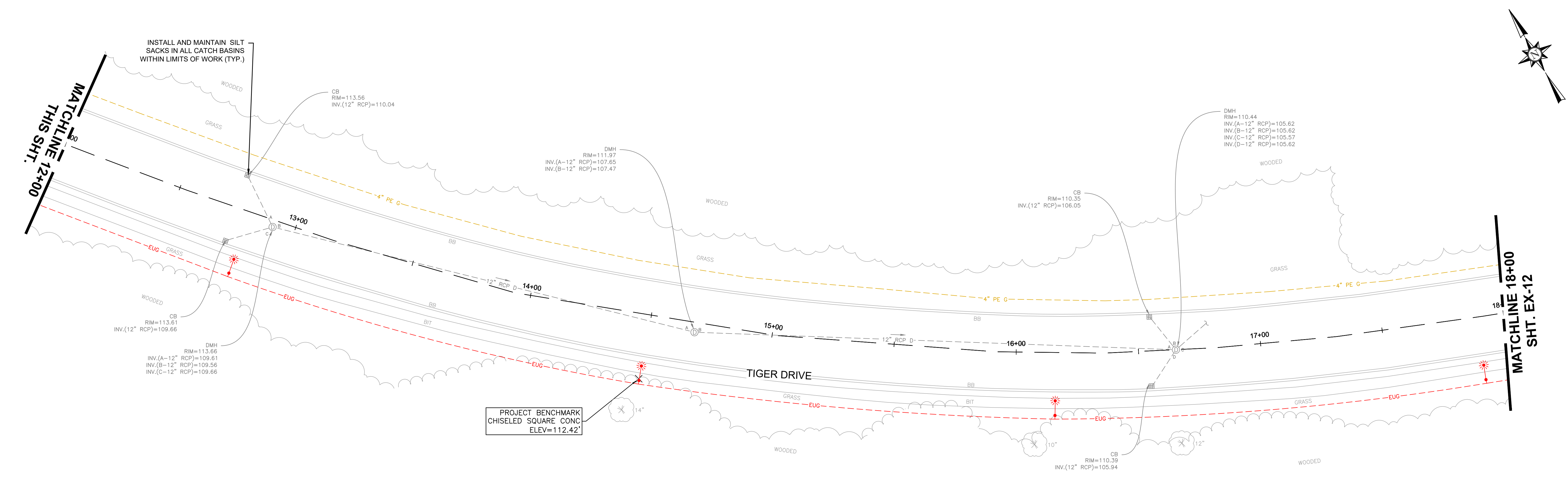
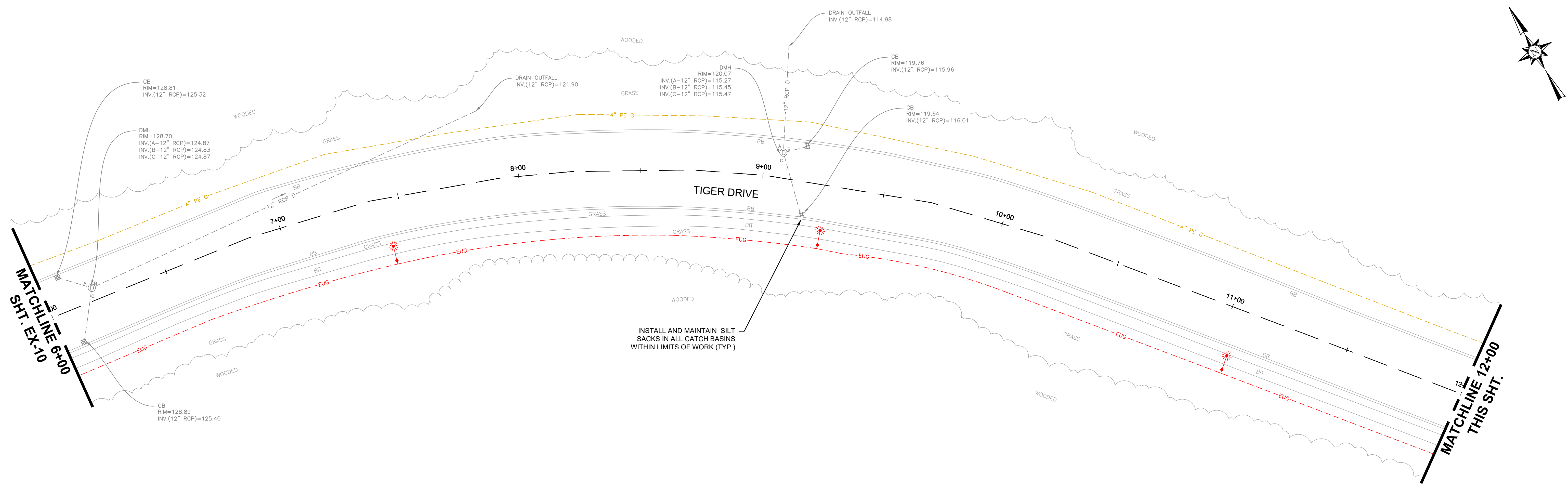
BETA JOB NO. 10710

ISSUE DATE DECEMBER 2023

SHEET NO. EX-10

12/13/2023 12:15 AM J:\02-10710 MIDDLEBORO - WAREHAM STREET WATER MAIN REPLACEMENT\AUTOCAD\PLAN SET\CIVIL-EXISTING.DWG (BETA STB BW STB)

12/13/2023 12:16 AM J:\02-10710 MIDDLEBORO - WAREHAM STREET WATER MAIN REPLACEMENT\AUTOCAD\PLAN SET\CIVIL-EXISTING.DWG (BETA STB BW STB)

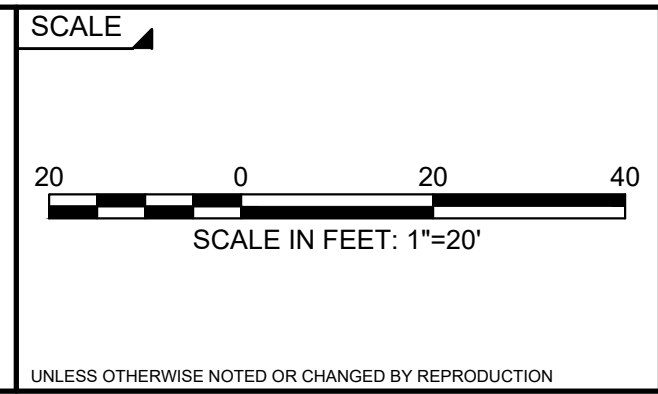


NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS

DRAWN BY:
CJM
DESIGNED BY:
RTG
CHECKED BY:
AJG

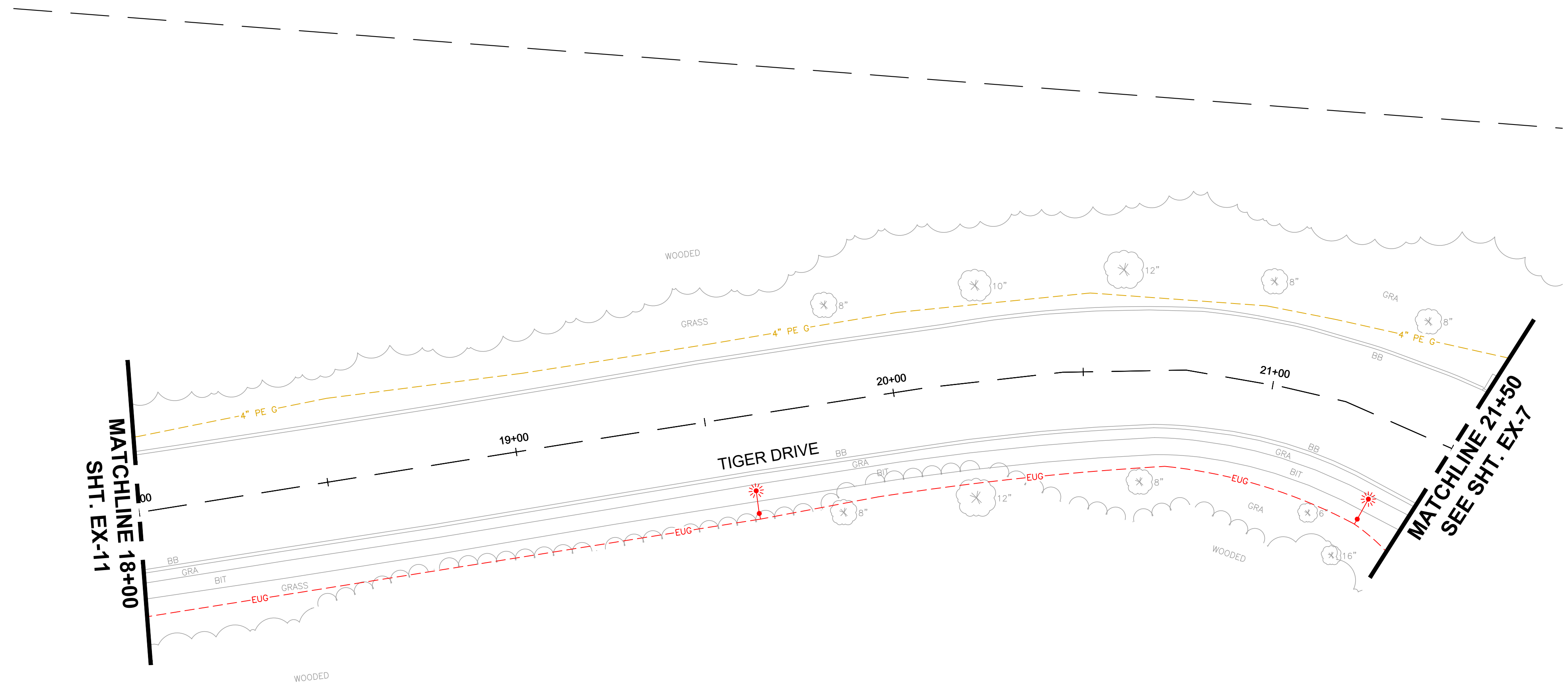
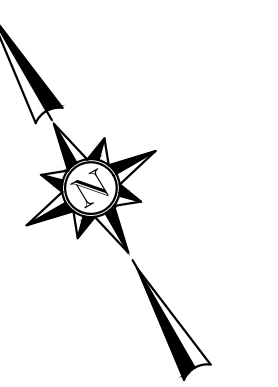


PREPARED BY:
SUBCONSULTANT:



TITLE
Middleborough, MA
Wareham Street Water Main Replacement
EXISTING CONDITION PLAN
TIGER DR - STA. 6+00 TO 18+00

BETA JOB NO. 10710
ISSUE DATE DECEMBER 2023
SHEET NO. EX-11



12/13/2023 12:17 AM J:\02\10710 MIDDLEBORO - WAREHAM STREET WATER MAIN REPLACEMENT\AUTOCAD\PLAN SET\CIVIL-EXISTING.DWG (BETA STB BW STB)

NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS

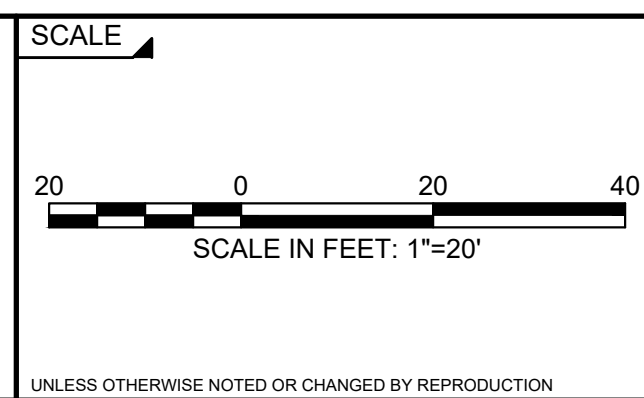
DRAWN BY:
CJM

DESIGNED BY:
RTG

CHECKED BY:
AJG



SUBCONSULTANT



TITLE

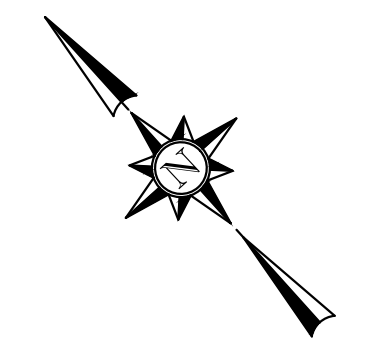
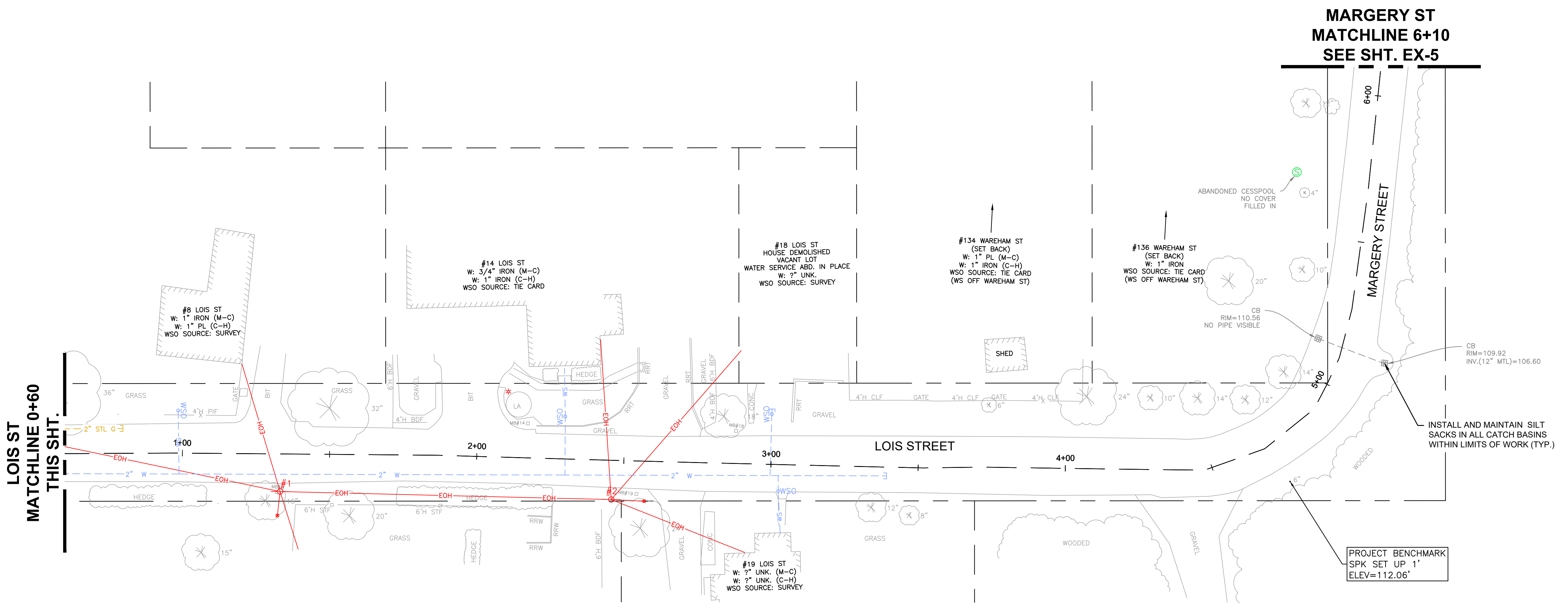
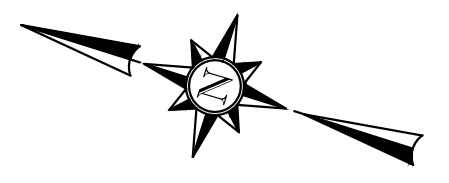
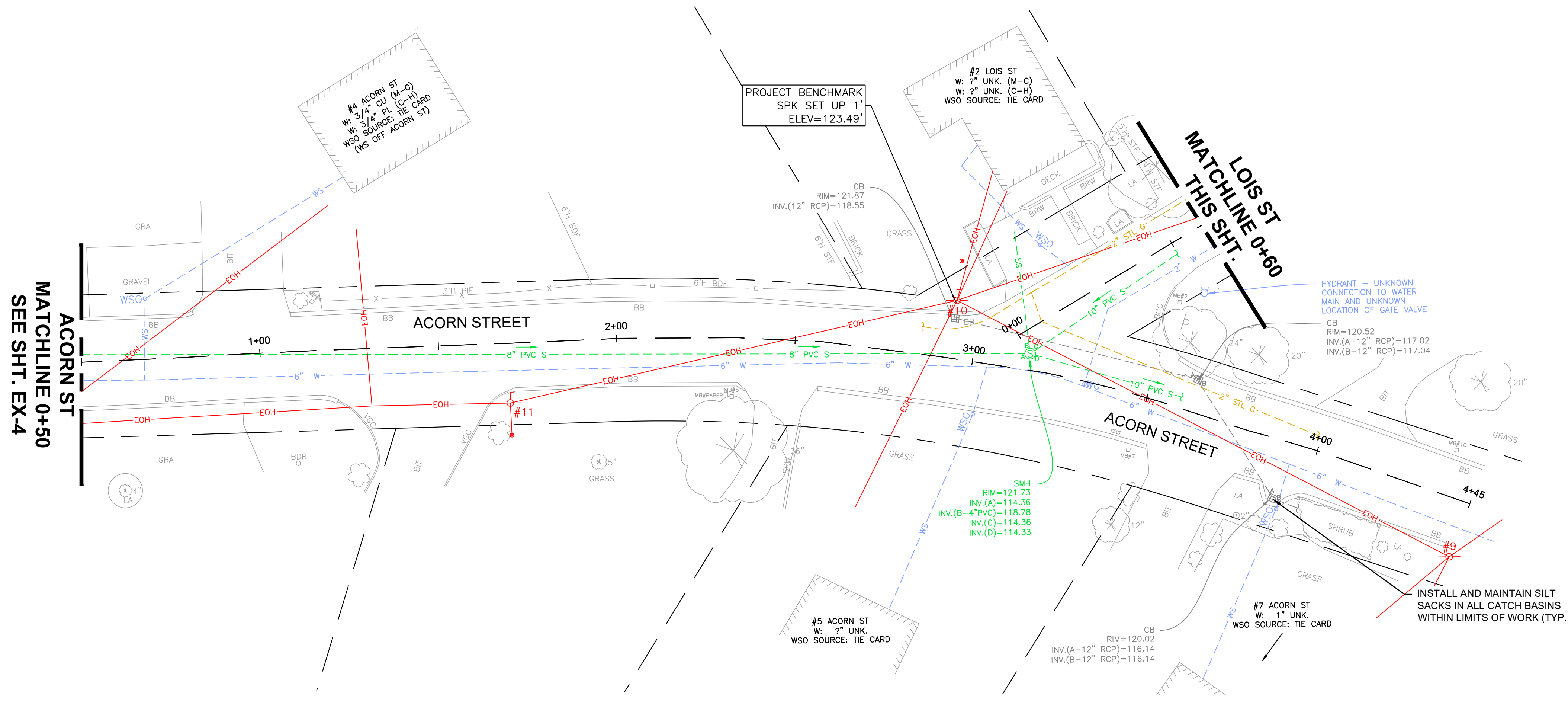
Middleborough, MA
Wareham Street Water Main Replacement

EXISTING CONDITION PLAN
TIGER DR - STA. 18+00 TO 21+50

BETA JOB NO. 10710

ISSUE DATE DECEMBER 2023

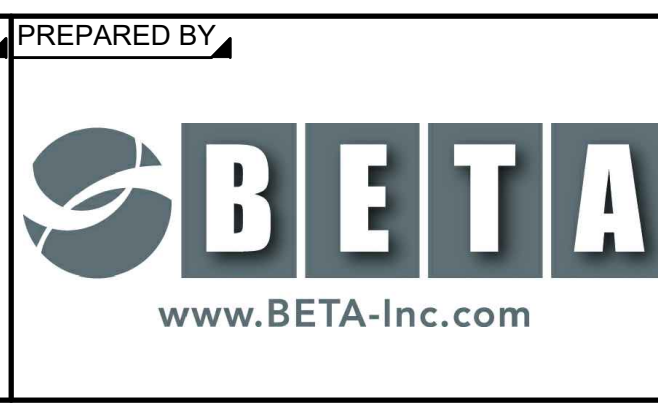
SHEET NO. EX-12



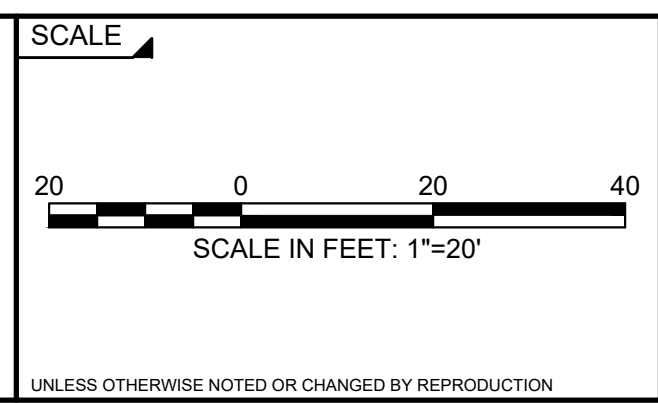
12/13/2023 12:17 AM J:\02-10710 MIDDLEBORO - WAREHAM STREET WATER MAIN REPLACEMENT\AUTOCAD\PLAN SET\CIVIL-EXISTING.DWG (BETA STB BW STB)

NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS

DRAWN BY:
CJM
DESIGNED BY:
RTG
CHECKED BY:
AJG

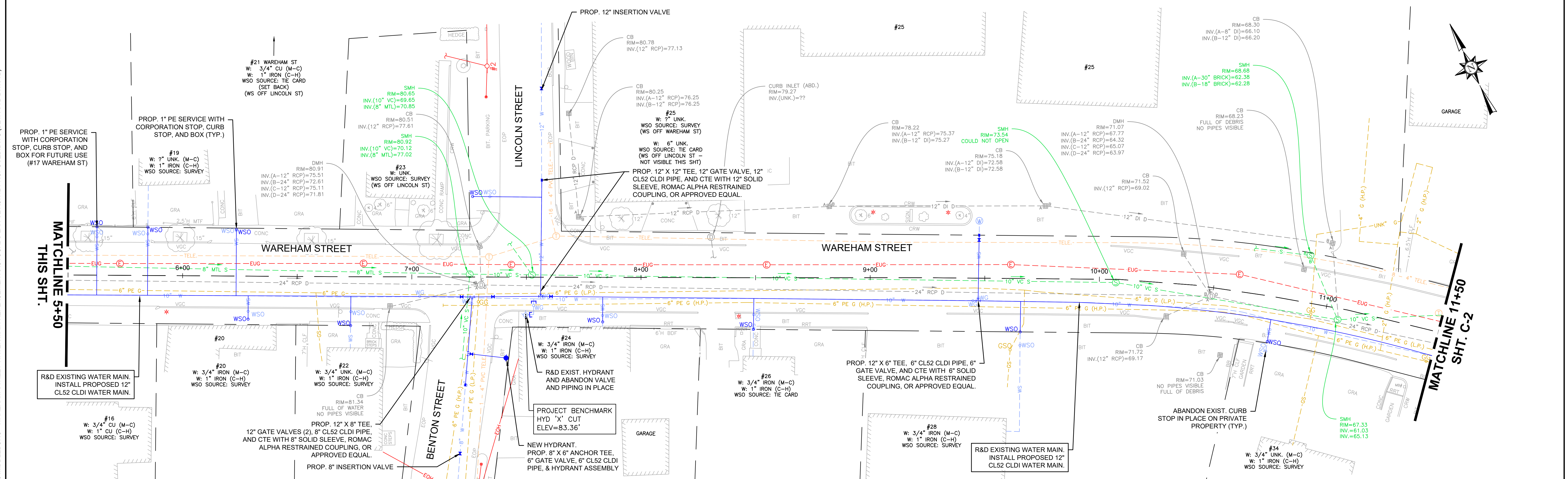
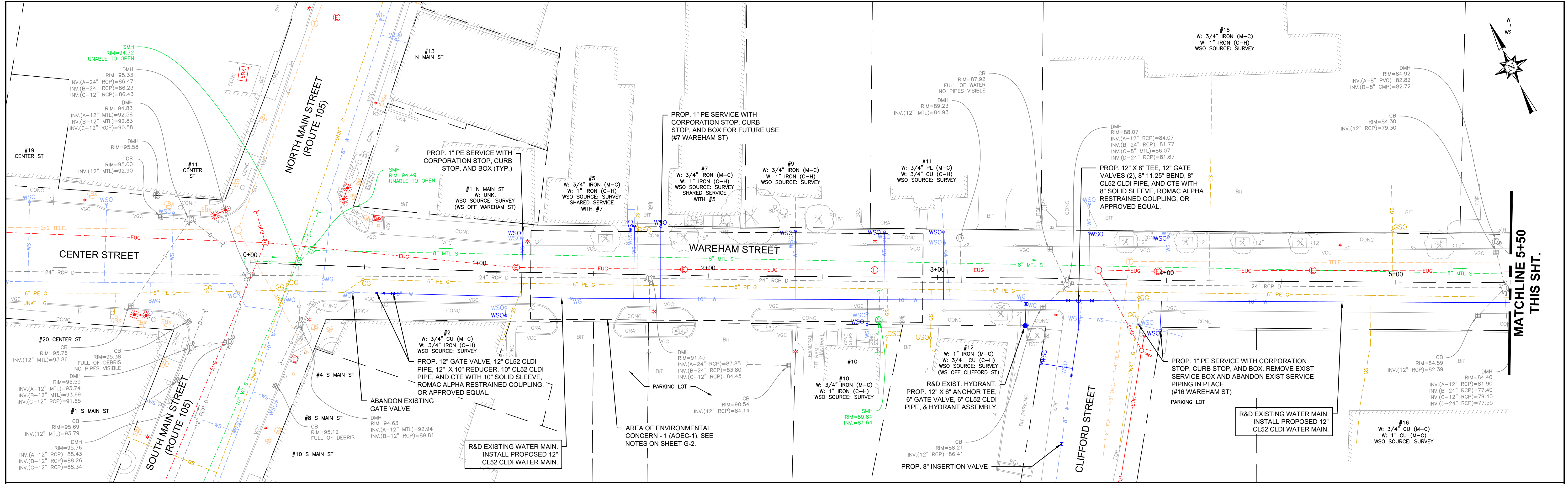


REGISTERED PROFESSIONAL PREPARED BY
SUBCONSULTANT



Middleborough, MA
Wareham Street Water Main Replacement
EXISTING CONDITION PLAN
ACORN ST - STA. 0+50 TO 4+45
LOIS ST & MARGERY ST - STA. 0+00 TO 6+10

BETA JOB NO. 10710
ISSUE DATE DECEMBER 2023
SHEET NO. EX-13



NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS

DRAWN BY:
CJM

DESIGNED BY:
RTG

CHECKED BY:
AJG

REGISTERED PROFESSIONAL PREPARED BY

SUBCONSULTANT

SCALE

SCALE IN FEET: 1"=20'

TITLE

Middleborough, MA
Wareham Street Water Main Replacement

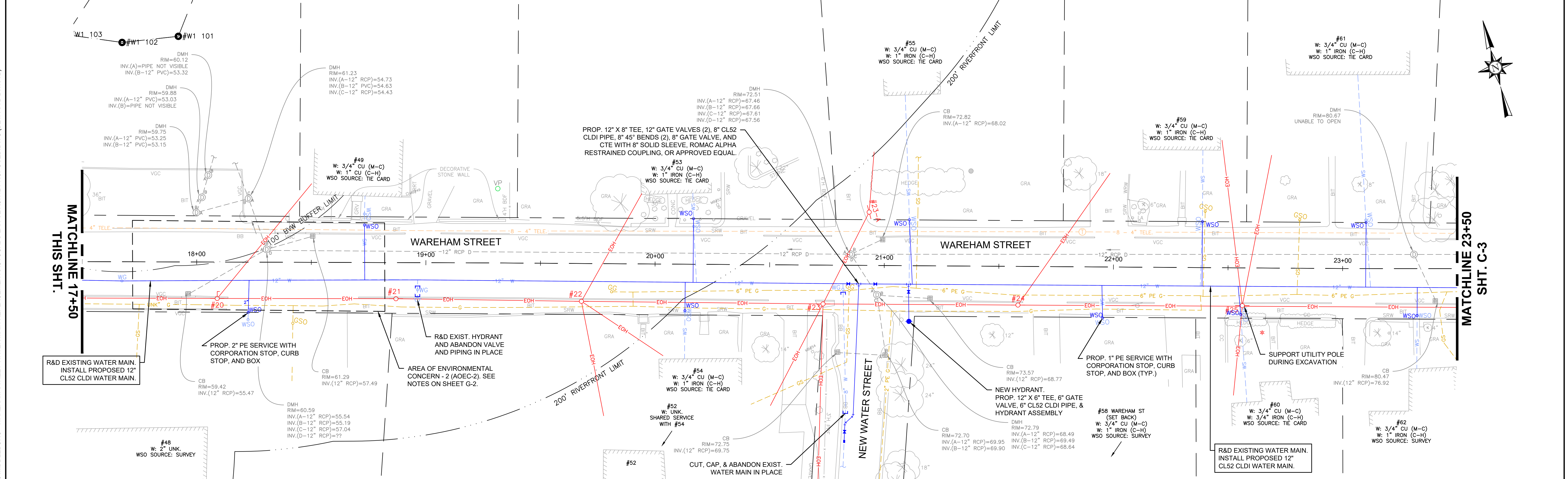
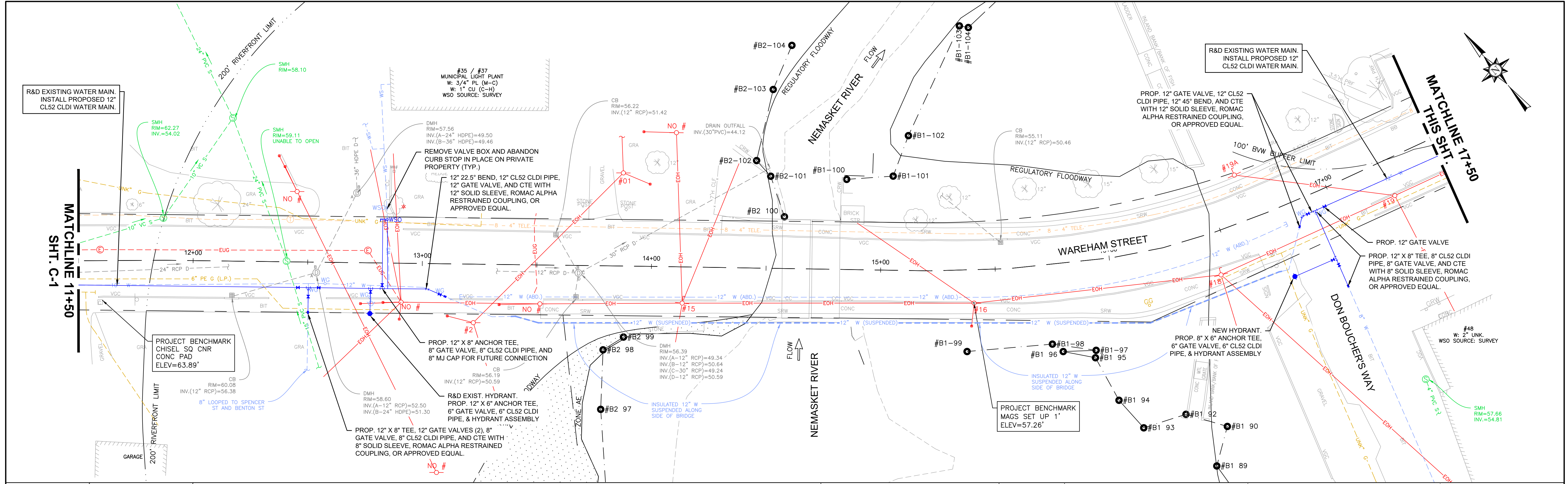
PROPOSED PLAN
WAREHAM ST - STA. 0+00 TO 11+50

BETA JOB NO. 10710

ISSUE DATE DECEMBER 2023

SHEET NO. C-1

12/13/2023 12:19 AM J:\02-10710 MIDDLEBORO - WAREHAM STREET WATER MAIN REPLACEMENT\AUTOCAD\PLAN SET\CIVIL-PROPOSED.DWG (BETA STB BW STB)

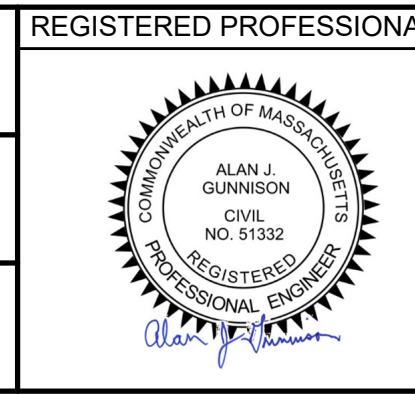


NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS

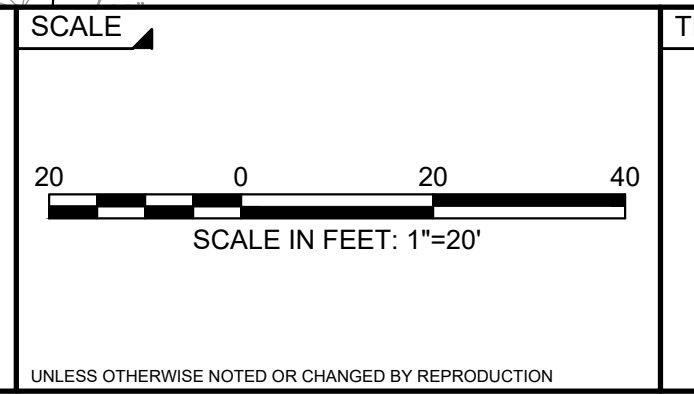
DRAWN BY:
CJM

DESIGNED BY:
RTG

CHECKED BY:
AJG



REGISTERED PROFESSIONAL
PREPARED BY
SUBCONSULTANT



SCALE

TITLE

Middleborough, MA
Wareham Street Water Main Replacement

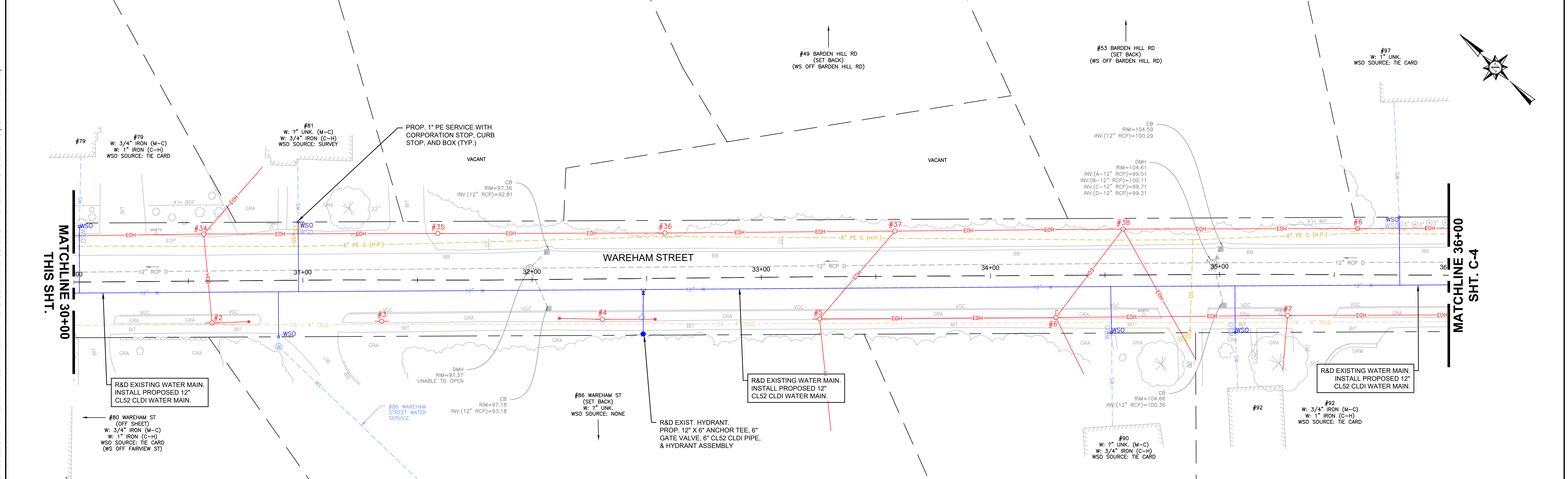
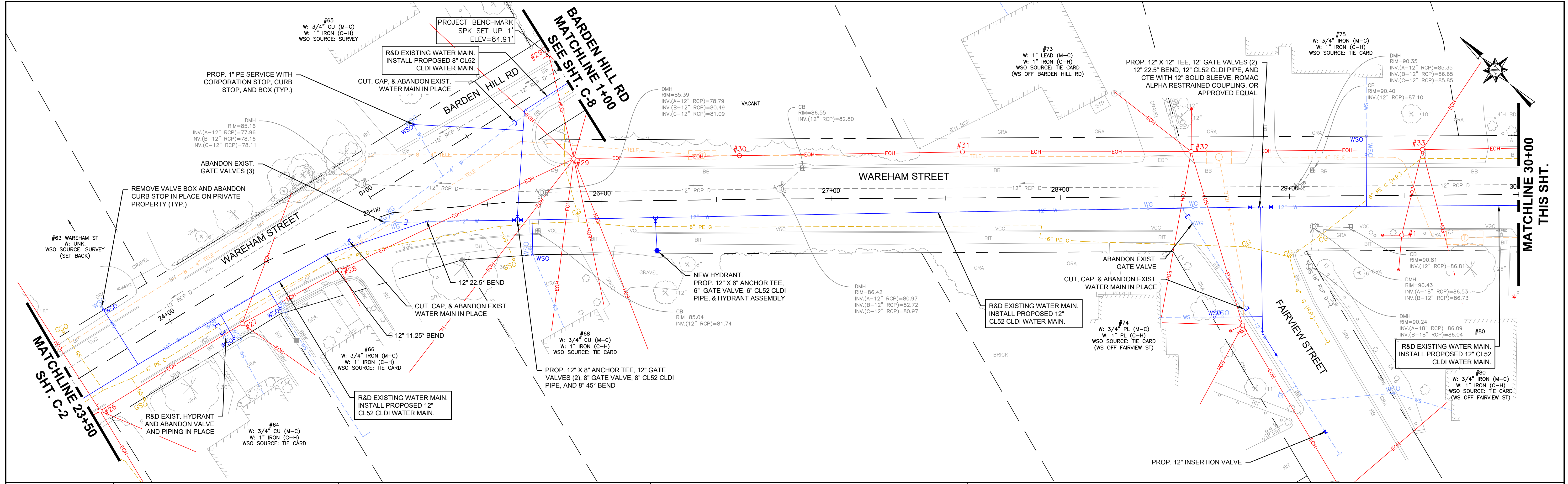
PROPOSED PLAN
WAREHAM ST - STA. 11+50 TO 23+50

BETA JOB NO. 10710

ISSUE DATE DECEMBER 2023

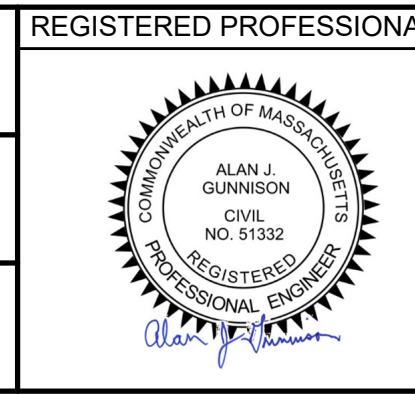
SHEET NO. C-2

12/13/2023 12:20 AM J:\02-10710 MIDDLEBORO - WAREHAM STREET WATER MAIN REPLACEMENT\AUTOCAD\PLAN SET\CIVIL-PROPOSED.DWG (BETA STB BW STB)

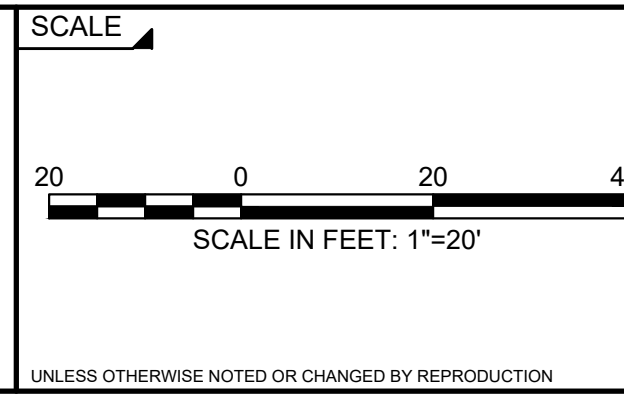


NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS

DRAWN BY:
CJM
 DESIGNED BY:
RTG
 CHECKED BY:
AJG



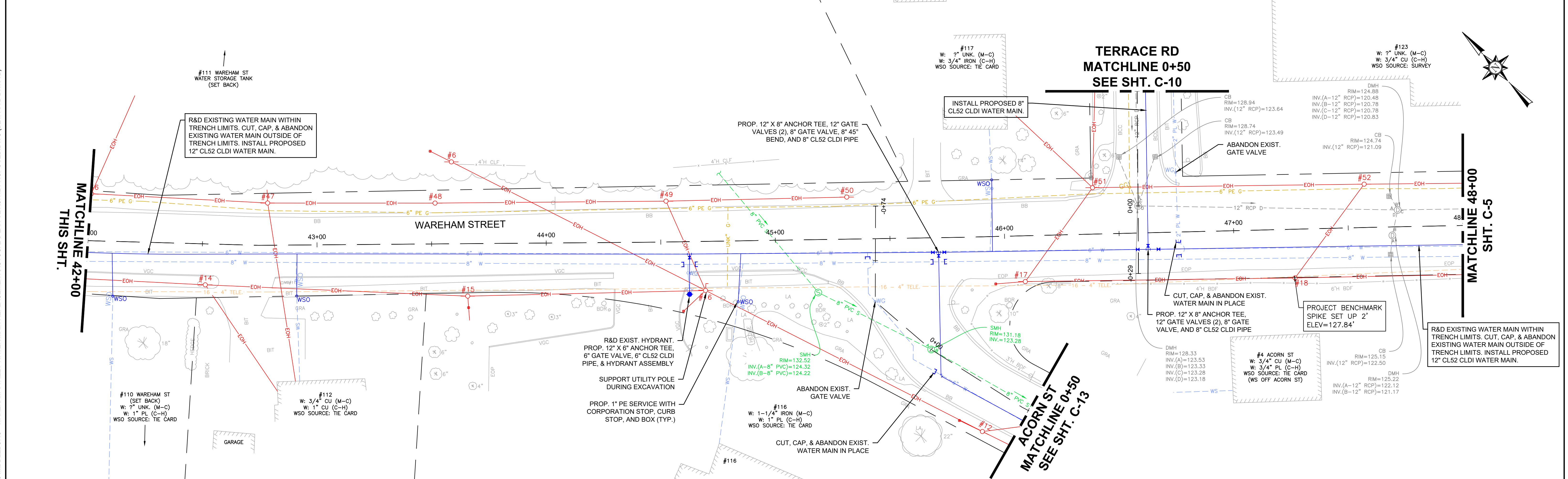
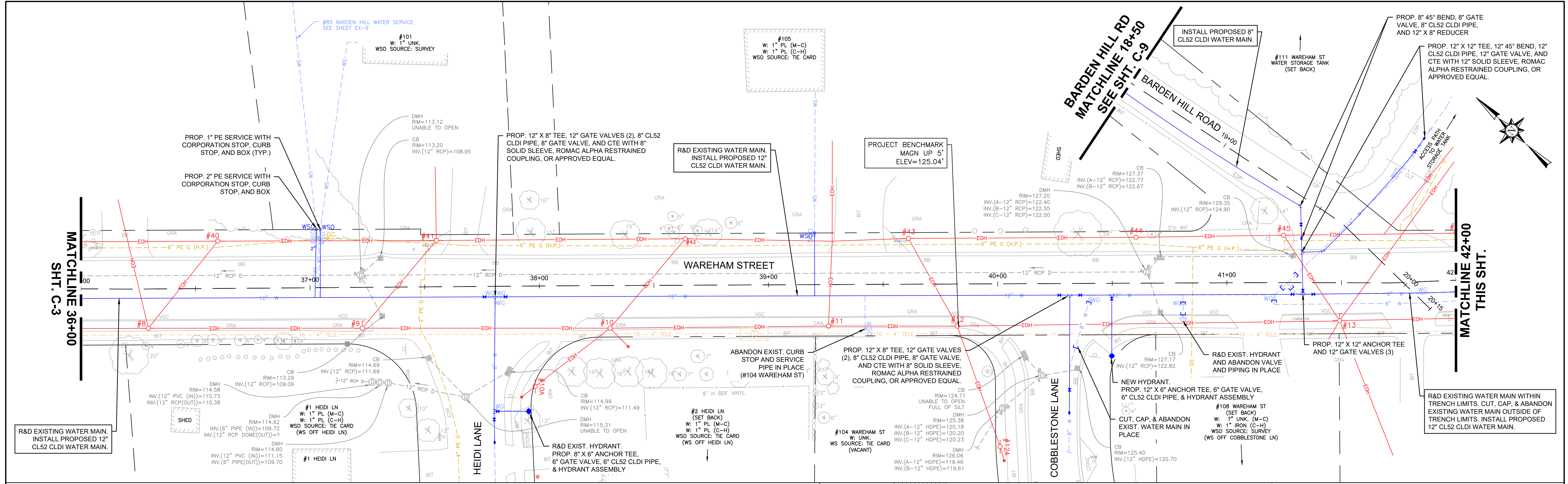
PREPARED BY:
SUBCONSULTANT



Middleborough, MA
Wareham Street Water Main Replacement
 PROPOSED PLAN
 WAREHAM ST - STA. 23+50 TO 36+00

BETA JOB NO. 10710
 ISSUE DATE DECEMBER 2023
 SHEET NO. C-3

12/13/2023 12:21 AM J:\22-10710 MIDDLEBORO - WAREHAM STREET WATER MAIN REPLACEMENT\AUTOCAD\PLAN SET\CIVIL\PROPOSED.DWG (BETA STB BW STB)



NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS

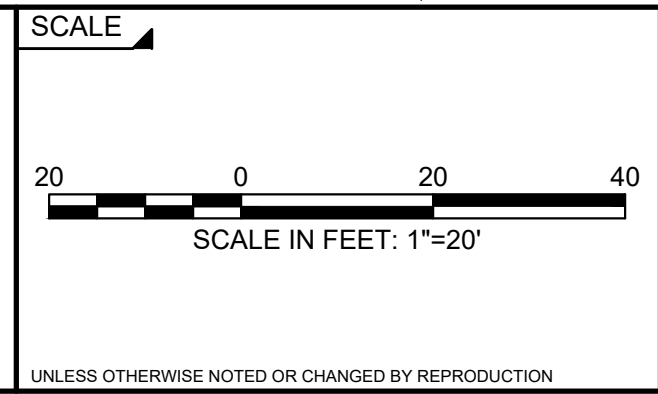
DRAWN BY:
CJM

DESIGNED BY:
RTG

CHECKED BY:
AJG



REGISTERED PROFESSIONAL
PREPARED BY
SUBCONSULTANT



SCALE

TITLE

Middleborough, MA
Wareham Street Water Main Replacement

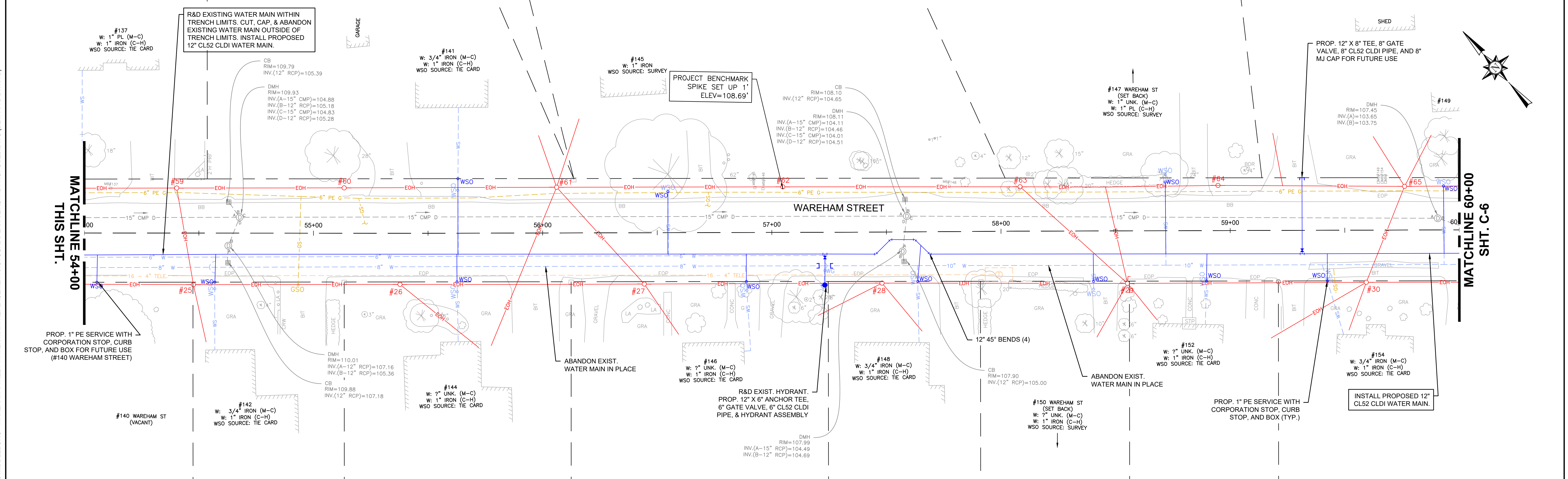
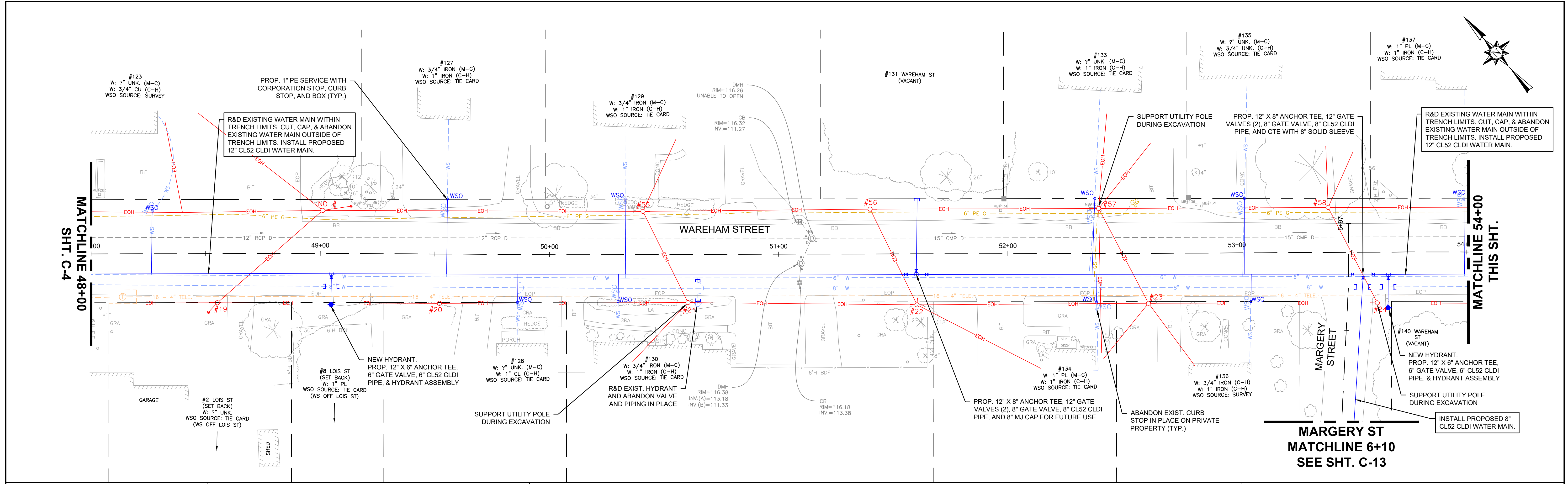
PROPOSED PLAN
WAREHAM ST - STA. 36+00 TO 48+00

BETA JOB NO. 10710

ISSUE DATE DECEMBER 2023

SHEET NO. C-4

12/13/2023 12:22 AM J:\02-10710 MIDDLEBORO - WAREHAM STREET WATER MAIN REPLACEMENT\AUTOCAD\PLAN SET\CIVIL\PROPOSED.DWG (BETA STB BW STB)



NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS

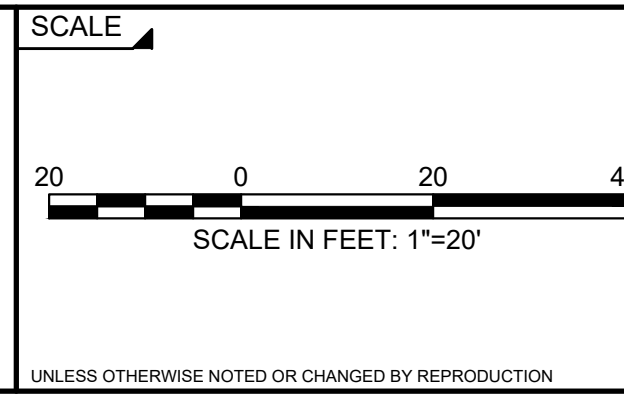
DRAWN BY:
CJM

DESIGNED BY:
RTG

CHECKED BY:
AJG



REGISTERED PROFESSIONAL
PREPARED BY
SUBCONSULTANT



Middleborough, MA
Wareham Street Water Main Replacement

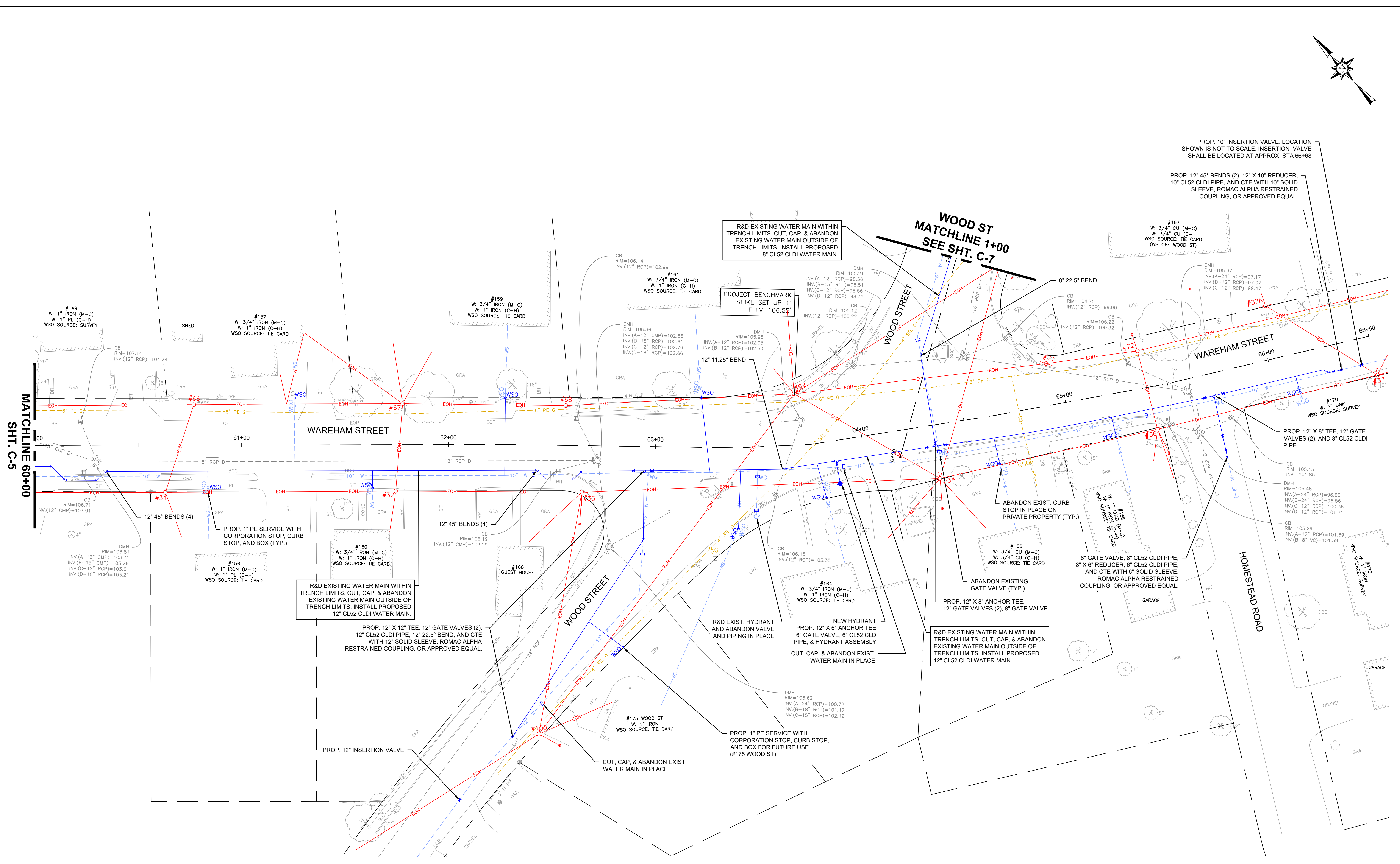
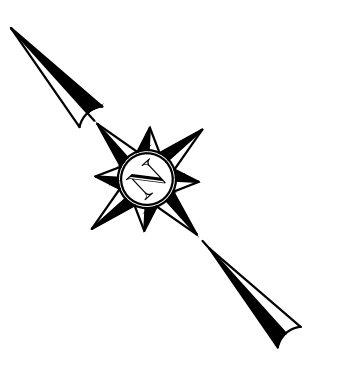
PROPOSED PLAN
WAREHAM ST - STA. 48+00 TO 60+00

BETA JOB NO. 10710

ISSUE DATE DECEMBER 2023

SHEET NO. C-5

12/13/2023 12:22 AM J:\02-10710 MIDDLEBORO - WAREHAM STREET WATER MAIN REPLACEMENT\AUTOCAD\PLAN SET\CIVIL\PROPOSED.DWG (BETA STB BW STB)



PROP. 10" INSERTION VALVE. LOCATION SHOWN IS NOT TO SCALE. INSERTION VALVE SHALL BE LOCATED AT APPROX. STA 66+68

PROP. 12" 45° BENDS (2), 12" X 10" REDUCER, 10" CL52 CLDI PIPE, AND CTE WITH 10" SOLID SLEEVE, ROMAC ALPHA RESTRAINED COUPLING, OR APPROVED EQUAL.

#167
W: 3/4" IRON (M-C)
W: 3/4" CU (C-H)
WSO SOURCE: TIE CARD
(WS OFF WOOD ST)

R&D EXISTING WATER MAIN WITHIN TRENCH LIMITS. CUT, CAP, & ABANDON EXISTING WATER MAIN OUTSIDE OF TRENCH LIMITS. INSTALL PROPOSED 8" CL52 CLDI WATER MAIN.

PROJECT BENCHMARK SPIKE SET UP 1' ELEV=106.55'

WOOD ST MATCHLINE 1+00 SEE SHT. C-7

MATCHLINE 60+00 SHT. C-5

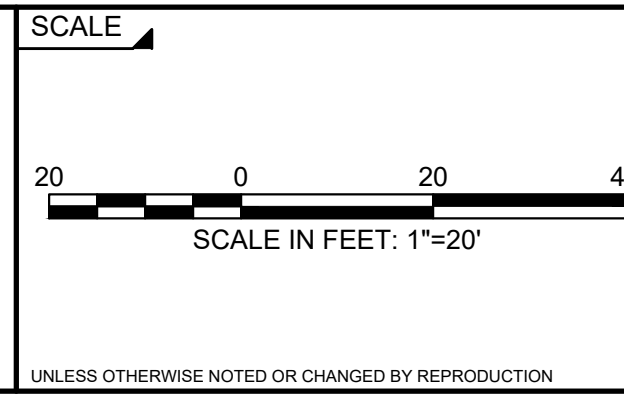
12/13/2023 12:23 AM J:02:10710 MIDDLEBORO - WAREHAM STREET WATER MAIN REPLACEMENT/AUTOCAD/PLAN SET/CIVIL/PROPOSED DWG (BETA STB BW STB)

NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS

DRAWN BY:
CJM
DESIGNED BY:
RTG
CHECKED BY:
AJG

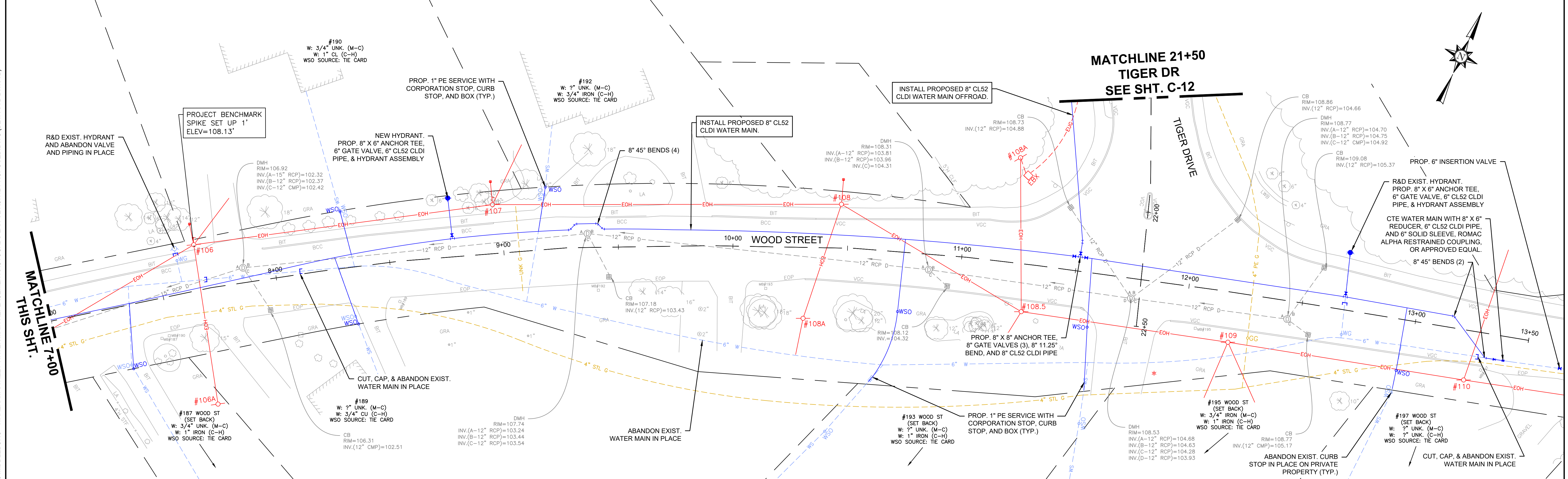
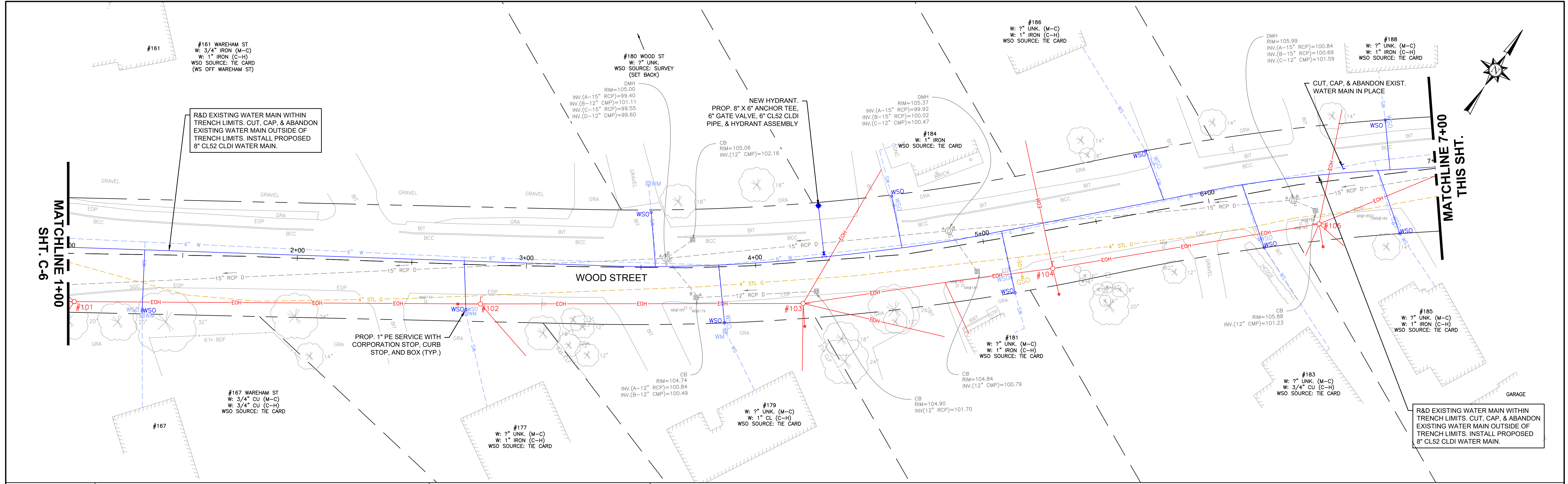


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PREPARED BY
SUBCONSULTANT



Middleborough, MA
Wareham Street Water Main Replacement
PROPOSED PLAN
WAREHAM ST - STA. 60+00 TO 66+50

BETA JOB NO. 10710
ISSUE DATE DECEMBER 2023
SHEET NO. C-6



NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS

DRAWN BY:
CJM

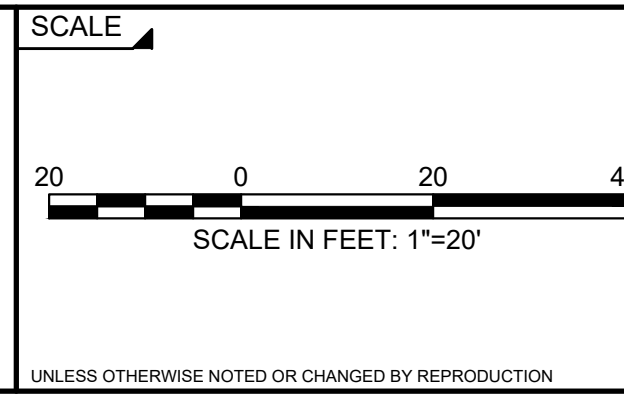
DESIGNED BY:
RTG

CHECKED BY:
AJG



REGISTERED PROFESSIONAL
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SUBCONSULTANT



TITLE

Middleborough, MA
Wareham Street Water Main Replacement

BETA JOB NO. 10710

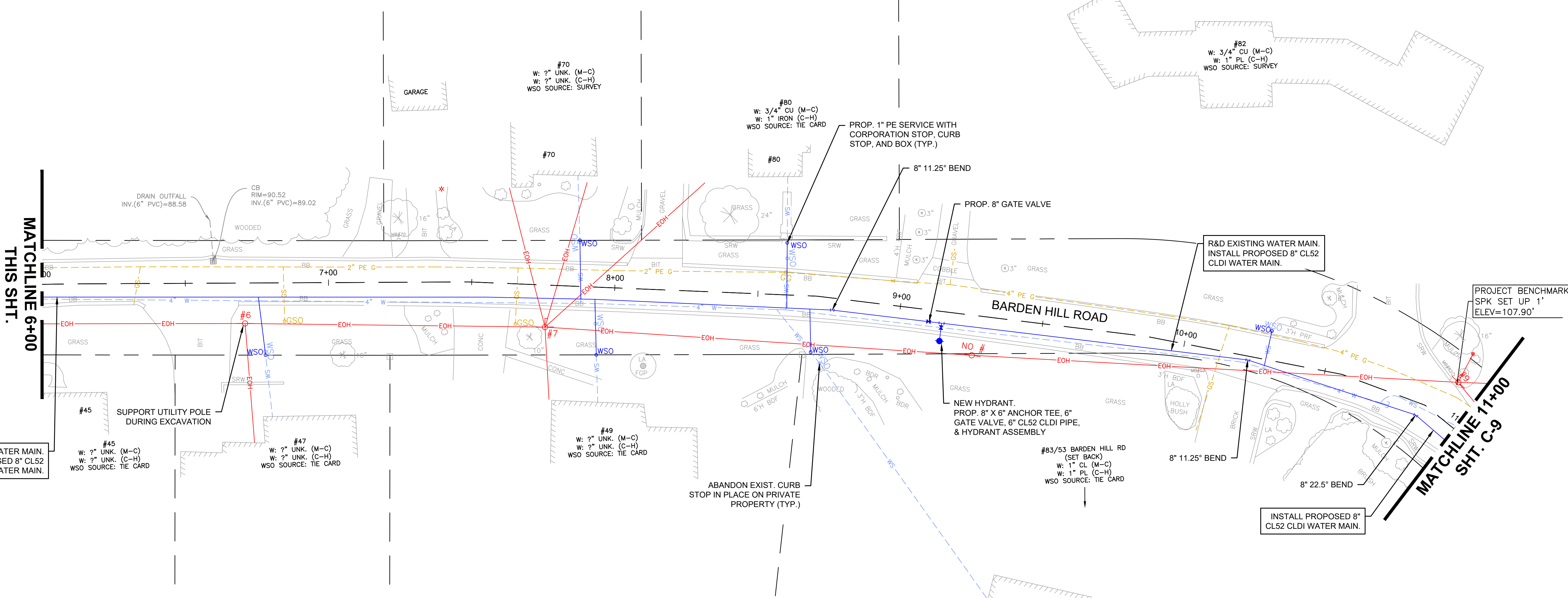
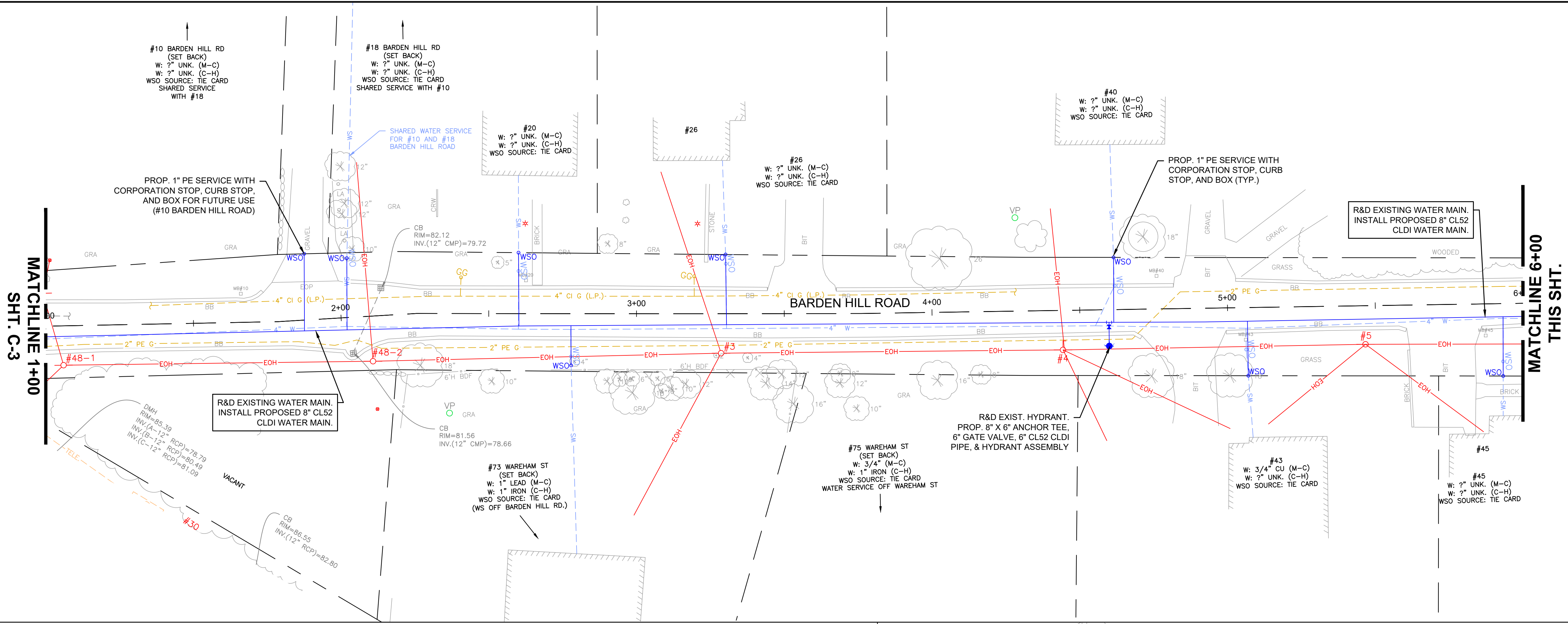
ISSUE DATE DECEMBER 2023

PROPOSED PLAN
WOOD ST - STA. 1+00 TO 13+50

SHEET NO. C-7

12/13/2023 12:24 AM J:\02-10710 MIDDLEBORO - WAREHAM STREET WATER MAIN REPLACEMENT\AUTOCAD\PLAN SET\CIVIL\PROPOSED DWG (BETA STB BW STB)

12/13/2023 12:25 AM J:\02-10710 MIDDLEBORO - WAREHAM STREET WATER MAIN REPLACEMENT\AUTOCAD\PLAN SET\CIVIL-PROPOSED.DWG (BETA STB BW STB)

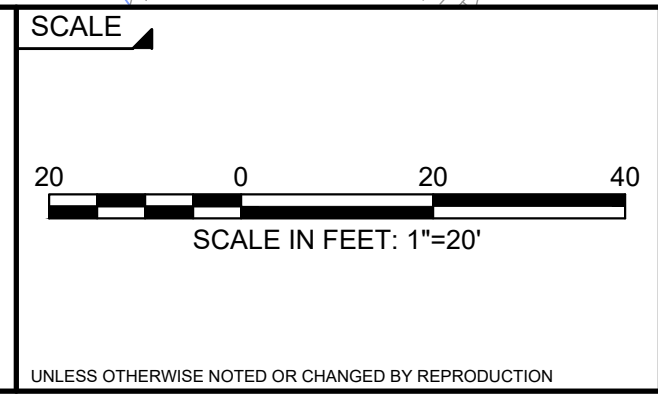


NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS

DRAWN BY:
CJM
DESIGNED BY:
RTG
CHECKED BY:
AJG



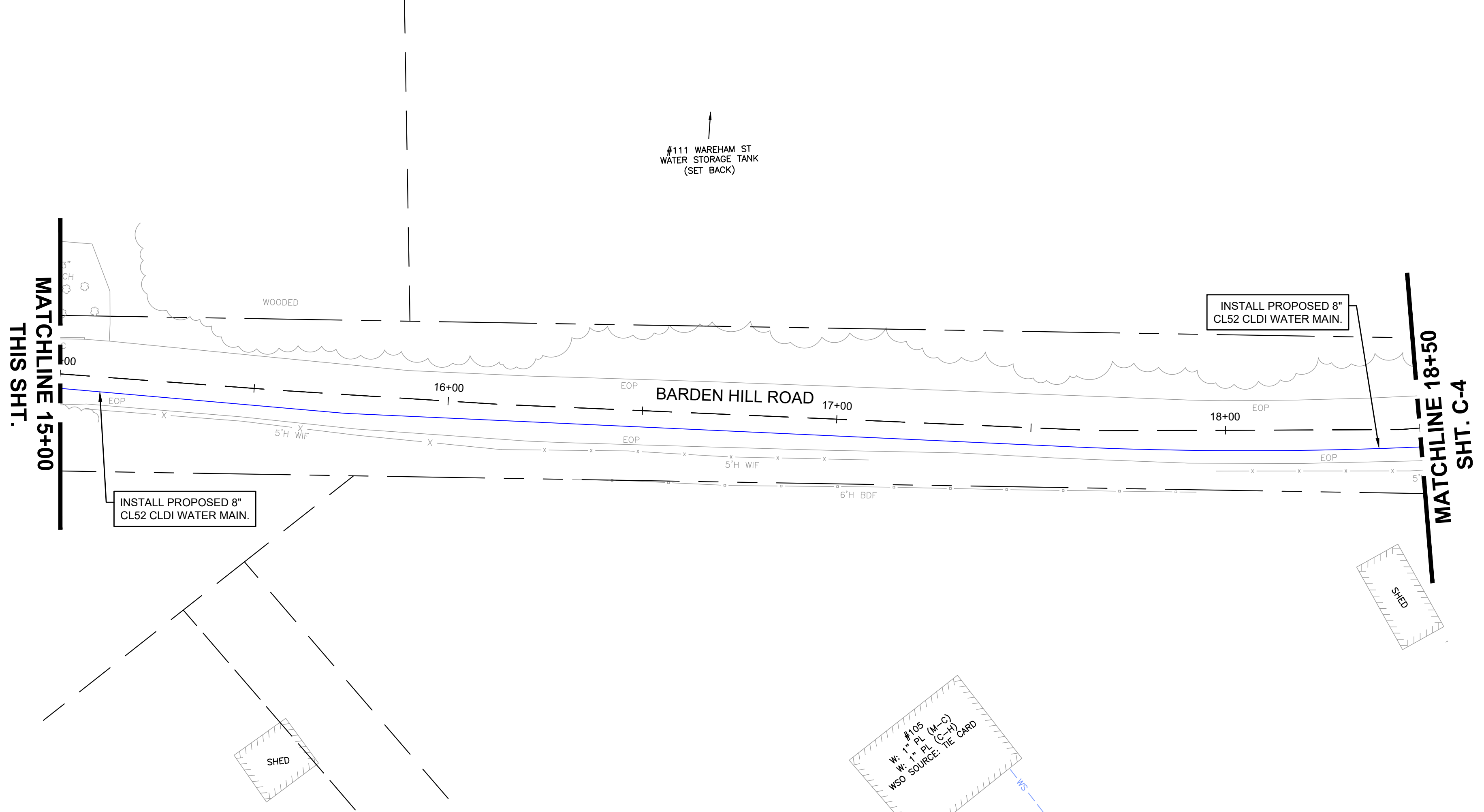
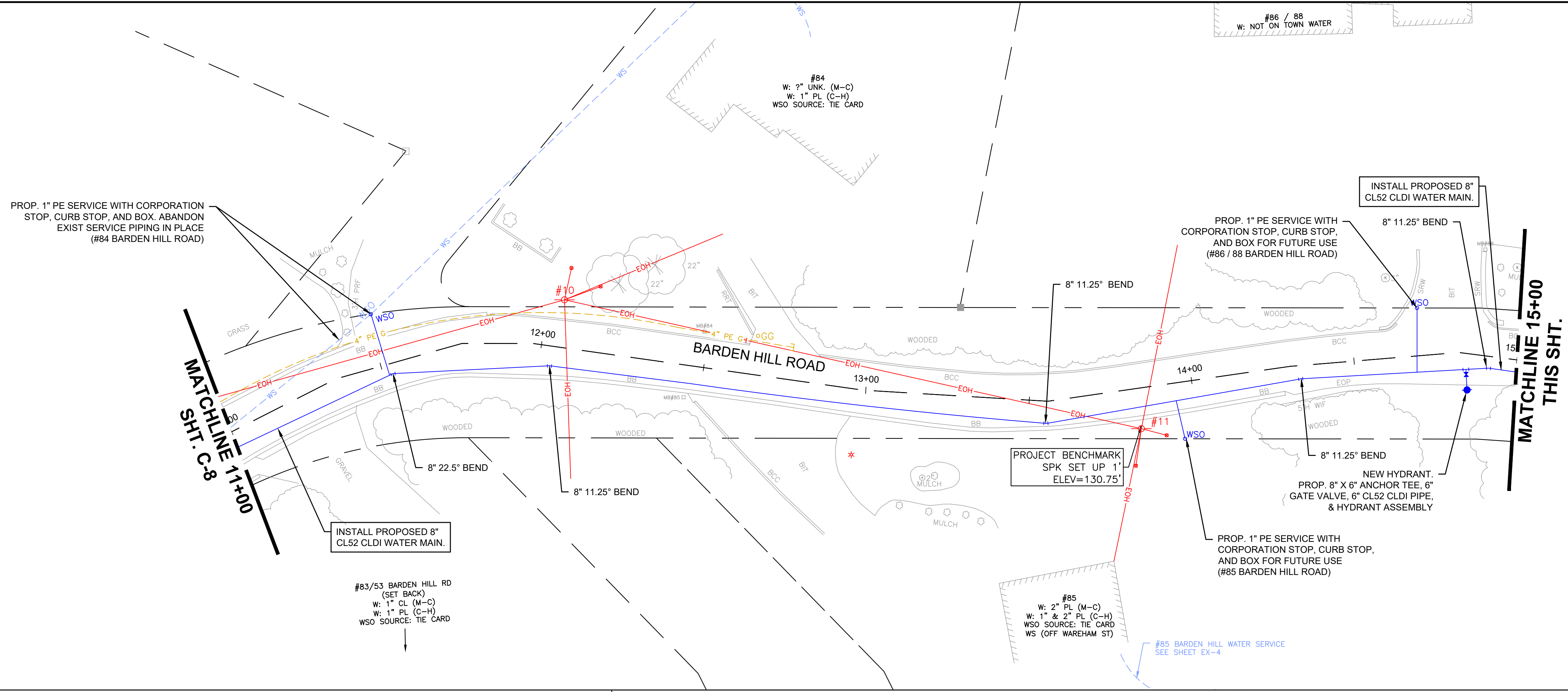
REGISTERED PROFESSIONAL PREPARED BY
SUBCONSULTANT



TITLE
Middleborough, MA
Wareham Street Water Main Replacement
PROPOSED PLAN
BARDEN HILL RD - STA. 1+00 TO 11+00

BETA JOB NO. 10710
ISSUE DATE DECEMBER 2023
SHEET NO. C-8

12/13/2023 12:26 AM J:\02-10710 MIDDLEBORO - WAREHAM STREET WATER MAIN REPLACEMENT\AUTOCAD\PLAN SET\CIVIL-PROPOSED.DWG (BETA STB BW STB)

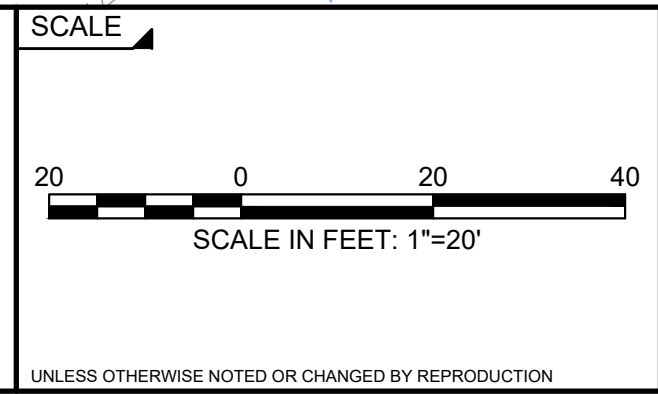


NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS

DRAWN BY:
CJM
DESIGNED BY:
RTG
CHECKED BY:
AJG

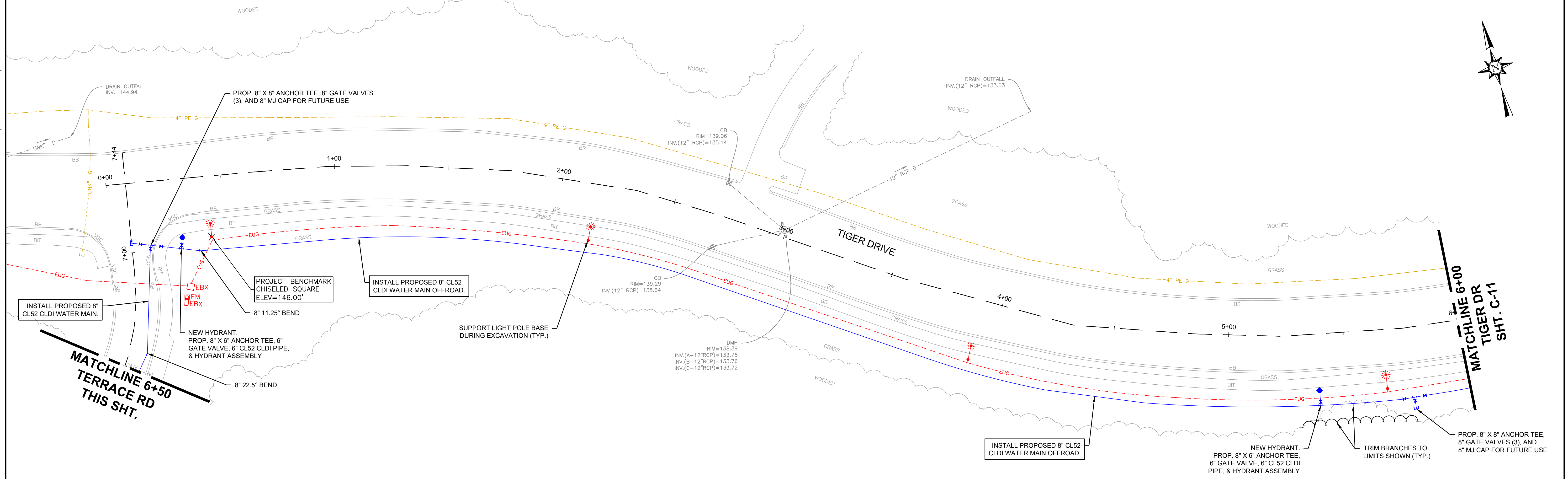
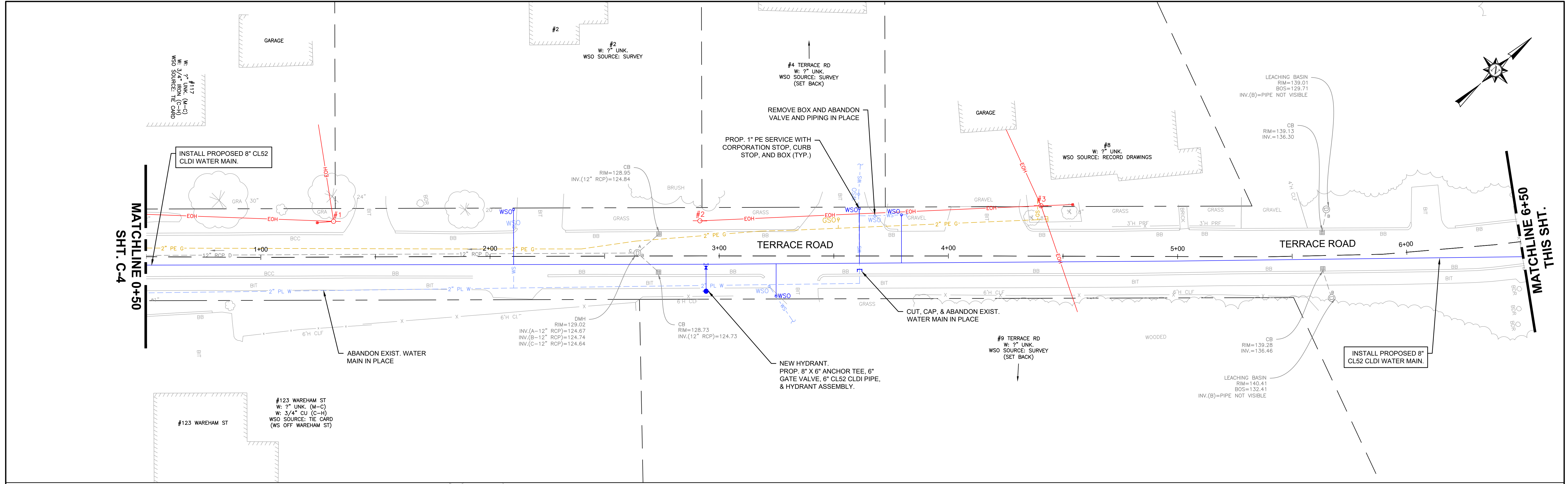


PREPARED BY:
SUBCONSULTANT



TITLE
Middleborough, MA
Wareham Street Water Main Replacement
PROPOSED PLAN
BARDEN HILL RD - STA. 11+00 TO 18+50

BETA JOB NO. 10710
ISSUE DATE DECEMBER 2023
SHEET NO. C-9



NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS

DRAWN BY:
CJM

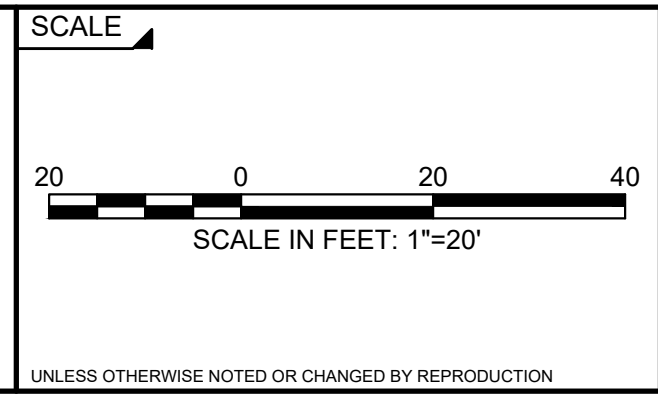
DESIGNED BY:
RTG

CHECKED BY:
AJG



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TITLE

Middleborough, MA
Wareham Street Water Main Replacement

PROPOSED PLAN
TERRACE RD - STA. 0+50 TO 7+50
TIGER DR - STA 0+00 TO 6+00

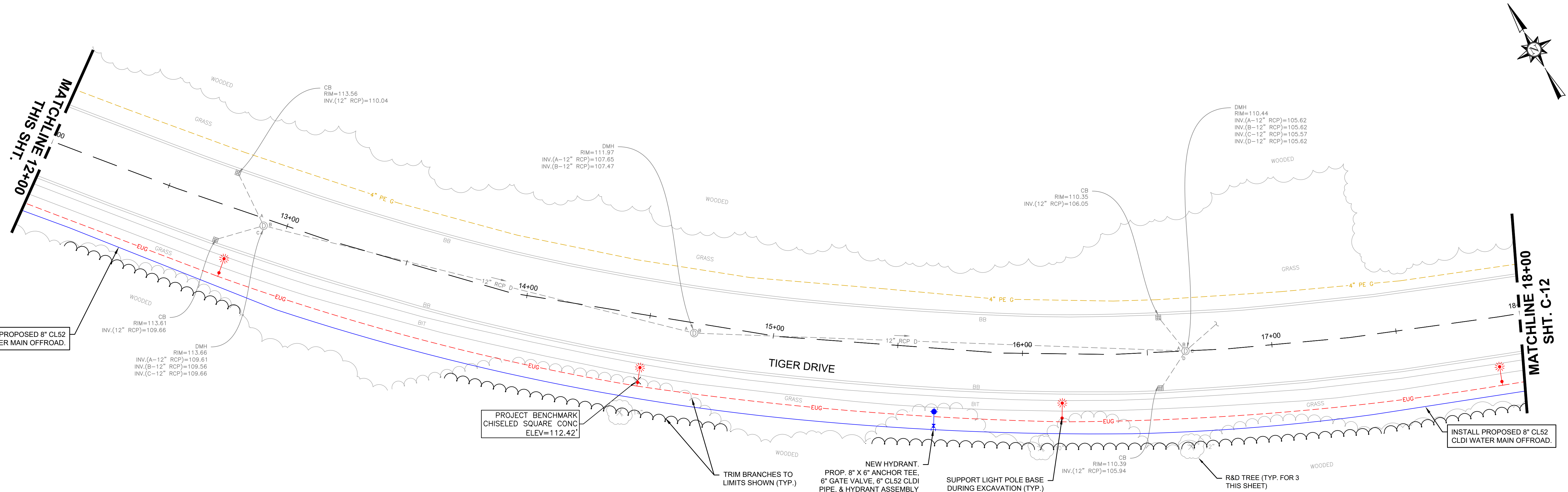
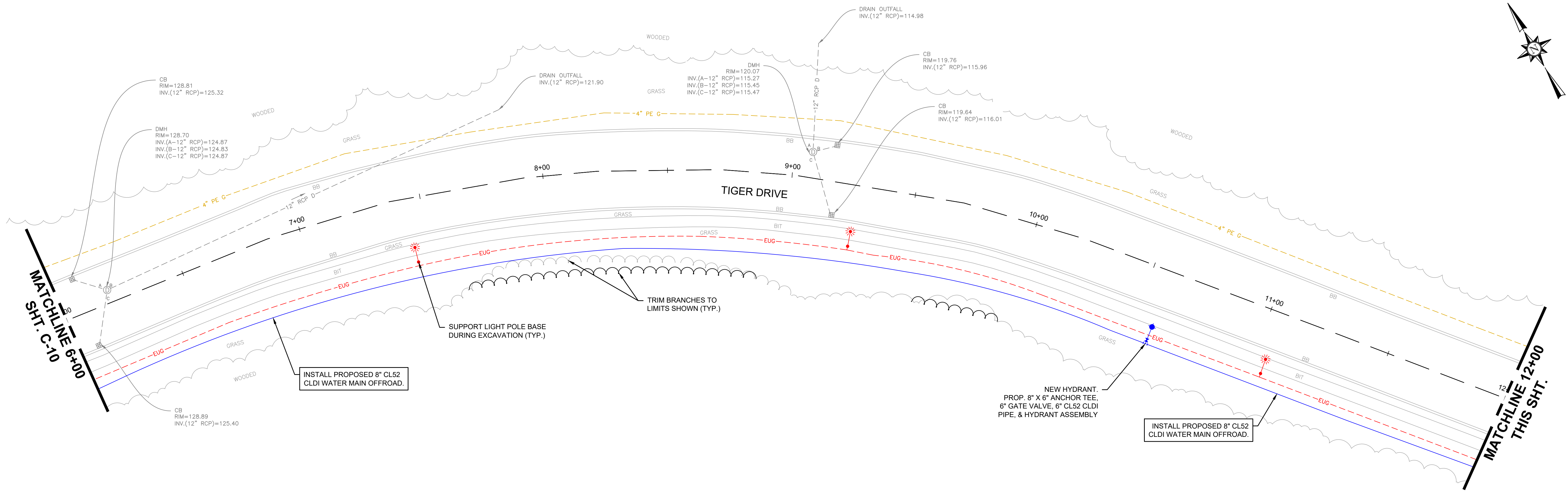
BETA JOB NO. 10710

ISSUE DATE DECEMBER 2023

SHEET NO. C-10

12/13/2023 12:26 AM J:\02-10710 MIDDLEBORO - WAREHAM STREET WATER MAIN REPLACEMENT\AUTOCAD\PLAN SET\CIVIL-PROPOSED.DWG (BETA STB BW STB)

12/13/2023 12:27 AM J:\02-10710 MIDDLEBORO - WAREHAM STREET WATER MAIN REPLACEMENT\AUTOCAD\PLAN SET\CIVIL-PROPOSED.DWG (BETA STB BW STB)

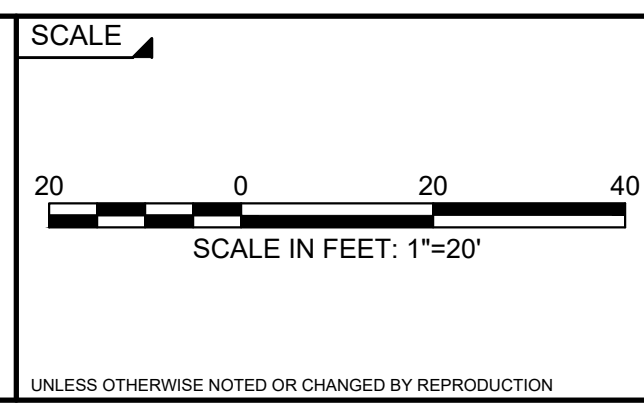


NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS

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DESIGNED BY:
RTG
CHECKED BY:
AJG

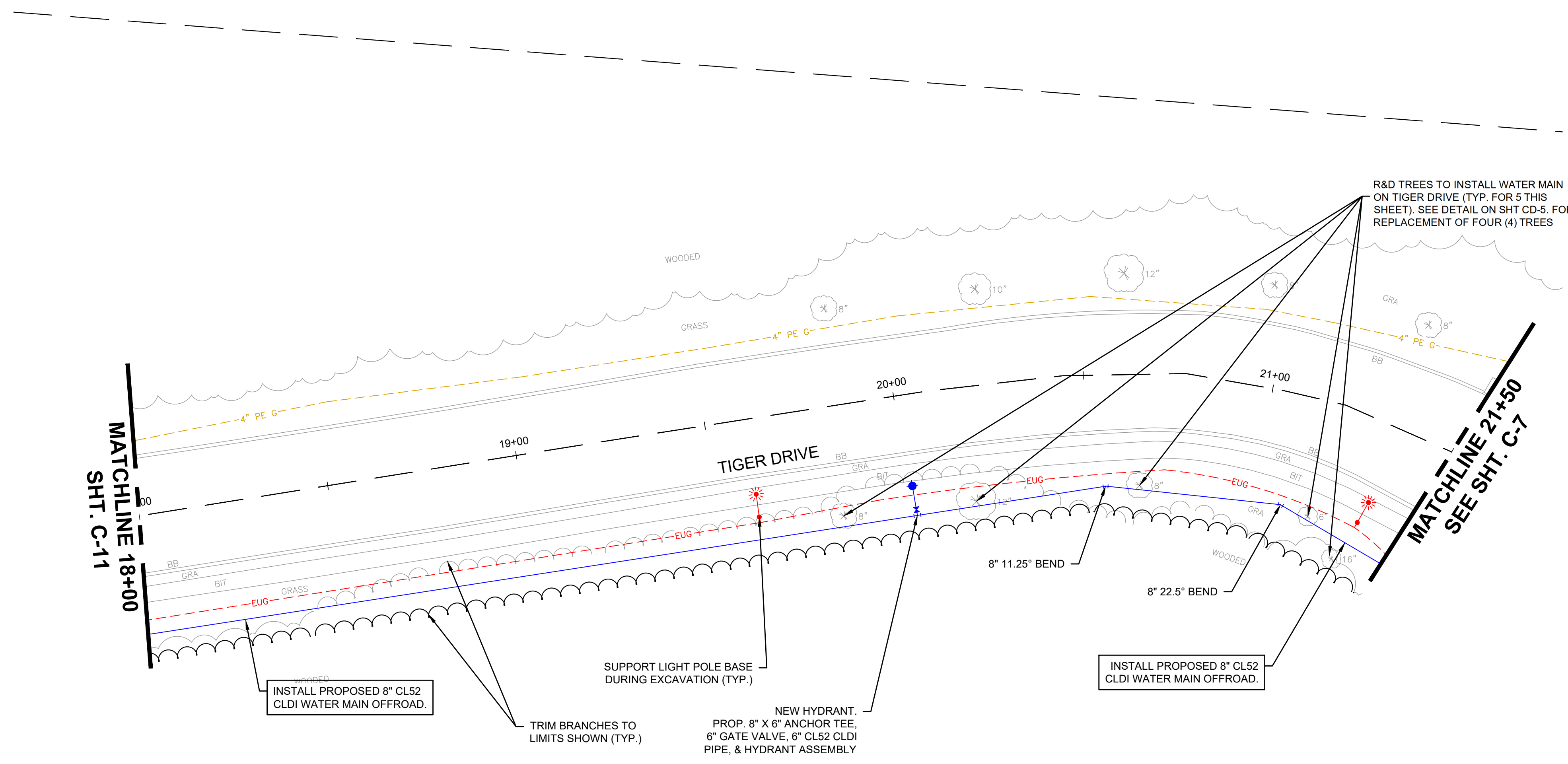
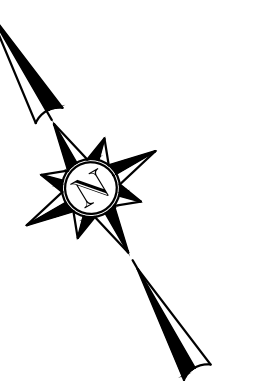


PREPARED BY:
SUBCONSULTANT



TITLE
Middleborough, MA
Wareham Street Water Main Replacement
PROPOSED PLAN
TIGER DR - STA. 6+00 TO 18+00

BETA JOB NO. 10710
ISSUE DATE DECEMBER 2023
SHEET NO. C-11



MATCHLINE 18+00
SHT. C-11

MATCHLINE 21+50
SEE SHT. C-7

R&D TREES TO INSTALL WATER MAIN ON TIGER DRIVE (TYP. FOR 5 THIS SHEET). SEE DETAIL ON SHT CD-5. FOR REPLACEMENT OF FOUR (4) TREES

INSTALL PROPOSED 8" CL52 CLDI WATER MAIN OFFROAD.

TRIM BRANCHES TO LIMITS SHOWN (TYP.)

SUPPORT LIGHT POLE BASE DURING EXCAVATION (TYP.)

NEW HYDRANT.
PROP. 8" X 6" ANCHOR TEE,
6" GATE VALVE, 6" CL52 CLDI PIPE, & HYDRANT ASSEMBLY

INSTALL PROPOSED 8" CL52 CLDI WATER MAIN OFFROAD.

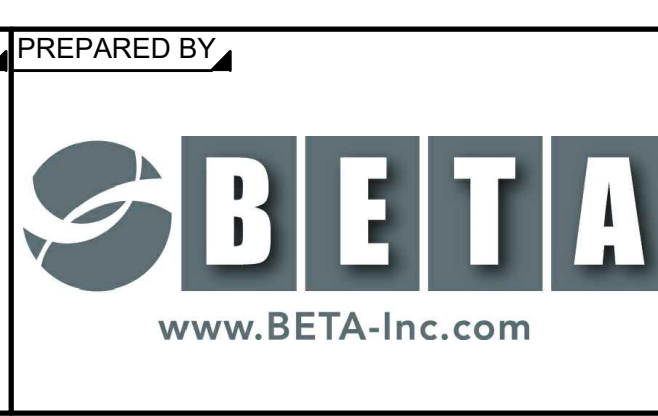
12/13/2023 12:28 AM J:\02-10710 MIDDLEBORO - WAREHAM STREET WATER MAIN REPLACEMENT\AUTOCAD\PLAN SET\CIVIL-PROPOSED.DWG (BETA STB BW STB)

NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS

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CJM

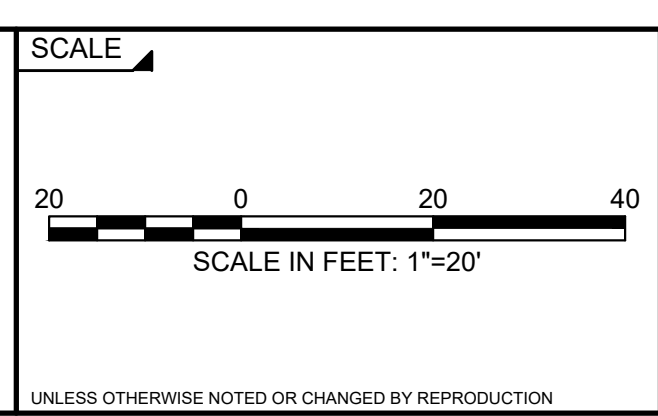
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TITLE

Middleborough, MA
Wareham Street Water Main Replacement

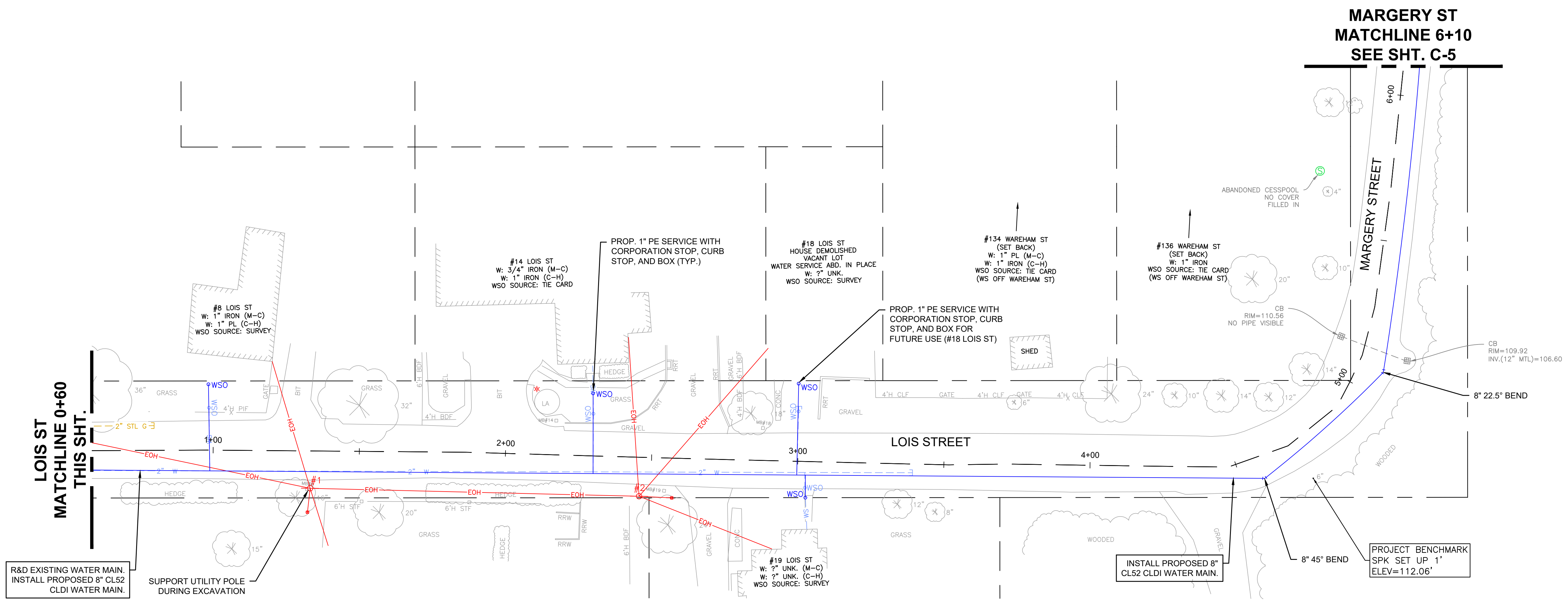
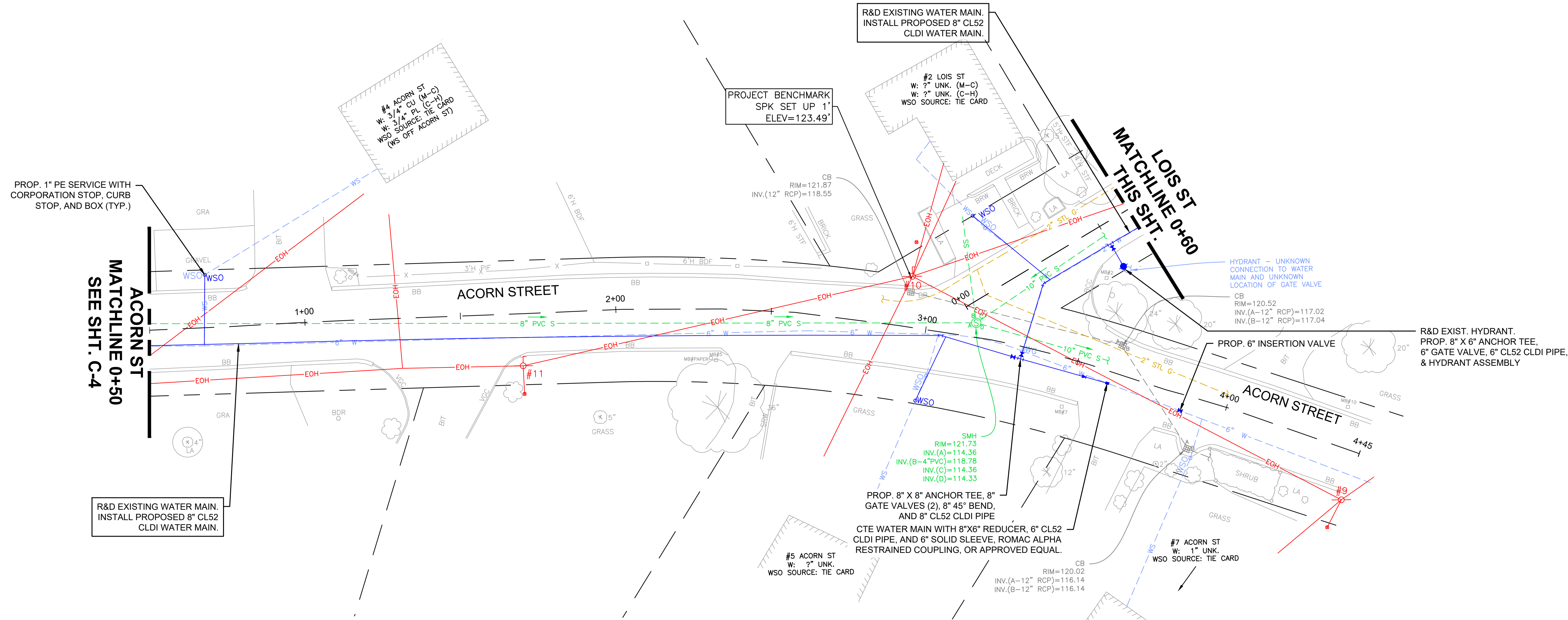
PROPOSED PLAN
TIGER DR - STA. 18+00 TO 21+50

BETA JOB NO. 10710

ISSUE DATE DECEMBER 2023

SHEET NO. C-12

12/13/2023 12:29 AM J:\02-10710 MIDDLEBORO - WAREHAM STREET WATER MAIN REPLACEMENT\AUTOCAD\PLAN SET\CIVIL-PROPOSED.DWG (BETA STB BW STB)

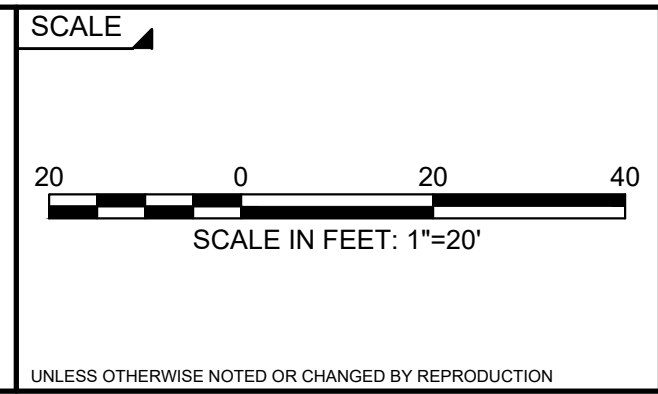


NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS

DRAWN BY:
CJM
DESIGNED BY:
RTG
CHECKED BY:
AJG

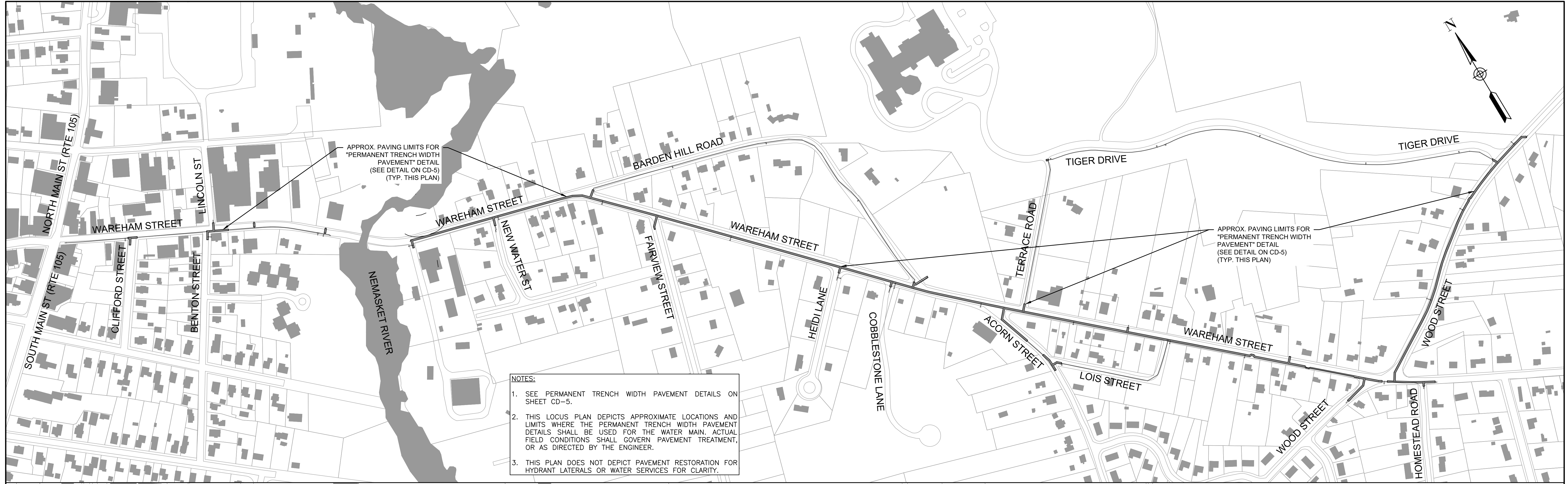


REGISTERED PROFESSIONAL
PREPARED BY
SUBCONSULTANT



TITLE
Middleborough, MA
Wareham Street Water Main Replacement
PROPOSED PLAN
ACORN ST - STA. 0+50 TO 4+45
LOIS ST & MARGERY ST - STA. 0+00 TO 6+10

BETA JOB NO. 10710
ISSUE DATE DECEMBER 2023
SHEET NO. C-13



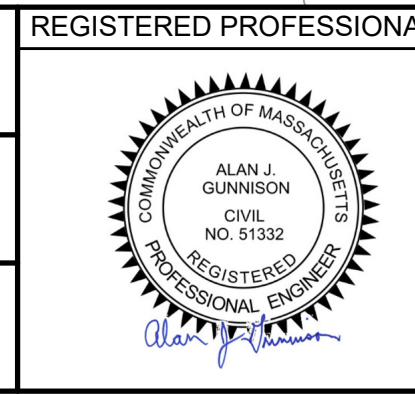
12/13/2023 1:45 AM J:\02-10710 MIDDLEBORO - WAREHAM STREET WATER MAIN REPLACEMENT\AUTOCAD\PLAN SET\CIVIL-RESTORATION.DWG (BETA STB BW STB)

NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS

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CJM

DESIGNED BY:
RTG

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AJG



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SCALE

1" = 215'

UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

TITLE

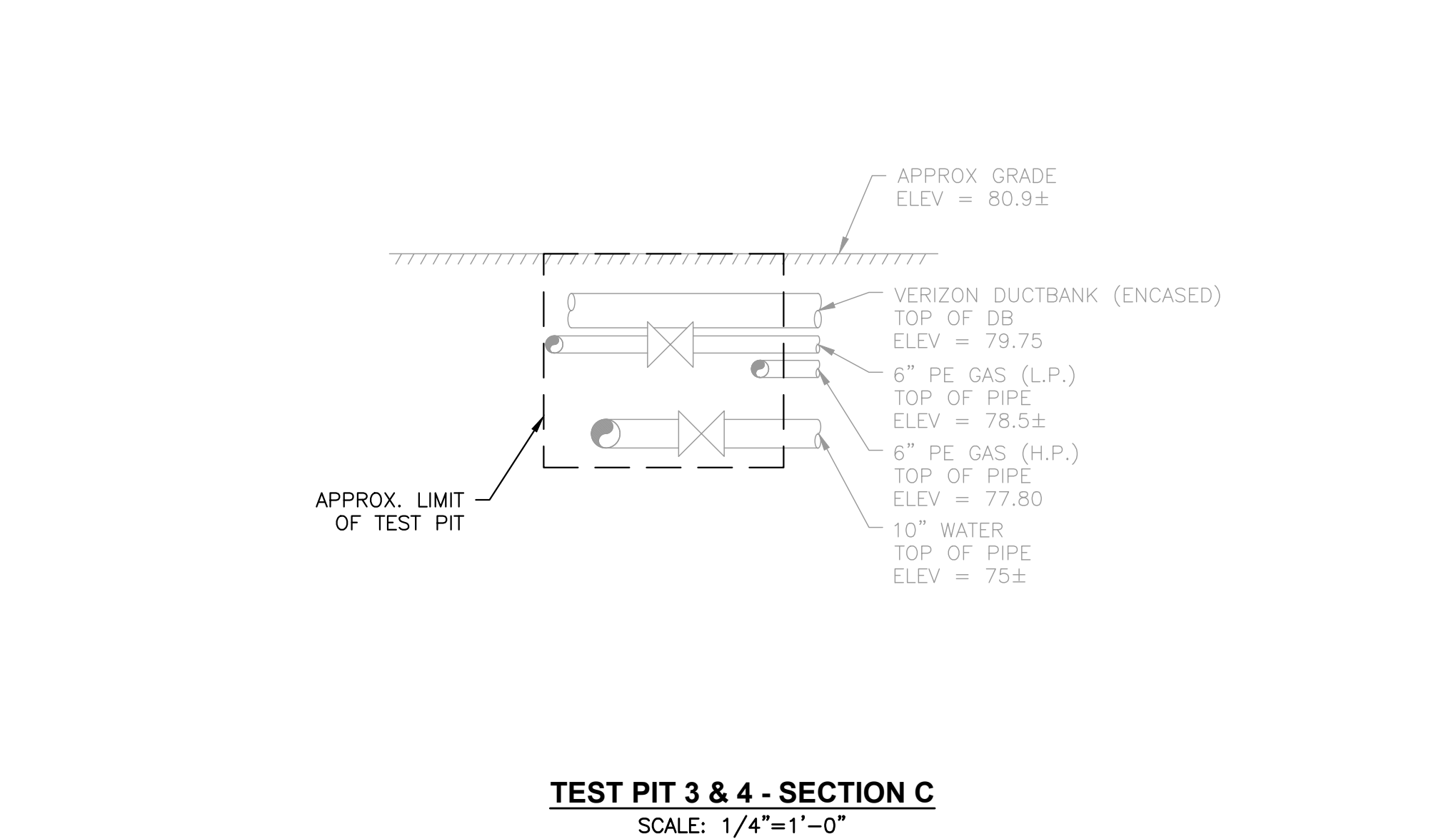
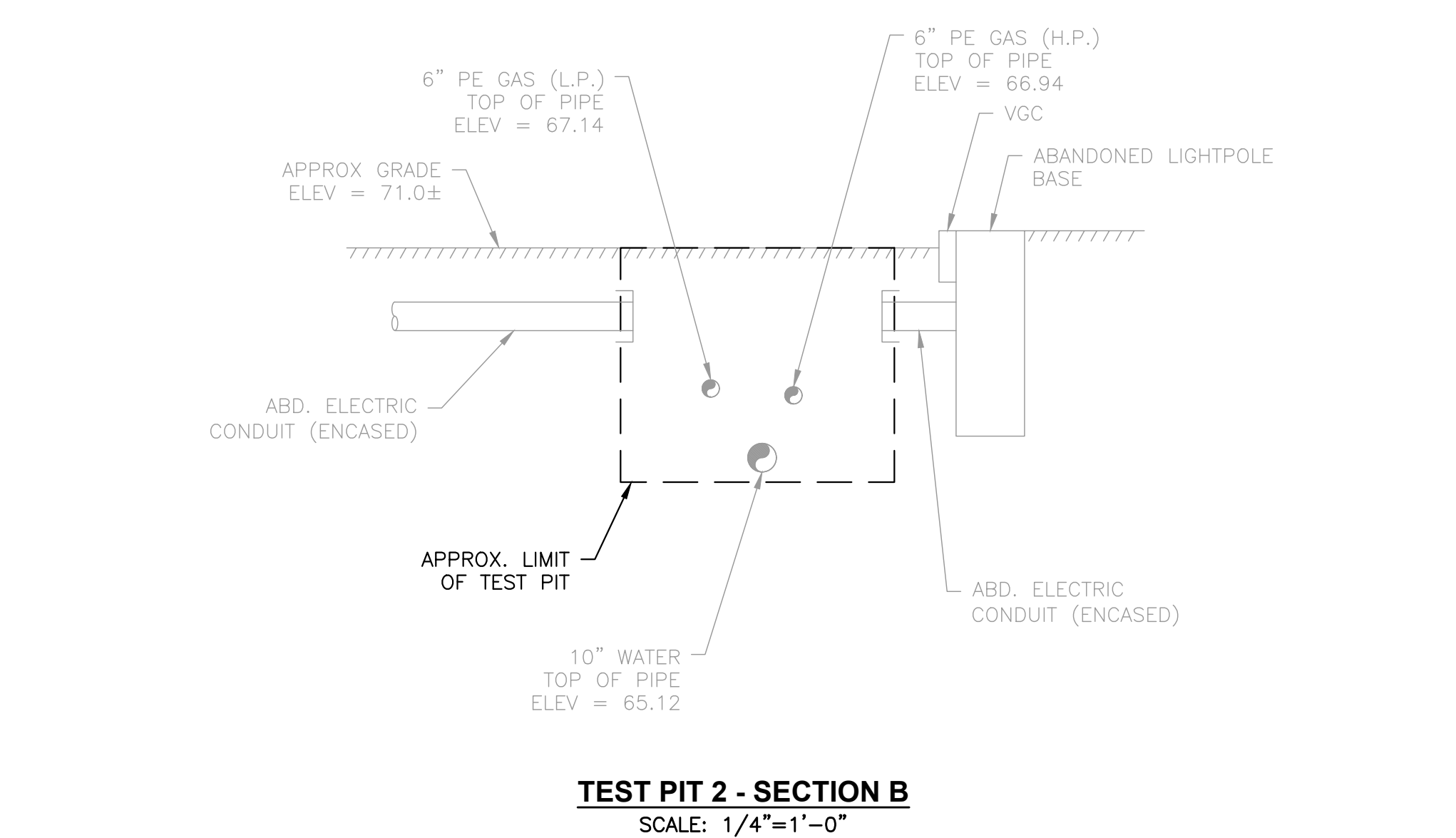
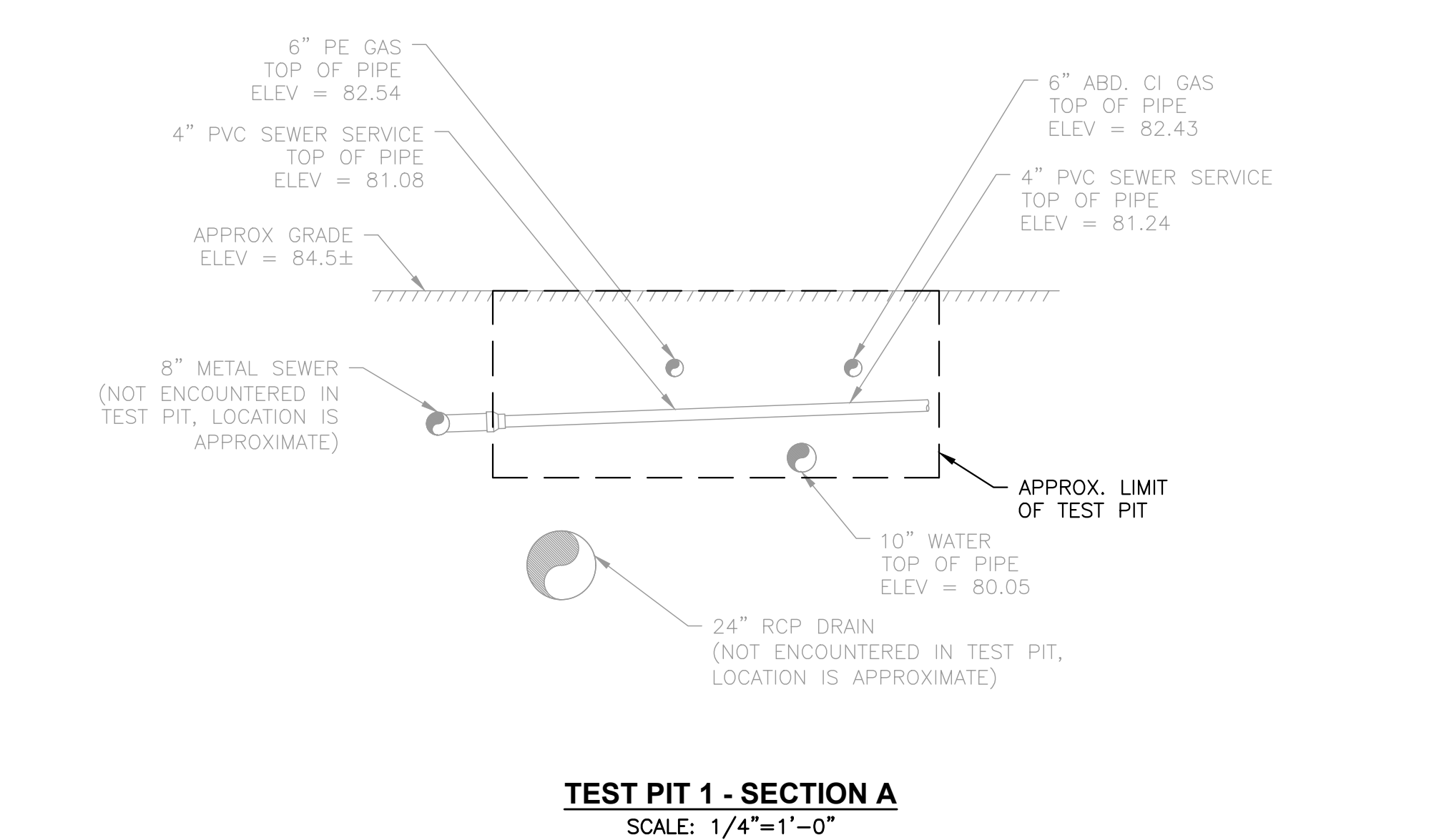
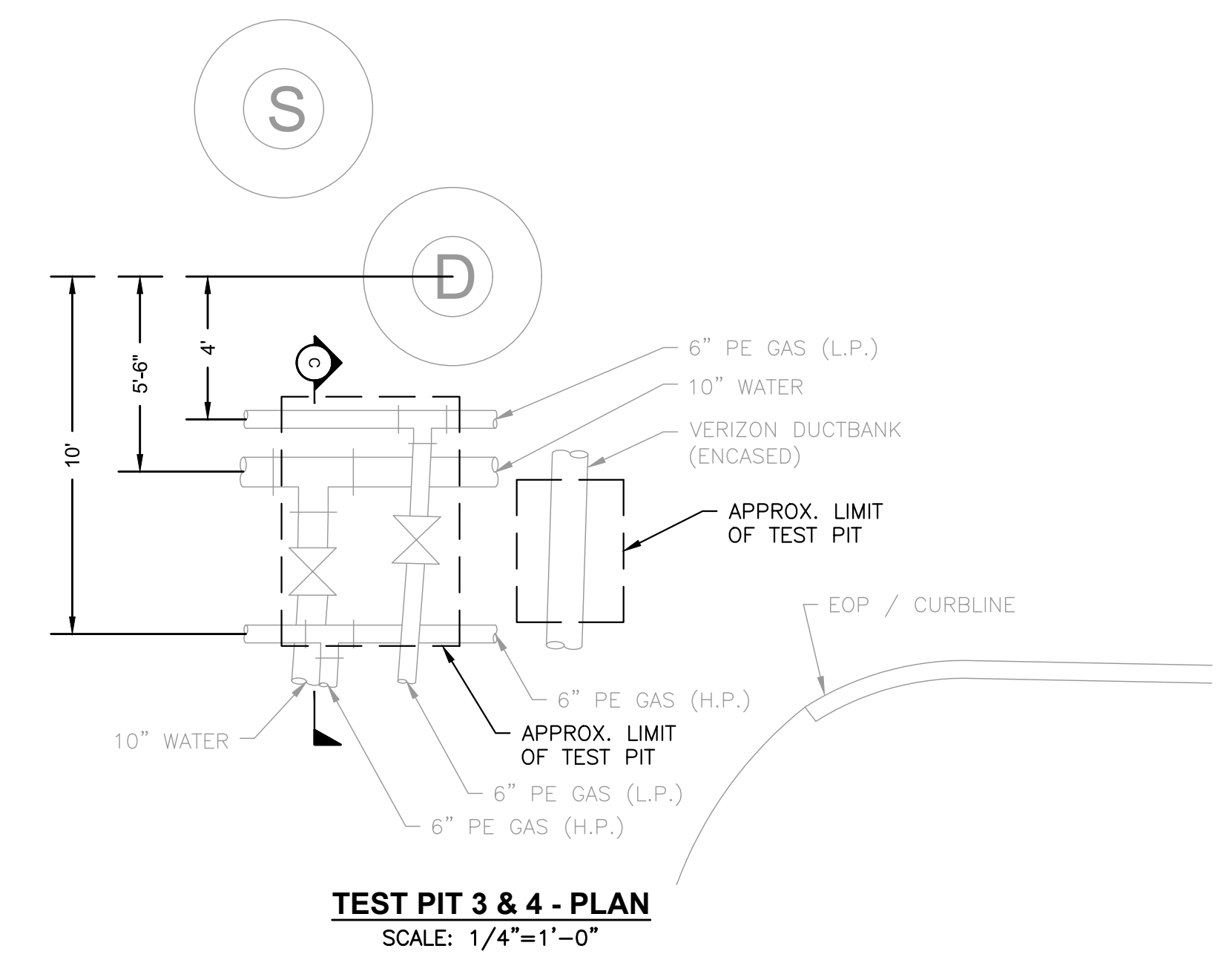
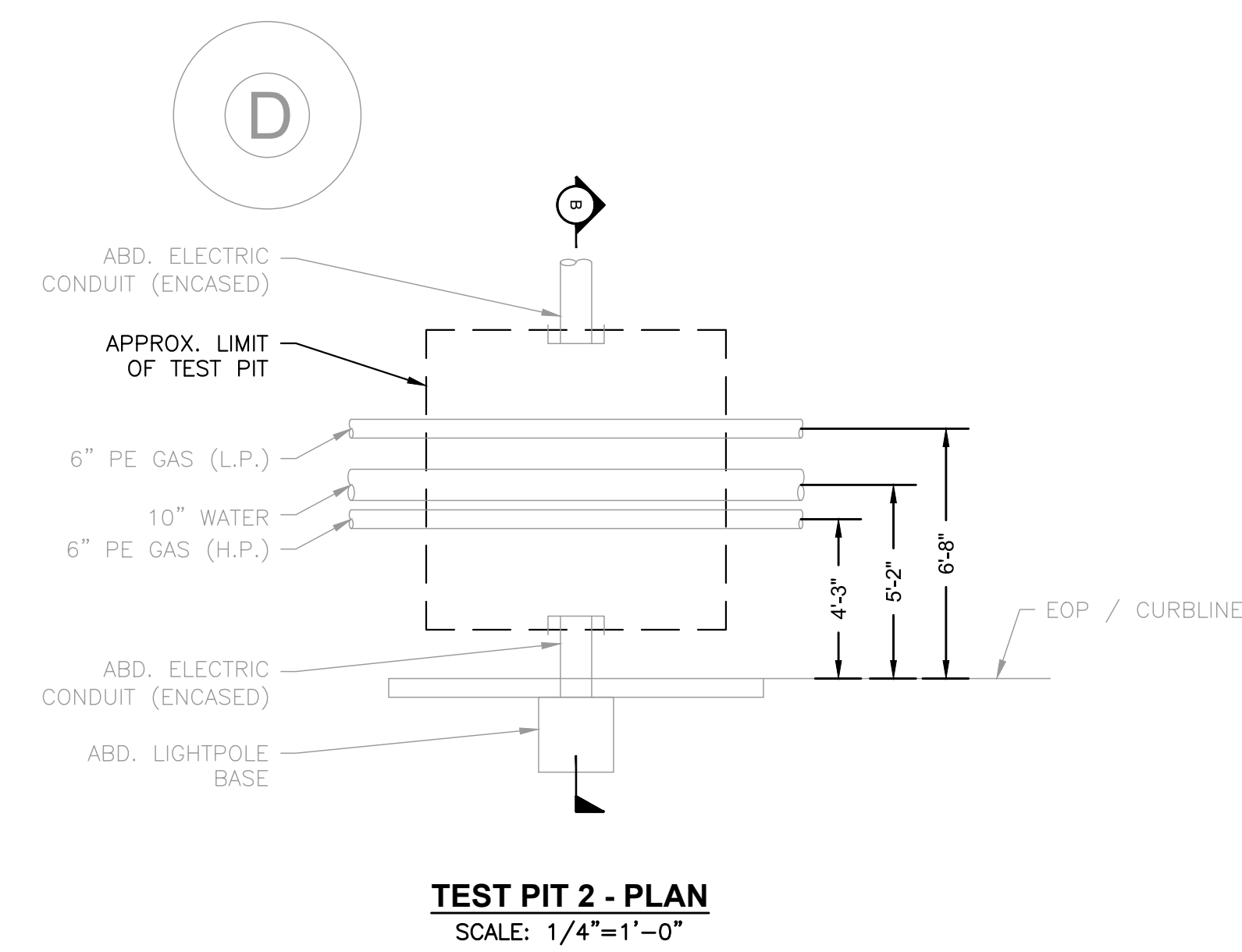
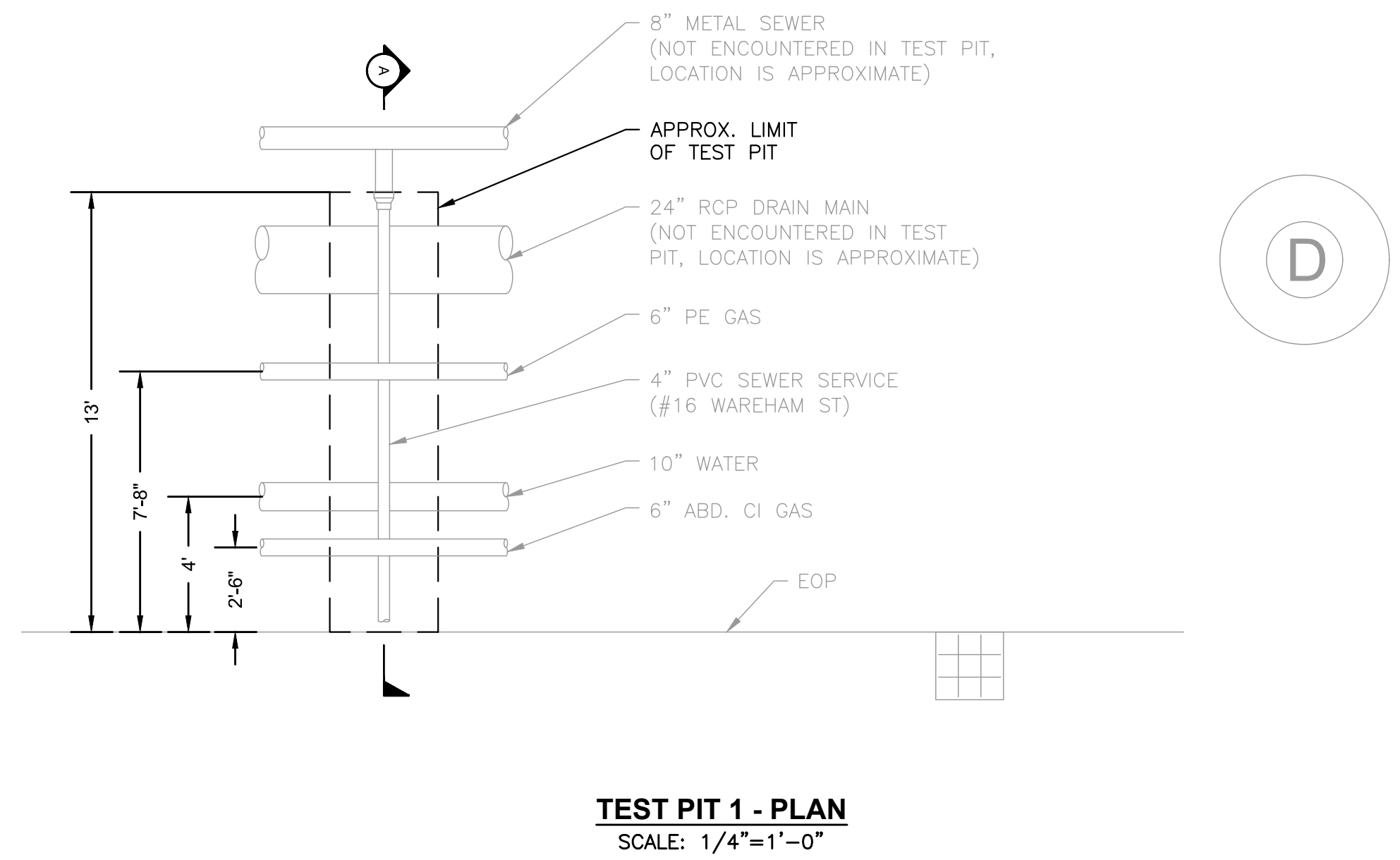
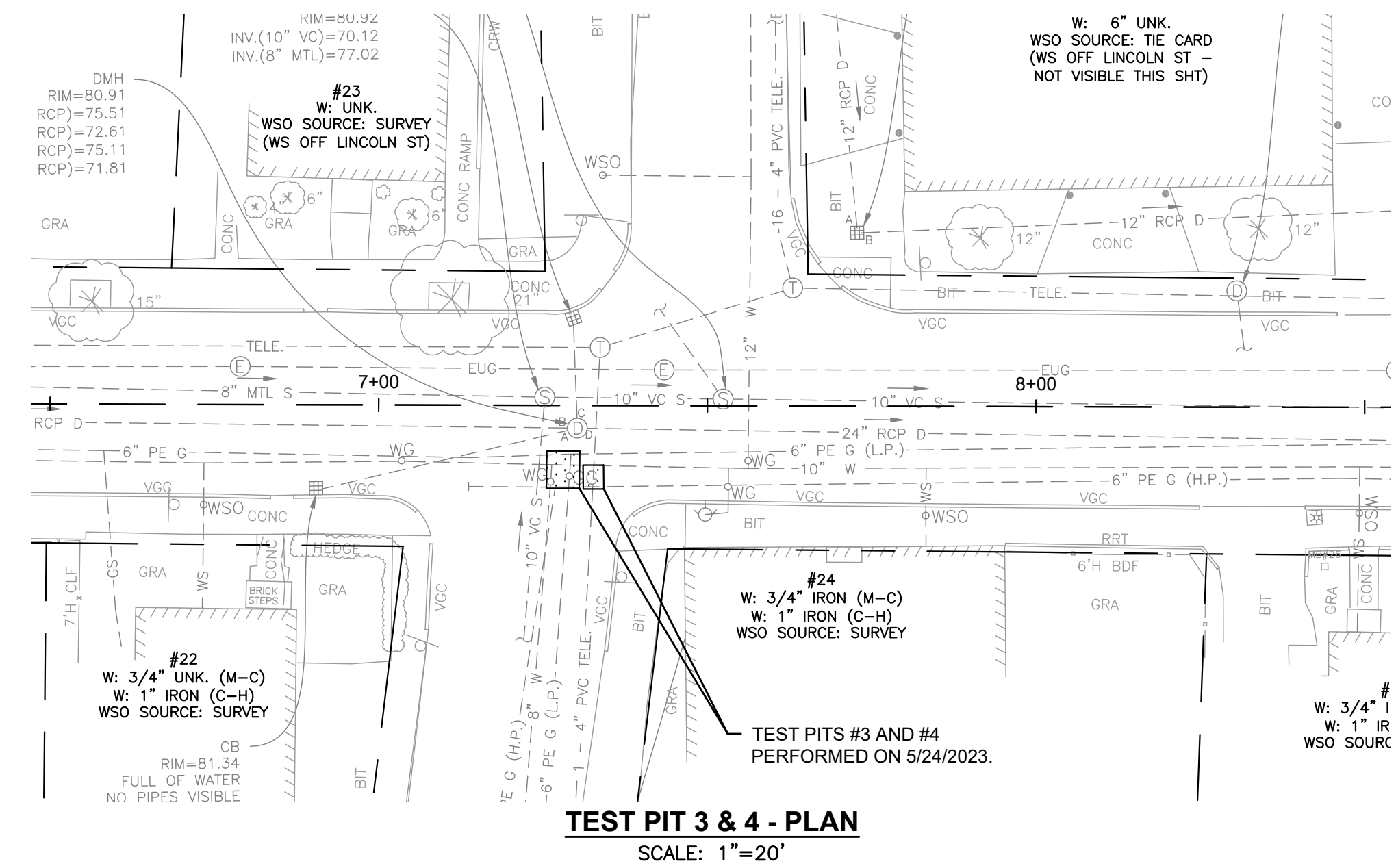
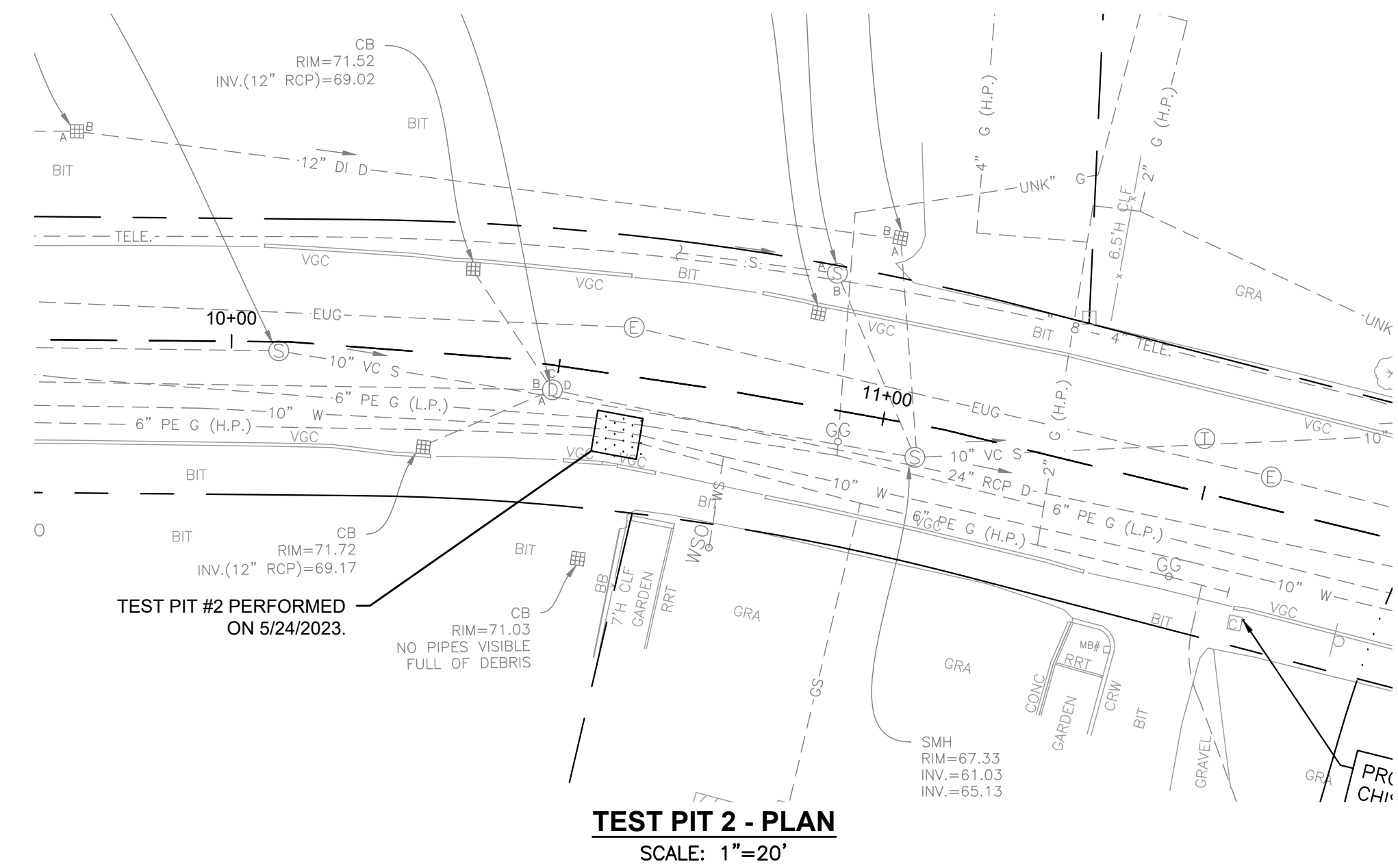
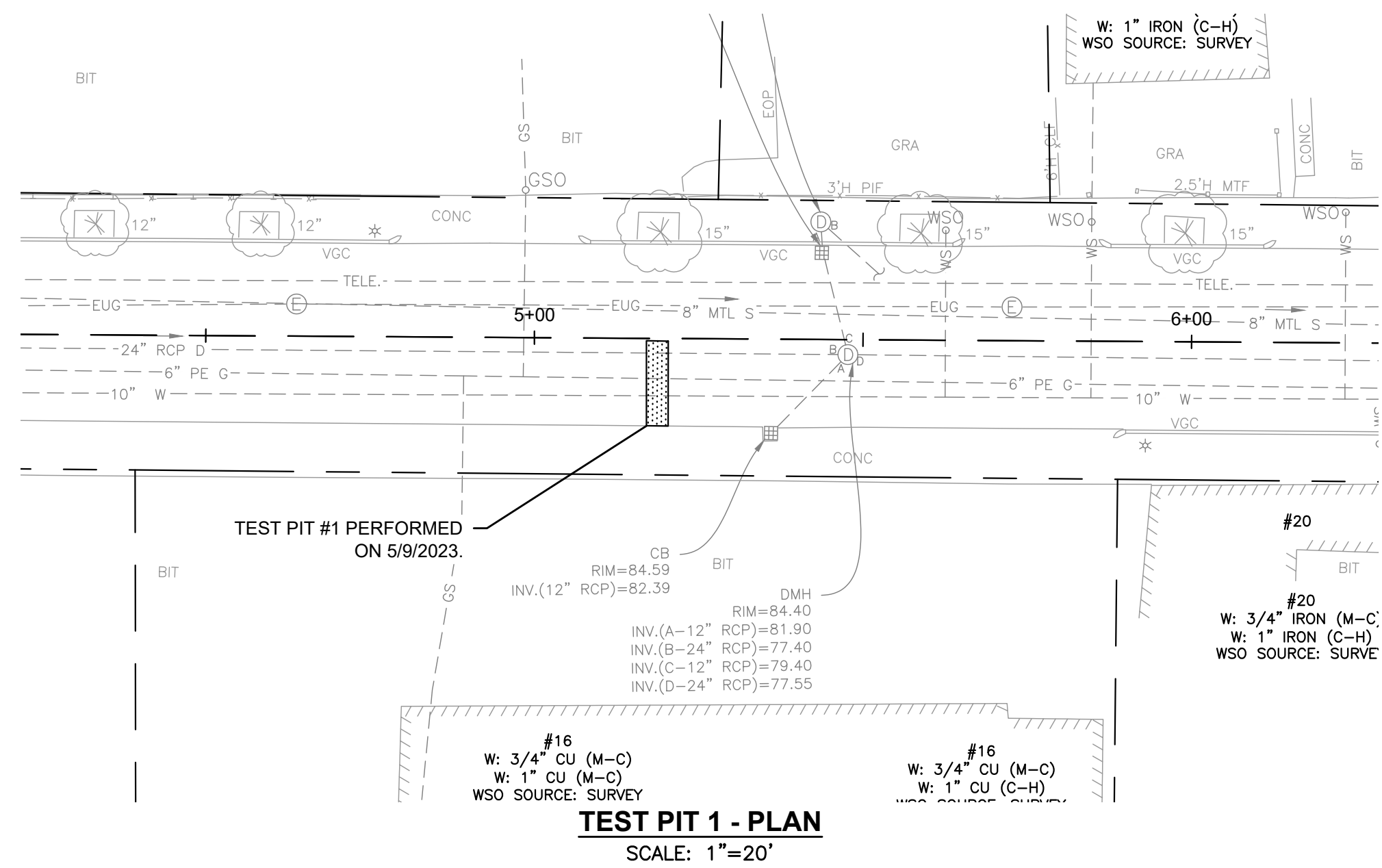
Middleborough, MA
Wareham Street Water Main Replacement
PAVEMENT RESTORATION LOCUS PLAN

BETA JOB NO. 10710

ISSUE DATE DECEMBER 2023

SHEET NO. R-1

12/13/2023 12:36 AM J:\02-10710 MIDDLEBORO - WAREHAM STREET WATER MAIN REPLACEMENT\AUTOCAD\PLAN SET\CIVIL-DETAILS-TEST PITS.DWG (BETA STB BW STB)



NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS

DRAWN BY: CJM
DESIGNED BY: RTG
CHECKED BY: AJG



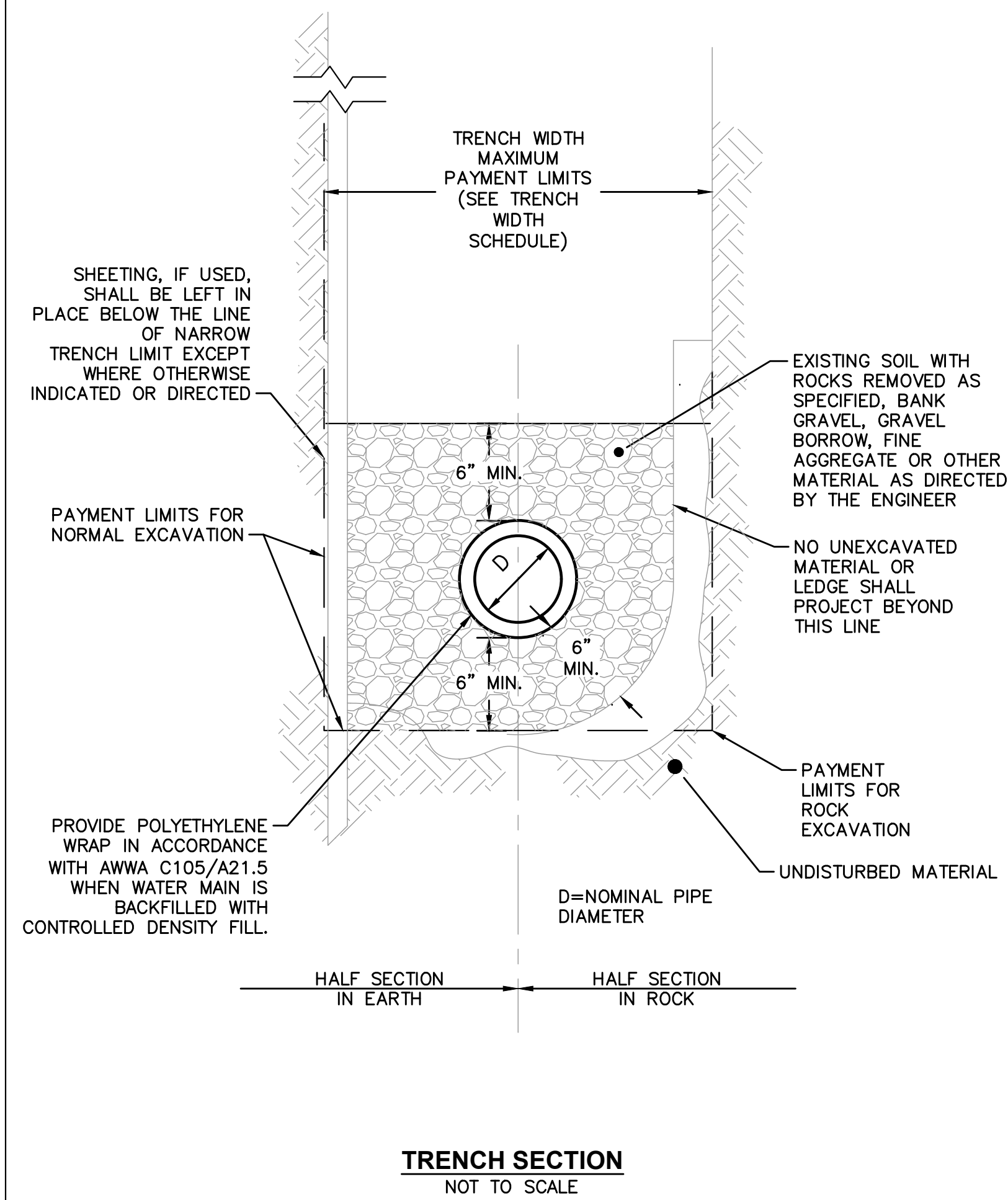
REGISTERED PROFESSIONAL PREPARED BY
SUBCONSULTANT

SCALE: AS SHOWN

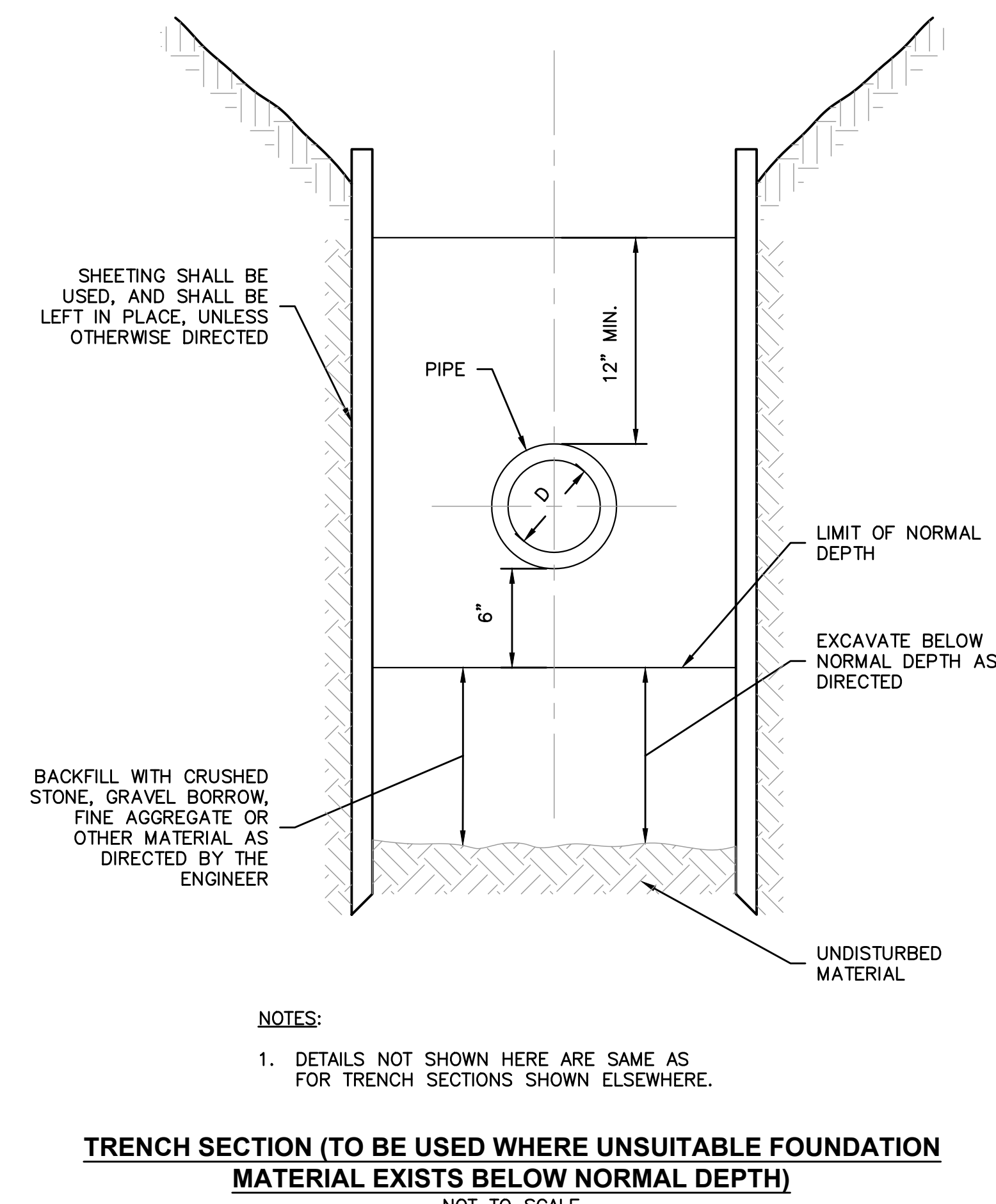
TITLE: Middleborough, MA
Wareham Street Water Main Replacement
TEST PIT DETAILS

BETA JOB NO. 10710
ISSUE DATE DECEMBER 2023
SHEET NO. TPD-1

UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION



TRENCH SECTION
NOT TO SCALE

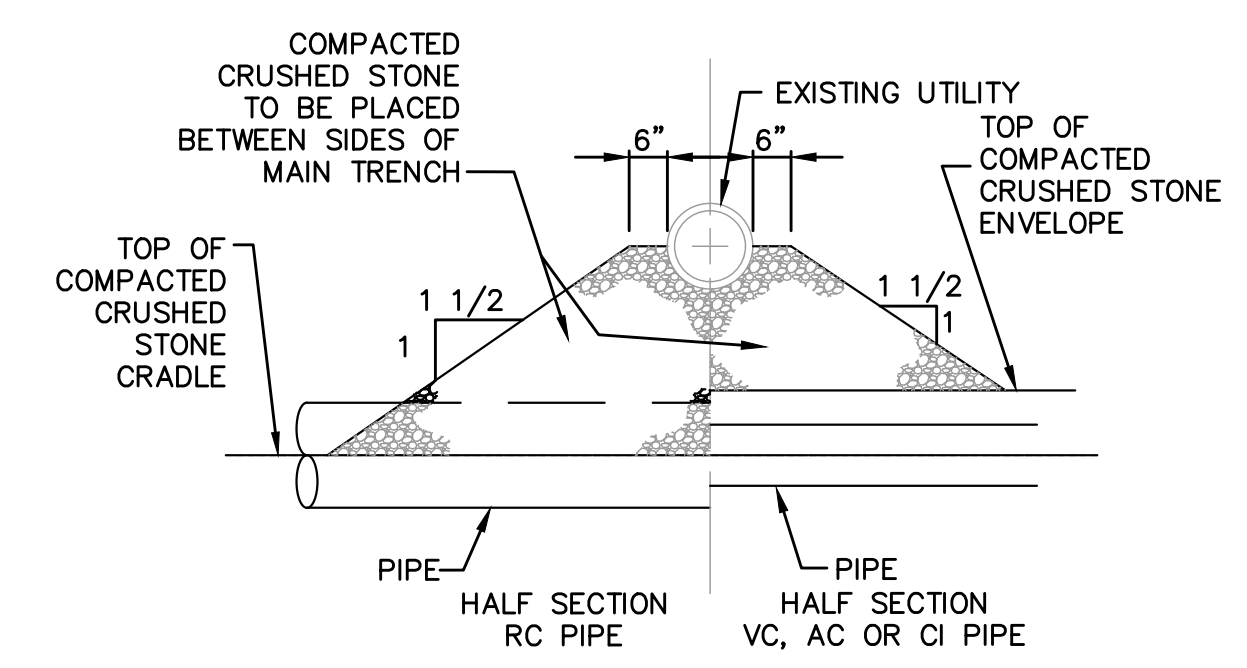


TRENCH SECTION (TO BE USED WHERE UNSUITABLE FOUNDATION MATERIAL EXISTS BELOW NORMAL DEPTH)
NOT TO SCALE

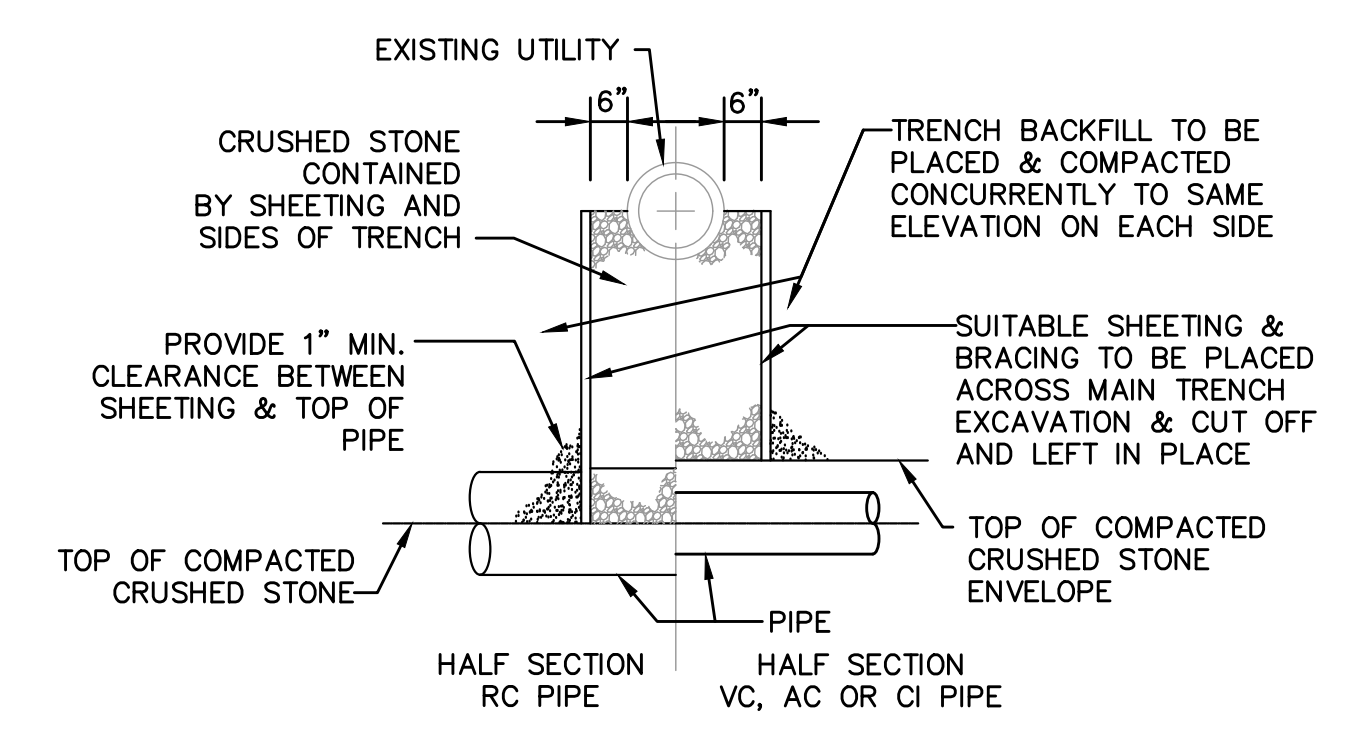
DIAMETER OF PIPE D IN INCHES	MAXIMUM PAYMENT LIMITS							
	TRENCH WIDTH IN FEET		TEMPORARY TRENCH PAVEMENT WIDTH IN FEET		PERMANENT TRENCH PAVEMENT WIDTH IN FEET (NOTE 1)		PERMANENT TRENCH PAVEMENT WIDTH IN FEET (EXTEND TO CURB) (NOTE 2)	
	TRENCH DEPTH		TRENCH DEPTH		TRENCH DEPTH		TRENCH DEPTH	
	< OR = 10'	> 10' TO 20'	< OR = 10'	> 10' TO 20'	< OR = 10'	> 10' TO 20'	< OR = 10'	> 10' TO 20'
12 AND SMALLER	5.00	6.00	6.00	7.00	8.00	9.00	10.00	11.00

- NOTES:**
- PERMANENT TRENCH WIDTH PAVEMENT INCLUDES 1' CUT BACK OF EXISTING PAVEMENT ALONG EACH SIDE OF THE TRENCH.
 - PERMANENT TRENCH PAVEMENT - EXTEND TO CURB INCLUDES 1' CUT BACK OF EXISTING PAVEMENT ALONG ONE SIDE OF THE TRENCH AND UP TO 3' CUT BACK OF EXISTING PAVEMENT ON THE OTHER SIDE OF TRENCH.
 - SEE SHEET R-1 AND CD-5 FOR PAVEMENT RESTORATION LIMITS AND DETAILS.
 - TRENCH DEPTH MEASURED FROM THE EXISTING GROUND SURFACE TO 6" BELOW THE BOTTOM OF THE CONSTRUCTED PIPE.
 - QUANTITIES FOR PAYMENT SHALL BE IN ACCORDANCE WITH THE ABOVE LIMITS OR THE ACTUAL WIDTHS, WHICHEVER IS LESS.

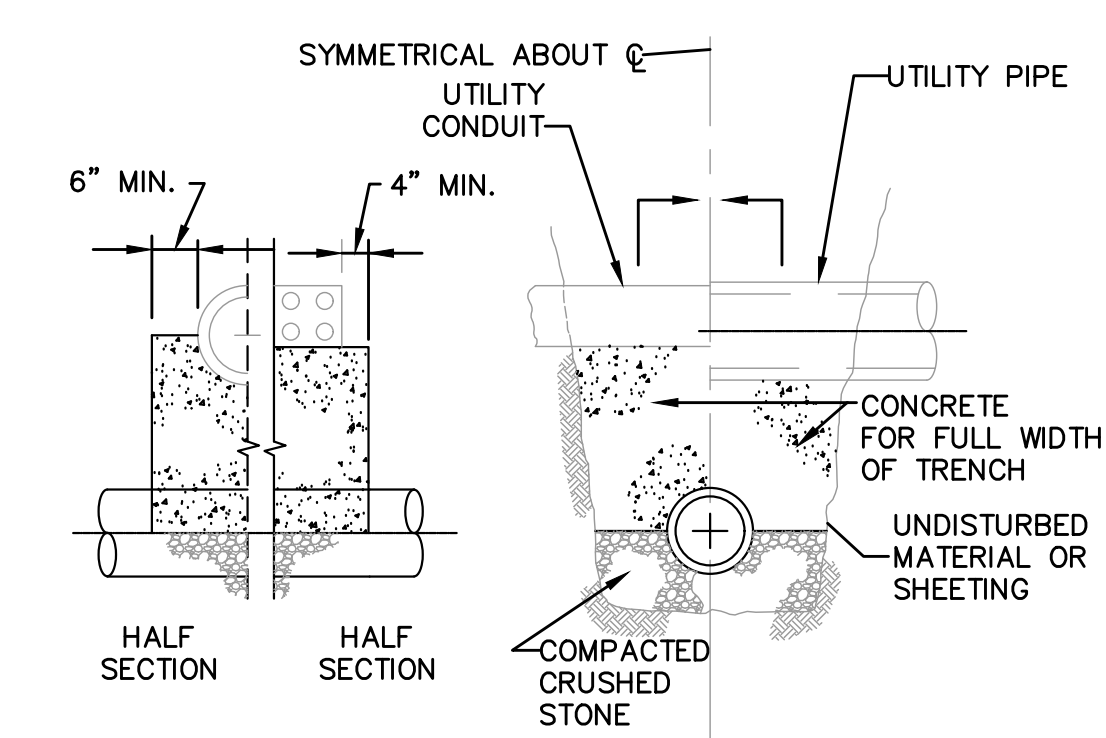
TRENCH WIDTH SCHEDULE
NOT TO SCALE



TYPE A

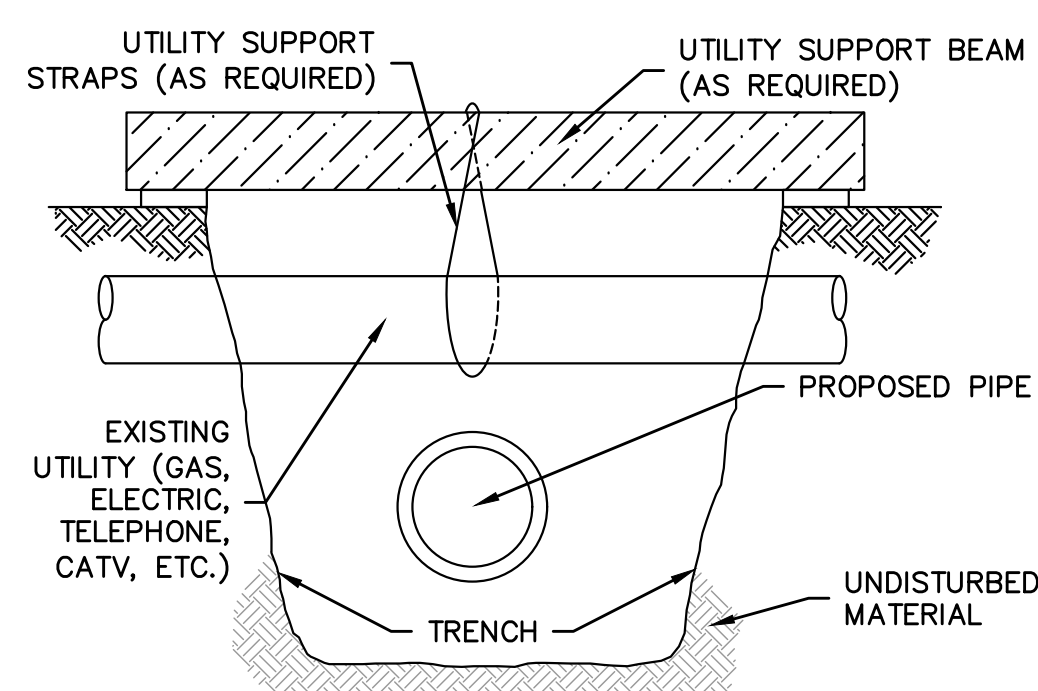


TYPE B

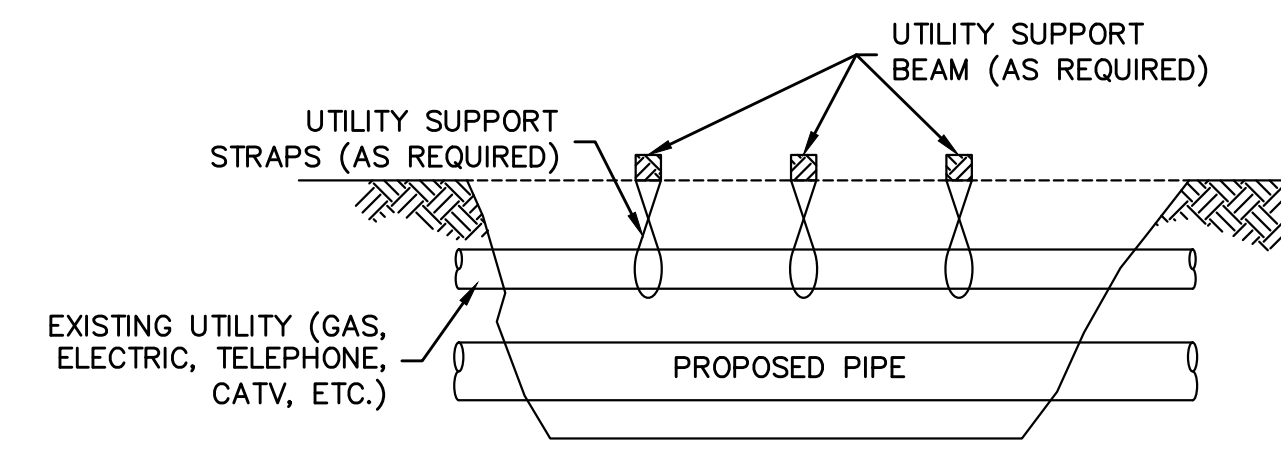


TYPE C

TYPICAL UTILITY CROSSING
NOT TO SCALE



PERPENDICULAR CROSSING



PARALLEL CROSSING

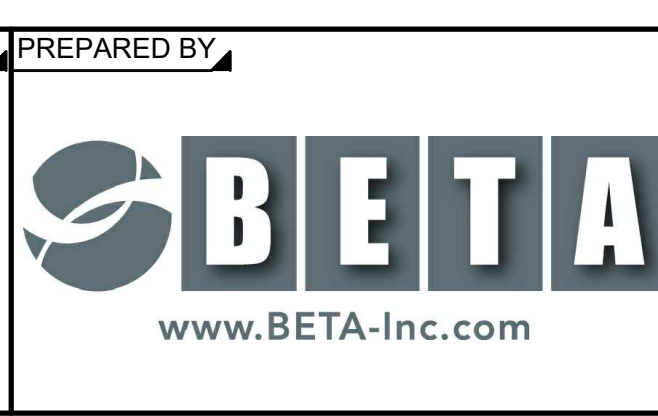
- NOTES:**
- ALL UTILITIES SHALL BE SUPPORTED AS SHOWN WHEN EXPOSED AND THE POTENTIAL EXISTS FOR UNDERMINING BY THE CONSTRUCTION ACTIVITY. THE SUPPORT SYSTEM SHALL BE IN PLACE PRIOR TO UNDERMINING OF UTILITY. ALL SUPPORT SYSTEMS SHALL HAVE SUFFICIENT TENSION SO THAT NO DEFLECTION OF THE EXISTING UTILITY WILL OCCUR ONCE UNDERMINED. THE QUANTITY, PLACEMENT AND MATERIALS USED FOR THE SUPPORT SYSTEM SHALL BE SUFFICIENT IN STRENGTH SO THAT NO DEFLECTION OF THE EXISTING UTILITY WILL OCCUR.
 - WHEN CONSTRUCTION ACTIVITY IS COMPLETED, THE TRENCH SHALL BE BACKFILLED WITH CRUSHED STONE AND/OR MATERIAL OTHERWISE REQUIRED BY THE AFFECTED UTILITY COMPANY AND COMPACTED AROUND THE EXISTING UTILITY PRIOR TO REMOVING THE SUPPORT MECHANISM.

UTILITY SUPPORT
NOT TO SCALE

12/13/2023 12:37 AM J:02:10710 MIDDLEBORO - WAREHAM STREET WATER MAIN REPLACEMENT/AUTOCAD/PLAN SET/CIVIL-DETAILS.DWG (BETA STB BW STB)

NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS

DRAWN BY:
CJM
DESIGNED BY:
RTG
CHECKED BY:
AJG

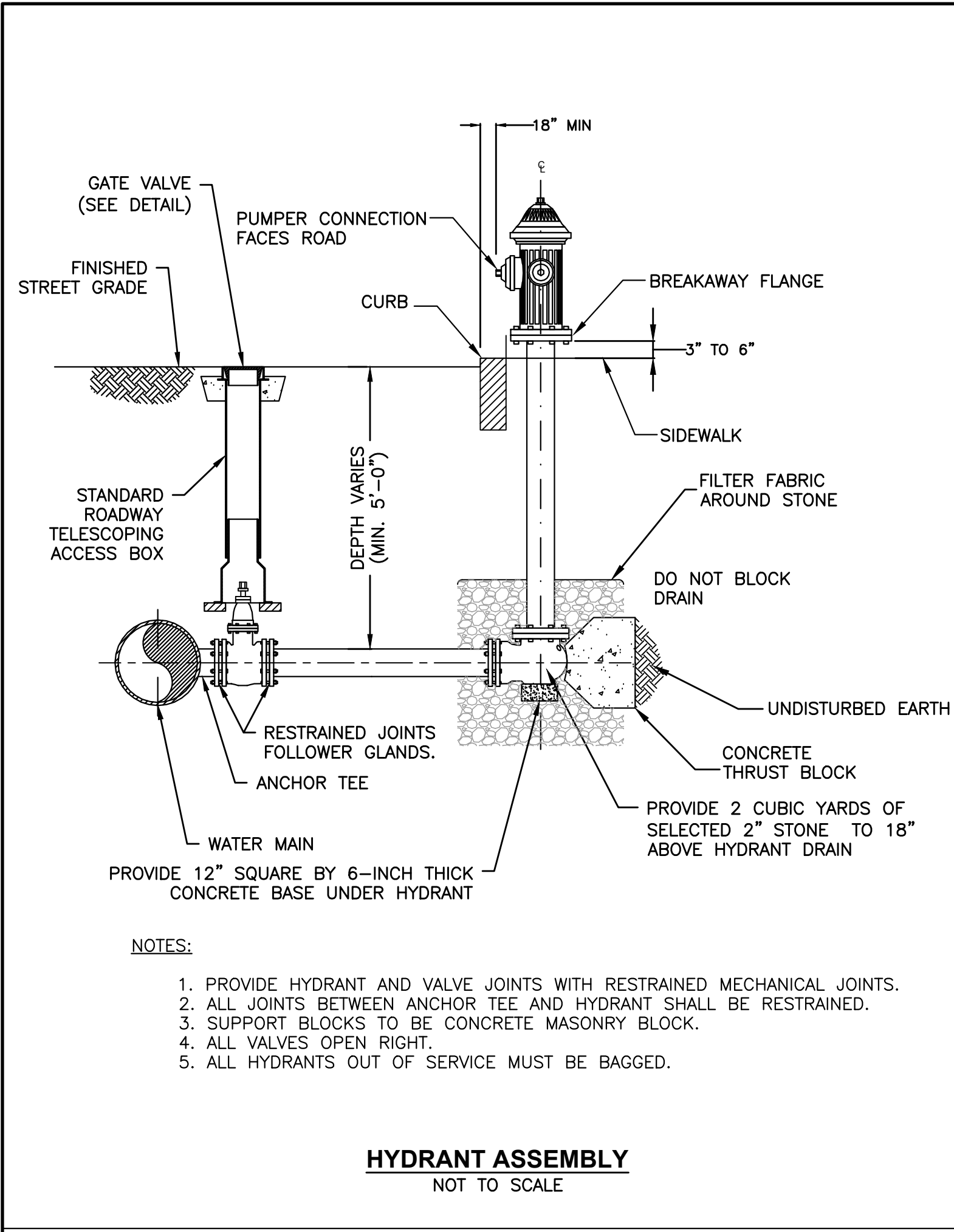


PREPARED BY:
SUBCONSULTANT

SCALE:
AS SHOWN

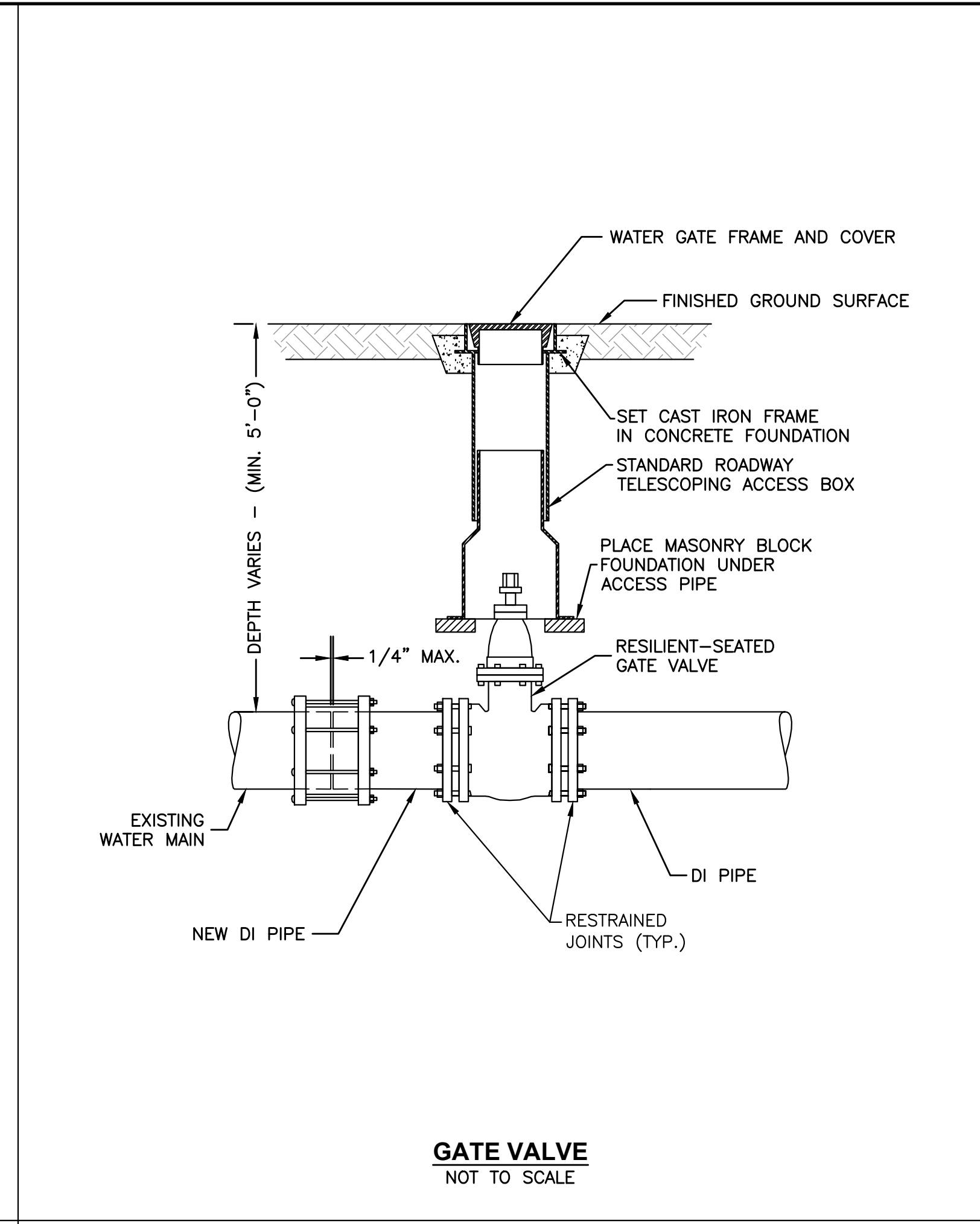
TITLE:
Middleborough, MA
Wareham Street Water Main Replacement
CIVIL DETAILS - I

BETA JOB NO. 10710
ISSUE DATE DECEMBER 2023
SHEET NO. CD-1



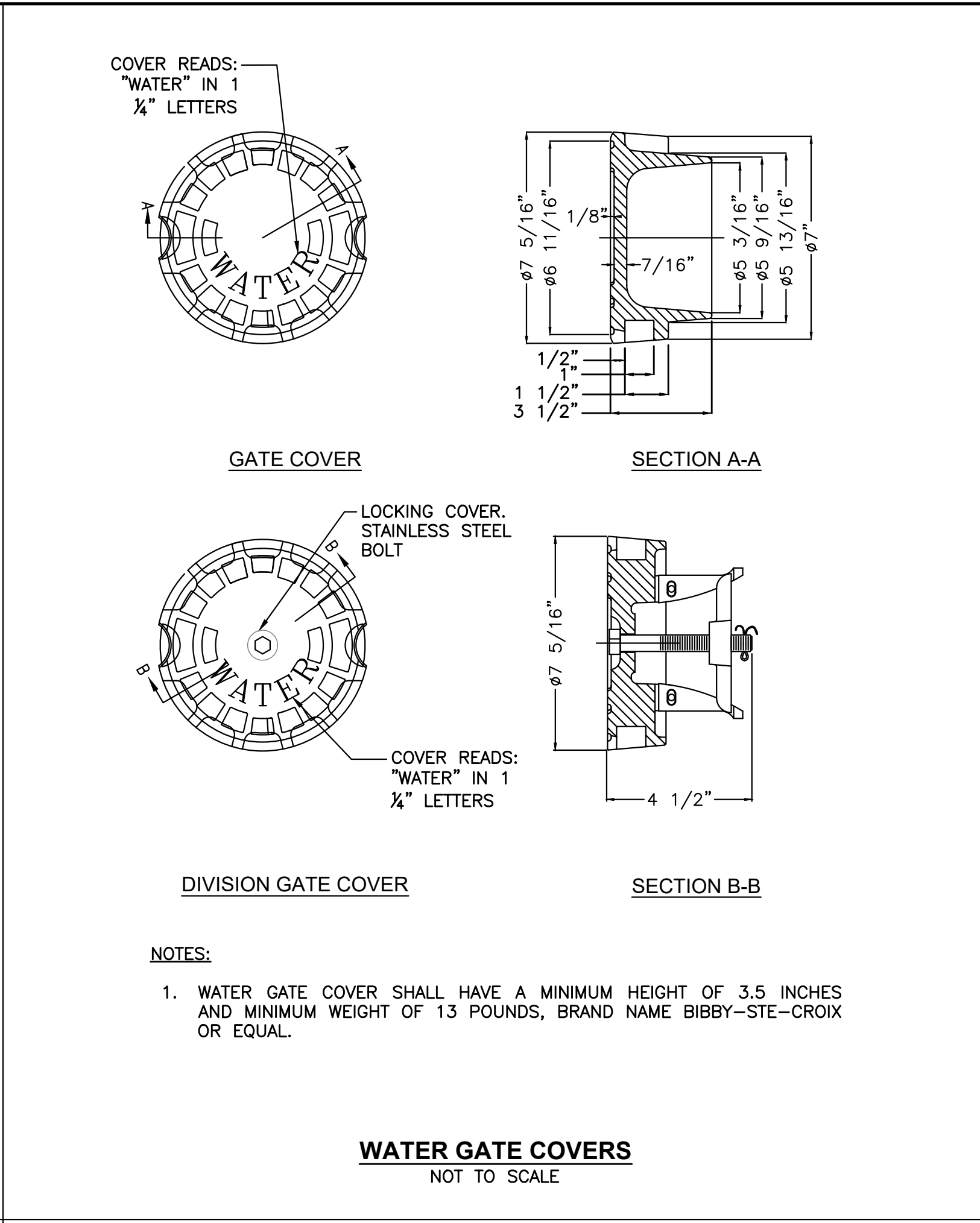
- NOTES:**
1. PROVIDE HYDRANT AND VALVE JOINTS WITH RESTRAINED MECHANICAL JOINTS.
 2. ALL JOINTS BETWEEN ANCHOR TEE AND HYDRANT SHALL BE RESTRAINED.
 3. SUPPORT BLOCKS TO BE CONCRETE MASONRY BLOCK.
 4. ALL VALVES OPEN RIGHT.
 5. ALL HYDRANTS OUT OF SERVICE MUST BE BAGGED.

HYDRANT ASSEMBLY
NOT TO SCALE

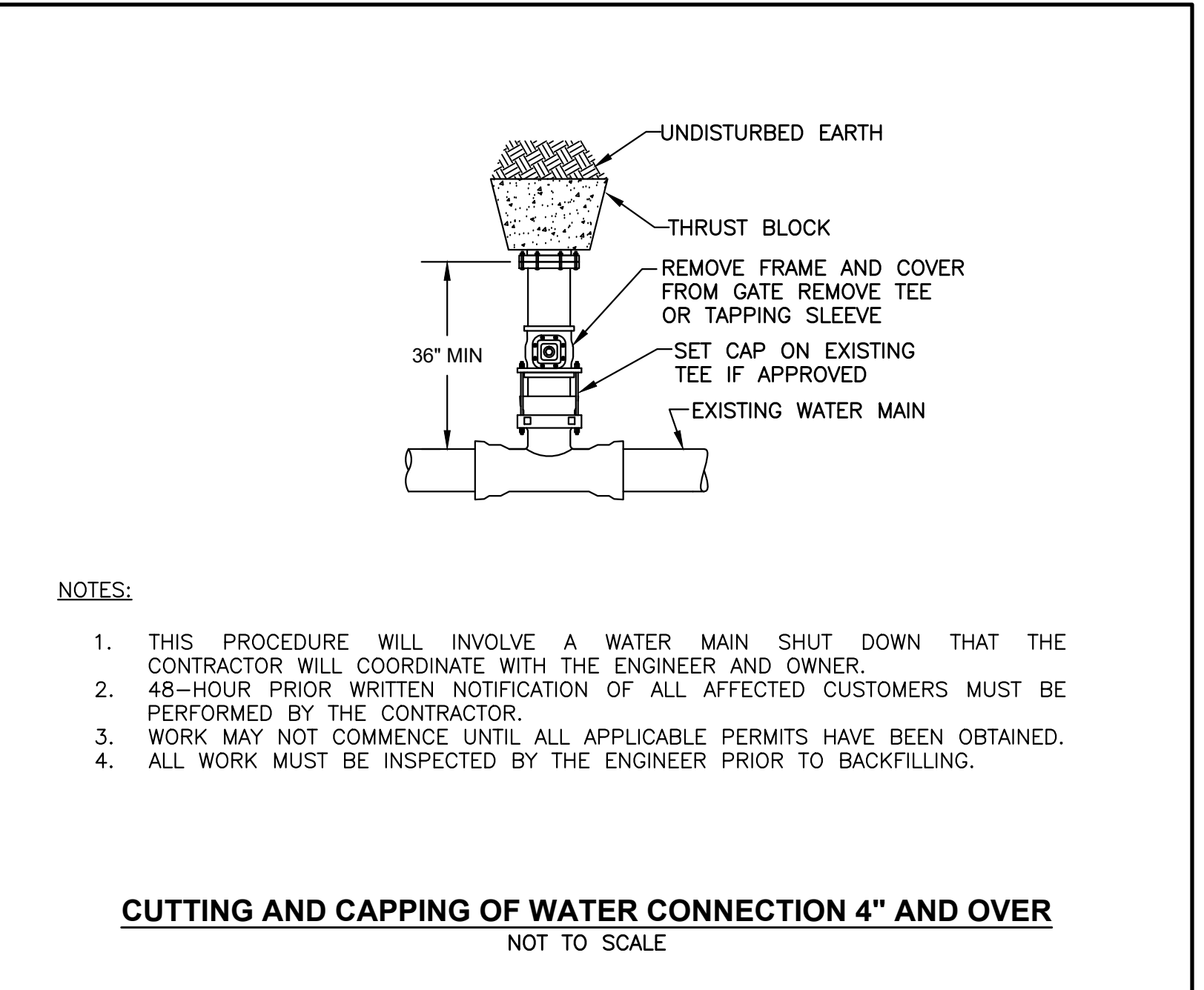


- NOTES:**
1. WATER GATE COVER SHALL HAVE A MINIMUM HEIGHT OF 3.5 INCHES AND MINIMUM WEIGHT OF 13 POUNDS, BRAND NAME BIBBY-STE-CROIX OR EQUAL.

GATE VALVE
NOT TO SCALE

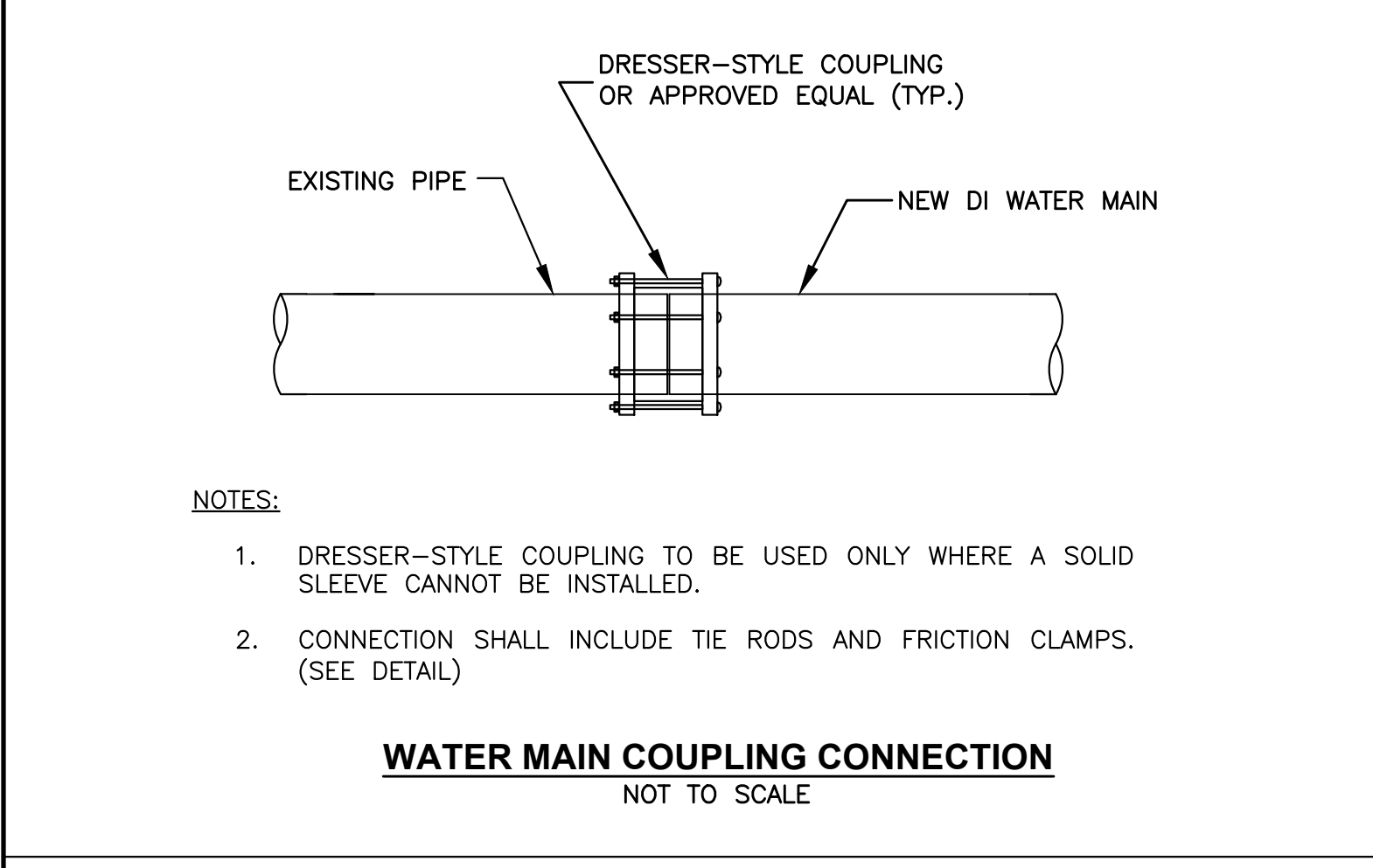


WATER GATE COVERS
NOT TO SCALE



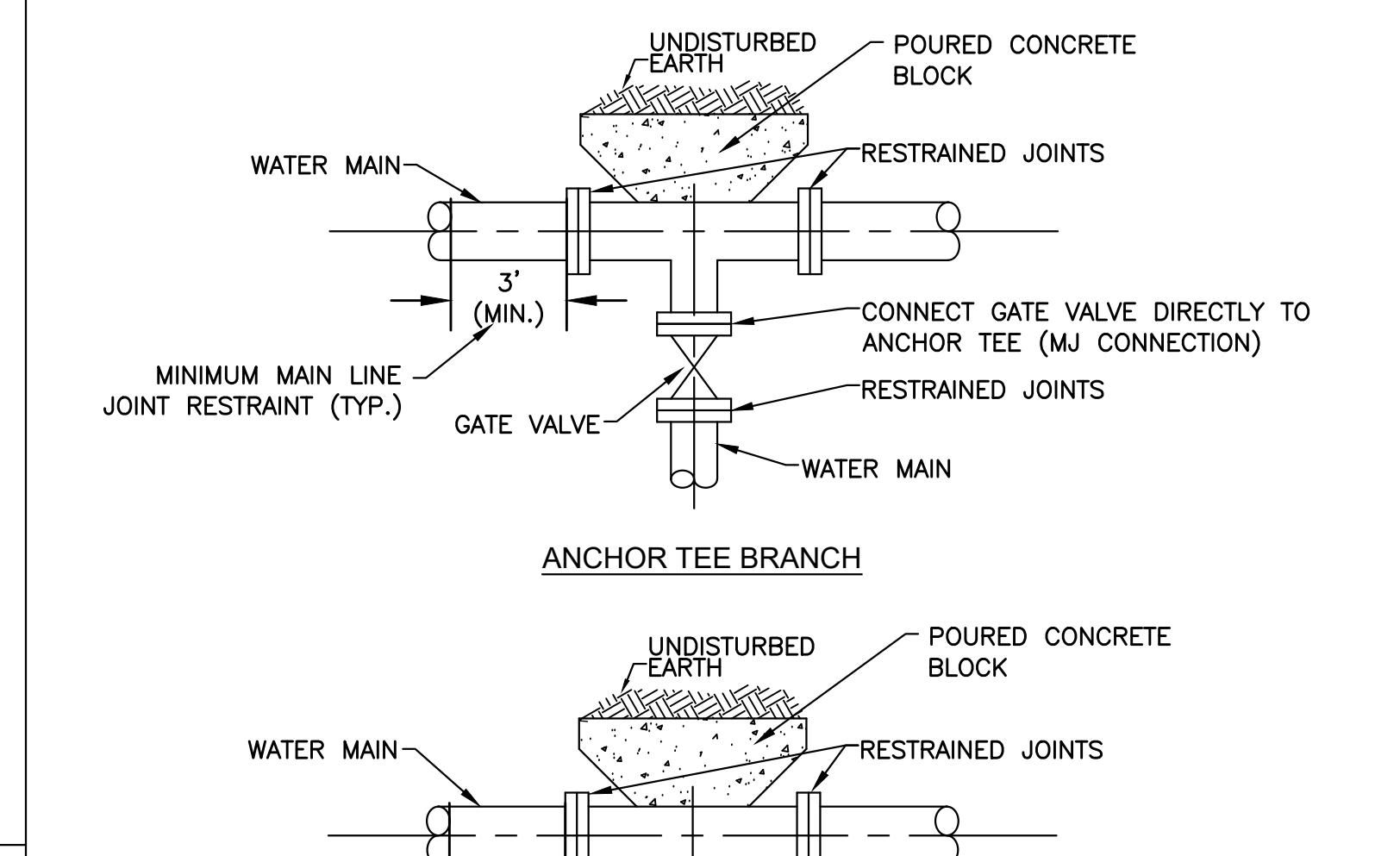
- NOTES:**
1. THIS PROCEDURE WILL INVOLVE A WATER MAIN SHUT DOWN THAT THE CONTRACTOR WILL COORDINATE WITH THE ENGINEER AND OWNER.
 2. 48-HOUR PRIOR WRITTEN NOTIFICATION OF ALL AFFECTED CUSTOMERS MUST BE PERFORMED BY THE CONTRACTOR.
 3. WORK MAY NOT COMMENCE UNTIL ALL APPLICABLE PERMITS HAVE BEEN OBTAINED.
 4. ALL WORK MUST BE INSPECTED BY THE ENGINEER PRIOR TO BACKFILLING.

CUTTING AND CAPPING OF WATER CONNECTION 4\"/>



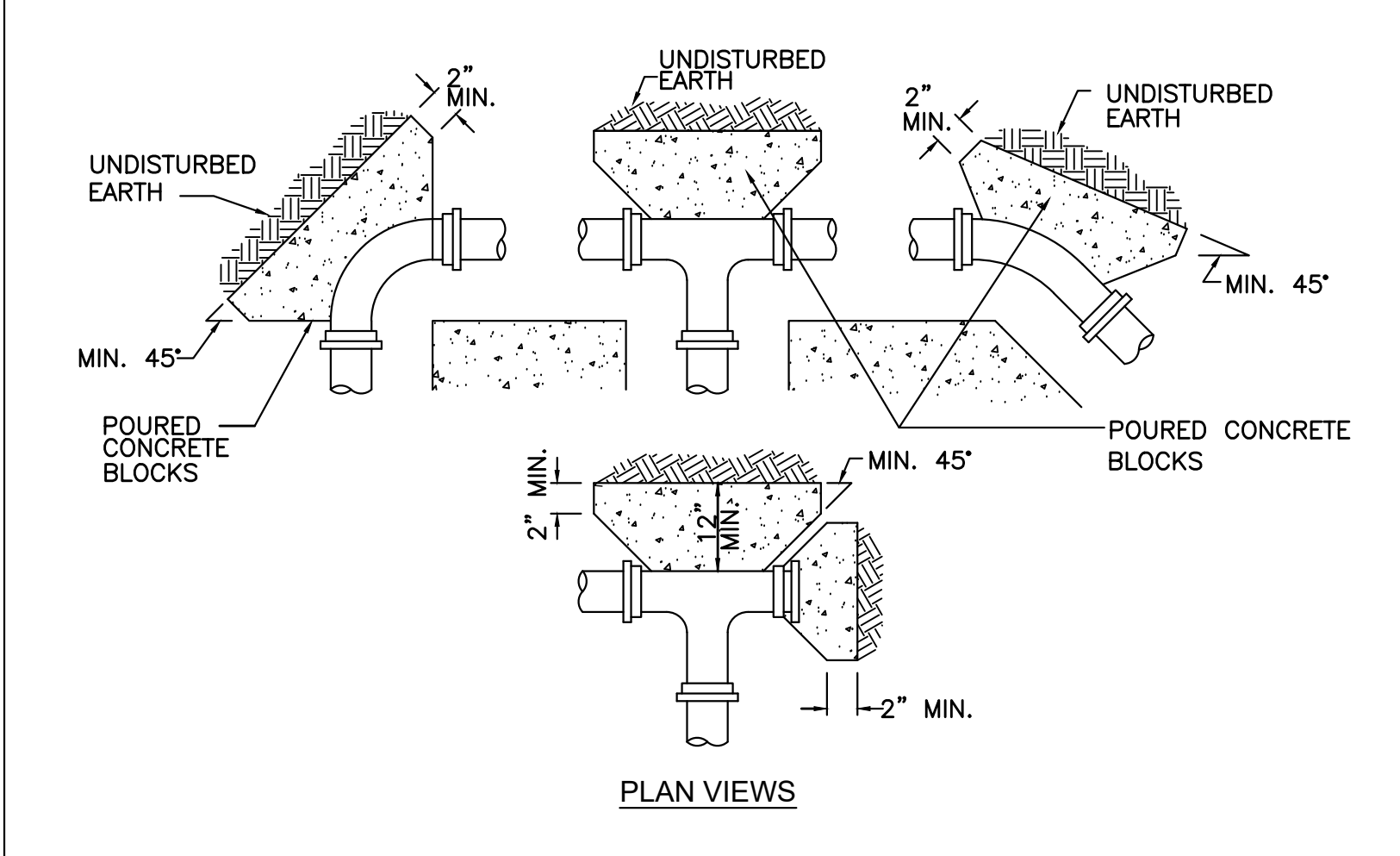
- NOTES:**
1. DRESSER-STYLE COUPLING TO BE USED ONLY WHERE A SOLID SLEEVE CANNOT BE INSTALLED.
 2. CONNECTION SHALL INCLUDE TIE RODS AND FRICTION CLAMPS. (SEE DETAIL)

WATER MAIN COUPLING CONNECTION
NOT TO SCALE



- NOTES:**
1. ALL FITTING AND VALVES SHALL BE "ALL-BELL" FITTINGS.
 2. ALL CONNECTIONS SHALL BE RESTRAINED MECHANICAL JOINT (MJ) CONNECTIONS.
 3. MAIN LINE TO BE RESTRAINED A MINIMUM OF THREE FEET ON EITHER SIDE OF TEE.
 4. SEE RESTRAINT TABLES FOR BRANCH LINE RESTRAINT REQUIREMENTS.

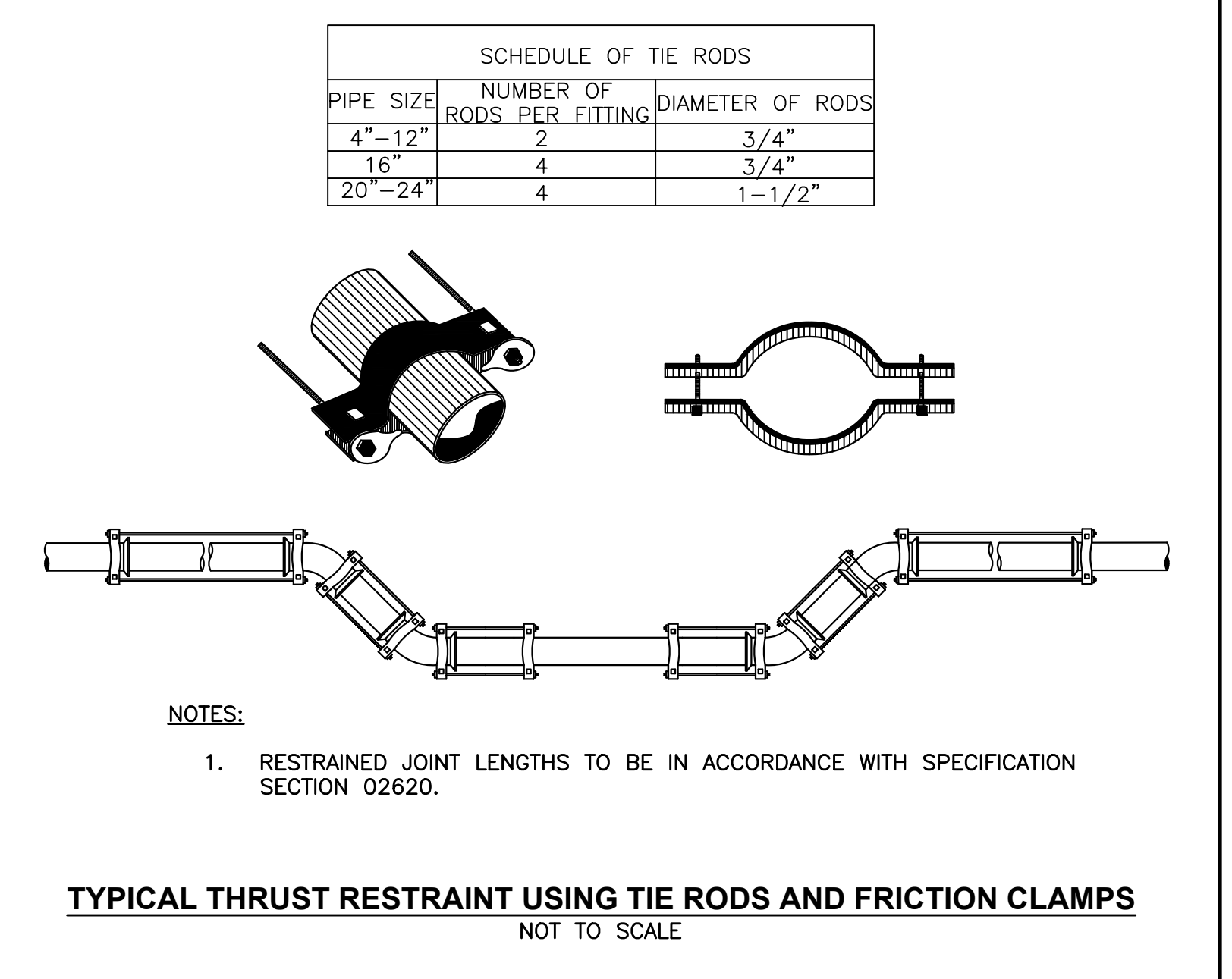
TYPICAL DUCTILE IRON WATER MAIN BRANCHES
NOT TO SCALE



NOMINAL PIPE SIZE (INCHES)	MAXIMUM PIPE OD (INCHES)	REQUIRED BEARING AREA (SQ FT)			
		TEES & CAPS	45 DEG	22.5 DEG	11.25 DEG
4	4.80	1.3	1	0.5	0.3
6	6.90	2.6	2	1	0.5
8	9.05	5	3.5	1.8	0.9
12	13.20	9.3	7.2	3.7	1.8

- NOTES:**
1. SPECIFIC THRUST BLOCK DESIGN SHALL CONFORM TO AWWA GUIDELINES.
 2. PLACE 4 MIL. POLYETHYLENE BETWEEN CONCRETE AND FITTING (CONCRETE SHALL NOT INTERFERE WITH JOINT).
 3. MINIMUM CONCRETE THICKNESS SHALL BE 12 INCHES.
 4. THRUST BLOCK ORIENTATION SHALL BE SUCH THAT THE CENTER OF THE FITTING CORRESPONDS WITH THE CENTER OF THE THRUST BLOCK.
 5. THE MINIMUM ALLOWABLE ANGLE (EITHER VERTICAL OR HORIZONTAL) SHALL BE 45 DEGREES.

THRUST BLOCK DETAILS
NOT TO SCALE



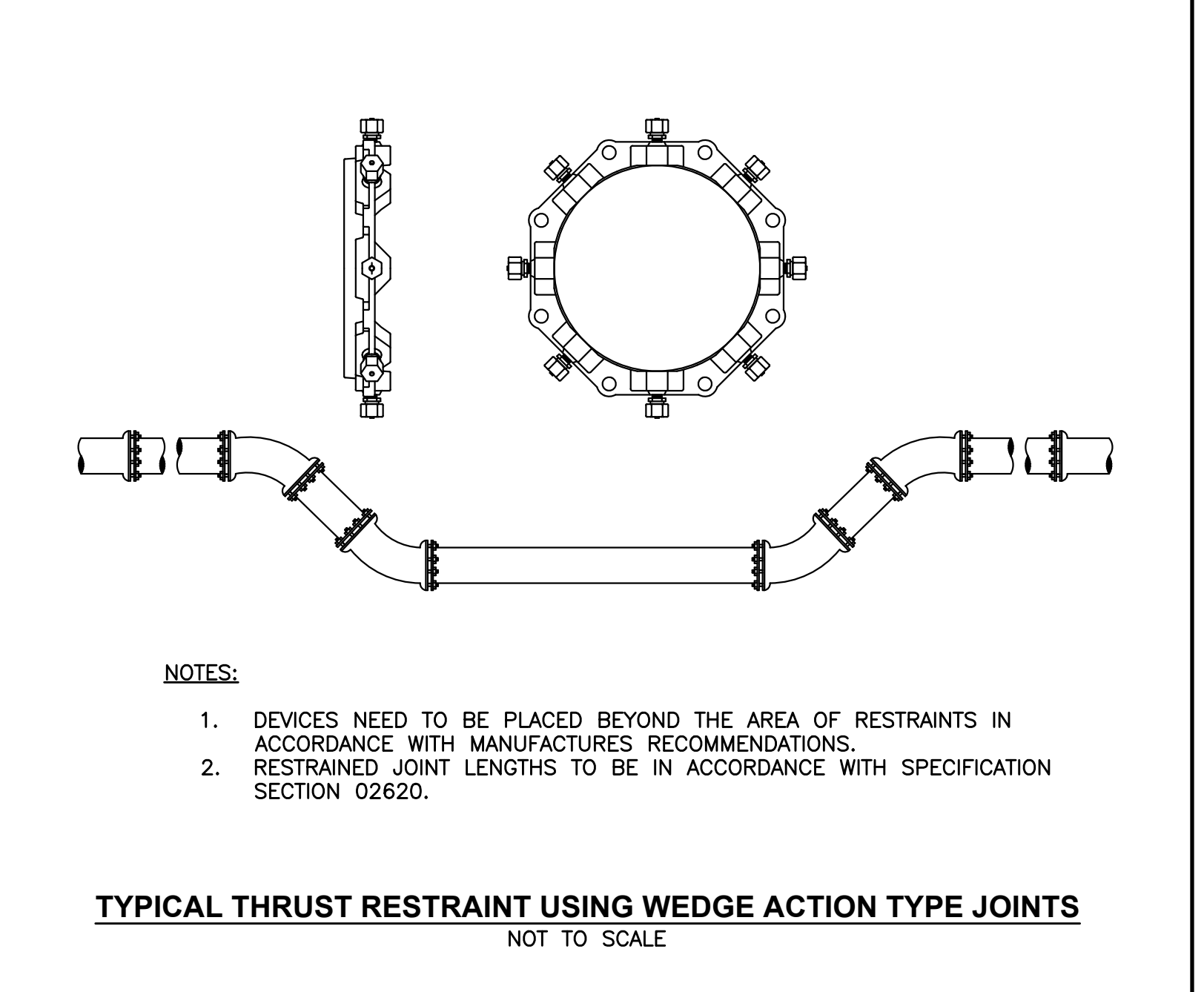
- NOTES:**
1. RESTRAINED JOINT LENGTHS TO BE IN ACCORDANCE WITH SPECIFICATION SECTION 02620.

TYPICAL THRUST RESTRAINT USING TIE RODS AND FRICTION CLAMPS
NOT TO SCALE

PIPE DIA.	END	45° BEND	22.5° BEND	RED.
6"	49 FT	18 FT	6 FT	N/A
8"	64 FT	21 FT	8 FT	27 FT
12"	91 FT	27 FT	11 FT	49 FT

LENGTHS APPLY TO BOTH SIDES OF BENDS

RESTRAINED JOINT LENGTHS FOR CL52 DI WATER MAIN
NOT TO SCALE



- NOTES:**
1. DEVICES NEED TO BE PLACED BEYOND THE AREA OF RESTRAINTS IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
 2. RESTRAINED JOINT LENGTHS TO BE IN ACCORDANCE WITH SPECIFICATION SECTION 02620.

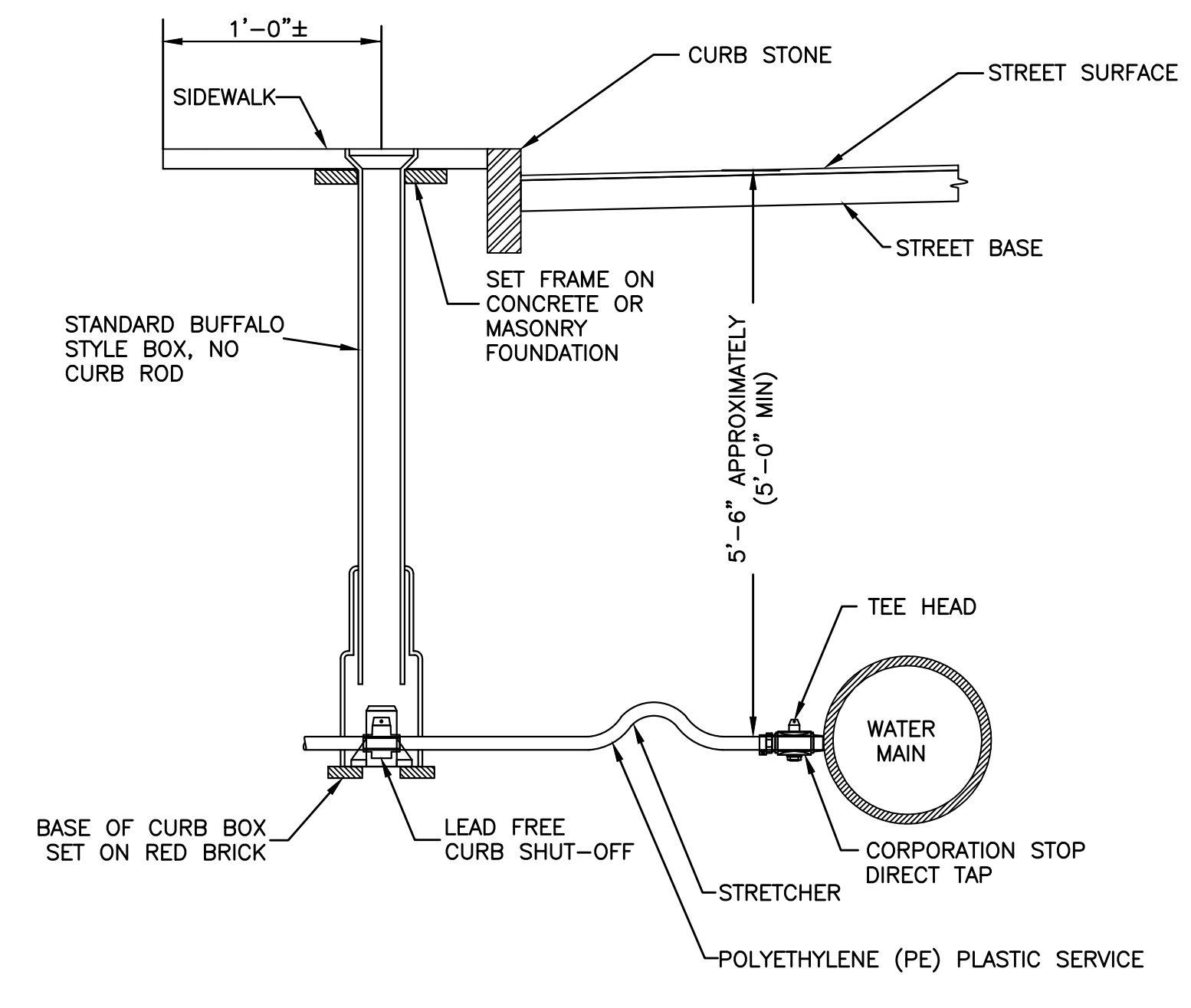
TYPICAL THRUST RESTRAINT USING WEDGE ACTION TYPE JOINTS
NOT TO SCALE

DRAWN BY: CJM	REGISTERED PROFESSIONAL	PREPARED BY: 	SUBCONSULTANT	SCALE: AS SHOWN	TITLE: Middleborough, MA Wareham Street Water Main Replacement	BETA JOB NO. 10710
DESIGNED BY: RTG						ISSUE DATE: DECEMBER 2023
CHECKED BY: AJG						SHEET NO. CD-2

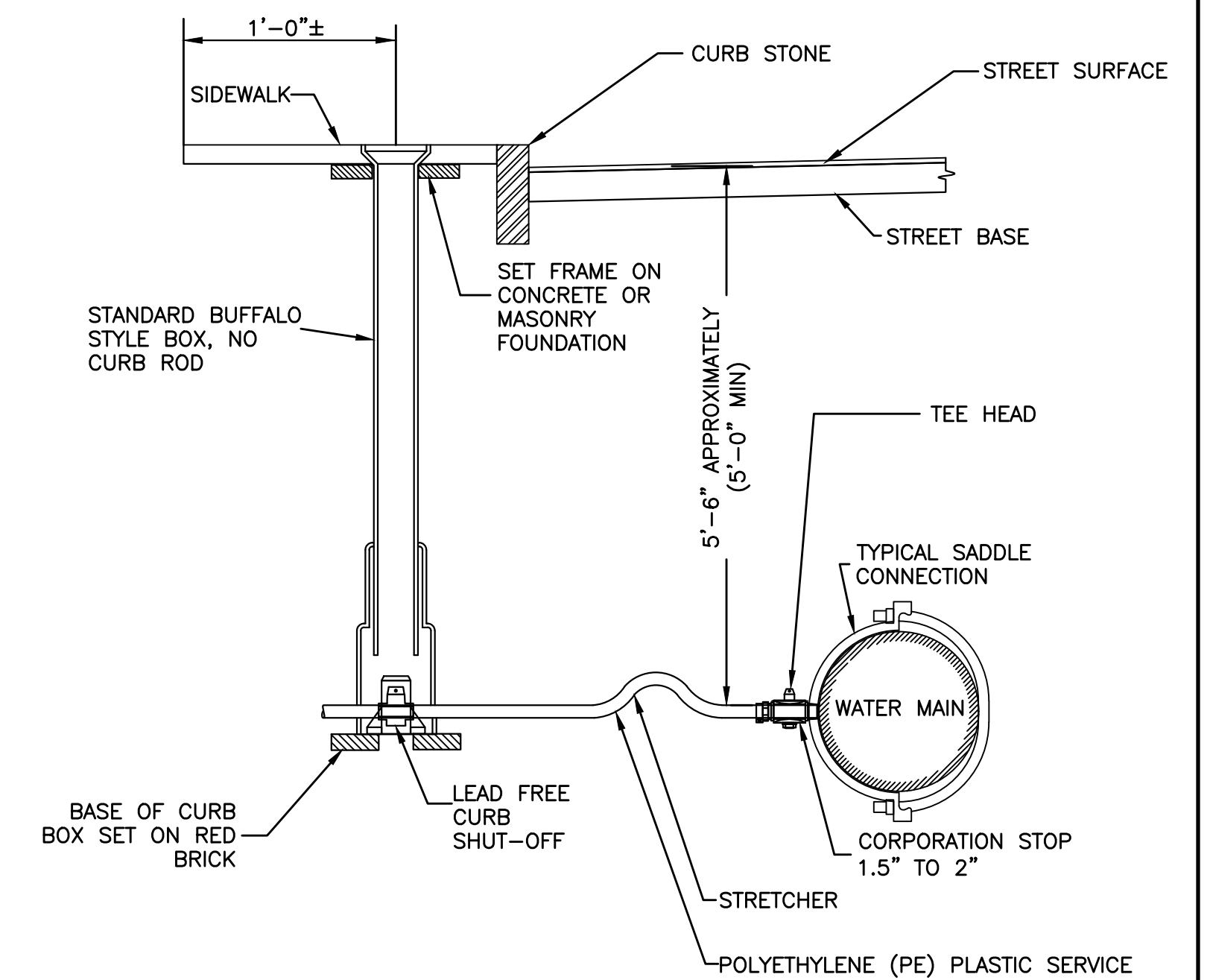
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NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS

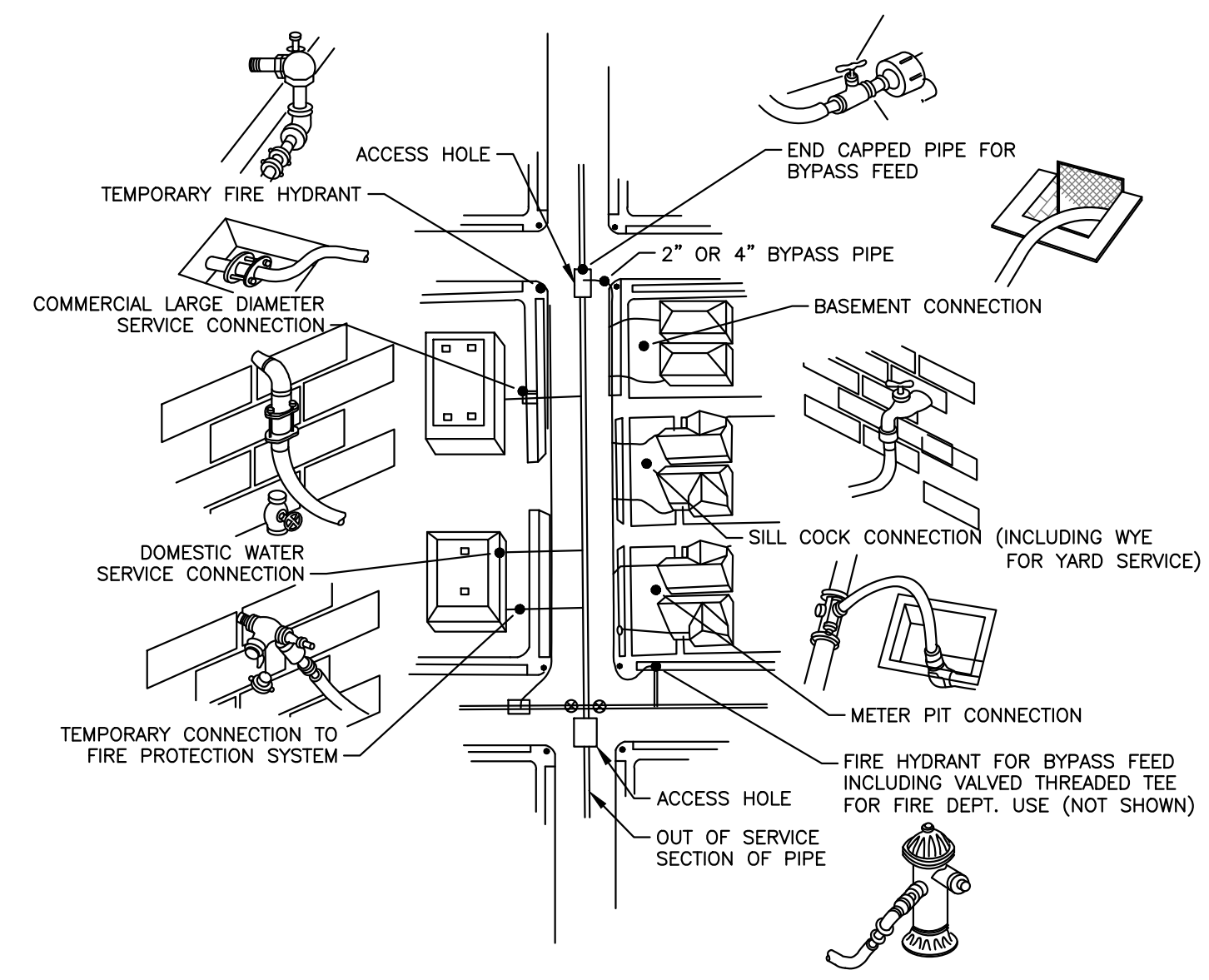
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TYPICAL WATER CONNECTION FOR 1" SERVICE
NOT TO SCALE

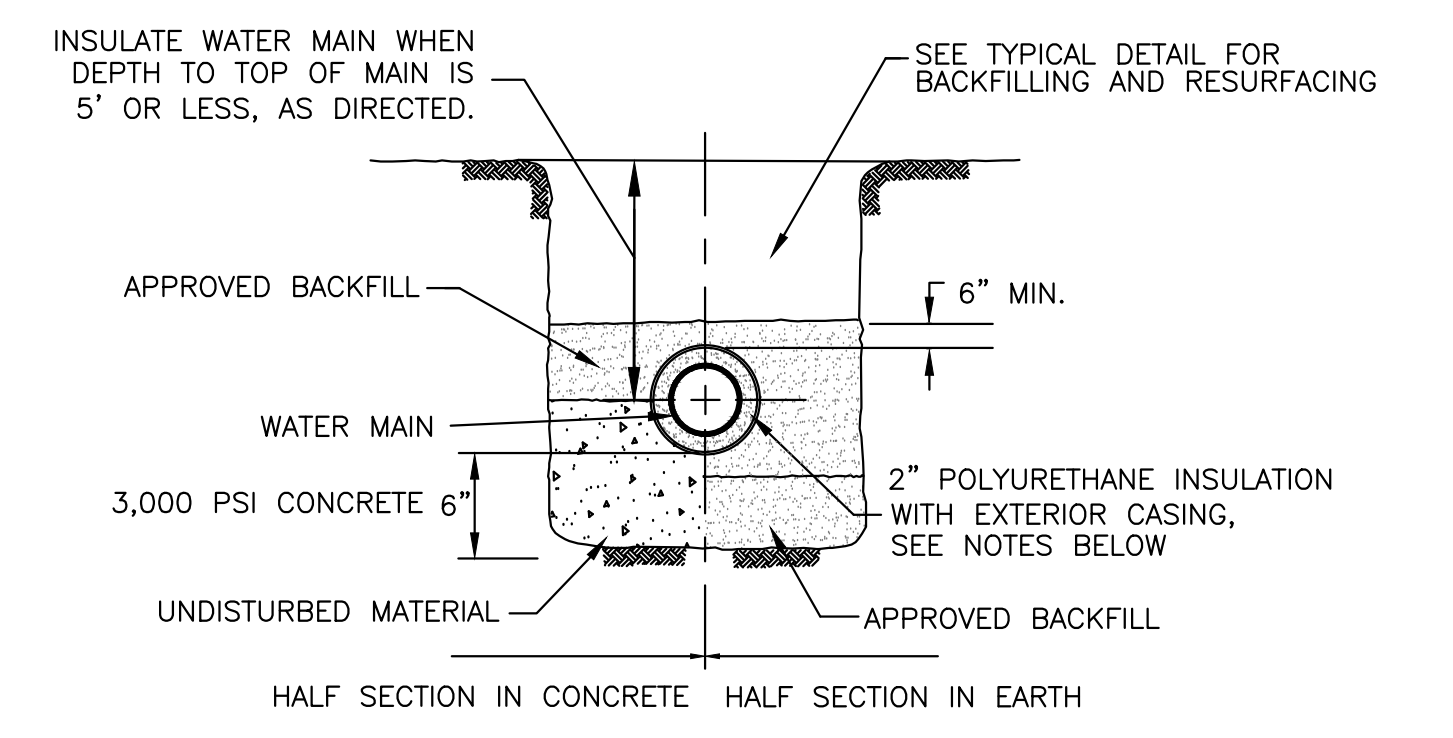
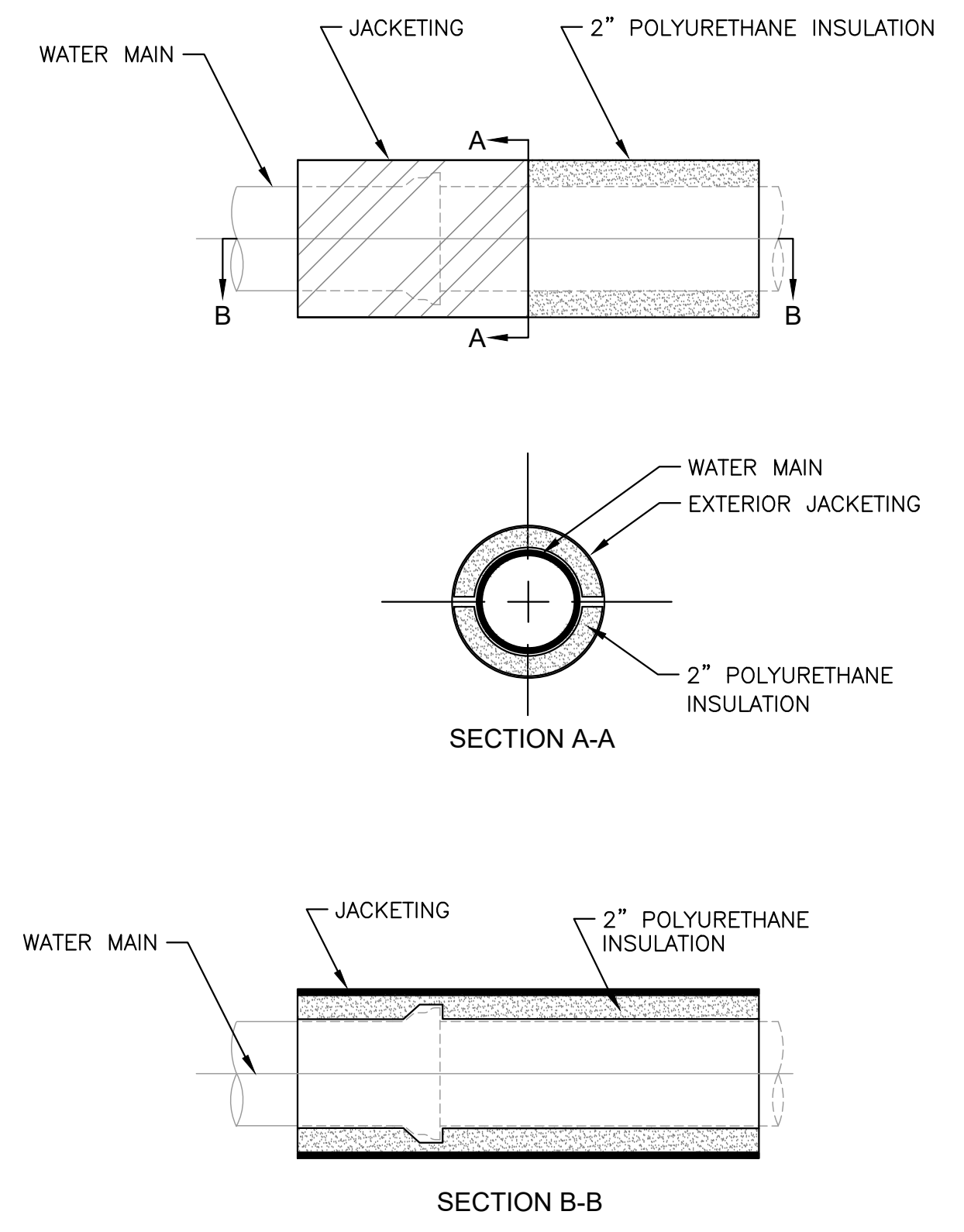


TYPICAL WATER CONNECTION FOR 1-1/2" TO 2" SERVICE
NOT TO SCALE



NOTES:
1. IN LINE VALVES REQUIRED ON BOTH SIDES OF THE STREET CROSSING CONNECTIONS AND A MINIMUM OF EVERY 400 FEET ON LINE.

BYPASS PIPING DETAILS
NOT TO SCALE

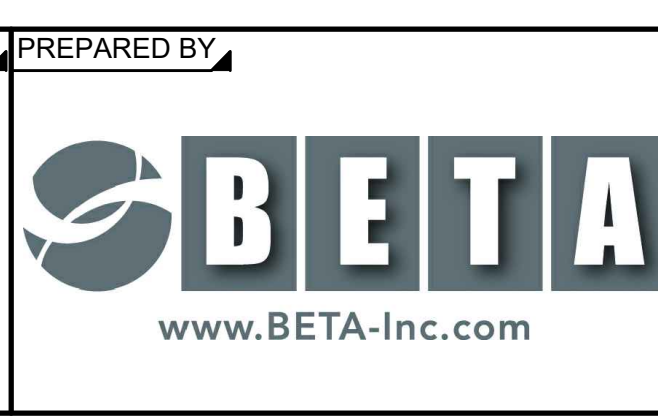


NOTES:
1. CLOSED CELL POLYURETHANE INSULATION SHALL BE AS MANUFACTURED BY TRICON PIPING SYSTEMS, OR APPROVED EQUAL.
2. ALL INSULATED WATER MAIN SHALL BE COVERED AND SECURED IN PLACE WITH A PROTECTIVE EXTERIOR CASING (JACKETING), APPROVED FOR USE WITHIN THE INTENDED APPLICATION.

WATER MAIN INSULATION DETAILS
NOT TO SCALE

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AJG



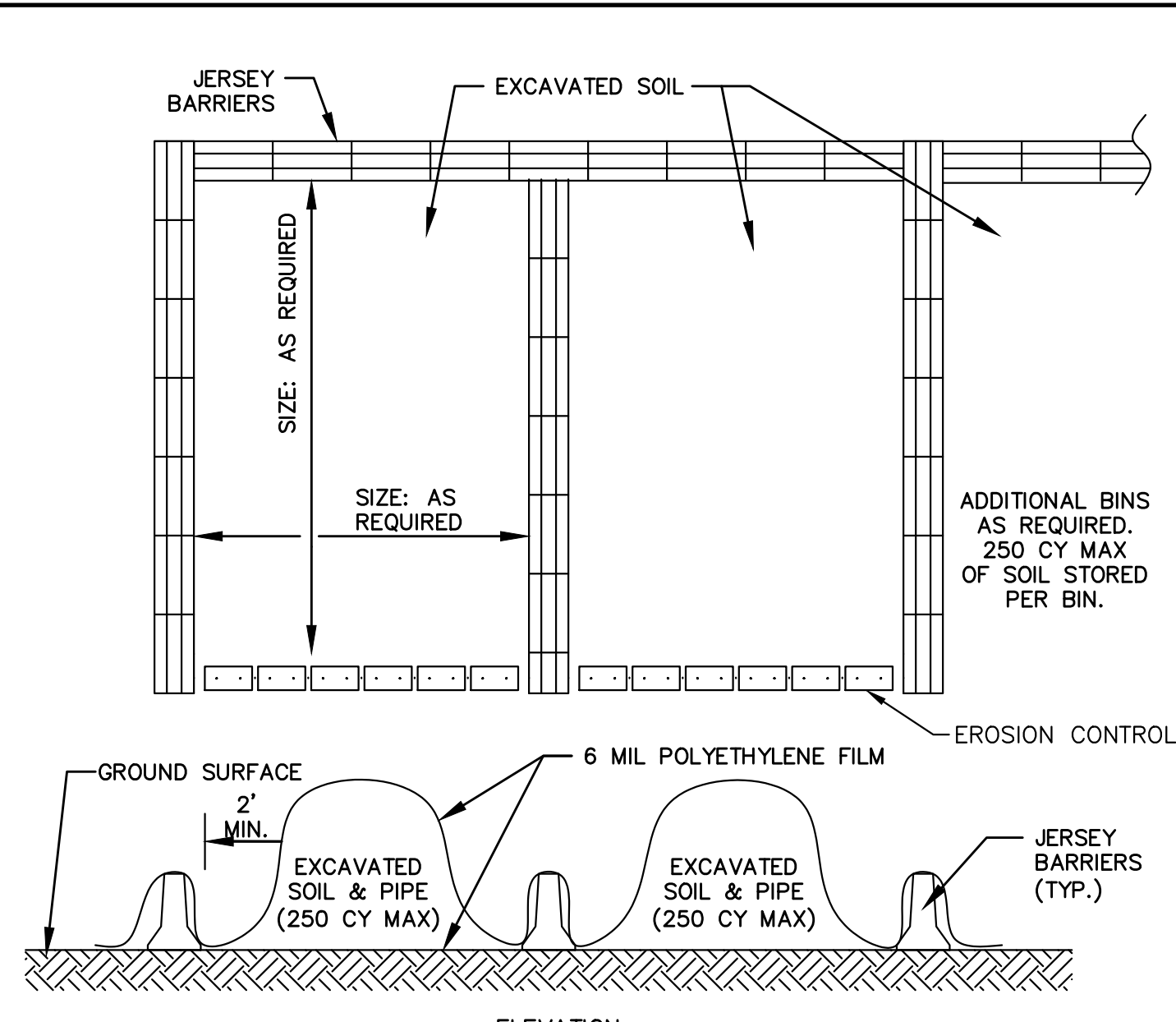
PREPARED BY:
SUBCONSULTANT:
SCALE:
AS SHOWN

TITLE:
Middleborough, MA
Wareham Street Water Main Replacement

CIVIL DETAILS - III

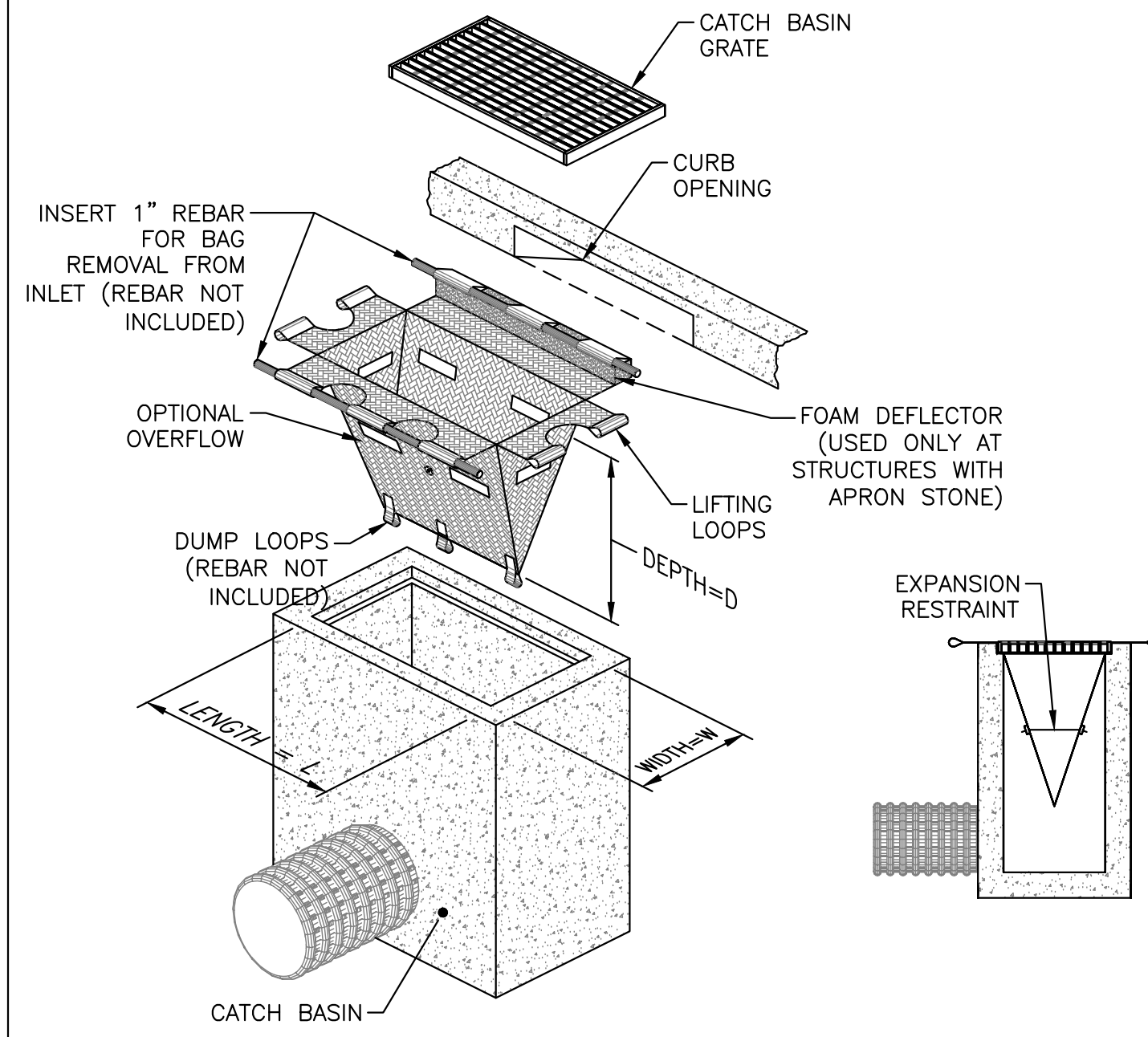
BETA JOB NO. 10710
ISSUE DATE DECEMBER 2023
SHEET NO. CD-3

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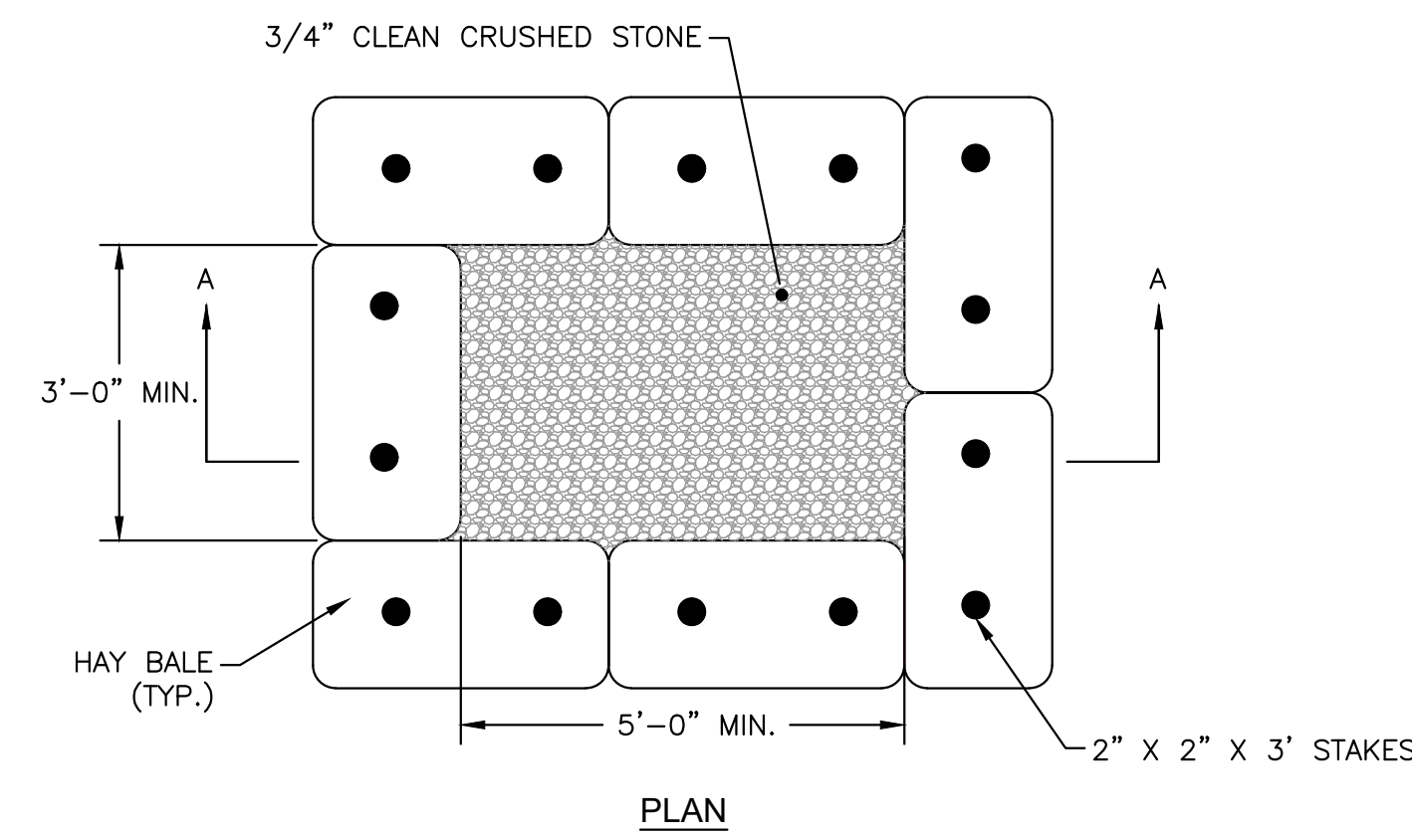
- NOTES:**
1. THE CONTRACTOR SHALL PROVIDE, INSTALL, AND MAINTAIN POLYETHYLENE SHEETING & JERSEY BARRIERS AS SHOWN AND AS REQUIRED BY SPECIFICATION SECTION 02080.
 2. PERIODICALLY (AT LEAST WEEKLY) INSPECT THE STOCKPILES TO INSURE THAT THE LINER AND COVER ARE INTACT AND SECURELY ANCHORED.
 3. SWEEP AND DISPOSE OF ALL RESIDUAL DIRT, DUST AND DEBRIS FROM THE STAGING AREA AFTER COMPLETION OF THE WORK.
 4. JERSEY BARRIERS SHALL BE PLACED AS SHOWN OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE UNTIL IT IS NO LONGER NEEDED FOR THE PURPOSE INTENDED.
 5. ALL POLYETHYLENE SHALL BE REMOVED AND PROPERLY DISPOSED OF.

SOIL STOCKPILE AREA
NOT TO SCALE



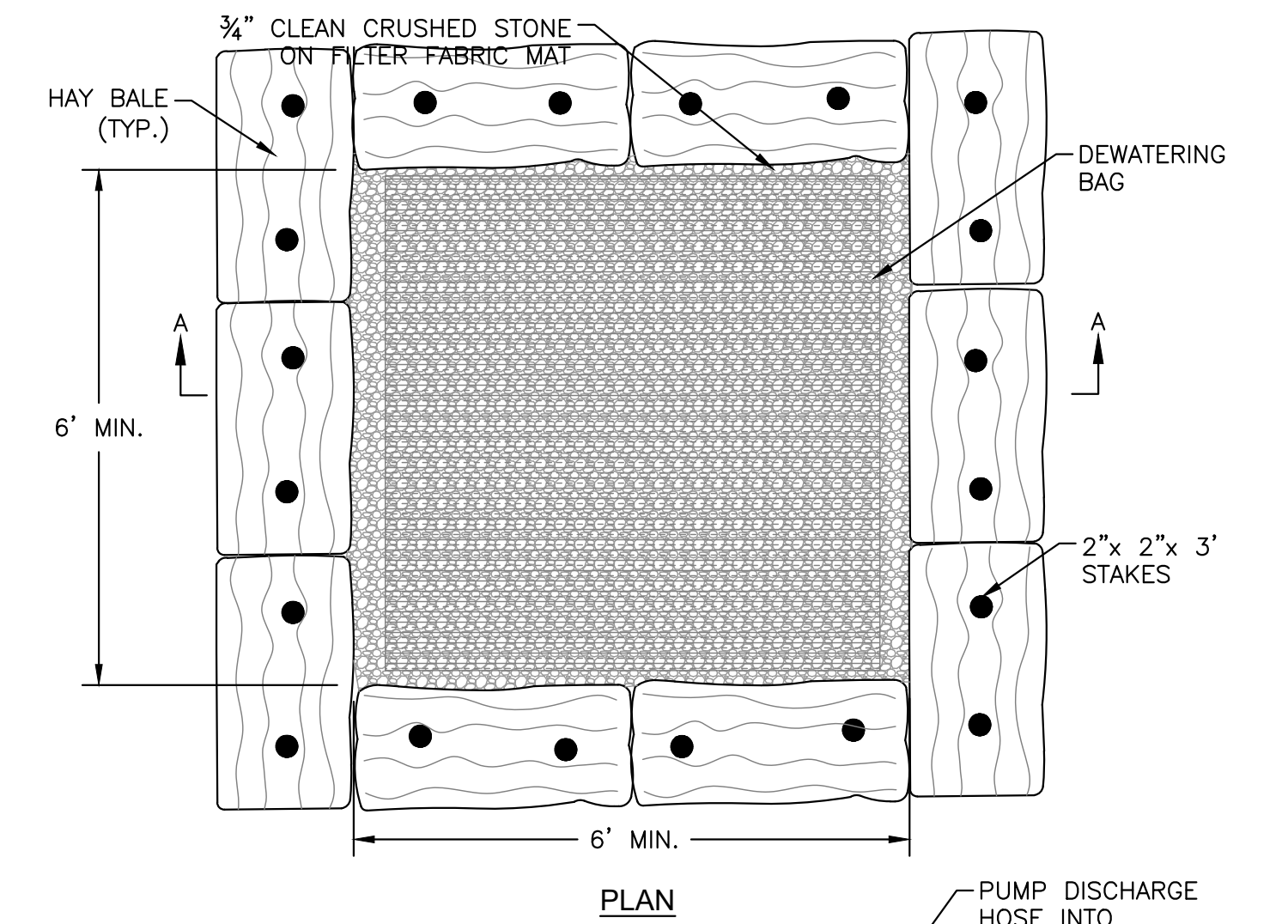
- NOTES:**
1. CONTRACTOR SHALL MAINTAIN ALL SILT SACK SEDIMENT CONTROL DEVICE INSTALLATIONS AND REPLACE WHEN SATURATED WITH SEDIMENT BASED ON MANUFACTURER RECOMMENDATIONS. SILT SACK SHALL BE INSPECTED AFTER EVERY RAIN EVENT BUT NO LONGER THAN EVERY TWO WEEKS.
 2. SILT SACK SHALL BE DOUBLE NEEDLE SEWN POLYPROPYLENE GEOTEXTILE FABRIC AND RATED FOR HIGH FLOW UNLESS OTHERWISE DIRECTED.
 3. CONTRACTOR SHALL PROVIDE CURB OPENING DEFLECTOR AT ALL CATCH BASINS AS NECESSARY.

INLET SEDIMENT CONTROL DEVICE (SILT SACK)
(WITH OPTIONAL CURB DEFLECTOR)
NOT TO SCALE



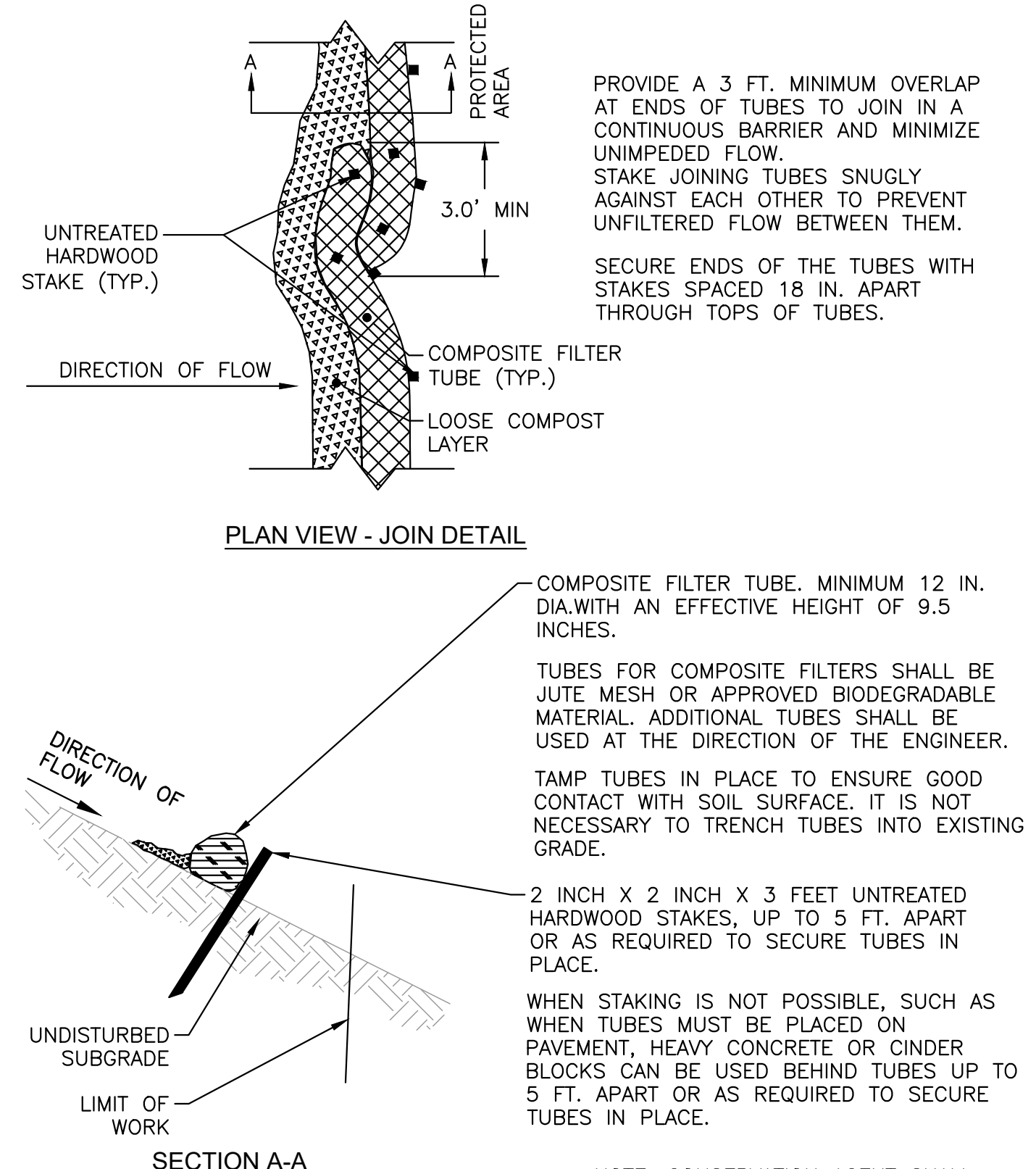
- NOTES:**
1. ALL DEWATERING DISCHARGES SHALL BE THROUGH SEDIMENT CONTROL TRAPS, CONTRACTOR SHALL MAINTAIN AND CLEAN TRAP AS REQUIRED.

SEDIMENT CONTROL TRAP
NOT TO SCALE



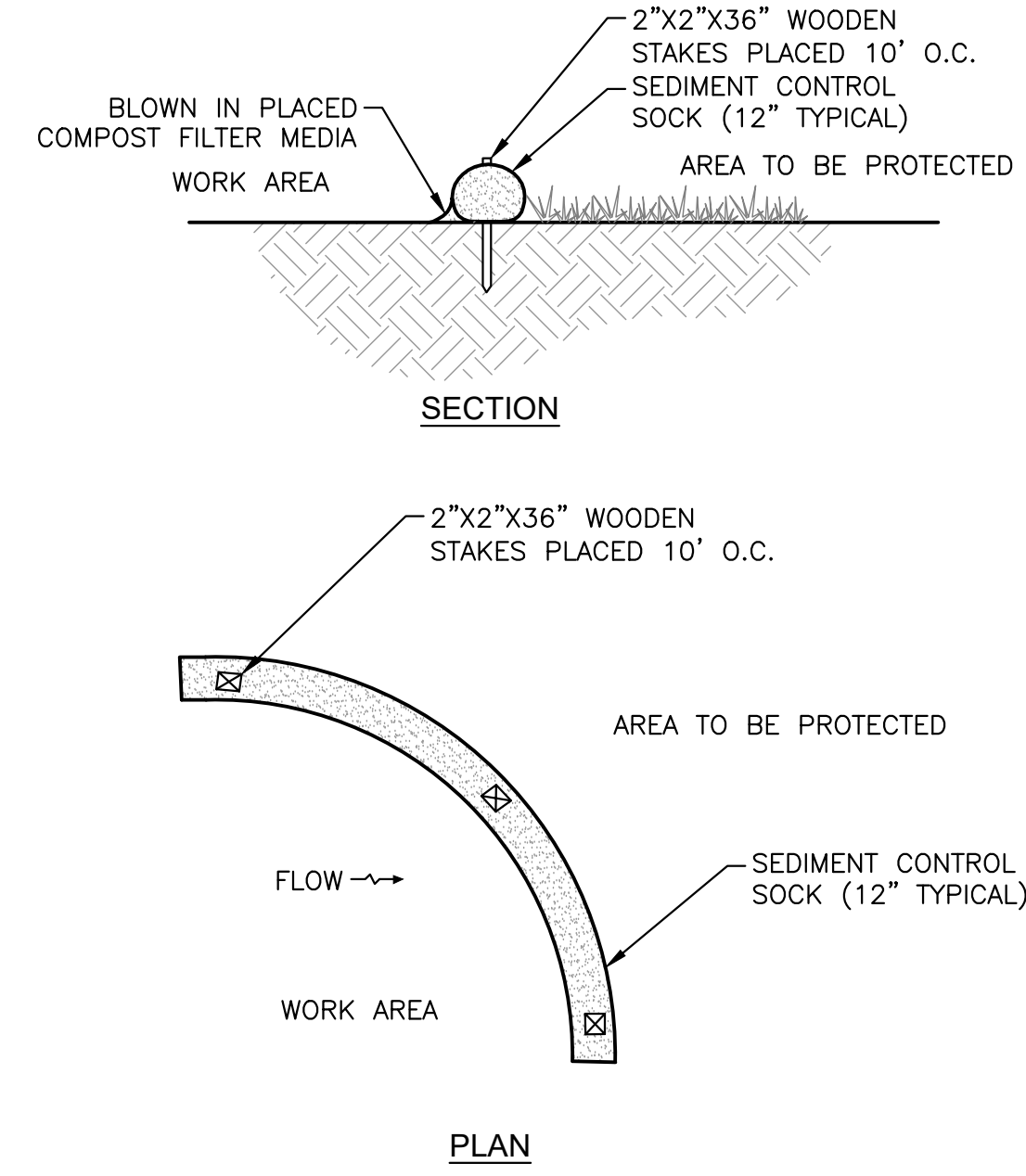
- NOTES:**
1. ALL DEWATERING DISCHARGES SHALL BE THROUGH DEWATERING BAG, CONTRACTOR SHALL MAINTAIN AND CLEAN AS REQUIRED.
 2. CONTRACTOR SHALL SUBMIT DEWATERING PLANS TO THE ENGINEER/OWNER FOR APPROVAL.
 3. SIZING OF DEWATERING BAG SHALL BE BASED ON BUT NOT LIMITED TO THE FOLLOWING:
 - 3a. PUMP FLOW RATE
 - 3b. QUALITY AND TYPE OF SEDIMENT
 - 3c. VOLUME OF MATERIALS NEEDING CONTAINMENT

SEDIMENT CONTROL TRAP WITH DEWATERING BAG
NOT TO SCALE



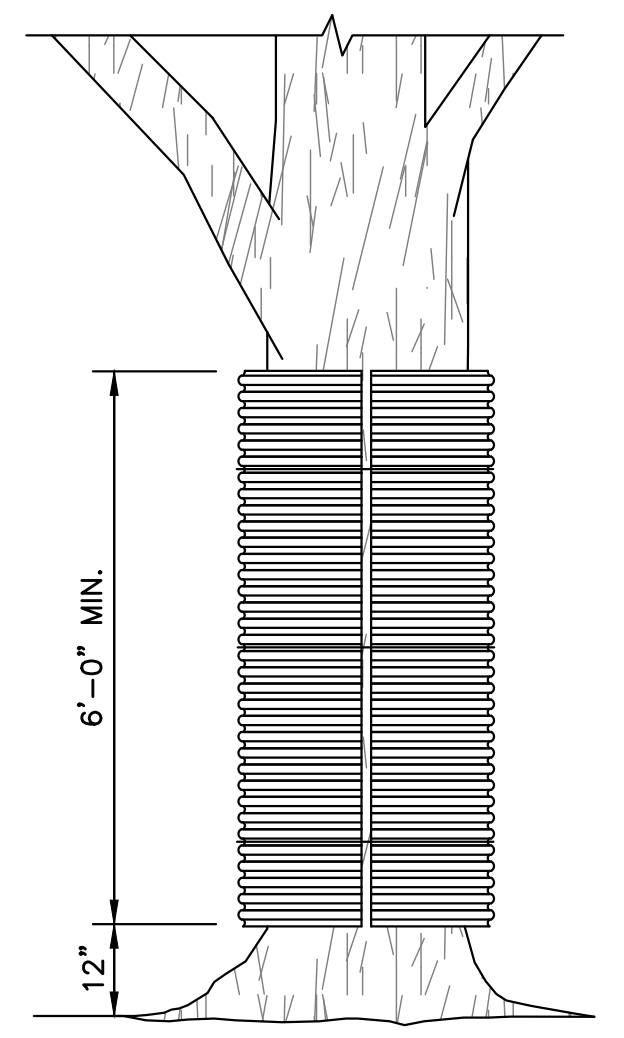
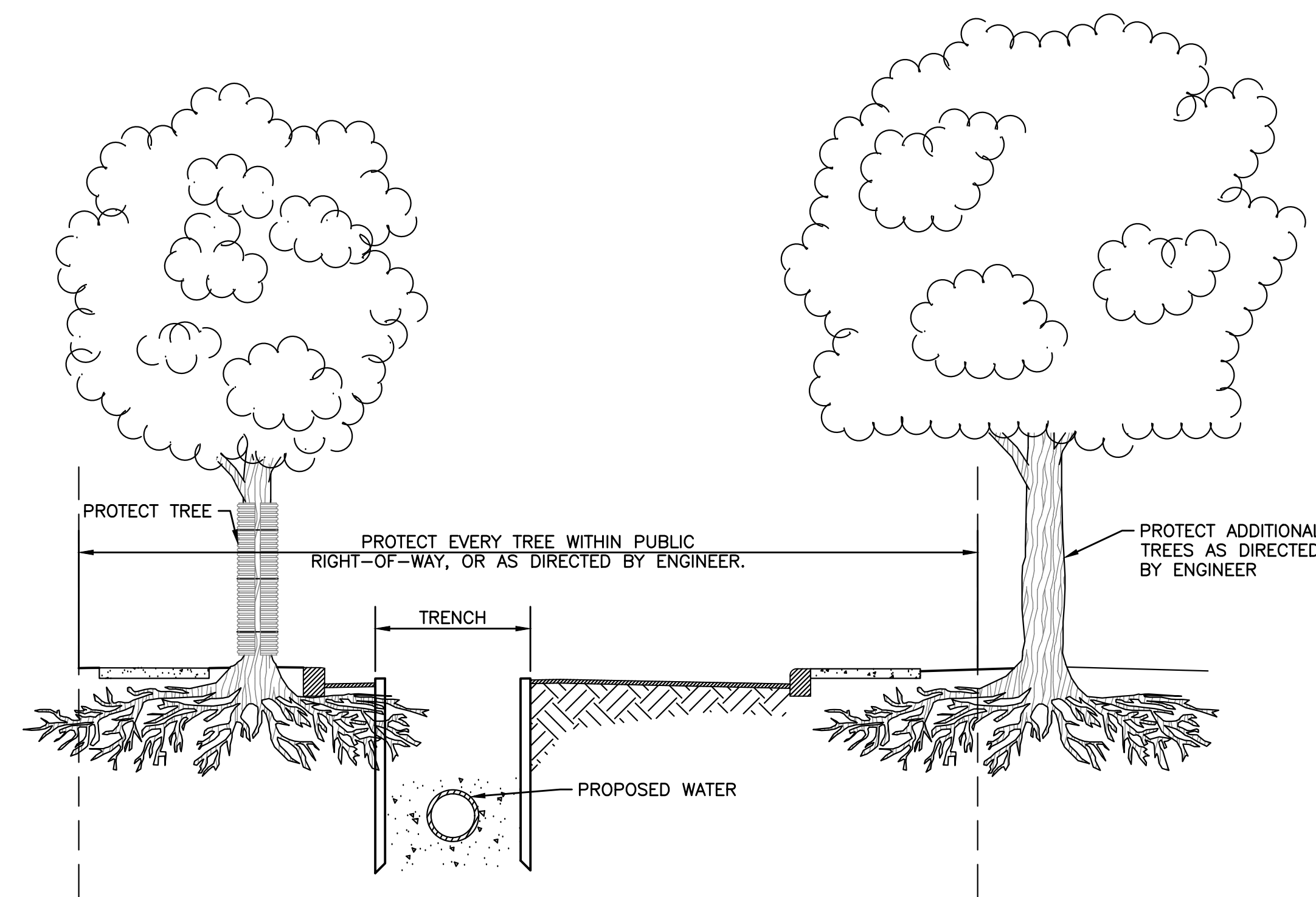
- PROVIDE A 3 FT. MINIMUM OVERLAP AT ENDS OF TUBES TO JOIN IN A CONTINUOUS BARRIER AND MINIMIZE UNIMPEDED FLOW. STAKE JOINING TUBES SNUGLY AGAINST EACH OTHER TO PREVENT UNFILTERED FLOW BETWEEN THEM.
- SECURE ENDS OF THE TUBES WITH STAKES SPACED 18 IN. APART THROUGH TOPS OF TUBES.
- COMPOSITE FILTER TUBE. MINIMUM 12 IN. DIA. WITH AN EFFECTIVE HEIGHT OF 9.5 INCHES.
- TUBES FOR COMPOSITE FILTERS SHALL BE JUTE MESH OR APPROVED BIODEGRADABLE MATERIAL. ADDITIONAL TUBES SHALL BE USED AT THE DIRECTION OF THE ENGINEER.
- TAMP TUBES IN PLACE TO ENSURE GOOD CONTACT WITH SOIL SURFACE. IT IS NOT NECESSARY TO TRENCH TUBES INTO EXISTING GRADE.
- 2 INCH X 2 INCH X 3 FEET UNREATED HARDWOOD STAKES, UP TO 5 FT. APART OR AS REQUIRED TO SECURE TUBES IN PLACE.
- WHEN STAKING IS NOT POSSIBLE, SUCH AS WHEN TUBES MUST BE PLACED ON PAVEMENT, HEAVY CONCRETE OR GINDER BLOCKS CAN BE USED BEHIND TUBES UP TO 5 FT. APART OR AS REQUIRED TO SECURE TUBES IN PLACE.
- NOTE: CONSERVATION AGENT SHALL INSPECT ALL EROSION CONTROL MEASURES PRIOR TO THE START OF CONSTRUCTION.

COMPOST FILTER TUBE - FOR EROSION CONTROL
NOT TO SCALE



- NOTES:**
1. SOCKS SHALL BE PLACED IN A ROW WITH ENDS OVERLAPPING THE ADJACENT SOCK.
 2. SOCKS SHALL BE SECURELY ANCHORED IN PLACE BY STAKES DRIVEN THROUGH THE SOCKS.
 3. INSPECTION SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
 4. SOCKS SHALL BE REMOVED WHEN WORK IS COMPLETE AN THE AREA HAS STABILIZED.

SEDIMENT CONTROL "COMPOST SOCK"
NOT TO SCALE



- NOTES:**
1. PROTECT ALL TREES WITHIN PUBLIC RIGHT-OF-WAY OR WITHIN 30 FEET OF HEAVY EQUIPMENT OPERATION.
 2. PROTECT ADDITIONAL TREES AS DIRECTED BY THE ENGINEER.

TREE PROTECTION
NOT TO SCALE

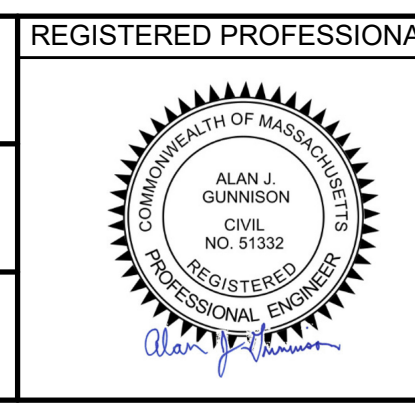
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NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS

DRAWN BY:
CJM

DESIGNED BY:
RTG

CHECKED BY:
AJG



PREPARED BY:
SUBCONSULTANT

SCALE:
AS SHOWN

TITLE:
Middleborough, MA
Wareham Street Water Main Replacement

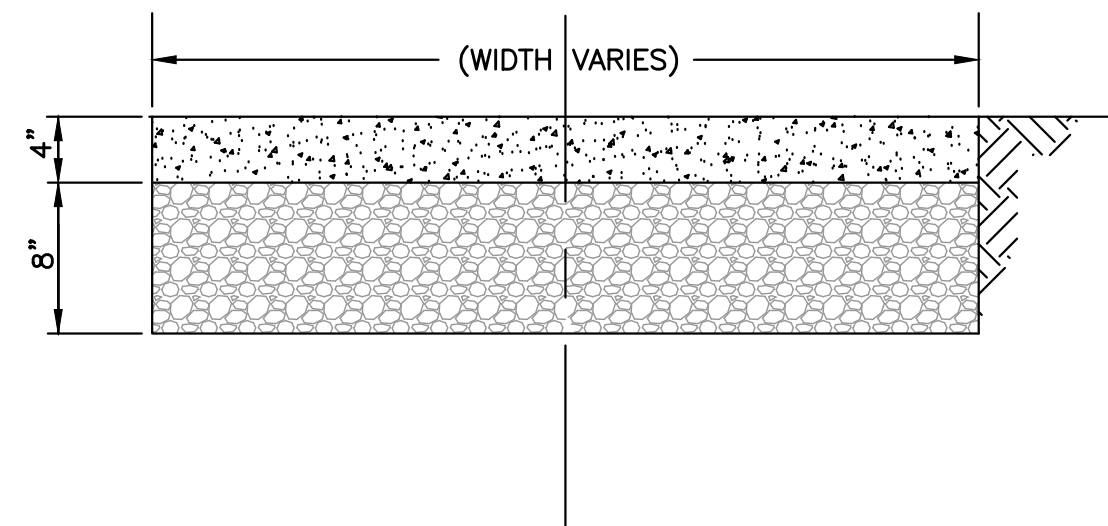
CIVIL DETAILS - IV

BETA JOB NO. 10710

ISSUE DATE DECEMBER 2023

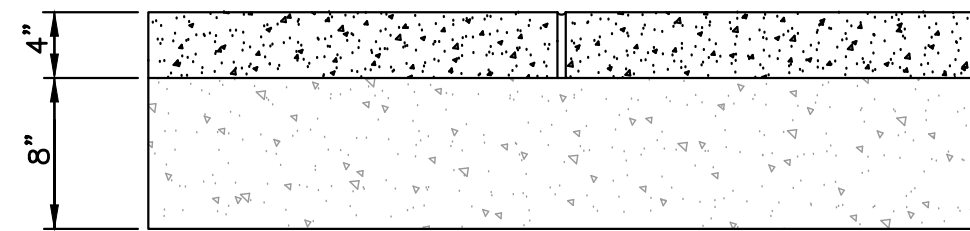
SHEET NO. CD-4

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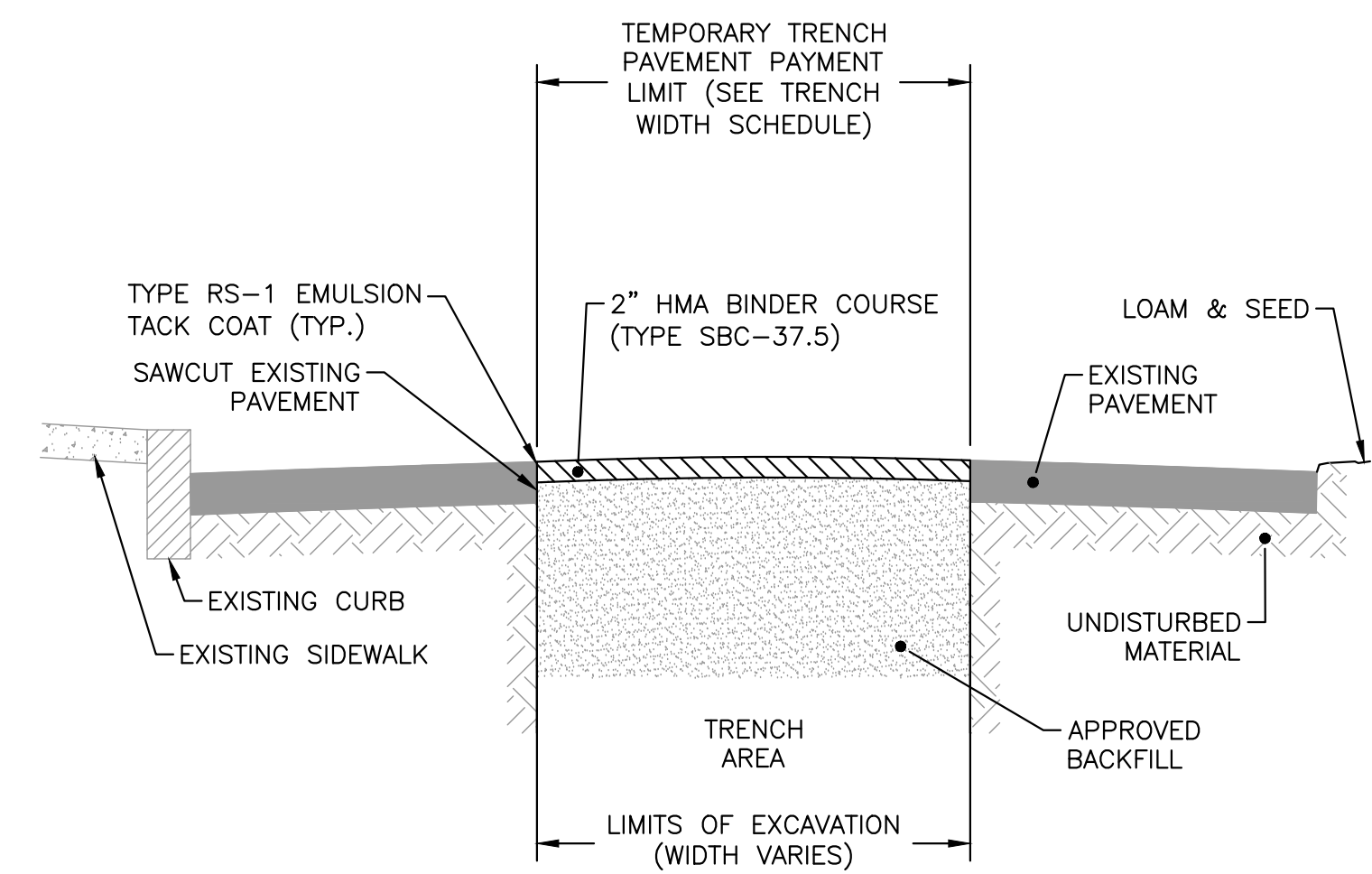
NOTES:
1. SCORE CONCRETE @ 5' INTERVALS.

TYPICAL CEMENT CONCRETE WALKWAY SECTION
NOT TO SCALE



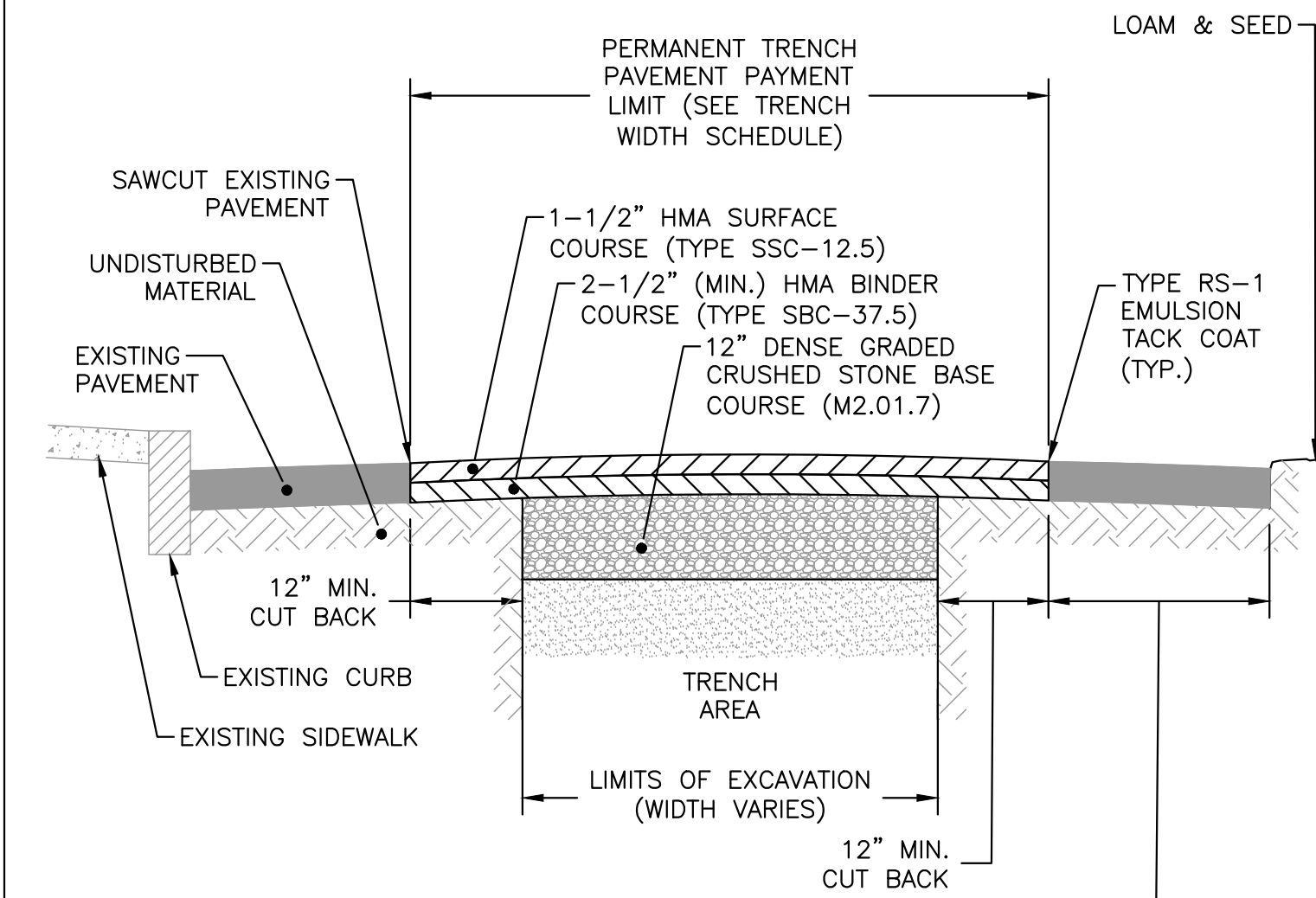
NOTES:
1. EXPANSION JOINTS TO BE 25' MAX. CENTER TO CENTER.
2. WHERE CONCRETE WALKWAYS ABUT STRUCTURES, USE 1/2" PREFORMED JOINT FILLER AND 1" DEEP MASTIC JOINT SEALER BETWEEN STRUCTURE & WALKWAY.

TYPICAL EXPANSION JOINTS FOR CEMENT CONCRETE WALKWAYS
NOT TO SCALE



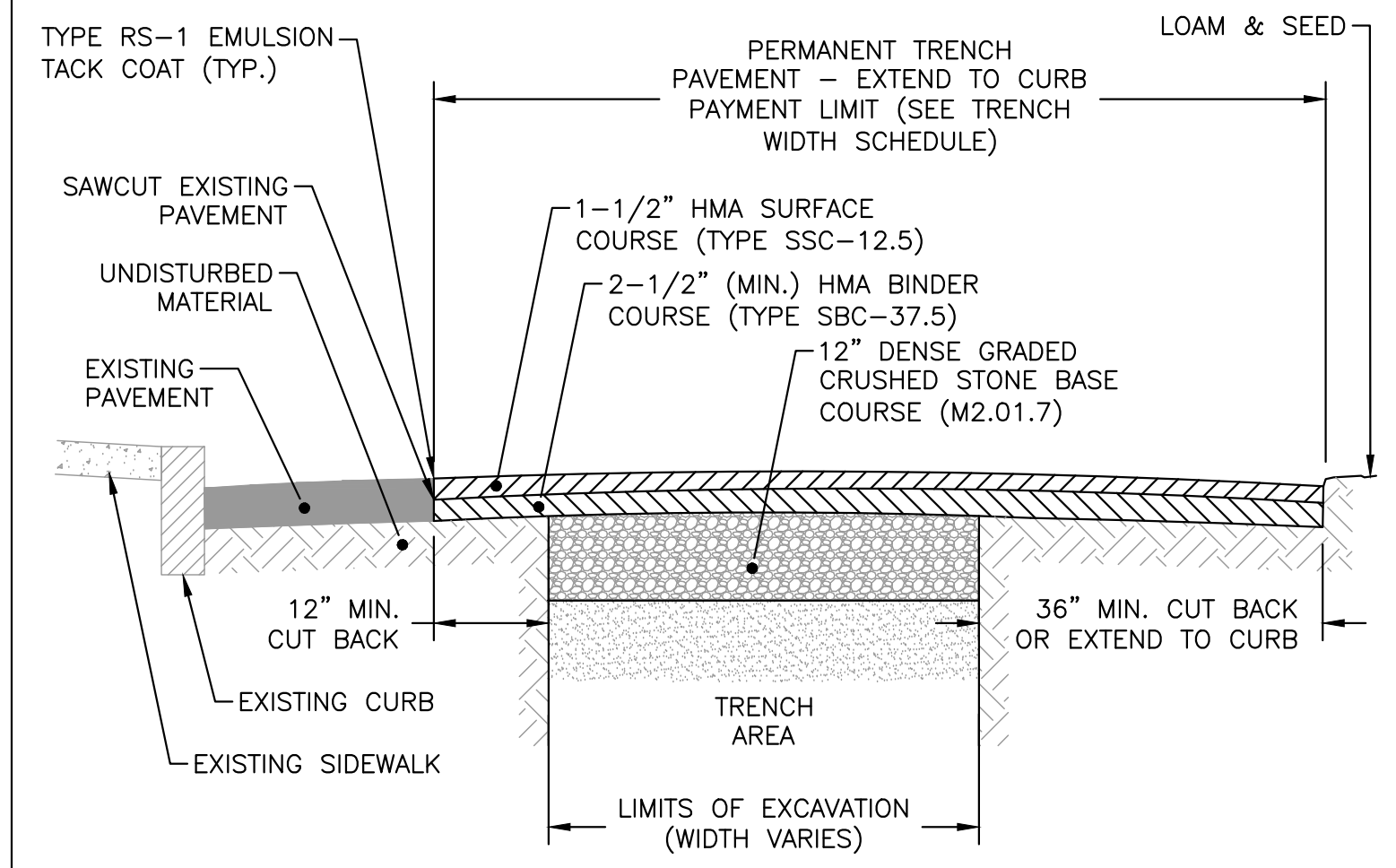
NOTES:
1. MINIMUM PAVEMENT THICKNESS TO BE 1.5 INCHES.
2. MAXIMUM PAVEMENT THICKNESS PER COURSE NOT TO EXCEED 3 INCHES.
3. CONTRACTOR TO VARY PAVEMENT THICKNESS TO MAINTAIN A MINIMUM CROSS SECTIONAL SLOPE EQUALING 0.02 FT/FT OR 2%.

TEMPORARY TRENCH WIDTH PAVEMENT
NOT TO SCALE



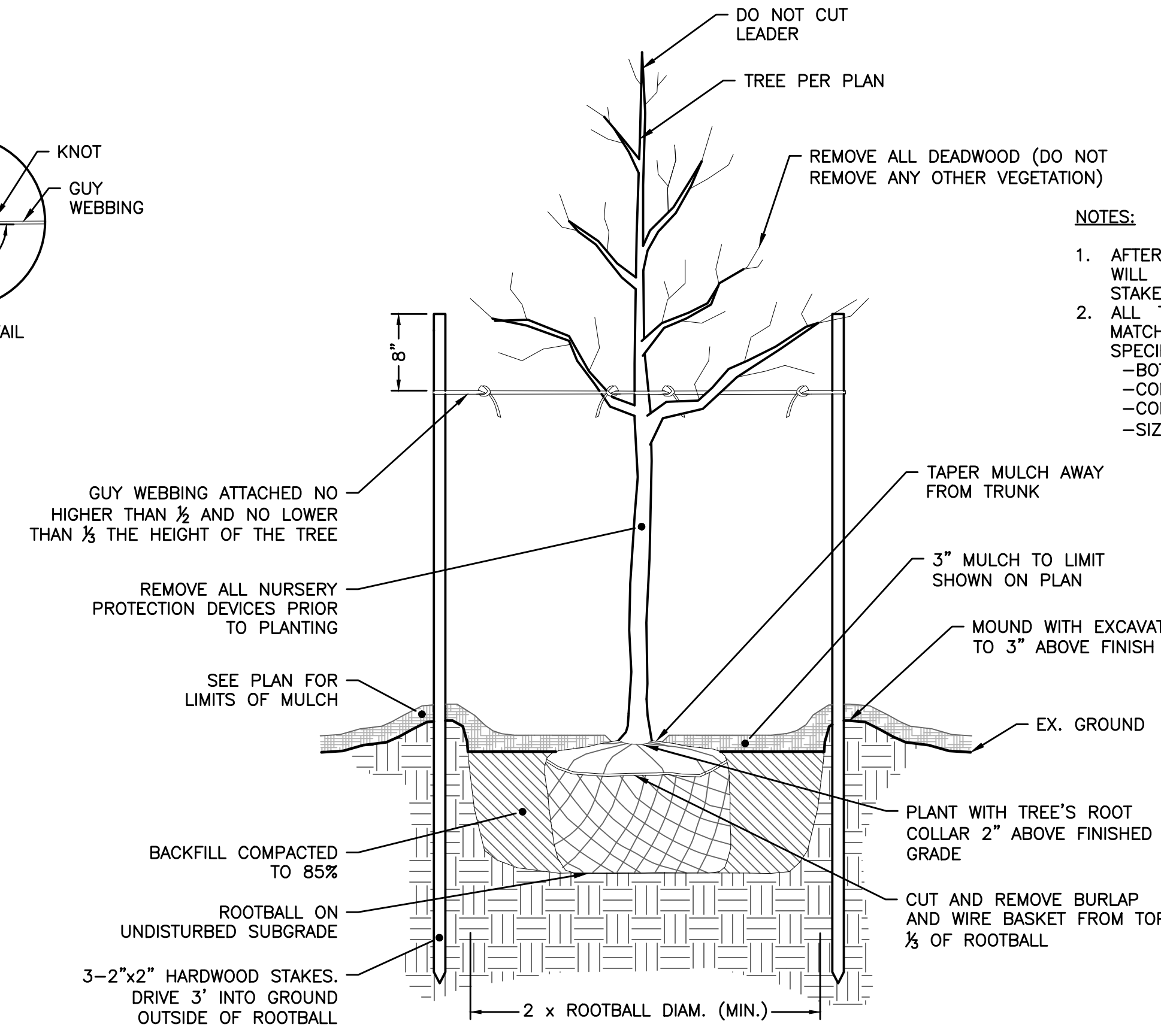
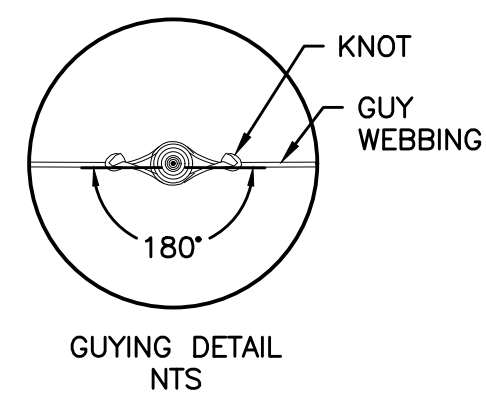
NOTES:
1. SEE PAVEMENT RESTORATION LOCUS PLAN ON SHEET R-1 FOR APPROXIMATE LOCATIONS AND LIMITS WHERE THIS DETAIL SHALL BE USED. ACTUAL FIELD CONDITIONS SHALL GOVERN PAVEMENT TREATMENT, OR AS DIRECTED BY THE ENGINEER.
2. MINIMUM PAVEMENT THICKNESS TO BE 1.5 INCHES.
3. MAXIMUM PAVEMENT THICKNESS PER COURSE NOT TO EXCEED 3 INCHES.
4. CONTRACTOR TO VARY PAVEMENT THICKNESS TO MAINTAIN A MINIMUM CROSS SECTIONAL SLOPE EQUALING 0.02 FT/FT OR 2%.

PERMANENT TRENCH WIDTH PAVEMENT
NOT TO SCALE



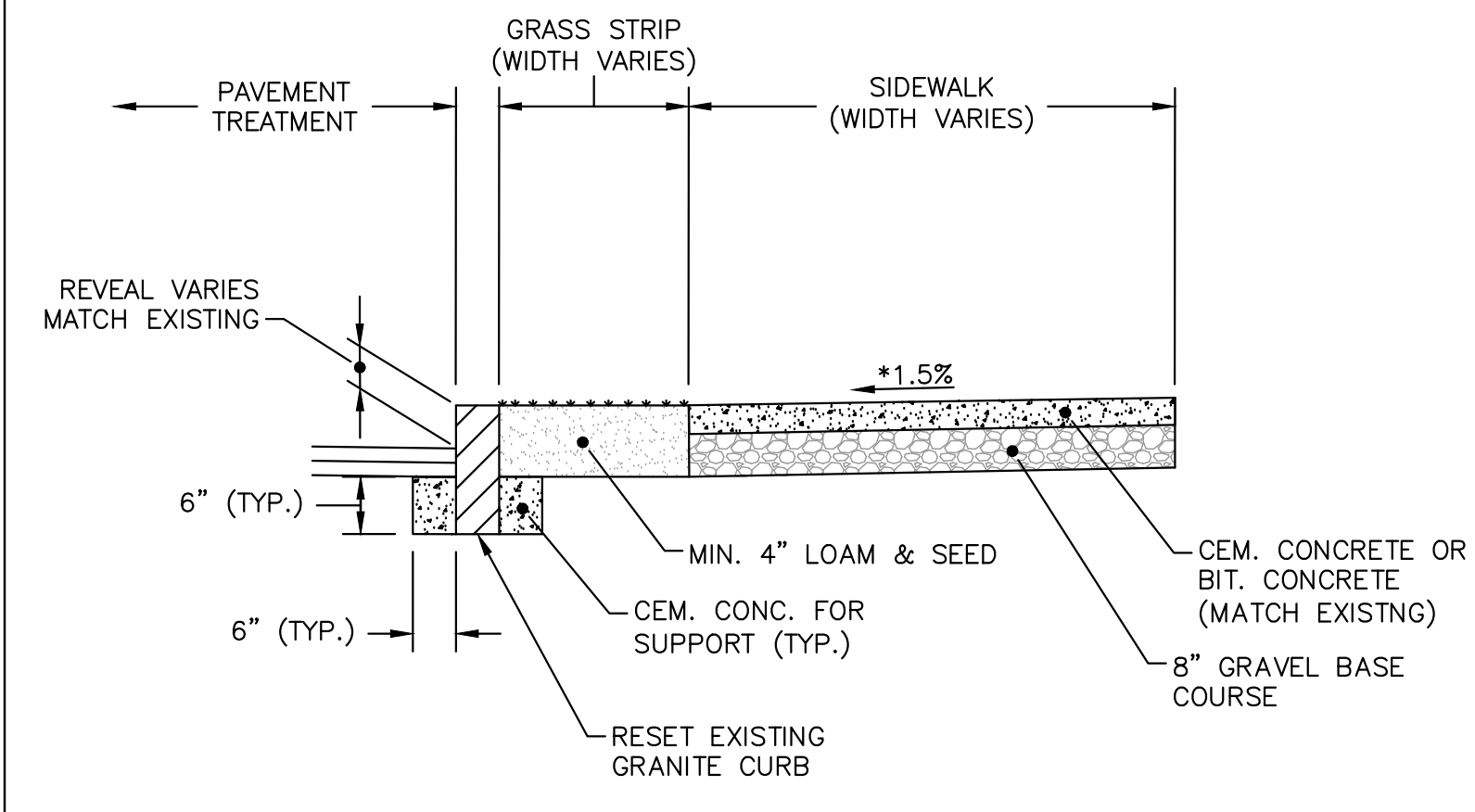
NOTES:
1. THIS DETAIL SHALL BE USED WHEN THE WIDTH OF THE EXISTING PAVEMENT AFTER CUTBACK WOULD BE 24" OR LESS. SEE PAVEMENT RESTORATION LOCUS PLAN ON SHEET R-1 FOR APPROXIMATE LOCATIONS AND LIMITS WHERE THIS DETAIL SHALL BE USED. ACTUAL FIELD CONDITIONS SHALL GOVERN PAVEMENT TREATMENT, OR AS DIRECTED BY THE ENGINEER.
2. MINIMUM PAVEMENT THICKNESS TO BE 1.5 INCHES.
3. MAXIMUM PAVEMENT THICKNESS PER COURSE NOT TO EXCEED 3 INCHES.
4. CONTRACTOR TO VARY PAVEMENT THICKNESS TO MAINTAIN A MINIMUM CROSS SECTIONAL SLOPE EQUALING 0.02 FT/FT OR 2%.

PERMANENT TRENCH WIDTH PAVEMENT - EXTEND TO CURB
NOT TO SCALE



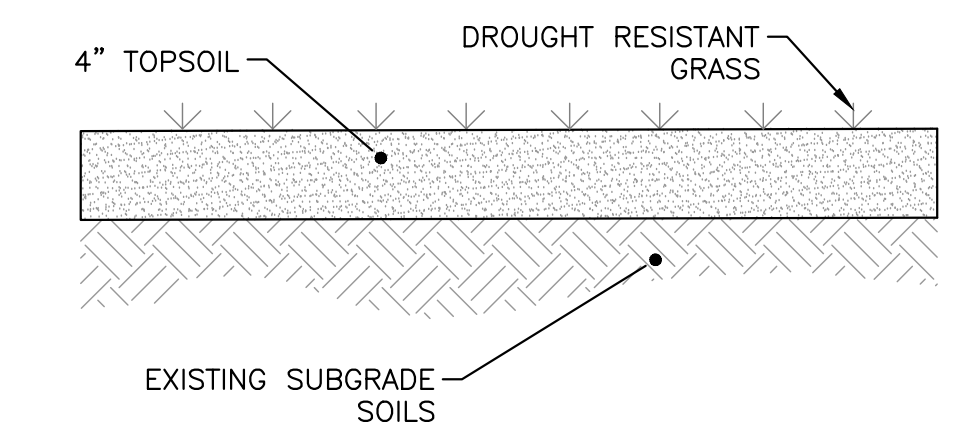
NOTES:
1. AFTER THE GUARANTEE PERIOD, THE CONTRACTOR WILL BE RESPONSIBLE FOR THE REMOVAL OF STAKES AND GUY WEBBING.
2. ALL TREES REPLACED ON TIGER DRIVE SHALL MATCH EXISTING GENUS AND SPECIES OR AS SPECIFIED BELOW:
-BOTANICAL NAME: PRUNUS SARGENTII
-COMMON NAME: SARGENT CHERRY
-CONDITION: B&B
-SIZE: 2" - 2.5" CALIPER

TREE PLANTING
NOT TO SCALE

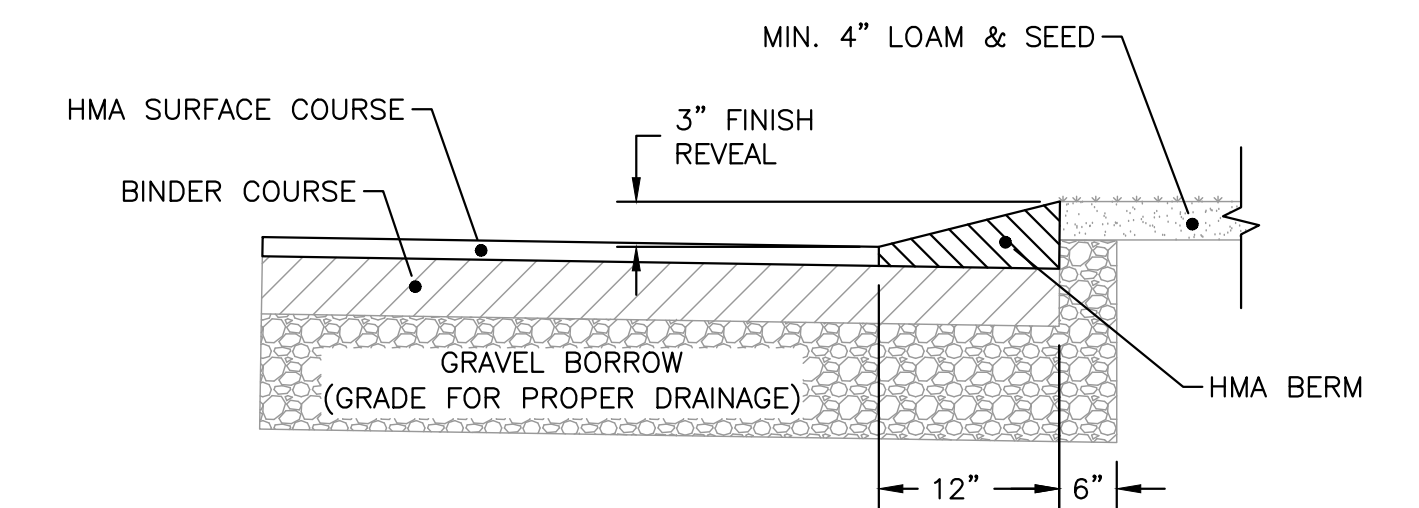


NOTES:
1. MATERIAL AND DIMENSIONS OF CURB AND SIDEWALK VARY BY LOCATION. RESTORATION TO MATCH EXISTING CONDITIONS.
2. GRASS STRIP IS ONLY PRESENT AT SOME LOCATIONS.

TYPICAL CURB AND SIDEWALK RESTORATION
NOT TO SCALE



GROUND COVER DETAIL
NOT TO SCALE



NOTES:
1. HMA BERM CAN BE PLACED AT THE SAME TIME THAT THE SURFACE COURSE LAYER IS PLACED ON THE PROJECT ROADWAY, OR IT CAN BE INSTALLED IN A SEPARATE OPERATION.

BITUMINOUS BERM
NOT TO SCALE

12/13/2023 12:37 AM J:\02-10710 MIDDLEBORO - WAREHAM STREET WATER MAIN REPLACEMENT\AUTOCAD\PLAN SET\CIVIL-DETAILS.DWG (BETA STB BW STB)

NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS

DRAWN BY:
CJM
DESIGNED BY:
RTG
CHECKED BY:
AJG

REGISTERED PROFESSIONAL
ALAN J. GUNNISON
CIVIL
NO. 31332
REGISTERED

PREPARED BY
BETA
www.BETA-Inc.com

SUBCONSULTANT
SCALE
AS SHOWN

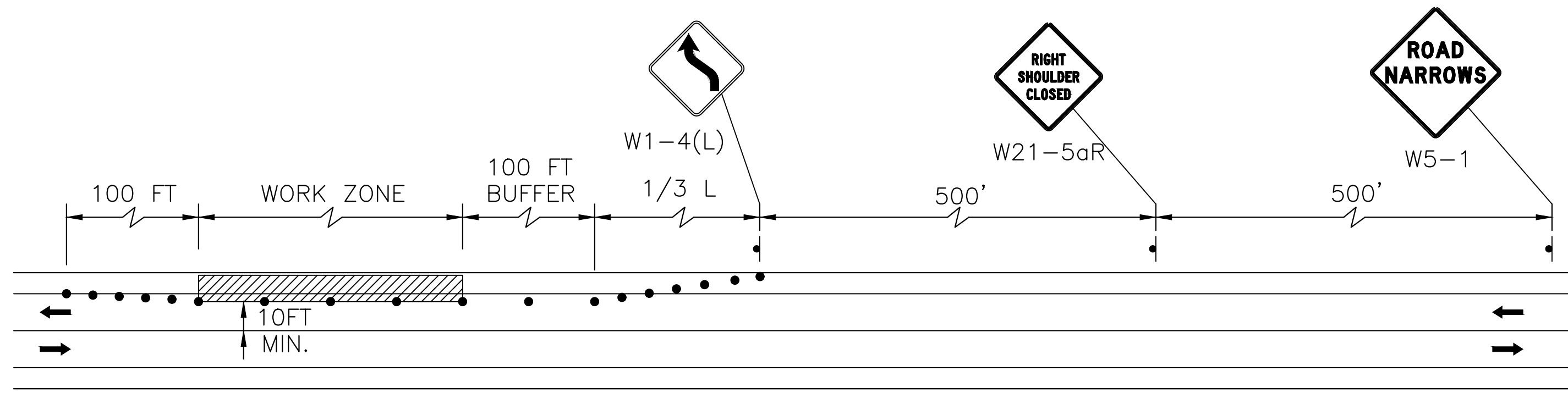
TITLE
Middleborough, MA
Wareham Street Water Main Replacement

CIVIL DETAILS - V

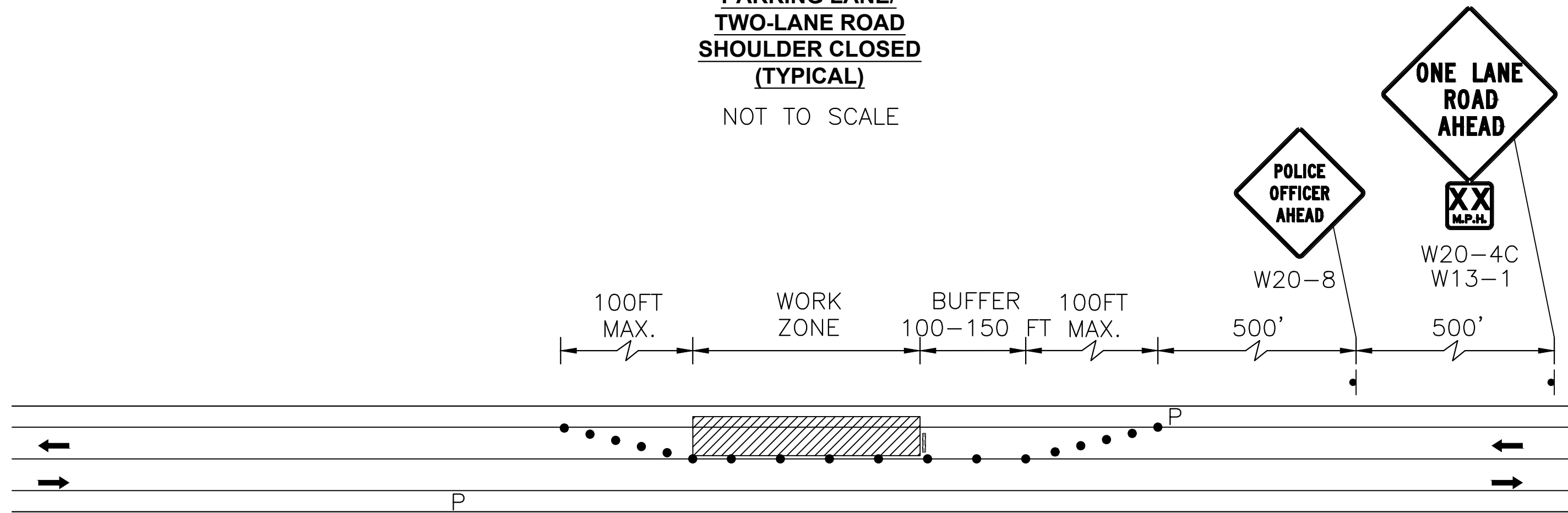
BETA JOB NO. 10710
ISSUE DATE DECEMBER 2023
SHEET NO. CD-5

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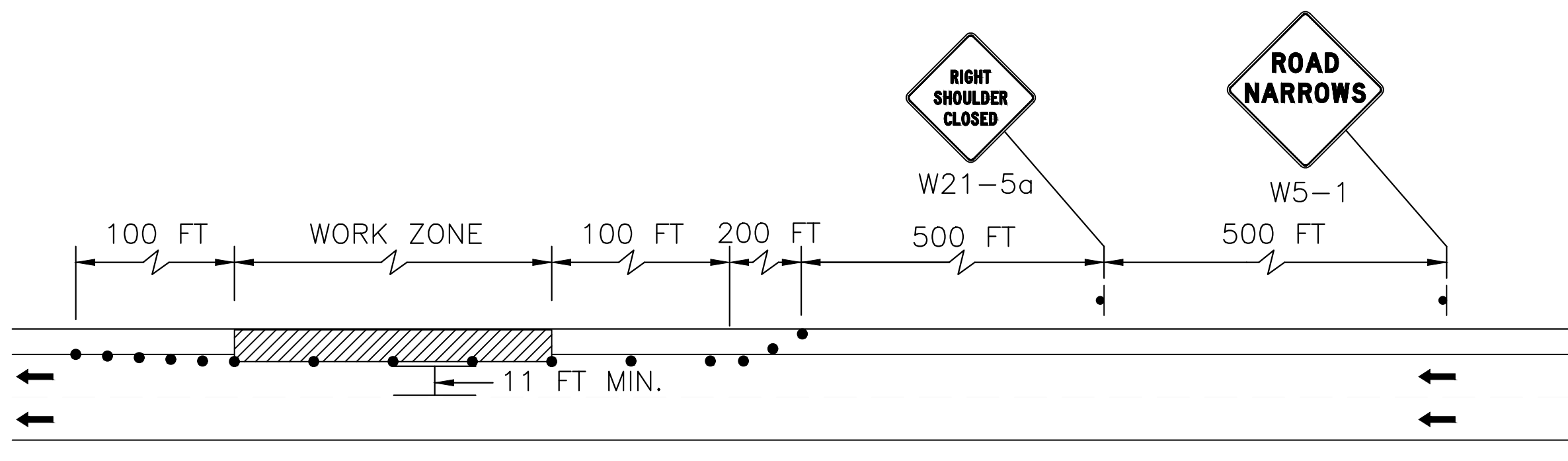
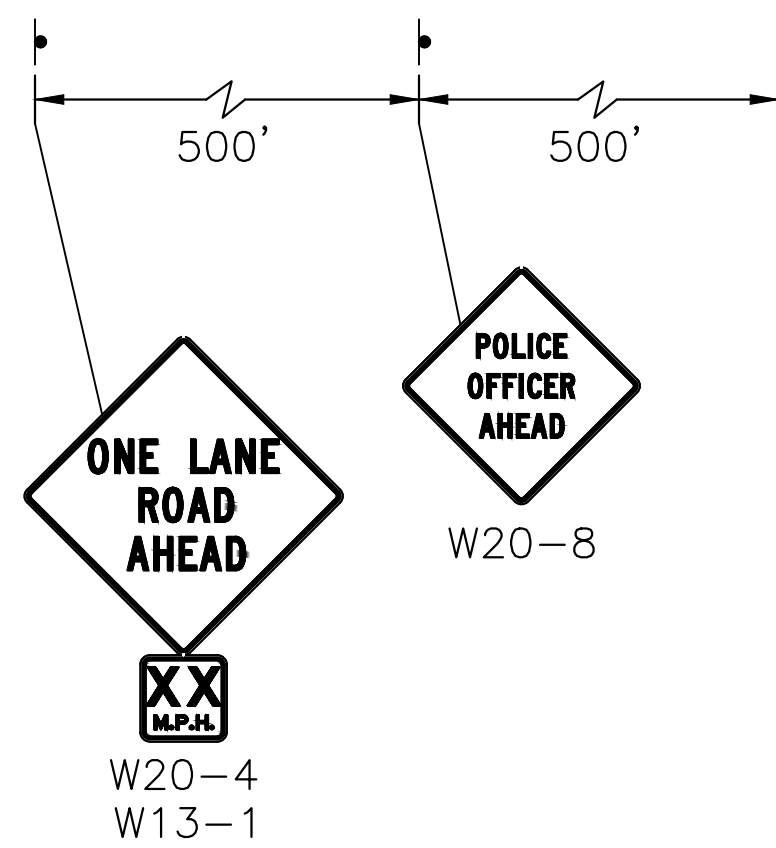
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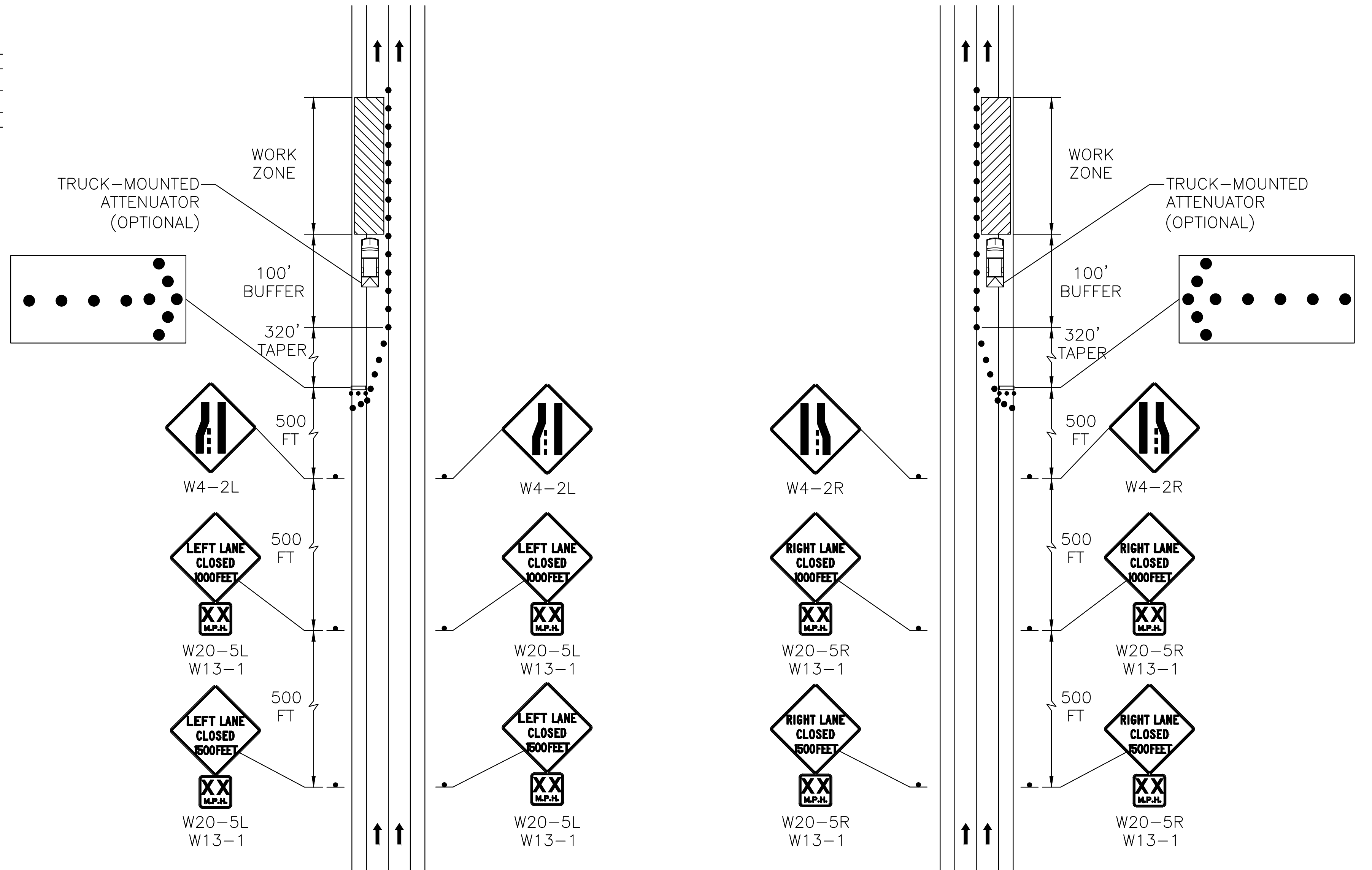
**PARKING LANE/
TWO-LANE ROAD
SHOULDER CLOSED
(TYPICAL)**
NOT TO SCALE



**TWO-LANE ROAD
ONE LANE ALTERNATING TRAFFIC
WITH POLICE DETAIL
(TYPICAL)**
NOT TO SCALE



**SHOULDER CLOSED
PARKING LANE
(TYPICAL)**
NOT TO SCALE



LEFT LANE CLOSURE (TYPICAL)

RIGHT LANE CLOSURE (TYPICAL)

NOT TO SCALE

NOT TO SCALE

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CRD
DESIGNED BY:
RTG
CHECKED BY:
AJG



PREPARED BY:
SUBCONSULTANT:
SCALE:
AS SHOWN

TITLE:
**Middleborough, MA
Wareham Street Water Main Replacement**
TRAFFIC MANAGEMENT PLAN & DETAILS

BETA JOB NO. 10710
ISSUE DATE DECEMBER 2023
SHEET NO. TMP-1