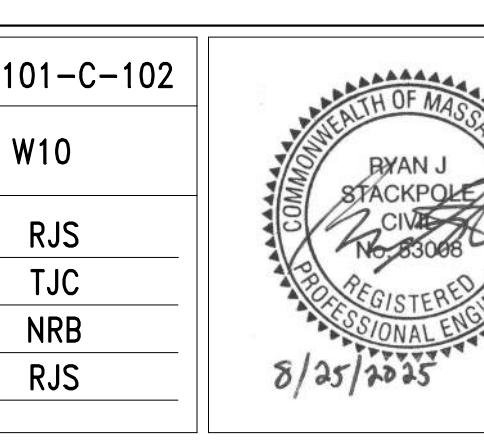


NO.	DATE	BY	CHK'D	REVISION

CONTRACT NO.: 6543 FILE NO.: 6543\_C-101-C-102  
ACCESSION NO.: ----- SECTION NO.: W10  
DATE: AUGUST 2025 DESIGNED BY: RJS  
SCALE: AS NOTED DRAWN BY: TJC  
CHECKED BY: NRB APPROVED BY: RJS



RYAN J. STACKPOLE  
CIVIL  
REGISTERED  
PROFESSIONAL ENGINEER  
8/25/2025

MASSACHUSETTS WATER RESOURCES AUTHORITY

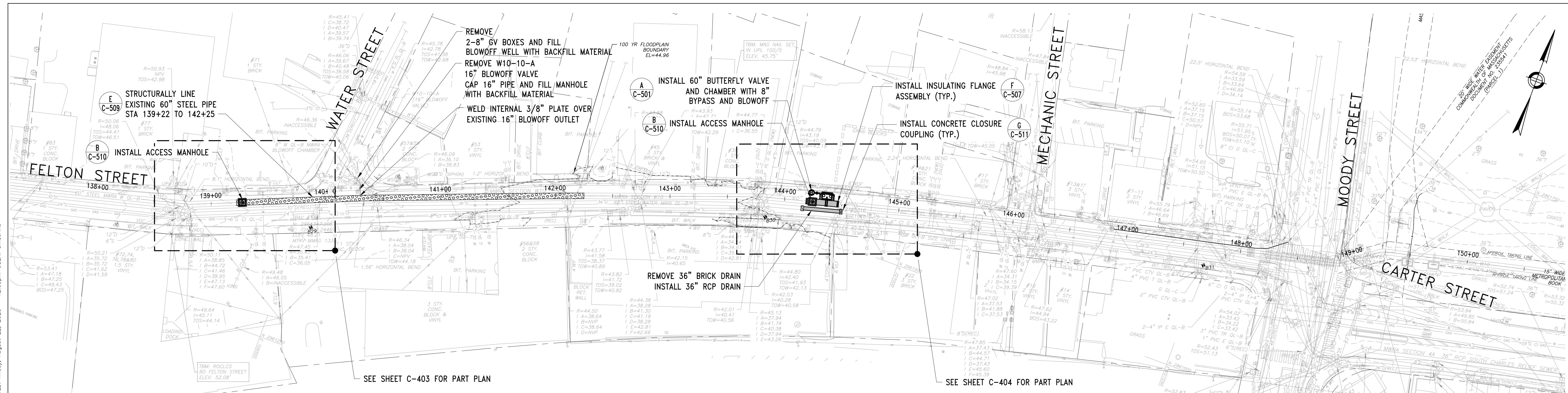
PREPARED BY:

Stantec

45 BLUE SKY DRIVE, 3RD FLOOR  
BURLINGTON, MA 01803  
www.stantec.com

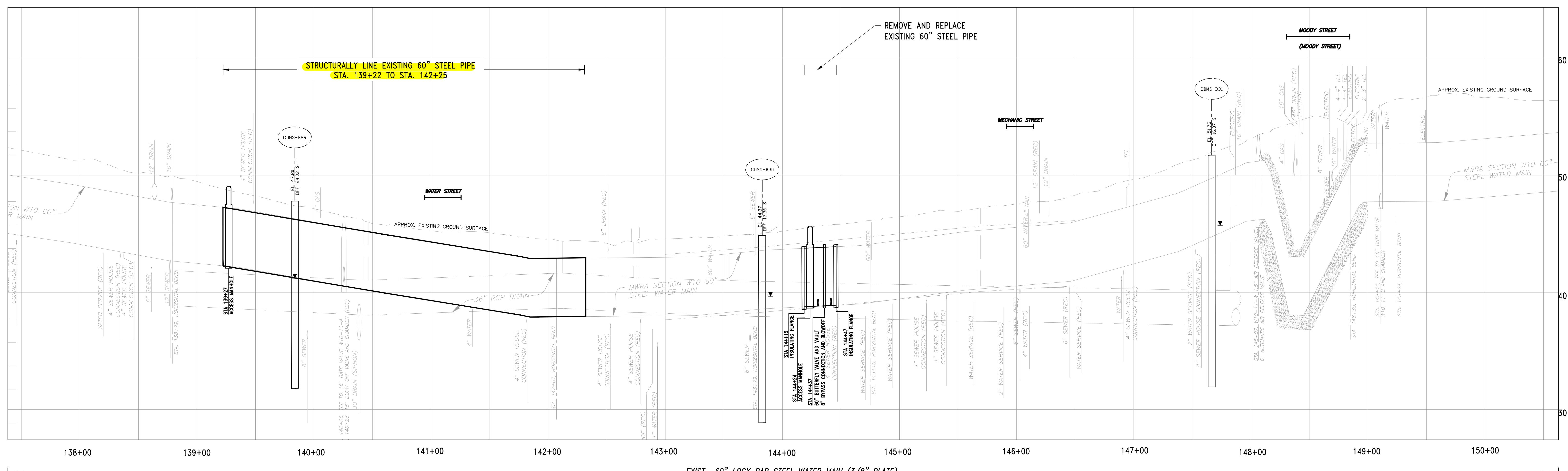
WESTON AQUEDUCT SUPPLY MAIN 3  
REHABILITATION OF WATER MAINS  
SECTION W10  
SECTION W10 PLAN AND PROFILE STA 110+50  
TO STA 121+50

DRAWING NO.  
C-101  
7 OF 83



# PLAN

---

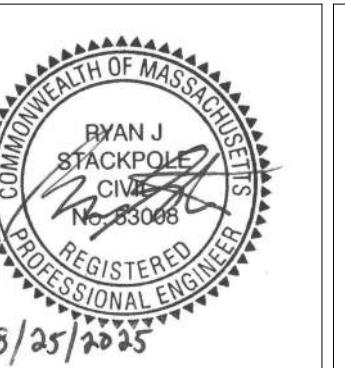


## PROFILE

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

200		FEET		CONT
20				ACCE
				DATE
				SCAL
NO.	DATE	BY	CHK'D	REVISION

TRACT NO. :	6543	FILE NO. :	6543
SSION NO. :	-----	SECTION NO. :	
DATE:	<u>AUGUST 2025</u>	DESIGNED BY:	
RE:	<u>AS NOTED</u>	DRAWN BY:	
		CHECKED BY:	
		APPROVED BY:	



MASSACHUSETTS WATER RESOURCES AUTHORITY

MASSACHUSETTS STATE GOVERNOR'S OFFICE

45 BLUE SKY DRIVE, 3RD FLOOR

 Stantec  
100 BULLOCK DRIVE, ONE TECOMA  
BURLINGTON, MA 01803

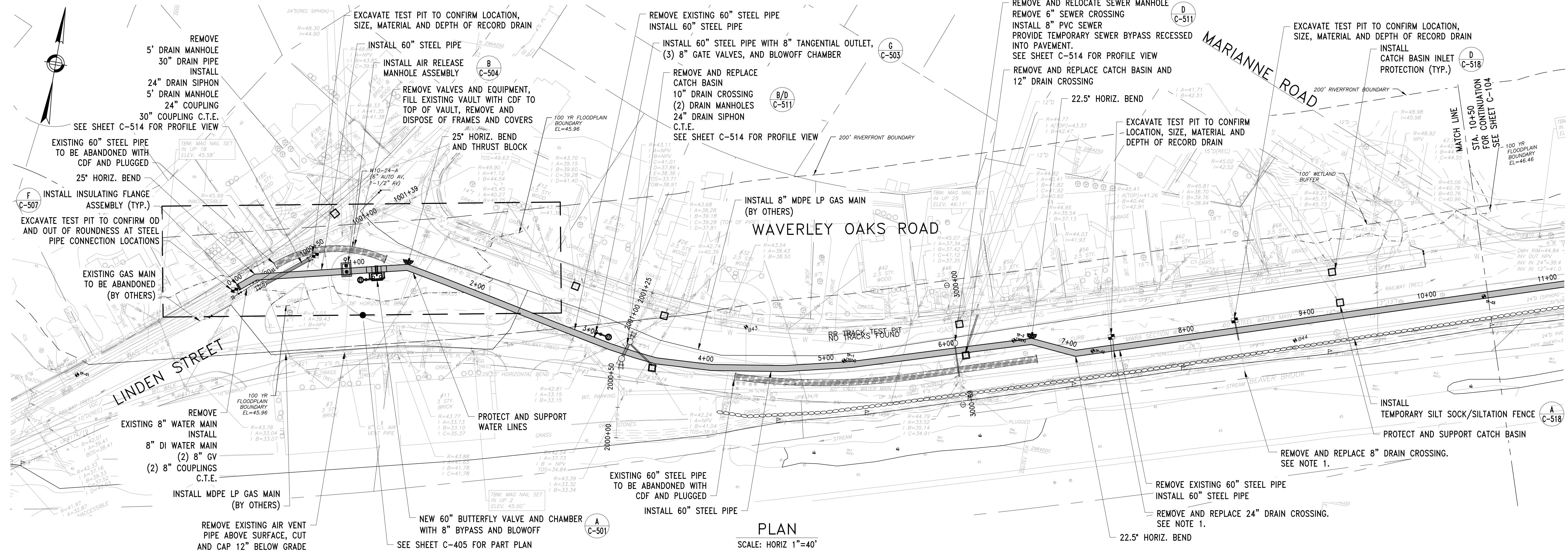
[www.stantec.com](http://www.stantec.com)

WESTON AQUEDUCT SUPPLY MAIN 3  
REHABILITATION OF WATER MAINS  
SECTION W10

ON W10 PLAN AND PROFILE STA 137+50  
TO STA 150+50

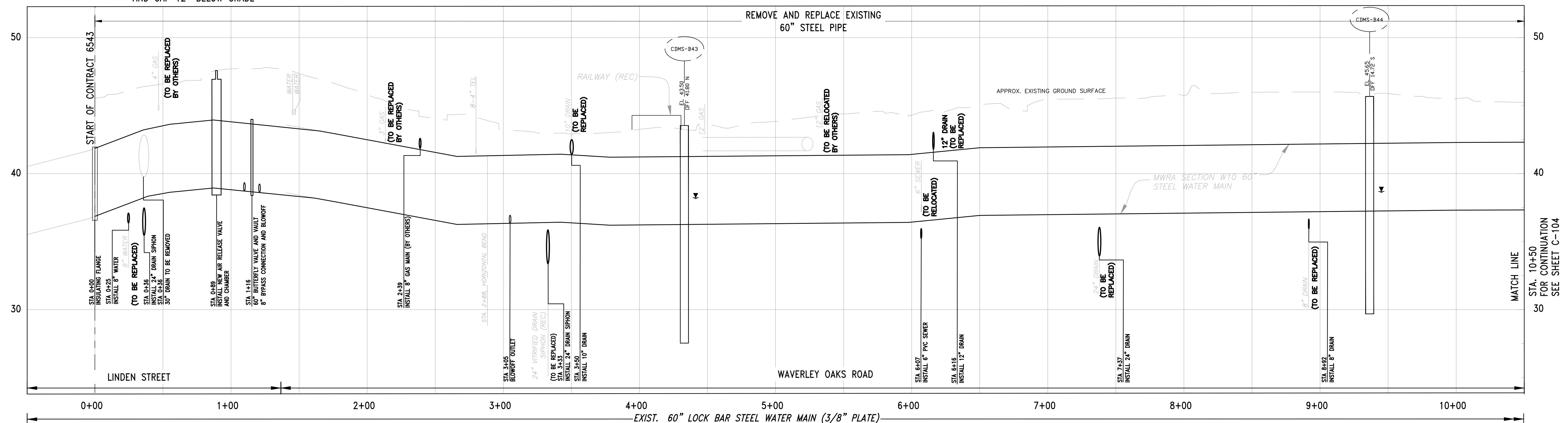
DRAWING NO.  
C-102

8 OF 83



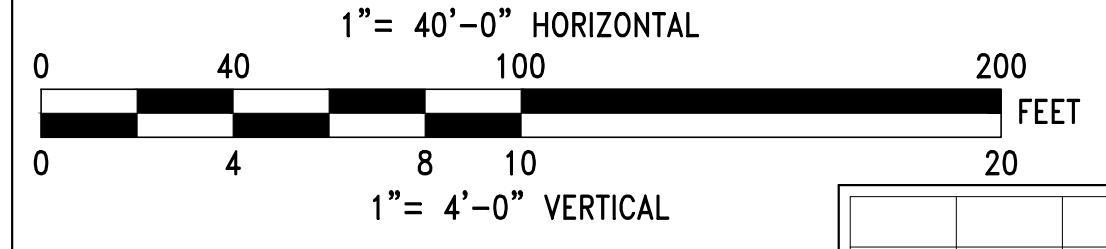
PLAN

SCALE: HORIZ 1"=40'



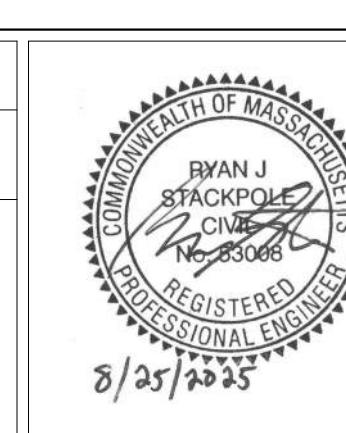
PROFILE

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



NO.	DATE	BY	CHK'D	REVISION

CONTRACT NO.:	6543	FILE NO.:	6543_C-103-C-105
ACCESSION NO.:	-----	SECTION NO.:	W10
DATE:	AUGUST 2025	DESIGNED BY:	RJS
		DRAWN BY:	TJC
		CHECKED BY:	NRB
SCALE:	AS NOTED	APPROVED BY:	RJS



PREPARED BY:

Stantec

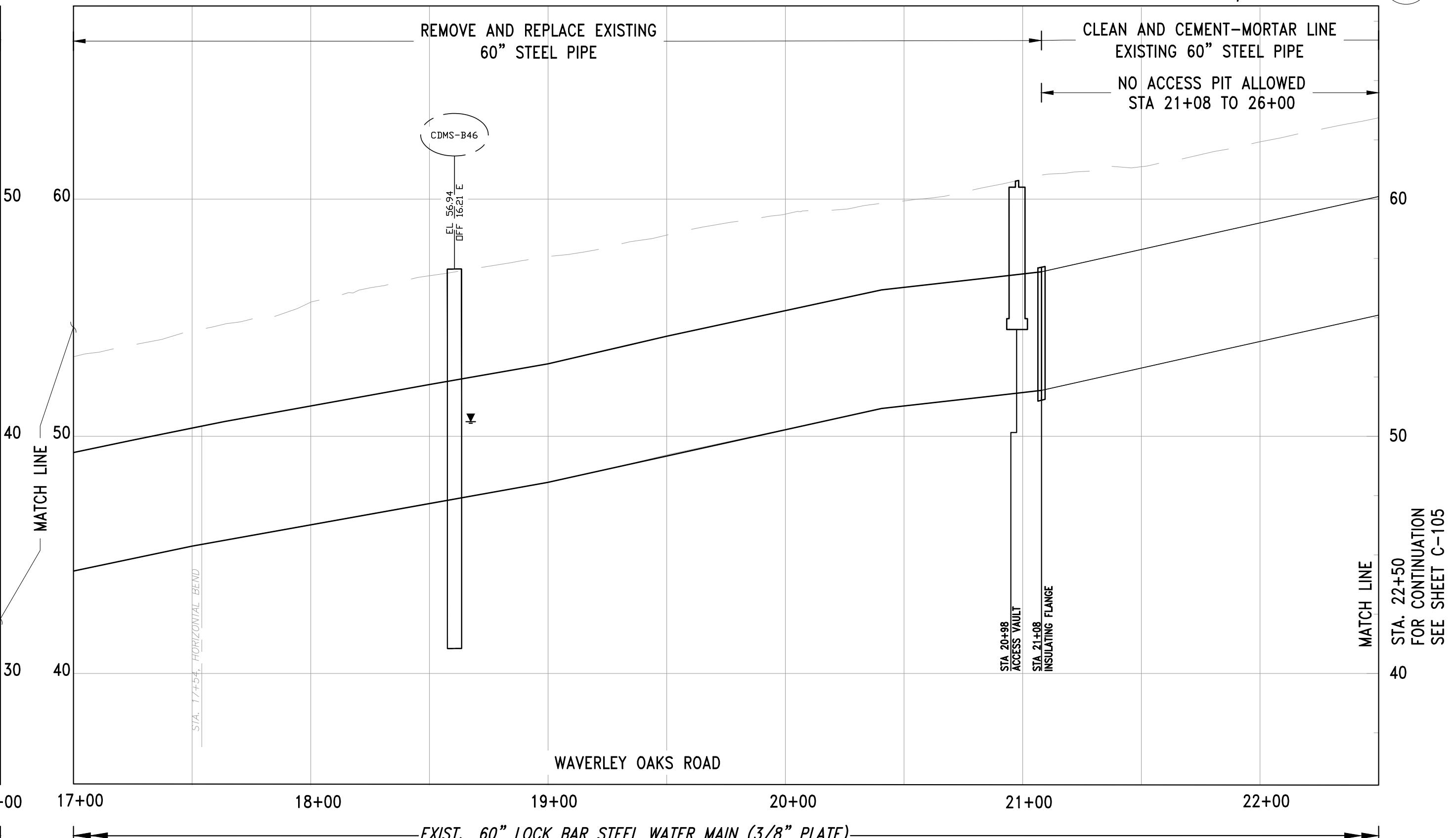
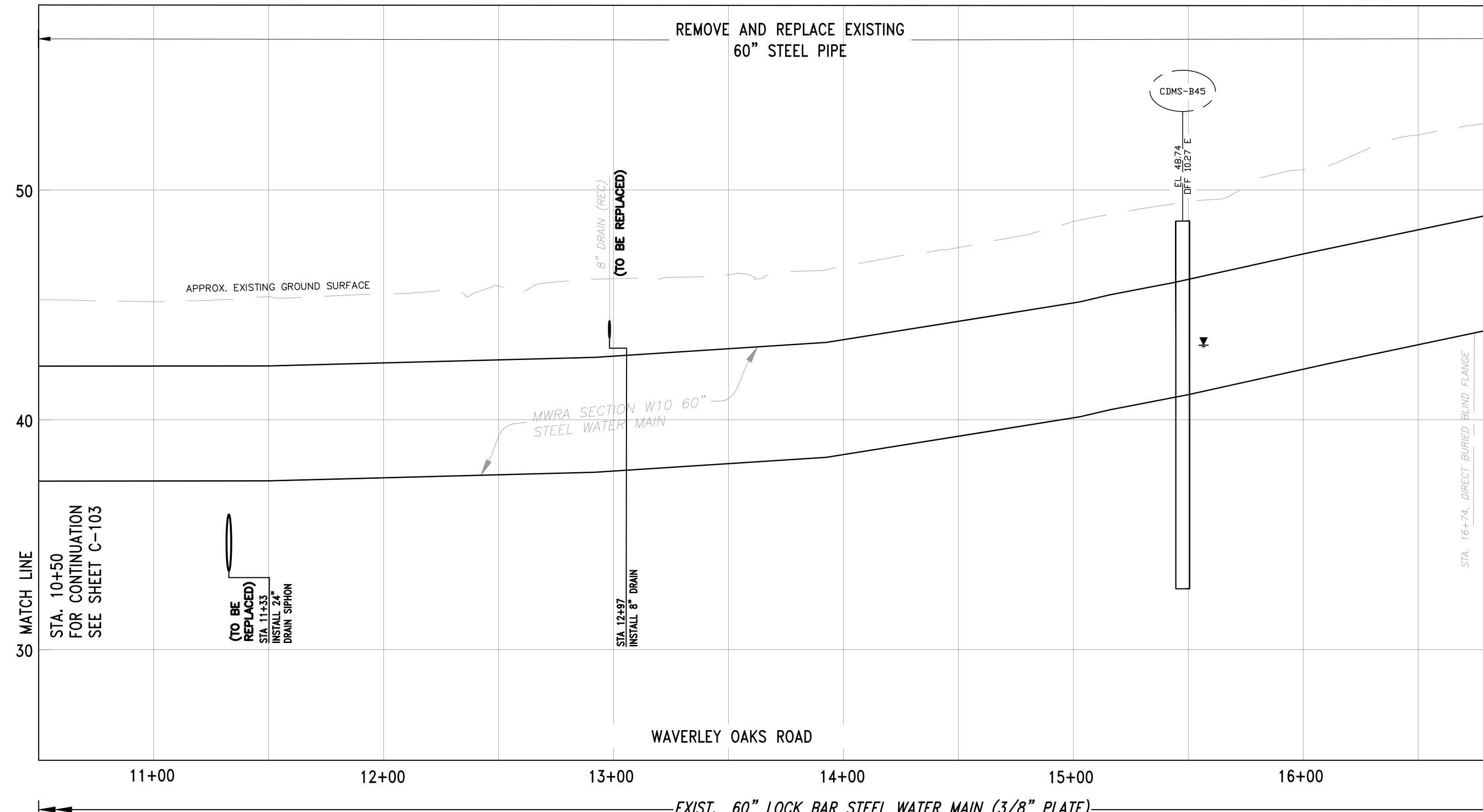
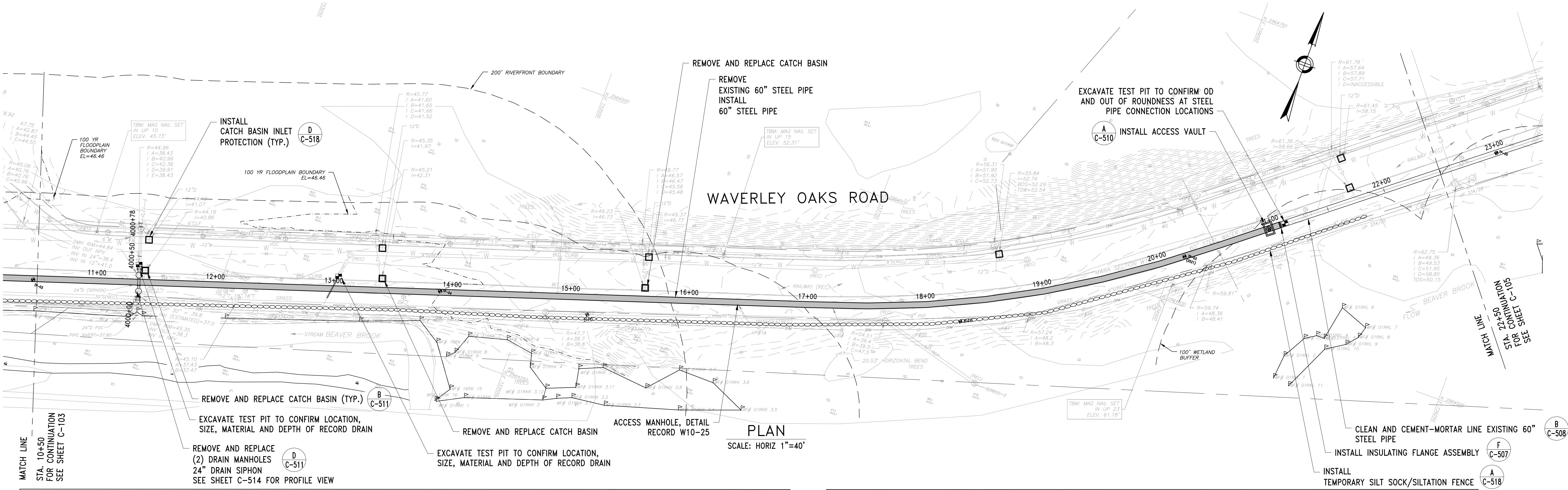
45 BLUE SKY DRIVE, 3RD FLOOR  
BURLINGTON, MA 01803  
www.stantec.com

WESTON AQUEDUCT SUPPLY MAIN 3  
REHABILITATION OF WATER MAINS  
SECTION W10  
SECTION W10 PLAN AND PROFILE STA  
0+00 TO STA 10+50

DRAWING NO.  
C-103  
9 OF 83

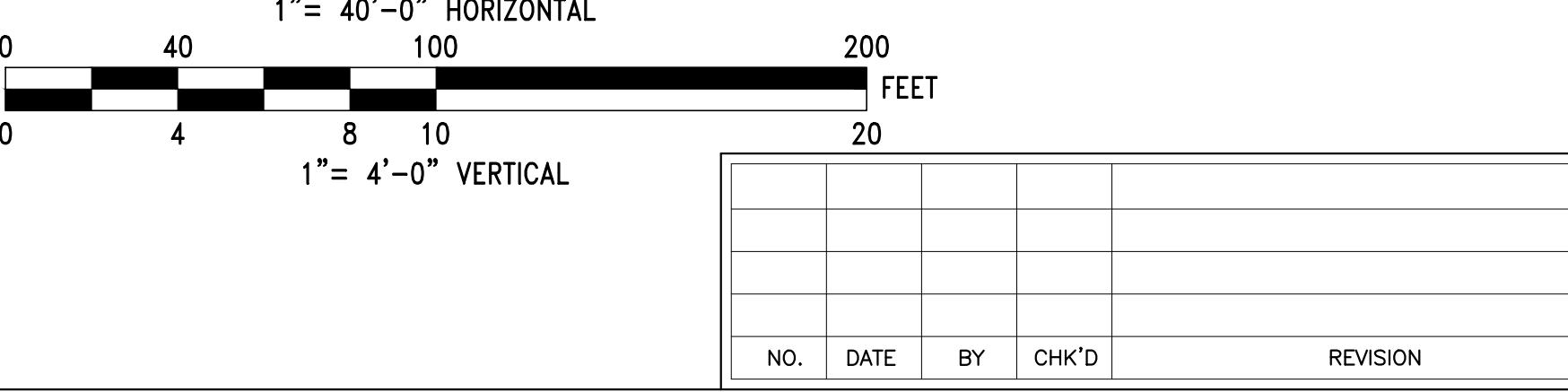
NOTE

1. CONTRACTOR SHALL INVESTIGATE THE STORM DRAIN SYSTEM, PRIOR TO BEGINNING THE WORK, TO CONFIRM PIPE MATERIAL, CONNECTIVITY, AND DISCHARGE LOCATIONS. ALL INFORMATION SHALL BE PROVIDED TO THE AUTHORITY. IF DRAIN PIPE IS DETERMINED TO BE ABANDONED CONTRACTOR SHALL CUT AND PLUG PIPE AT THE LIMITS OF EXCAVATION.

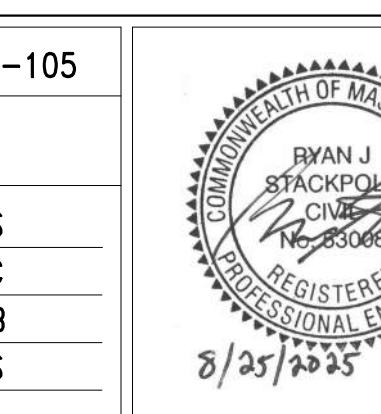


## NOTES:

1. CONTRACTOR SHALL INVESTIGATE THE STORM DRAIN SYSTEM, PRIOR TO BEGINNING THE WORK, TO CONFIRM PIPE MATERIAL, CONNECTIVITY, AND DISCHARGE LOCATIONS. ALL INFORMATION SHALL BE PROVIDED TO THE AUTHORITY IF DRAIN PIPE IS DETERMINED TO BE ABANDONED CONTRACTOR SHALL CUT AND PLUG PIPE AT THE LIMITS OF EXCAVATION.



CONTRACT NO. :	6543	FILE NO. :	6543_C-103-
ACCESSION NO. :	-----	SECTION NO. :	W
DATE:	AUGUST 2025	DESIGNED BY:	R
SCALE:	AS NOTED	DRAWN BY:	T
		CHECKED BY:	N
		APPROVED BY:	R



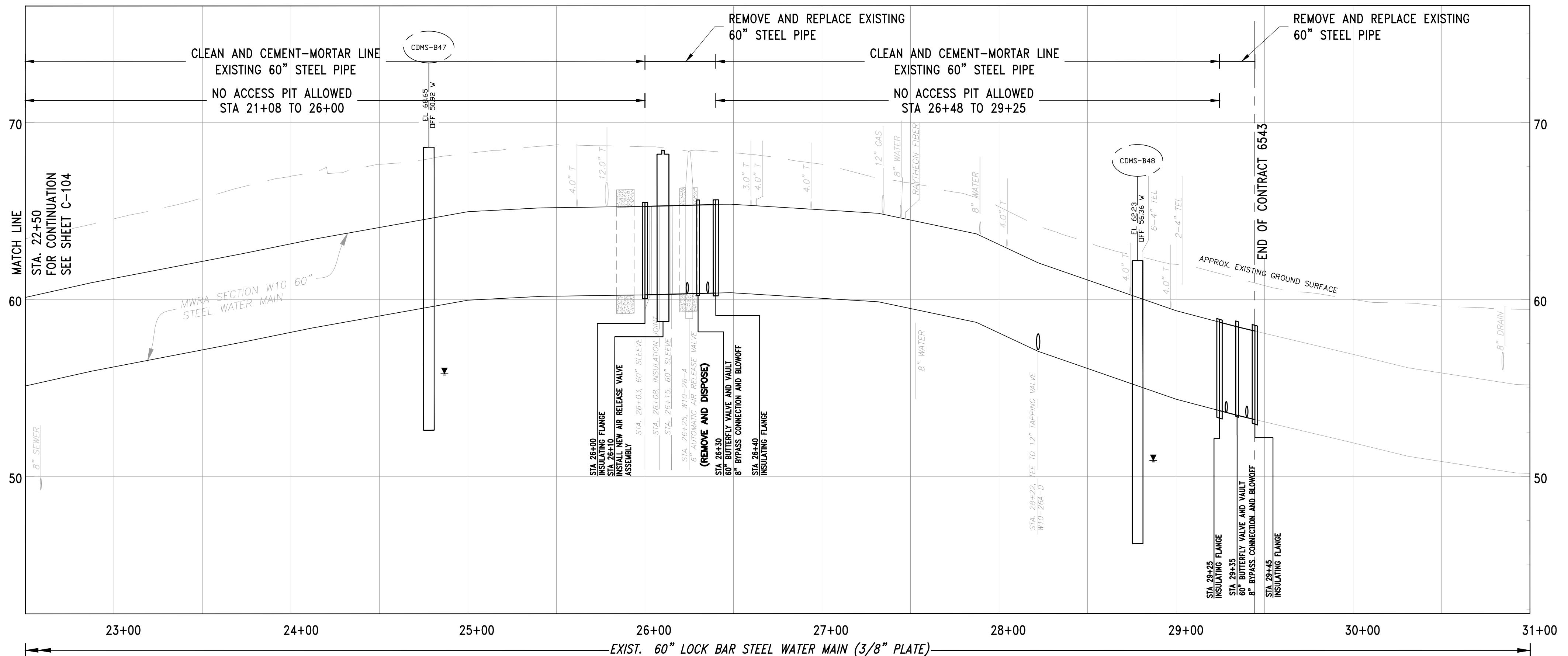
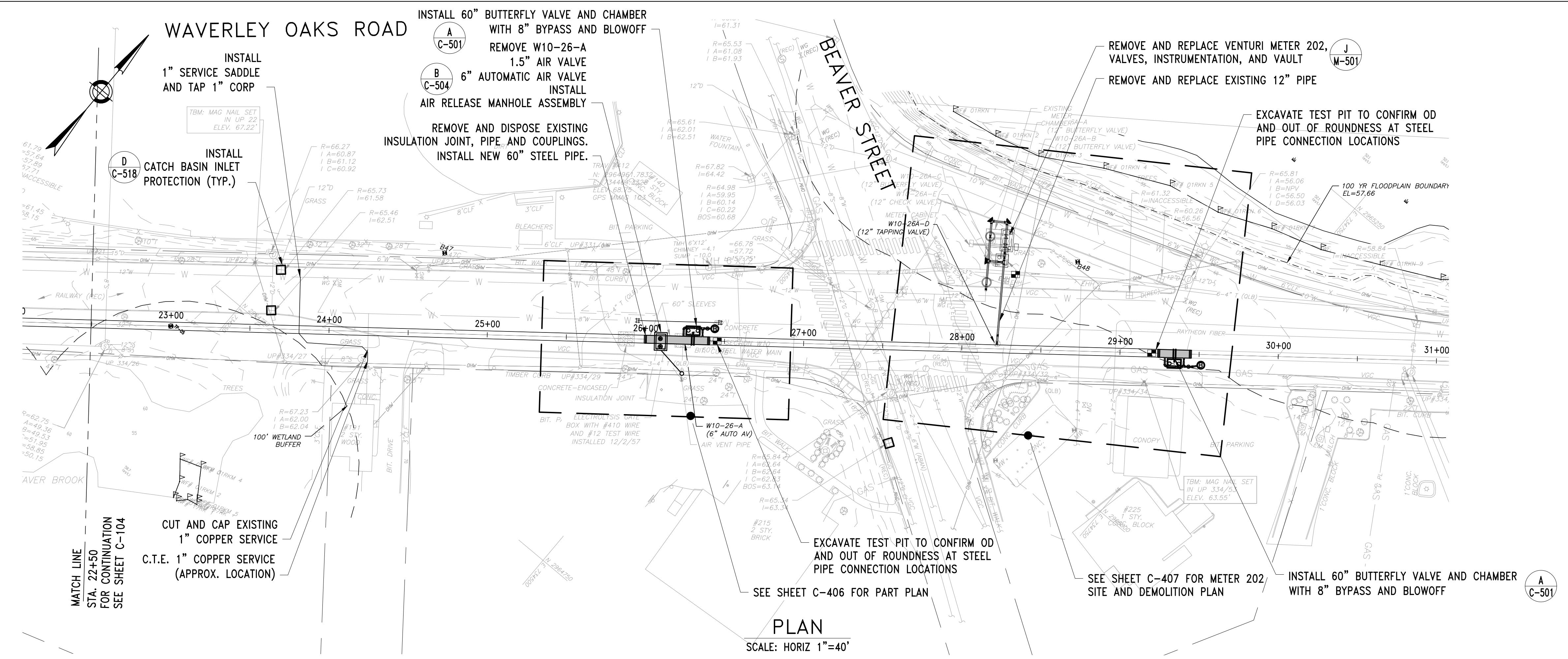
The image shows two logos side-by-side. On the left is the Massachusetts Water Resources Authority logo, which features a circular design with horizontal stripes and the text "MASSACHUSETTS WATER RESOURCES AUTHORITY". On the right is the Stantec logo, which consists of a stylized lowercase 's' inside a circle followed by the word "Stantec" in a bold, sans-serif font.

WESTON AQUEDUCT SUPPLY MAIN 3  
REHABILITATION OF WATER MAINS  
SECTION W10

---

SECTION W10 PLAN AND PROFILE STA 10+50  
TO STA 22+50

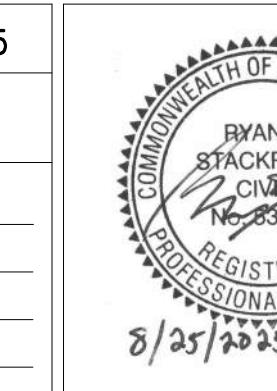
DRAWING NO.  
C-104  
10 OF 83



40'-0" HORIZONTAL  
100  
  
8 10  
= 4'-0" VERTICAL

NO.	DATE	BY	CHK'D	REVISION

CONTRACT NO. :	6543	FILE NO. :	6543_C-103-C
ACCESSION NO. :	-----	SECTION NO. :	W10
DATE:	AUGUST 2025	DESIGNED BY:	RJS
		DRAWN BY:	TJC
		CHECKED BY:	NRE
SCALE:	AS NOTED	APPROVED BY:	RJS



PROFI

SCALE: HORIZ 1  
VERT 1" = 4

 MASSACHUSETTS WATER RESOURCES AUTHORITY

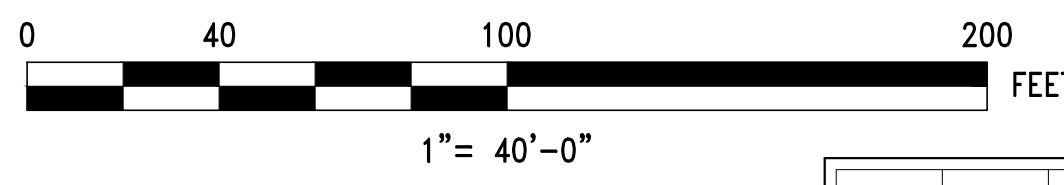
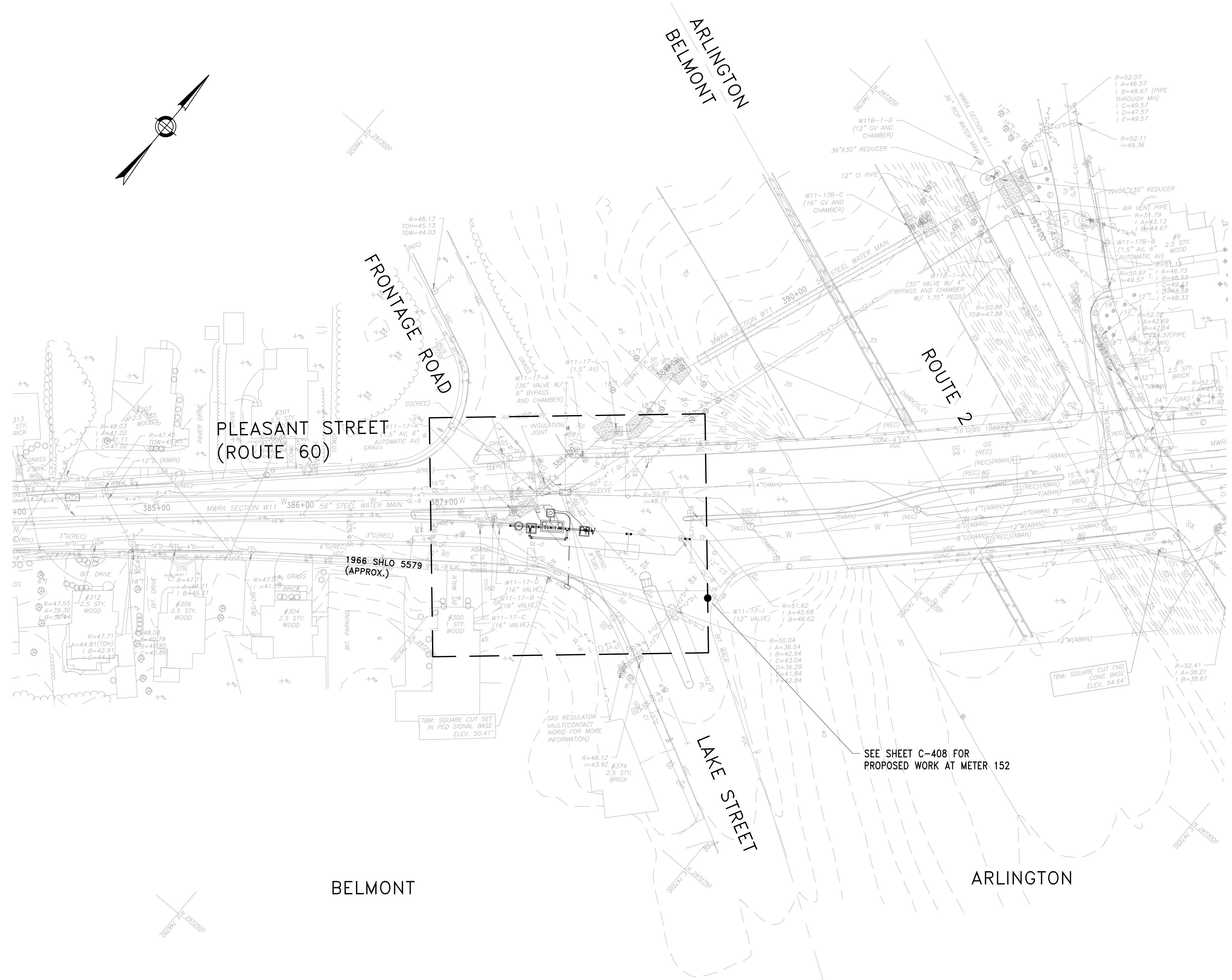
PREPARED BY :  Stantec

45 BLUE SKY DRIVE, 3RD FLOOR  
BURLINGTON, MA 01803  
[www.stantec.com](http://www.stantec.com)

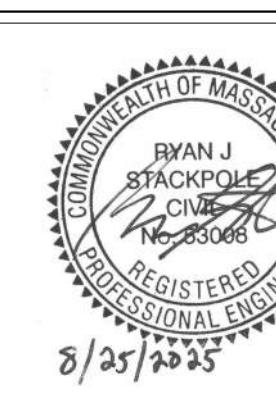
WESTON AQUEDUCT SUPPLY MAIN 3  
REHABILITATION OF WATER MAINS  
SECTION W10

SECTION W10 PLAN AND PROFILE STA 22+50  
TO STA 30+00

DRAWING NO.



CONTRACT NO.:	6543	FILE NO.:	6543_C-106
ACCESSION NO.:	-----	SECTION NO.:	W10
DATE:	AUGUST 2025	DESIGNED BY:	RJS
		DRAWN BY:	TJC
		CHECKED BY:	NRB
SCALE:	AS NOTED	APPROVED BY:	RJS



8/25/2025

PREPARED BY:

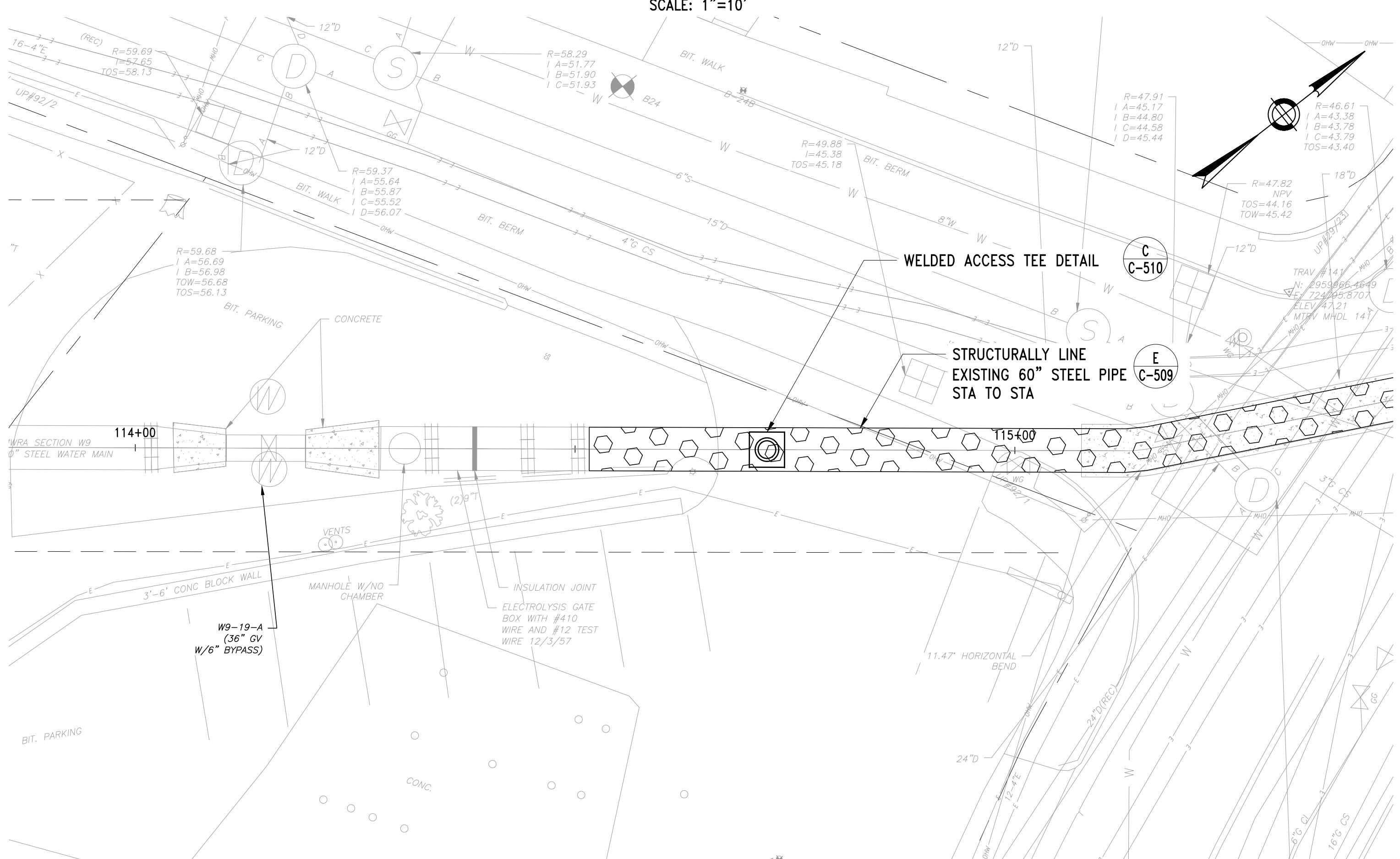
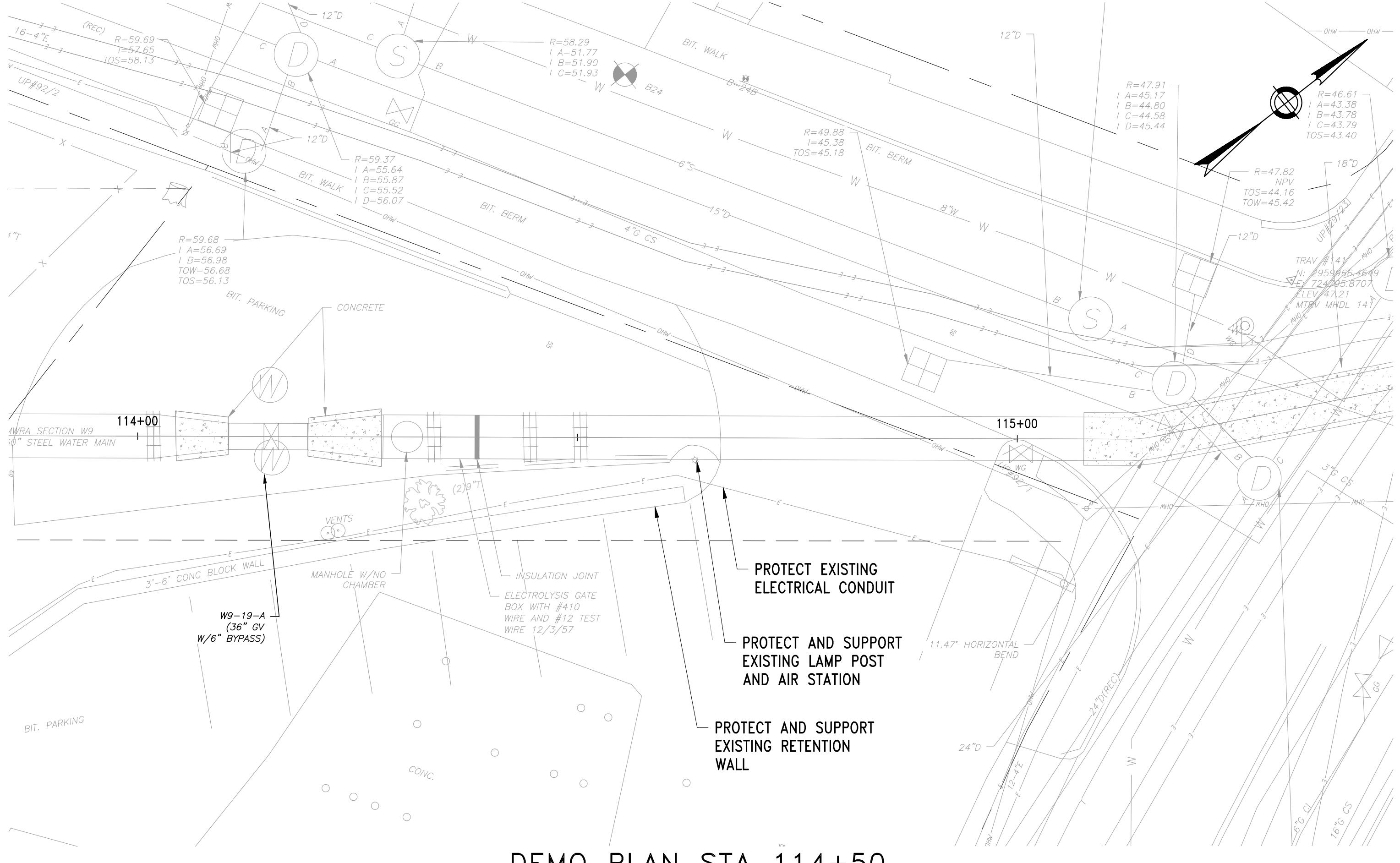
**Stantec**

45 BLUE SKY DRIVE, 3RD FLOOR  
BURLINGTON, MA 01803  
www.stantec.com

WESTON AQUEDUCT SUPPLY MAIN 3  
REHABILITATION OF WATER MAINS  
SECTION W10

SECTION W10 METER 152 REPLACEMENT  
PLAN

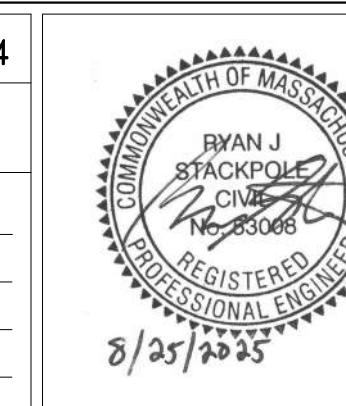
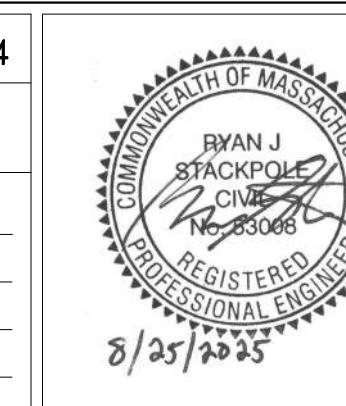
DRAWING NO.  
C-106  
12 OF 83



0 10 20 50  
1" = 10'-0" FEET

NO.	DATE	BY	CHK'D	REVISION

CONTRACT NO. :	6543	FILE NO. :	6543_C-401-C-404
ACCESSION NO. :	-----	SECTION NO. :	W10
DATE:	AUGUST 2025	DESIGNED BY:	RJS
		DRAWN BY:	TJC
SCALE:	AS NOTED	CHECKED BY:	NRB
		APPROVED BY:	RJS



8/25/2025

MASSACHUSETTS WATER RESOURCES AUTHORITY  
PREPARED BY:  
**Stantec**  
45 BLUE SKY DRIVE, 3RD FLOOR  
BURLINGTON, MA 01803  
www.stantec.com

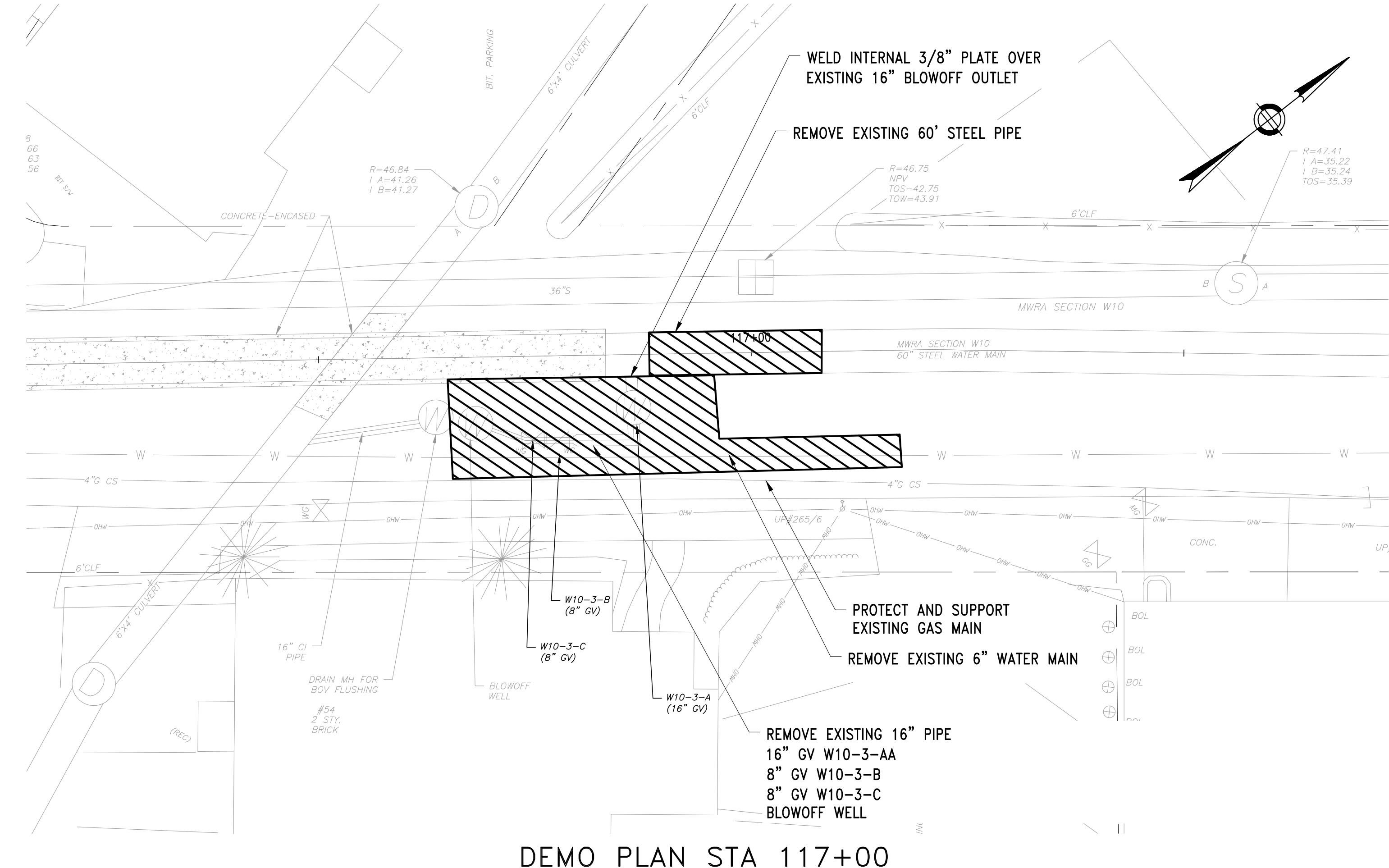
WESTON AQUEDUCT SUPPLY MAIN 3  
REHABILITATION OF WATER MAINS  
SECTION W10

PART PLAN STA 114+50

DRAWING NO.  
C-401  
13 OF 83

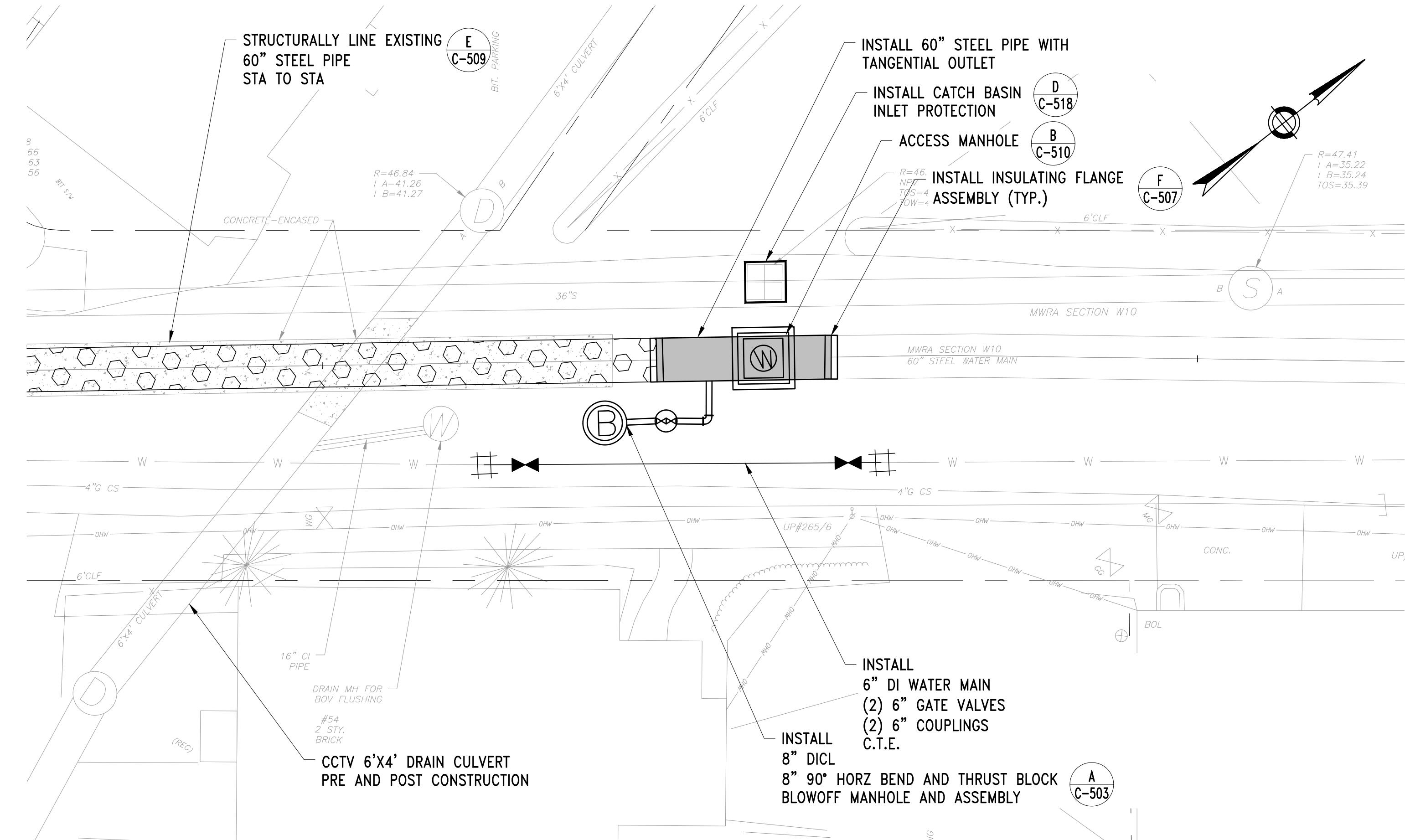
NOTE

1. WELDED ACCESS TEE SHALL BE INSTALLED TO SUPPORT STRUCTURAL LINER ACCESS AND OPERATIONS. BACKFILL AND PAVING PER RESTORATION DETAILS AFTER COMPLETION OF STRUCTURAL LINER WORK AND TESTING.
2. SEE SHEETS C-410 THROUGH C-413 FOR SURFACE RESTORATION.



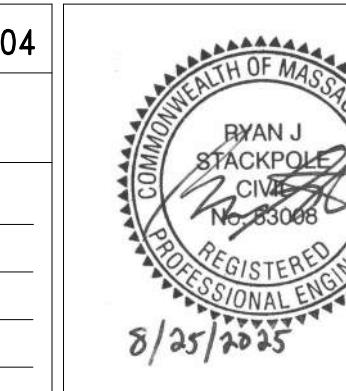
DEMO PLAN STA 117+00

SCALE: 1"=10'



PART PLAN STA 117+00

SCALE: 1"=10'





# MASSACHUSETTS WATER RESOURCES AUTHORITY

PREPARED BY :  - 45 BLUE SKY DRIVE, 3RD FLOOR

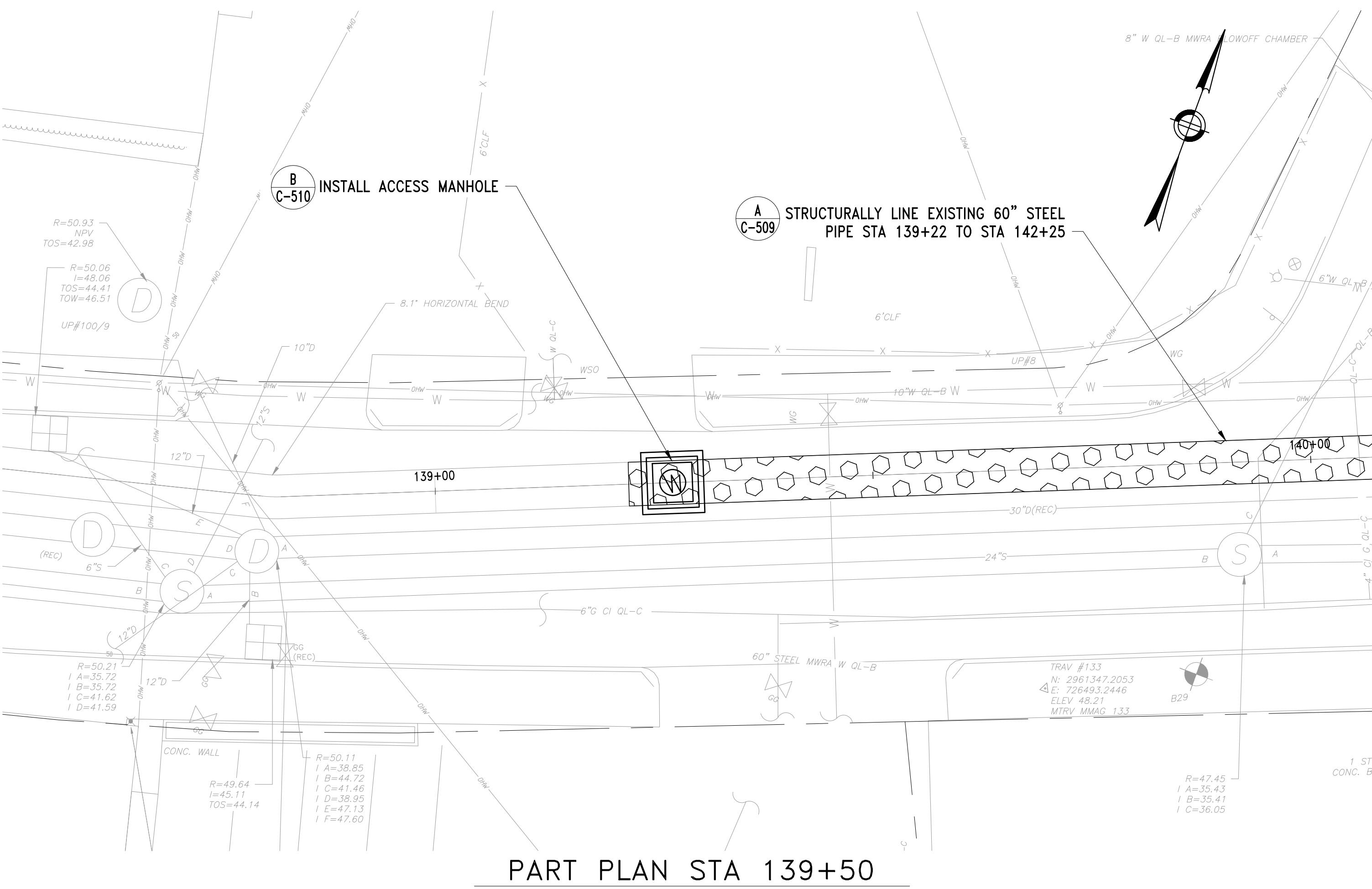
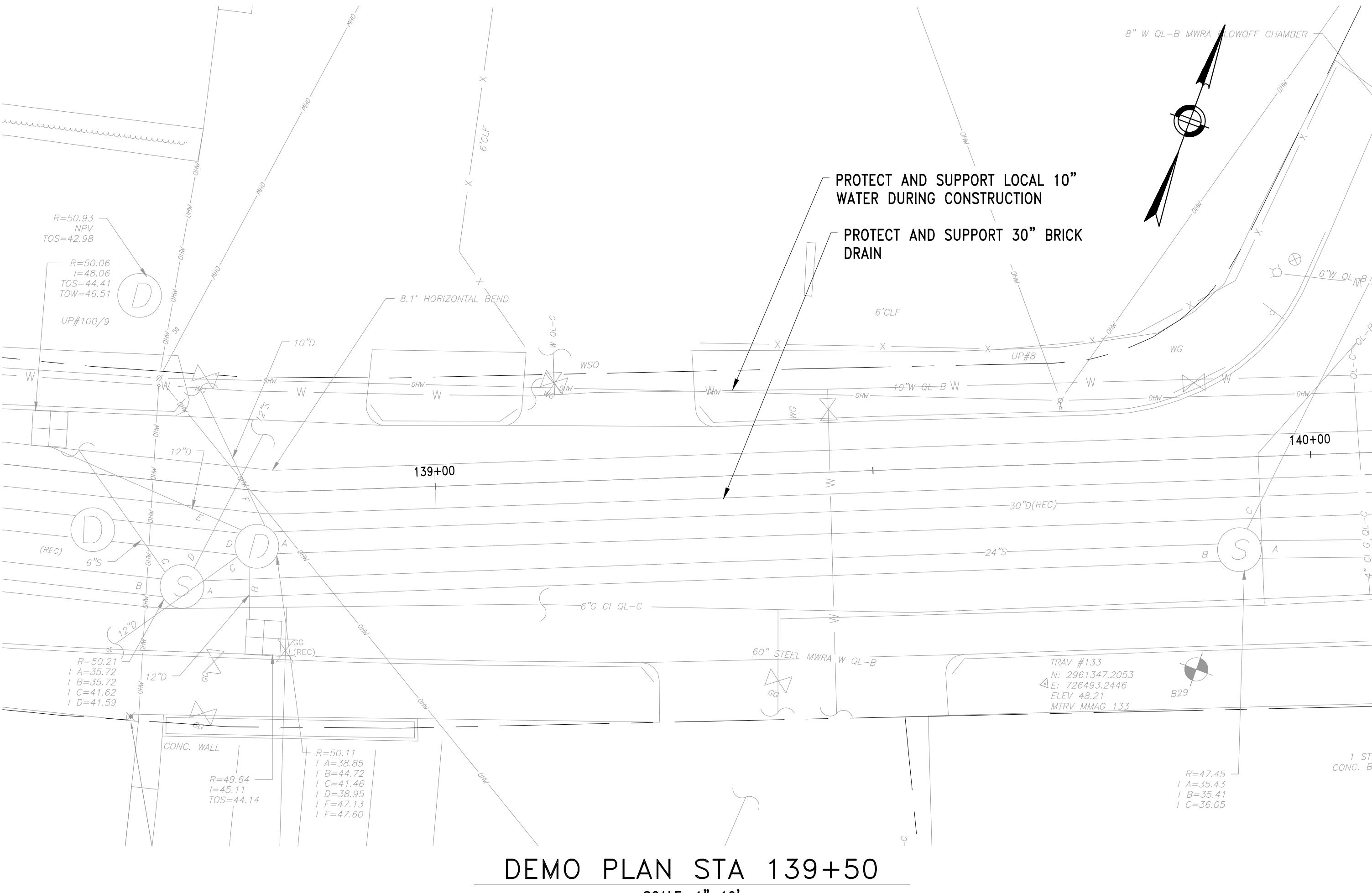
 Stantec

WESTON AQUEDUCT SUPPLY MAIN 3  
REHABILITATION OF WATER MAINS  
SECTION W10

PART PLAN STA 117+00

DRAWING NO.  
C-402

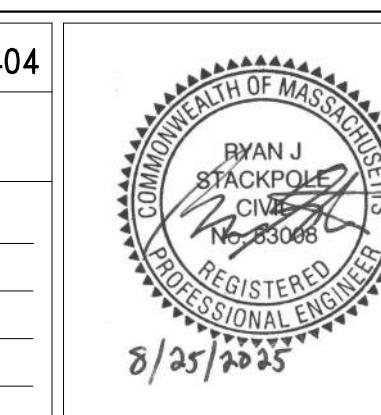
14 of 83



0 10 20 50 FEET  
1" = 10'-0"

NO.	DATE	BY	CHK'D	REVISION

CONTRACT NO. : 6543 FILE NO. : 6543\_C-401-C-404  
ACCESSION NO. : ----- SECTION NO. : W10  
DATE: AUGUST 2025 DESIGNED BY: RJS  
DRAWN BY: TJC  
CHECKED BY: NRB  
APPROVED BY: RJS  
SCALE: AS NOTED



8/25/2025

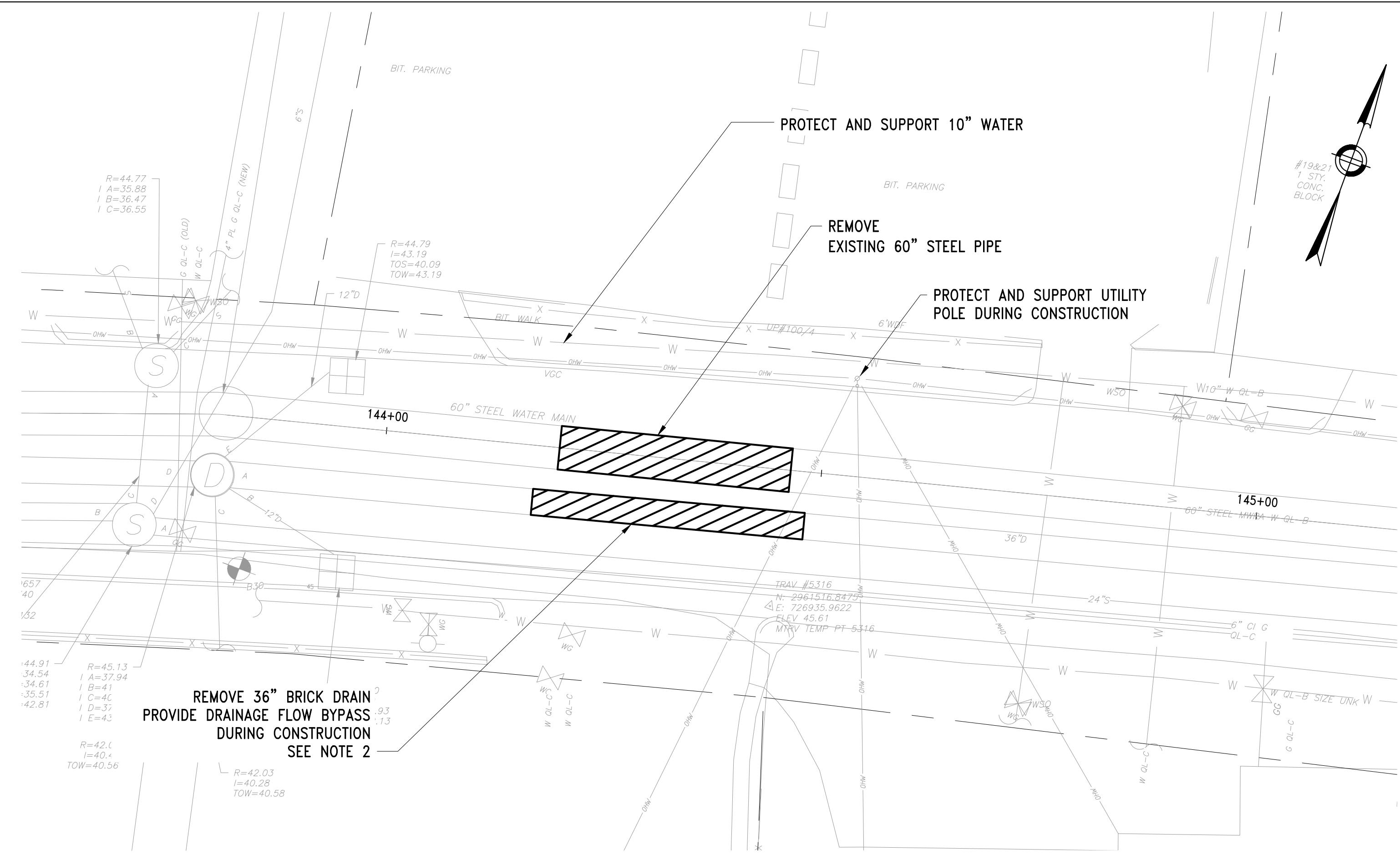
RYAN J. STACKPOLE  
CIVIL  
REGISTERED  
PROFESSIONAL ENGINEER

MASSACHUSETTS WATER RESOURCES AUTHORITY  
PREPARED BY : Stantec  
45 BLUE SKY DRIVE, 3RD FLOOR  
BURLINGTON, MA 01803  
www.stantec.com

WESTON AQUEDUCT SUPPLY MAIN 3  
REHABILITATION OF WATER MAINS  
SECTION W10  
PART PLAN STA 139+50

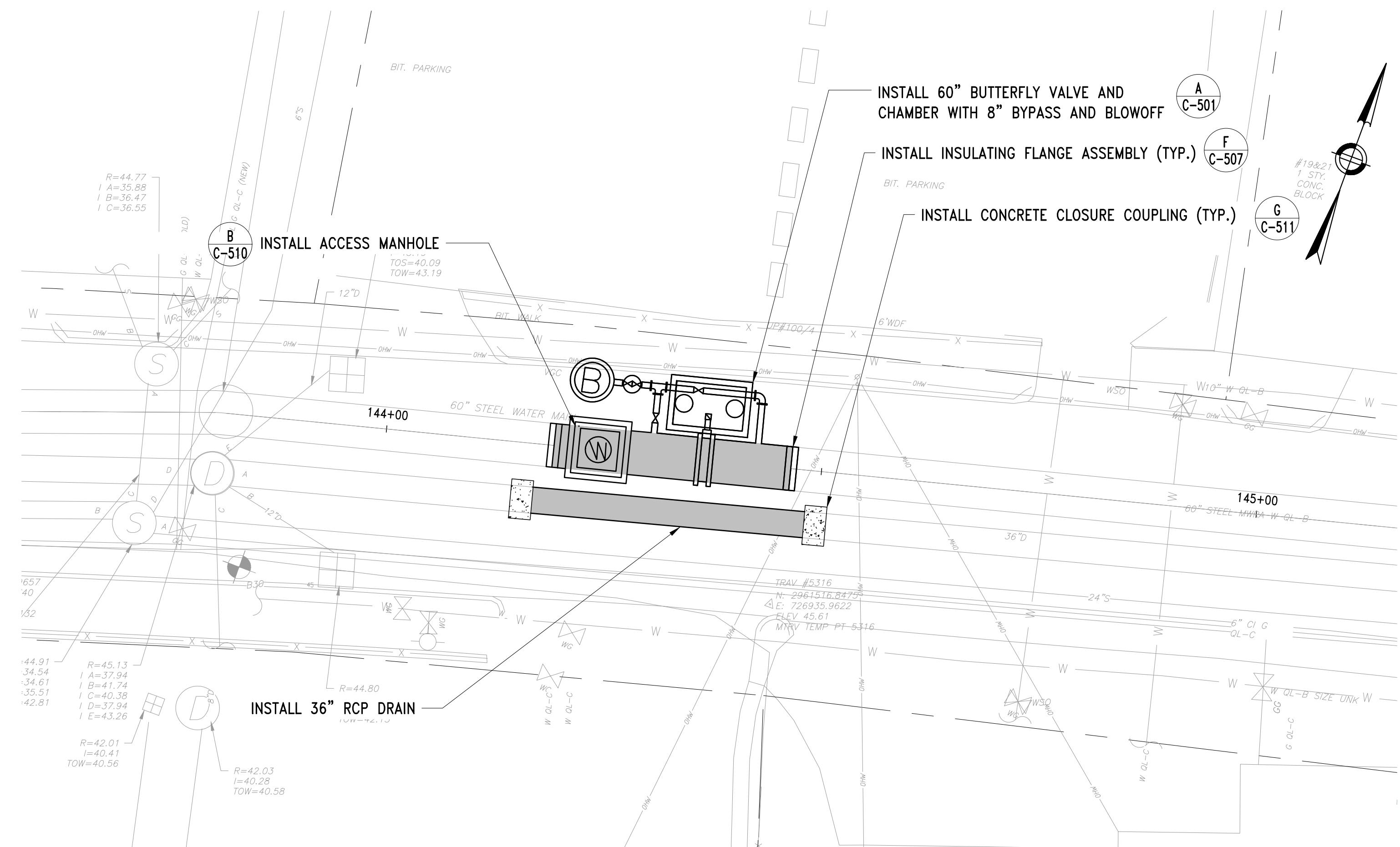
DRAWING NO.  
C-403  
15 OF 83

- NOTE**
- SEE SHEETS C-410 THROUGH C-413 FOR SURFACE RESTORATION.



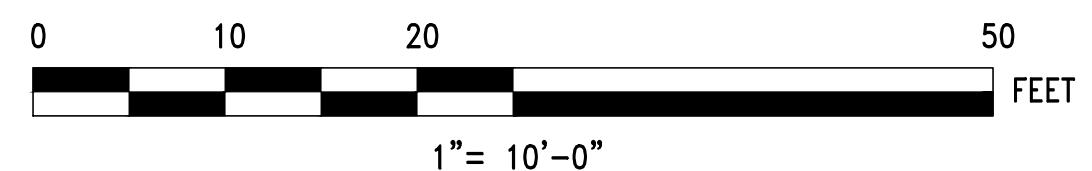
DEMO PLAN STA 144+50

SCALE: 1"=10'



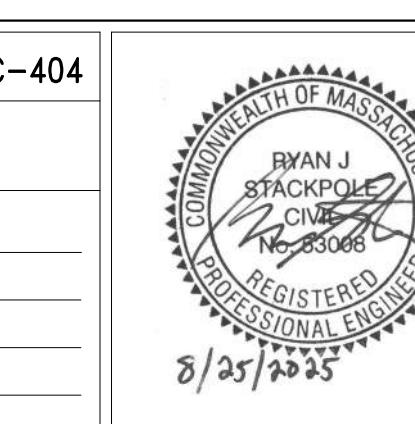
PART PLAN STA 144+50

SCALE: 1"=10'



NO.	DATE	BY	CHK'D	REVISION

CONTRACT NO.:	6543	FILE NO.:	6543_C-401-C-404
ACCESSION NO.:	-----	SECTION NO.:	W10
DATE:	AUGUST 2025	DESIGNED BY:	RJS
		DRAWN BY:	TJC
		CHECKED BY:	NRB
SCALE:	AS NOTED	APPROVED BY:	RJS



MASSACHUSETTS WATER RESOURCES AUTHORITY

PREPARED BY:



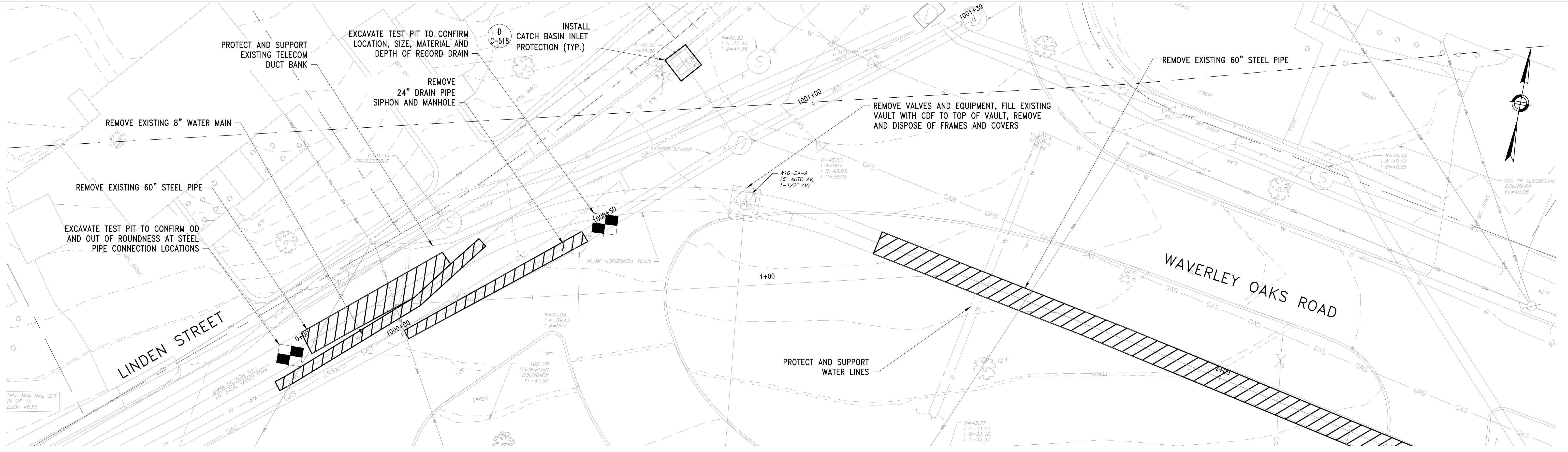
45 BLUE SKY DRIVE, 3RD FLOOR  
BURLINGTON, MA 01803  
www.stantec.com

WESTON AQUEDUCT SUPPLY MAIN 3  
REHABILITATION OF WATER MAINS  
SECTION W10

PART PLAN STA 144+50

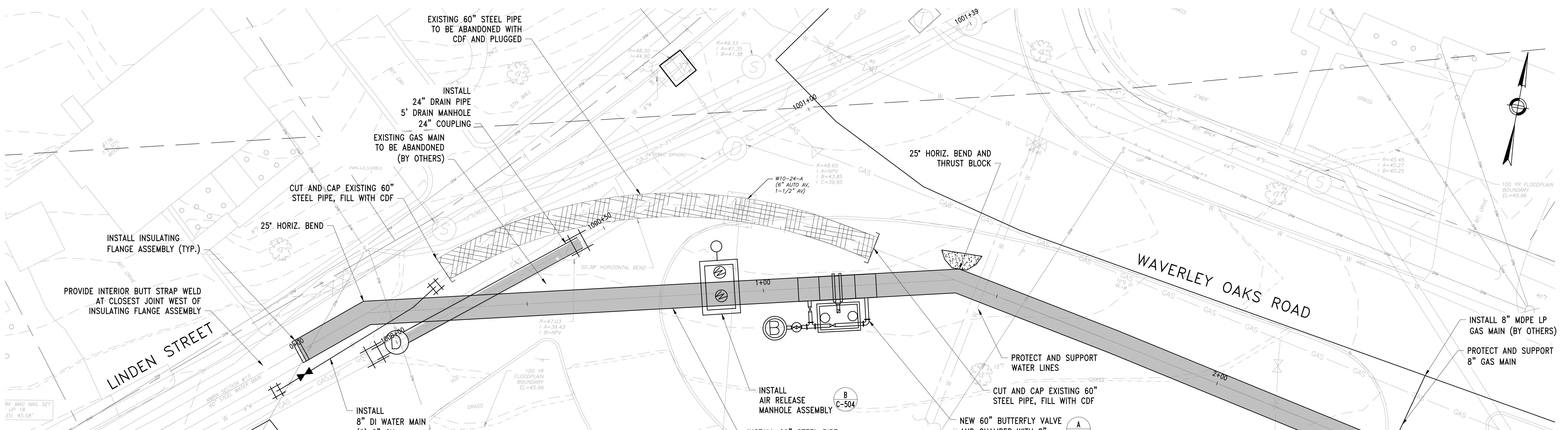
DRAWING NO.  
C-404  
16 OF 83

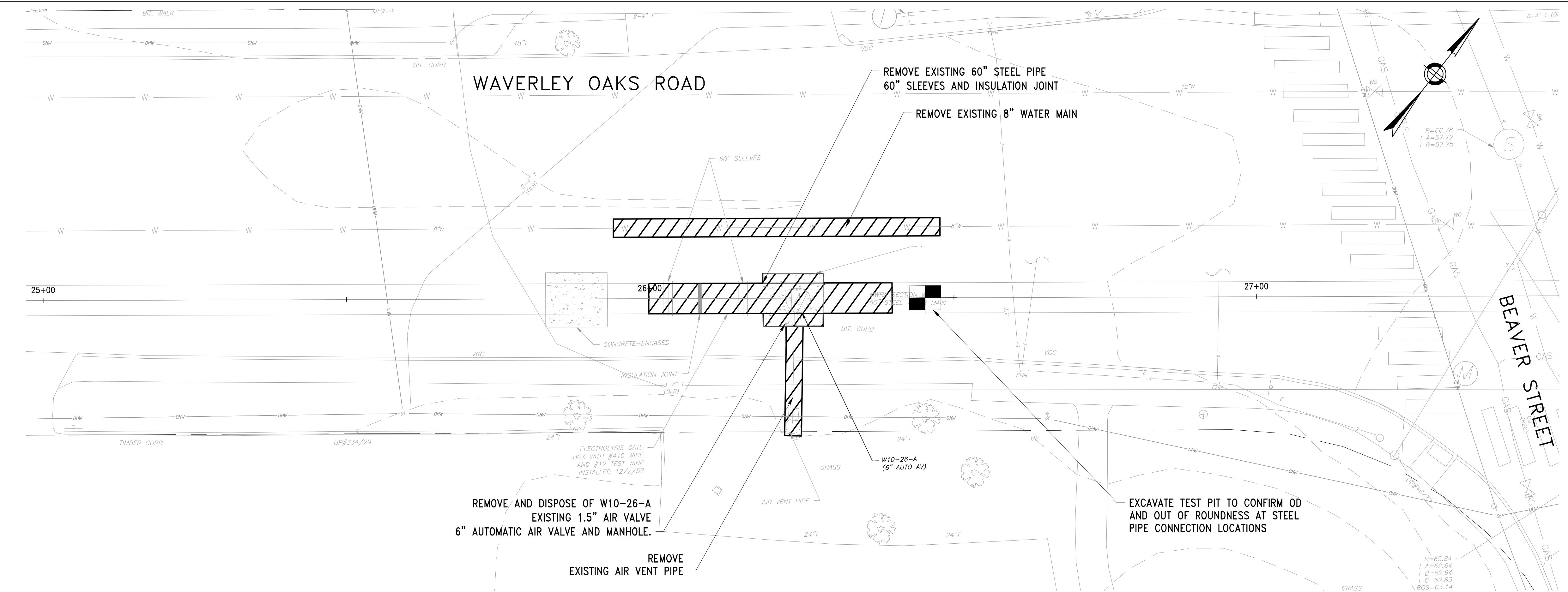
- NOTE
- SEE SHEETS C-410 THROUGH C-413 FOR SURFACE RESTORATION.
  - CONTRACTOR SHALL EXERCISE CAUTION WHEN CUTTING INTO EXISTING BRICKWORK DRAIN ON FELTON STREET. HISTORIC BRICKS IN THIS STRUCTURE EXHIBIT HIGHER-THAN-TYPICAL DENSITY AND HARDNESS.



### DEMO PLAN

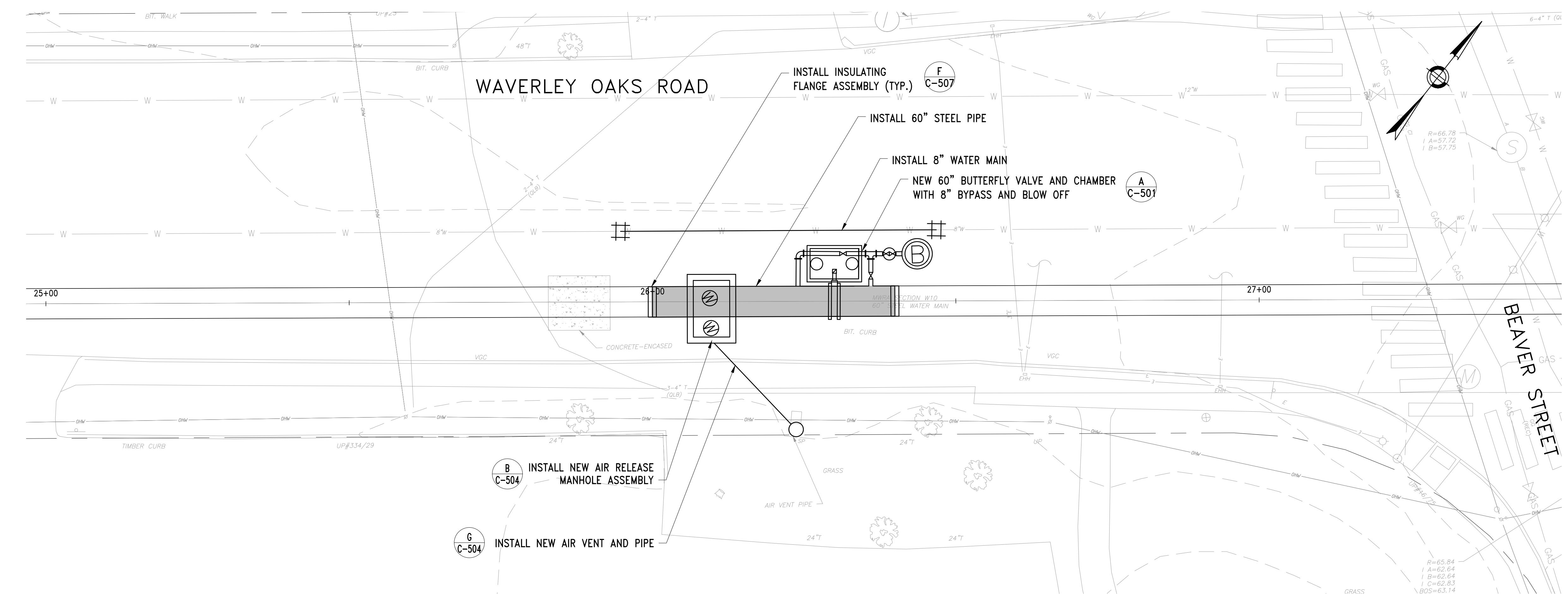
SCALE: 1"=10'





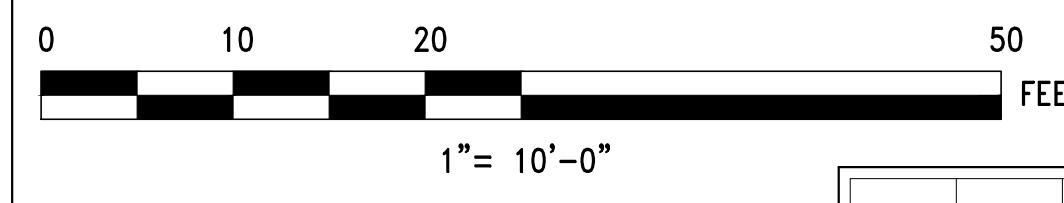
### DEMO PLAN

SCALE: 1"=10'



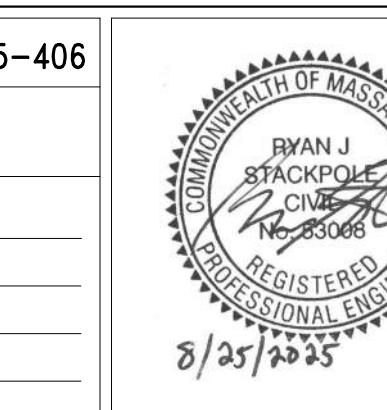
### PART PLAN

SCALE: 1"=10'



NO.	DATE	BY	CHK'D	REVISION

CONTRACT NO.:	6543	FILE NO.:	6543_C-405-406
ACCESSION NO.:	-----	SECTION NO.:	W10
DATE:	AUGUST 2025	DESIGNED BY:	RJS
		DRAWN BY:	TJC
		CHECKED BY:	NRB
SCALE:	AS SHOWN	APPROVED BY:	RJS



45 BLUE SKY DRIVE, 3RD FLOOR  
BURLINGTON, MA 01803  
www.stantec.com

WESTON AQUEDUCT SUPPLY MAIN 3  
REHABILITATION OF WATER MAINS  
SECTION W10

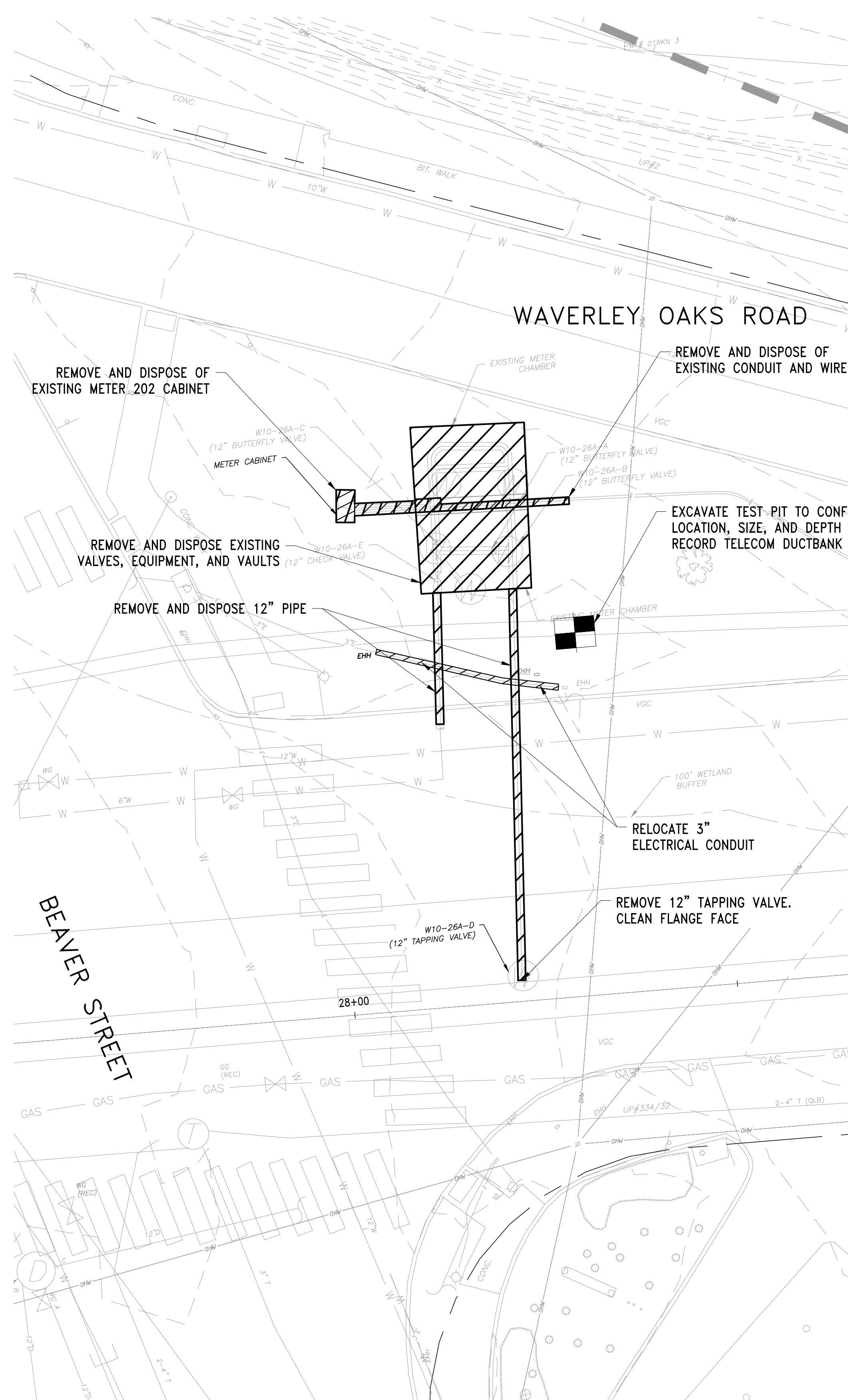
PART PLAN STA 25+00 TO 27+50

DRAWING NO.  
C-406

18 OF 83

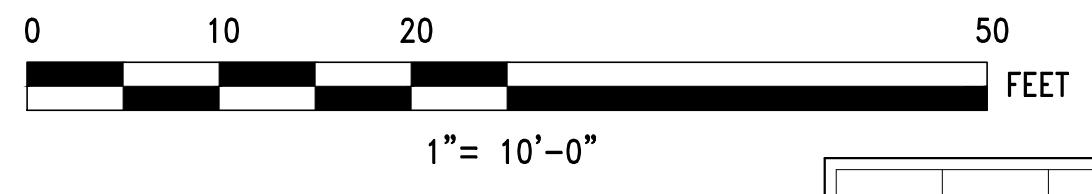
### NOTE

- SEE SHEETS C-410 THROUGH C-413 FOR SURFACE RESTORATION.



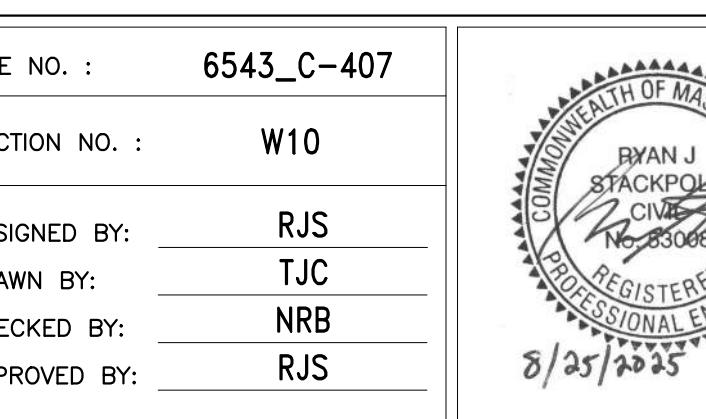
METER NO. 202 – DEMOLITION PLAN

SCALE: 1"=10'



NO.	DATE	BY	CHK'D	REVISION

CONTRACT NO.:	6543	FILE NO.:	6543_C-407
ACCESSION NO.:	-----	SECTION NO.:	W10
DATE:	AUGUST 2025	DESIGNED BY:	RJS
		DRAWN BY:	TJC
		CHECKED BY:	NRB
		APPROVED BY:	RJS
SCALE:	AS SHOWN		



8/25/2025

PREPARED BY :

Stantec

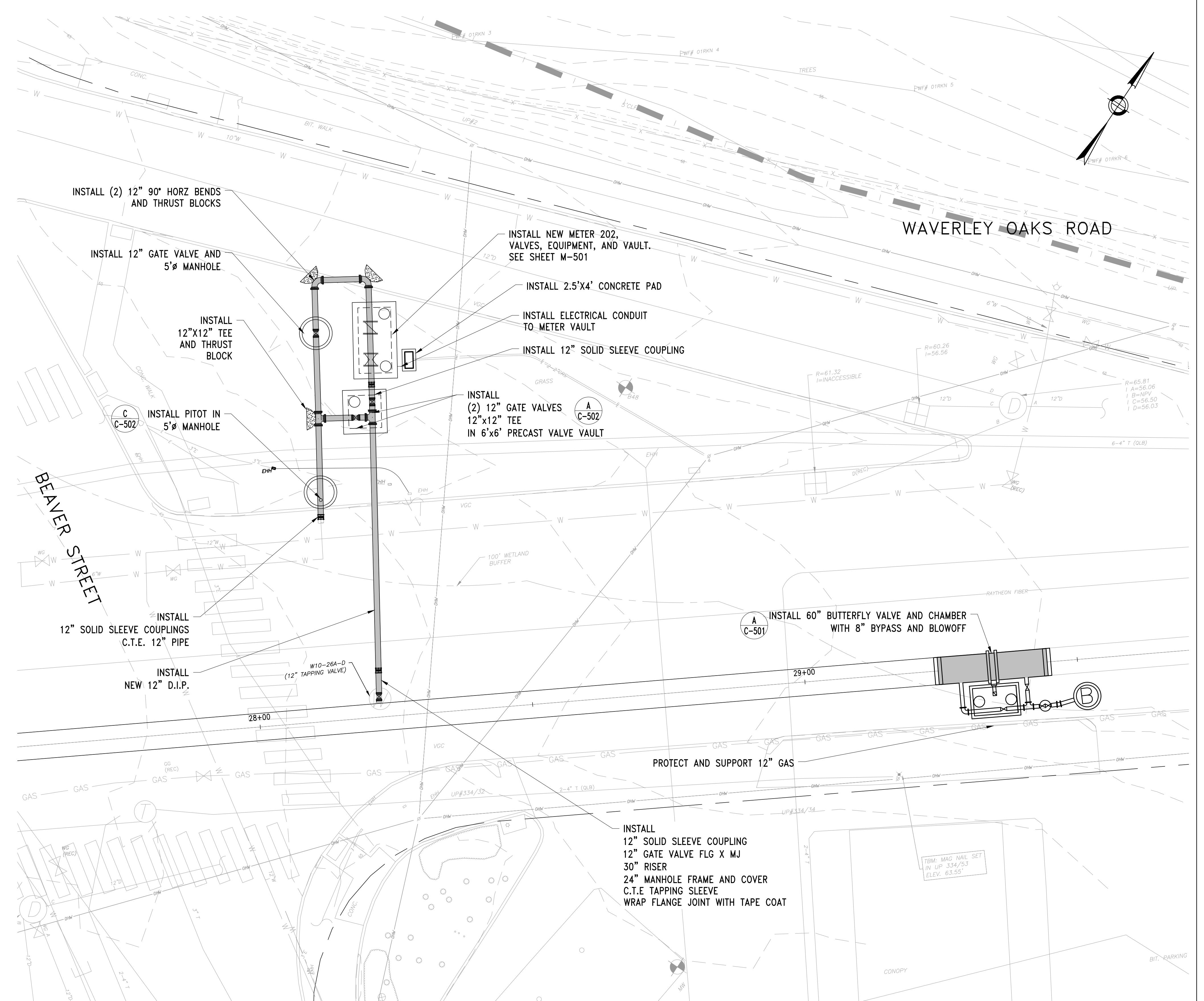
45 BLUE SKY DRIVE, 3RD FLOOR  
BURLINGTON, MA 01803  
www.stantec.com

WESTON AQUEDUCT SUPPLY MAIN 3  
REHABILITATION OF WATER MAINS  
SECTION W10

PART PLAN METER NO. 202

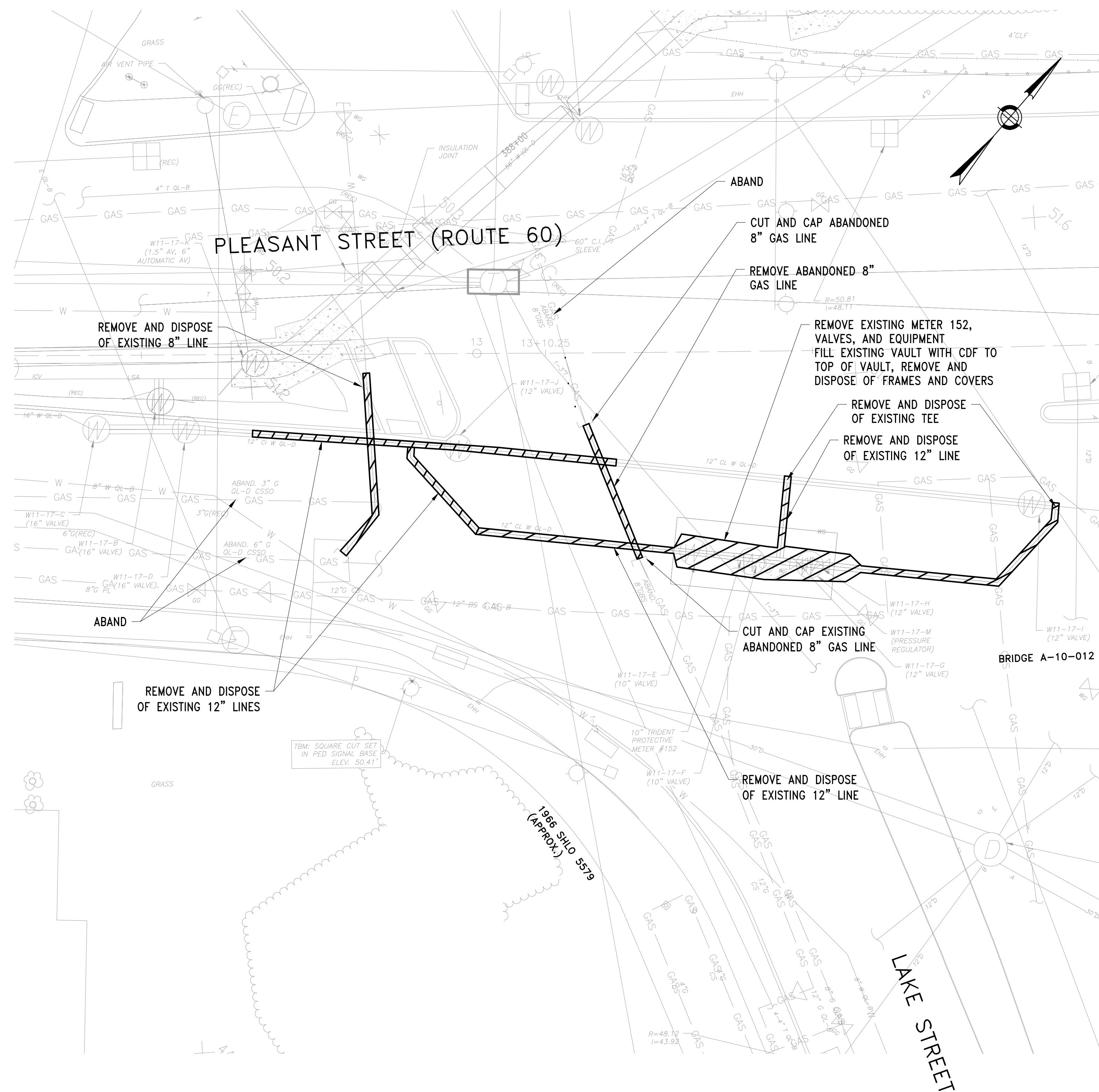
DRAWING NO.  
C-407

19 OF 83



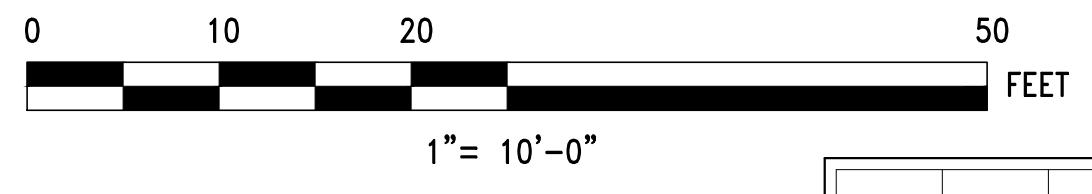
NOTES:

- SEE SHEETS C-410 TO C-413 FOR SURFACE RESTORATION.
- SEE ELECTRICAL DRAWINGS FOR CONDUIT SIZING.
- ANY SURFACE OR RECESSED PAVEMENT MARKINGS OR TRAFFIC SIGNAL DETECTOR LOOPS THAT ARE DAMAGED DURING WORK SHALL BE REPLACED IN KIND.



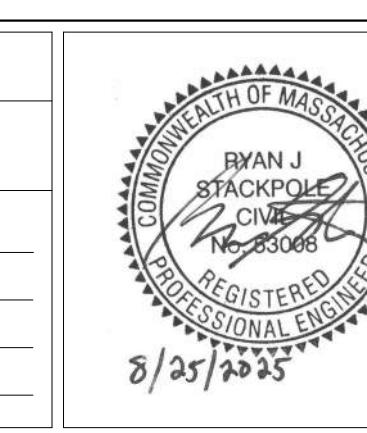
### METER NO. 152 – DEMOLITION PLAN

SCALE: 1"=10'



NO.	DATE	BY	CHK'D	REVISION

CONTRACT NO.:	6543	FILE NO.:	6543_C-408
ACCESSION NO.:	-----	SECTION NO.:	W10
DATE:	AUGUST 2025	DESIGNED BY:	RJS
		DRAWN BY:	TJC
		CHECKED BY:	NRB
SCALE:	AS NOTED	APPROVED BY:	RJS

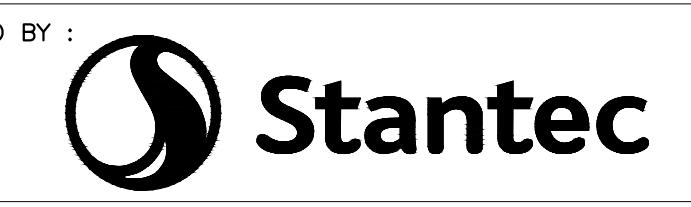


8/25/2025

PROFESSIONAL ENGINEER

MASSACHUSETTS WATER RESOURCES AUTHORITY

PREPARED BY:



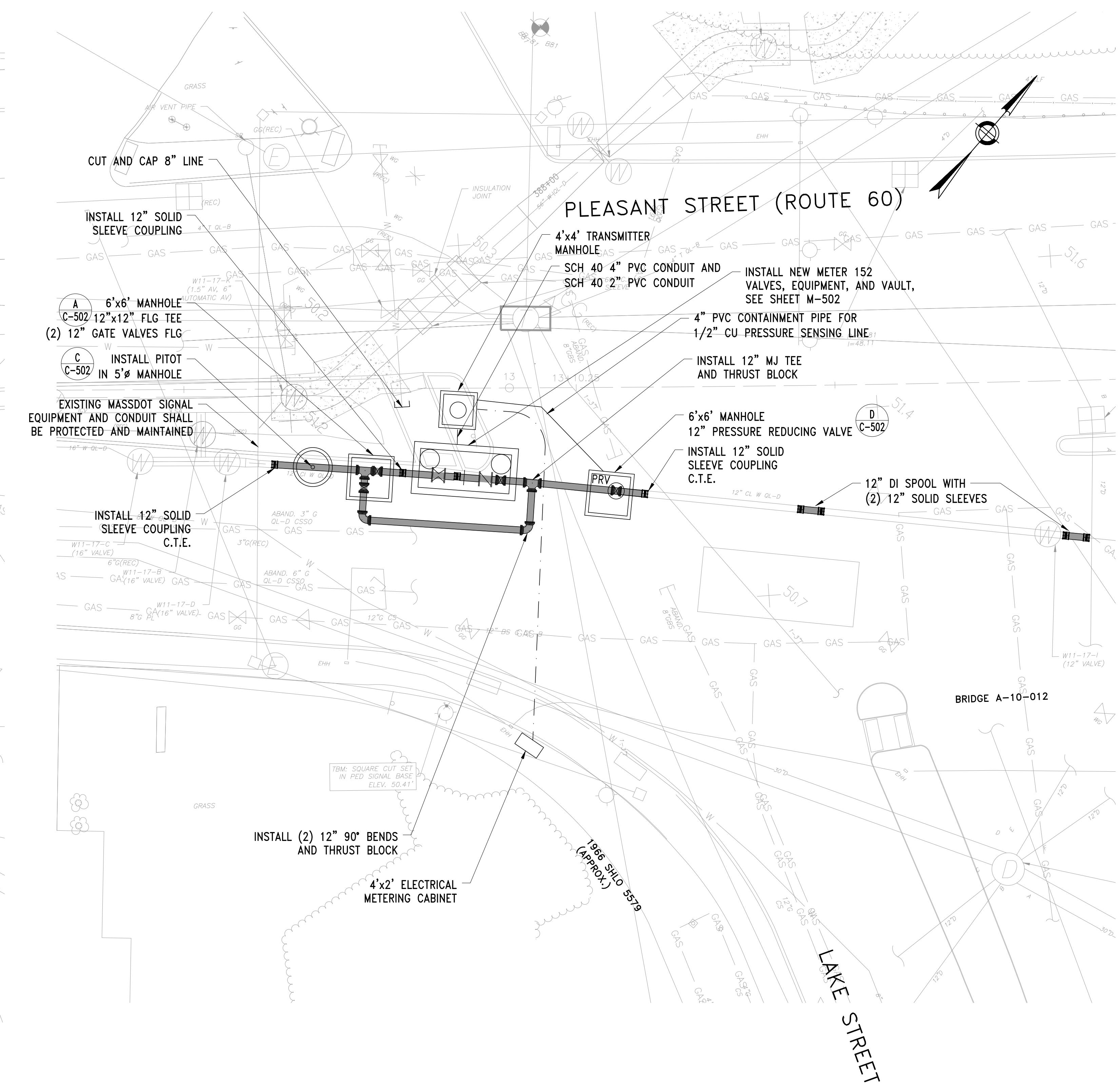
45 BLUE SKY DRIVE, 3RD FLOOR  
BURLINGTON, MA 01803  
www.stantec.com

WESTON AQUEDUCT SUPPLY MAIN 3  
REHABILITATION OF WATER MAINS  
SECTION W10

PART PLAN METER NO. 152

DRAWING NO.  
C-408

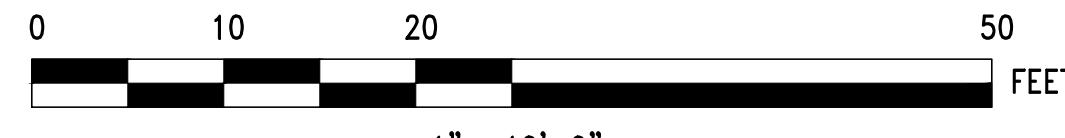
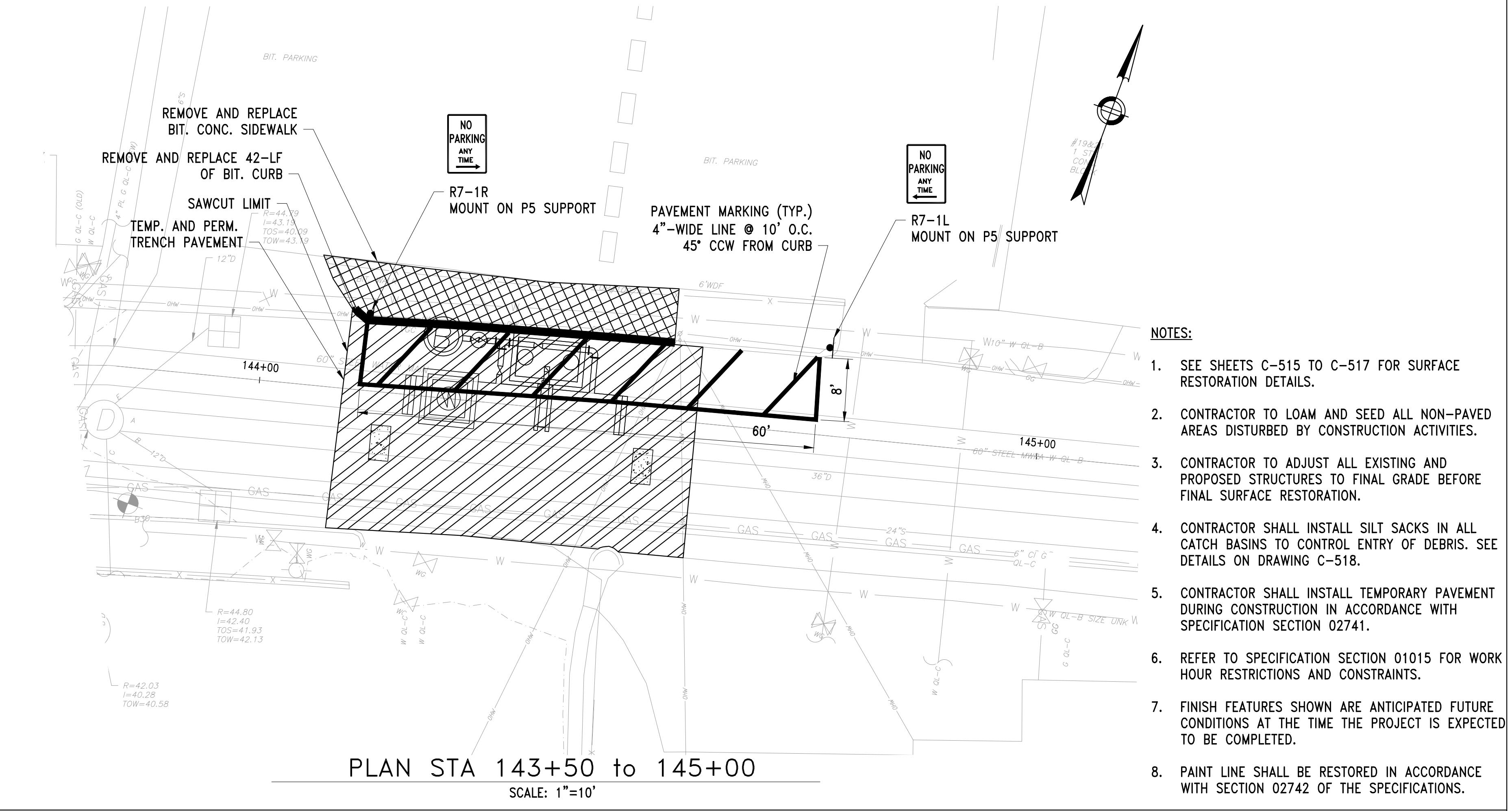
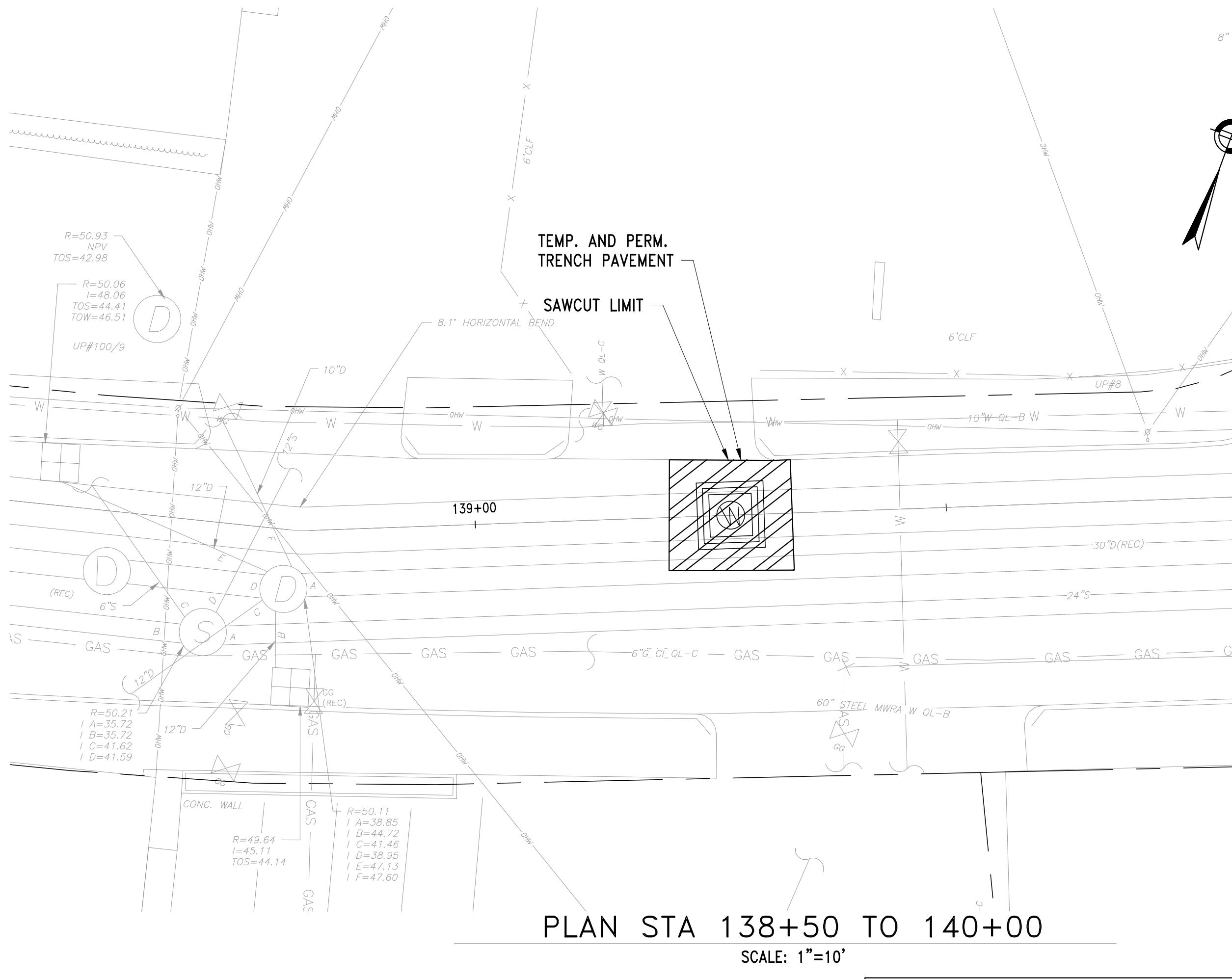
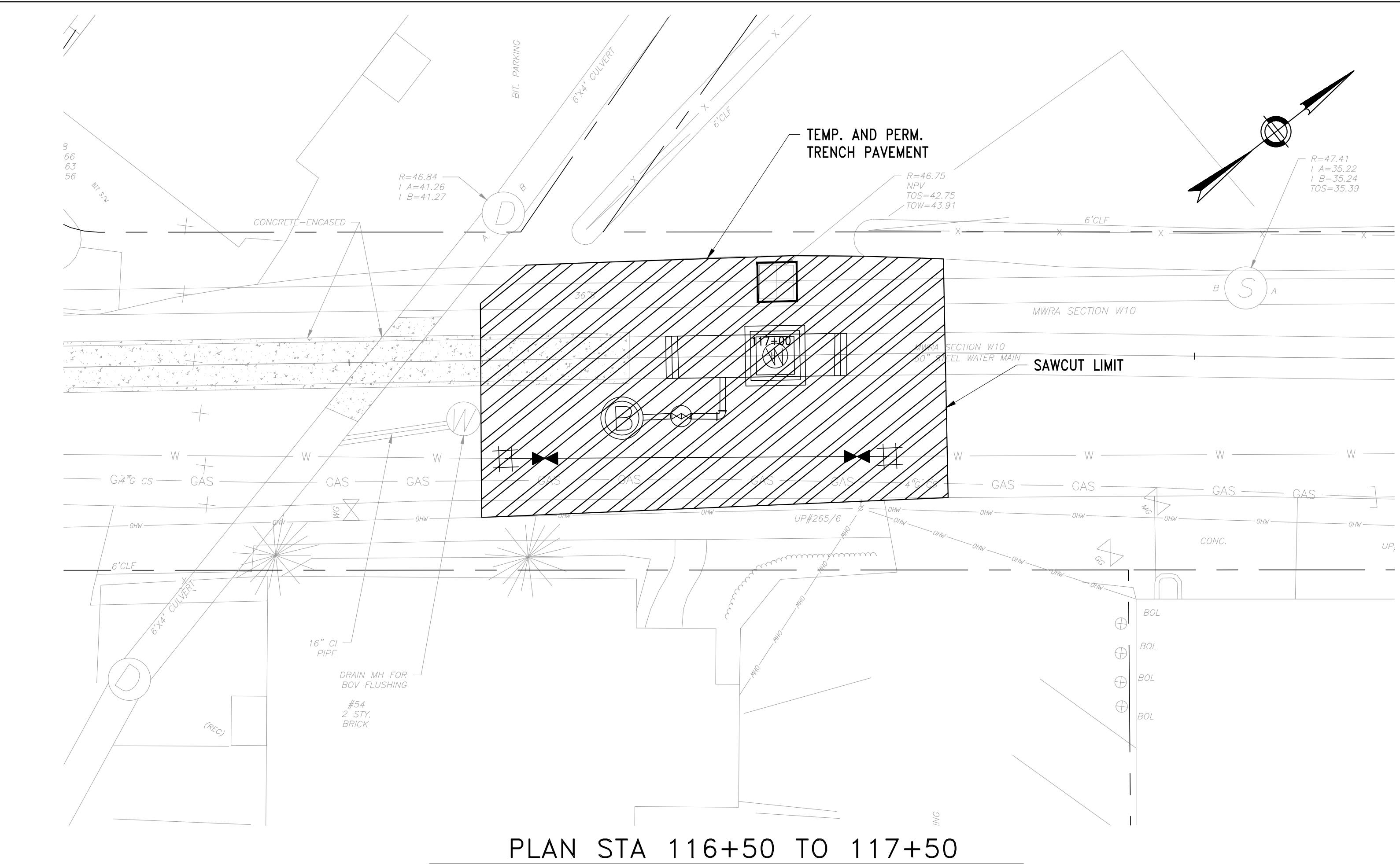
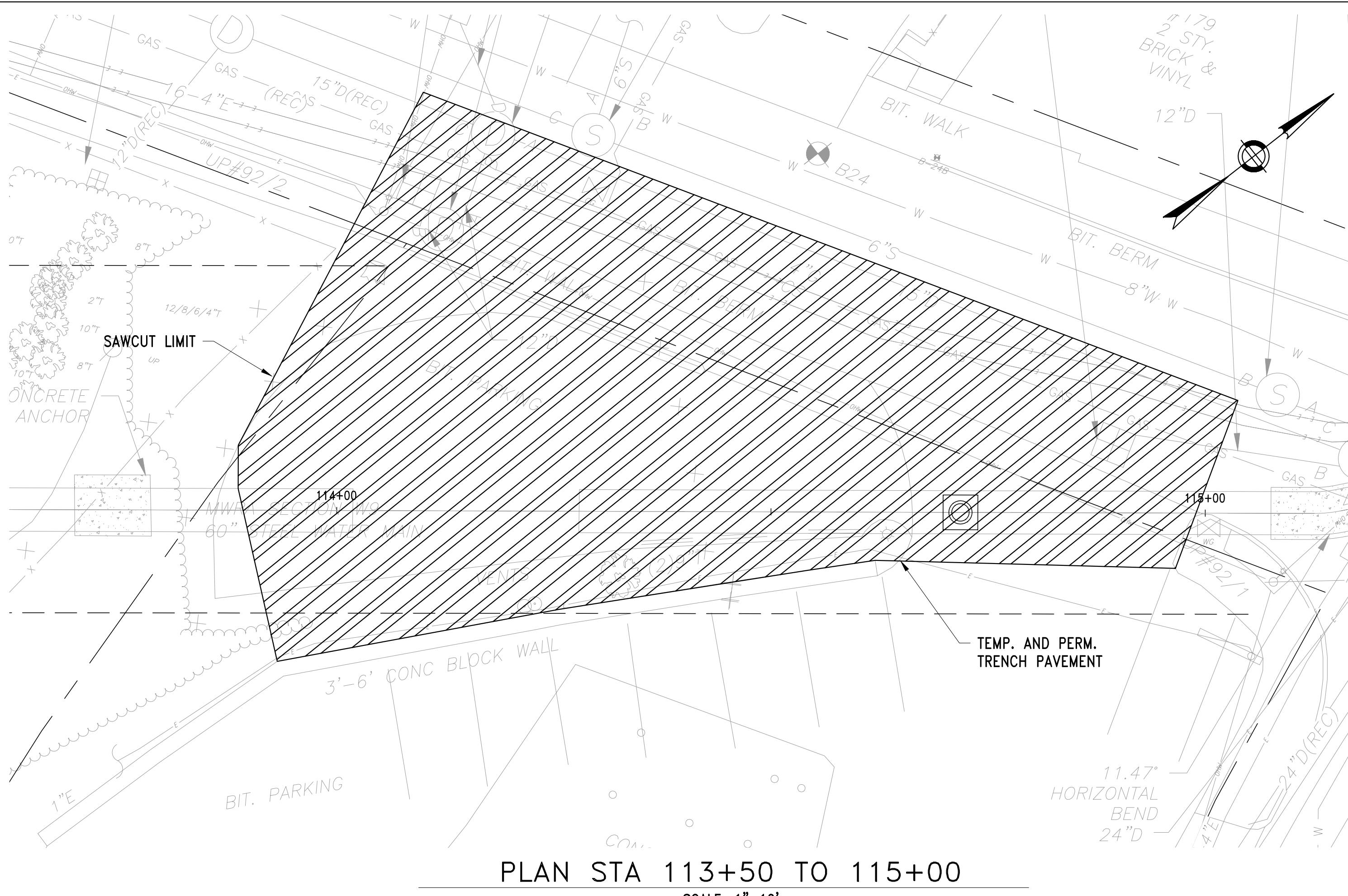
20 OF 83



### METER NO. 152 – PROPOSED PLAN

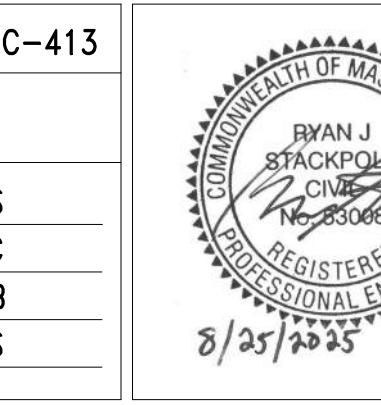
SCALE: 1"=10'

- NOTES:
- SEE SHEETS C-410 TO C-413 FOR SURFACE RESTORATION.
  - SEE ELECTRICAL DRAWINGS FOR CONDUIT SIZING.
  - ANY SURFACE OR RECESSED PAVEMENT MARKINGS OR TRAFFIC SIGNAL DETECTOR LOOPS THAT ARE DAMAGED DURING WORK SHALL BE REPLACED IN KIND.



NO.	DATE	BY	CHK'D	REVISION

CONTRACT NO. :	6543	FILE NO. :	6543_C-410-C-413
ACCESSION NO. :	-----	SECTION NO. :	W10
DATE:	AUGUST 2025	DESIGNED BY:	RJS
		DRAWN BY:	TJC
		CHECKED BY:	NRB
SCALE:	AS SHOWN	APPROVED BY:	RJS



8/25/2025

8/25/2025

MASSACHUSETTS WATER RESOURCES AUTHORITY  
**Stantec**

45 BLUE SKY DRIVE, 3RD FLOOR  
BURLINGTON, MA 01803  
www.stantec.com

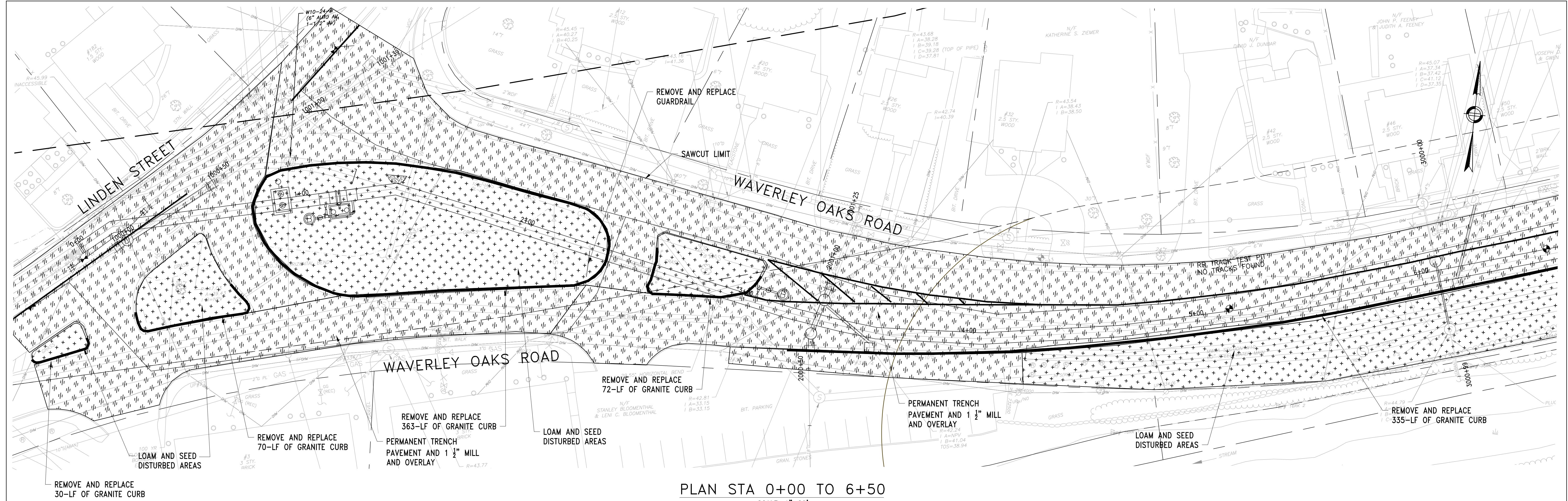
WESTON AQUEDUCT SUPPLY MAIN 3  
REHABILITATION OF WATER MAINS  
SECTION W10

RESTORATION PLAN STA 113+50 TO STA  
145+00

DRAWING NO.  
C-410

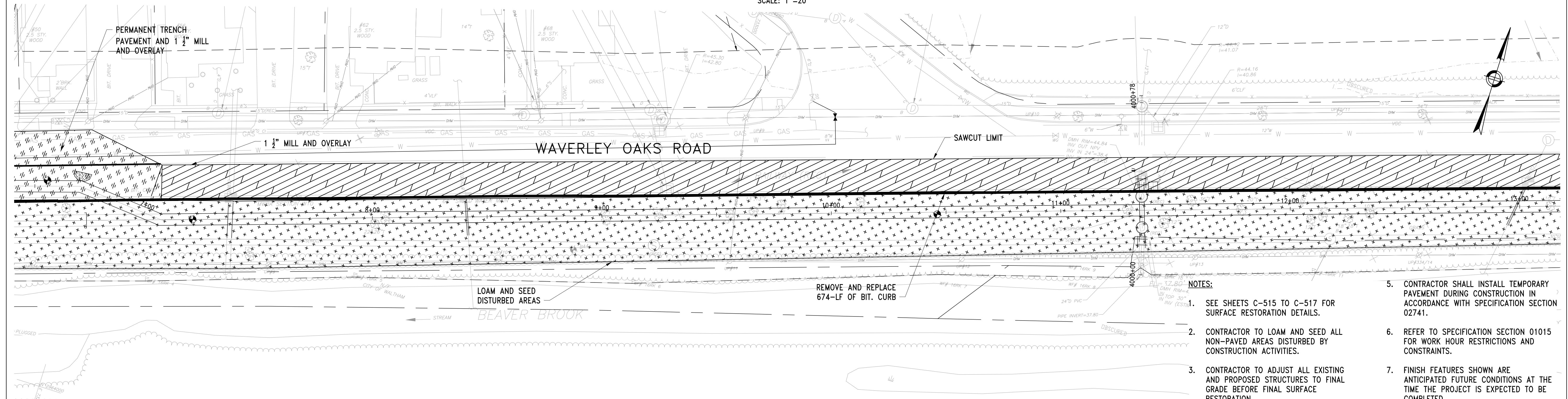
21 OF 83

- NOTES:
- SEE SHEETS C-515 TO C-517 FOR SURFACE RESTORATION DETAILS.
  - CONTRACTOR TO LOAM AND SEED ALL NON-PAVED AREAS DISTURBED BY CONSTRUCTION ACTIVITIES.
  - CONTRACTOR TO ADJUST ALL EXISTING AND PROPOSED STRUCTURES TO FINAL GRADE BEFORE FINAL SURFACE RESTORATION.
  - CONTRACTOR SHALL INSTALL SILT SACKS IN ALL CATCH BASINS TO CONTROL ENTRY OF DEBRIS. SEE DETAILS ON DRAWING C-518.
  - CONTRACTOR SHALL INSTALL TEMPORARY PAVEMENT DURING CONSTRUCTION IN ACCORDANCE WITH SPECIFICATION SECTION 02741.
  - REFER TO SPECIFICATION SECTION 01015 FOR WORK HOUR RESTRICTIONS AND CONSTRAINTS.
  - FINISH FEATURES SHOWN ARE ANTICIPATED FUTURE CONDITIONS AT THE TIME THE PROJECT IS EXPECTED TO BE COMPLETED.
  - PAINT LINE SHALL BE RESTORED IN ACCORDANCE WITH SECTION 02742 OF THE SPECIFICATIONS.



PLAN STA 0+00 TO 6+50

SCALE: 1"

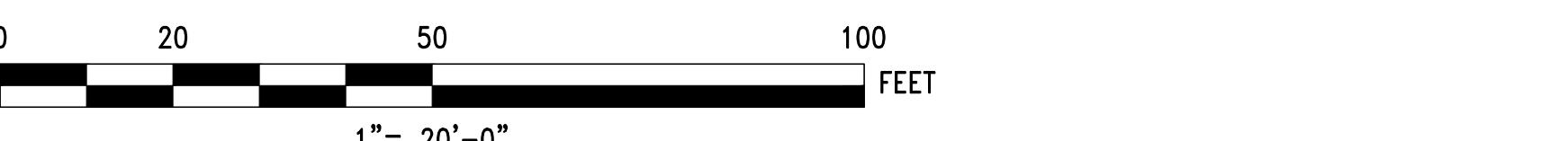


PLAN STA 6+50 TO 13+50

SCALE: 1" = 20'

- NOTES:**

  - SEE SHEETS C-515 TO C-517 FOR SURFACE RESTORATION DETAILS.
  - CONTRACTOR TO LOAM AND SEED ALL NON-PAVED AREAS DISTURBED BY CONSTRUCTION ACTIVITIES.
  - CONTRACTOR TO ADJUST ALL EXISTING AND PROPOSED STRUCTURES TO FINAL GRADE BEFORE FINAL SURFACE RESTORATION.
  - CONTRACTOR SHALL INSTALL SILT SACKS IN ALL CATCH BASINS TO CONTROL ENTRY OF DEBRIS. SEE DETAILS ON DRAWING C-518.
  - CONTRACTOR SHALL INSTALL TEMPORARY PAVEMENT DURING CONSTRUCTION IN ACCORDANCE WITH SPECIFICATION SECTION 02741.
  - REFER TO SPECIFICATION SECTION 01015 FOR WORK HOUR RESTRICTIONS AND CONSTRAINTS.
  - FINISH FEATURES SHOWN ARE ANTICIPATED FUTURE CONDITIONS AT THE TIME THE PROJECT IS EXPECTED TO BE COMPLETED.
  - PAINT LINE SHALL BE RESTORED IN ACCORDANCE WITH SECTION 02742 OF THE SPECIFICATIONS.



NO.	DATE	BY	CHK'D	REVISION

CONTRACT NO. :	6543
ACCESSION NO. :	-----
DATE:	AUGUST 2025
SCALE:	AS SHOWN





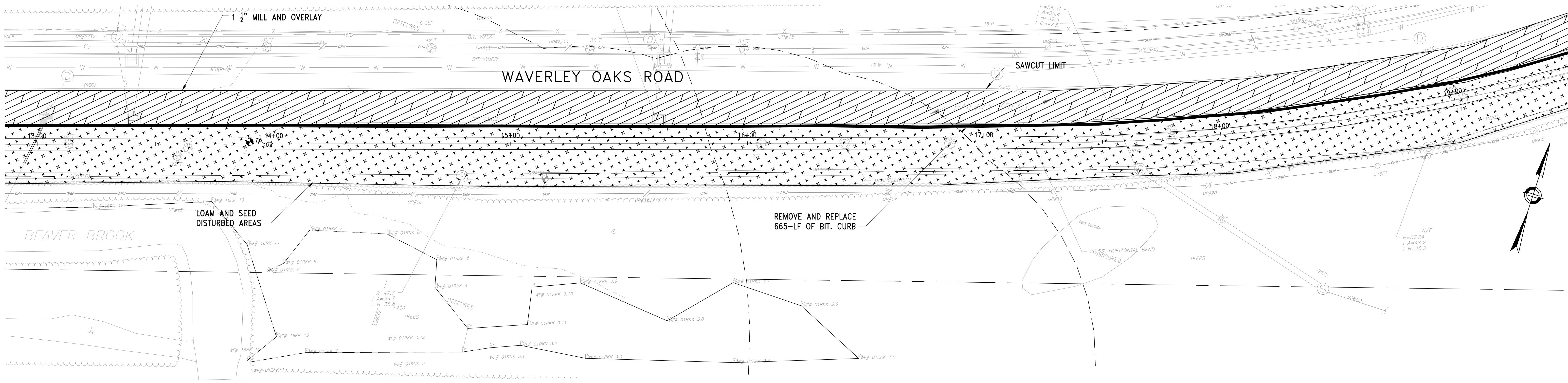
# MASSACHUSETTS WATER RESOURCES AUTHORITY

The image shows the Stantec logo, which consists of a stylized lowercase 's' inside a circle, followed by the word "Stantec" in a bold, sans-serif font. To the right of the logo is the company's address: "45 BLUE SKY DRIVE, 3RD FLOOR BURLINGTON, MA 01803" and the website "www.stantec.com". At the top left, there is a partial view of a circular seal or emblem.

WESTON AQUEDUCT SUPPLY MAIN 3  
REHABILITATION OF WATER MAINS  
SECTION W10

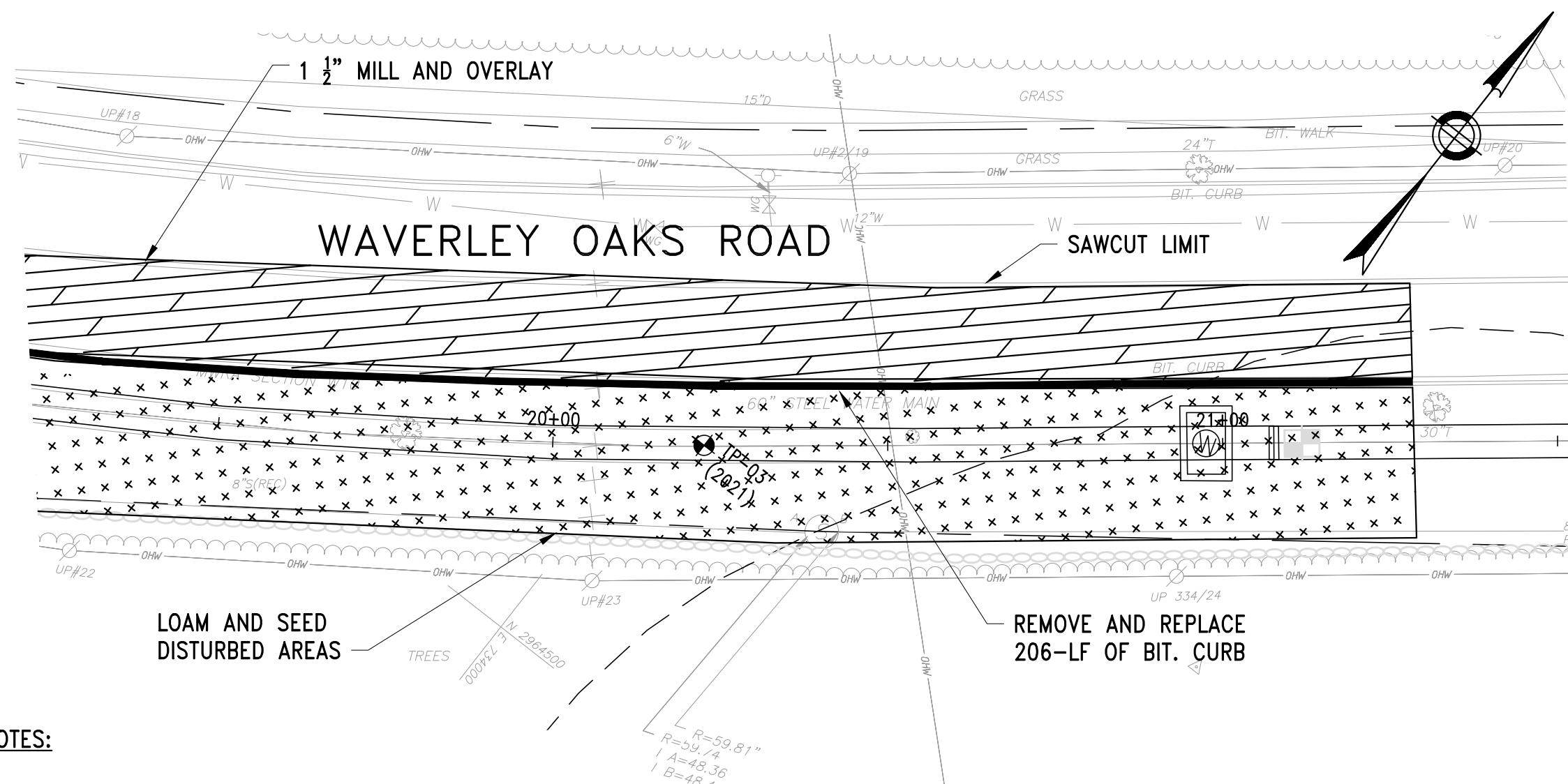
# RESTORATION PLAN STA 0+00 TO STA 13+50

DRAWING NO.  
C-411  
22 OF 83



PLAN STA 13+50 TO 19+50

SCALE: 1"=20'

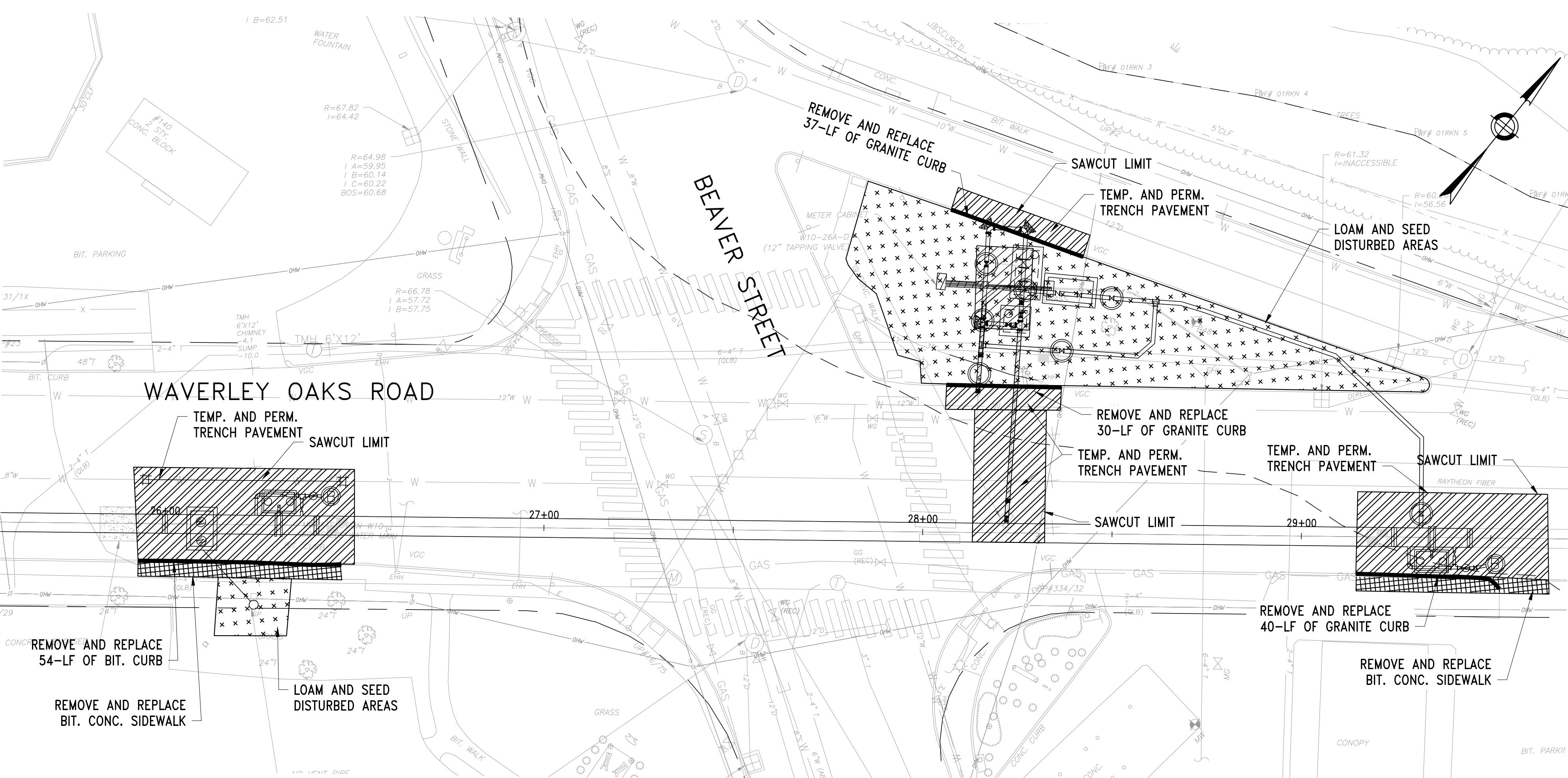


PLAN STA 19+50 TO 21+50

SCALE: 1"=20'

- NOTES:

  1. SEE SHEETS C-515 TO C-517 FOR SURFACE RESTORATION DETAILS.
  2. CONTRACTOR TO LOAM AND SEED ALL NON-PAVED AREAS DISTURBED BY CONSTRUCTION ACTIVITIES.
  3. CONTRACTOR TO ADJUST ALL EXISTING AND PROPOSED STRUCTURES TO FINAL GRADE BEFORE FINAL SURFACE RESTORATION.
  4. CONTRACTOR SHALL INSTALL SILT SACKS IN ALL CATCH BASINS TO CONTROL ENTRY OF DEBRIS. SEE DETAILS ON DRAWING C-518.
  5. CONTRACTOR SHALL INSTALL TEMPORARY PAVEMENT DURING CONSTRUCTION IN ACCORDANCE WITH SPECIFICATION SECTION 02741.
  6. REFER TO SPECIFICATION SECTION 01015 FOR WORK HOUR RESTRICTIONS AND CONSTRAINTS.
  7. FINISH FEATURES SHOWN ARE ANTICIPATED FUTURE CONDITIONS AT THE TIME THE PROJECT IS EXPECTED TO BE COMPLETED.
  8. PAINT LINE SHALL BE RESTORED IN ACCORDANCE WITH SECTION 02742 OF THE SPECIFICATIONS.



PLAN STA 25+50 TO 29+50

SCALE: 1" = 20'



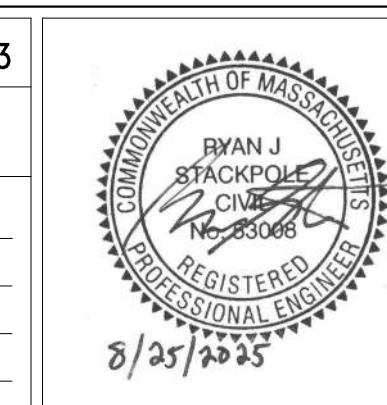
NO.	DATE	BY	CHK'D	REVISION

CONTRACT NO. : **6543**

ACCESSION NO. : **-----**

DATE: **AUGUST 2025**

SCALE: **AS SHOWN**



MASSACHUSETTS WATER RESOURCES AUTHORITY

MASSACHUSETTS WATER RESOURCES AUTHORITY

HUSE

SHARED BY :  15 BLUE SKY DRIVE, 6RD FLOOR

 Stantec 45 BLUE SKY DRIVE, 3RD FLOOR  
BURLINGTON, MA 01803

 Stantec

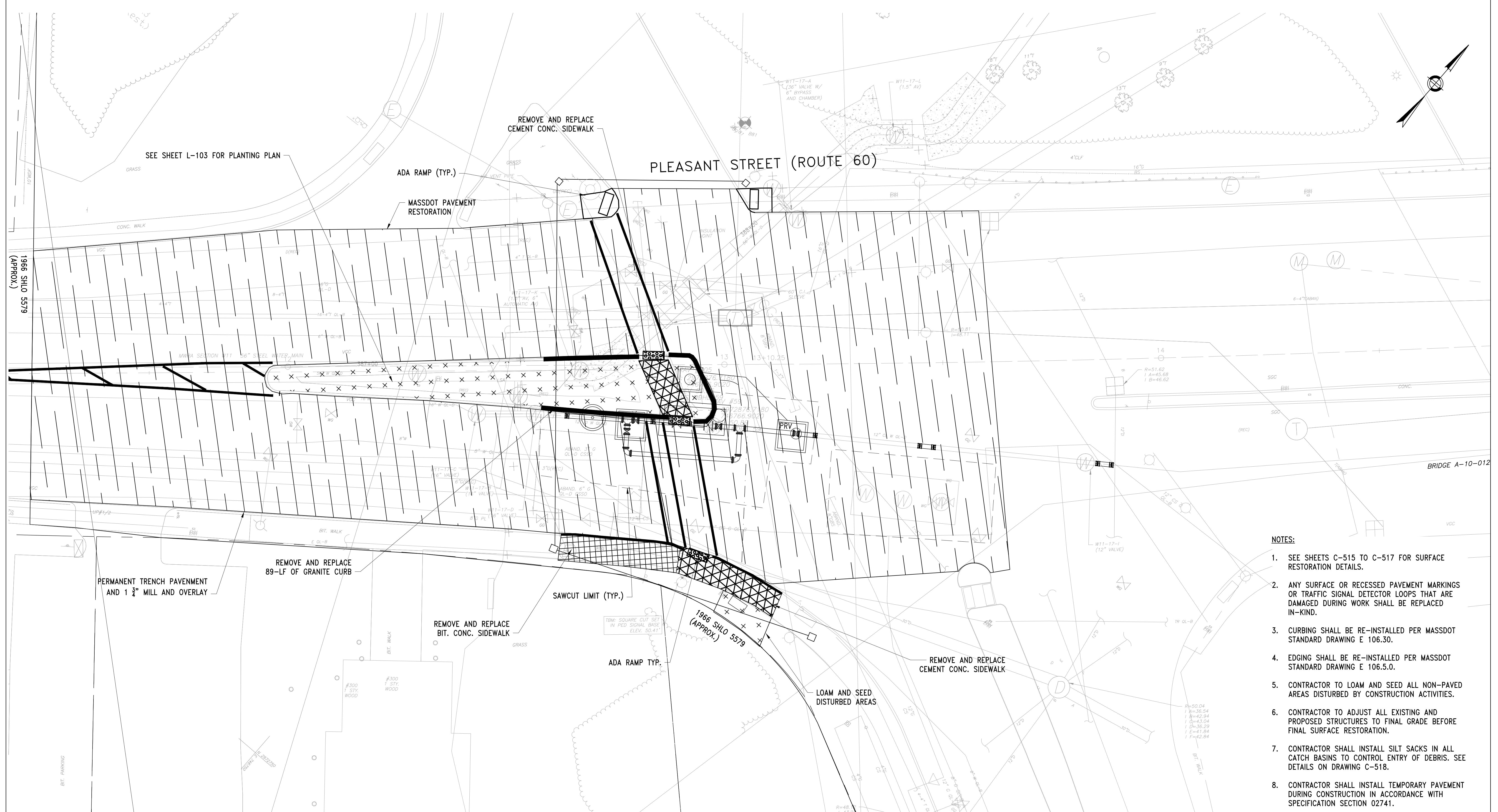
Digitized by srujanika@gmail.com

WESTON AQUEDUCT SUPPLY MAIN 3  
REHABILITATION OF WATER MAINS  
SECTION W10

## RESTORATION PLAN STA 13+50 TO STA 29+50

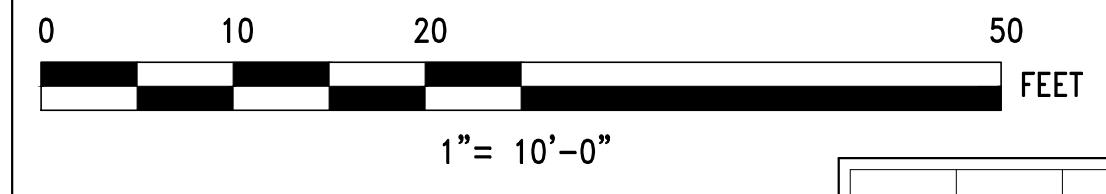
DRAWING NO.

23 OF 83



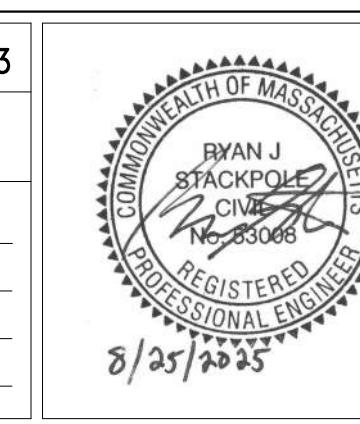
# METER NO. 152 - RESTORATION PLAN

SCALE: 1"=10'



NO.	DATE	BY	CHK'D	REVISION

CONTRACT NO. :	6543
ACCESSION NO. :	-----
DATE:	AUGUST 2025
SCALE:	AS SHOWN



RECEIVED  
MASSACHUSETTS WATER RESOURCES AUTHORITY



MASSACHUSETTS WATER RESOURCES AUTHORITY

---

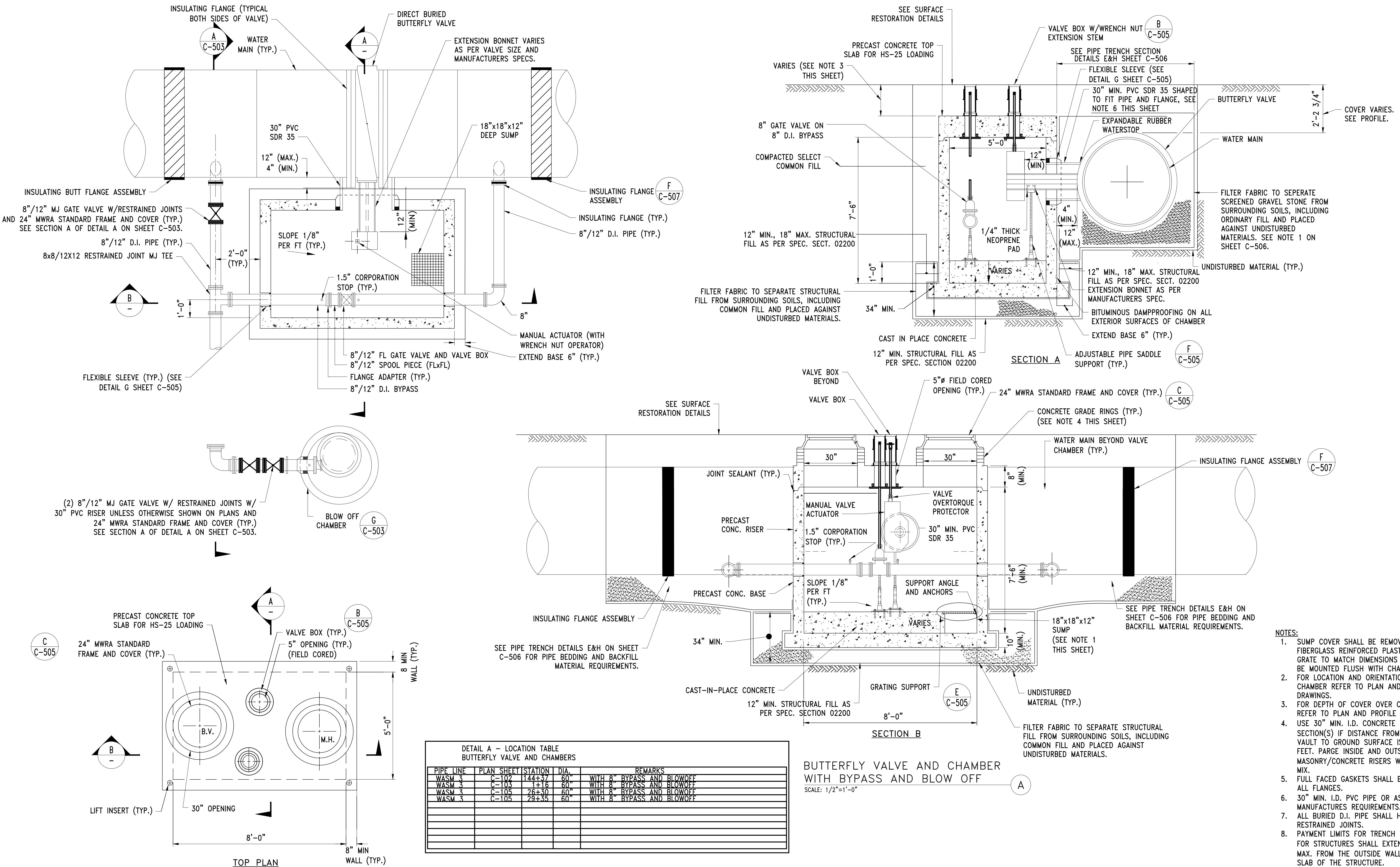
WESTON AQUEDUCT SUPPLY MAIN 3  
REHABILITATION OF WATER MAINS  
SECTION W10

RESTORATION PLAN STA 29+50 TO METER NO.

152

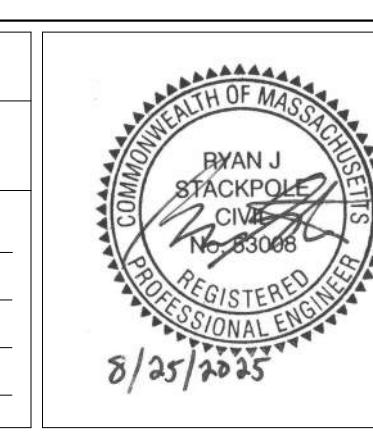
**DRAWING NO.**

C-413



NO.	DATE	BY	CHK'D	REVISION

CONTRACT NO. :	6543	FILE NO. :	6543_C-501-C-
ACCESSION NO. :	-----	SECTION NO. :	W10
DATE:	AUGUST 2025	DESIGNED BY:	RJS
		DRAWN BY:	RP
		CHECKED BY:	CON
SCALE:	AS NOTED	APPROVED BY:	RJS

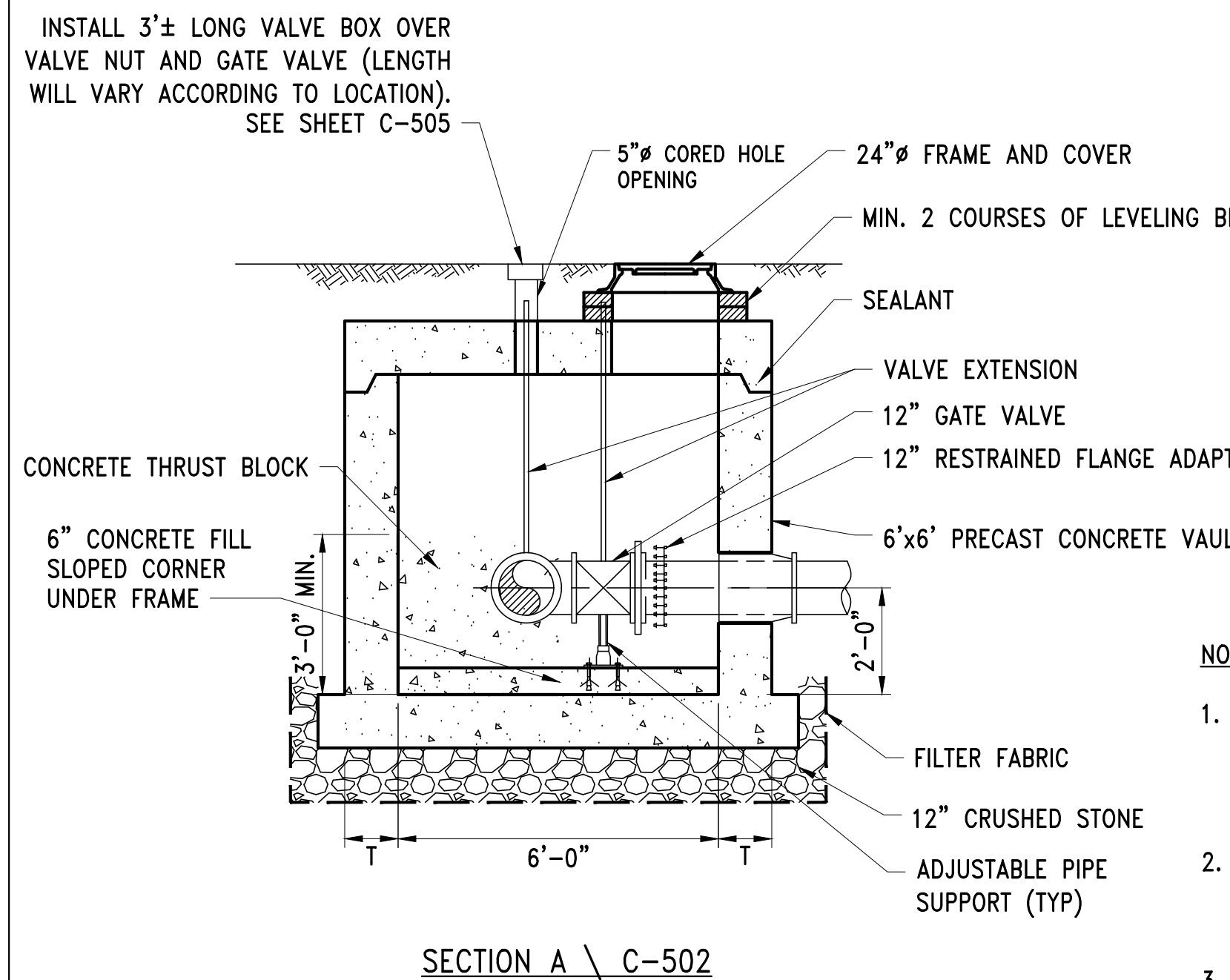


The image shows the official seal of the Massachusetts Water Resources Authority (MWRA) on the left, featuring a circular design with horizontal stripes and the text "WATER RESOURCES AUTHORITY MASSACHUSETTS". To the right of the seal, the text "MASSACHUSETTS WATER RESOURCES AUTHORITY" is printed in large, bold, uppercase letters. Below this, the text "PREPARED BY :" is followed by the Stantec logo, which consists of a stylized lowercase 's' inside a circle, positioned above the word "Stantec" in a large, bold, sans-serif font. To the right of the Stantec logo, the address "45 BLUE SKY DRIVE, 3RD FLOOR BURLINGTON, MA 01803" and the website "www.stantec.com" are listed.

**WESTON AQUEDUCT SUPPLY MAIN 3  
REHABILITATION OF WATER MAINS  
SECTION W10**

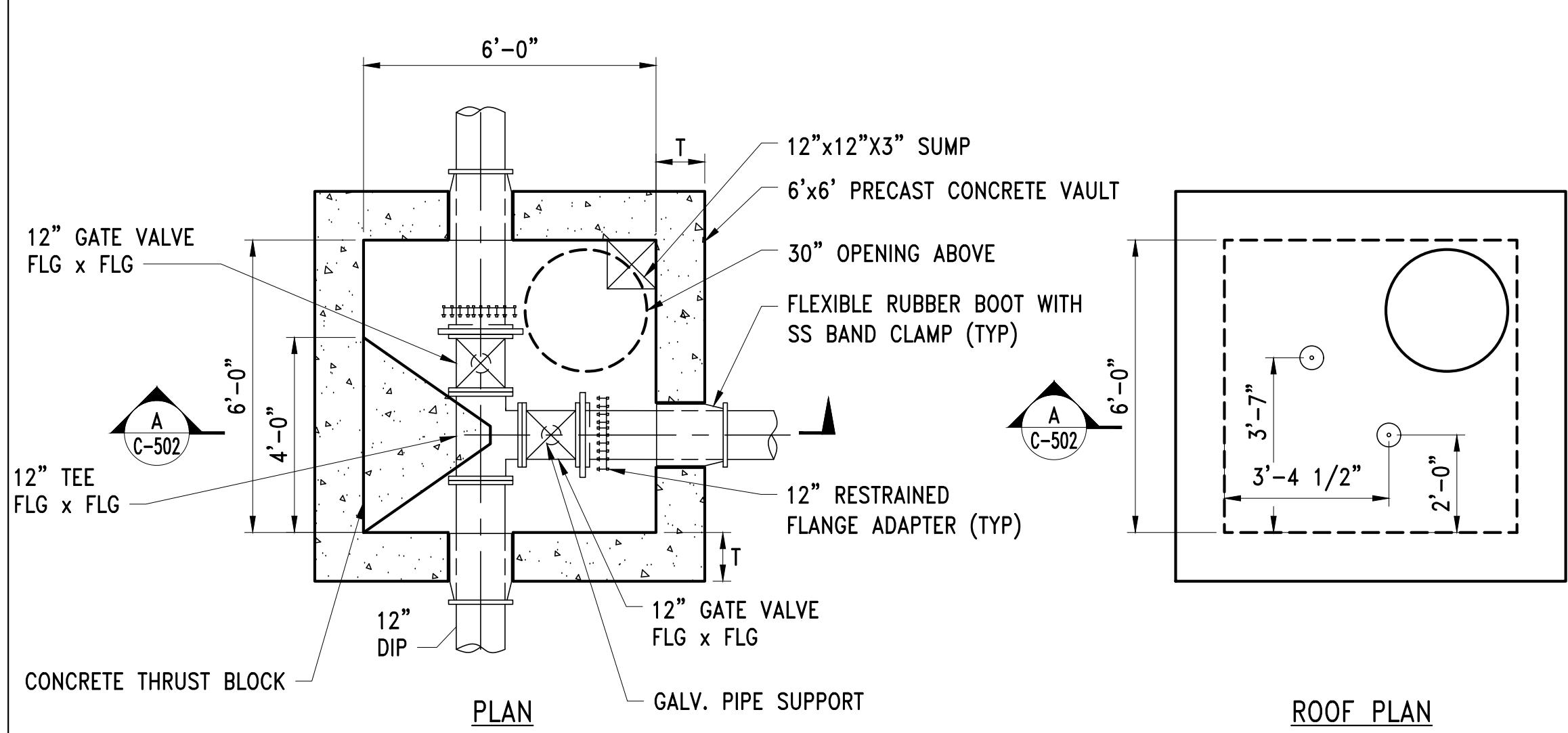
DRAWING NO.  
C-501  
25 OF 83

MISCELLANEOUS CHAMBER DETAILS



**12" GATE VALVE VAULT – METERS 152 & 202**

SCALE: 3/8" = 1'-0"



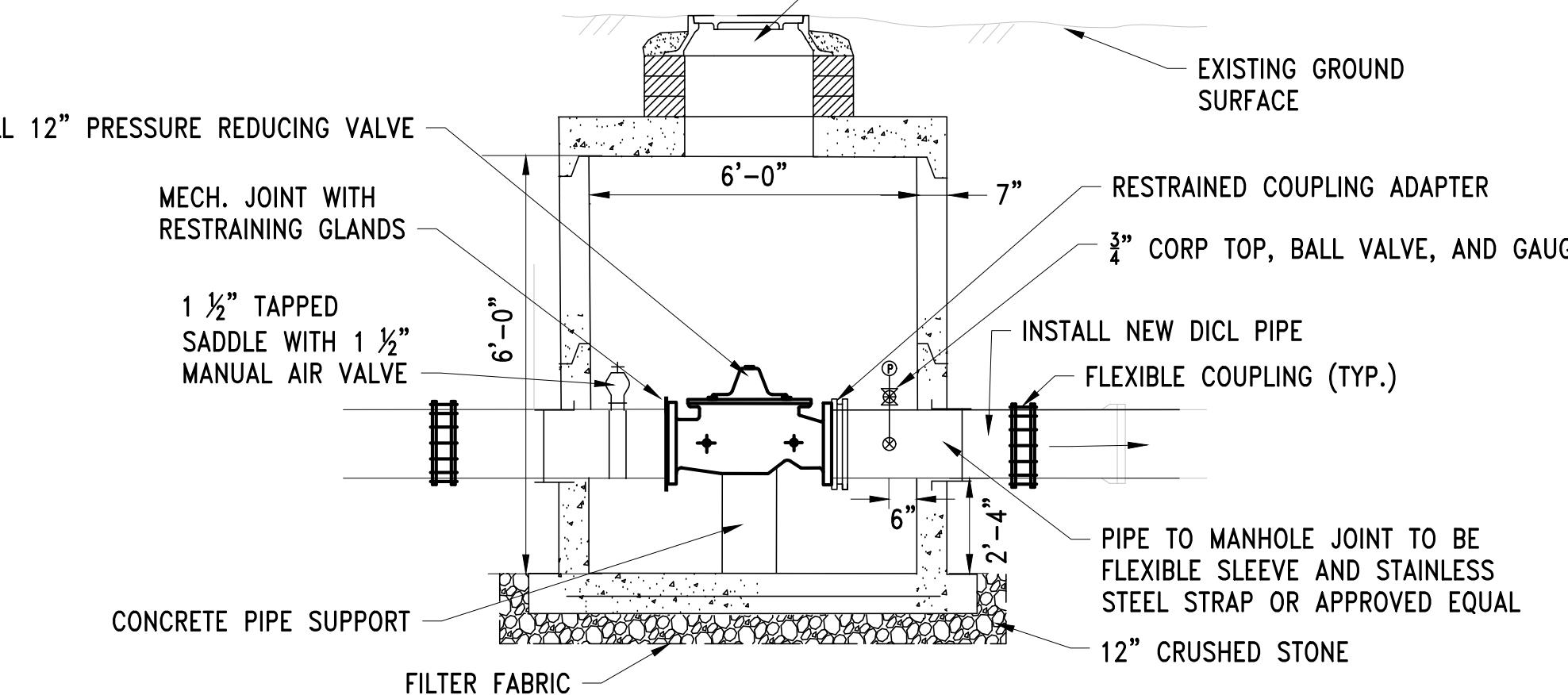
SCALE: NTS

**12" GATE VALVE INSTALLATION DETAIL FOR MWRA**

B

NOTES:

- FOR METER 152 LOCATION, PROVIDE A 6-INCH LAYER OF CRUSHED GRAVEL OVER THE TOP OF MANHOLE THEN PAVEMENT PER THE PAVING DETAILS.
- FOR METER 202, PROVIDE A MINIMUM OF 6-INCH LAYER OF CRUSHED GRAVEL OVER MANHOLE, THEN A MINIMUM OF 4 INCHES OF LOAM.
- CONTRACTOR TO CONFIRM DIMENSIONS BASED ON THE ACTUAL VALVES AND FITTINGS USED.



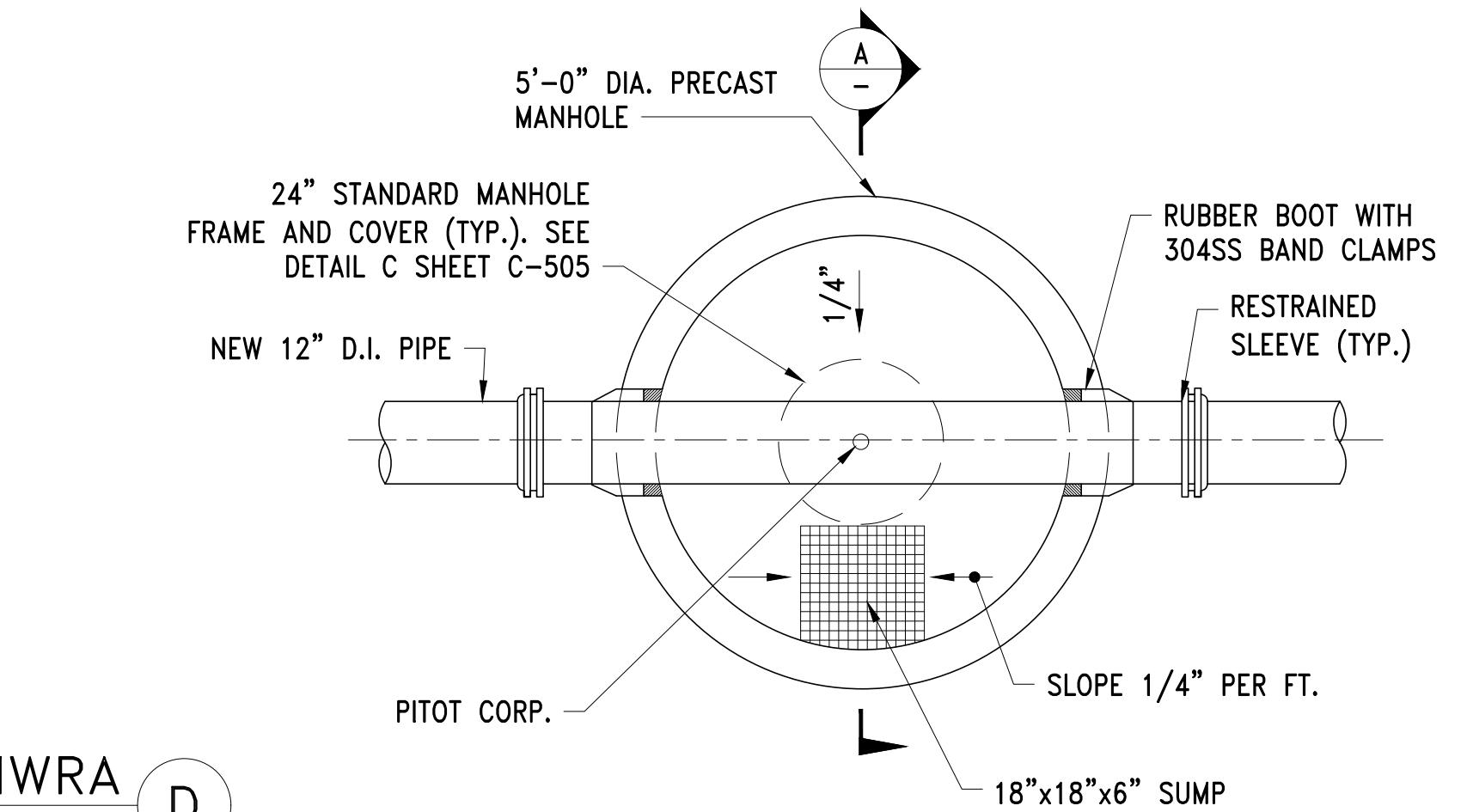
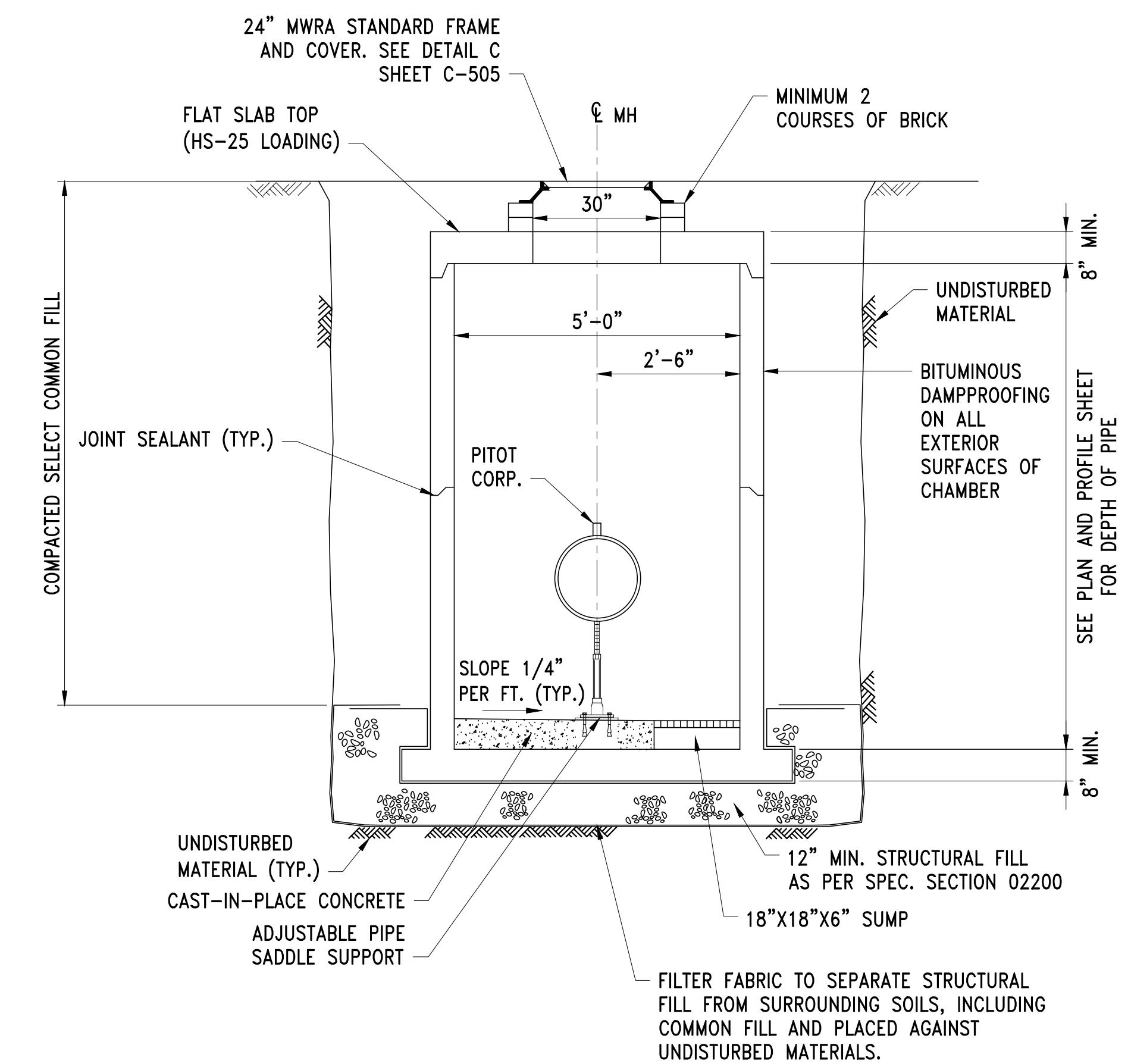
SCALE: NTS

**12" PRESSURE REDUCING VALVE INSTALLATION DETAIL FOR MWRA**

D

NOTES:

- PROVIDE STRAIGHT, CLEAR PIPE 10 DIAMETER'S UPSTREAM AND 5 DIAMETER'S DOWNSTREAM OF PITOT CORPORATION. UNLESS SHOWN OTHERWISE ON DETAIL PLANS, PROVIDE EPOXY LINED PIPE UPSTREAM AND DOWNSTREAM OF THE PITOT CORPORATION.
- PITOT SPECS: 1"CC INLET THREAD AND 1-1/4" IPT THREAD. MINIMUM INNER DIAMETER 1-1/32".



NOTES:

- PROVIDE STRAIGHT, CLEAR PIPE 10 DIAMETER'S UPSTREAM AND 5 DIAMETER'S DOWNSTREAM OF PITOT CORPORATION. UNLESS SHOWN OTHERWISE ON DETAIL PLANS, PROVIDE EPOXY LINED PIPE UPSTREAM AND DOWNSTREAM OF THE PITOT CORPORATION.
- PITOT SPECS: 1"CC INLET THREAD AND 1-1/4" IPT THREAD. MINIMUM INNER DIAMETER 1-1/32".

**PITOT CORPORATION AND CHAMBER**

SCALE: NTS

**WESTON AQUEDUCT SUPPLY MAIN 3  
REHABILITATION OF WATER MAINS  
SECTION W10**

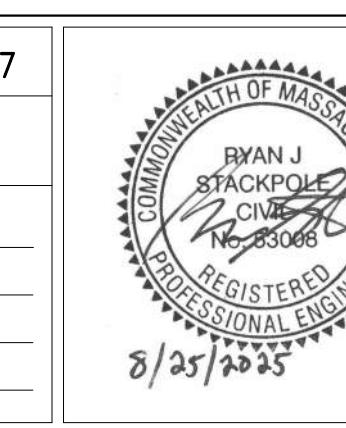
**GATE VALVE VAULT AND MISCELLANEOUS  
CHAMBER DETAILS**

DRAWING NO.  
**C-502**

26 OF 83

NO.	DATE	BY	CHK'D	REVISION

CONTRACT NO. :	6543	FILE NO. :	6543_C-501-C-507
ACCESSION NO. :	-----	SECTION NO. :	W10
DATE:	AUGUST 2025	DESIGNED BY:	RJS
SCALE:	AS NOTED	DRAWN BY:	RP
		CHECKED BY:	CON
		APPROVED BY:	RJS



8/25/2025

MASSACHUSETTS WATER RESOURCES AUTHORITY

PREPARED BY:

RYAN J. STACKPOLE, C.E.T., R.P.E.

REGISTERED PROFESSIONAL ENGINEER

MASSACHUSETTS

STATE

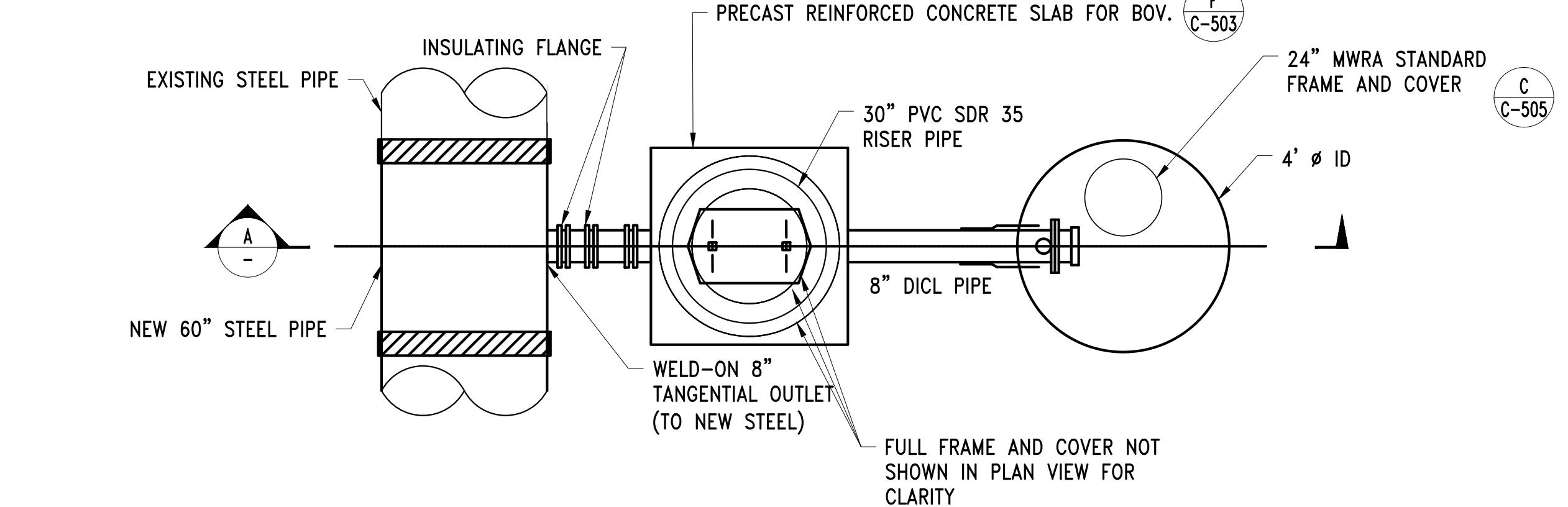
WATER RESOURCES AUTHORITY

45 BLUE SKY DRIVE, 3RD FLOOR

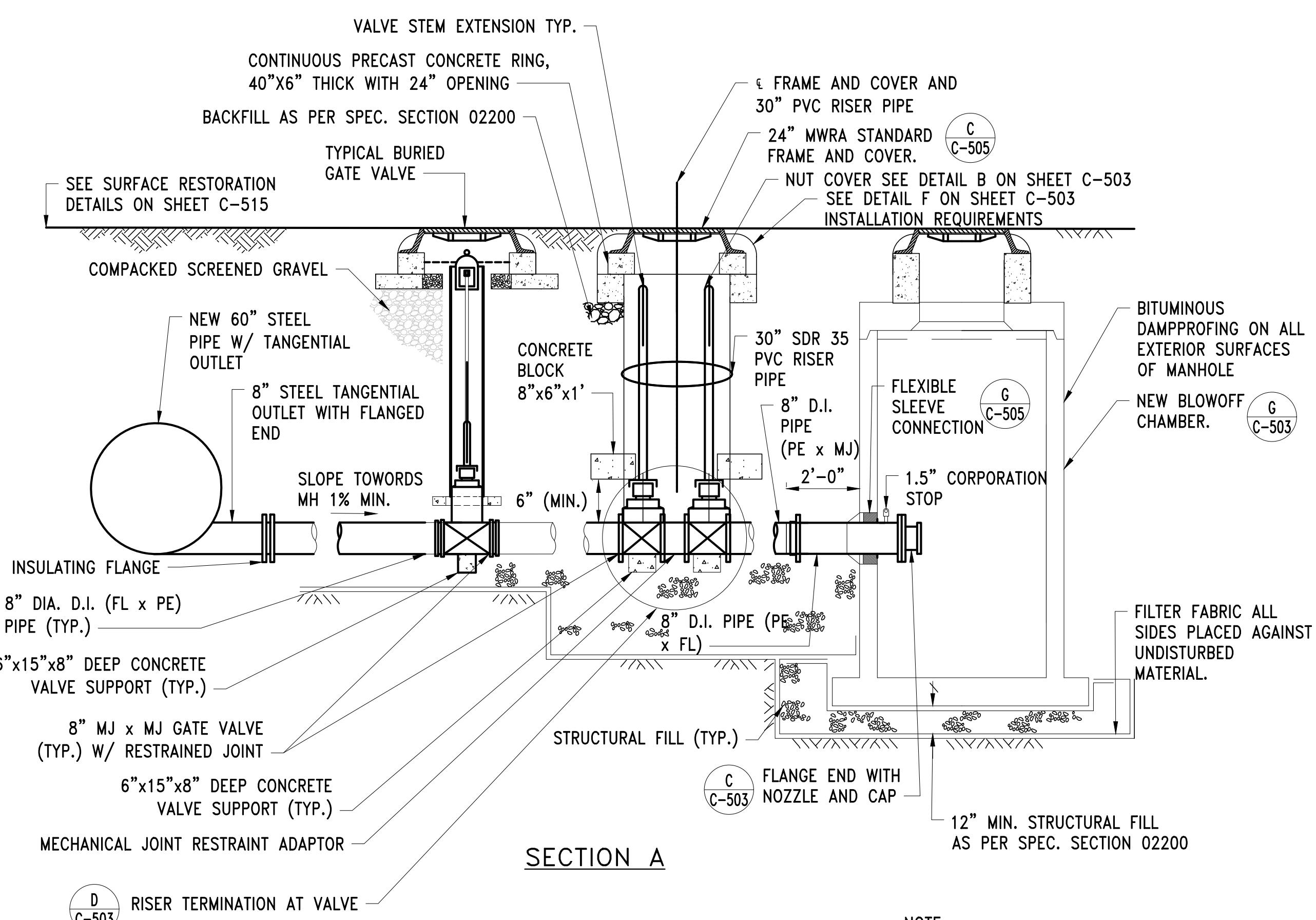
BURLINGTON, MA 01803

www.stantec.com

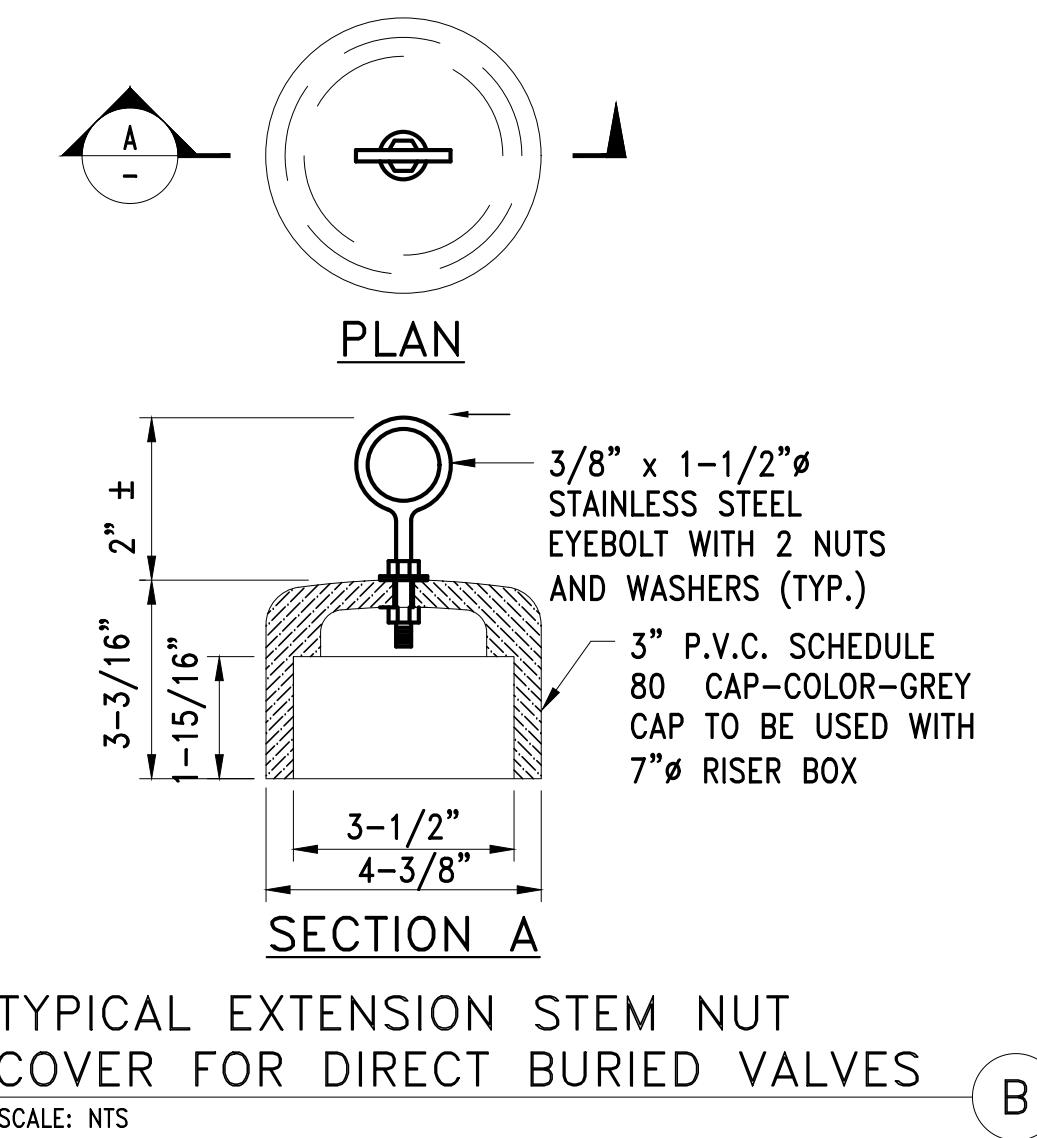
Stantec



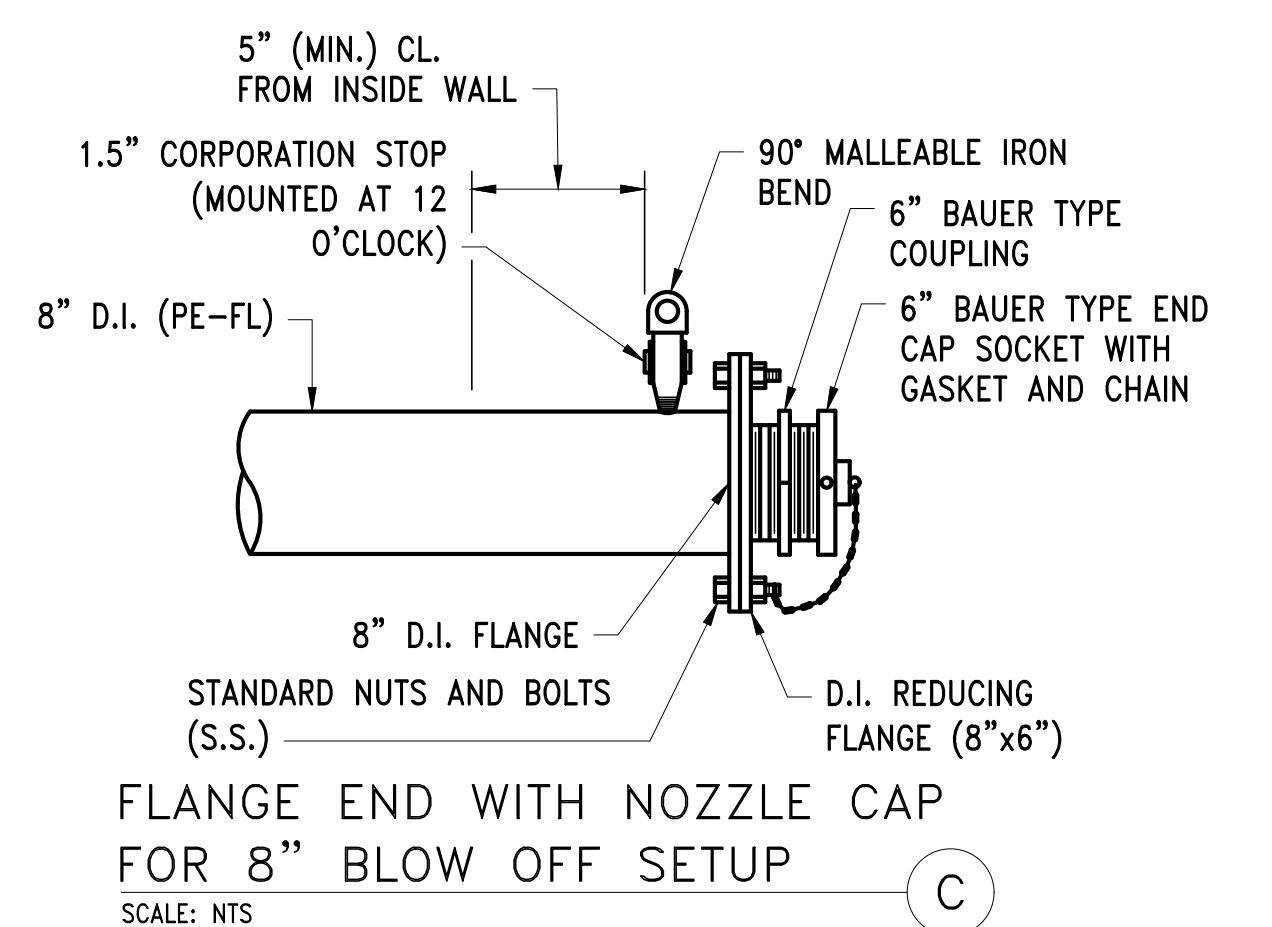
**PLAN**



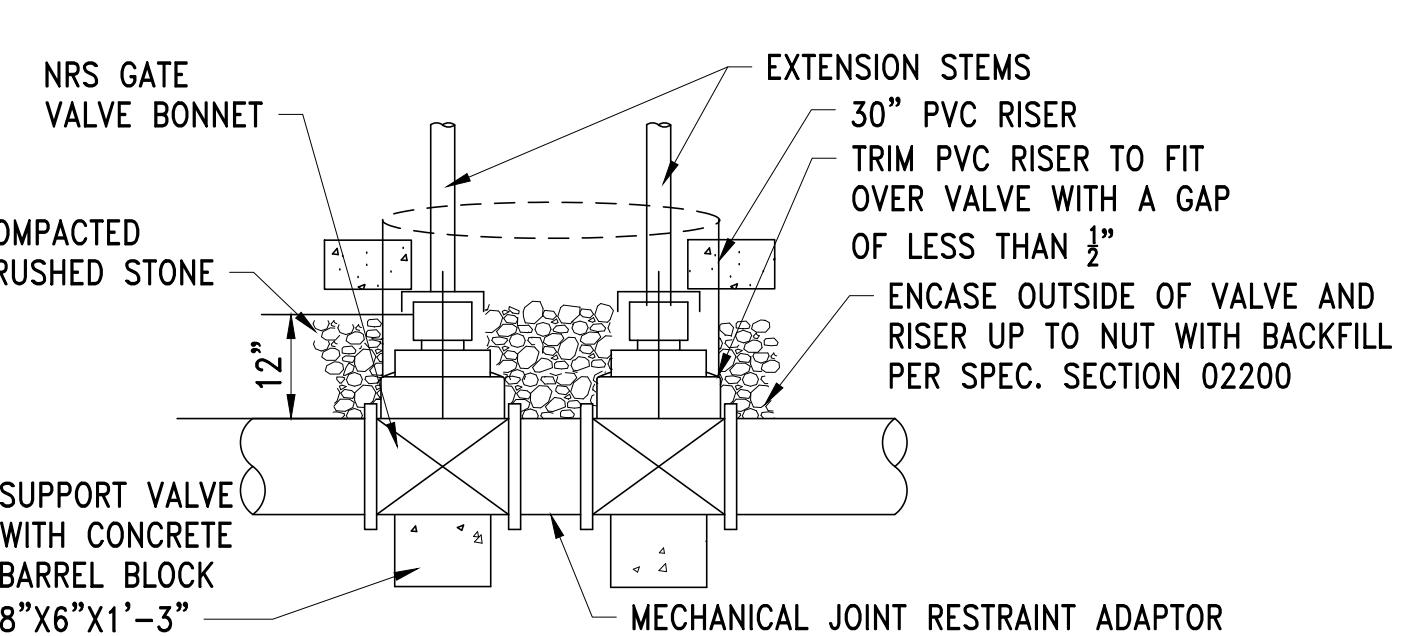
**8" BLOW OFF MANHOLE, VALVES AND CONNECTION TO NEW MAINLINE PIPE TEE** **A**  
SCALE: NTS



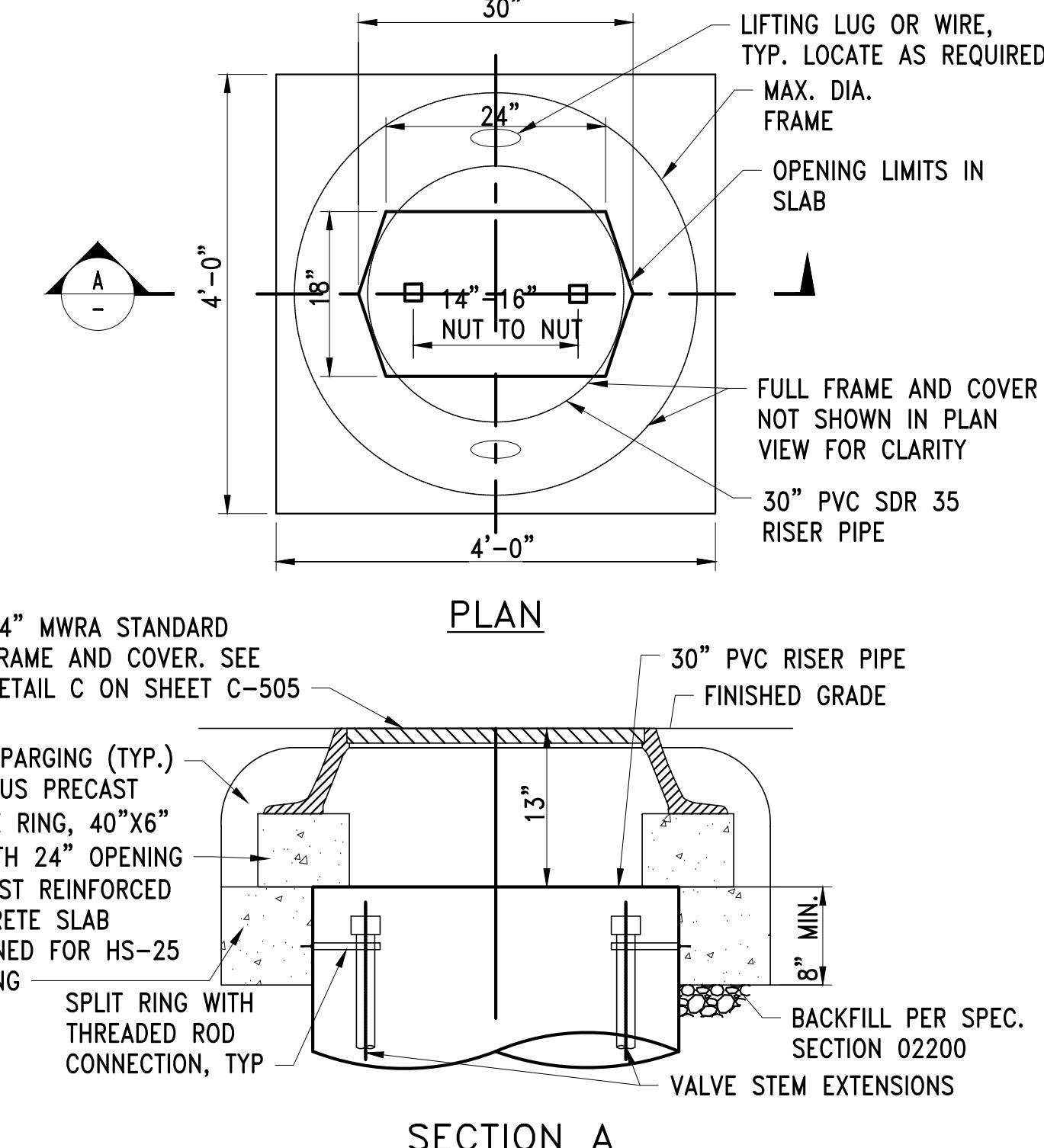
**TYPICAL EXTENSION STEM NUT COVER FOR DIRECT BURIED VALVES**  
SCALE: NTS



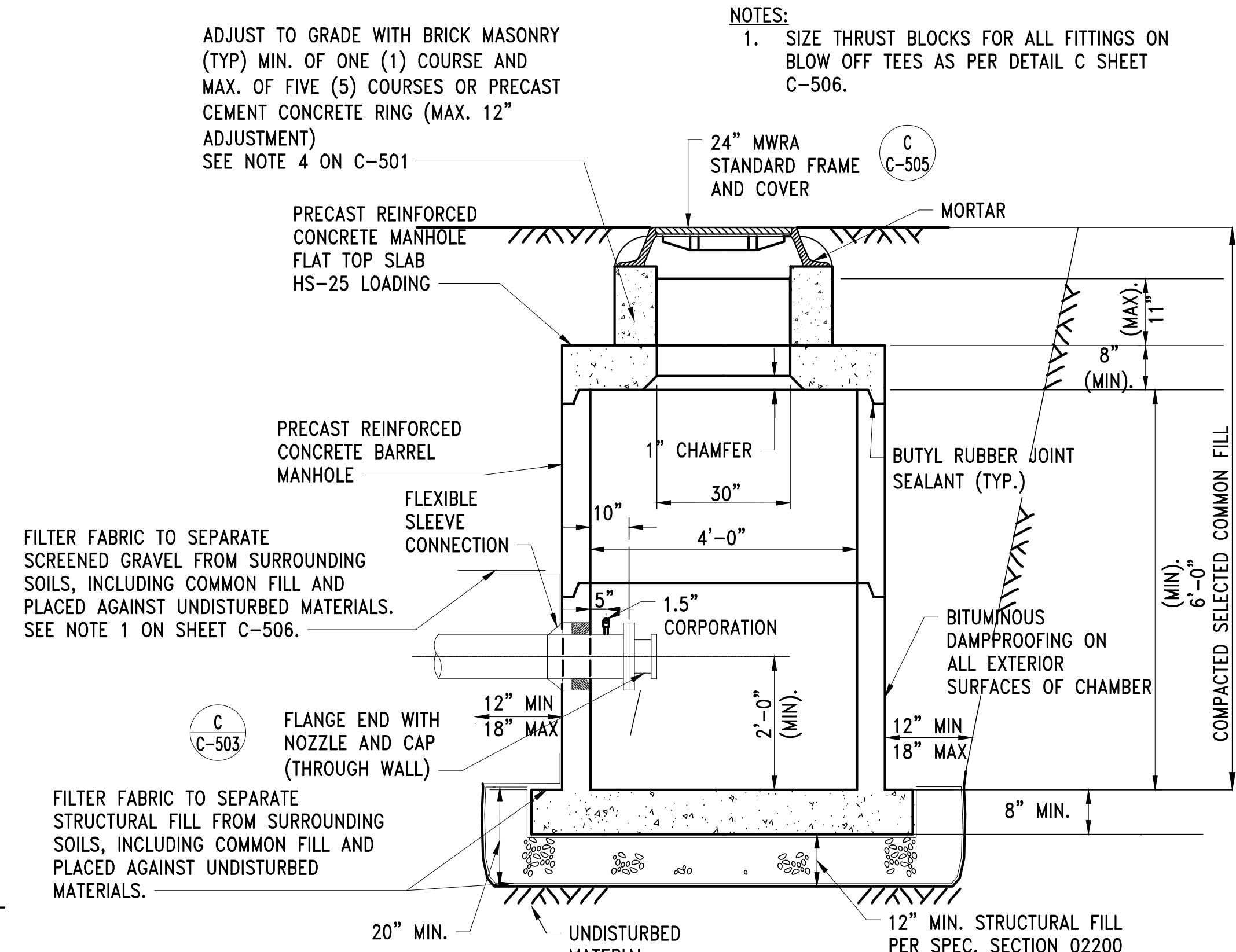
**FLANGE END WITH NOZZLE CAP FOR 8" BLOW OFF SETUP** **C**  
SCALE: NTS



**RISER TERMINATION AT VALVE** **D**  
SCALE: NTS



**FRAME & COVER, VALVE RISER AND PRECAST REINFORCED CONCRETE SLAB DETAIL** **F**  
SCALE: NTS



**NEW BLOWOFF CHAMBER** **G**  
SCALE: NTS

NO.	DATE	BY	CHK'D	REVISION

CONTRACT NO. :	6543	FILE NO. :	6543_C-501-C-507
ACCESSION NO. :	-----	SECTION NO. :	W10
DATE:	AUGUST 2025	DESIGNED BY:	RJS
		DRAWN BY:	RP
		CHECKED BY:	CON
SCALE:	AS NOTED	APPROVED BY:	RJS

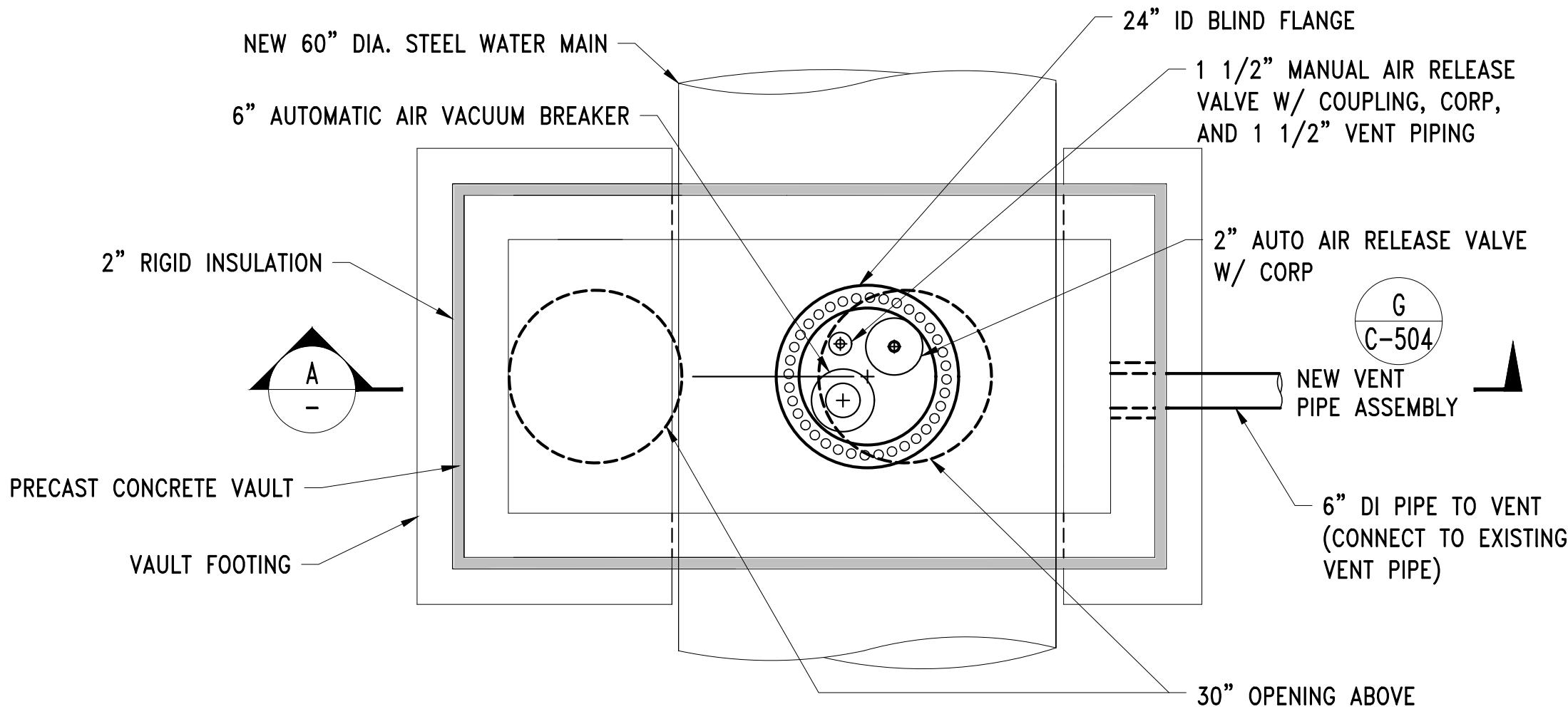


8/25/2025

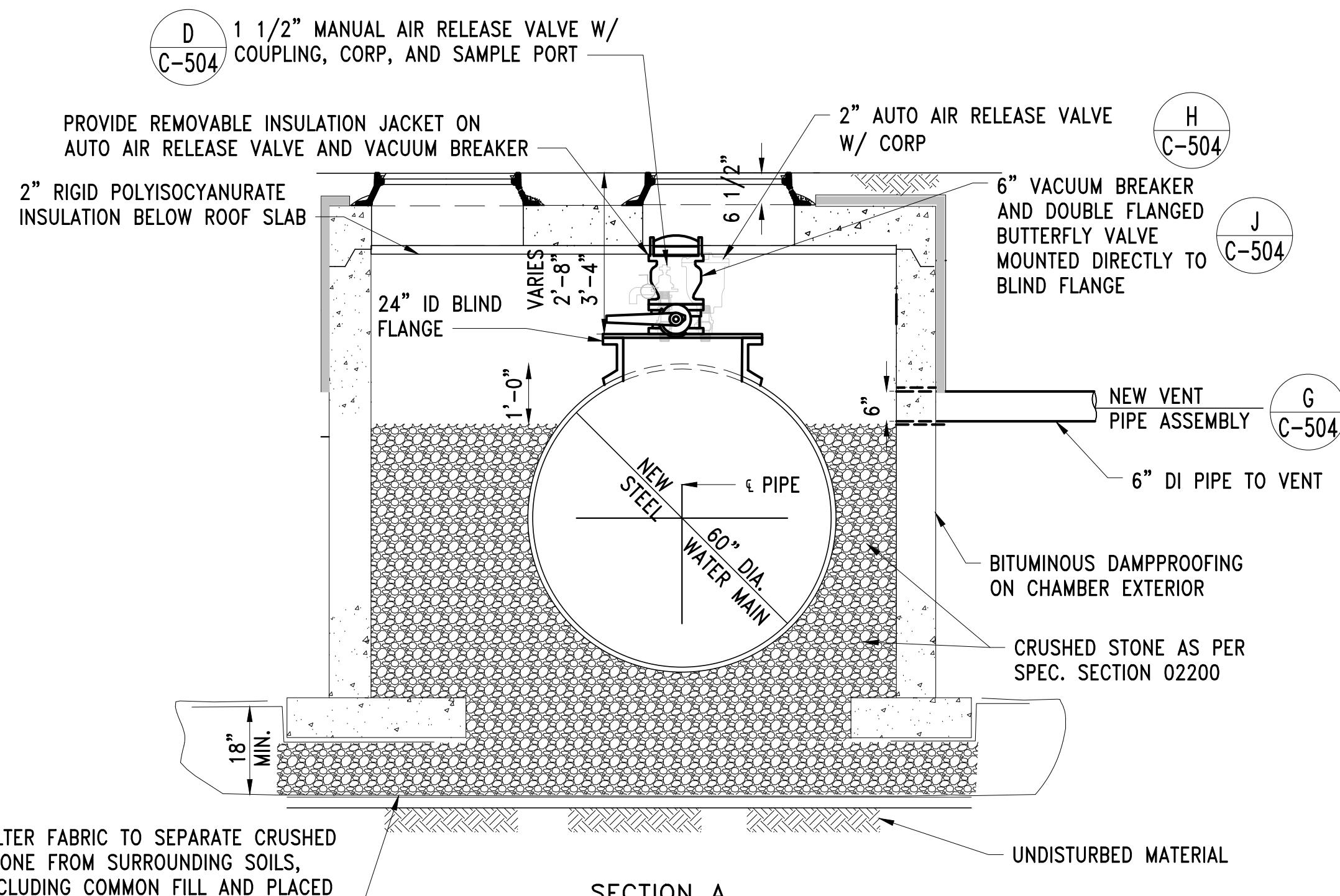


WESTON AQUEDUCT SUPPLY MAIN 3  
REHABILITATION OF WATER MAINS  
SECTION W10  
BLOWOFF DETAILS

DRAWING NO.  
C-503  
27 OF 83



PLAN



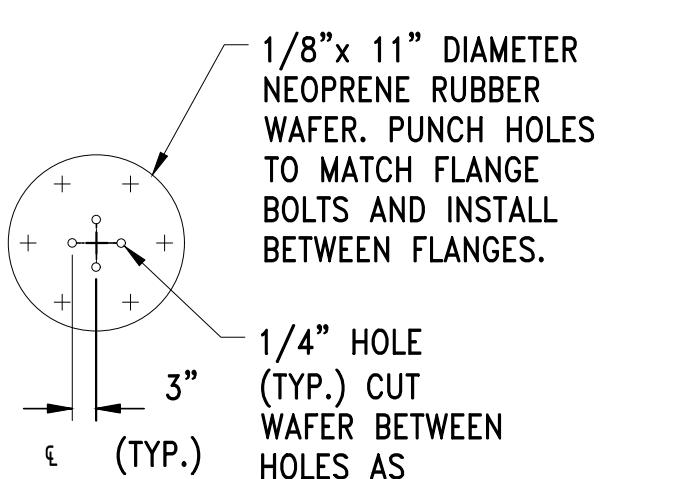
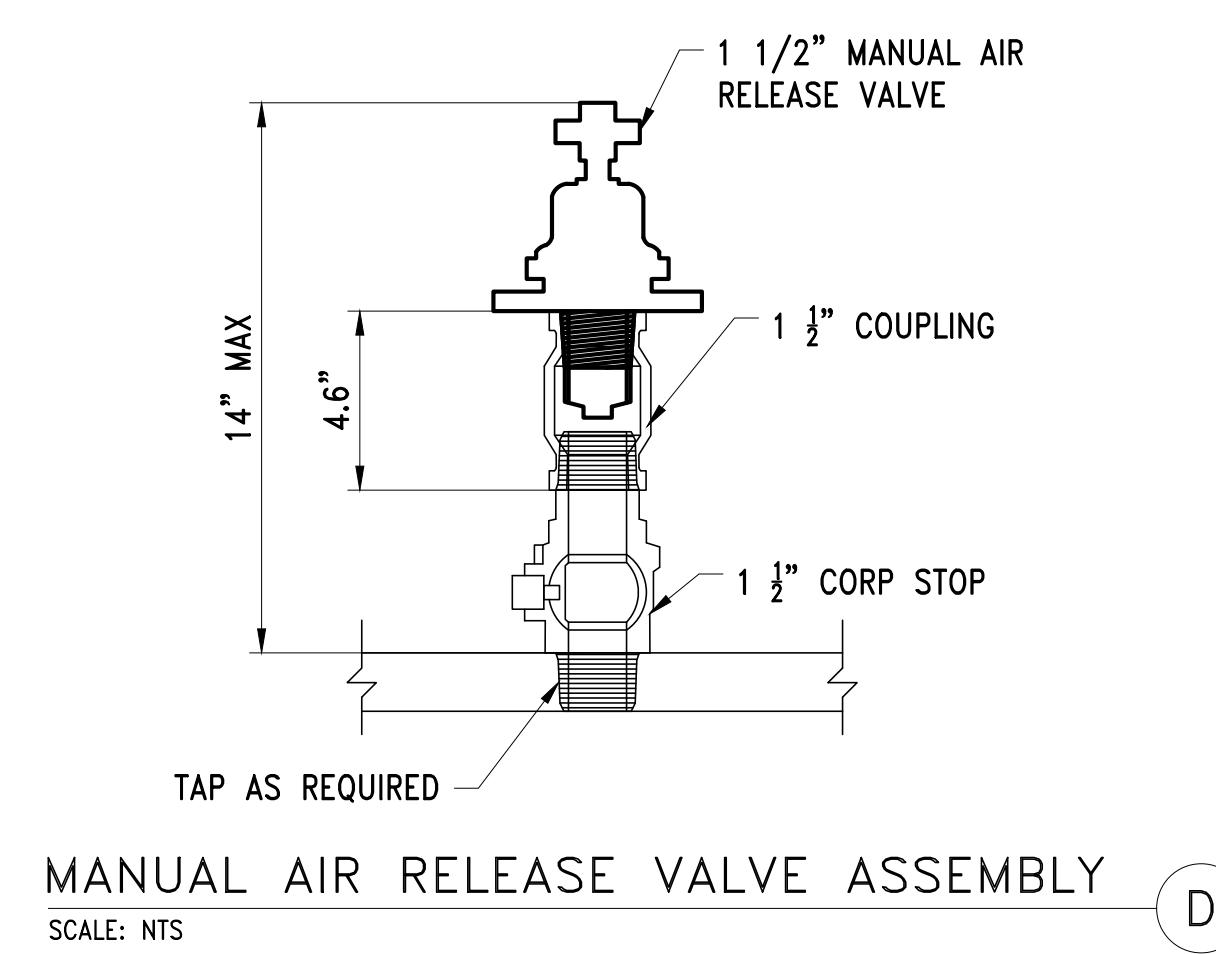
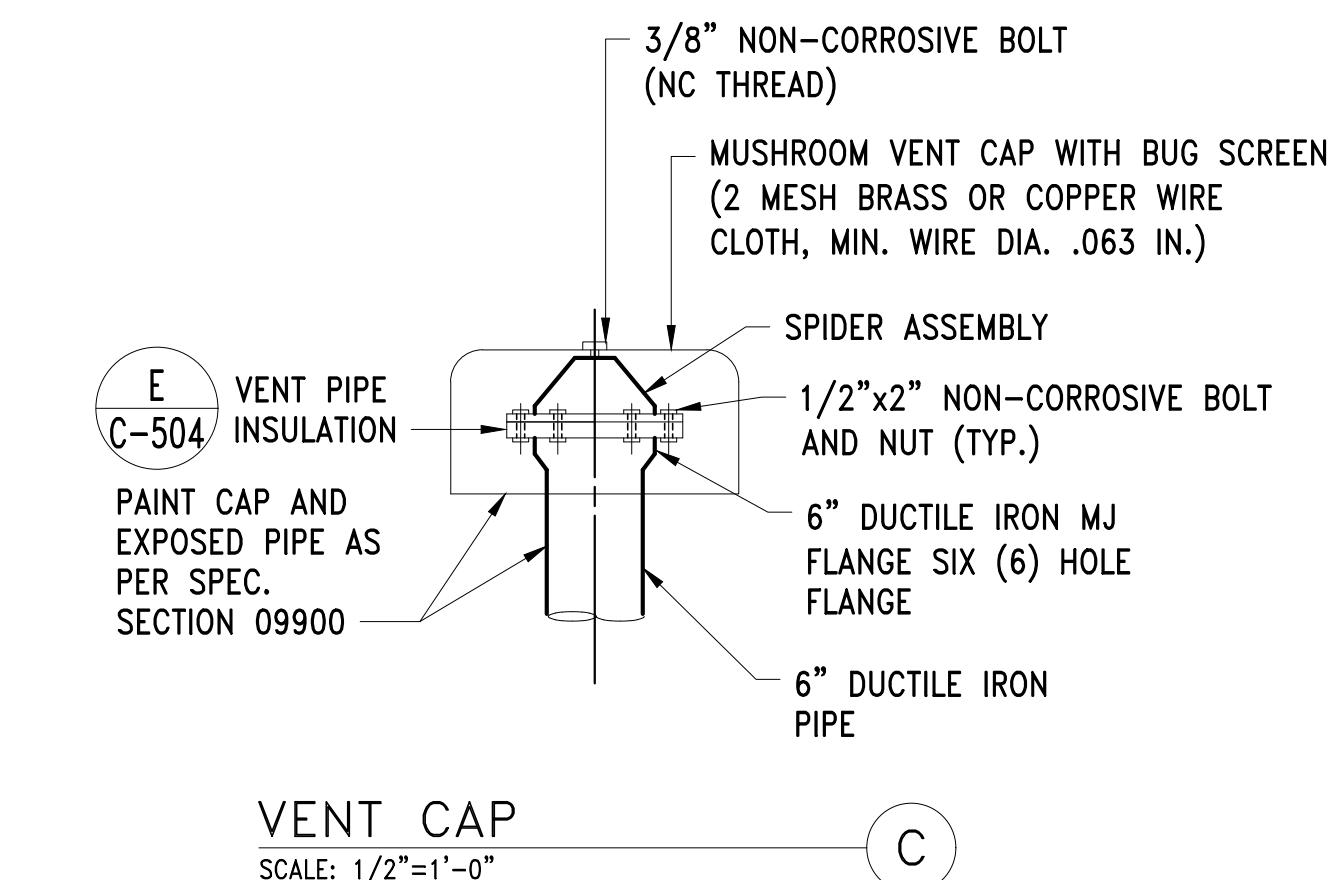
NOTES:  
1. REFER TO DETAILS ON SHEET S-503 FOR MANHOLE DIMENSIONS AND STRUCTURAL DETAILS.

NEW AIR RELEASE MANHOLE ASSEMBLY B  
SCALE: 1/2"=1'-0"

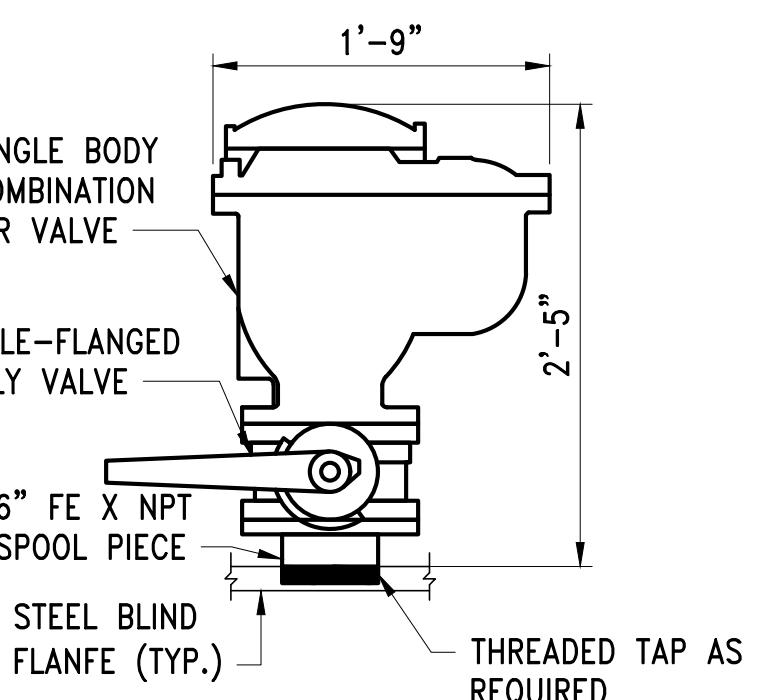
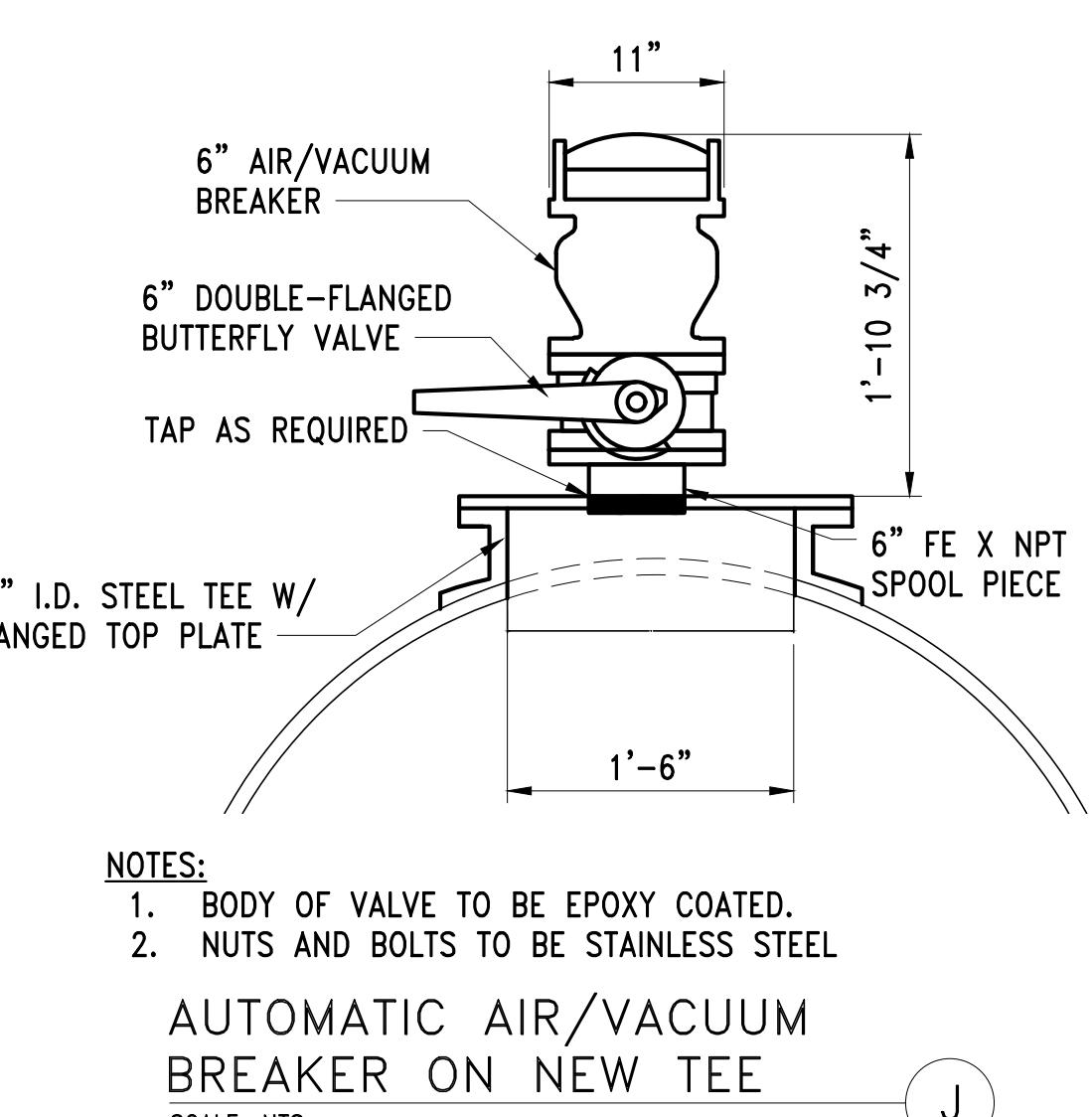
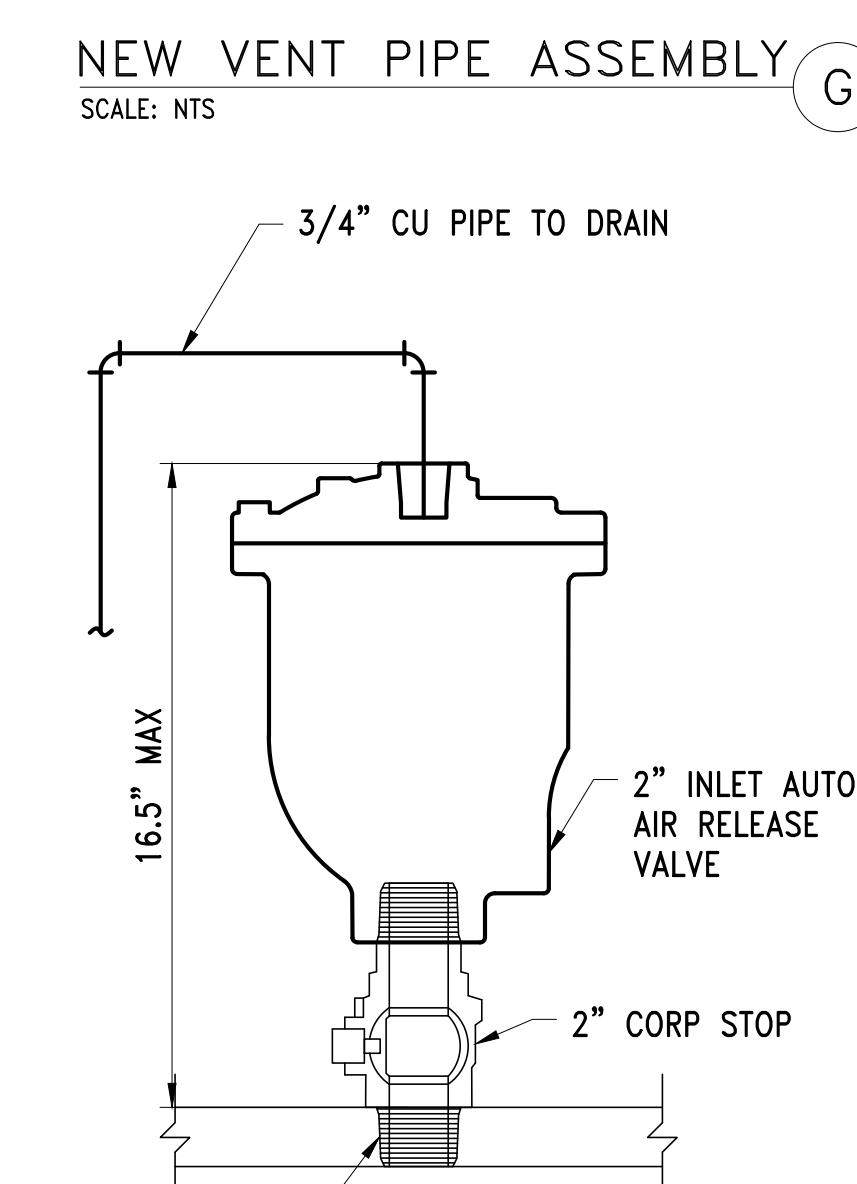
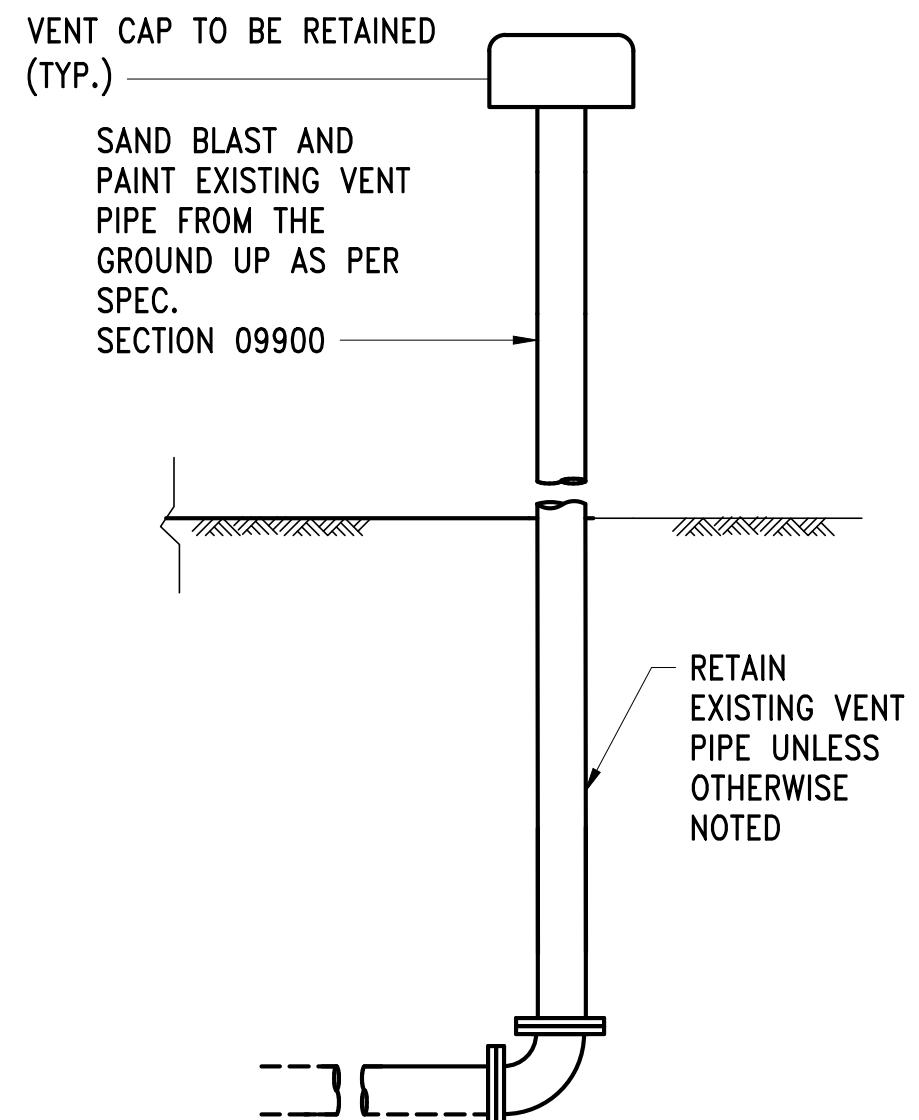
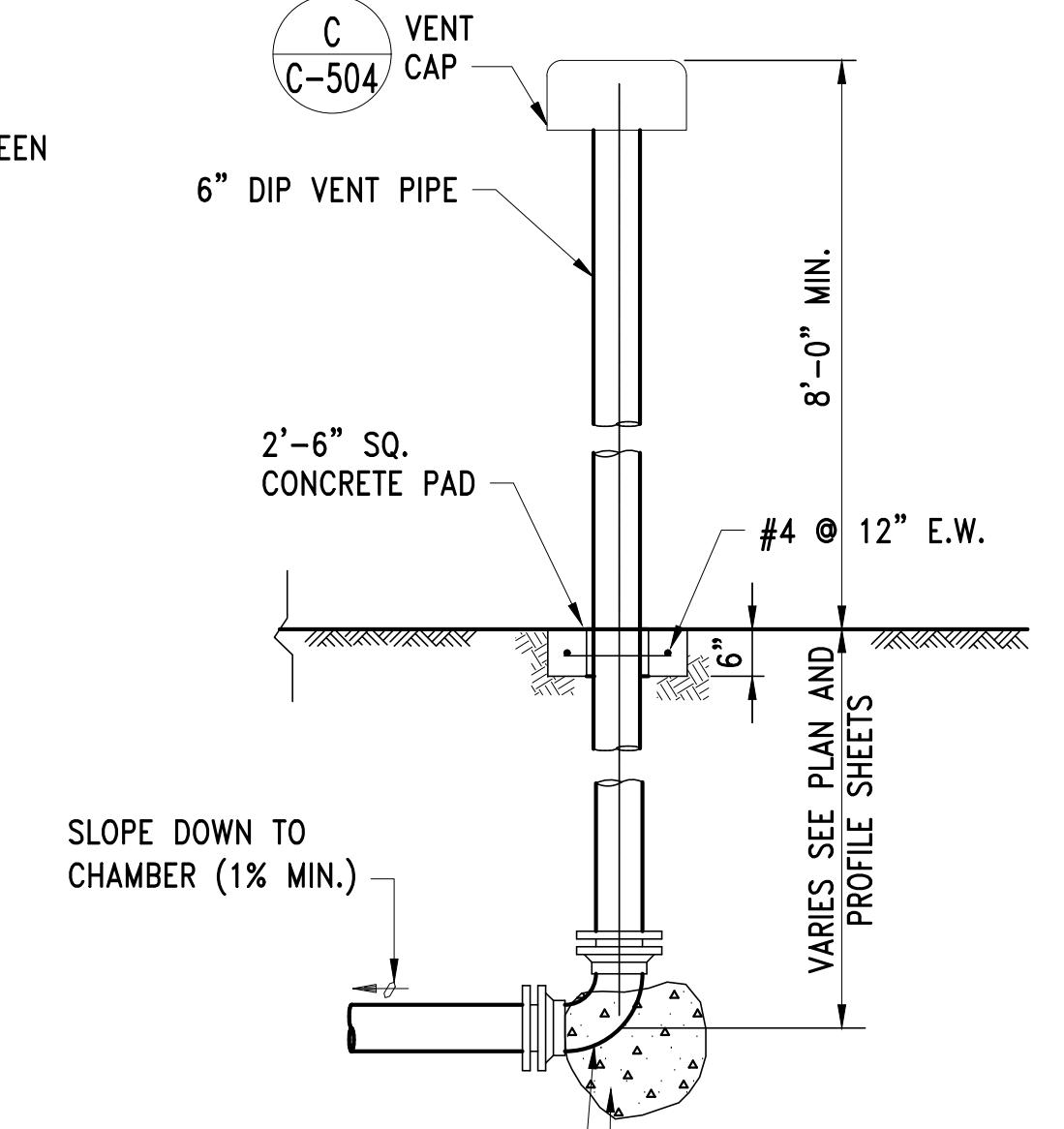
DETAIL B - LOCATION TABLE NEW AIR RELEASE VALVE MANHOLE ASSEMBLY			
PIPE LINE	PLAN SHEET	STATION	DEPTH-FT
WASM 3	C-103	26±89	5.5
WASM 3	C-105	26±10	2.8

NOTES:  
1. AIR RELEASE MANHOLE ASSEMBLY VAULT AND APPURTENANCES SHALL BE INSULATED PER SECTION 02516.

NO.	DATE	BY	CHK'D	REVISION

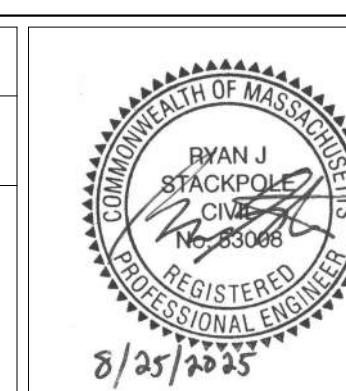


VENT PIPE INSULATION E  
SCALE: 1/2"=1'-0"



AUTOMATIC COMBINATION SINGLE BODY AIR RELEASE VALVE ASSEMBLY K  
SCALE: NTS

CONTRACT NO. :	6543	FILE NO. :	6543_C-501-C-507
ACCESSION NO. :	-----	SECTION NO. :	W10
DATE:	AUGUST 2025	DESIGNED BY:	RJS
		DRAWN BY:	RP
		CHECKED BY:	CON
SCALE:	AS NOTED	APPROVED BY:	RJS

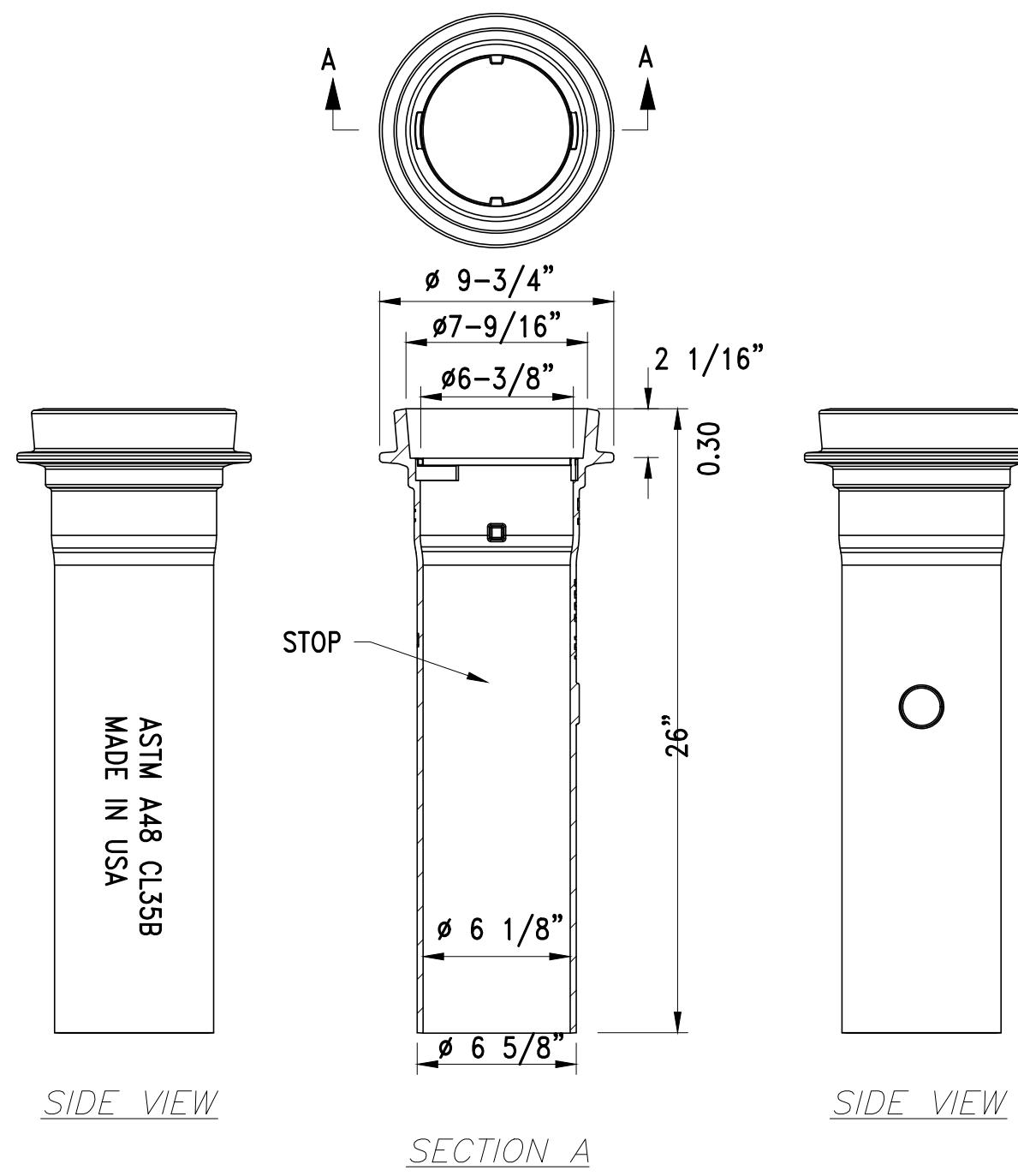
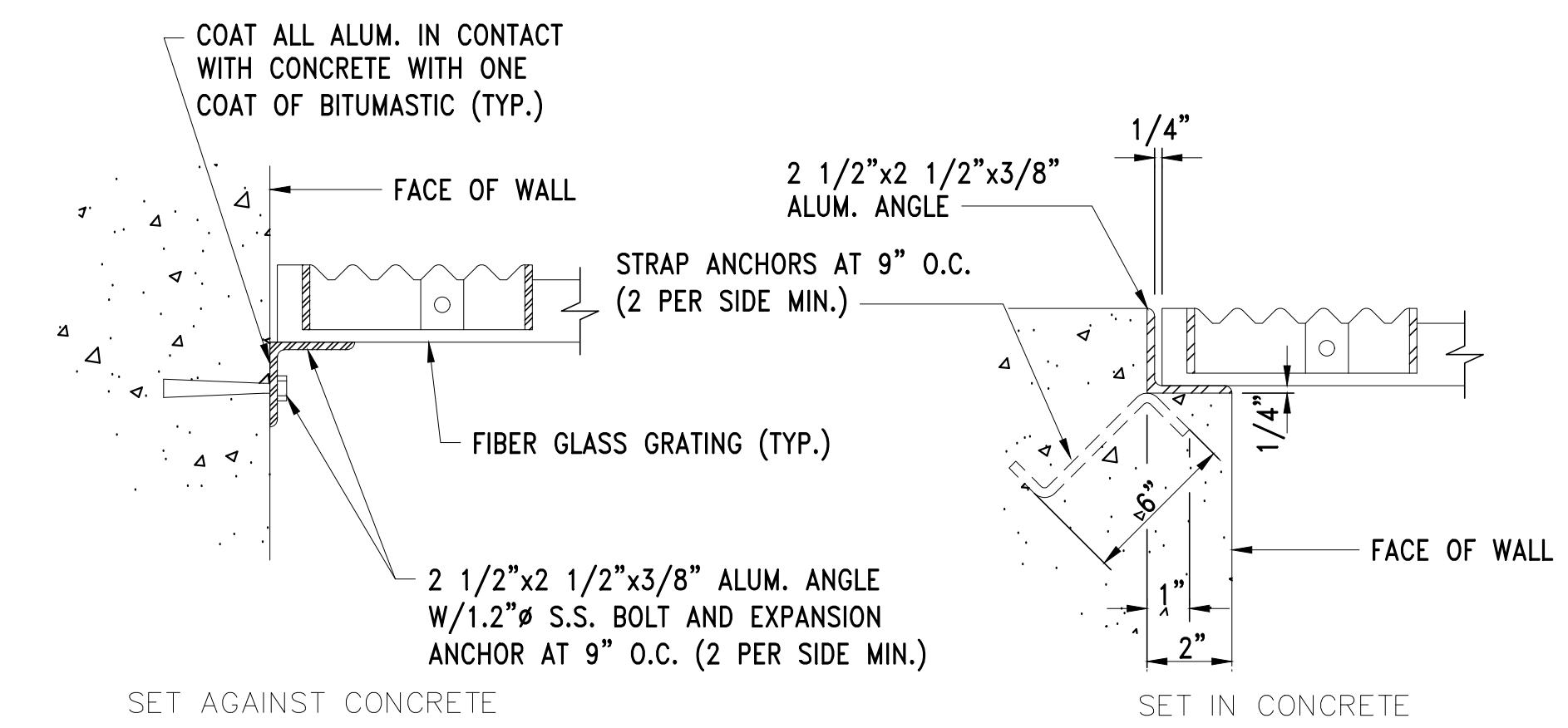
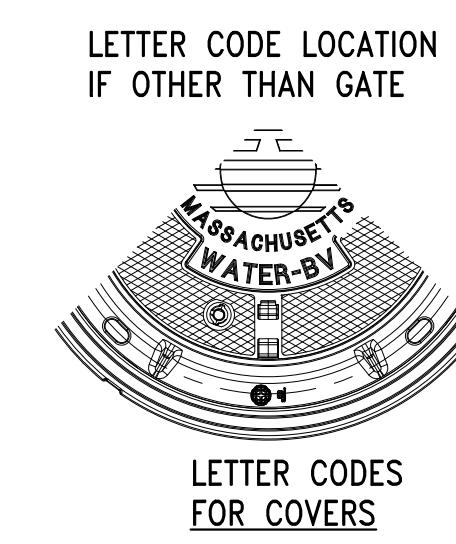
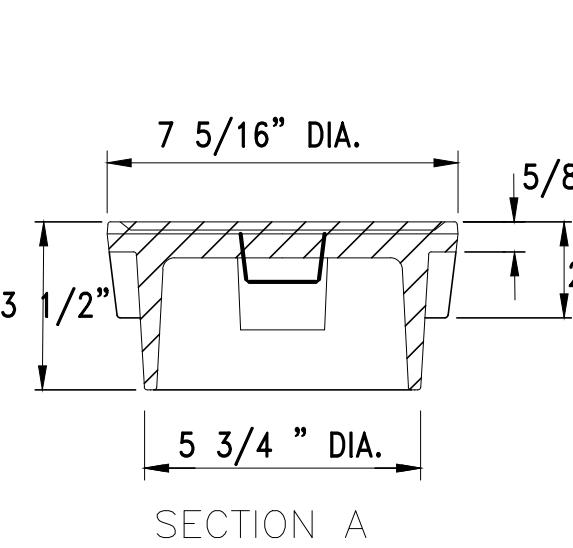
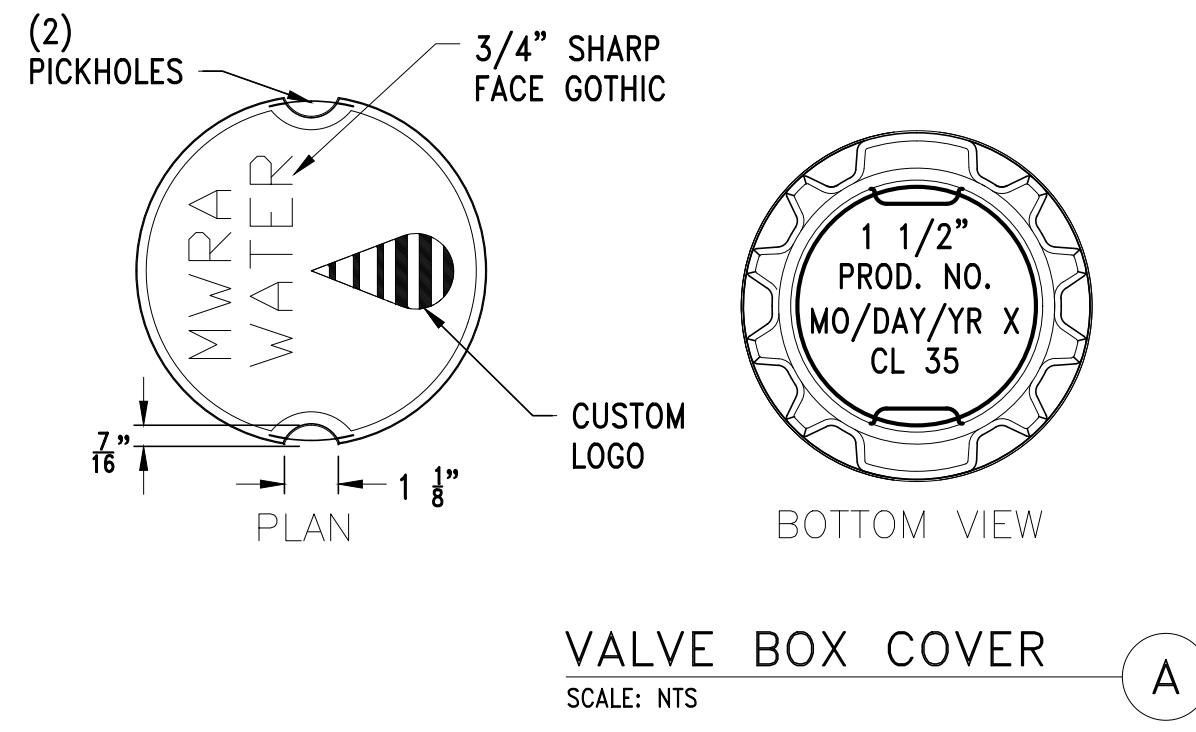


RYAN J. STACKPOLE  
CIV. ENGR.  
REGISTERED PROFESSIONAL ENGINEER  
8/25/2025

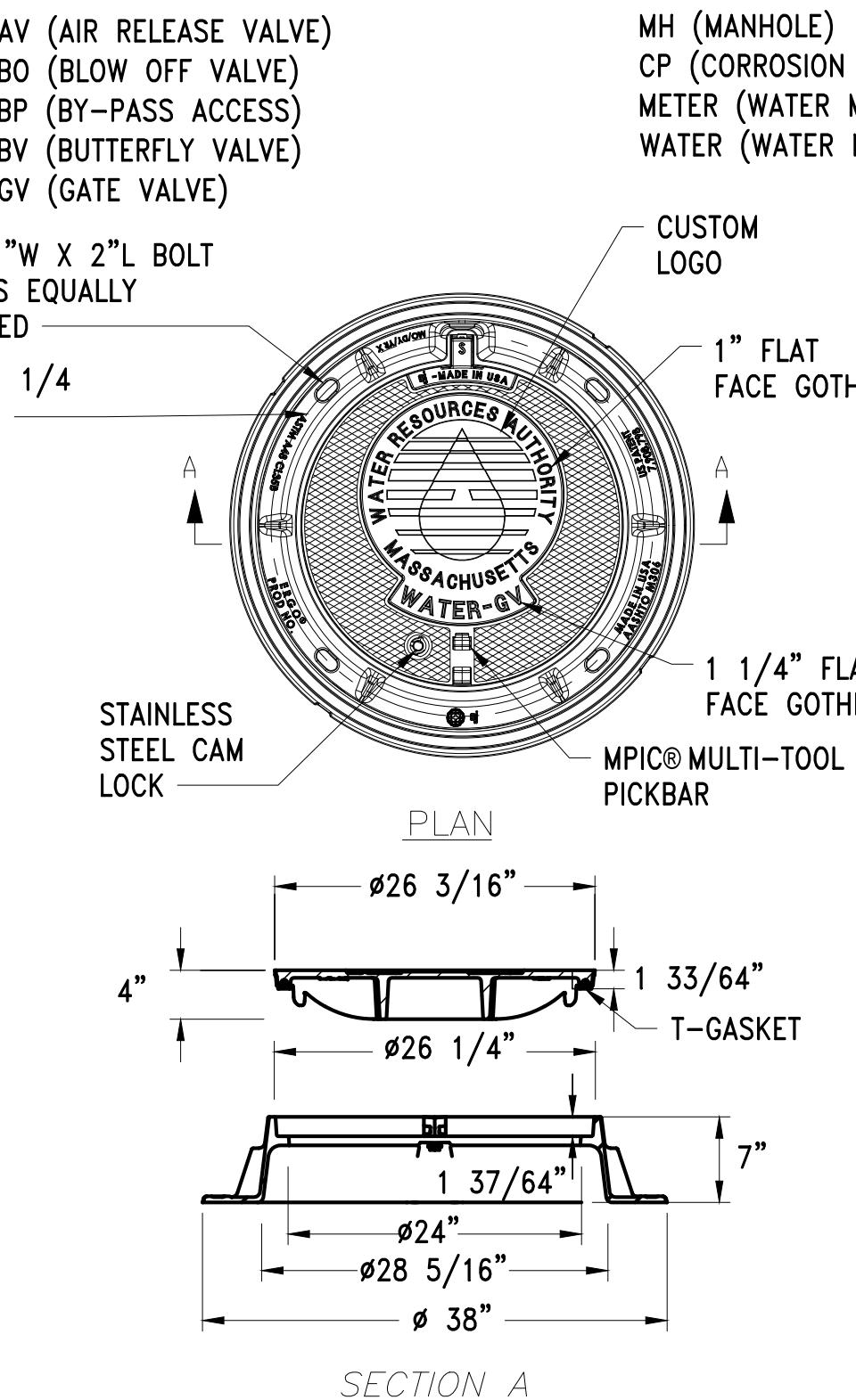
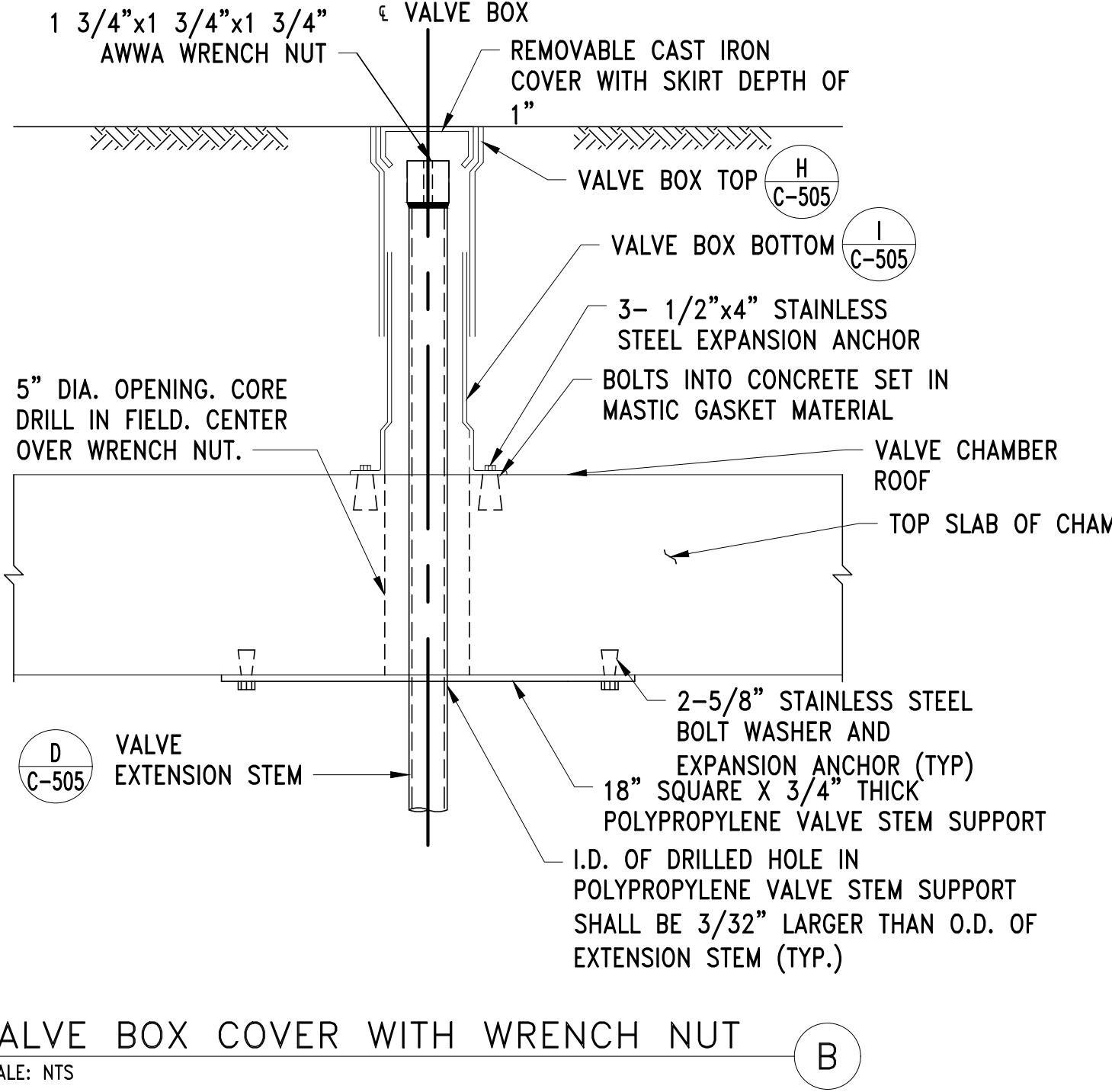
MASSACHUSETTS WATER RESOURCES AUTHORITY  
PREPARED BY : Stantec  
45 BLUE SKY DRIVE, 3RD FLOOR  
BURLINGTON, MA 01803  
www.stantec.com

WESTON AQUEDUCT SUPPLY MAIN 3  
REHABILITATION OF WATER MAINS  
SECTION W10  
AIR VALVE CONFIGURATION AND CHAMBER DETAILS

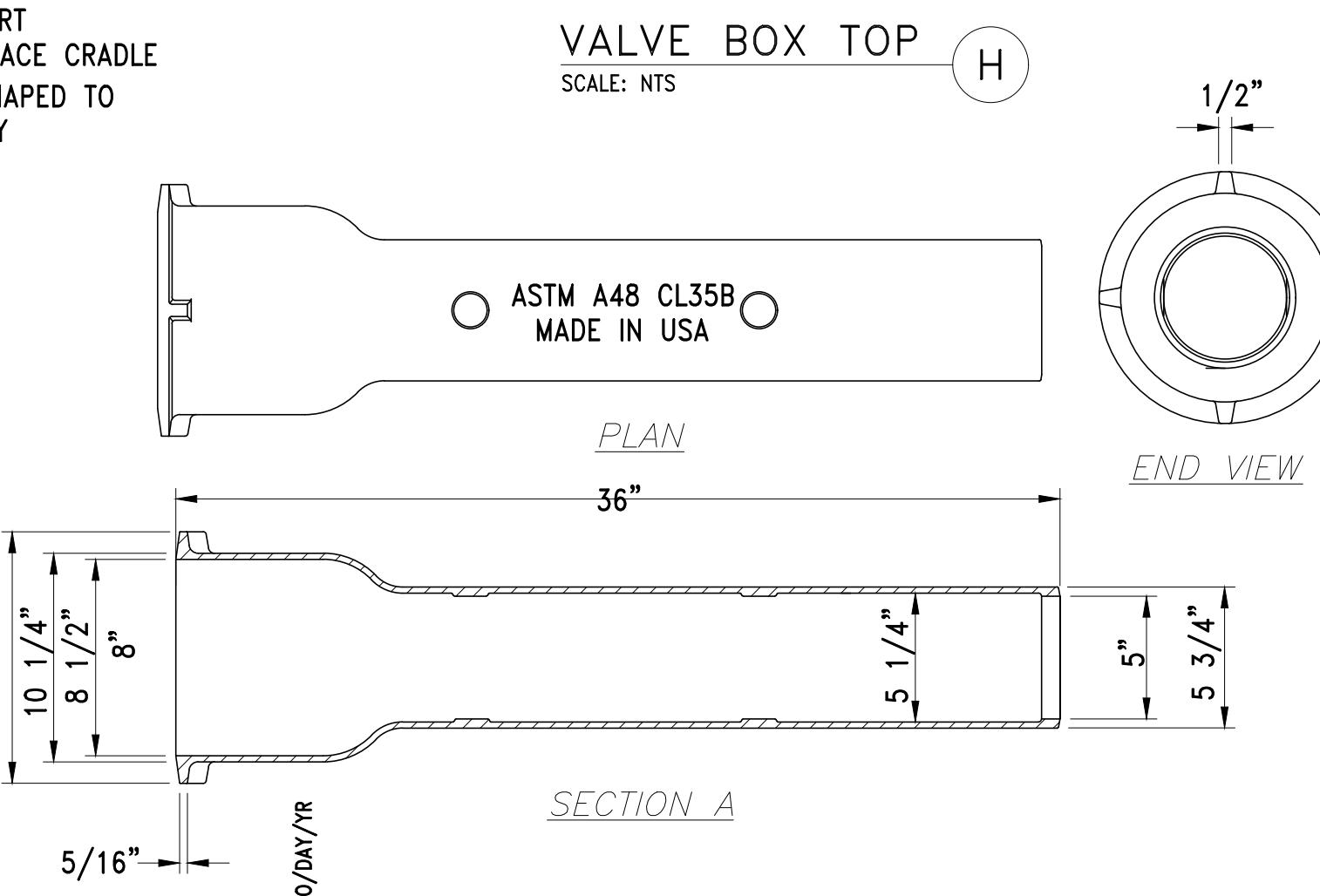
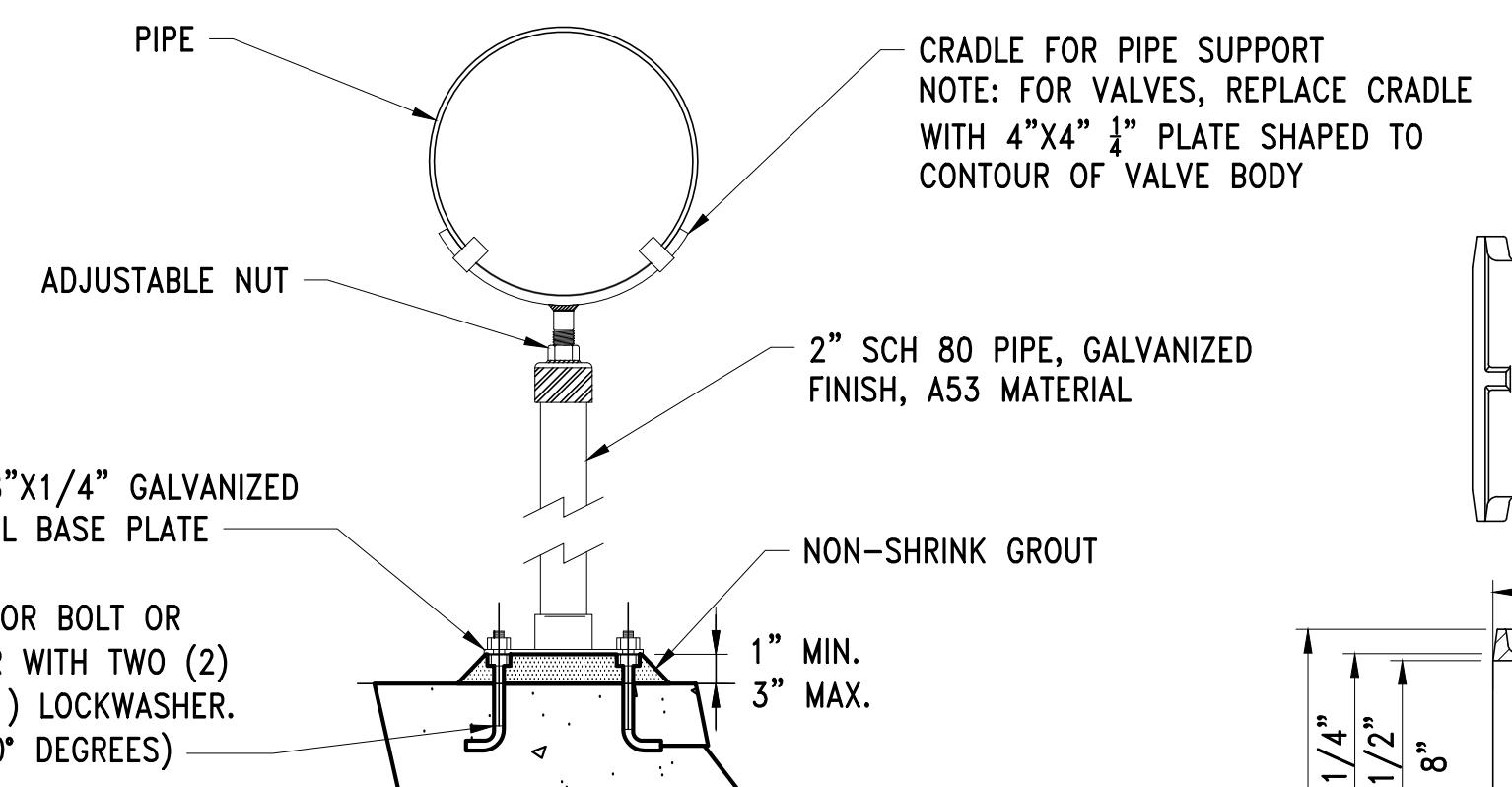
DRAWING NO.  
C-504  
28 OF 83



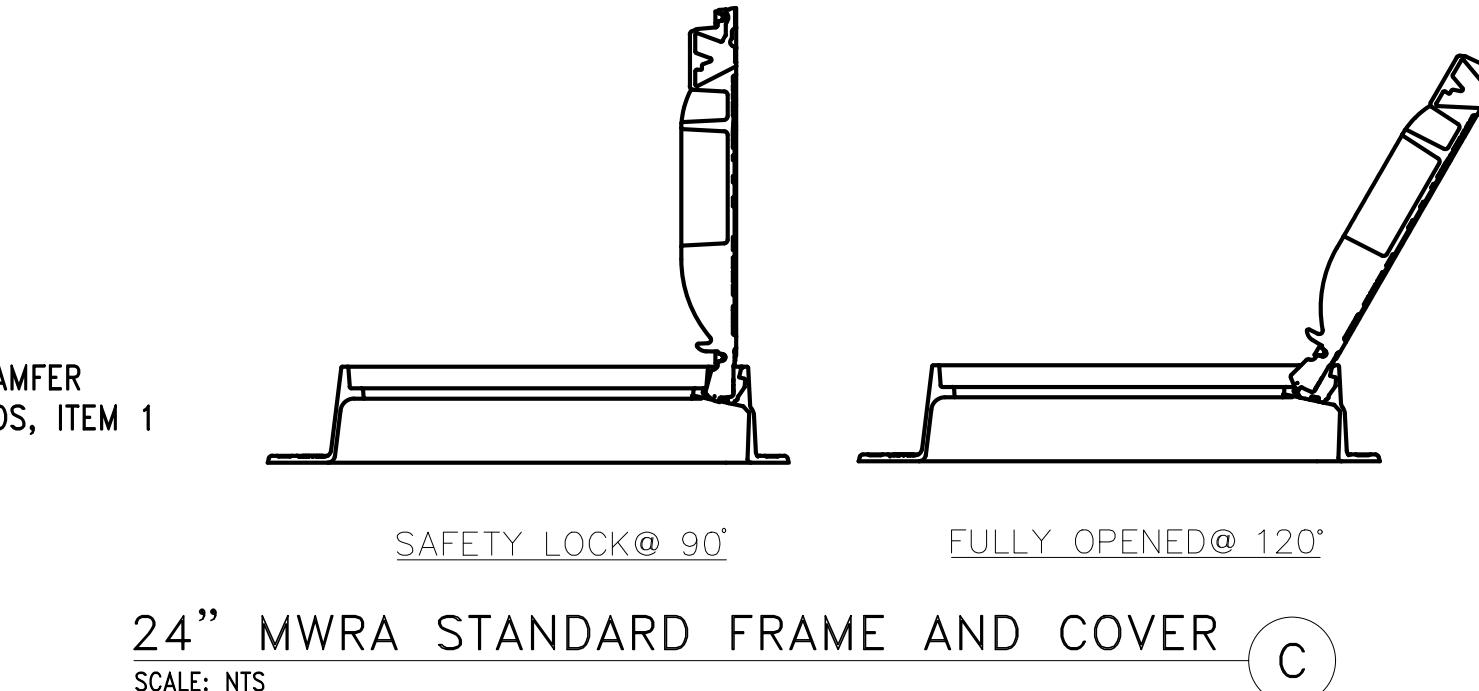
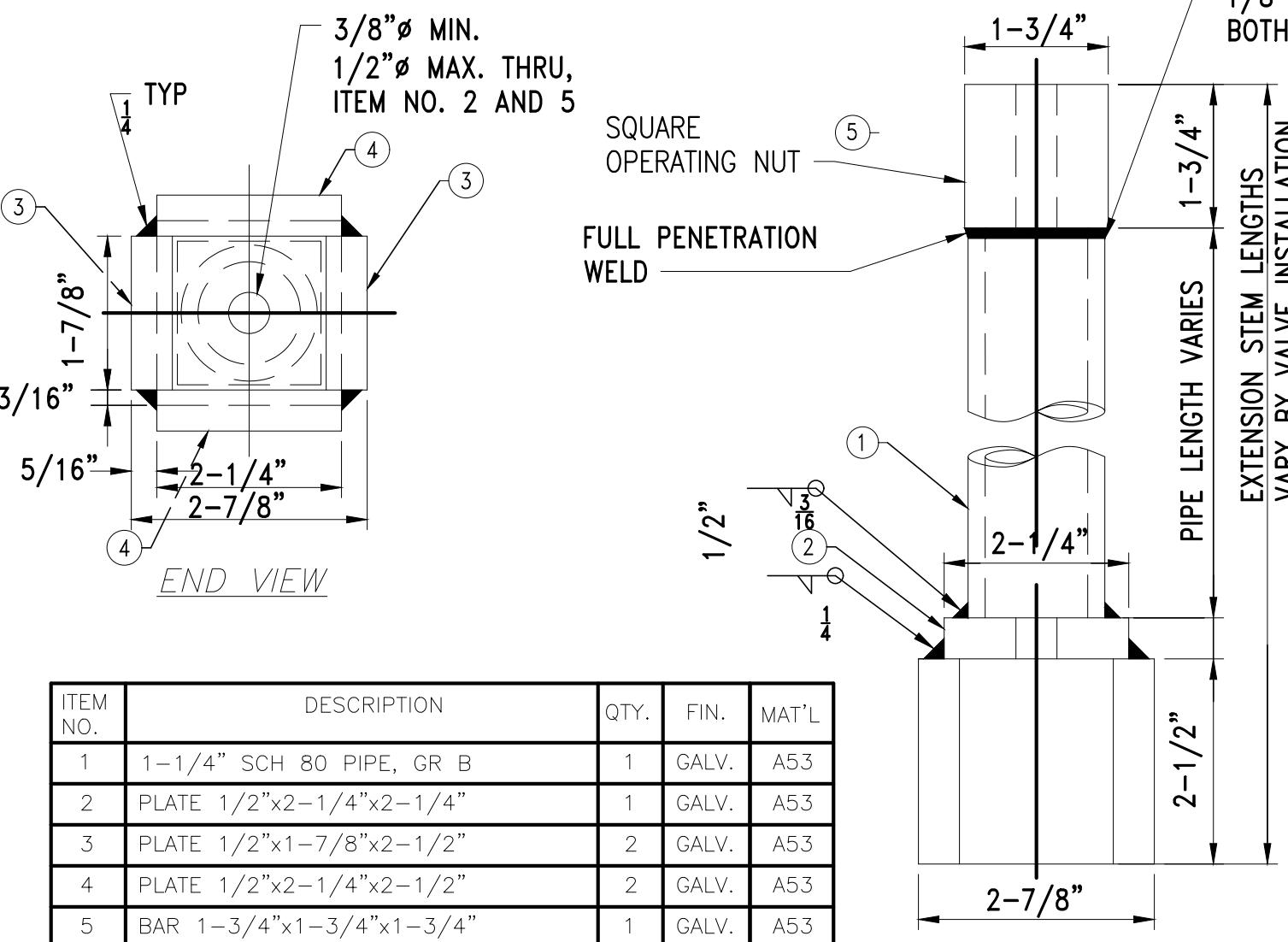
SECTION A



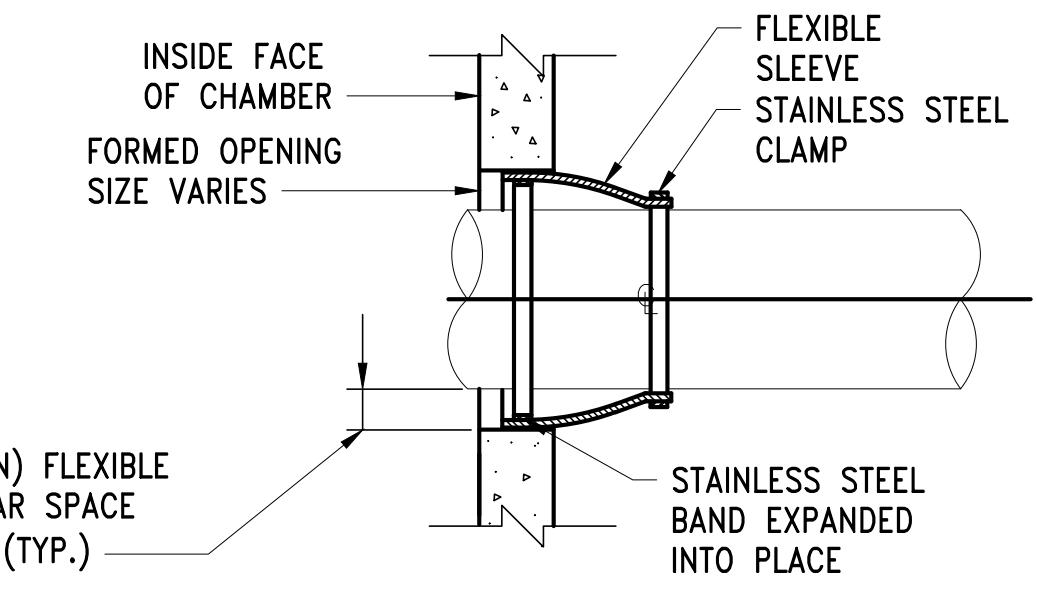
GRATING SUPPORT DETAIL E



SECTION A



- NOTES:**
1. SHOP DRAWING SUBMITTAL FOR STEM EXTENSIONS SHALL BE A FABRICATIONS DRAWINGS.
  2. DETERMINE LENGTH OF EXTENSION STEMS BY FIELD MEASUREMENTS AFTER VALVE INSTALLATION. TOP OF STEM EXTENSION NUT TO TOP OF 24" MANHOLE COVER SHALL BE TWELVE INCHES AND TOP OF EXTENSION STEM TO TOP OF 8" CASTING OR SMALLER SHALL BE SIX INCHES. CONSIDER THE HEIGHT OF THE EXTENSION STEM NUT COVER WHEN DETERMINING THE AMOUNT TO BE CUT FOR DIRECT BURIED VALVES.
  3. ALL WELDS SHALL BE IN COMPLIANCE WITH AMERICAN WELDING CODES. USE UNCOATED ELECTRODES WHERE POSSIBLE TO PREVENT FLUX DEPOSITS. IF COATED ELECTRODES ARE USED ALL WELDING FLUX RESIDUES SHALL BE REMOVED.
  4. BREAK ALL SHARP EDGES BEFORE CLEANING AND PICKLING.
  5. REMOVE ALL WELD SLAG/RESIDUE AND THEN PICKLE THE FABRICATED STEM EXTENSION PRIOR TO HOT DIP GALVANIZING.
  6. FABRICATED STEM EXTENSIONS SHALL BE HOT DIPPED GALVANIZED PER ASTM A123/A123M-12 ZINC (HOT-DIP GALVANIZED) COATING ON IRON AND STEEL PRODUCTS. AVERAGE THICKNESS COATING PER TABLE1, PIPE AND TUBING MATERIAL CATEGORY.
  7. EXTENSION STEM SHALL BE SOLID STEM

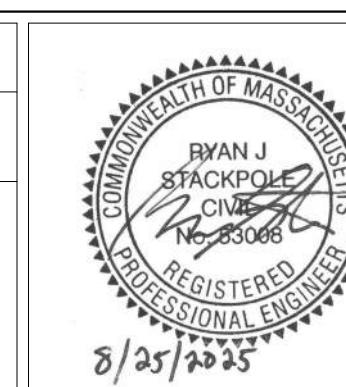


FLEXIBLE SLEEVE CONNECTION G

EXTENSION STEM D

NO.	DATE	BY	CHK'D	REVISION

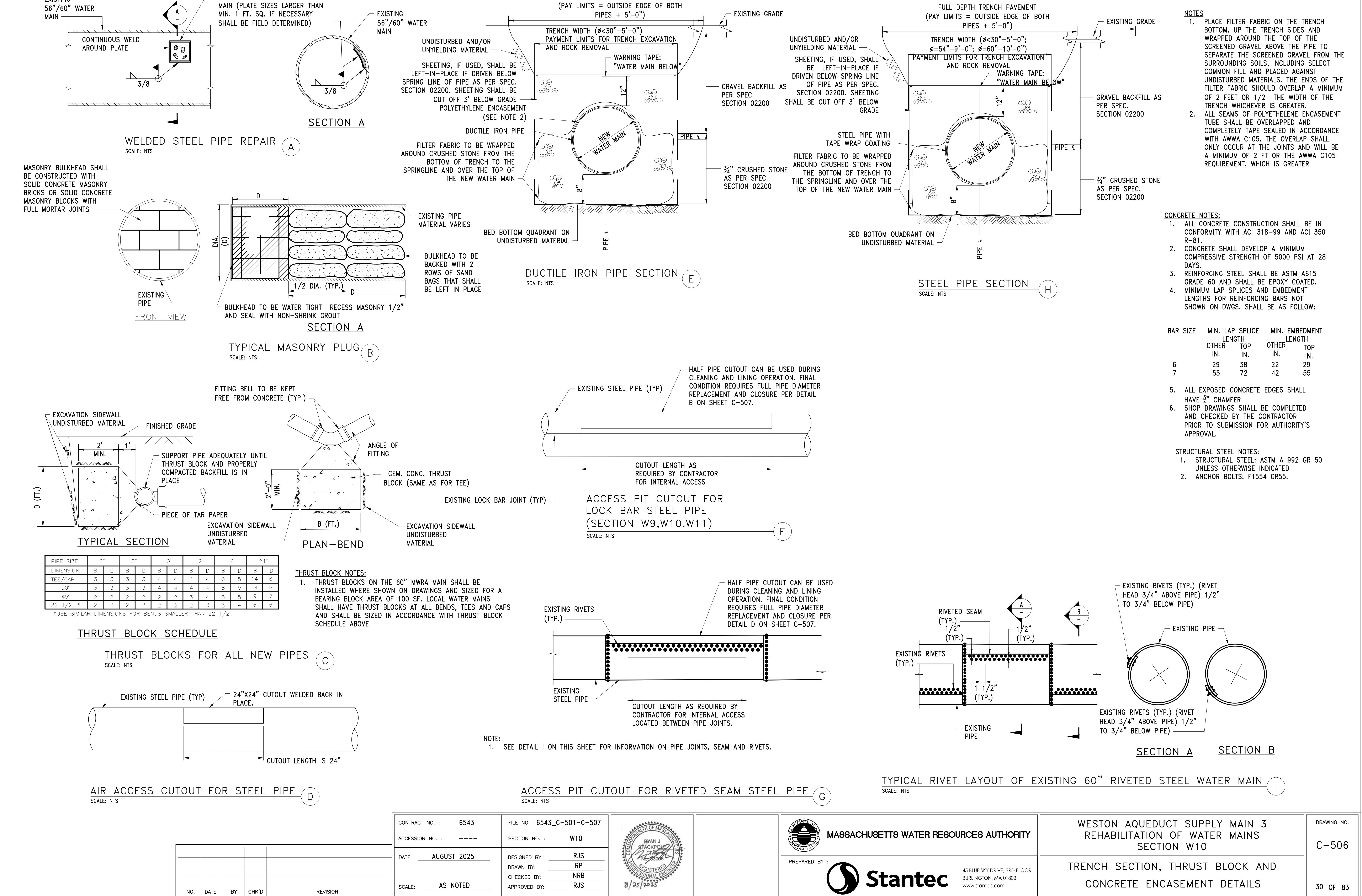
CONTRACT NO. :	6543	FILE NO. :	6543_C-501-C-507
ACCESSION NO. :	-----	SECTION NO. :	W10
DATE:	AUGUST 2025	DESIGNED BY:	RJS
SCALE:	AS NOTED	DRAWN BY:	RP
		CHECKED BY:	CON
		APPROVED BY:	RJS

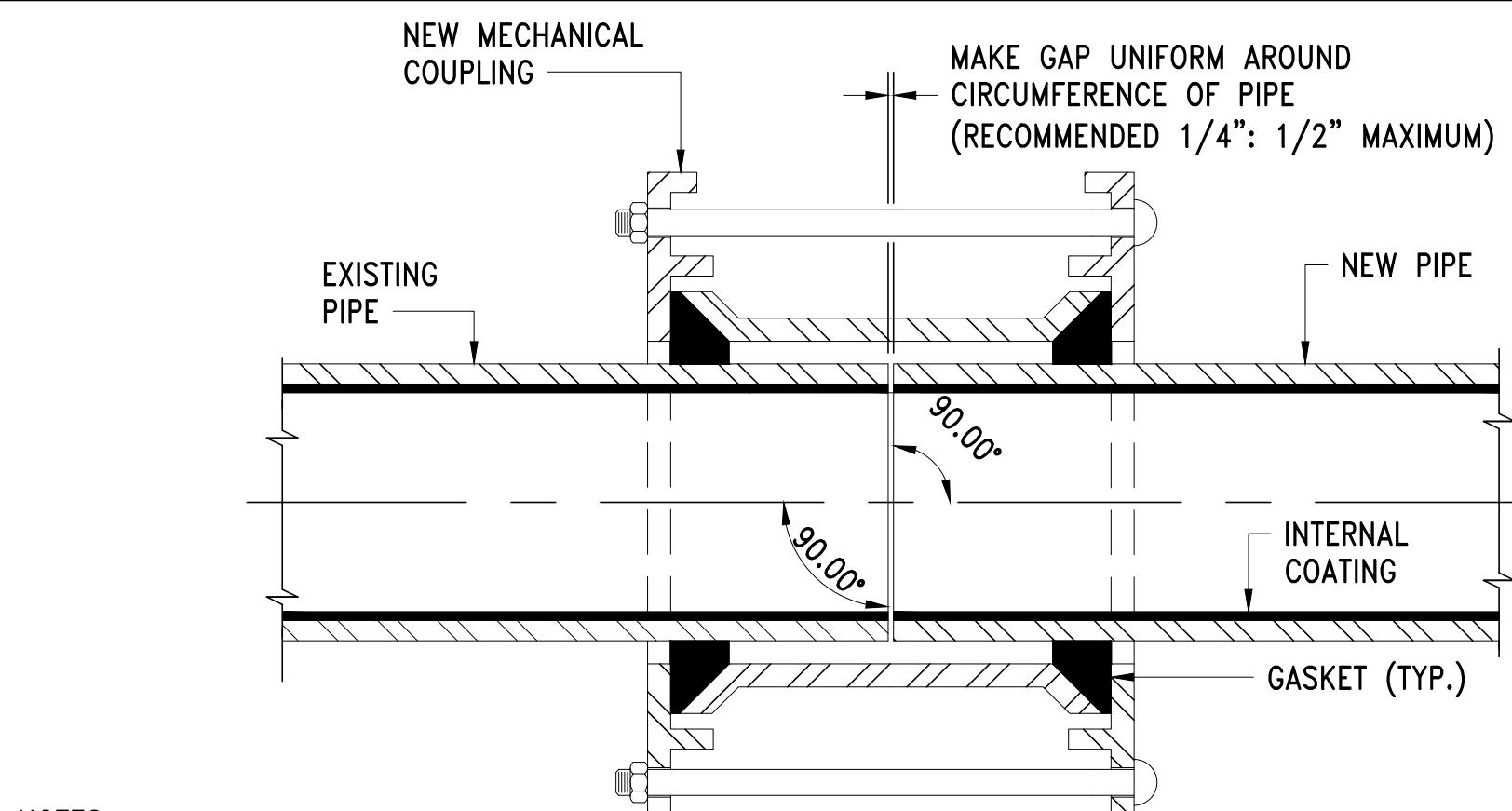


MASSACHUSETTS WATER RESOURCES AUTHORITY  
PREPARED BY : Stantec  
45 BLUE SKY DRIVE, 3RD FLOOR  
BURLINGTON, MA 01803  
www.stantec.com

WESTON AQUEDUCT SUPPLY MAIN 3  
REHABILITATION OF WATER MAINS  
SECTION W10  
MISCELLANEOUS VALVE AND CHAMBER  
DETAILS

DRAWING NO.  
C-505  
29 OF 83

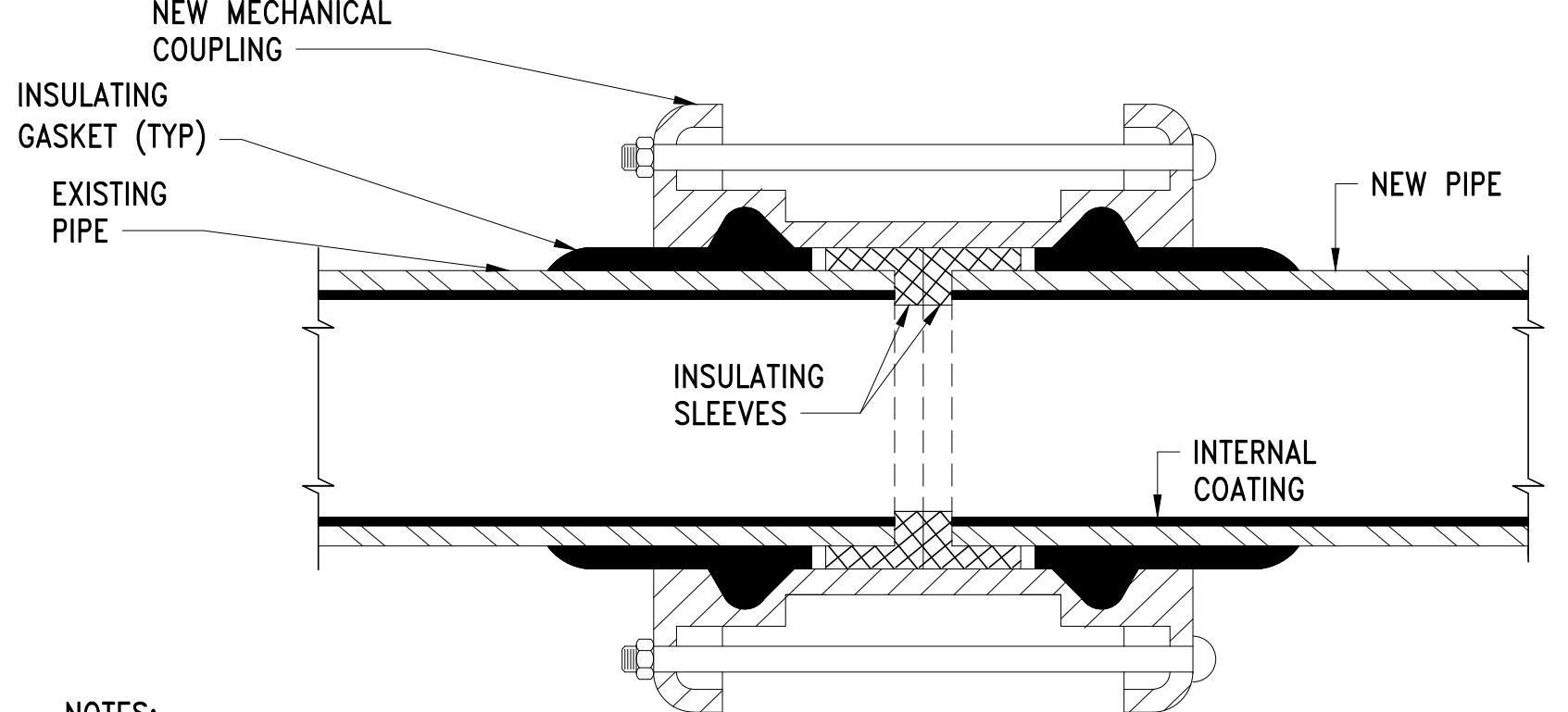




**NOTES:**

1. CONTRACTOR TO VERIFY OUTSIDE DIAMETER OF ALL EXISTING AND PROPOSED PIPES FOR SIZING COUPLINGS PRIOR TO ORDERING COUPLINGS.
2. TRANSITION COUPLINGS WITH LARGER GASKETS OR REDUCING MIDDLE RINGS AS REQUIRED BY MANUFACTURER TO SPAN PIPES WITH DIFFERENT SIZE OUTSIDE DIAMETERS. A REDUCING MIDDLE RING SHALL BE USED AT LOCATIONS WHERE OUTSIDE DIAMETERS DIFFER BY 1-INCH OR MORE.
3. MECHANICAL COUPLING AND ALL HARDWARE SHALL BE COMPLETELY WRAPPED WITH WAX-TAPE COATING SYSTEM.
4. MECHANICAL COUPLING AND ALL HARDWARE SHALL BE INSTALLED AND TESTED AS PER MANUFACTURER'S STANDARDS AND INSTALLATION GUIDELINES.

#### MECHANICAL COUPLING (NON-INSULATING)

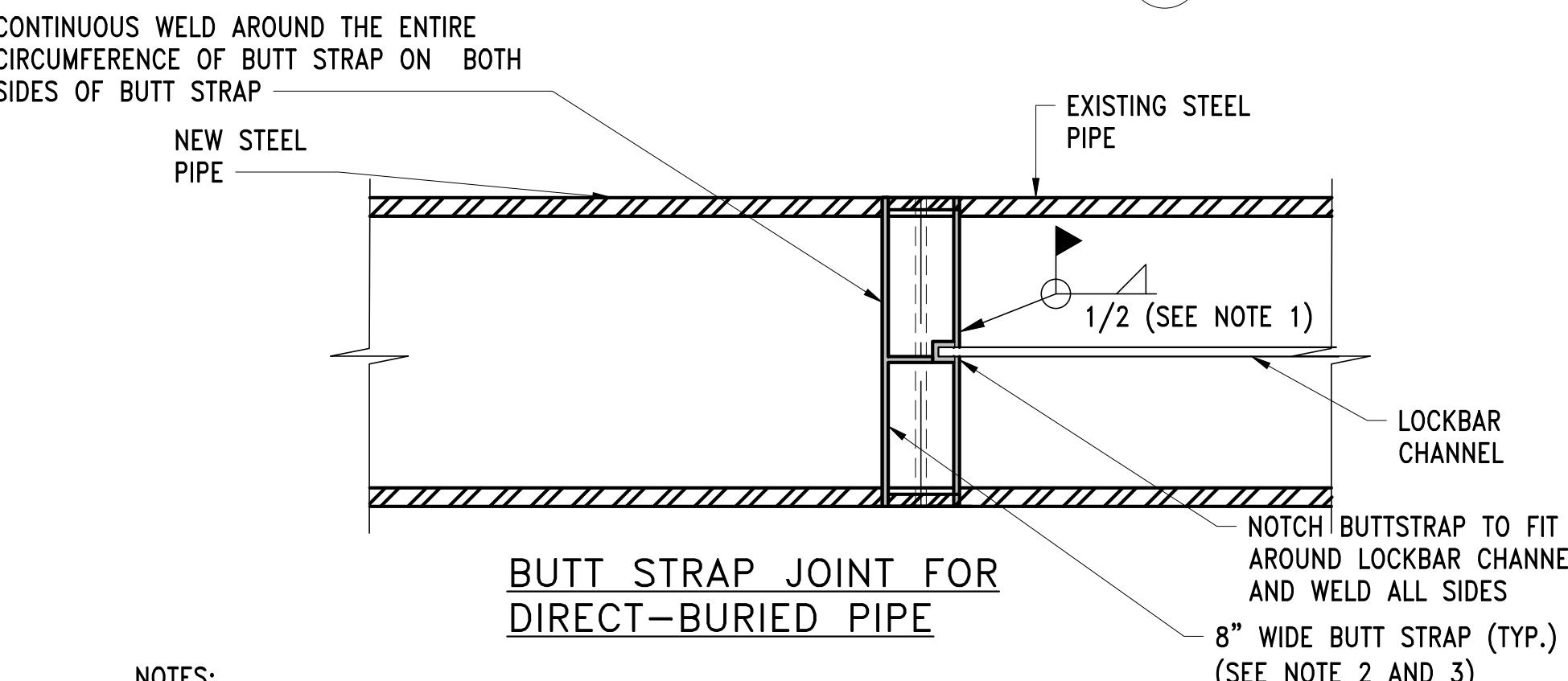


**NOTES:**

1. CONTRACTOR TO VERIFY OUTSIDE DIAMETER OF ALL EXISTING AND PROPOSED PIPES FOR SIZING COUPLINGS PRIOR TO ORDERING COUPLINGS.
2. TRANSITION COUPLINGS WITH LARGER GASKETS OR REDUCING MIDDLE RINGS AS REQUIRED BY MANUFACTURER TO SPAN PIPES WITH DIFFERENT SIZE OUTSIDE DIAMETERS. A REDUCING MIDDLE RING SHALL BE USED AT LOCATIONS WHERE OUTSIDE DIAMETERS DIFFER BY 1-INCH OR MORE.
3. INSULATING MECHANICAL COUPLING AND ALL HARDWARE SHALL BE COMPLETELY WRAPPED WITH WAX-TAPE COATING SYSTEM.
4. MECHANICAL COUPLING AND ALL HARDWARE SHALL BE INSTALLED AND TESTED AS PER MANUFACTURER'S STANDARDS AND INSTALLATION GUIDELINES.

#### INSULATING MECHANICAL COUPLING

#### MECHANICAL COUPLINGS

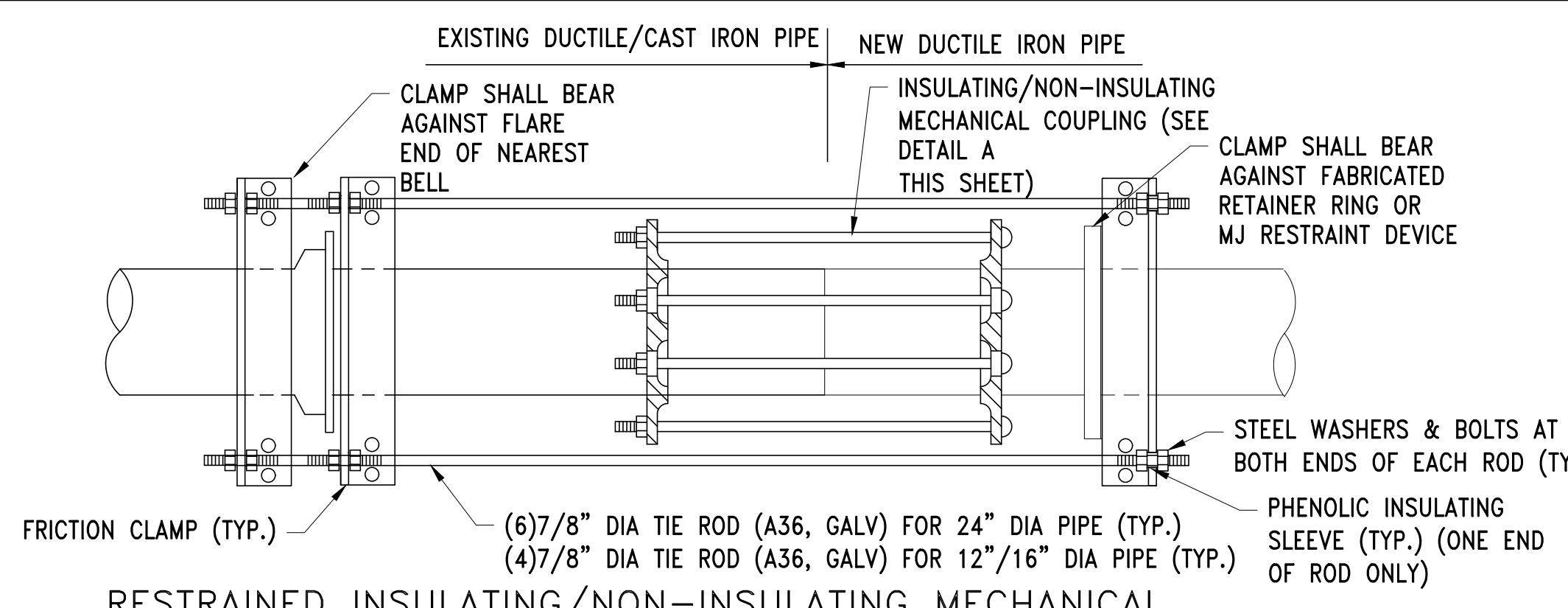


**NOTES:**

1. SIZE OF FILLET WELD SHALL BE BASED ON THICKNESS OF NEW STEEL PIPE.
2. BUTT STRAPS CAN BE INTERNAL OR EXTERNAL.
3. WELD CONTINUOUSLY AROUND THE ENTIRE CIRCUMFERENCE OF ALL BUTT STRAPS ON BOTH SIDES.
4. STEEL BUTT STRAPS SHALL BE A MAXIMUM OF 2 PIECES, WITH A TOP HALF AND A BOTTOM HALF, WELDED CONTINUOUSLY AROUND ALL SIDES.
5. FIELD APPLY FOUR LAYER POLYETHYLENE TAPE TO BUTTSTRAP.

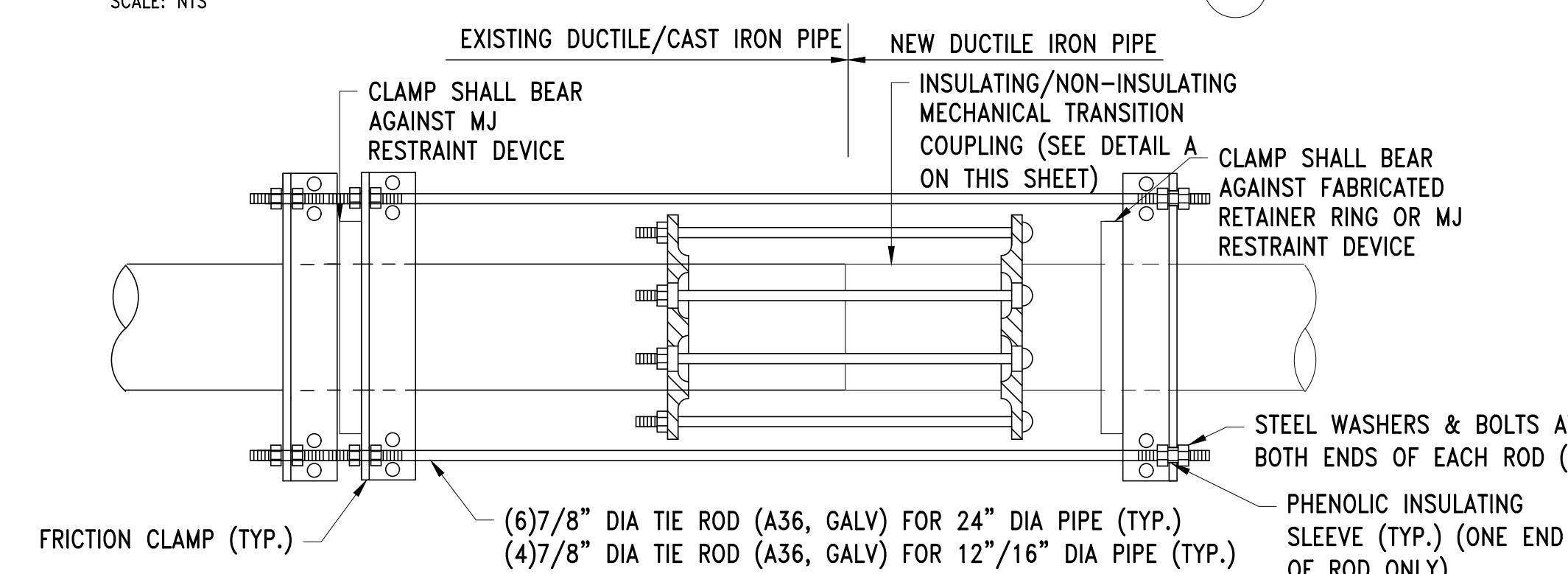
#### WELDED BUTT STRAP JOINTS FOR LOCK BAR STEEL PIPE

SCALE: NTS



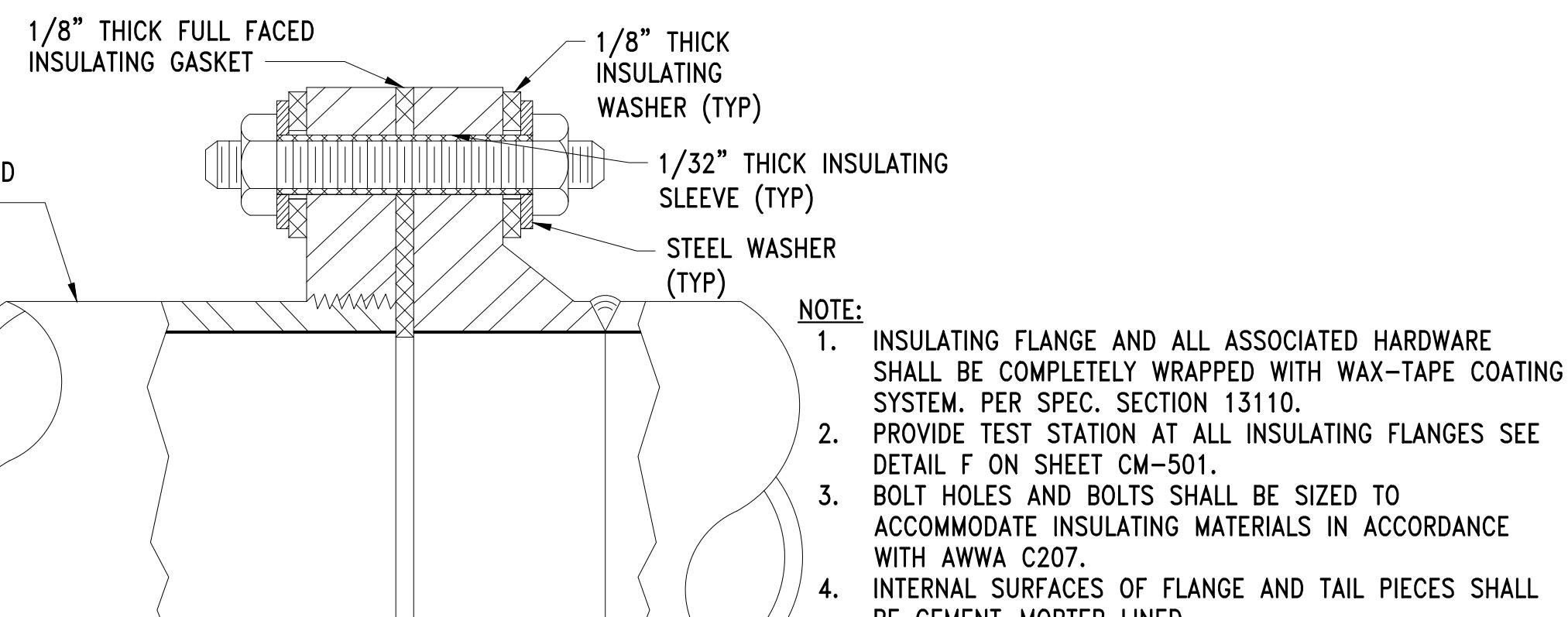
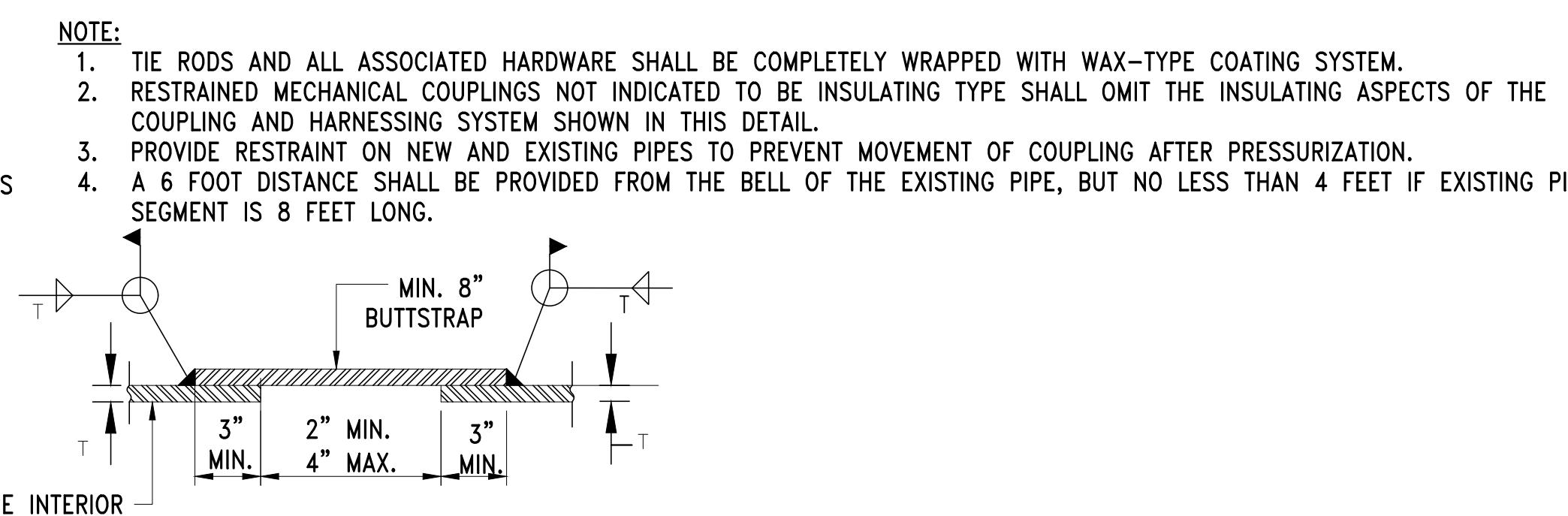
#### RESTRAINED INSULATING/NON-INSULATING MECHANICAL COUPLING FOR NEW DI PIPE TO EXISTING DI/CI PIPE

SCALE: NTS



#### RESTRAINED INSULATING/NON-INSULATING MECHANICAL COUPLING FOR NEW DI PIPE TO EXISTING DI/CI PIPE-PLAIN END PIPE

SCALE: NTS



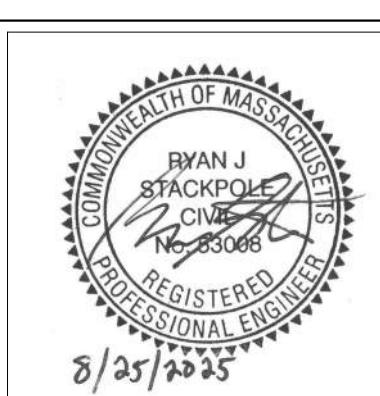
#### 12" PIPE SOLID SLEEVE CONNECTION WITH MJ RESTRAINT DEVICE FOR NEW DI PIPE TO EXISTING DI PIPE

SCALE: NTS

WESTON AQUEDUCT SUPPLY MAIN 3  
REHABILITATION OF WATER MAINS  
SECTION W10  
FLANGE, BUTTSTRAP AND COUPLING  
DETAILS

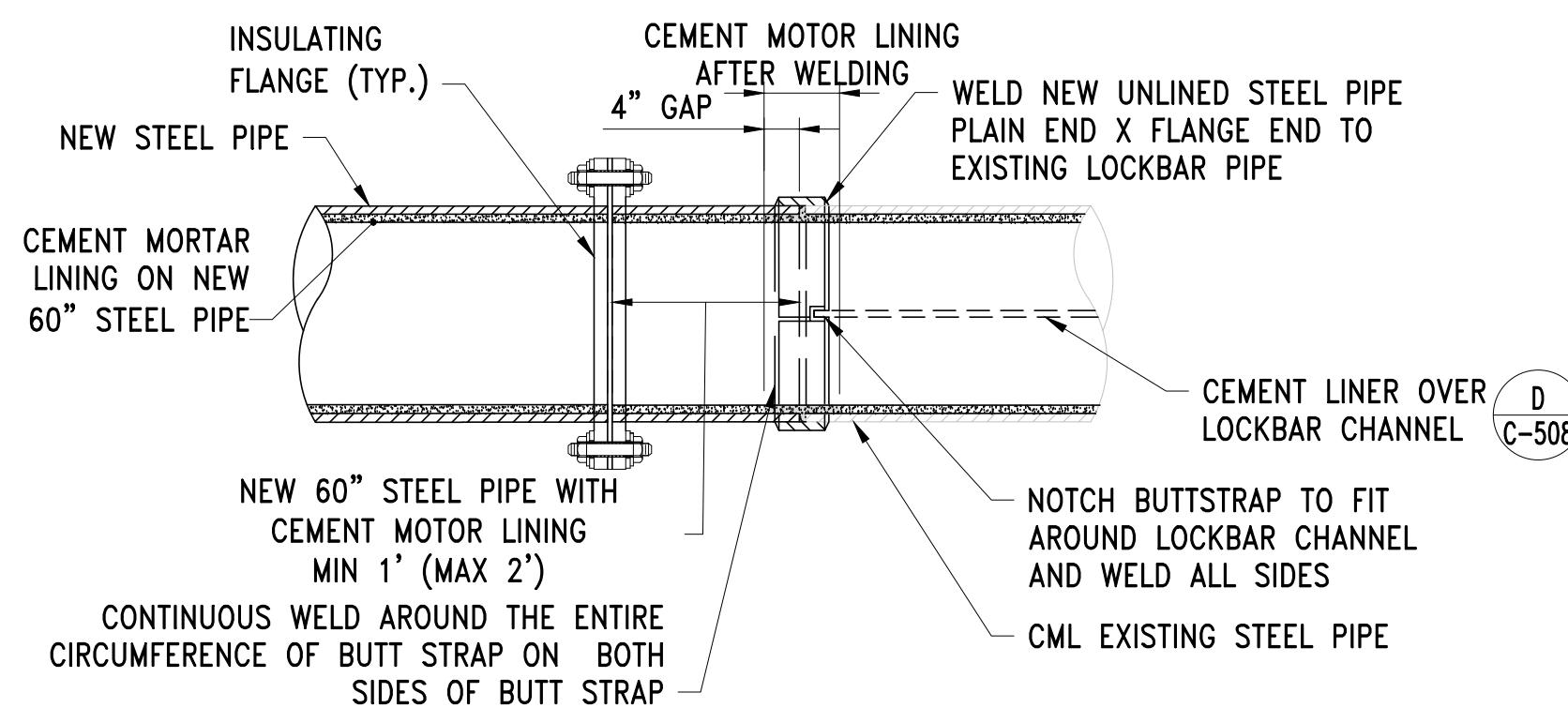
DRAWING NO.  
C-507  
31 OF 83

CONTRACT NO. :	6543	FILE NO. :	6543_C-501-C-507
ACCESSION NO. :	-----	SECTION NO. :	W10
DATE:	AUGUST 2025	DESIGNED BY:	RJS
		DRAWN BY:	RP
		CHECKED BY:	CON
SCALE:	AS NOTED	APPROVED BY:	RJS



MASSACHUSETTS WATER RESOURCES AUTHORITY  
PREPARED BY :  
**Stantec**

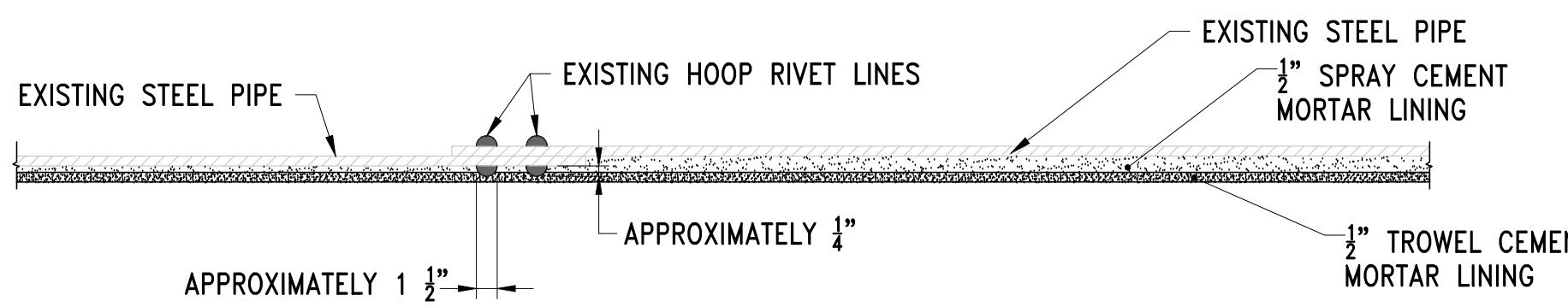
45 BLUE SKY DRIVE, 3RD FLOOR  
BURLINGTON, MA 01803  
www.stantec.com



**NOTES:**

CEMENT LINING DETAIL AT NEW PIPE TRANSITION

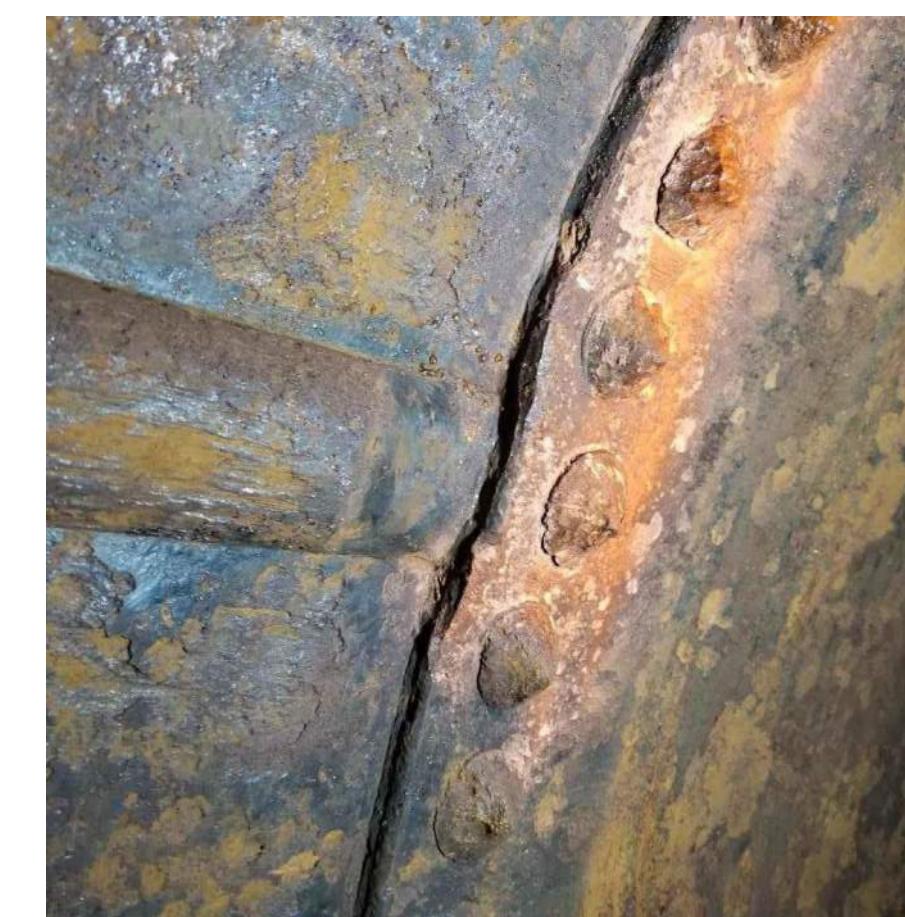
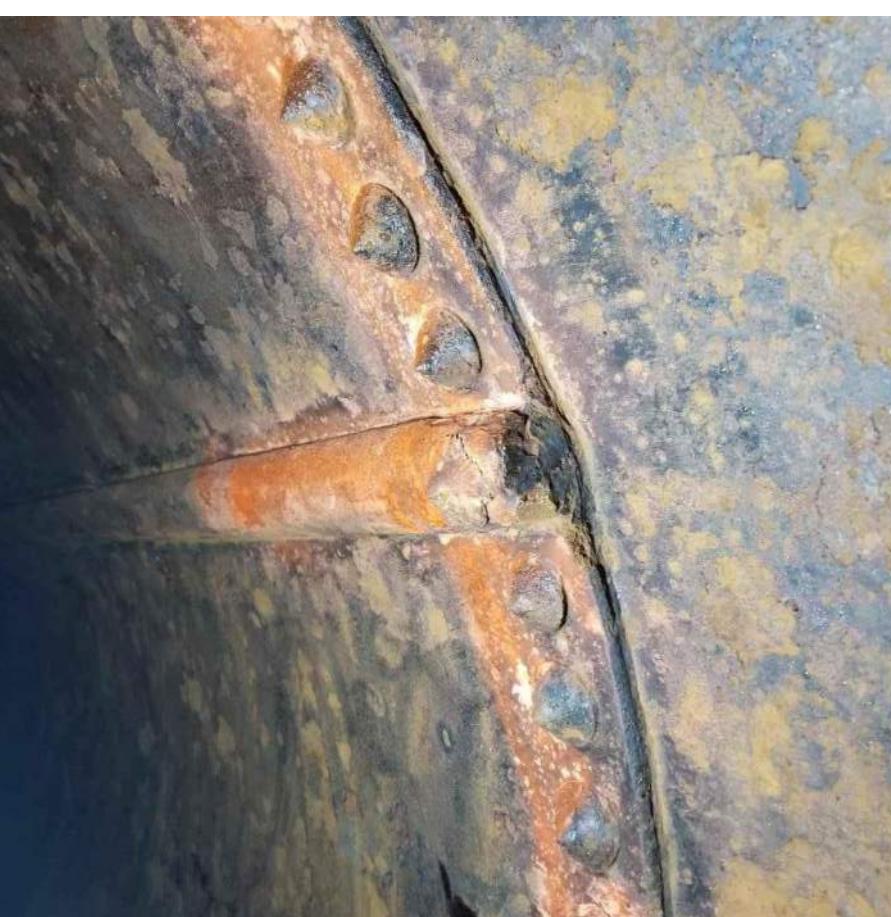
SCALE: NTS



**NOTE:**

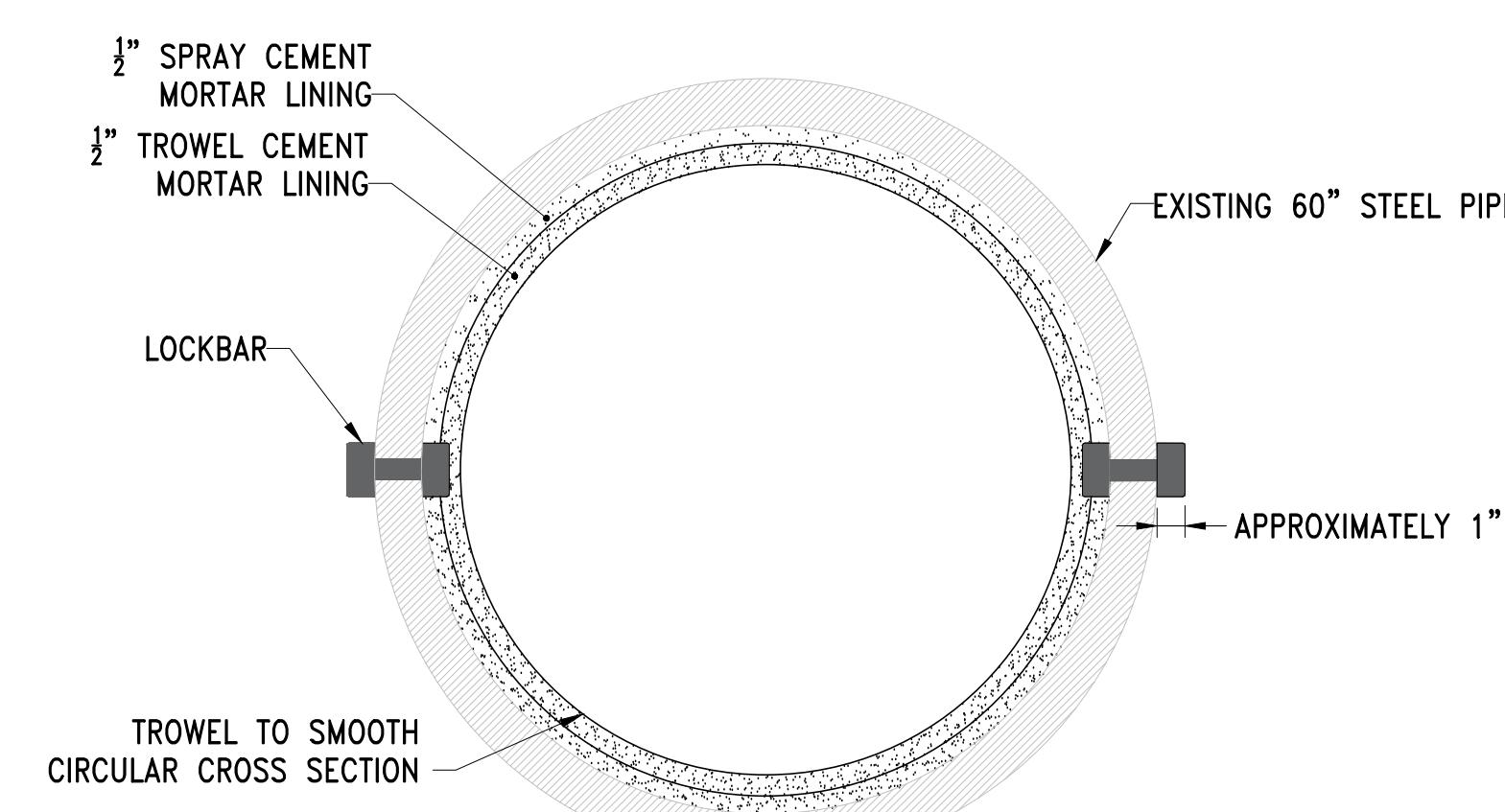
DETAIL OF CEMENT LINING OVER CIRCUMFERENTIAL RIVETED JOINTS

SCALE: NTS



LOCKBAR & RIVETED JOINTS

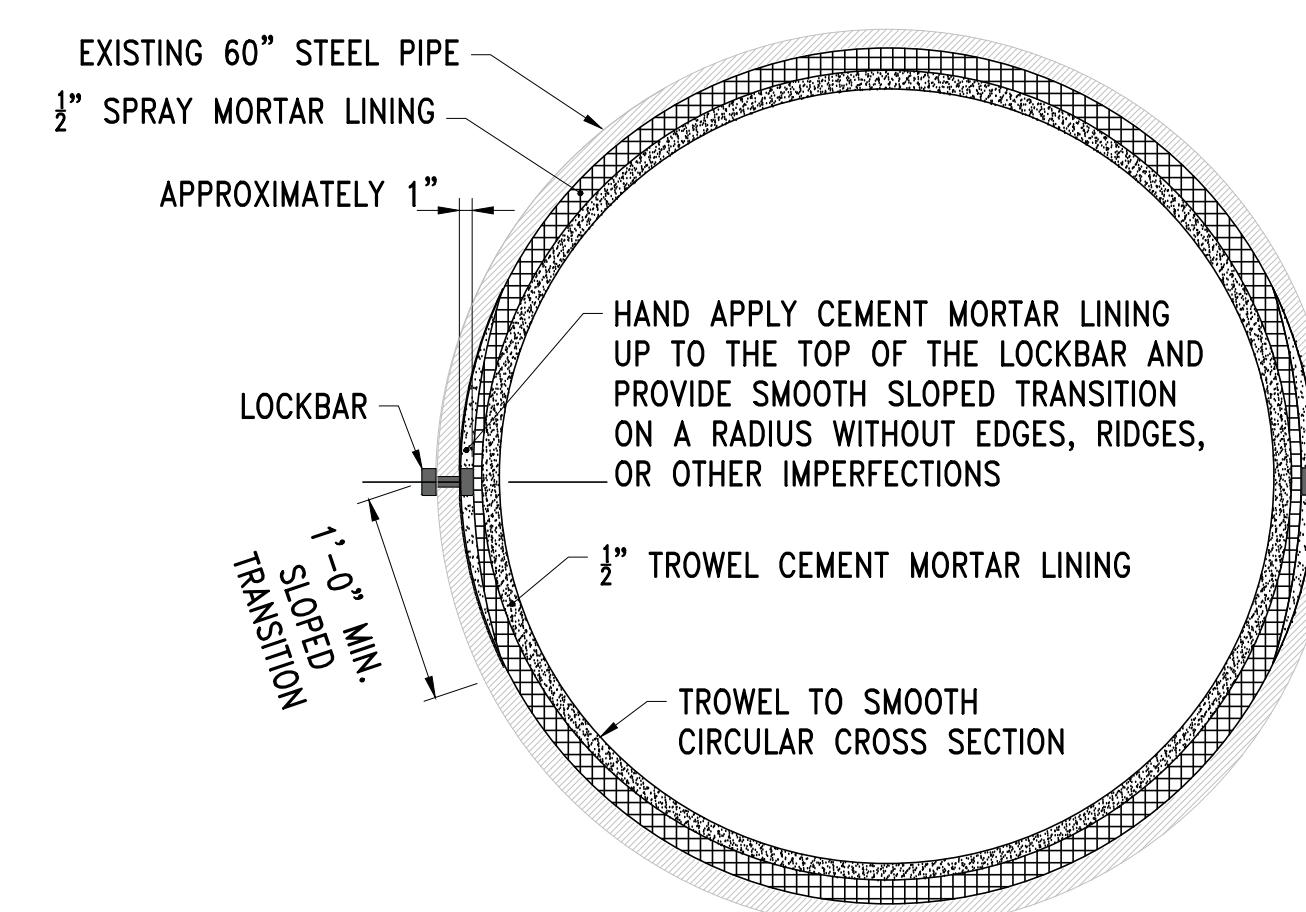
SCALE: NTS



**NOTE:**

CEMENT LINING EXISTING LOCKBAR PIPE

SCALE: NTS



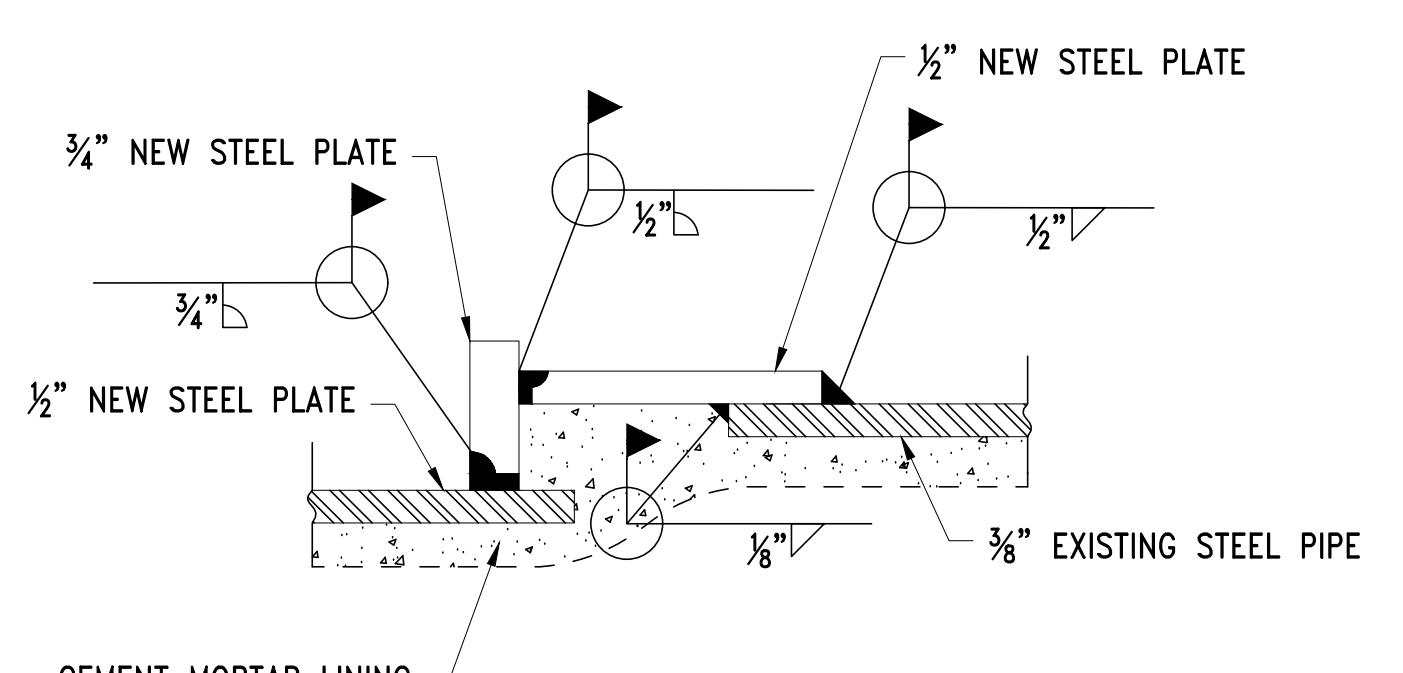
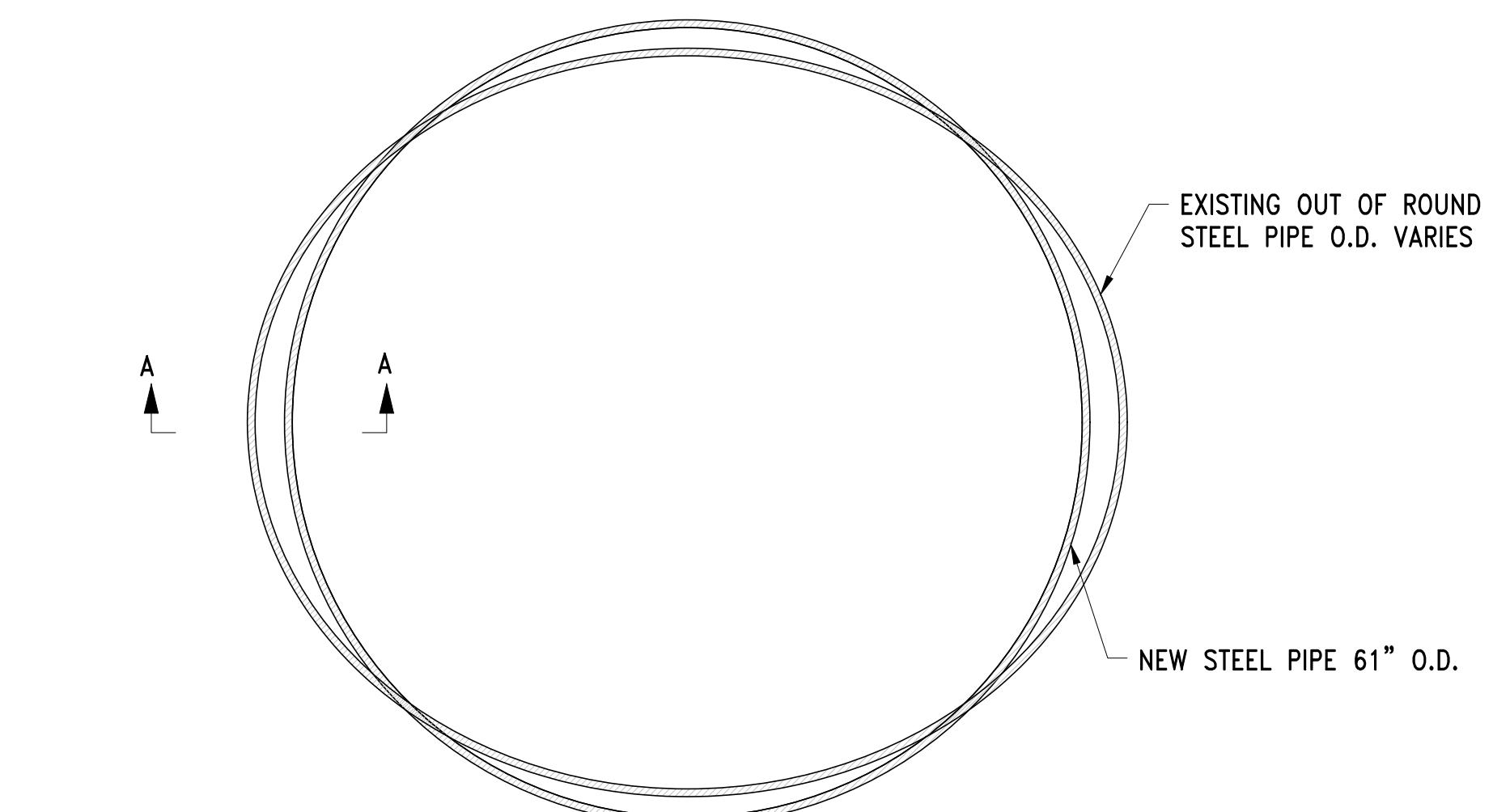
CEMENT LINING OVER LONGITUDINAL LOCKBAR LINES

SCALE: NTS



LOCKBAR CROSS-SECTION

SCALE: NTS

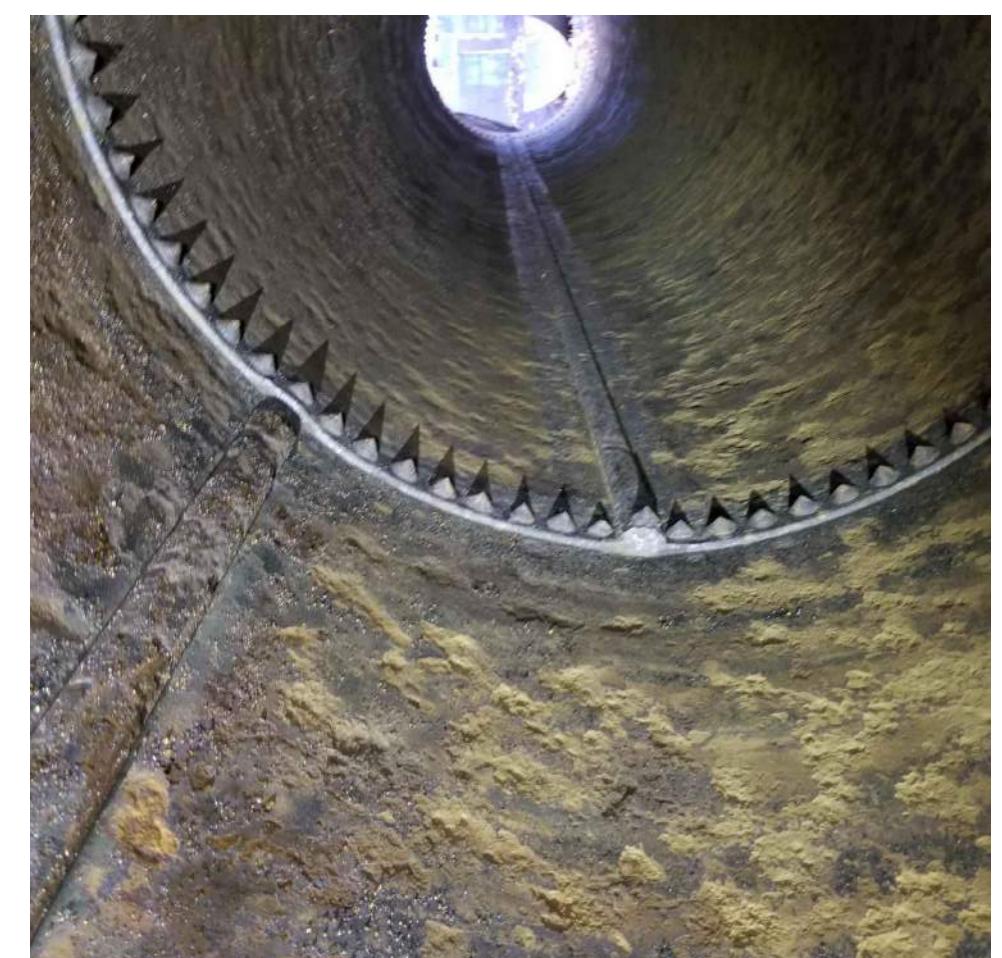


**SECTION A-A**

**NOTES:**

WELDED BUTT STRAP JOINT FOR OUT OF ROUND PIPE

SCALE: NTS

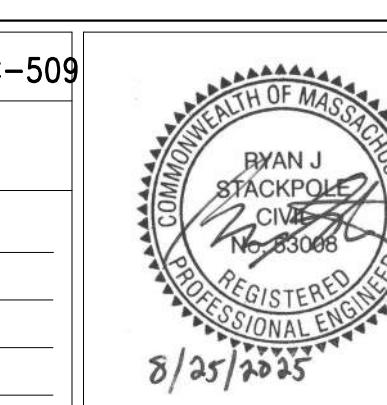


RIVETS AT JOINT

SCALE: NTS

NO.	DATE	BY	CHK'D	REVISION

CONTRACT NO. : 6543	FILE NO. : 6543_C-508-C-509
ACCESSION NO. : -----	SECTION NO. : W10
DATE: AUGUST 2025	DESIGNED BY: RJS
	DRAWN BY: TJC
	CHECKED BY: CON
SCALE: AS NOTED	APPROVED BY: RJS



RYAN J.  
STACKPOLE  
CIVIL  
PROFESSIONAL ENGINEER  
8/25/2025



WESTON AQUEDUCT SUPPLY MAIN 3  
REHABILITATION OF WATER MAINS  
SECTION W10

CEMENT LINING DETAILS

DRAWING NO.  
C-508

32 OF 83

**CFS LINE AFTER WELDING IS COMPLETED TERMINATION ZONE**

**WELD NEW UNLINED STEEL PIPE PLAIN END X FLANGE END TO EXISTING LOCKBAR PIPE BEFORE CFS LINING SYSTEM IS INSTALLED**

**INSULATING FLANGE (TYP.)**

**NEW STEEL PIPE**

**CEMENT MORTAR LINING ON NEW 60" STEEL PIPE**

**STAINLESS STEEL EXPANSION RING AND 1/4" RUBBER STRIP EXPANDED TO ACHIEVE 100 PSI INTERFACE PRESSURE**

**EXISTING STEEL PIPE**

**CEMENT MORTAR LINING ON EXISTING 60" LOCKBAR PIPE**

**STAINLESS STEEL EXPANSION RING AND 1/4" RUBBER STRIP EXPANDED TO ACHIEVE 100 PSI INTERFACE PRESSURE**

**CARBON FIBER SYSTEM (CFS) EPOXY LINER**

**THICKENED EPOXY TOP COAT**

**CFS OVER LOCKBAR CHANNEL C-509**

**NOTCH BUTTSTRAP TO FIT AROUND LOCKBAR CHANNEL AND WELD ALL SIDES**

**CONTINUOUS WELD AROUND THE ENTIRE CIRCUMFERENCE OF BUTT STRAP ON BOTH SIDES OF BUTT STRAP**

**NO WELDING IS PERMITTED WITHIN 2' OF PIPE THAT HAS BEEN CFS LINED**

**NOTES:**

1. BUTT STRAPS MAY BE INTERNAL OR EXTERNAL
2. WELD CONTINUOUSLY AROUND THE ENTIRE CIRCUMFERENCE OF ALL BUTT STRAPS ON BOTH SIDES
3. THE USE OF FLANGED END STEEL IS ACCEPTABLE

**CFS TERMINATION DETAIL AT NEW PIPE TRANSITION** (A)

SCALE: NTS

**CFS TERMINATION SECTION AT NEW PIPE TRANSITION** (B)

SCALE: NTS

**CFS DETAIL OVER LONGITUDINAL LOCKBAR LINES** (C)

SCALE: NTS

**EXISTING STEEL PIPE**

**CEMENT MORTAR LINING ON EXISTING 60" LOCKBAR PIPE**

**STAINLESS STEEL EXPANSION RING AND 1/4" RUBBER STRIP EXPANDED TO ACHIEVE 100 PSI INTERFACE PRESSURE**

**CARBON FIBER SYSTEM (CFS) EPOXY LINER**

**THICKENED EPOXY TOP COAT**

**FILL EPOXY MORTAR UP TO TOP OF CEMENT LINING AND PROVIDE SMOOTH SLOPED TRANSITION OF A RADIUS WITHOUT EDGES, RIDGES, OR OTHER IMPERFECTIONS**

**TERMINATION ZONE**

**EXISTING STEEL PIPE**

**CEMENT MORTAR LINING ON EXISTING 60" LOCKBAR PIPE**

**STAINLESS STEEL EXPANSION RING AND 1/4" RUBBER STRIP EXPANDED TO ACHIEVE 100 PSI INTERFACE PRESSURE**

**HAND TROWEL CEMENT MORTAR UP TO TOP OF EDGE OF CFS LINER AND PROVIDE SMOOTH SLOPED TRANSITION ON A RADIUS WITHOUT EDGES, RIDGES, OR OTHER IMPERFECTIONS**

**TROWEL TO SMOOTH CIRCULAR CROSS SECTION TO SEAT STAINLESS STEEL EXPANSION RING**

**LOCKBAR CHANNEL C-509**

**FILL EPOXY MORTAR UP TO TOP OF CEMENT LINING AND PROVIDE SMOOTH SLOPED TRANSITION OF A RADIUS WITHOUT EDGES, RIDGES, OR OTHER IMPERFECTIONS**

**TERMINATION ZONE**

**EXISTING STEEL PIPE**

**CARBON FIBER SYSTEM (CFS) EPOXY LINER**

**THICKENED EPOXY TOP COAT**

**L**

**CFS TERMINATION DETAIL AT CEMENT LINED EXISTING PIPE TRANSITION** (D)

SCALE: NTS

**CFS TERMINATION CROSS SECTION AT CEMENT LINED EXISTING PIPE TRANSITION** (E)

SCALE: NTS

**EXISTING STEEL PIPE**

**EXISTING HOOP RIVET LINES**

**FILL EPOXY MORTAR UP TO THE TOP OF THE RIVET HEADS AND PROVIDE SMOOTH SLOPED TRANSITION ON A RADIUS WITHOUT EDGES, RIDGES, OR OTHER IMPERFECTIONS**

**2'-0" MIN. FOR ALL AREA BUT 1'-0" FOR AREA 3C SLOPED TRANSITION 1'-0" MIN. TYP.**

**EXISTING STEEL PIPE**

**STAINLESS STEEL EXPANSION RING AND 1/4" RUBBER STRIP EXPANDED TO ACHIEVE 100 PSI INTERFACE PRESSURE**

**THICKENED EPOXY TOP COAT**

**CARBON FIBER SYSTEM (CFS) EPOXY LINER**

**DETAIL OF CFS SYSTEM OVER CIRCUMFERENTIAL RIVETED JOINTS** (F)

SCALE: NTS

**CONTRACT NO. : 6543**

**FILE NO. : 6543\_C-508-C-509**

**ACCESSION NO. : -----**

**SECTION NO. : W10**

**DATE: AUGUST 2025**

**DESIGNED BY: RJS**

**DRAWN BY: TJC**

**CHECKED BY: CON**

**APPROVED BY: RJS**

**SCALE: AS NOTED**

**Ryan J Stackpole, C.E., P.E.  
REGISTERED PROFESSIONAL ENGINEER  
8/25/2025**

**MASSACHUSETTS WATER RESOURCES AUTHORITY**

**PREPARED BY:**

**Stantec**

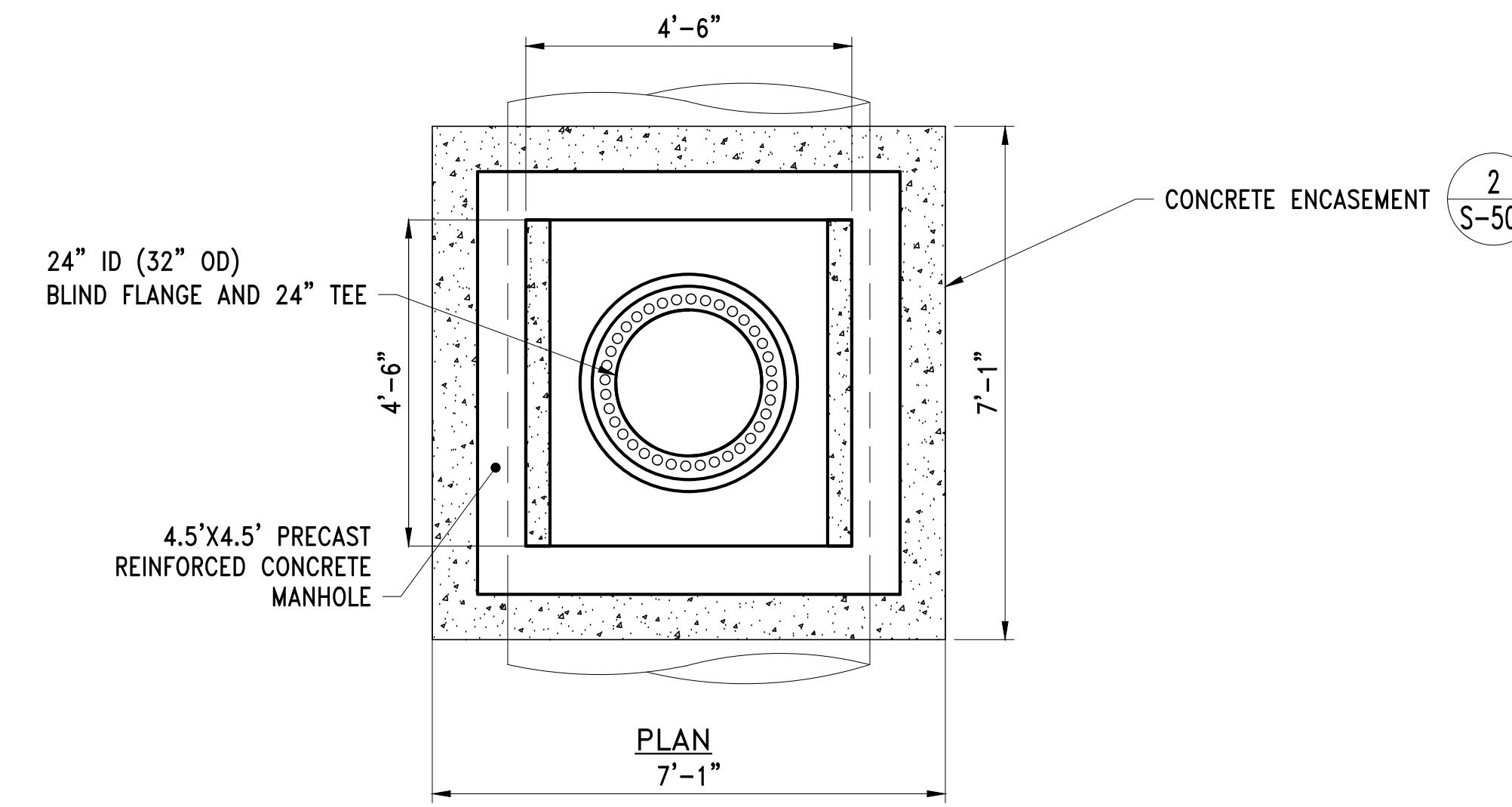
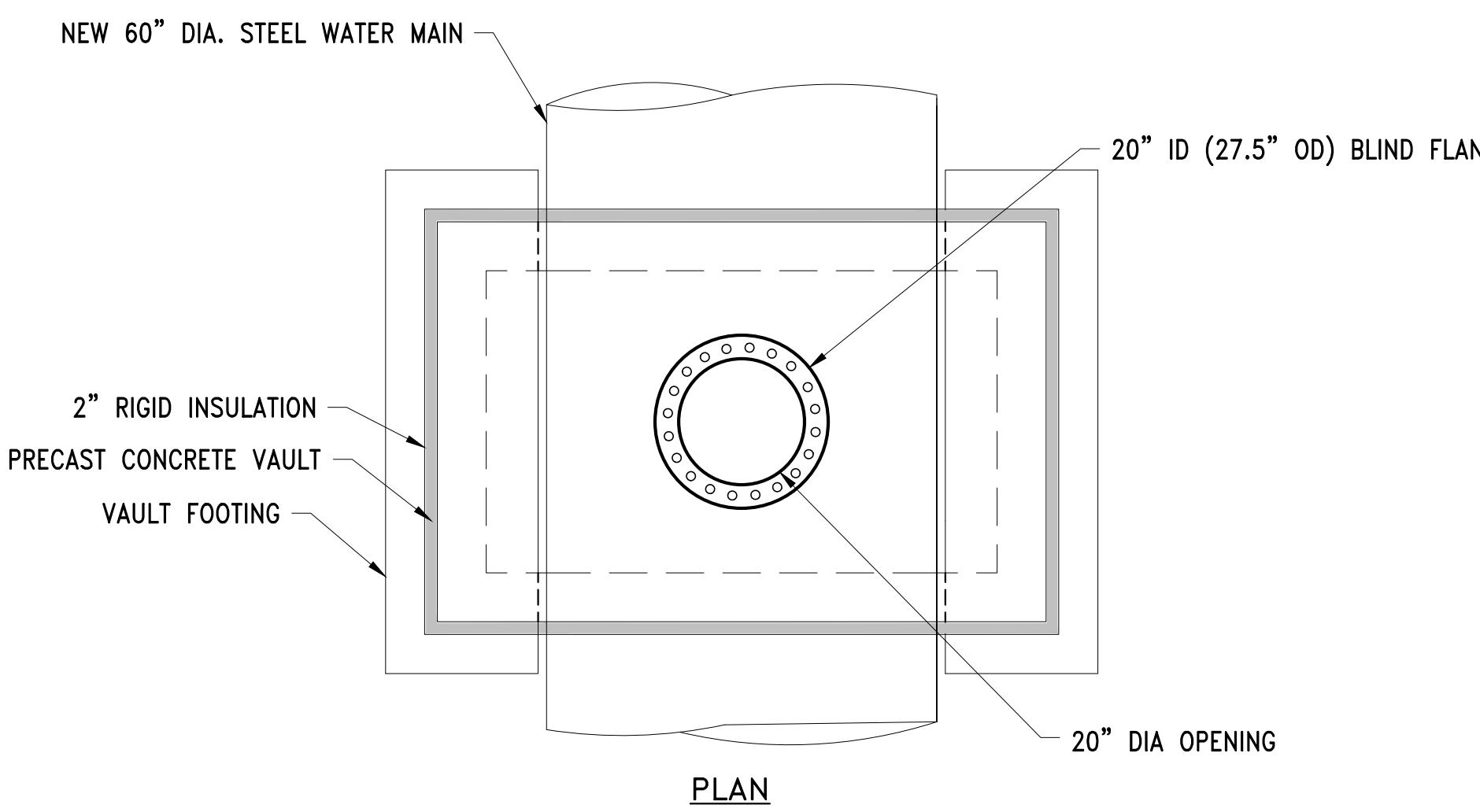
**45 BLUE SKY DRIVE, 3RD FLOOR  
BURLINGTON, MA 01803  
www.stantec.com**

**WESTON AQUEDUCT SUPPLY MAIN 3  
REHABILITATION OF WATER MAINS  
SECTION W10**

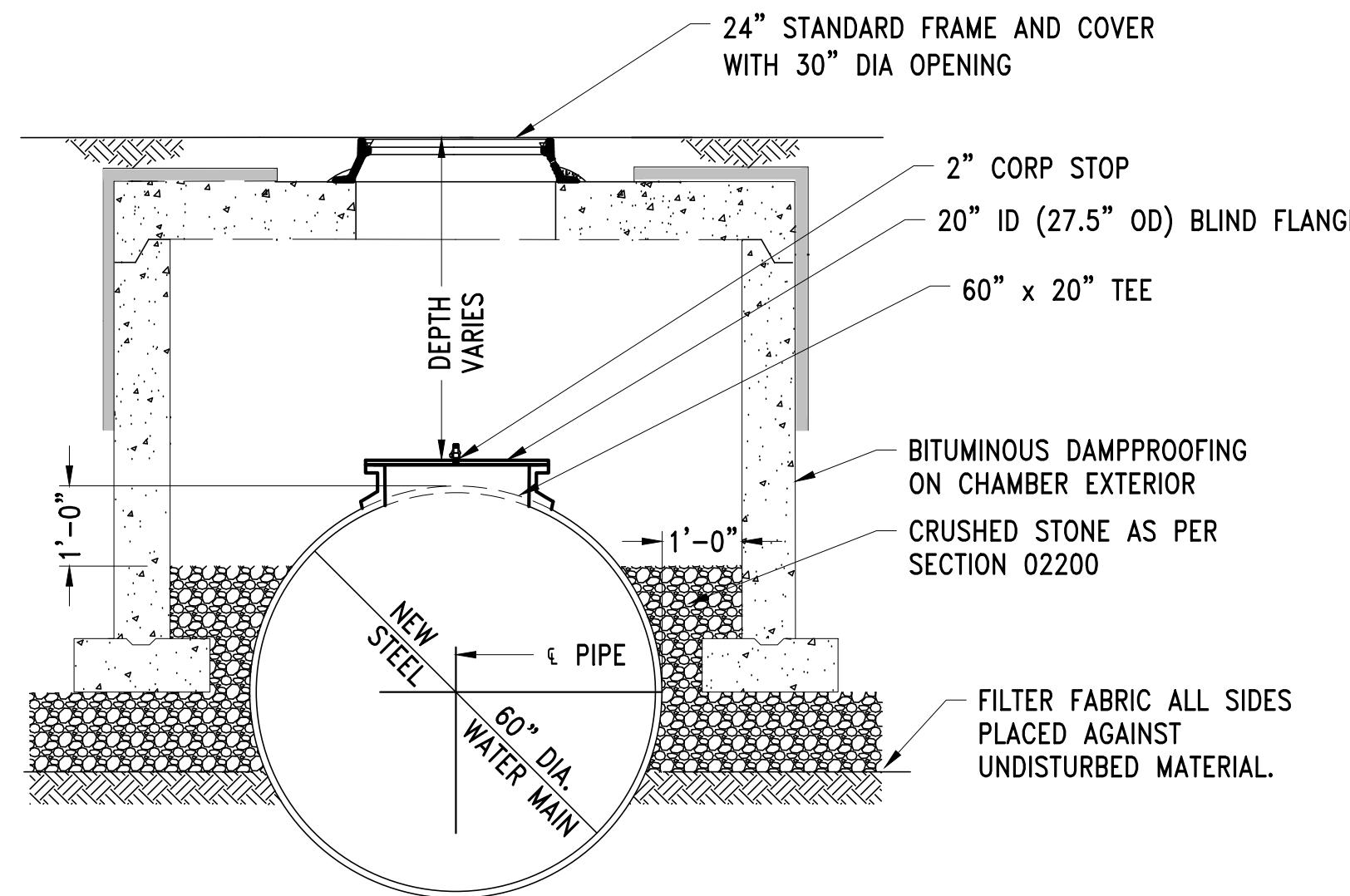
**STRUCTURAL LINING DETAILS**

**DRAWING NO. C-509**

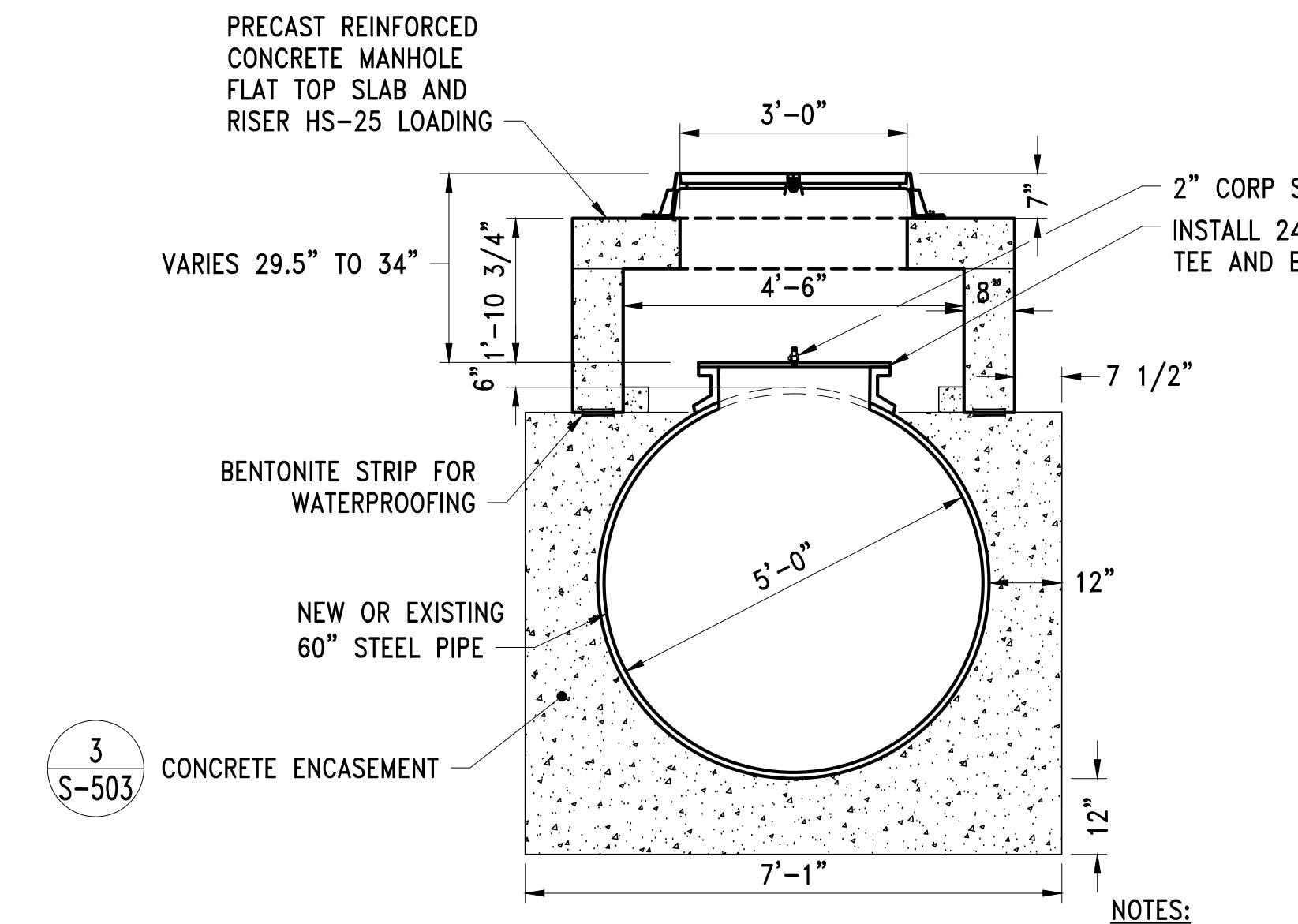
**33 OF 83**



PL



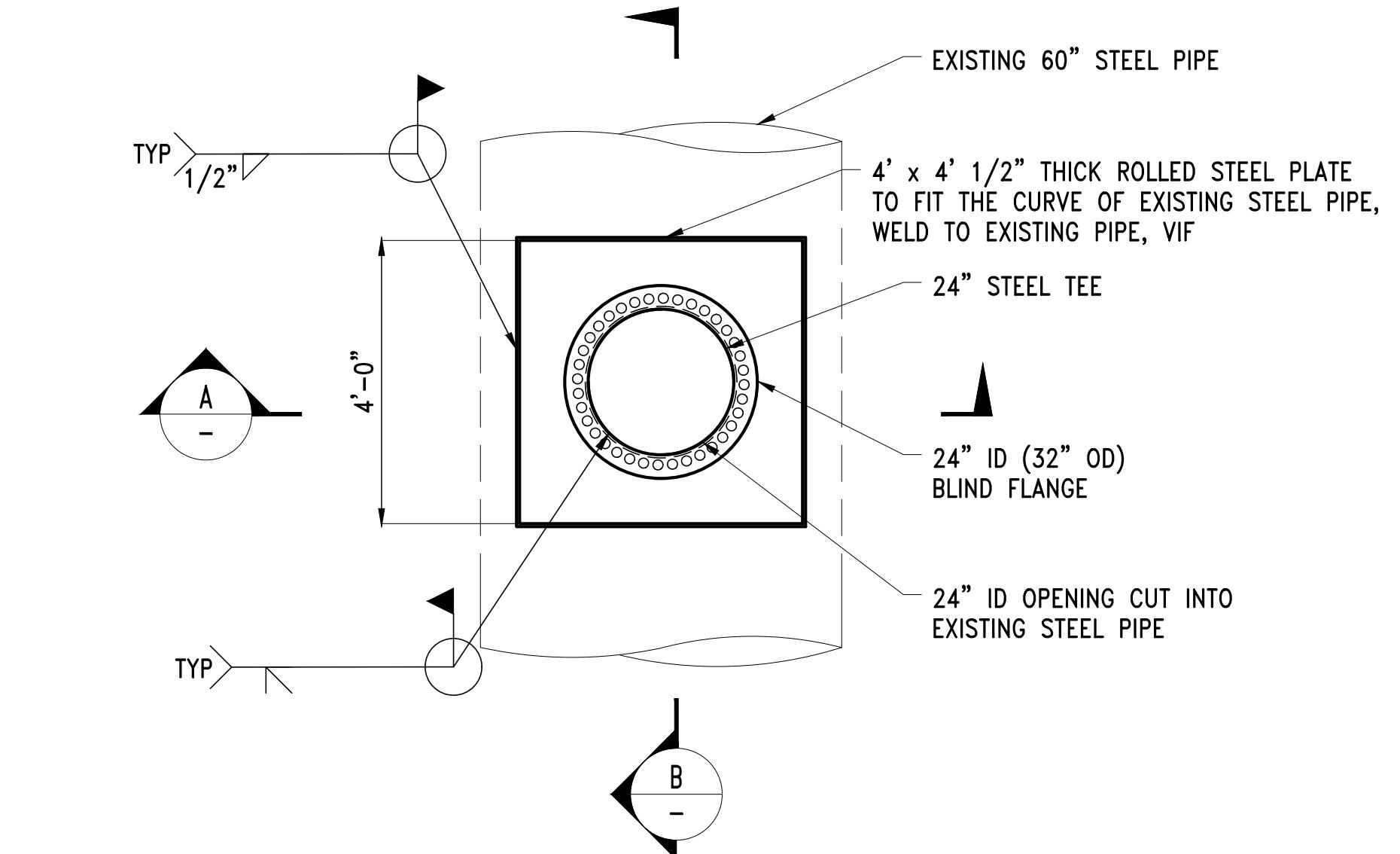
## SECTION A



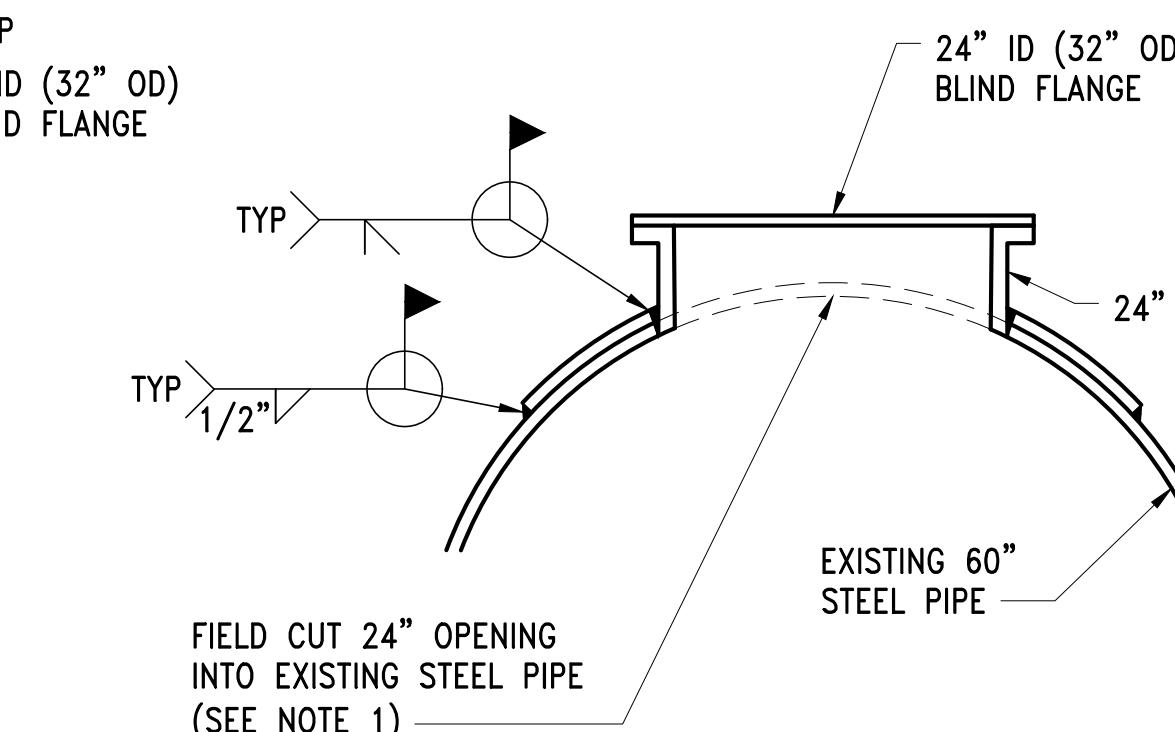
## SECTION A

NOTES:

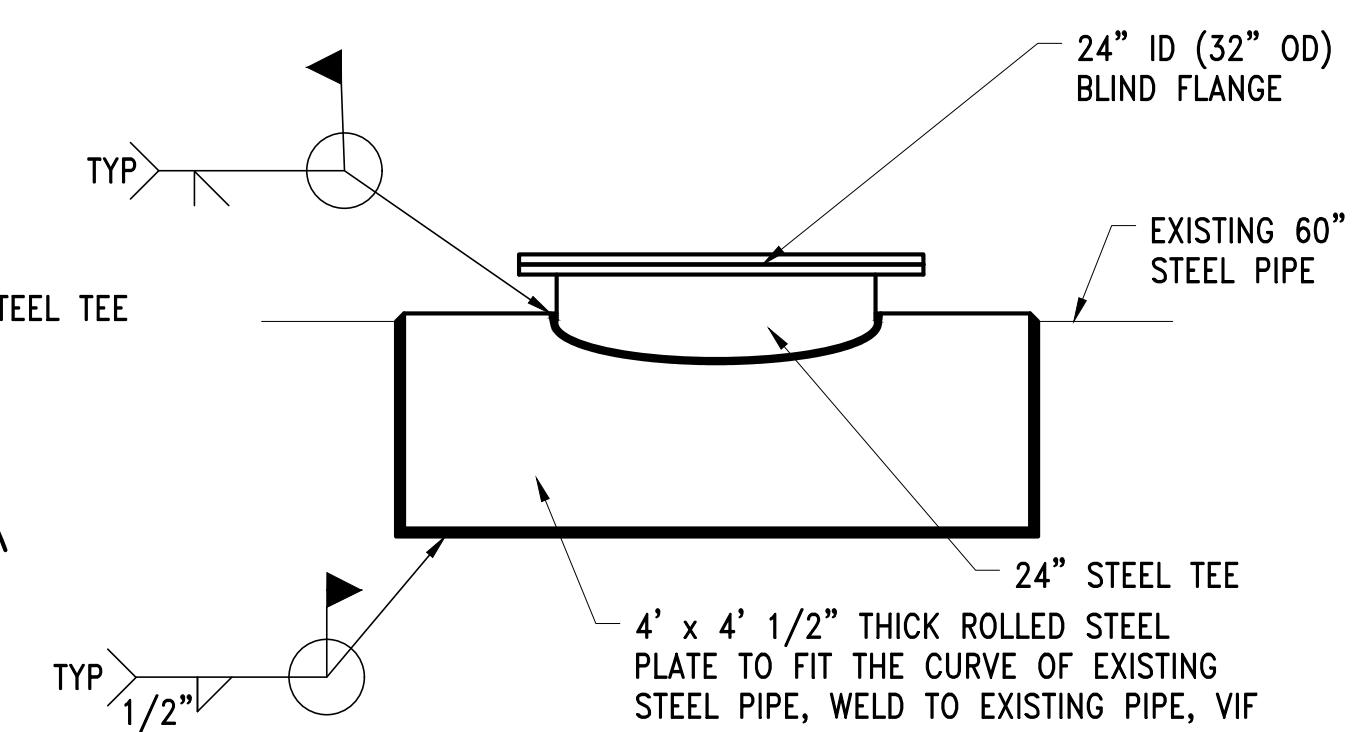
1. FOR EXISTING STEEL PIPE TEE  
SHALL BE FIELD WELDED AND CUT  
FOR ACCESS. SEE DETAIL C



PLAN



SECTION



## **SECTION B**

1. FOR ACCESS MANHOLES ON EXISTING STEEL PIPE TO BE STRUCTURALLY LINED, THE LINER SHALL EXTEND INTO THE 24" WELDED STEEL TEE AND TERMINATE WITH SS EXPANSION RING AND ELASTOMERIC RUBBER STRIPS

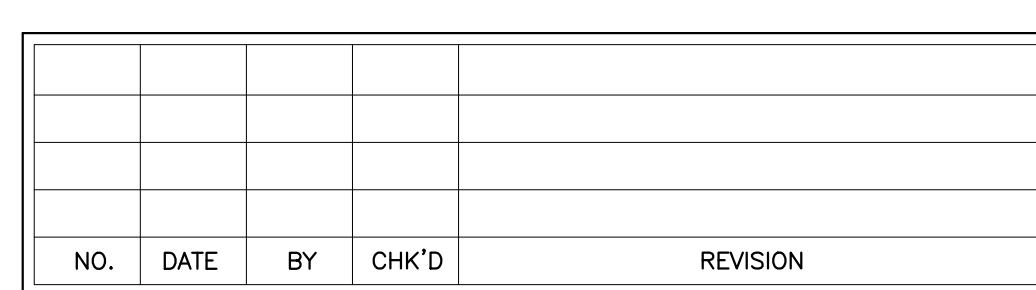
## WELDED ACCESS TEE

DETAIL A - LOCATION TABLE			
ACCESS VAULT			
PIPE LINE	PLAN SHEET	STATION	DEPTH-FT
WASM 3	C-104	20+98	3.4

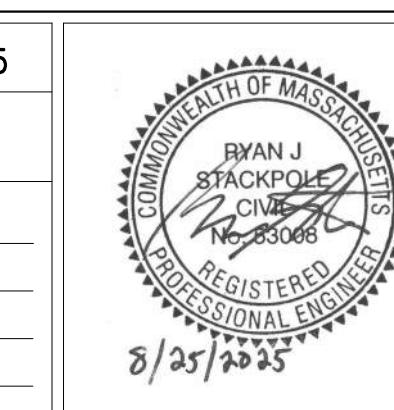
**DETAIL B – LOCATION TABLE**  
**ACCESS MANHOLE WITH CONCRETE ENCASEMENT**

DETAIL A - LOCATION TABLE			
ACCESS VAULT			
PIPE LINE	PLAN SHEET	STATION	DEPTH-FT
WASM 3	C-104	20+98	3.4

**DETAIL B – LOCATION TABLE**  
**ACCESS MANHOLE WITH CONCRETE ENCASEMENT**



CONTRACT NO. :	6543	FILE NO. :	6543_C-510-C-
ACCESSION NO. :	-----	SECTION NO. :	W10
DATE:	AUGUST 2025	DESIGNED BY:	RJS
SCALE:	AS NOTED	DRAWN BY:	TJC
		CHECKED BY:	CON
		APPROVED BY:	RJS



卷之三

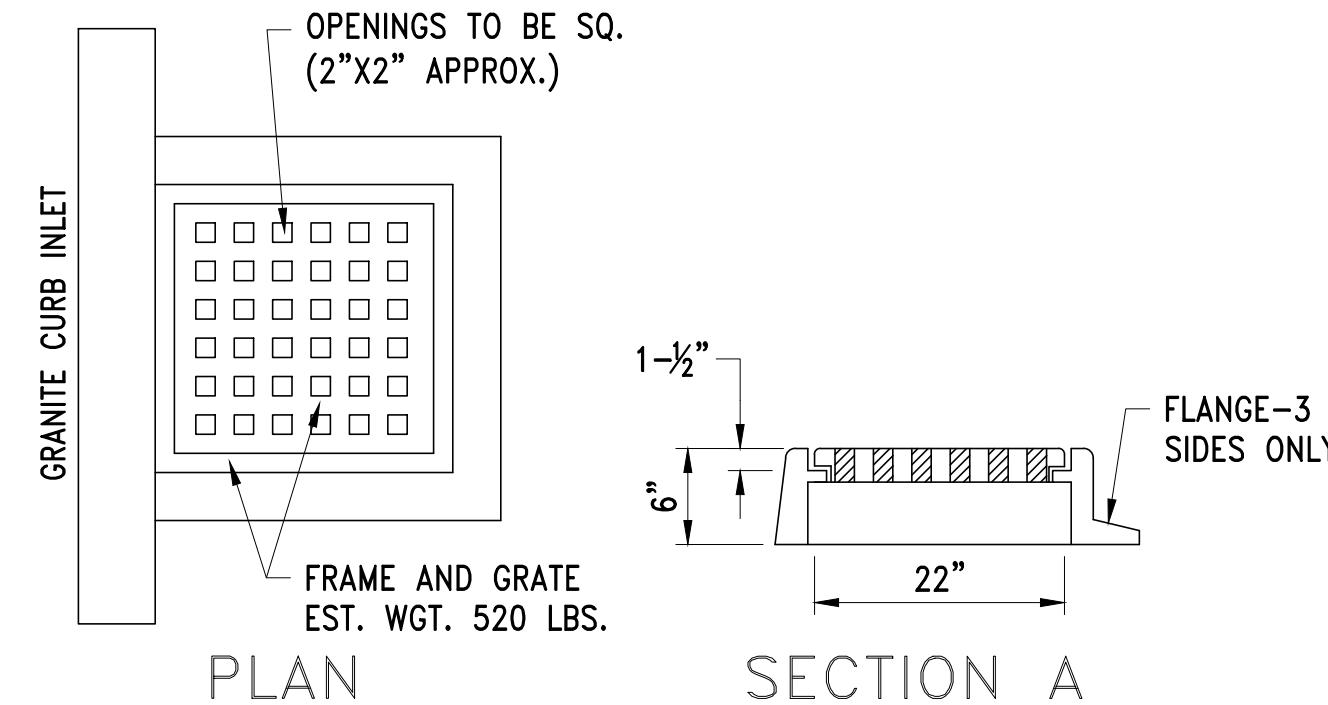


# MASSACHUSETTS WATER RESOURCES AUTHORITY

**WESTON AQUEDUCT SUPPLY MAIN 3  
REHABILITATION OF WATER MAINS  
SECTION W10**

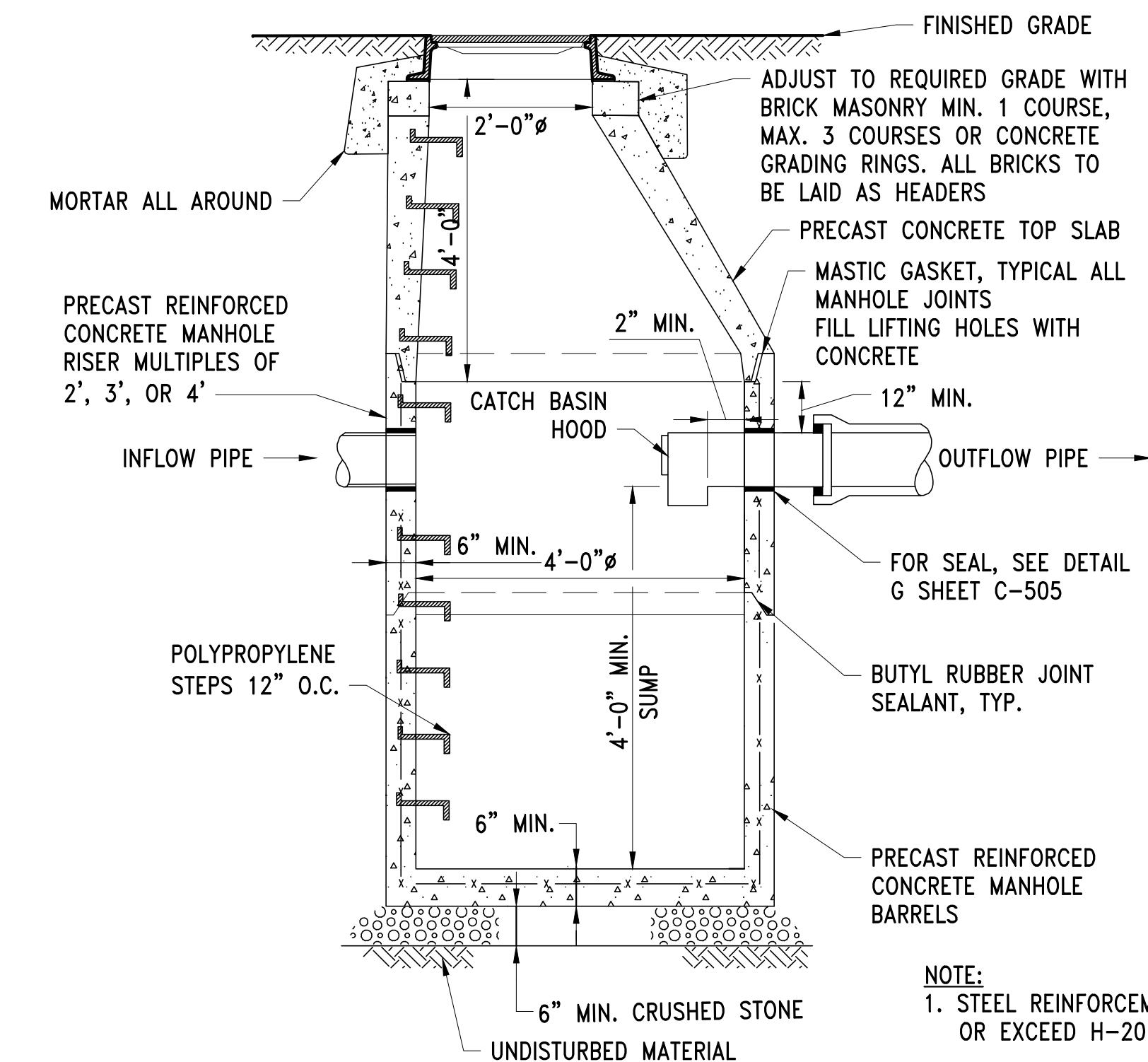
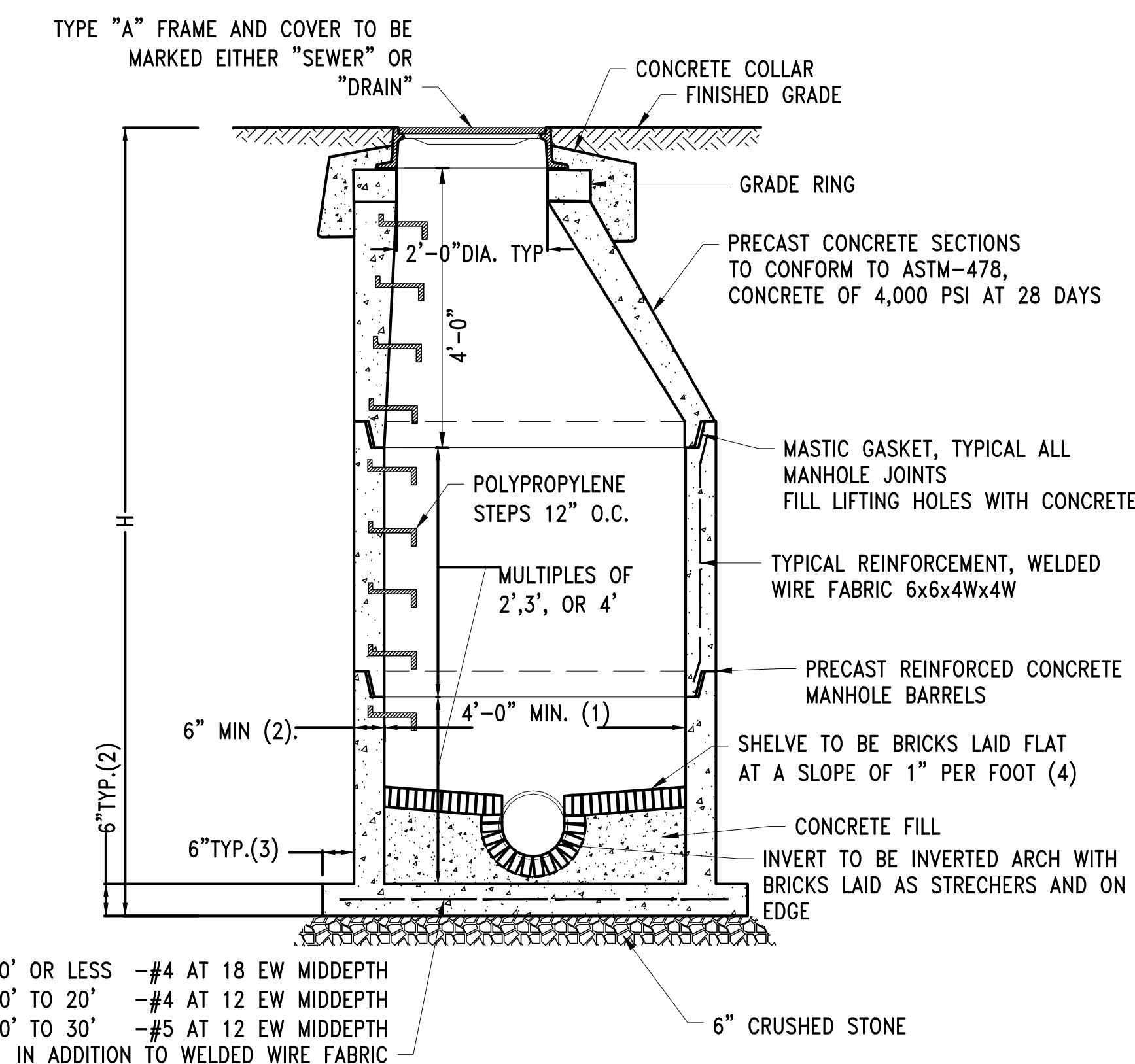
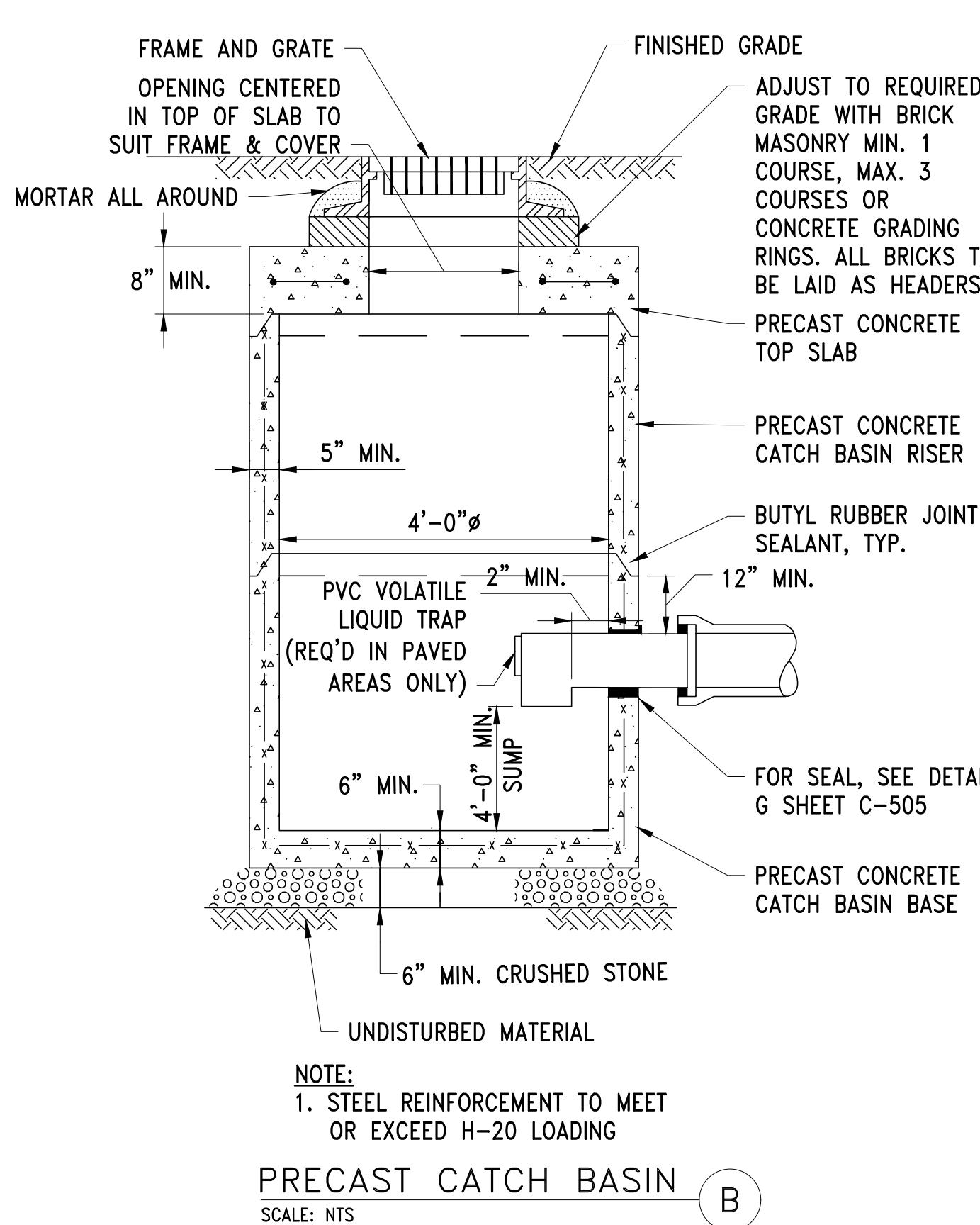
# ACCESS VAULT & MANHOLE DETAILS

DRAWING NO.  
C-510  
34 OF 83



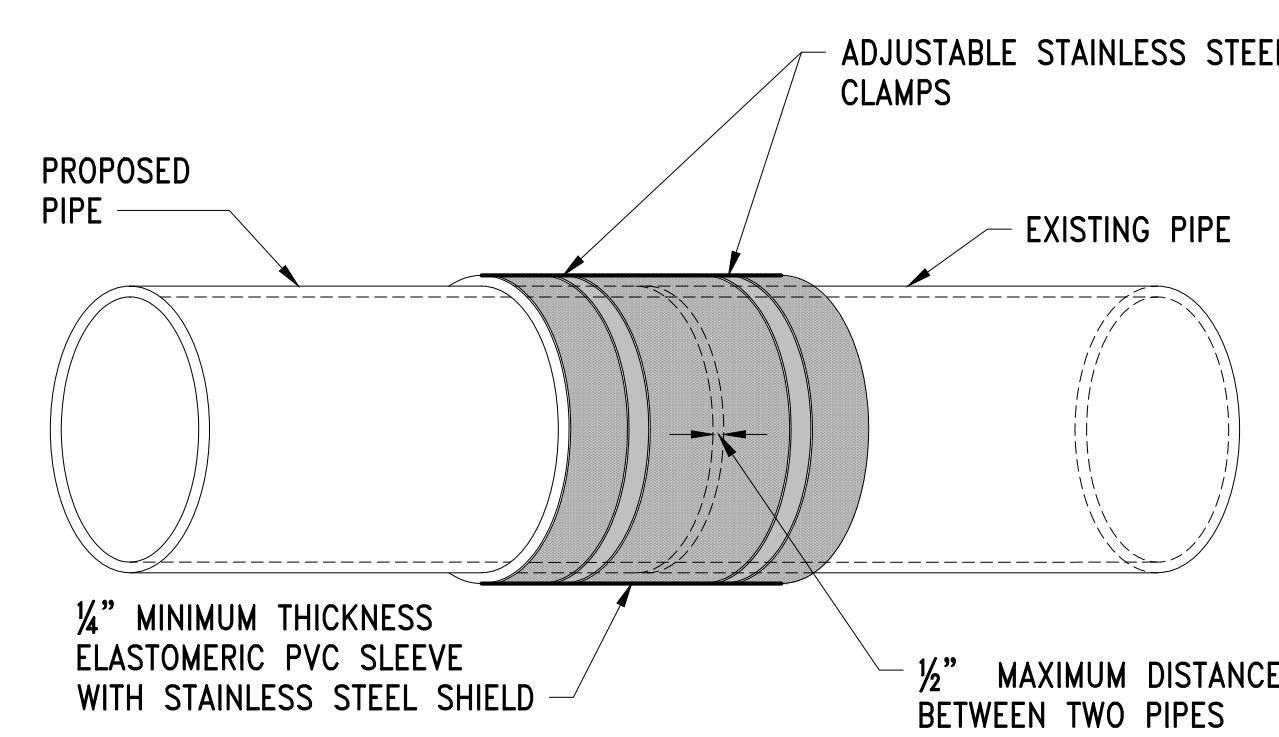
CATCH BASIN FRAME AND GRATE (LOCAL)

SCALE: NTS



TYPICAL DRAIN SUMP MANHOLE

SCALE: NTS



SHALLOW GUTTER INLET DETAIL AT CURB

SCALE: NTS

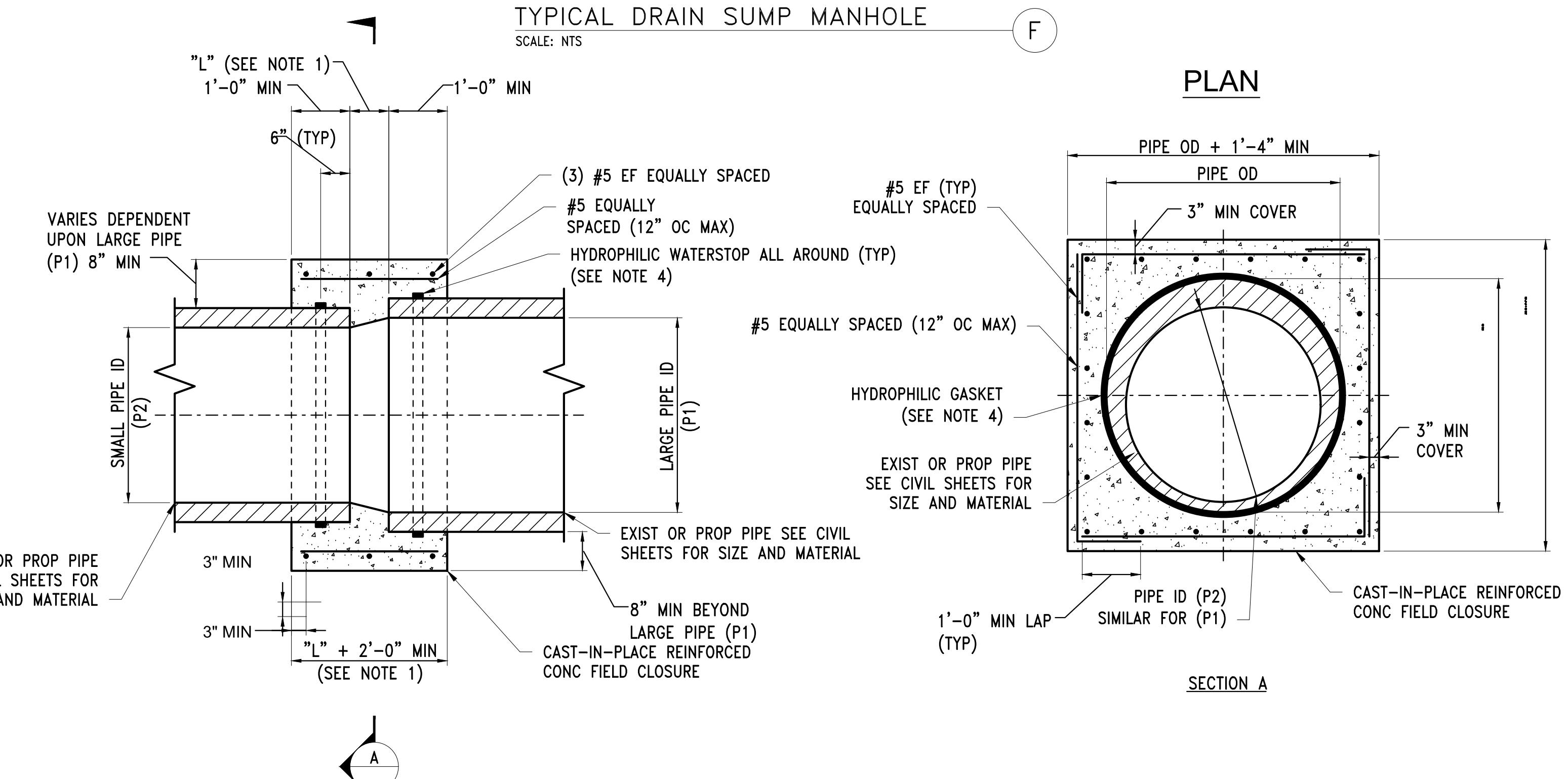
CONTRACT NO. :	6543	FILE NO.:	6543_C-510-C-515
ACCESSION NO. :	-----	SECTION NO. :	W10
DATE:	AUGUST 2025	DESIGNED BY:	RJS
SCALE:	AS NOTED	DRAWN BY:	TJC
		CHECKED BY:	CON
		APPROVED BY:	RJS



PREPARED BY :

**Stantec**

MASSACHUSETTS WATER RESOURCES AUTHORITY  
45 BLUE SKY DRIVE, 3RD FLOOR  
BURLINGTON, MA 01803  
www.stantec.com



CONCRETE CLOSURE COUPLING

SCALE: NTS

TYPICAL SEWER AND DRAIN COUPLING DETAIL

SCALE: NTS

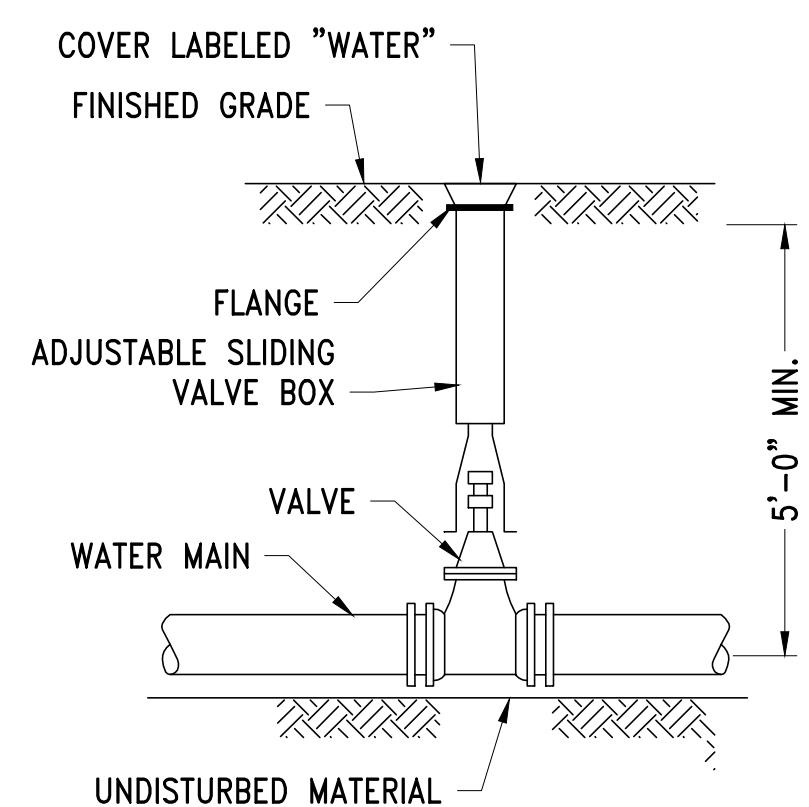
NO.	DATE	BY	CHK'D	REVISION

WESTON AQUEDUCT SUPPLY MAIN 3  
REHABILITATION OF WATER MAINS  
SECTION W10

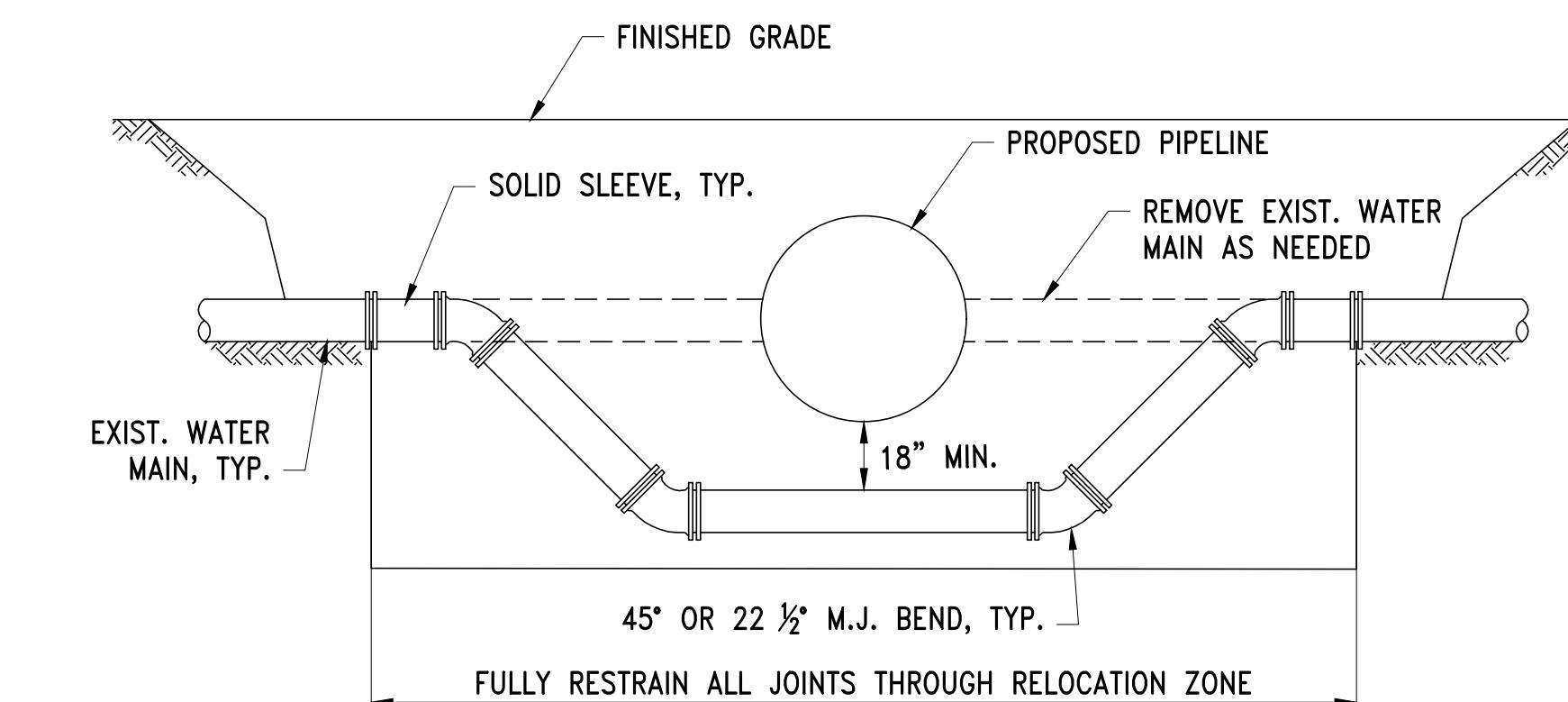
LOCAL UTILITY DETAILS

DRAWING NO.  
C-511

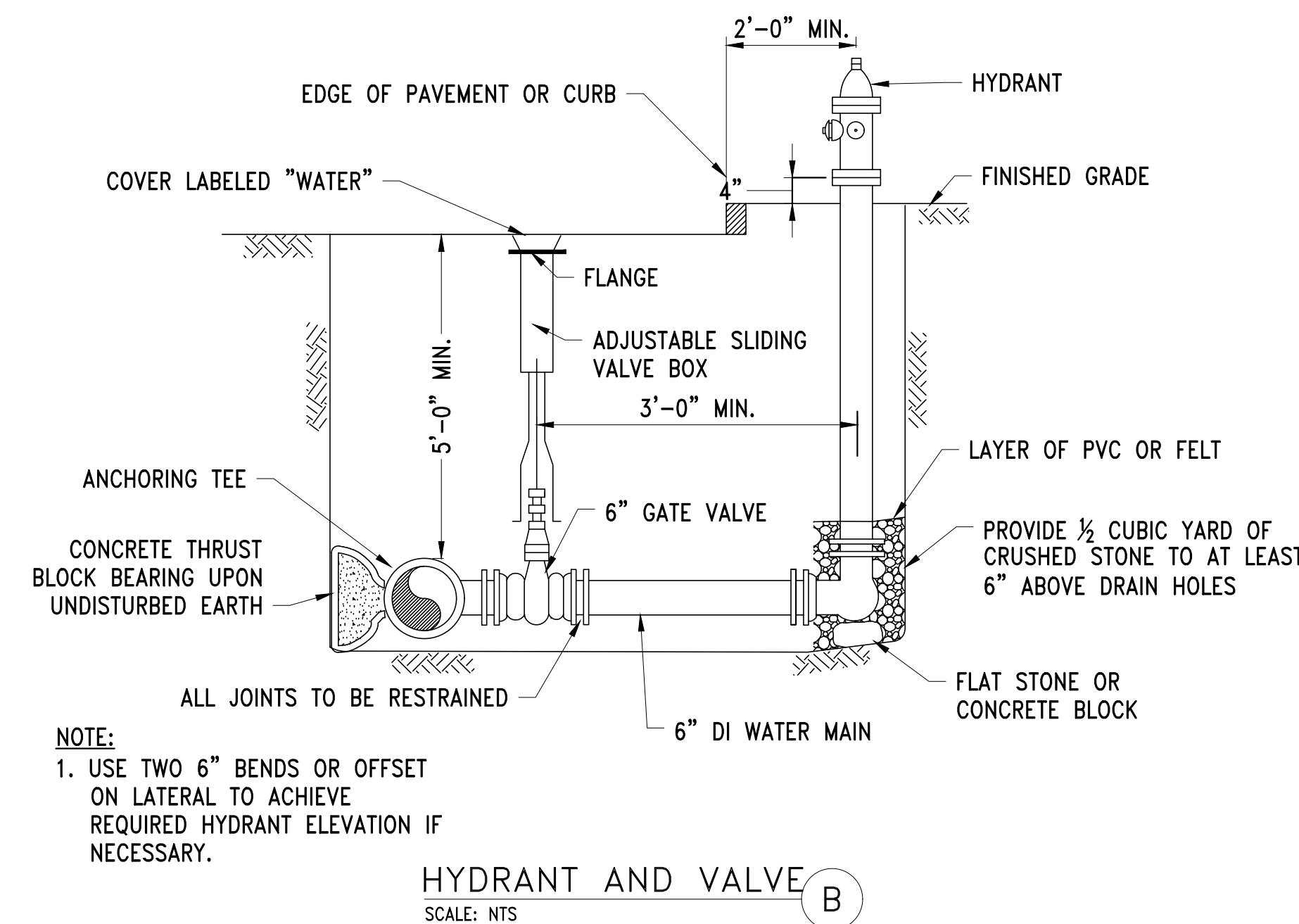
35 OF 83



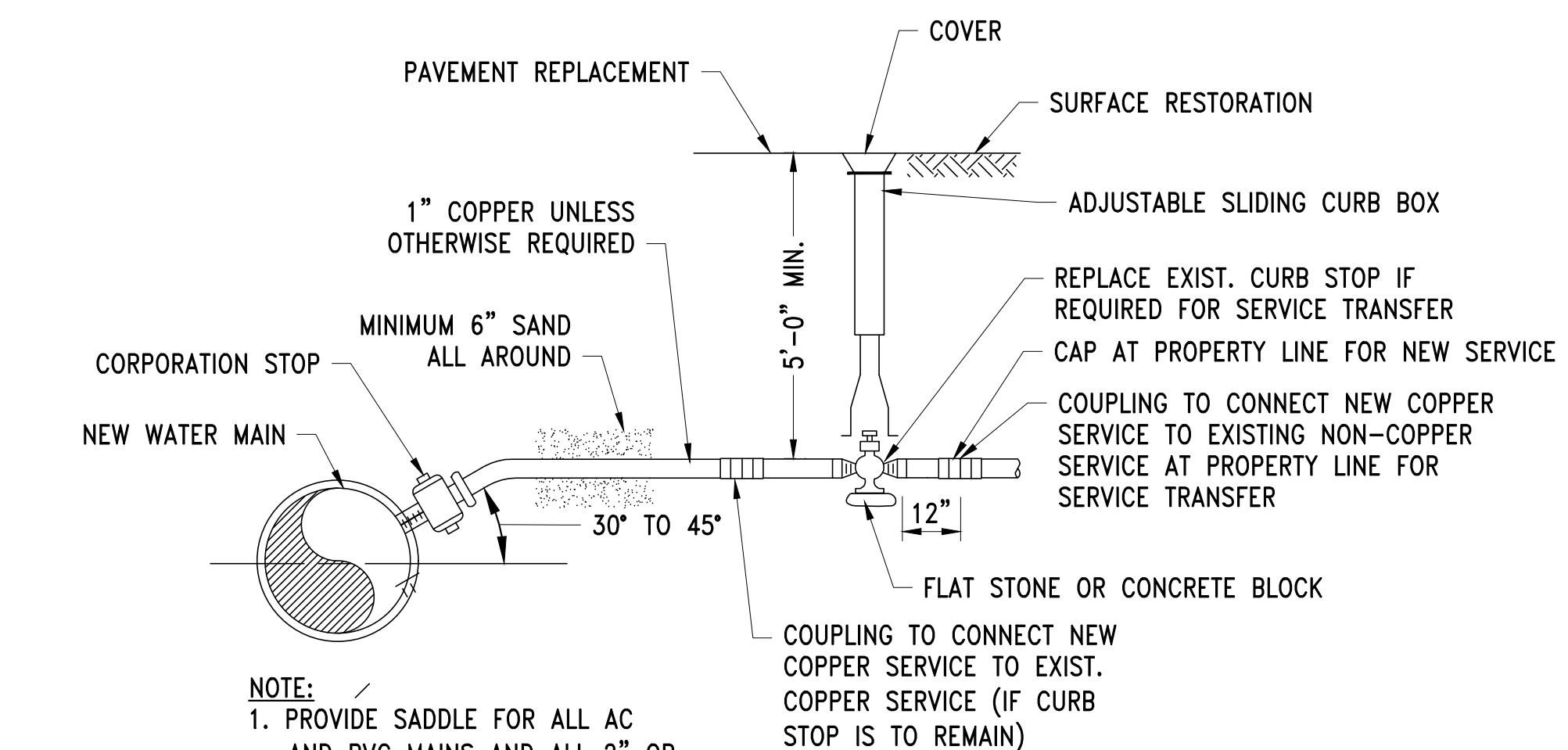
VALVE AND BOX  
SCALE: NTS



EXISTING WATER MAIN RELOCATION  
SCALE: NTS



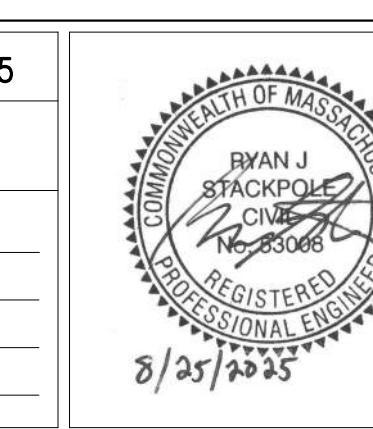
HYDRANT AND VALVE  
SCALE: NTS



WATER SERVICE  
SCALE: NTS

NO.	DATE	BY	CHK'D	REVISION

CONTRACT NO. :	6543	FILE NO.:	6543_C-510-C-515
ACCESSION NO. :	-----	SECTION NO. :	W10
DATE:	AUGUST 2025	DESIGNED BY:	RJS
SCALE:	AS NOTED	DRAWN BY:	TJC
		CHECKED BY:	CON
		APPROVED BY:	RJS



RYAN J.  
STACKPOLE  
CIV. ENGR.  
REGISTERED  
PROFESSIONAL ENGINEER  
8/25/2025

MASSACHUSETTS WATER RESOURCES AUTHORITY

PREPARED BY:

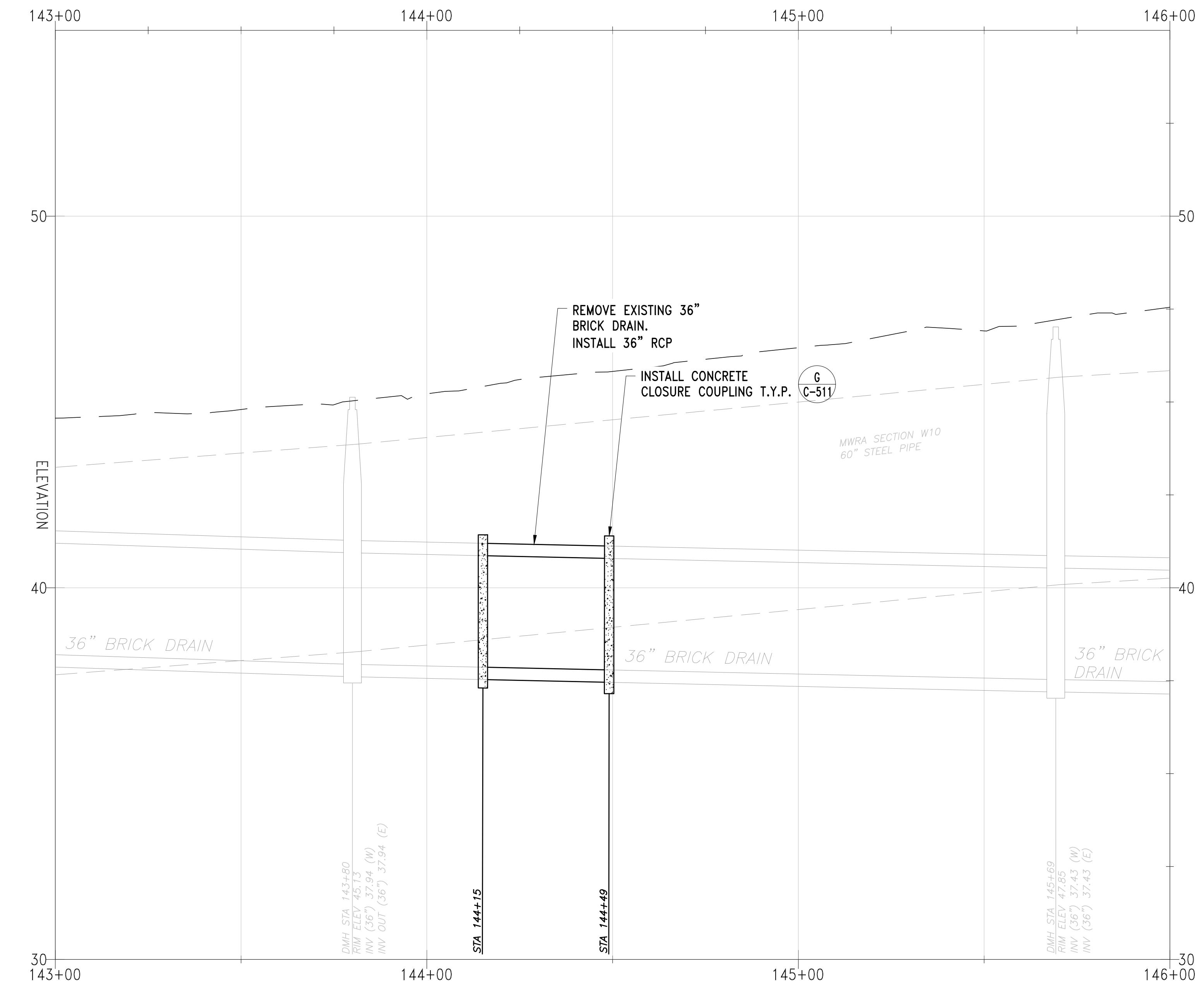


45 BLUE SKY DRIVE, 3RD FLOOR  
BURLINGTON, MA 01803  
www.stantec.com

WESTON AQUEDUCT SUPPLY MAIN 3  
REHABILITATION OF WATER MAINS  
SECTION W10

WATER DETAILS

DRAWING NO.  
C-512



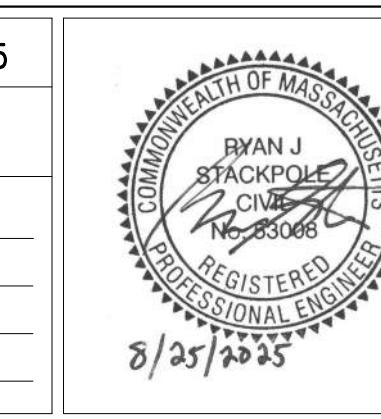
FELTON STREET BRICK DRAIN STA 144+32

SCALE: H: 1"=20' V: 1"=2'

A

NO.	DATE	BY	CHK'D	REVISION

CONTRACT NO. : 6543	FILE NO. : 6543_C-510-C-515
ACCESSION NO. : -----	SECTION NO. : W10
DATE: AUGUST 2025	DESIGNED BY: RJS
SCALE: AS NOTED	DRAWN BY: TJC
	CHECKED BY: CON
	APPROVED BY: RJS



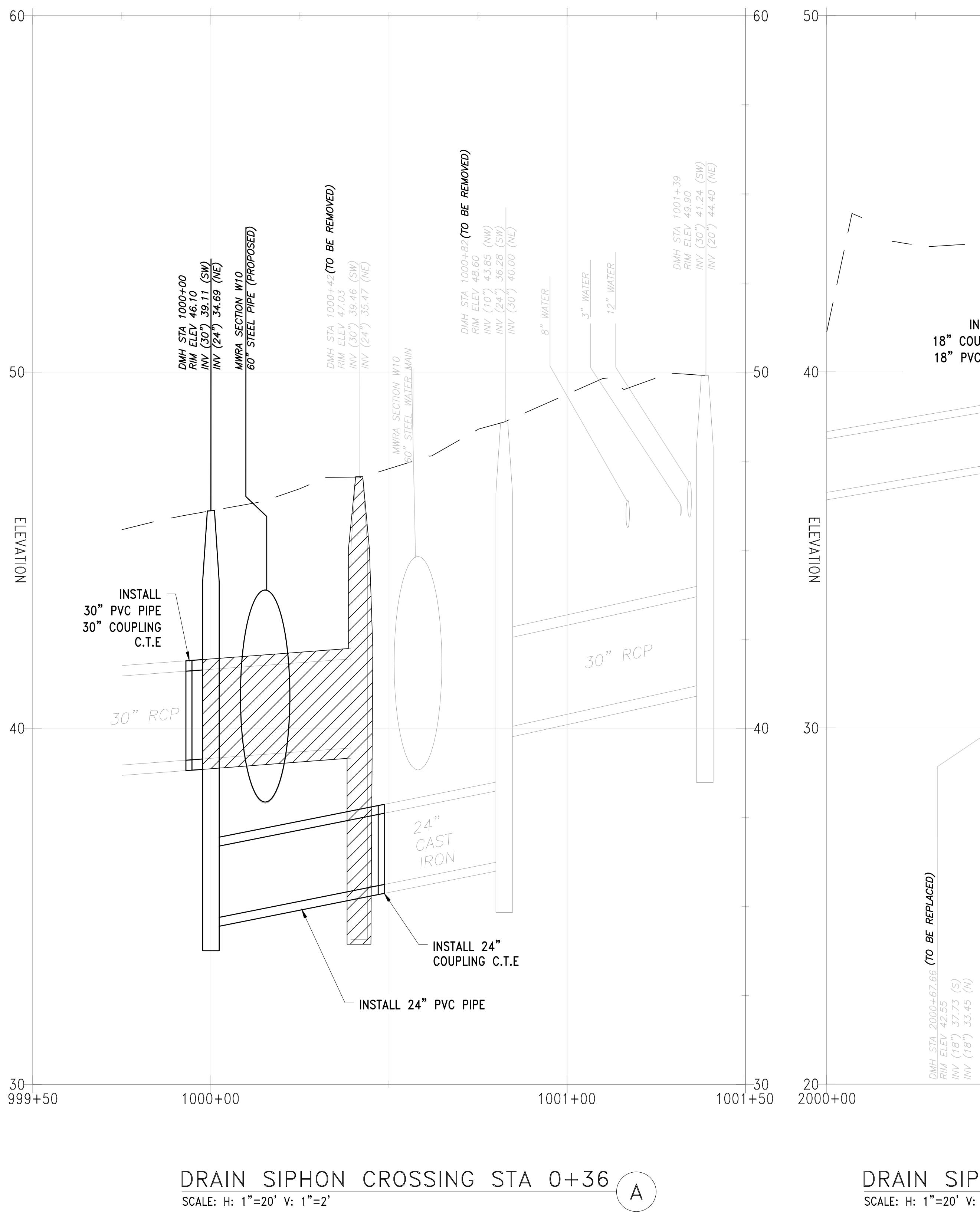
8/25/2025



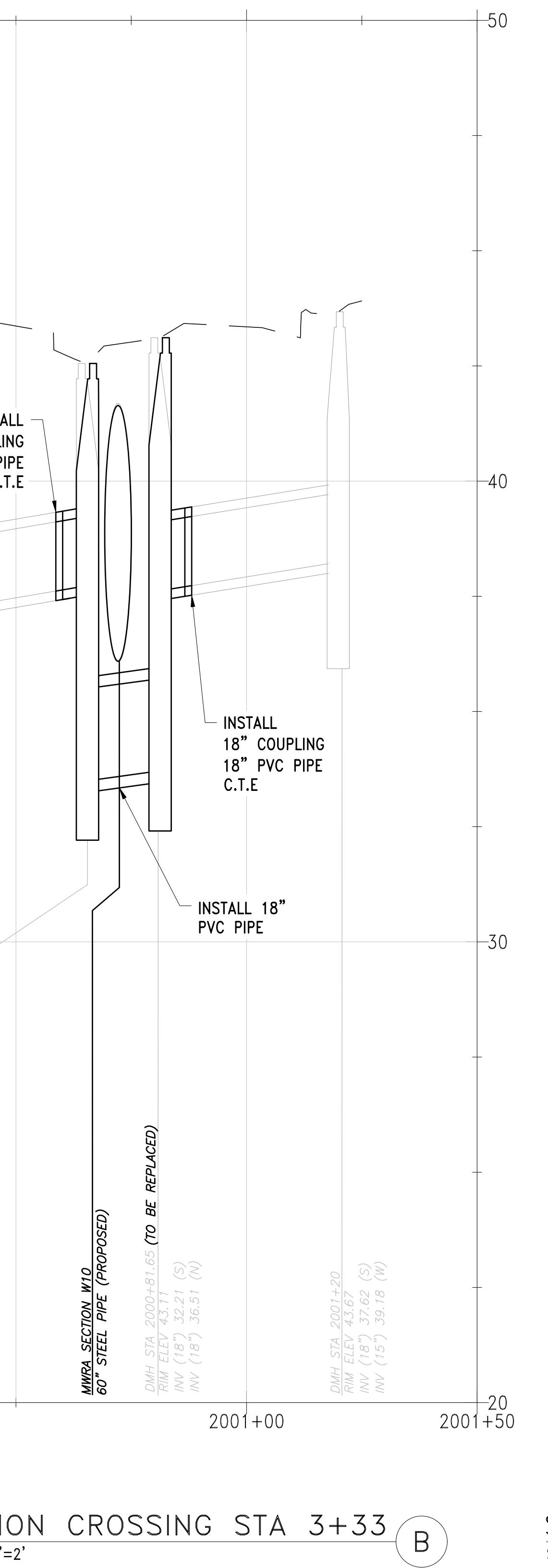
WESTON AQUEDUCT SUPPLY MAIN 3  
REHABILITATION OF WATER MAINS  
SECTION W10

DRAIN REPLACEMENT DETAIL

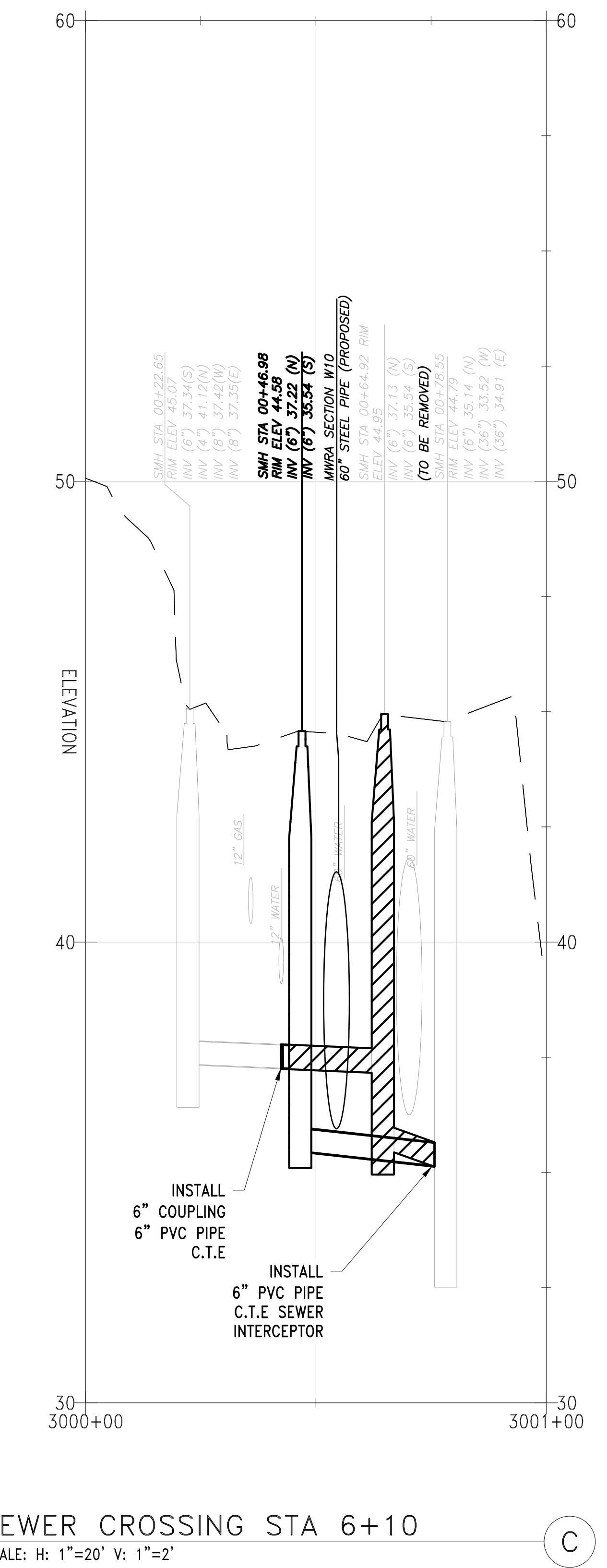
DRAWING NO.  
C-513  
37 OF 83



DRAIN SIPHON CROSSING STA 0+36  
SCALE: H: 1"=20' V: 1"=2'



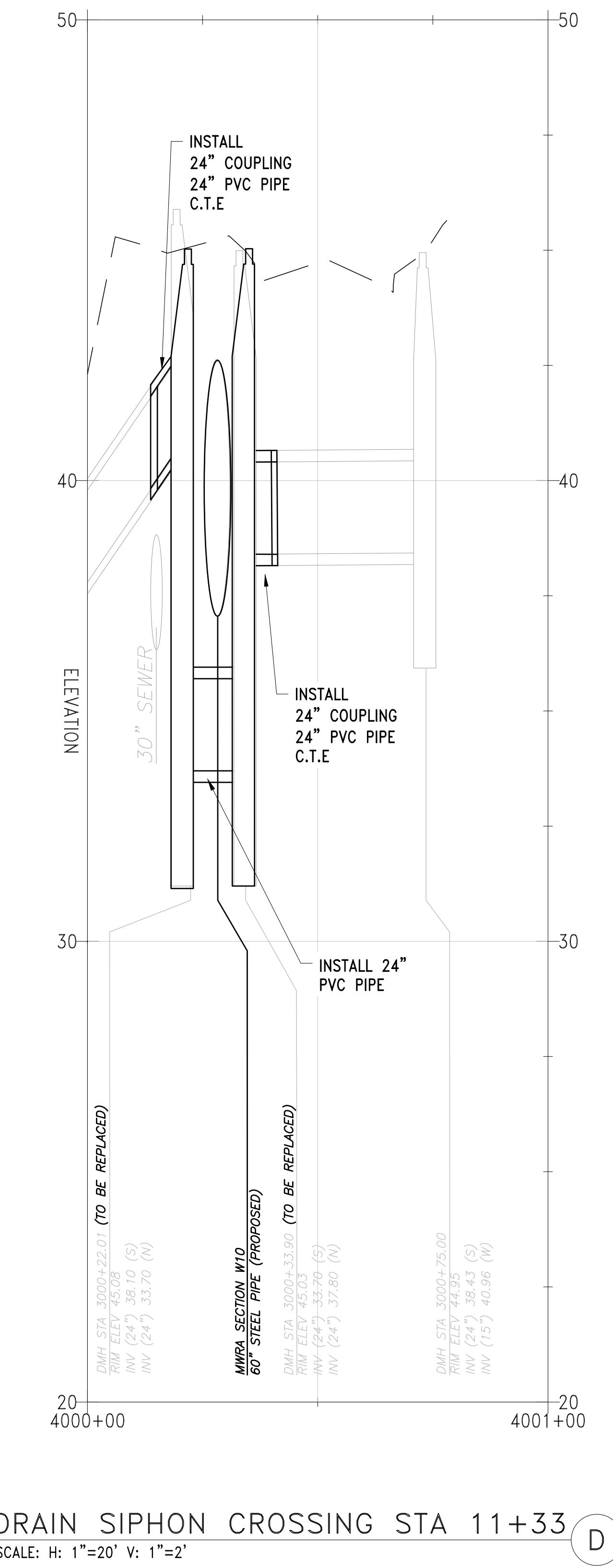
DRAIN SIPHON CROSSING STA 3+33 B  
SCALE: H: 1"=20' V: 1"=2'



**SEWER CROSSING STA 6+10**

---

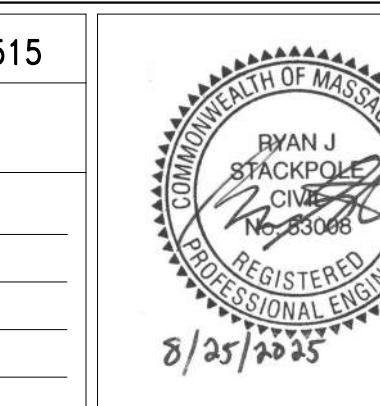
SCALE: H: 1"=20' V: 1"=2'



DRAIN SIPHON CROSSING STA 11+33 D  
SCALE: H: 1"=20' V: 1"=2'

NO.	DATE	BY	CHK'D	REVISION

CONTRACT NO. :	6543	FILE NO. :	6543_C-510-
ACCESSION NO. :	-----	SECTION NO. :	W
DATE:	AUGUST 2025	DESIGNED BY:	R
SCALE:	AS NOTED	DRAWN BY:	T
		CHECKED BY:	C
		APPROVED BY:	R



The logo for the Massachusetts Water Resources Authority (MWRA) is located at the top right of the page. It features a circular design with the words "WATER RESOURCES AUTHORITY" around the top half and "MASSACHUSETTS" around the bottom half. In the center is a stylized graphic of a dam or water flow with horizontal lines representing water levels.

UTHORITY  
IS

# MASSACHUSETTS WATER RESOURCES AUTHORITY

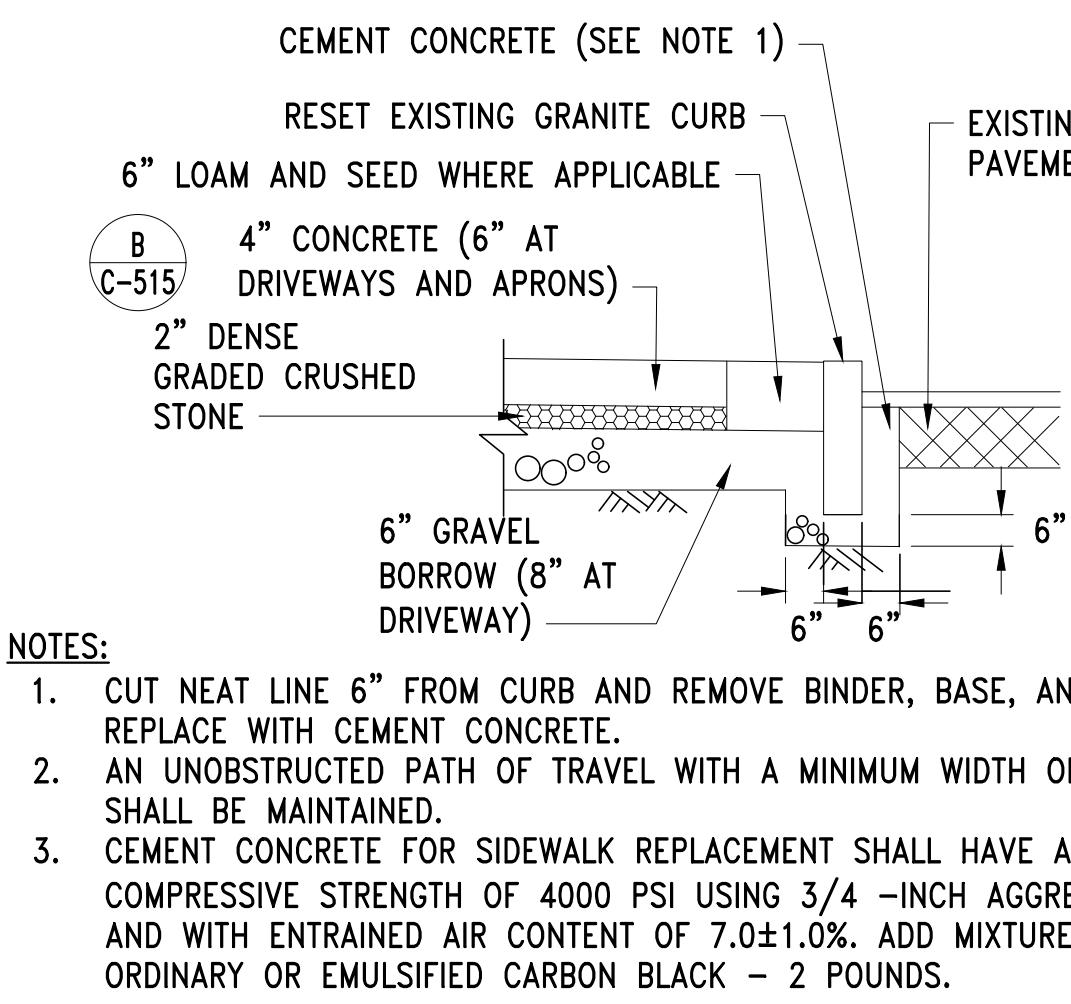
100

WESTON AQUEDUCT SUPPLY MAIN 3  
REHABILITATION OF WATER MAINS  
SECTION W10

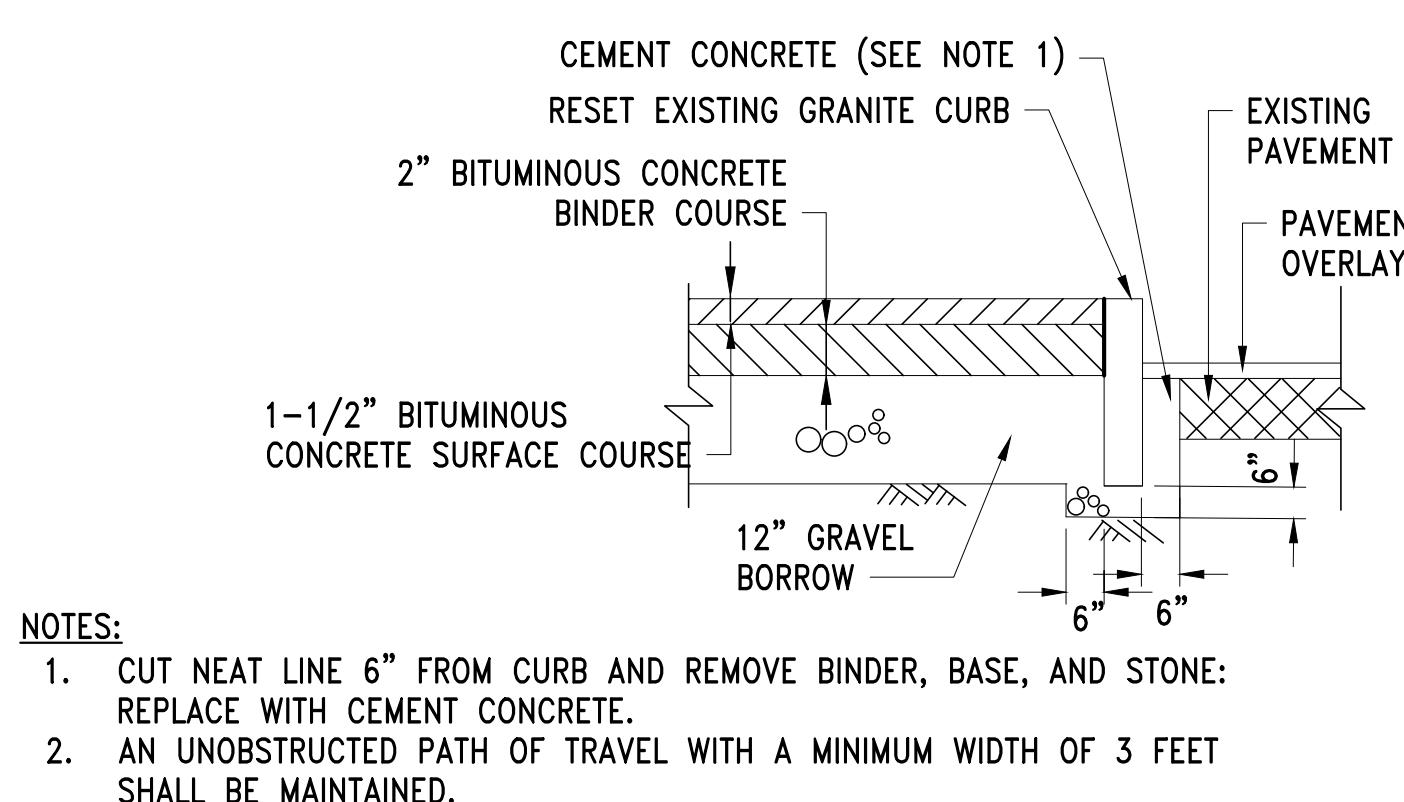
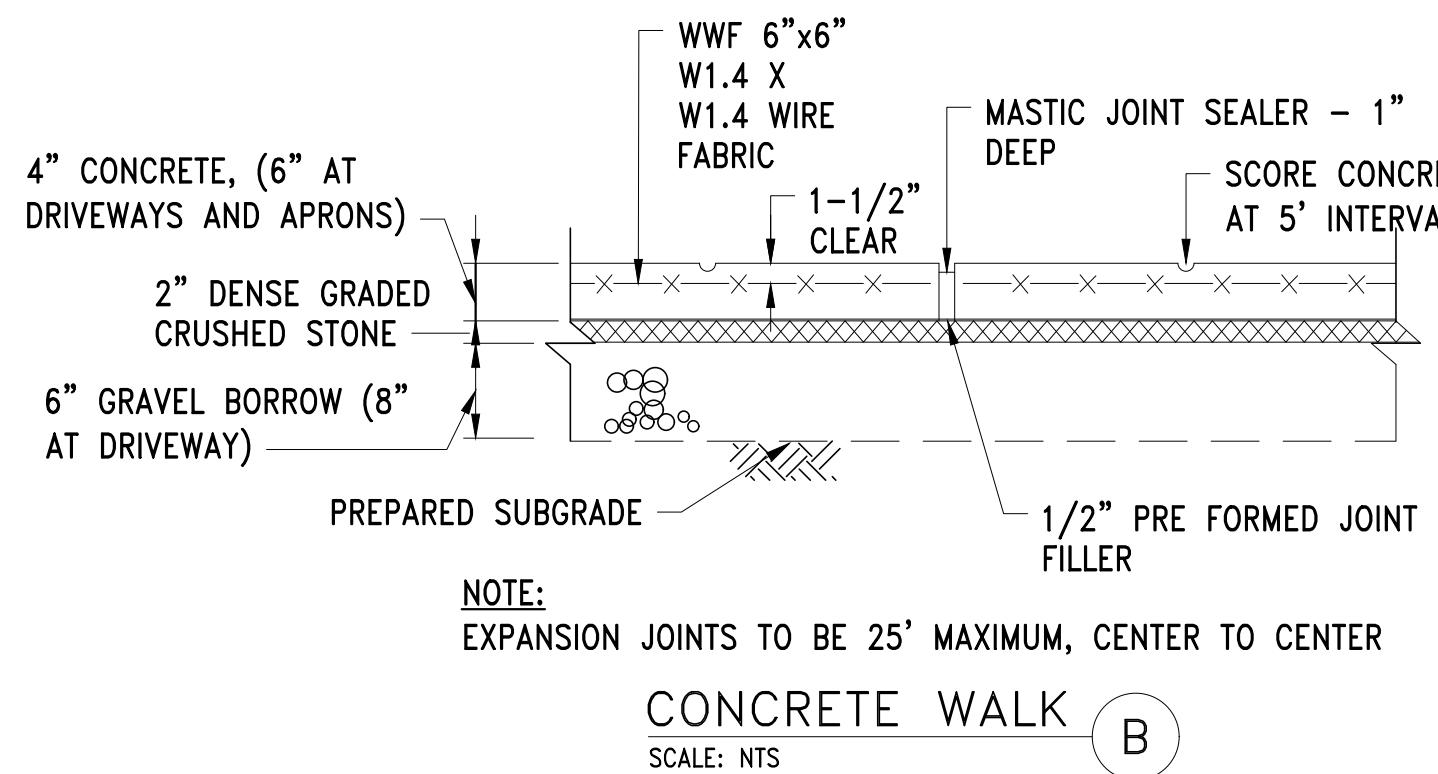
---

10 of 10

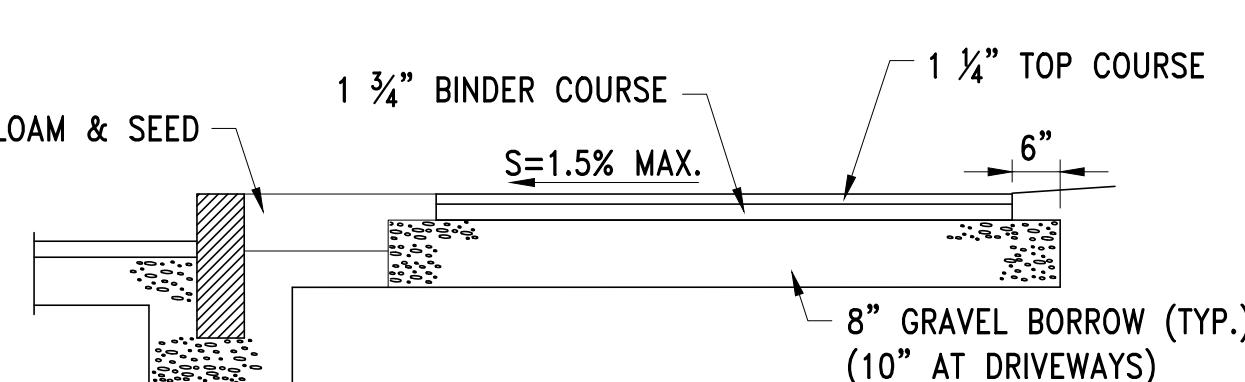
DRAWING NO.  
C-514  
38 OF 83



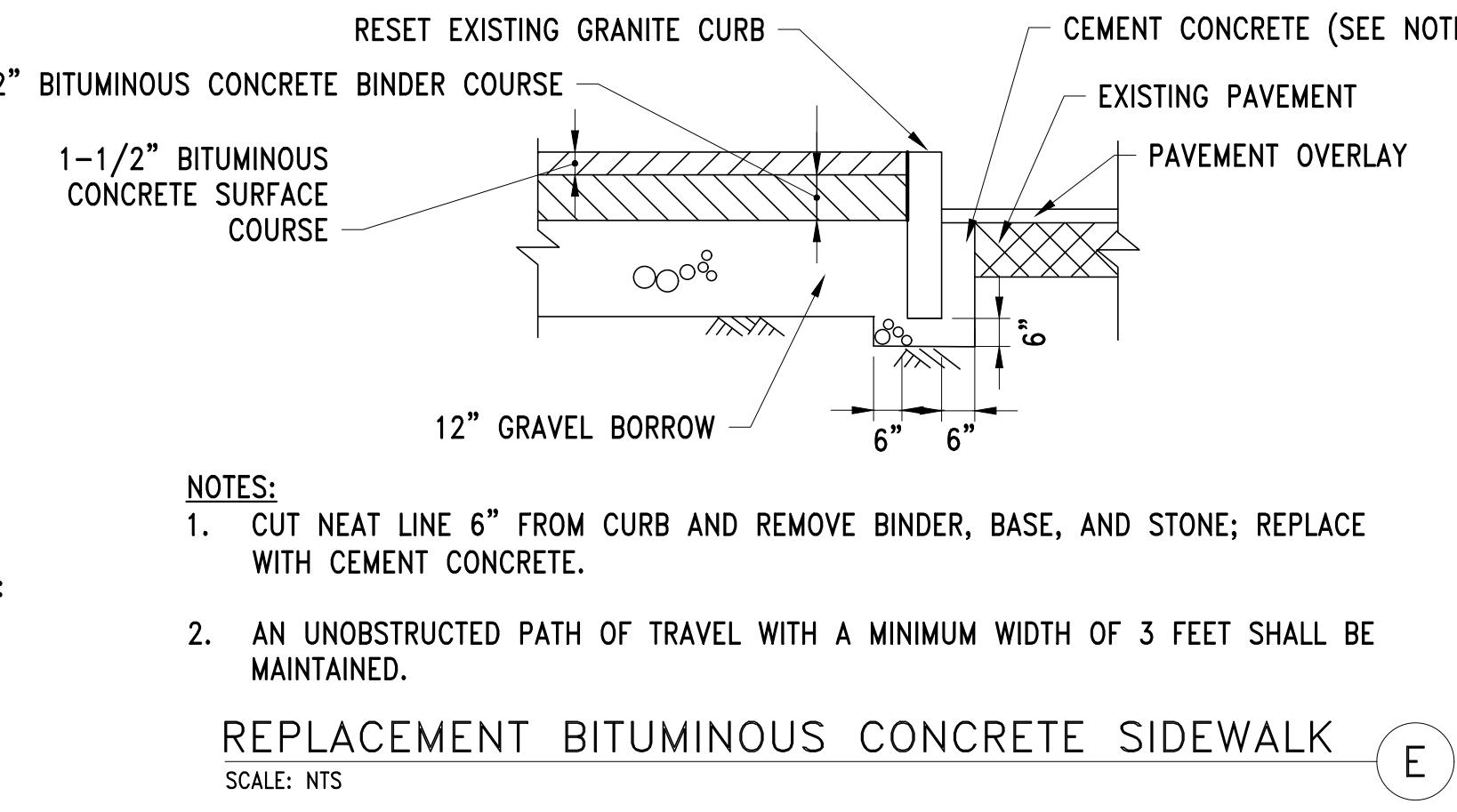
CURB AND SIDEWALK SETTING OR  
REPLACEMENT CONCRETE SIDEWALK **A**  
SCALE: NTS



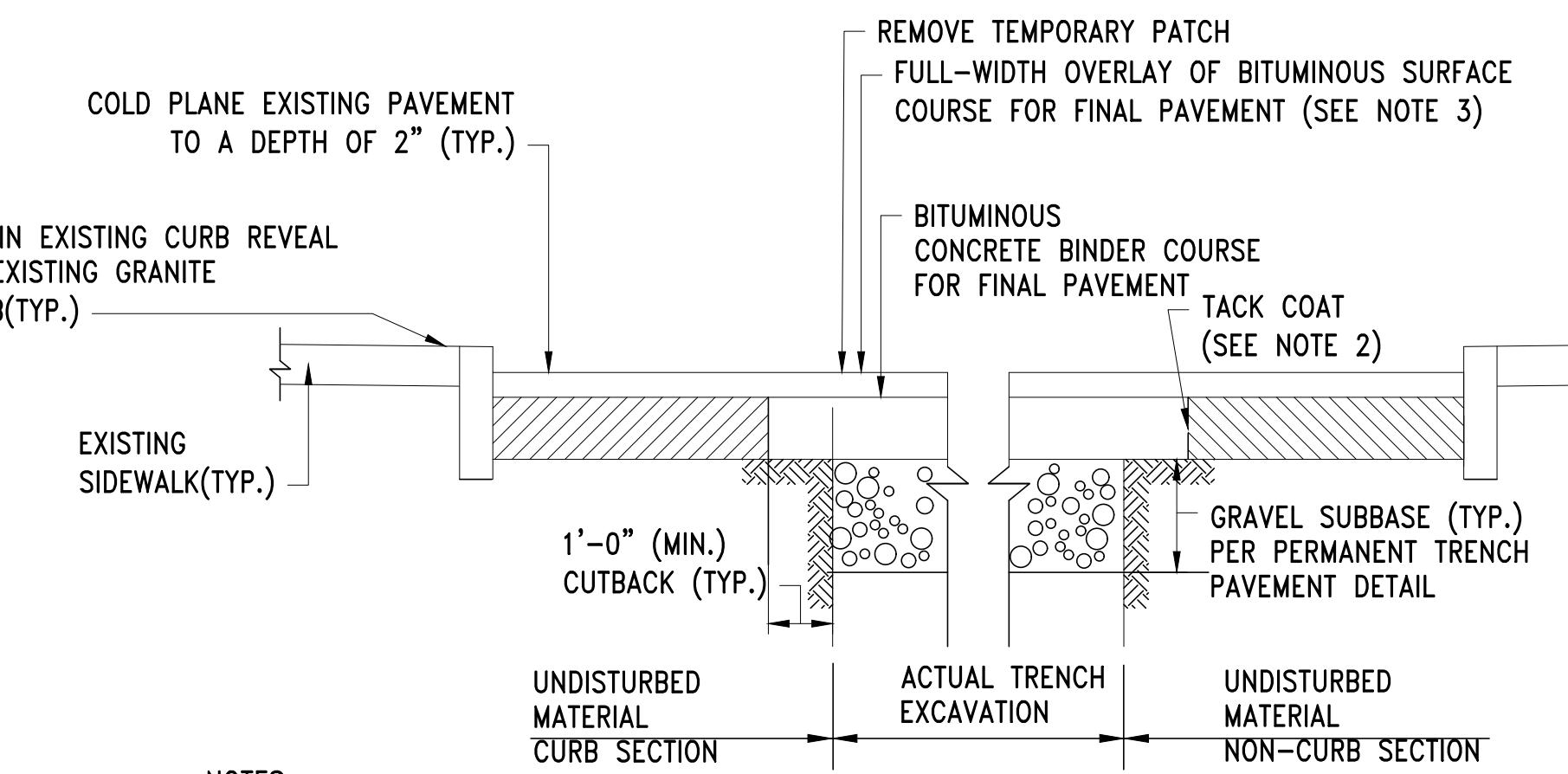
CURB AND SIDEWALK SETTING OR REPLACEMENT  
BITUMINOUS CONCRETE SIDEWALK **C**  
SCALE: NTS



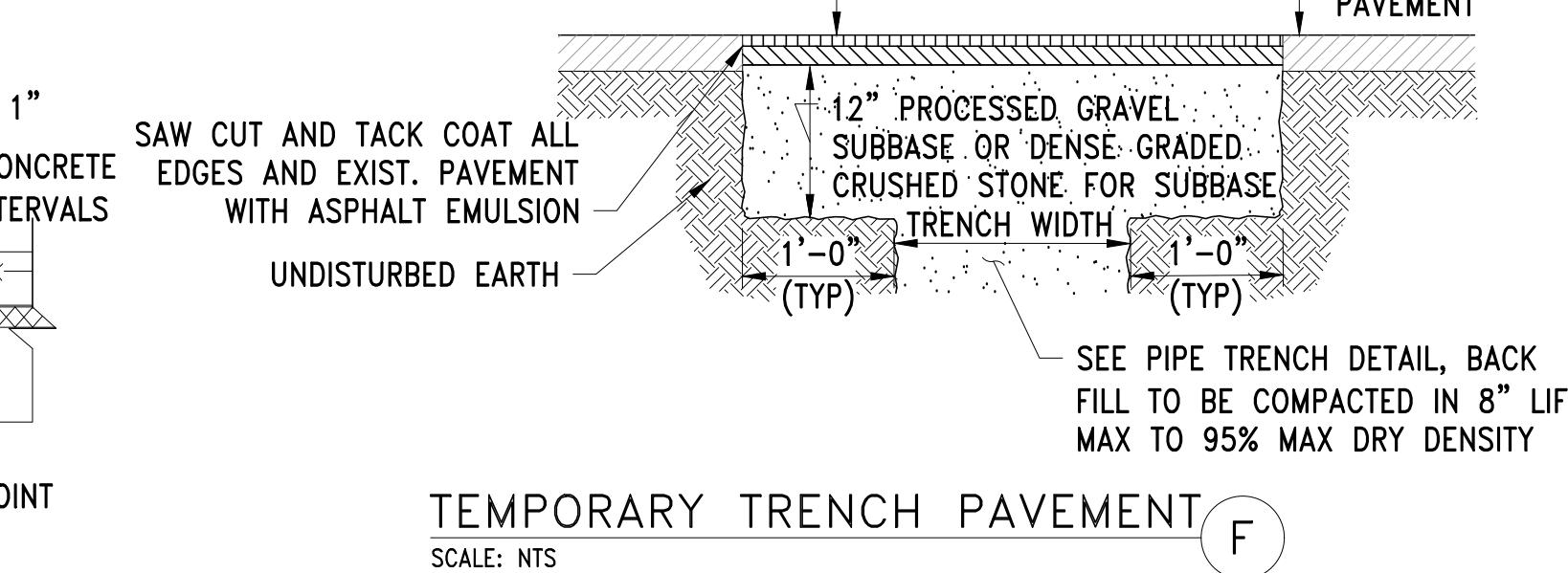
BITUMINOUS CONCRETE SIDEWALK DETAIL **D**  
SCALE: NTS



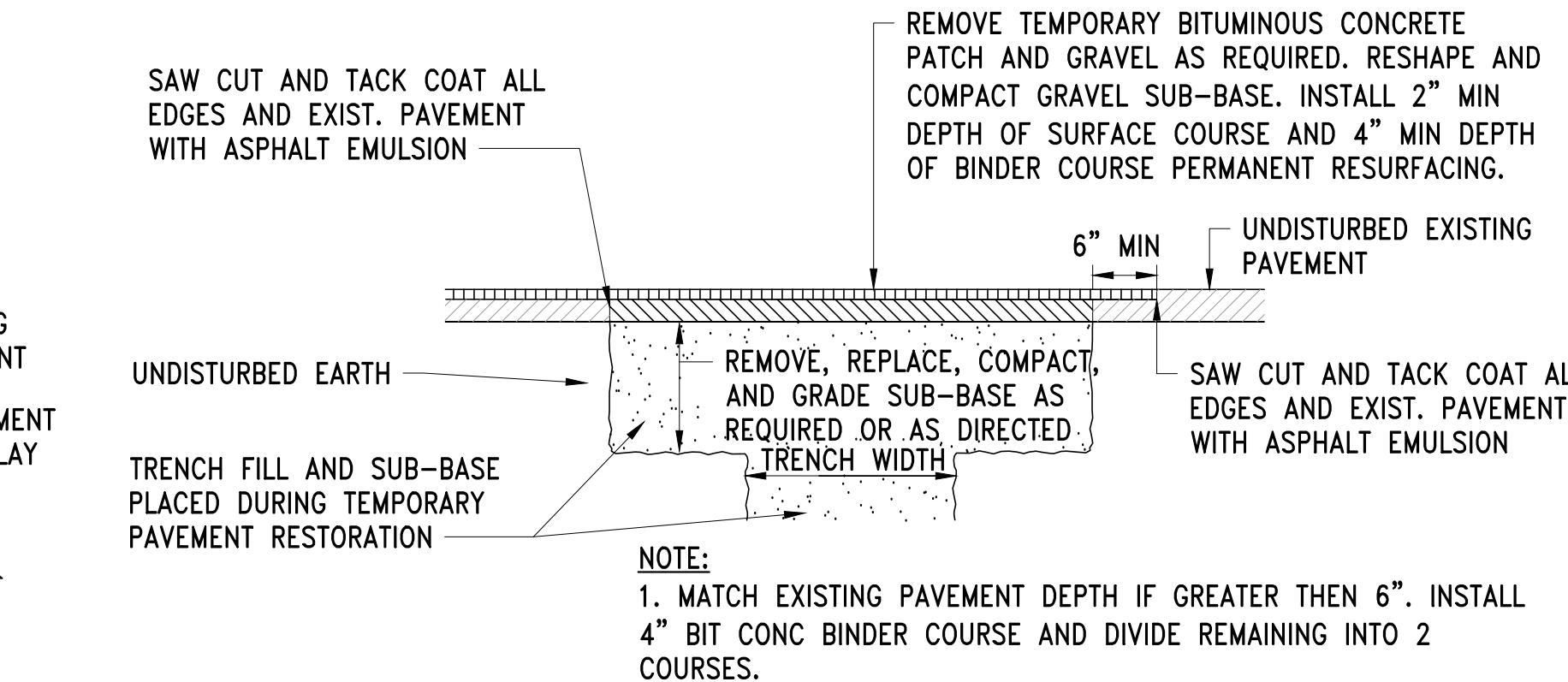
REPLACEMENT BITUMINOUS CONCRETE SIDEWALK **E**  
SCALE: NTS



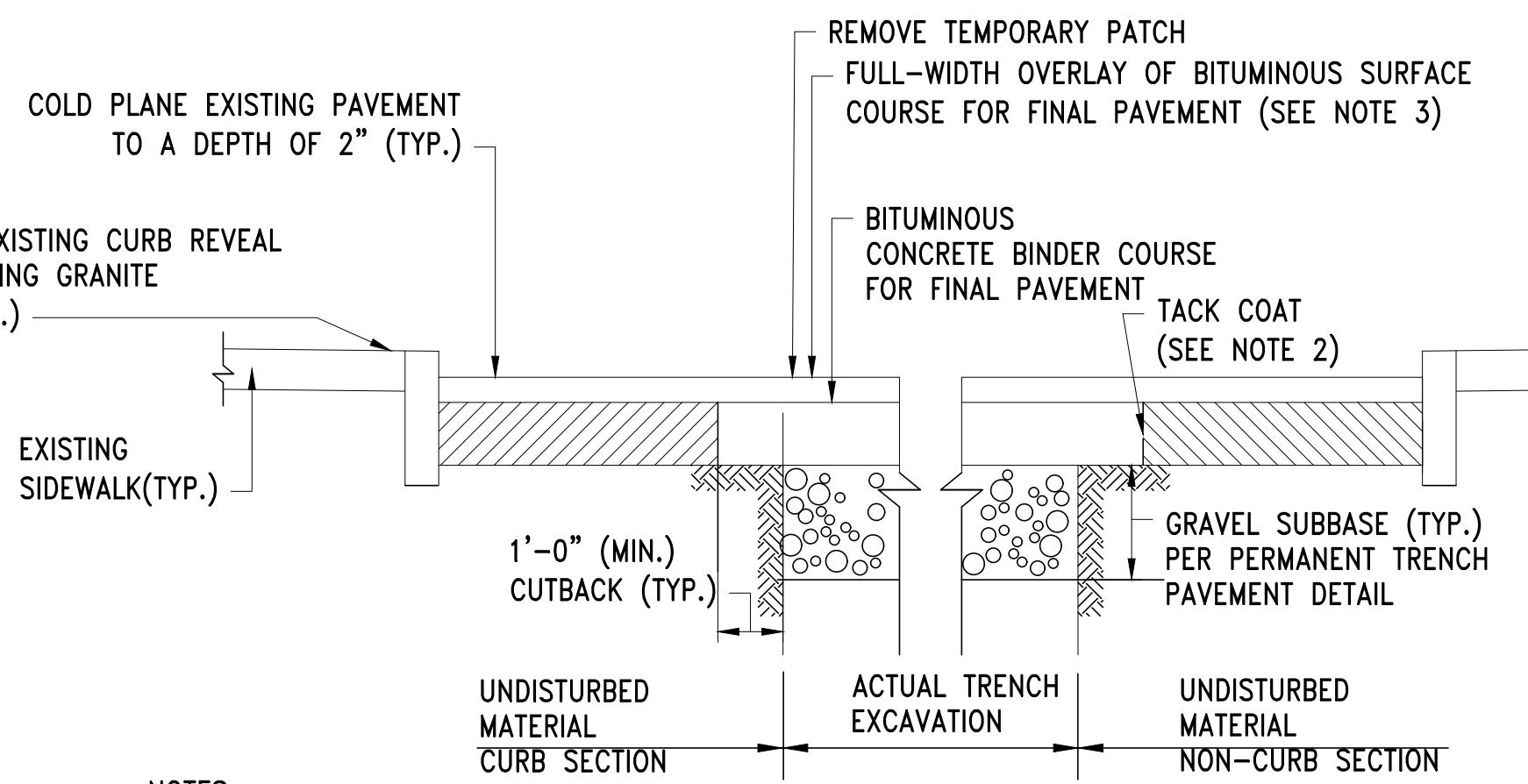
TEMPORARY TRENCH PAVEMENT FOR AREAS  
WITH FULL WIDTH PAVEMENT OVERLAY **F**  
SCALE: NTS



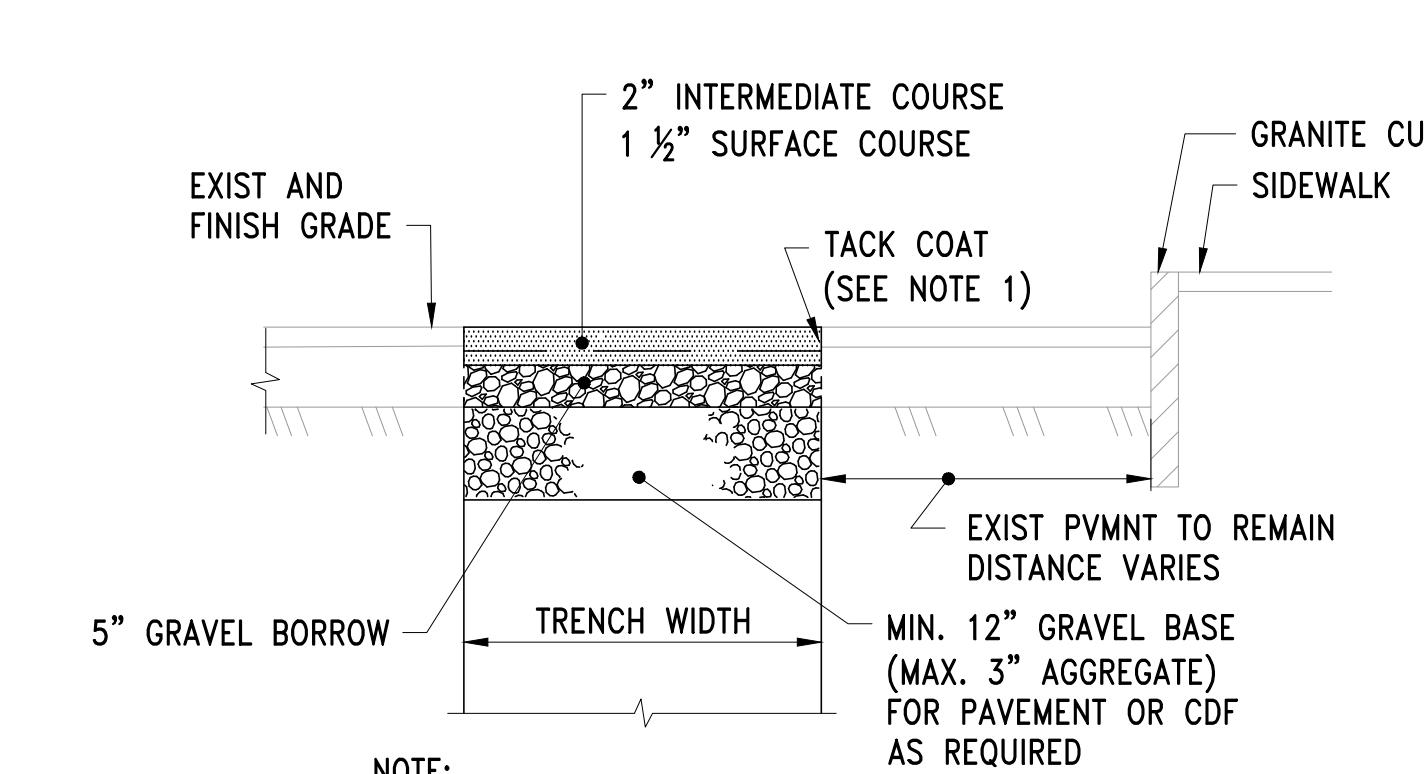
PERMANENT TRENCH PAVEMENT  
(TOWN OF BELMONT AND CITY OF WALTHAM) **G**  
SCALE: NTS



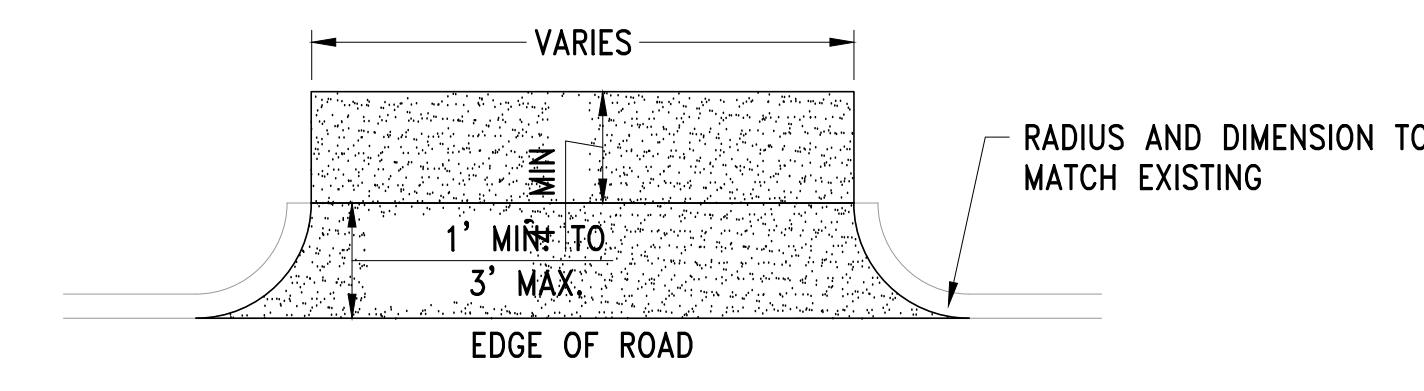
KEYWAY DETAIL FOR CONNECTION TO EXISTING PAVEMENT **H**  
SCALE: NTS



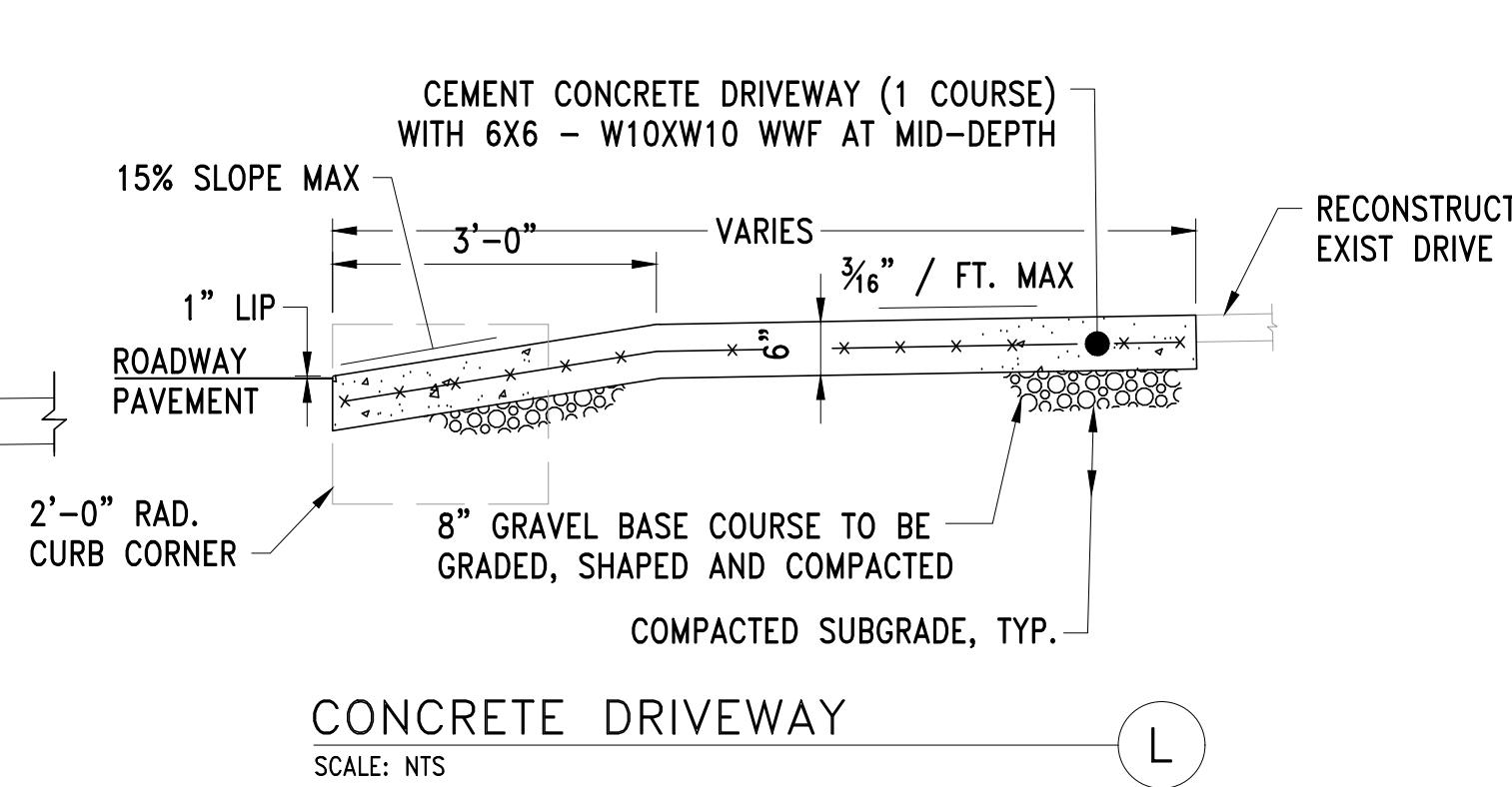
PERMANENT TRENCH PAVEMENT FOR AREAS  
WITH FULL WIDTH PAVEMENT OVERLAY **I**  
SCALE: NTS



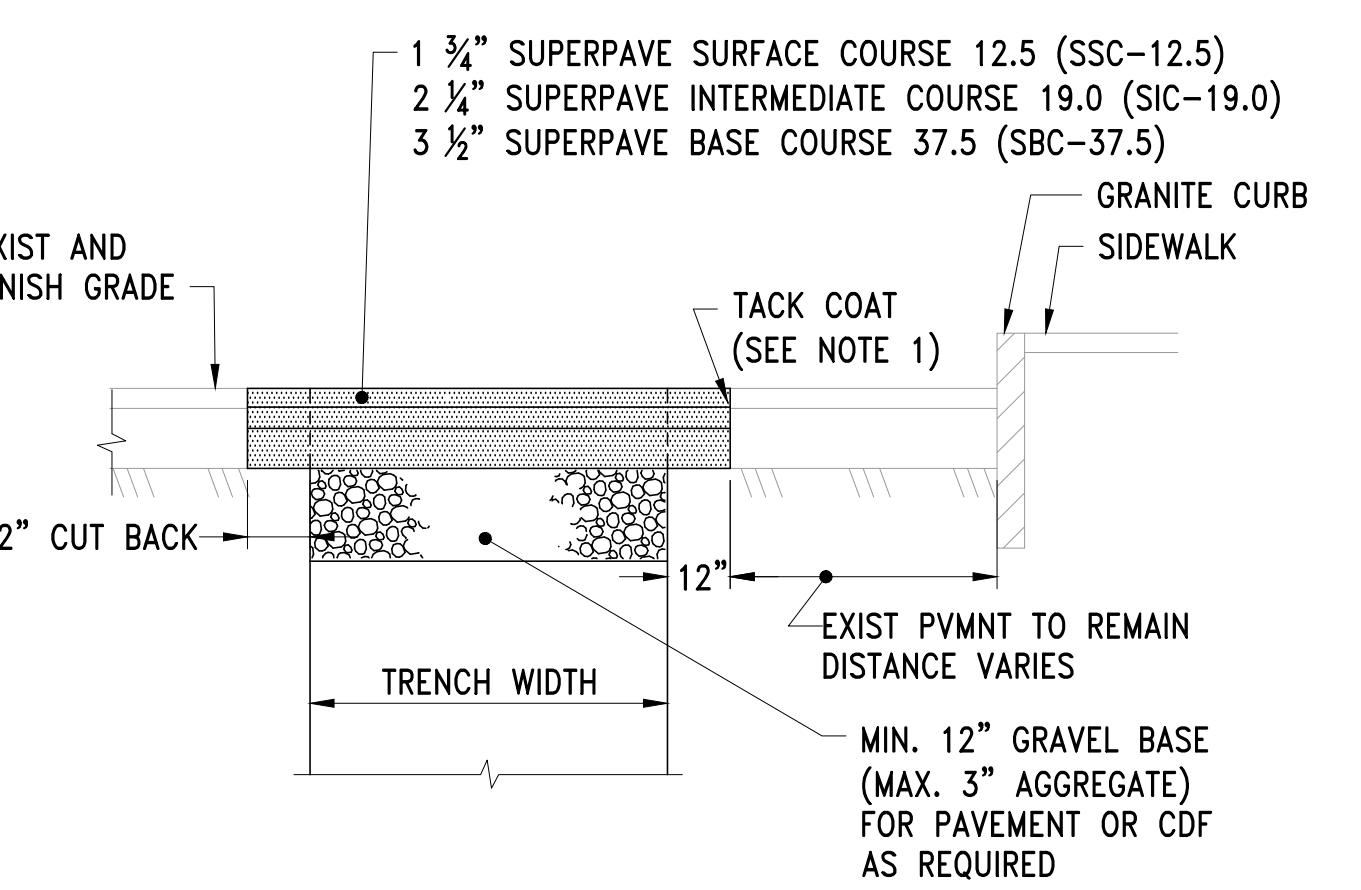
TEMPORARY TRENCH  
PAVEMENT (MASSDOT ROADWAY) **J**  
SCALE: NTS



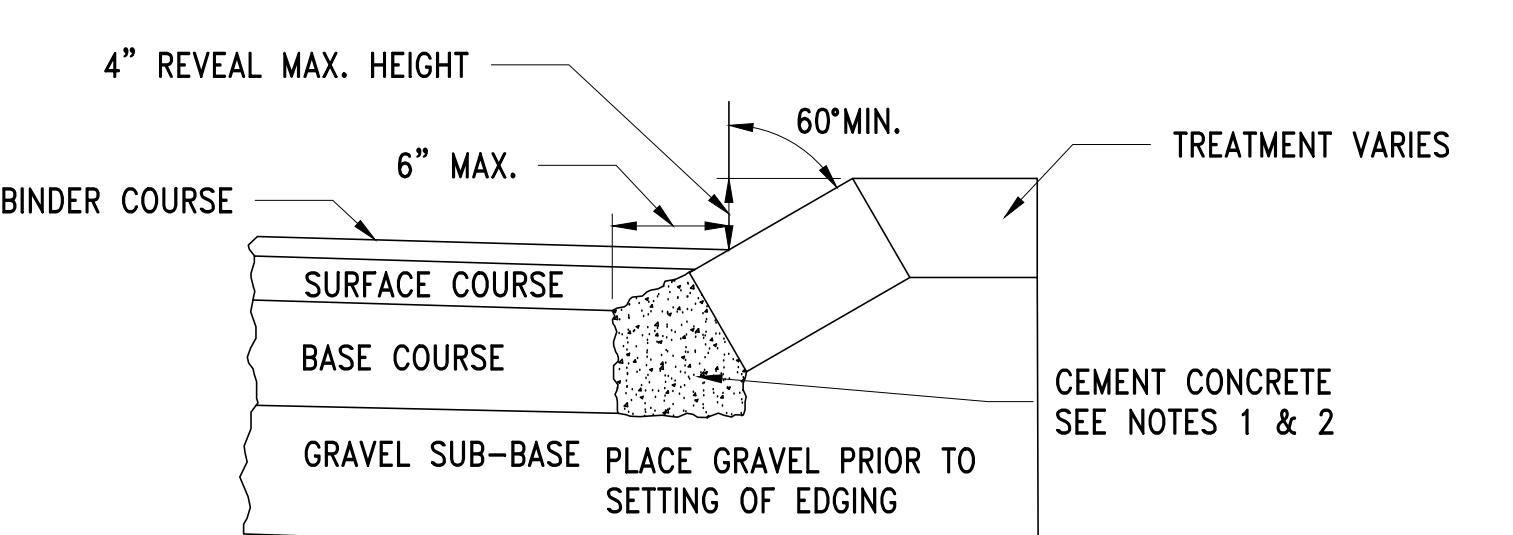
BITUMINOUS CONCRETE DRIVEWAY **K**  
SCALE: NTS



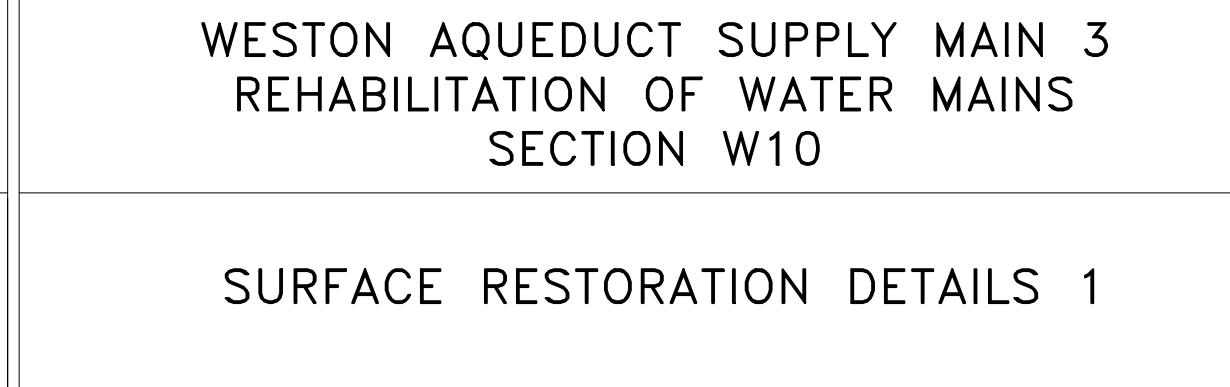
CONCRETE DRIVEWAY **L**  
SCALE: NTS



PERMANENT TRENCH  
PAVEMENT (MASSDOT ROADWAY) **M**  
SCALE: NTS

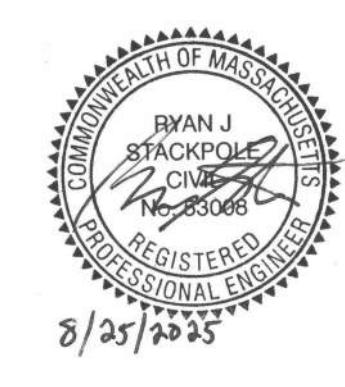


SLOPED EDGING DETAIL AT CURB **N**  
SCALE: NTS



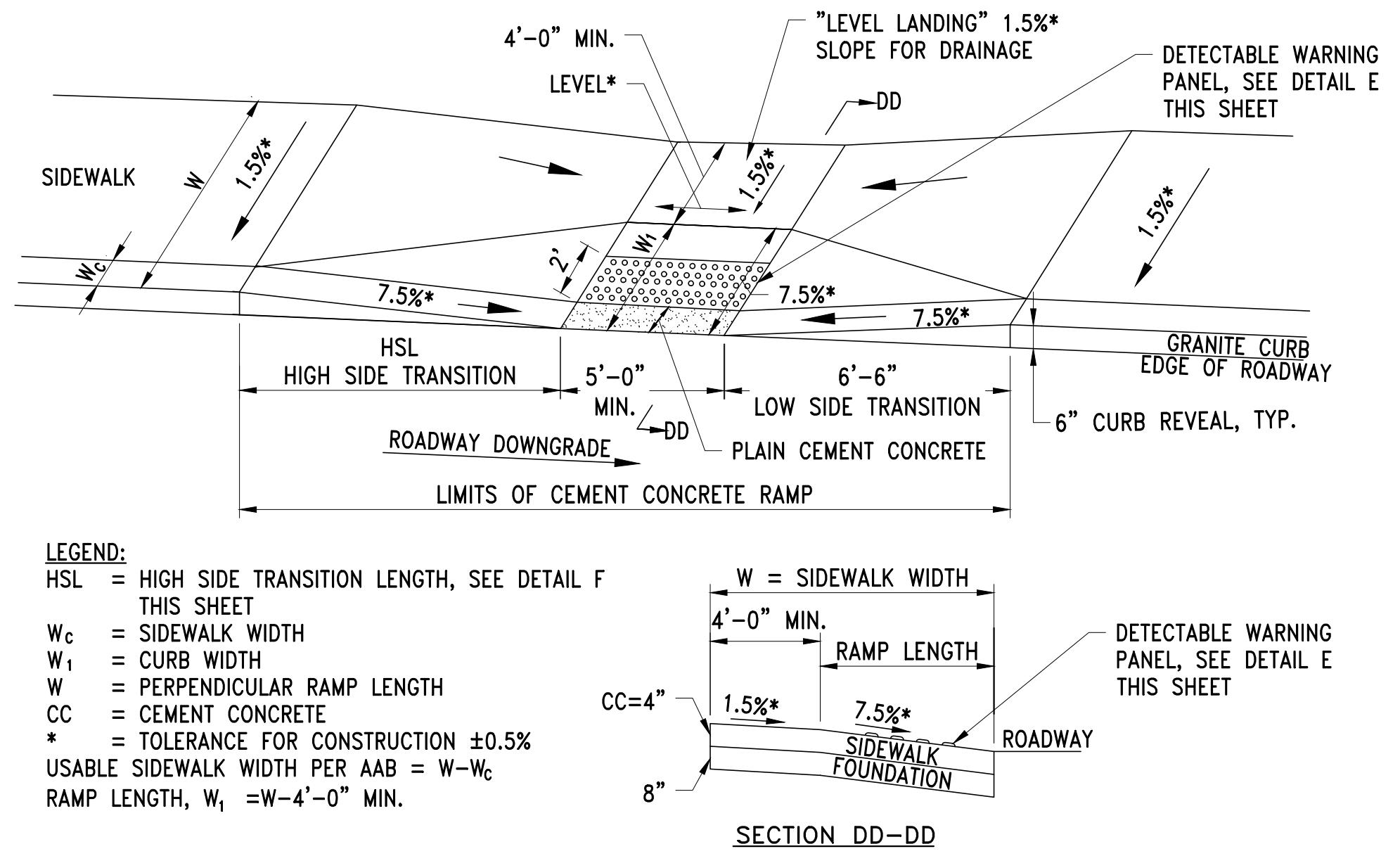
DRAWING NO.  
C-515  
39 OF 83

CONTRACT NO. : 6543	FILE NO. : 6543_C-510-C-515
ACCESSION NO. : -----	SECTION NO. : W10
DATE: AUGUST 2025	DESIGNED BY: RJS
SCALE: AS NOTED	DRAWN BY: TJC
	CHECKED BY: CON
	APPROVED BY: RJS

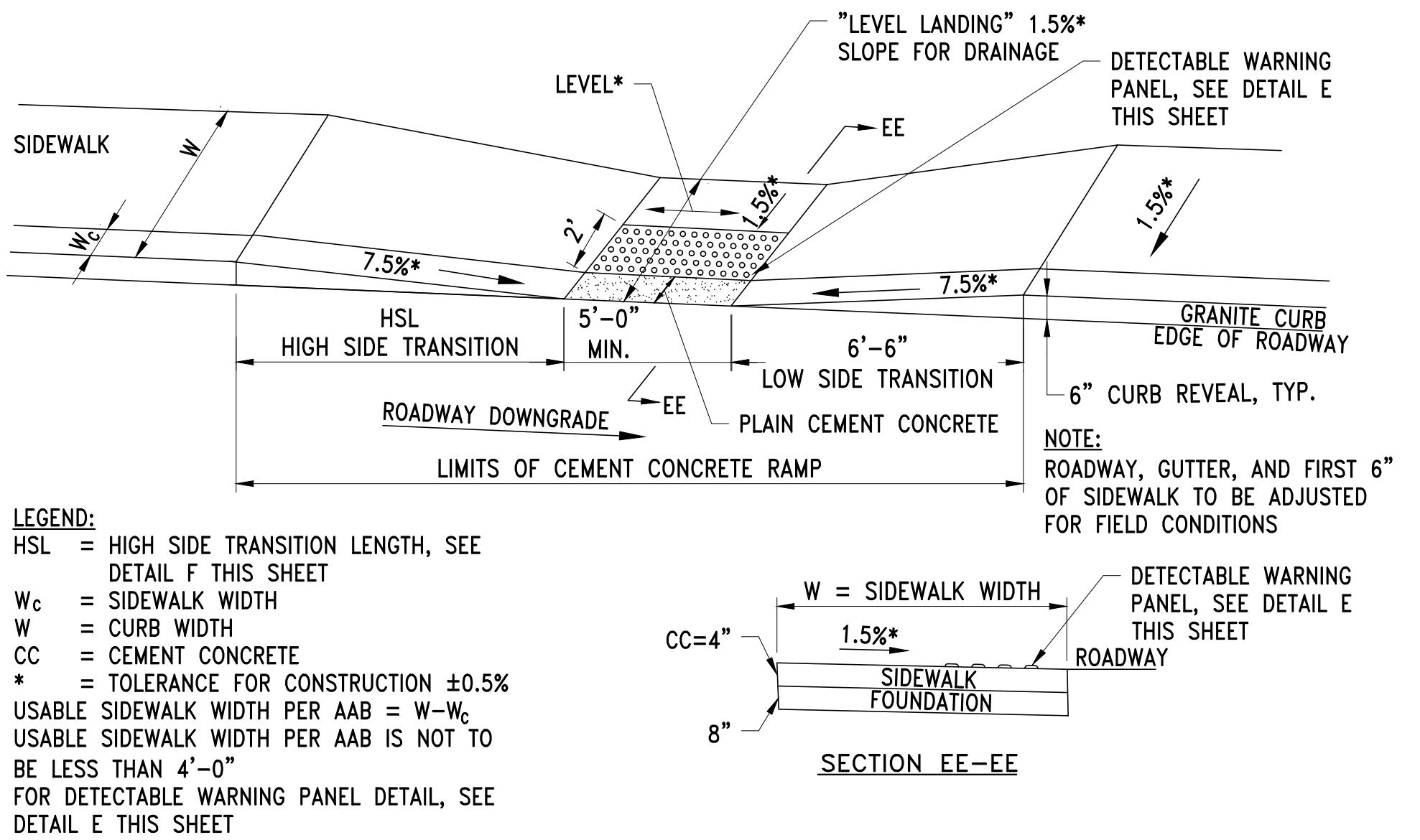


MASSACHUSETTS WATER RESOURCES AUTHORITY  
8/25/2025  
Stantec

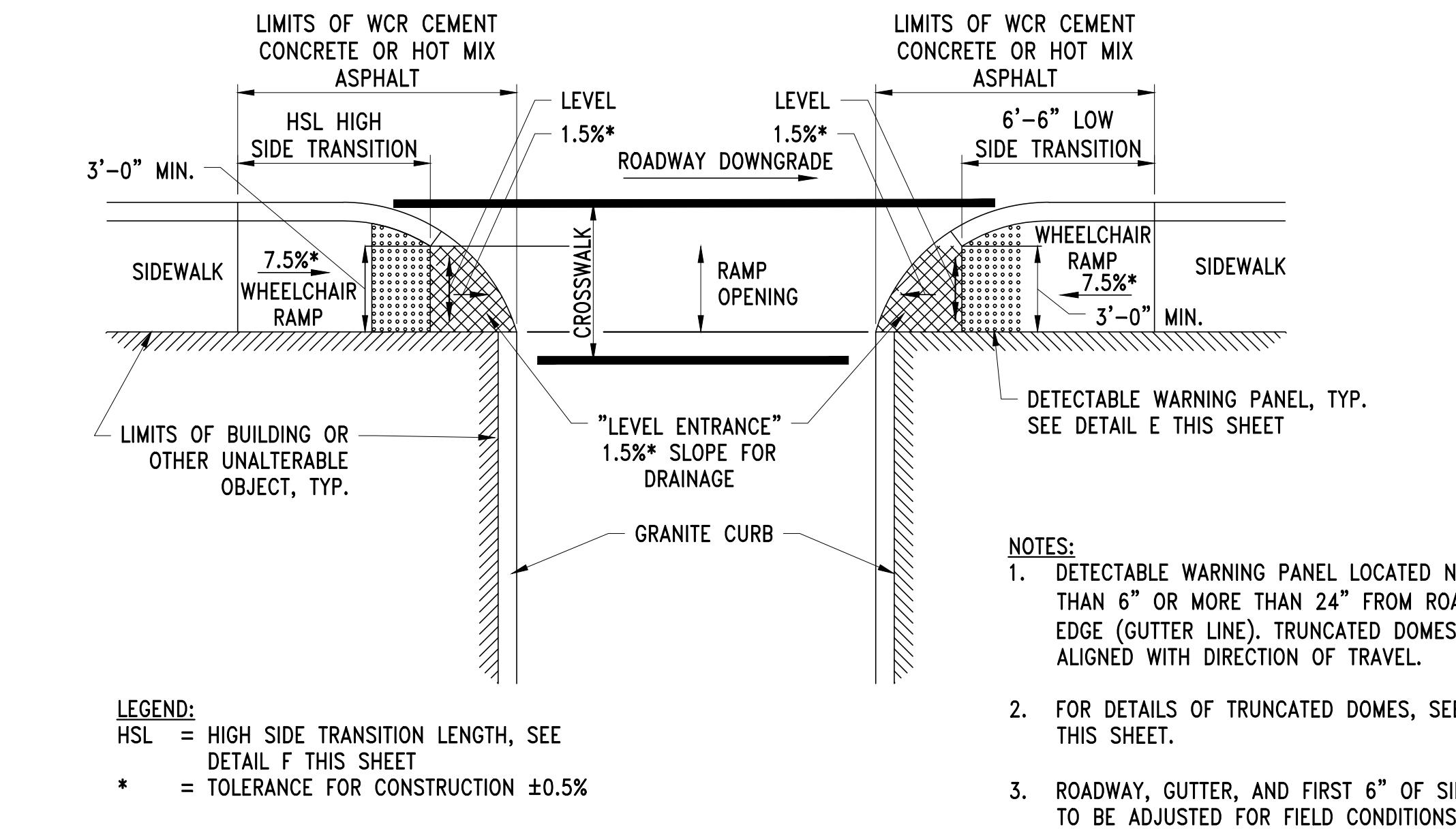
45 BLUE SKY DRIVE, 3RD FLOOR  
BURLINGTON, MA 01803  
www.stantec.com



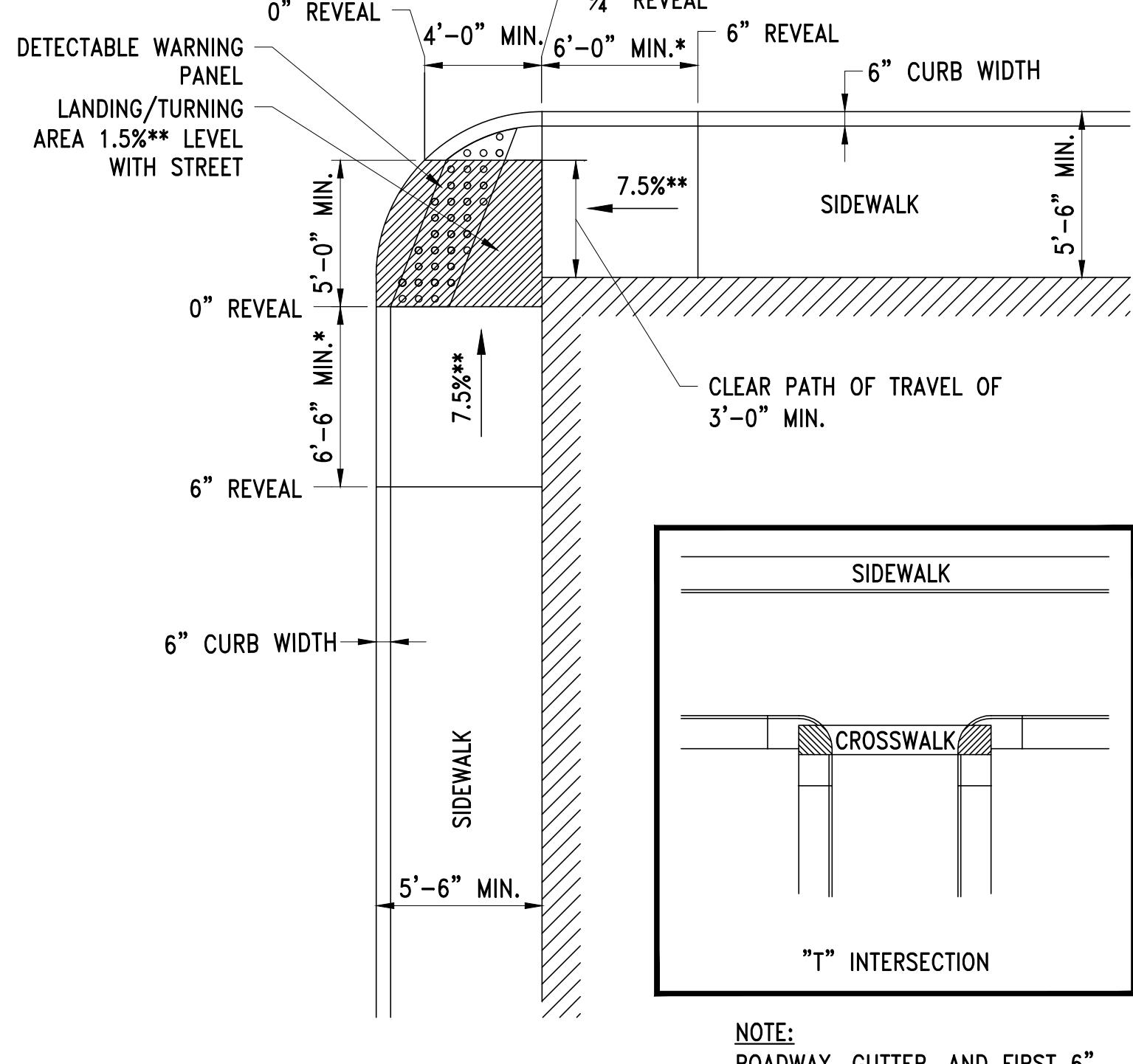
WHEELCHAIR RAMPS LESS THAN 12'-4" SIDEWALK A



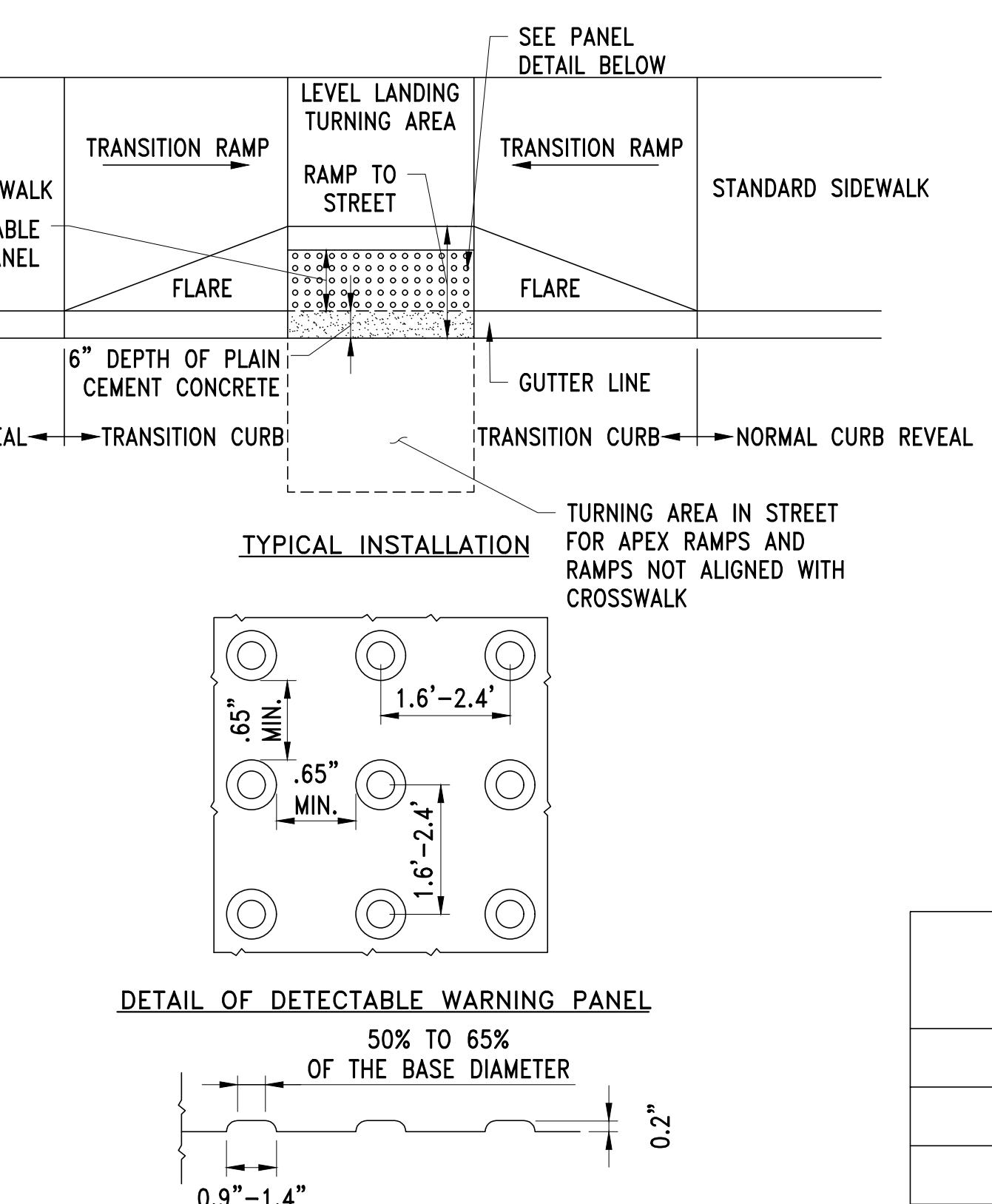
WHEELCHAIR RAMP ON NARROW SIDEWALK WITH DETECTABLE WARNING PANEL B



WHEELCHAIR RAMP FOR ONE CONTINUOUS DIRECTION OF PEDESTRIAN TRAVEL C



"T" INTERSECTION WHEELCHAIR RAMP D

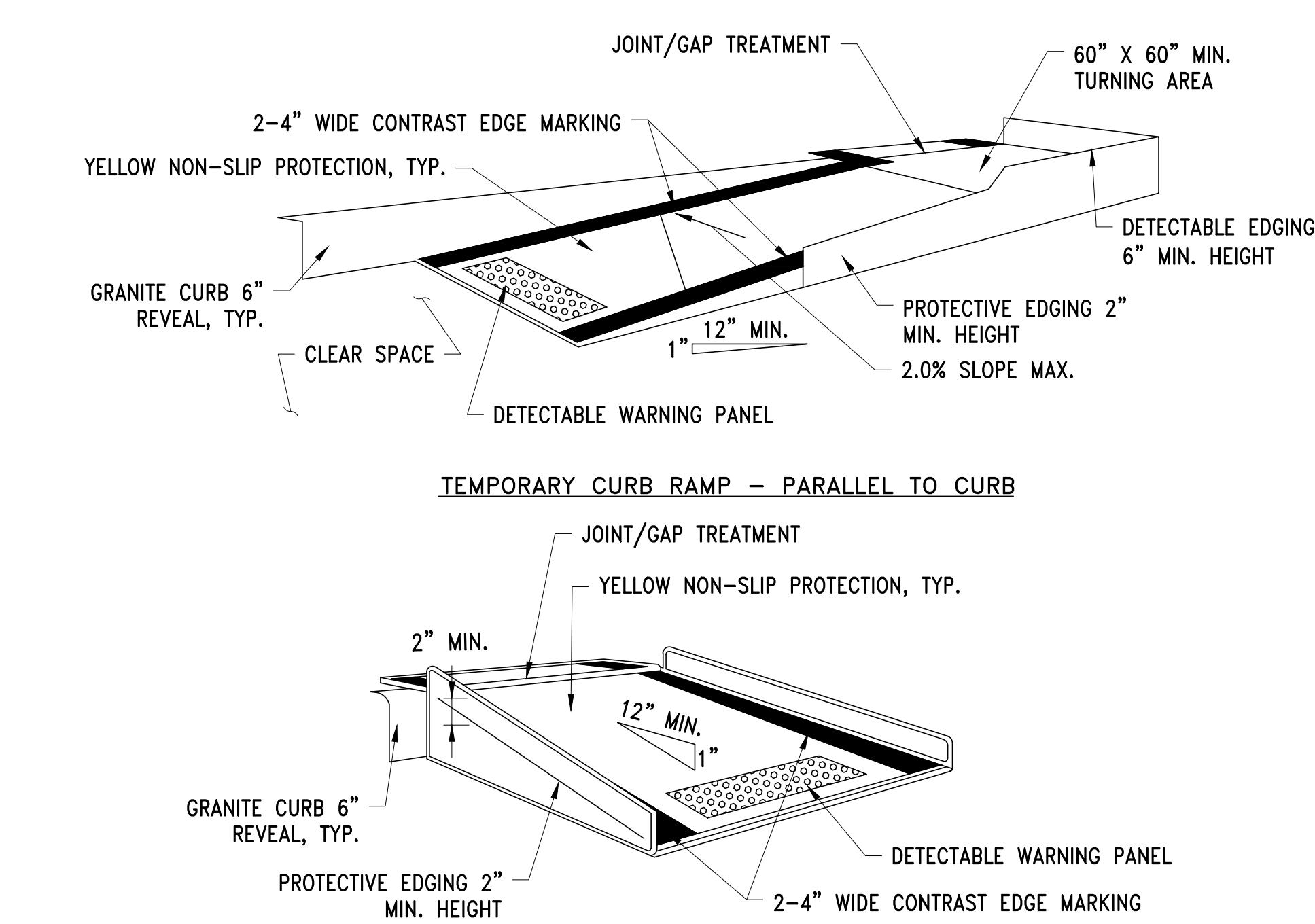


DETECTABLE WARNING PANEL FOR WHEELCHAIR RAMPS AND STANDARD RAMP TECHNOLOGY E

ROADWAY PROFILE GRADE	* HIGH SIDE TRANSITIONAL LENGTH
%	ENGLISH UNITS
=0%	6'-6"
>0% TO 1%	7'-8"
>1% TO 2%	9'-0"
>2% TO 3%	11'-0"
>3% TO 4%	14'-0"
>4% TO 5%	15'-0" MAX.

**NOTE:**  
 \* BASED ON A DESIGN SLOPE OF 7% AND A REVEAL OF 6".

CURB TRANSITION LENGTH FOR WHEELCHAIR RAMPS F



TEMPORARY CURB RAMPS G

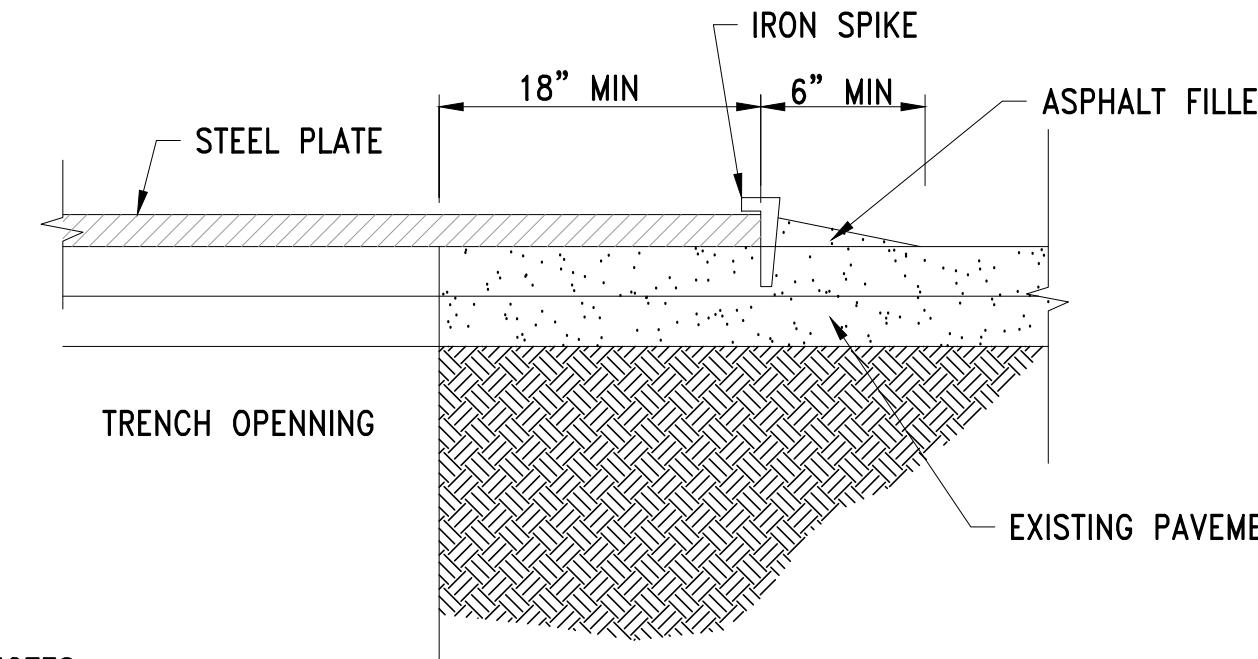
CONTRACT NO. :	6543	FILE NO. :	6543_C-516-C-518
ACCESSION NO. :	-----	SECTION NO. :	W10
DATE:	AUGUST 2025	DESIGNED BY:	RJS
DRAWN BY:	TJC	CHECKED BY:	CON
APPROVED BY:	RJS	SCALE:	AS NOTED



MASSACHUSETTS WATER RESOURCES AUTHORITY  
 PREPARED BY : **Stantec**  
 45 BLUE SKY DRIVE, 3RD FLOOR  
 BURLINGTON, MA 01803  
 www.stantec.com

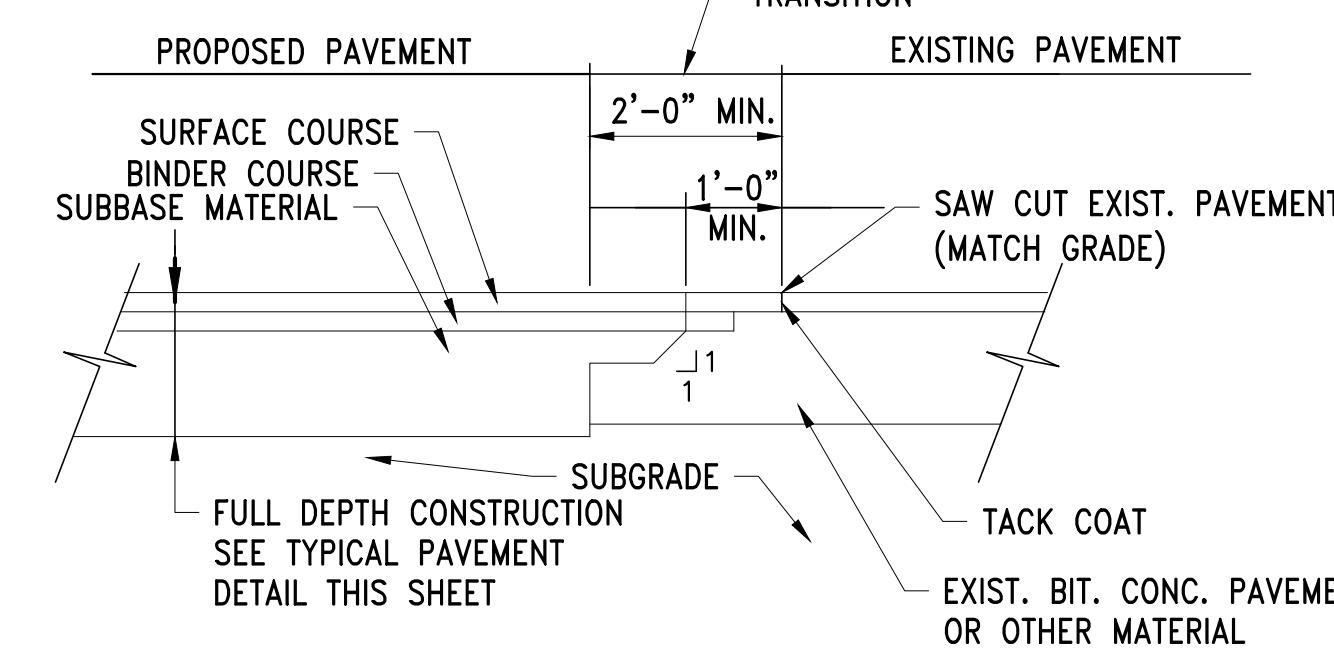
WESTON AQUEDUCT SUPPLY MAIN 3  
 REHABILITATION OF WATER MAINS  
 SECTION W10  
 SURFACE RESTORATION DETAILS 2

DRAWING NO.  
**C-516**  
 40 OF 83

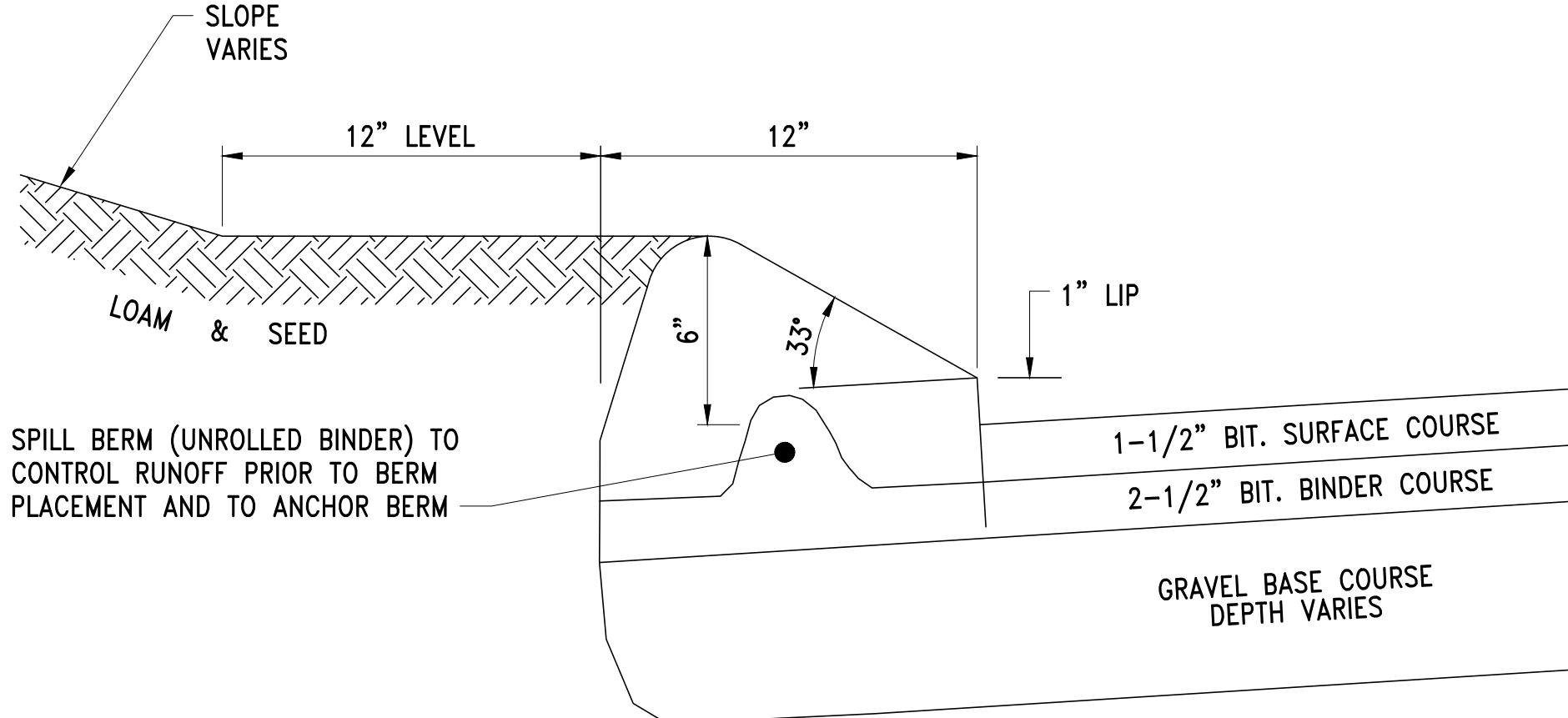


- NOTES:**
1. USE OF STEEL PLATES ALLOWED ON A CASE BY CASE BASIS, PENDING WRITTEN APPROVAL BY AFFECTED MUNICIPALITY.
  2. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGES OR CLAIMS RESULTS FROM THE USE OF STEEL PLATES.
  3. MUTCD COMPLIANT RETROREFLECTIVE ORANGE CONSTRUCTION WARNING SIGNS (48"X48") WITH WORDING "STEEL PLATE AHEAD" SHALL BE INSTALLED IN ADVANCE OF STEEL PLATE INSTALLATION.
  4. THE CONTRACTOR SHALL DESIGN AND UTILIZE STEEL PLATES OF ADEQUATE DIMENSIONS AND THICKNESS FOR INTENDED USE OF VEHICLE LOADING, MAXIMUM ALLOWABLE DEFLECTION SHALL BE 0.025". IRON SPIKE FASTENERS SHALL BE INSTALLED AROUND THE PERIMETER OF THE STEEL PLATE

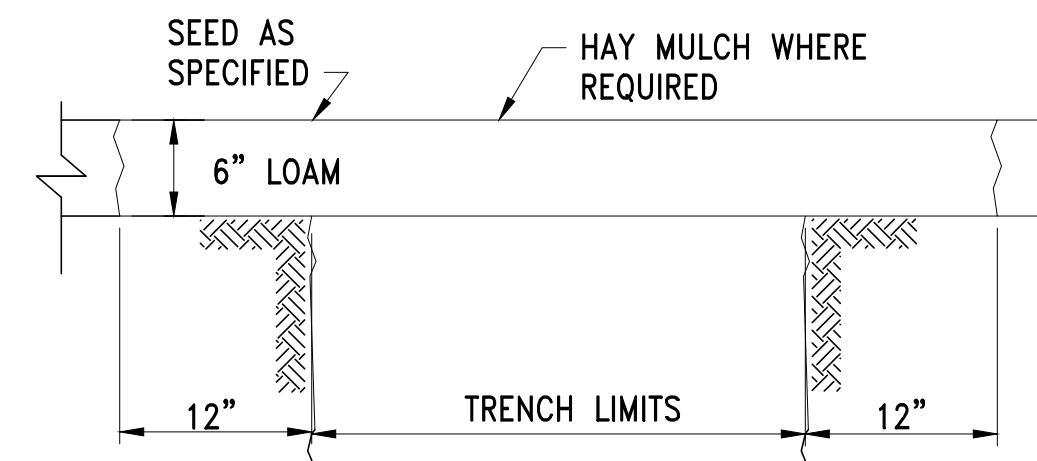
TYPICAL STEEL ROADPLATE INSTALLATION A



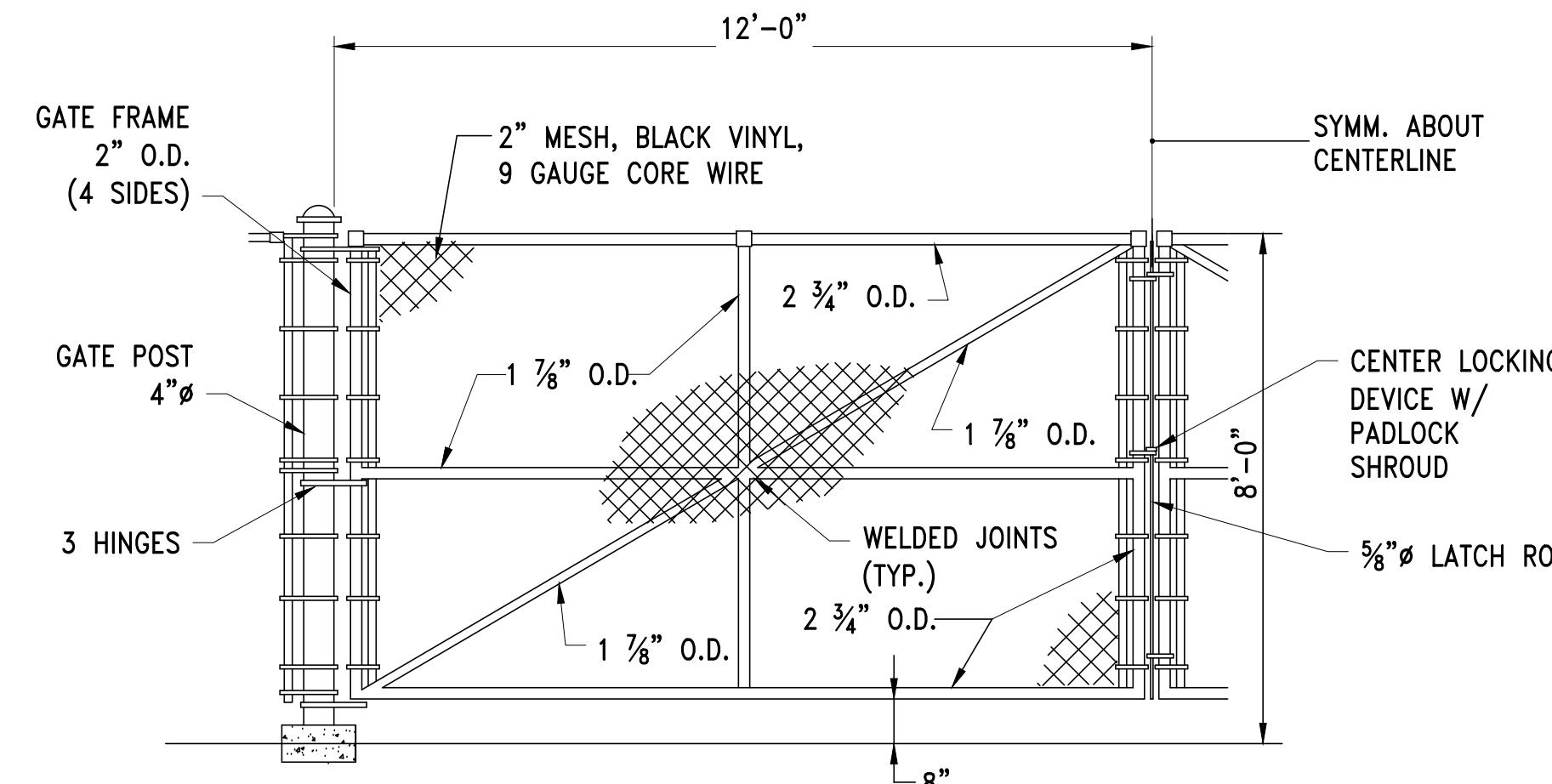
TYPICAL SAW CUT DETAIL B



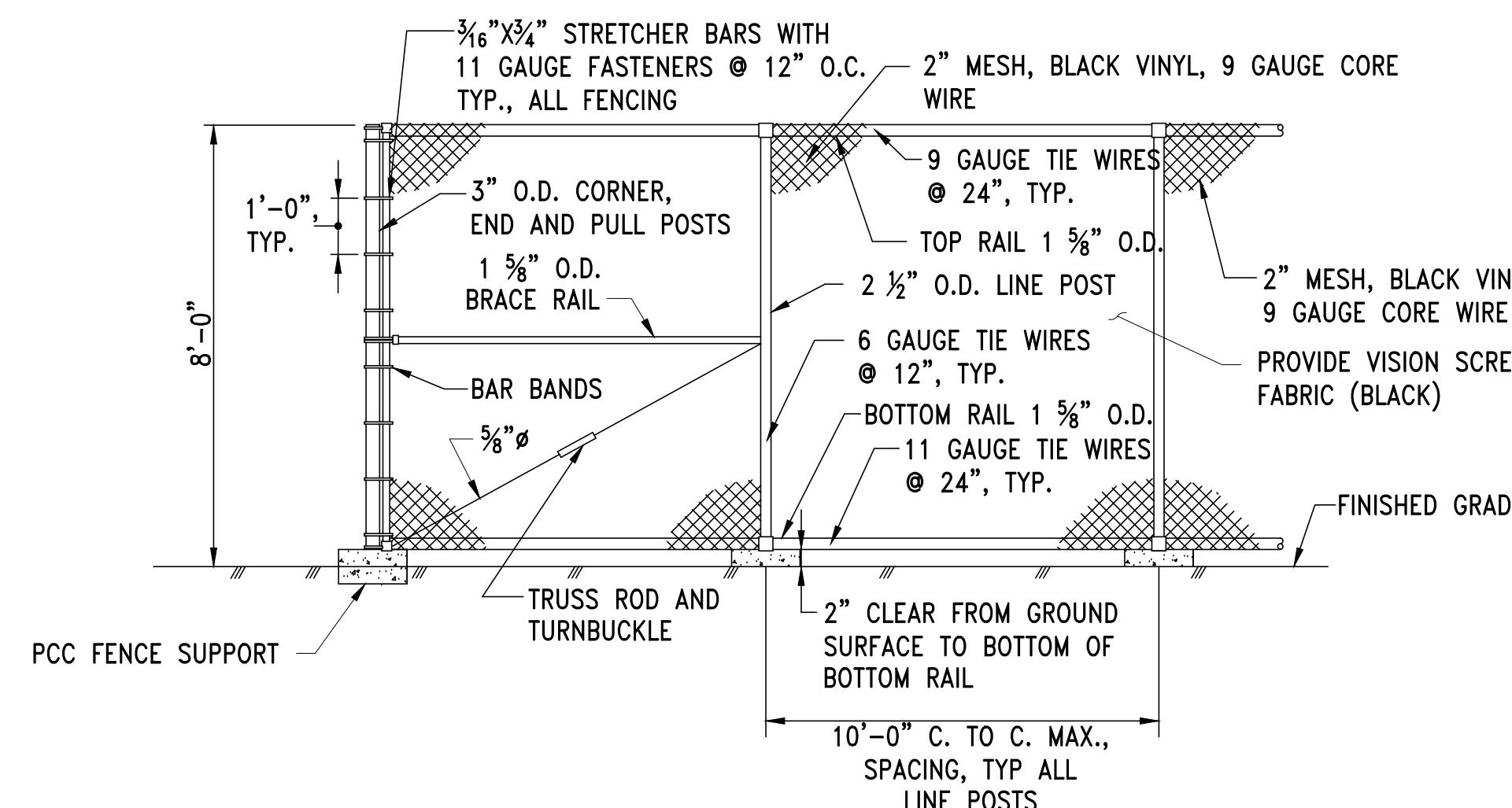
BITUMINOUS CONCRETE BERM DETAIL C



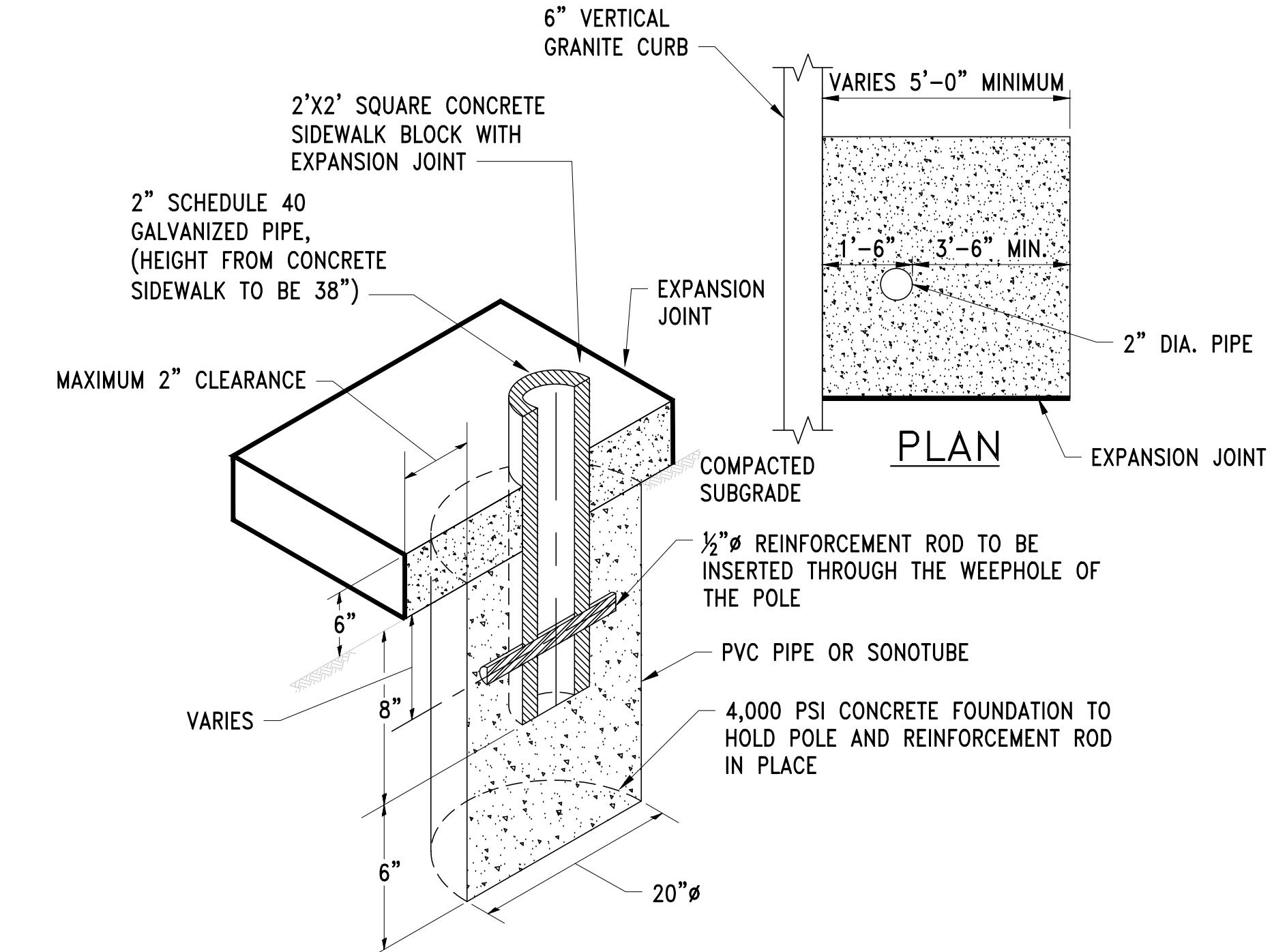
LOAM AND SEED RESTORATION D



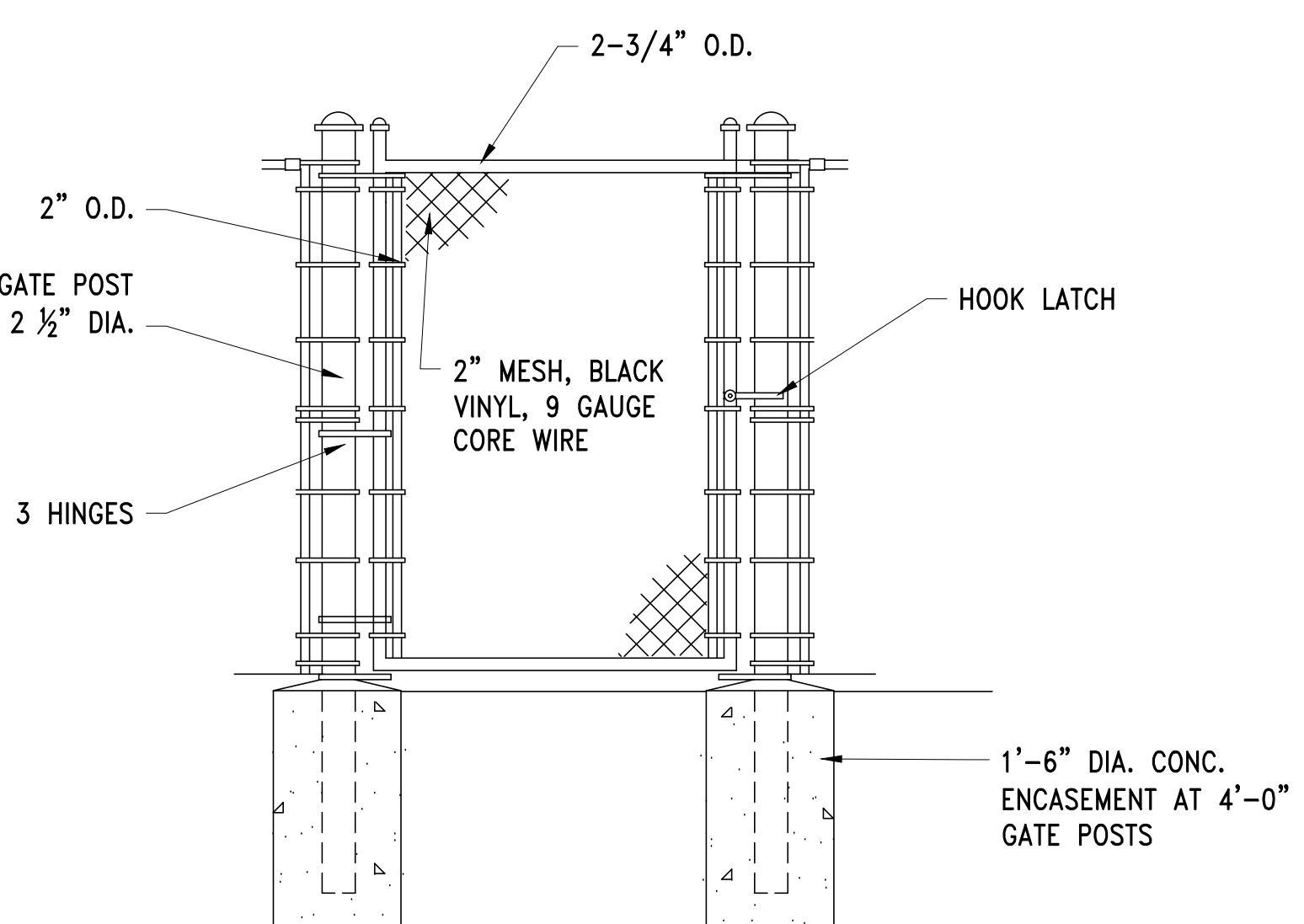
TEMPORARY CONSTRUCTION FENCE GATE E



TEMPORARY CONSTRUCTION FENCE F



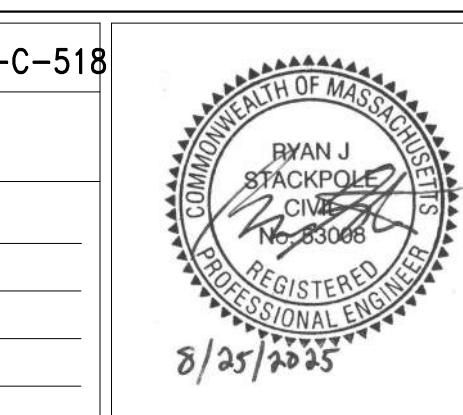
SIGN POST INSTALLATION IN SIDEWALK G



4' PASS GATE (MAN GATE) H

NO.	DATE	BY	CHK'D	REVISION

CONTRACT NO. : 6543 FILE NO. : 6543\_C-516-C-518  
ACCESSION NO. : ----- SECTION NO. : W10  
DATE: AUGUST 2025 DESIGNED BY: RJS  
DRAWN BY: TJC  
CHECKED BY: CON  
APPROVED BY: RJS  
SCALE: AS NOTED

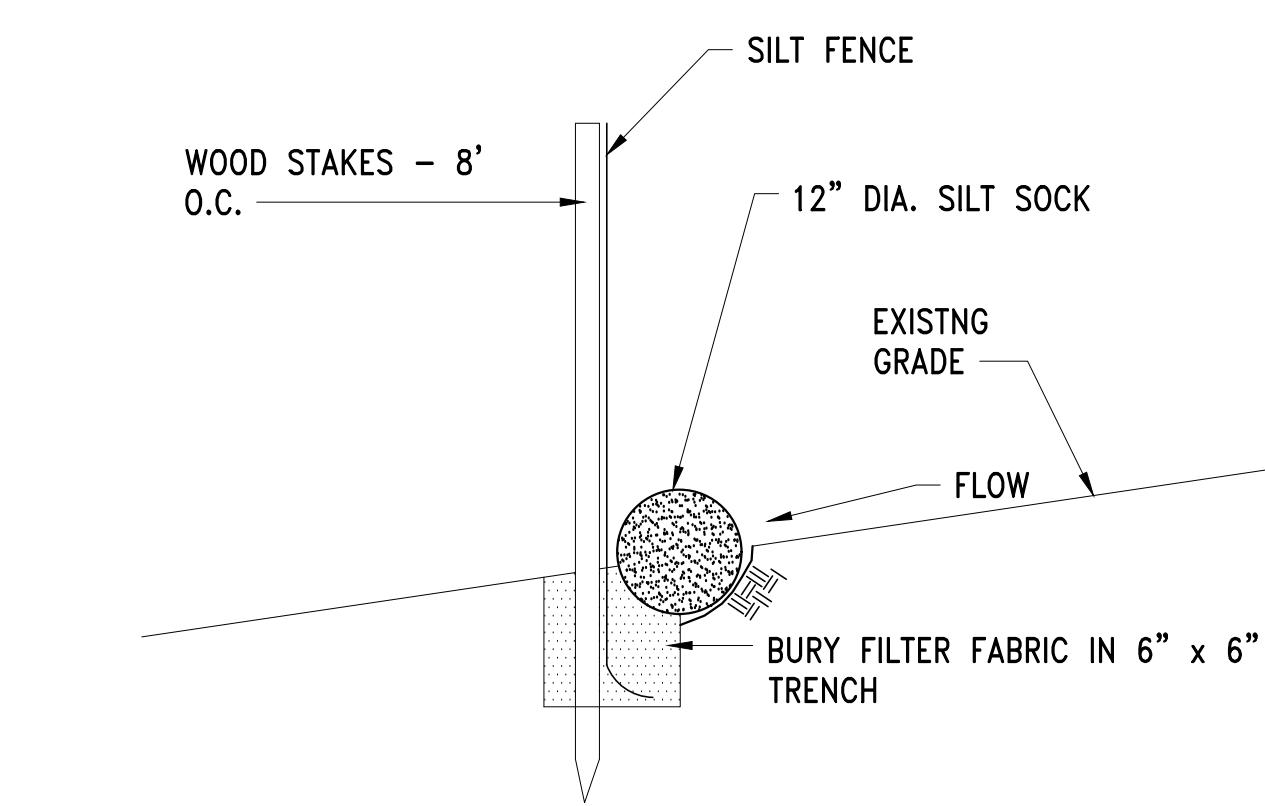


MASSACHUSETTS WATER RESOURCES AUTHORITY  
PREPARED BY : **Stantec**  
45 BLUE SKY DRIVE, 3RD FLOOR  
BURLINGTON, MA 01803  
www.stantec.com

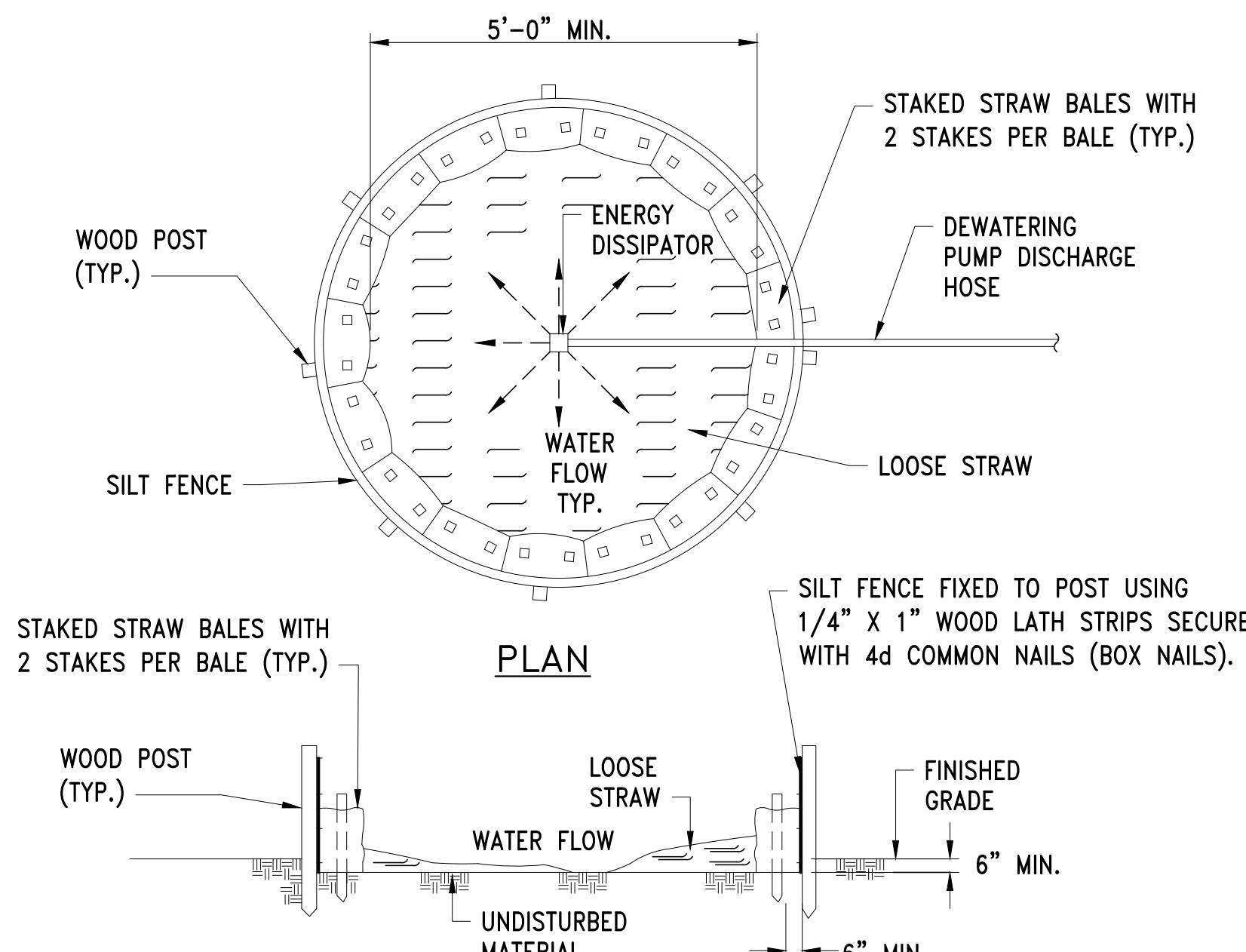
WESTON AQUEDUCT SUPPLY MAIN 3  
REHABILITATION OF WATER MAINS  
SECTION W10

SURFACE RESTORATION DETAILS 3

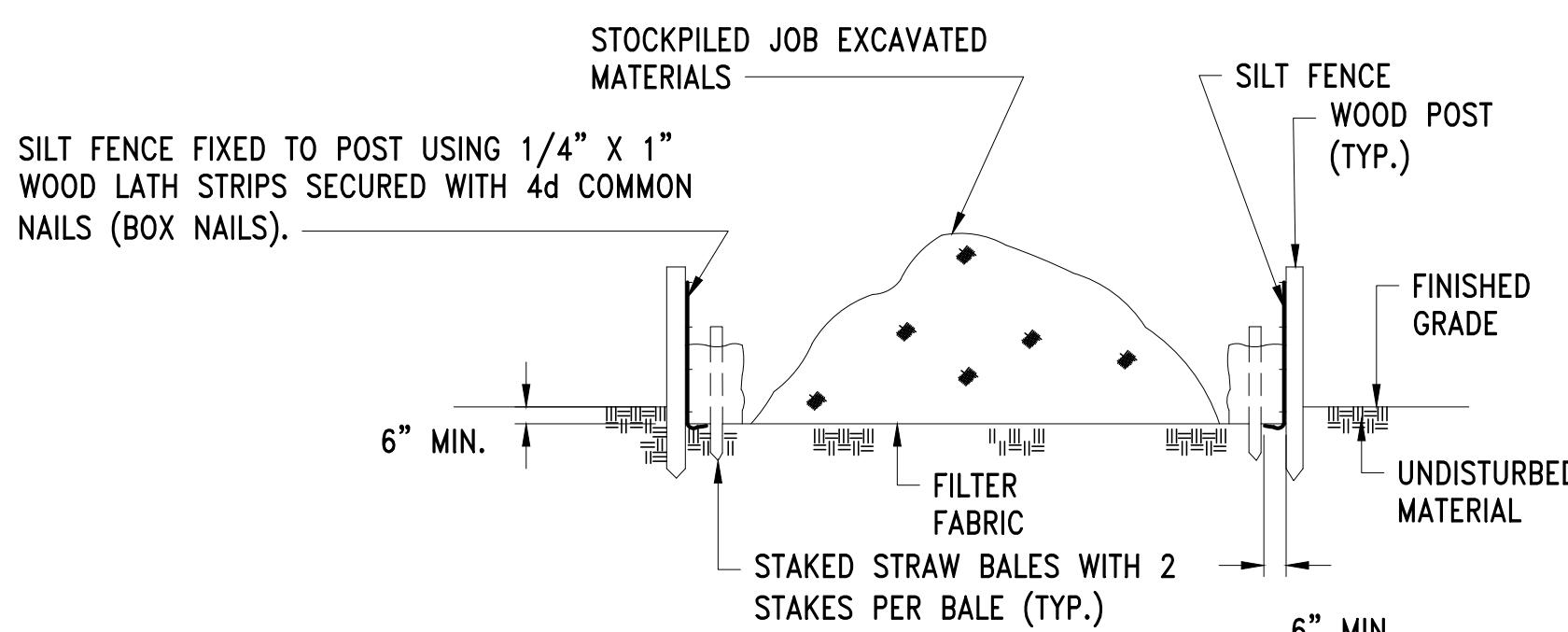
DRAWING NO.  
C-517  
41 OF 83



TEMPORARY SILT SOCK/SILTATION FENCE  
SCALE: NTS

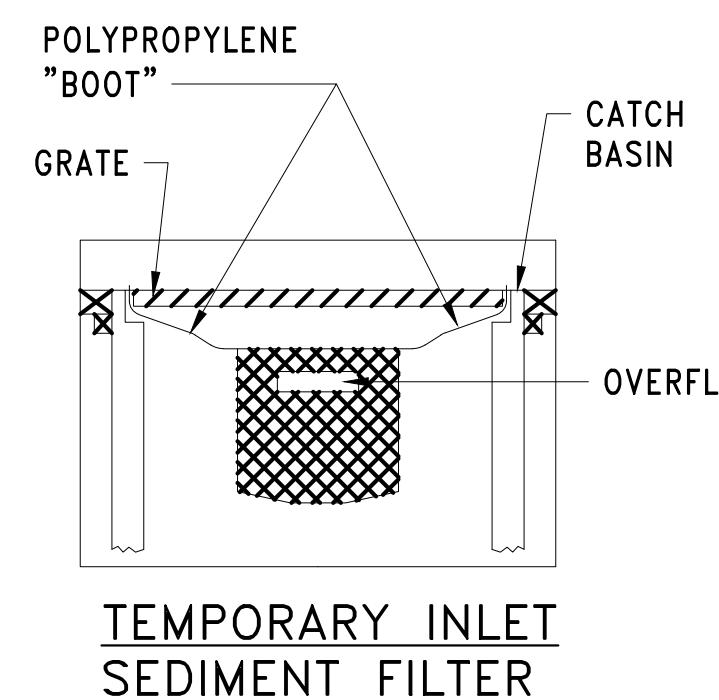


DEWATERING SEDIMENTATION BASIN  
SCALE: NTS

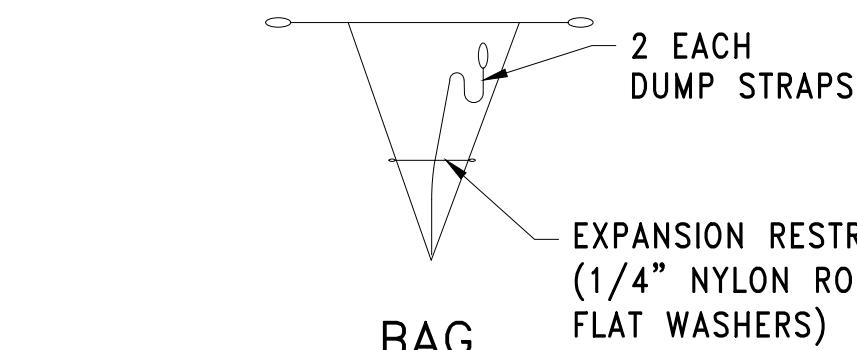


STOCKPILED MATERIAL  
SCALE: NTS

NO.	DATE	BY	CHK'D	REVISION

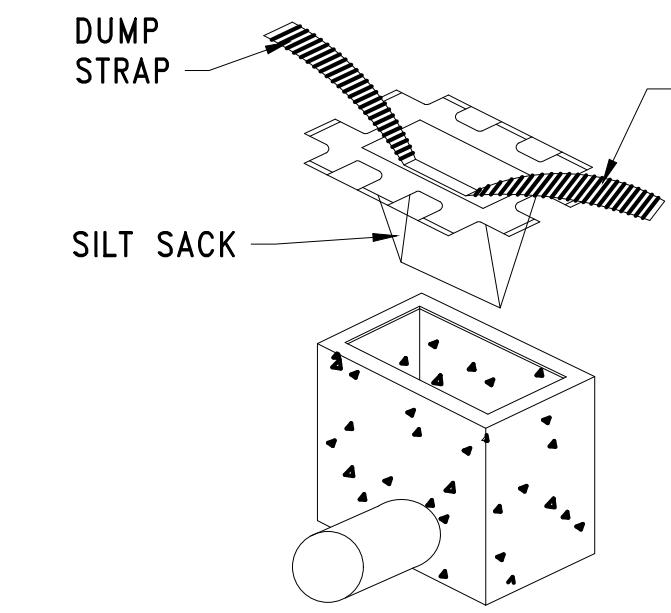


SECTION



TEMPORARY INLET SEDIMENT FILTER

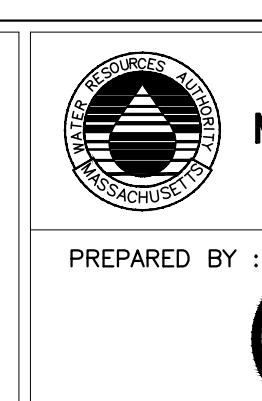
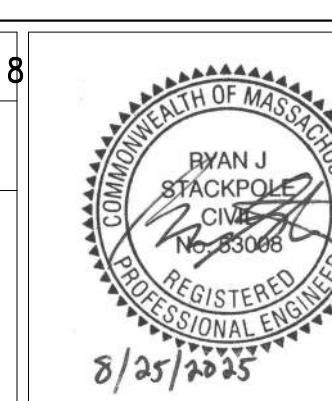
INSTALLATION



- NOTE:**
1. INSTALL INLET PROTECTION IN EXISTING CATCH BASINS, BEFORE COMMENCING WORK, AND IN NEW CATCH BASINS IMMEDIATELY AFTER INSTALLATION OF STRUCTURE. MAINTAIN UNTIL BINDER COURSE PAVING IS COMPLETE OR A PERMANENT STAND OF GRASS HAS BEEN ESTABLISHED.
  2. GRATE TO BE PLACED OVER INLET PROTECTION.
  3. INLET PROTECTION SHALL BE INSPECTED PERIODICALLY AND AFTER ALL STORM EVENTS AND CLEANING OR REPLACEMENT SHALL BE PERFORMED PROMPTLY AS NEEDED.

INLET PROTECTION FILTER BAG  
SCALE: NTS

CONTRACT NO. :	6543	FILE NO. :	6543_C-516-C-518
ACCESSION NO. :	-----	SECTION NO. :	W10
DATE:	AUGUST 2025	DESIGNED BY:	RJS
DRAWN BY:	TJC	CHECKED BY:	CON
SCALE:	AS NOTED	APPROVED BY:	RJS



Stantec

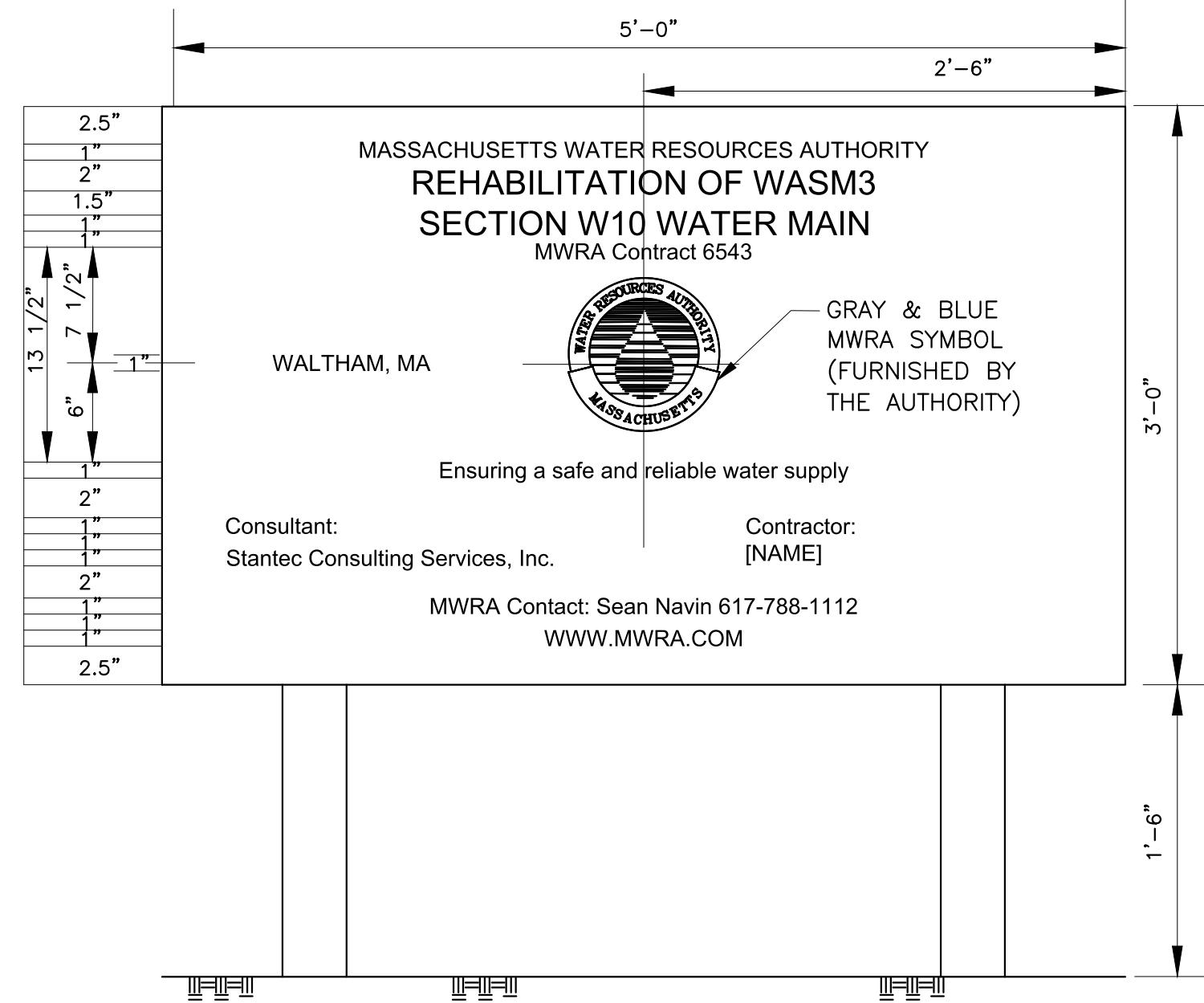
45 BLUE SKY DRIVE, 3RD FLOOR  
BURLINGTON, MA 01803  
www.stantec.com

WESTON AQUEDUCT SUPPLY MAIN 3  
REHABILITATION OF WATER MAINS  
SECTION W10

EROSION AND SEDIMENTATION CONTROL

DRAWING NO.  
C-518

42 OF 83



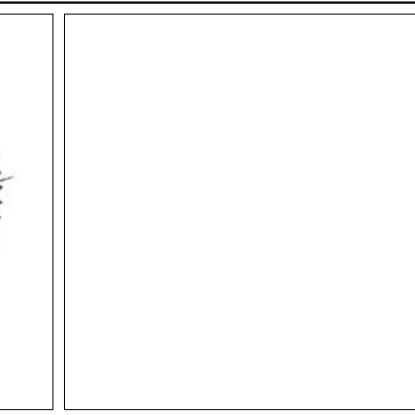
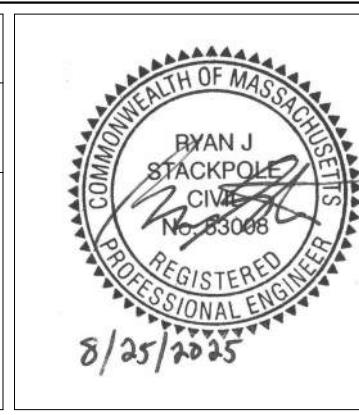
- NOTES:**
- STRUCTURE AND FRAMING: MAY BE NEW OR USED, WOOD OR METAL, IN SOUND CONDITION SUITABLE FOR SPECIFIED FINISH.
  - SIGN SURFACES SHALL BE EXTERIOR SOFTWOOD PLYWOOD WITH MEDIUM DENSITY OVERLAY, STANDARD LARGE SIZES TO MINIMIZE JOINTS. SIGN THICKNESS SHALL BE AS REQUIRED BY STANDARDS TO SPAN FRAMING MEMBERS AND TO PROVIDE EVEN, SMOOTH SURFACE WITHOUT WAVES OR BUCKLES.
  - HARDWARE SHALL BE WROUGHT, GALVANIZED.
  - APPLY A COAT OF WHITE ALKYD PRIMER WOOD OIL TO ENTIRE WOODWORK OF SIGN.
  - GIVE TWO (2) COATS OF WHITE EXTERIOR LATEX PAINT TO SIGN INCLUDING FRAMEWORK.

PROJECT IDENTIFICATION SIGN A

SCALE: NTS

NO.	DATE	BY	CHK'D	REVISION

CONTRACT NO. : 6543	FILE NO. : 6543_C-518
ACCESSION NO. : -----	SECTION NO. : W10
DATE: AUGUST 2025	DESIGNED BY: RJS
SCALE: AS NOTED	DRAWN BY: TJC
	CHECKED BY: CON
	APPROVED BY: RJS



WESTON AQUEDUCT SUPPLY MAIN 3  
REHABILITATION OF WATER MAINS  
SECTION W10

PROJECT IDENTIFICATION DETAILS

