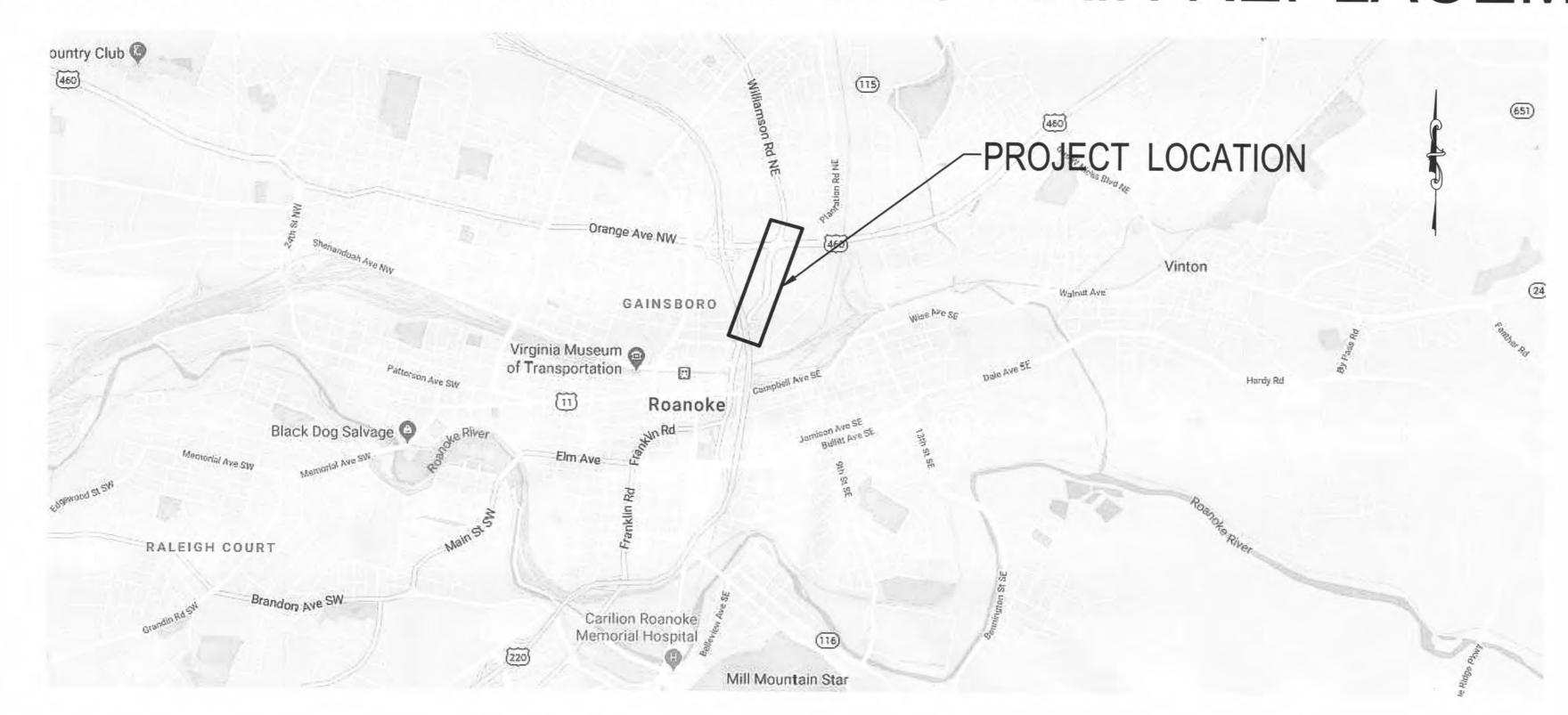


LOCATION MAP

NO SCALE

WESTERN VIRGINIA WATER AUTHORITY WILLIAMSON ROAD WATER MAIN REPLACEMENT & ROANOKE GAS COMPANY GAS MAIN REPLACEMENT



VICINITY MAP NO SCALE

SEPTEMBER 2020

APPROVED FOR CONSTRUCTION, WVWA

Project Manager



DRAWING TITLE

STANDARD DETAILS

STANDARD DETAILS

GENERAL NOTES & PROPOSED LEGEND

SURVEY SCHEDULES, NOTES, & EXISTING LEGEND

SHEET LAYOUT & FIRE HYDRANT COVERAGE MAP

TEMPORARY TRAFFIC CONTROL PLAN NOTES

TEMPORARY TRAFFIC CONTROL PLAN FIGURE 1

TEMPORARY TRAFFIC CONTROL PLAN FIGURE 2

TEMPORARY TRAFFIC CONTROL PLAN FIGURE 3

TEMPORARY TRAFFIC CONTROL PLAN FIGURE 4

TEMPORARY TRAFFIC CONTROL PLAN FIGURE 5

12" D.I. WATER MAIN PLAN - PROFILE, STA. 9+95 TO STA. 14+50

12" D.I. WATER MAIN PLAN - PROFILE, STA. 14+50 TO STA. 18+00

12" D.I. WATER MAIN PLAN - PROFILE, STA. 18+00 TO STA. 22+00

12" D.I. WATER MAIN PLAN - PROFILE, STA. 22+00 TO STA. 25+38(END) 10



SHEET NUMBER

WESTERN VIRGINIA WATER AUTHORITY 601 South Jefferson Street, Suite 300 Roanoke, Virginia 24011

DES: PJM SCALE: N/A DRAWN: JES HORIZ: N/A CHECK: PJM VERT: N/A DATE: 9/02/2020

WILLIAMSON ROAD WATER MAIN REPLACEMENT & ROANOKE GAS COMPANY GAS MAIN REPLACEMENT

REV DATE DESCRIPTION DRAWING SHEET COVER

GENERAL NOTES:

- 1. ALL CONSTRUCTION METHODS AND MATERIALS SHALL CONFORM TO THE LATEST EDITION OF THE WESTERN VIRGINIA REGIONAL DESIGN AND CONSTRUCTION STANDARDS AVAILABLE AT WWW.WESTERNVAWATER.ORG OR BY CONTACTING THE WESTERN VIRGINIA WATER AUTHORITY (AUTHORITY) AT 540-853-5700. THE PROJECT SHALL ALSO COMPLY WITH THE GOVERNING JURISDICTION'S STANDARDS AND OTHER AGENCY STANDARDS (E.G., VDOT, DEQ, DCR, VDH, ETC.) WHERE APPLICABLE.
- 2. THE AUTHORITY WILL INSTALL ALL NEW WATER METERS AND REMOVE ALL EXISTING WATER METERS. THE CONTRACTOR SHALL INSTALL COMPLETE NEW WATER SERVICES INCLUDING THE METER SETTER AND BOX IN CONFORMANCE WITH THE AUTHORITY'S STANDARDS. FOLLOWING METER REPLACEMENT BY THE AUTHORITY, THE CONTRACTOR SHALL DEMOLISH THE EXISTING WATER METER SETTER AND BOX. THE CONTRACTOR SHALL COORDINATE EXISTING METER REMOVAL AND NEW METER INSTALLATION DIRECTLY WITH THE AUTHORITY. THE CONTRACTOR SHALL PROVIDE AT LEAST THREE (3) BUSINESS DAYS ADVANCE NOTICE TO THE AUTHORITY PRIOR TO NEEDING METER INSTALLATIONS. THE CONTRACTOR SHALL SEQUENCE CONSTRUCTION ACTIVITY TO RECEIVE NEW METERS BEFORE CONTACTING THE AUTHORITY FOR WATER METER REPLACEMENT.
- 3. ALL LIVE CONNECTIONS TO EXISTING WATERLINES SHALL BE PERFORMED BY THE AUTHORITY. THE CONTRACTOR SHALL PROVIDE FULL STAINLESS STEEL TAPPING SLEEVE(S) AND VALVE(S). THE CONTRACTOR SHALL EXCAVATE TO THE EXISTING WATERLINE, SHORE THE TRENCH PER OSHA REQUIREMENTS. CLEAN THE EXISTING WATERLINE, AND INSTALL THE TAPPING SLEEVE AND VALVE PRIOR TO THE AUTHORITY PERFORMING THE TAP. THE CONTRACTOR SHALL NOTIFY THE AUTHORITY'S INSPECTOR AT LEAST SEVENTY-TWO (72) HOURS PRIOR TO REQUIRING THE CONNECTION.
- 4. ALL CONNECTIONS TO EXISTING SANITARY SEWERLINES SHALL BE PERFORMED BY THE AUTHORITY. THE CONTRACTOR SHALL EXCAVATE TO THE EXISTING SEWERLINE, SHORE THE TRENCH PER OSHA REQUIREMENTS, AND CLEAN THE EXISTING SEWERLINE PRIOR TO THE AUTHORITY PERFORMING THE TAP. THE CONTRACTOR SHALL NOTIFY THE AUTHORITY'S UTILITY LINE SERVICES DIVISION AT 540-853-2792 AT LEAST SEVENTY-TWO (72) HOURS PRIOR TO REQUIRING THE CONNECTION.
- 5. THE CONTRACTOR SHALL PERFORM ALL MANHOLE CONNECTIONS. THE CORING AND BOOT INSTALLATION SHALL BE INSPECTED AND APPROVED BY AN AUTHORITY CONSTRUCTION INSPECTOR PRIOR TO ACTIVATING SEWER SERVICE. THE CONTRACTOR SHALL CONTACT THE AUTHORITY'S CONSTRUCTION INSPECTOR RESPONSIBLE FOR THE PROJECT AT LEAST ONE (1) DAY PRIOR TO INITIATING THE MANHOLE CONNECTION.
- 6. PRIOR TO CONSTRUCTION IN THE RIGHT-OF-WAY, ALL APPLICABLE PERMIT(S) FROM THE GOVERNING JURISDICTION AND/OR AGENCY MUST BE OBTAINED AND A COPY KEPT ON THE PROJECT SITE.
- 7. FOR PROJECTS REQUIRING TRAFFIC CONTROL IN THE CITY OF ROANOKE, NOTIFY MANAGER OF TRANSPORTATION, DWAYNE D'ARDENNE, AT 540-853-1756 AT LEAST TWO (2) WEEKS IN ADVANCE OF REQUIRING TRAFFIC CONTROL. FOR A LANE CLOSURE PERMIT IN THE CITY OF ROANOKE, CONTACT THE TRAFFIC ENGINEER, HONG LIU, AT 540-853-2686. IN ROANOKE, BOTETOURT, OR FRANKLIN COUNTIES, TRAFFIC CONTROL REQUIREMENTS ARE APPROVED BY VDOT. PLEASE CONTACT THE LOCAL VDOT OFFICE. TRAFFIC CONTROL SHALL BE PROVIDED IN ACCORDANCE WITH THE MOST RECENT MUTCD MANUAL AND THE VDOT WORK AREA PROTECTION MANUAL UNLESS OTHERWISE SPECIFIED BY THE CITY.
- 8. THE CONTRACTOR SHALL NOTIFY THE AUTHORITY'S ENGINEERING COORDINATOR, MARK SINK, AT 540-537-3460 AT LEAST THREE (3) DAYS PRIOR TO CONSTRUCTION. PRE-CONSTRUCTION NOTICES SHALL BE PROVIDED TO THE CITY'S TRANSPORTATION DIVISION AT 540-853-2686 IN ACCORDANCE WITH PARAGRAPH 4.1 NOTICES, OF THE CITY'S RIGHT-OF-WAY EXCAVATION AND RESTORATION STANDARDS. LATEST EDITION.
- 9. A PRE-CONSTRUCTION CONFERENCE SHALL BE SCHEDULED AT LEAST ONE (1) DAY PRIOR TO ANY CONSTRUCTION.
- 10. THE CONTRACTOR SHALL HAVE A VALID MISS UTILITY TICKET PRIOR TO EXCAVATION, CONTACT MISS UTILITY AT 1-800-552-7001.
- 11. ALL EXISTING UTILITIES MAY NOT BE SHOWN OR MAY NOT BE SHOWN IN THEIR EXACT LOCATION. CONTRACTOR SHALL LOCATE ALL UTILITIES AND DETERMINE ALL INVERTS PRIOR TO CONSTRUCTION TO ALLOW FOR ADJUSTMENTS DUE TO CONFLICTS WITH OTHER UTILITIES. THE CONTRACTOR SHALL COMPLY WITH THE VIRGINIA STATE WATERWORKS REGULATIONS, SECTION 12VAC5-590-1150, AND THE VIRGINIA STATE SEWAGE COLLECTION AND TREATMENT REGULATIONS WHERE LINES CROSS.
- 12. AN APPROVED SET OF PLANS AND PERMITS MUST BE AVAILABLE AT THE CONSTRUCTION SITE AT ALL TIMES.
- 13. CONSTRUCTION DEBRIS SHALL BE CONTAINERIZED IN ACCORDANCE WITH THE VIRGINIA LITTER CONTROL ACT.
- 14. THE CONTRACTOR'S CERTIFIED RESPONSIBLE LAND DISTURBER SHALL BE RESPONSIBLE TO IMPLEMENT ALL EROSION AND SEDIMENT CONTROLS REQUIRED. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK, AND SHALL BE INSTALLED PRIOR TO CONSTRUCTION. THE AUTHORITY MAY REQUIRE CHANGES TO AN APPROVED PLAN IN THE FOLLOWING CASES WHERE INSPECTION HAS REVEALED THAT THE PLAN IS INADEQUATE TO SATISFY APPLICABLE REGULATIONS.
- 15. THE CONTRACTOR SHALL PROVIDE ADEQUATE MEANS OF CLEANING ALL VEHICLES AND EQUIPMENT PRIOR TO ENTERING PUBLIC STREETS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT THE STREETS ARE KEPT IN A CLEAN. MUD- AND DUST-FREE CONDITION AT ALL TIMES.
- 16. FIELD CHANGES SHALL BE APPROVED BY THE AUTHORITY'S ENGINEERING DIVISION PRIOR TO SUCH CONSTRUCTION. NO ADDITIONAL PAY ITEMS SHALL BE MADE TO CONTRACTOR FOR WORK PERFORMED WITHOUT PRIOR APPROVAL FROM AUTHORITY'S PROJECT MANAGER.
- 17. THE CONTRACTOR SHALL MAKE PROVISIONS TO PROVIDE ACCESS TO ALL PROPERTIES DURING CONSTRUCTION AND SHALL MAINTAIN SAFE ACCESSIBILITY TO FIRE HYDRANTS AT ALL TIMES.
- 18. A. THE CONTRACTOR SHALL REPAIR ALL OPEN CUT PAVEMENT IN ACCORDANCE WITH THE CITY OF ROANOKE RIGHT-OF-WAY EXCAVATION AND RESTORATION STANDARDS, LATEST EDITION.
 - B. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND UNCOVERING ALL MANHOLES AFTER PAVING. MANHOLE RIMS SHALL BE INSTALLED TO GRADE AND FLUSH WITH THE FINAL PAYMENT.
 - C. RIGHT TURN ARROWS. CROSSWALK AND STOP BAR PAVEMENT MARKINGS SHALL BE REPLACED WITH TYPE B CLASS I OR II PREFORMED THERMOPLASTIC. LANE STRIPING SHALL BE REPLACED WITH TYPE A, PAVEMENT MARKING PAINT WITH GLASS BEADS PER VDOT SPECIFICATION.
- 19. UNREPAIRED ROADWAYS OPENED TO TRAFFIC SHALL HAVE, AT A MINIMUM, COMPACTED AGGREGATE MATERIAL VDOT 21A OR 21B FLUSH WITH THE ADJACENT ROADWAY SURFACE AND SHALL BE INSPECTED AND REPAIRED ON A DAILY BASIS. SOME AREAS WILL REQUIRE A TEMPORARY PATCH UNTIL FINAL PAVING CAN BE COMPLETED.
- 20. THE CONTRACTOR SHALL NOT EXCAVATE MORE TRENCH LENGTH THAN CAN BE RESTORED WITHIN THE SAME WORK DAY. ALL TRENCHES SHALL BE BACKFILLED OR PLATED AT THE END OF EACH WORK DAY OR WHEN THE CONTRACTOR IS NOT ON SITE.
- 21. THE CONTRACTOR SHALL SUPPLY THE AUTHORITY WITH CORRECT AS-BUILT PLANS BEFORE SUBSTANTIAL COMPLETION WILL BE GRANTED.
- 22. HORIZONTAL AND/OR VERTICAL BEND FITTINGS SHOWN IN THE PLAN ARE APPROXIMATE. CONTRACTOR TO BE AWARE THAT ALL HORIZONTAL AND/OR VERTICAL BEND FITTINGS MAY NOT BE SHOWN IN THE PLANS.
- 23. ANY PROJECT WITHIN VDOT JURISDICTION WILL REQUIRE COMPACTION TESTS EVERY 500 LINEAR FEET WHERE PAVEMENT (ROADWAY) IS CUT AND REPLACED.
- 24. CONTRACTOR SHALL RECORD VERTICAL AS-BUILT DATA TO INCLUDE DEPTH OF WATER MAIN, WATER MAIN FEATURES & ALL UTILITY CROSSINGS.
- 25. THE WATER MAIN TEST PRESSURE SHALL BE 200 PSI.





WESTERN VIRGINIA WATER AUTHORITY 601 South Jefferson Street, Suite 300 Roanoke, Virginia 24011

DES:	PJM	SCALE:	N/A
DRAWN:	JES	HORIZ:	N/A
CHECK:	PJM	VERT:	N/A
DATE:	9/02/2020		

WILLIAMSON ROAD

WATER MAIN REPLACEMENT &

ROANOKE GAS COMPANY GAS MAIN REPLACEMENT

GAS MAIN NOTES:

1. ALL GAS INSTALLATION SHALL BE IN ACCORDANCE WITH THE ROANOKE

GAS BASE CONTRACT AND SPECIFICATIONS FOR CONSTRUCTION OF

DISTRIBUTION GAS LINES AND OPERATIONS & MAINTENANCE MANUAL.

SYMBOL LEGEND (PROPOSED)

WATER MAIN

— s—— s—— SANITARY SEWER MAIN

WATER MAIN TO BE ABANDONED X12" WX X X WATER MAIN TO BE REMOVED

FIRE HYDRANT

GATE VALVE & BOX

GATE VALVE & VAULT

BLOW-OFF VALVE

AIR RELEASE VALVE

SINGLE RESIDENTIAL WATER SERVICE. SEE DETAIL W-2 UNLESS OTHERWISE SHOWN

M GAS VALVE

GAS MARKER BALL

GAS MAIN LOCATION STATION

DEMOLITION OF UTILITY VAULT INCLUDING ALL NEEDED FILL AND SURFACE RESTORATION

PAVEMENT PATCH FOR DEMOLISHED VALVE VAULT

RESTORATION FOR DEMOLISHED VALVE VAULT IN NON-PAVEMENT AREA

OBSERVATION PIT

OBSERVATION PIT FOR TRENCHLESS INSTALLATION

EROSION & SEDIMENT CONTROL LEGEND (REF. VIRGINIA EROSION & SEDIMENT CONTROL HANDBOOK, LATEST EDITION)

(SF) STD. & SPEC. 3.05 SILT FENCE

STD. & SPEC. 3.07 STORM DRAIN INLET PROTECTION

STD. & SPEC. 3.08 CULVERT INLET PROTECTION

	UTILITY TEST HOLES (TH)	- DEPTH TO TOP OF	UTILITY	
TH NO.	UTILITY	DEPTH	SHEET	ASPHALT THICKNESS
1	36" WATER MAIN	2'-8"	7	1'-2"
2	36" WATER MAIN	4'-6"	8	8"

	REV	DATE	D	ESCRIPTION
			DRAWING	SHEET
GENERAL NOTES & PROPOSED LEGE	ND		_	2

				Existing S	torm Dro	ainage T	a b l e		
#	STRUCTURE	RIM	GRATE	TOP INV.OUT	INV.IN	INV.IN(2)	INV.IN(3)	INV.IN(4)	THROAT
D-1	Curb Inlet	935.07'		929.98' (15" RCP)	930.25' (15" RCP)				3'
D-1a	Curb Inlet	934.95'		930.47' (15" RCP)	933.47' (15" RCP)				4'
D-1b	Curb Inlet	934.92'		931.08' (15" RCP)					6'
D-2	Curb Inlet	931.41'		926.71' (24" RCP)	926.65' (24" RCP) W	927.75' (12" RCP) NW			14'
D-2a	DMH	933.26'		930.31' (12" RCP)					
D-3	Curb Inlet	931.70'		926.14' (24" RCP)	926.14' (24" RCP)				20'
D-4	DMH	931.83'		920.83' (6x 6' Culvert) 3	921.43' (60" RCP)	923.43' (24" RCP) W	924.13' (15" RCP) E	927.53' (3.6x 5.6' RCP) N	
D-4a	Curb Inlet	931.91'		926.71' (15" RCP)					20'
D-5	Curb Inlet	931.95'		925.37' (15" RCP)	925.35' (15" RCP)				3'
D-5a	Curb Inlet	931.42'		927.51' (15" RCP)	927.78' (15" RCP)				10'
D-5b	Curb Inlet	933.17'		928.27' (15" RCP)	928.32' (10" PVC)				6'
D-5c	DMH	933.25		929.64' (10" PVC)	929.55' (8" PVC)				
D-6	Curb Inlet	934.88'		923.18' (18" RCP)					
D-7	Curb Inlet	938.98'		929.69' (18" RCP)	930.35' (18" RCP)				12'
D-7a	DMH	939.03'		930.35' (18" RCP)	930.45' (15" ABS) W	930.23' (12" ABS) SW			
D-7b	Curb Inlet	934.91'		, , ,	932.45' (12" ABS)	, ,			
D-8	Curb Inlet	938.53'		925.49' (60" RCP) S	927.36' (15" RCP) NW	925.69' (60" RCP) N			12'
D-9	Curb Inlet	930.36'		923.66' (15" RCP)	923.91' (15" RCP)W	923.85' (15" RCP) S			3'
D-9a	Curb Inlet	931.41'		924.93' (15" RCP)	/	,			10'
D-9b	Curb Inlet	930.23'		926.28' (15" RCP)	926.46' (15" RCP)				3'
D-9c	Curb Inlet	930.36		926.63' (15" RCP)	,				3'
D-10	Curb Inlet	932.80'		923.66' (30" RCP)	923.83' (24" RCP)				3'
D-10a	Curb Inlet	929.98'		925.24' (24" RCP)	925.36' (18" RCP) NW	925.38' (18" RCP) SW			6'
D-10b	Curb Inlet	930.82		926.63' (18" RCP)	(10 1101)				3'
D-10c	Curb Inlet	931.21		927.58' (18" RCP)	927.61' (18" RCP)				16'
D-10d	Curb Inlet	931.96'		928.14' (18" RCP)	027.01 (10 1101)				12'
D-11	DMH	935.6		916.67' (6'x 6' Culvert)					12
D-12	Curb Inlet	941.21		936.74' (18" RCP)	936.86' (12" RCP) NE	936.89' (12" RCP) SW			6'
D-12a	Curb Inlet	941.16		937.14' (12" RCP)	000.00 (12 1101) 112	72 Nor y 611			6'
D-12b	Curb Inlet	941.42'		938.02' (12" RCP)					6'
D-13	DMH	941.54		936.14' (18" RCP)	936.43' (18" RCP) SE	937.12' (12" RCP)			
D-13a	Curb Inlet	941.58'		938.18' (12" RCP)	(10 1101) 02	007.112 (12 1101)			3'
D-14	DMH	943.12'		935.24' (18" RCP)	935.49' (18" RCP)				
D-15	DMH	944.38'		932.45' (30" RCP)	933.50' (18" RCP) NE	932.86' (18" RCP) SE			
D-16	Curb Inlet	941.32'		935.06' (15" RCP)	935.35' (15" RCP)	002.00 (10 1101) 02			6'
D-16a	Curb Inlet	941.36		936.26' (15" RCP)	936.64' (12" RCP)				6'
D-16b	Curb Inlet	941.39'		937.35' (12" RCP)	000.07 (12 1101)				4'
D-16c	Curb Inlet	941.32'		935.81' (12" RCP)	935.88'			12'	7
D-16d	Curb Inlet	371.32		940.32 936.39' (12" RCP)	955.00			3'	
D-17	DMH	941.39		936.65' (24" RCP)	936.75' (15" RCP) N	937.34' (15" RCP) E		J	
D-17a	Curb Inlet	942.77'		937.76' (15" RCP)	938.07' (12" RCP)	307.01 (10 NOI) L		6'	
D-17b	Curb Inlet	942.77		939.01' (12" RCP)	330.07 (12 1101)			6'	
D-17c	Curb Inlet	940.84	940.40'	936.64' (24" RCP)	936.79' (24" RCP)			0	
D-17C D-18	DMH	940.84	340.40	928.61' (RCP)	931.77' (12" RCP) N	937.16' (15" RCP) SE	937.27' (15" RCP) W		
D-16 D-18a	Curb Inlet	942.15		937.52' (15" RCP)	JJ1.77 (12 NOF) IV	007.10 (10 NOI) 3L	301.21 (10 NOI-) W	5'	
D-160 D-20	Curb Inlet	941.16		935.95' (24" RCP)	936.02' (24" RCP)			6'	
D-20 D-21	Curb Inlet	942.42		934.34' (24" RCP)	934.40' (24" RCP)			6'	
	DMH			933.11' (30" RCP)	933.31' (24" RCP)			0	
D-22		939.33'		932.05' (30" RCP)	932.05' (30" RCP) NE	933.78' (18" RCP) S			
D-23	DMH Curb Inlat	937.78'		932.84' (18" RCP)	302.00 (30 KGP) NE	300.10 (10 KUP) 3		ο'	
D-23a	Curb Inlet DMH	937.23'		302.04 (10 KUP)				8'	
D-24 D-24a	Curb Inlet	937.24' 937.11'						10'	
U ZTU	Curb Inlet	937.11			+			4'	

		Exis	sting	Sanitar	y Sewer	Table	
#	STRUCTURE	WVWA#	RIM	INV.OUT	INV.IN(1)	INV.IN(2)	INV.IN(3)
S-1	SSMH	12A-3518.0	933.73'	928.15' (10" VCP)	928.12' (10" VCP)		
S-2	SSMH	12A-3519.0	932.78'	928.12' (10" VCP)	928.13' (10" VCP) W	928.27' (8") S	
S-3	SSMH	12A-3519.5	932.15'	927.94' (10" CNC)	928.02' (10" VCP) W	927.85' (8") S	928.59' (6") N
S-4	SSMH	12A-3520.0	931.48'	921.08' (10" CNC)	921.15' (10" CNC)W	924.88' (10" CNC) N	
S-5	SSMH	12A-0014.0	930.98'	920.98' (24" CNC)	920.98' (24" CNC) W	921.03' (10" CNC) N	
S-6	SSMH	12A-0015.0	931.07'	921.39' (24" CNC)	921.39' (24" CNC) W	924.07' (12" DIP)	
S-6a	SSMH	12A-0016.0	935.92'	924.07' (24" CNC)	924.07' (24" CNC)		
S-6b	SSMH	13-0001.0	931.46'	927.46' (12" DIP)	927.46' (12" DIP)		
S-7	SSMH	12A-0013.0	931.57'	918.73' (24" CNC)	918.73' (24" CNC) W	921.12' (8" CNC) SE	
S-8	SSMH	12A-0012.0	931.64'	918.64' (24" CNC)	918.64' (24" CNC) W	925.38' (12" CNC) NW	
S-8a	SSMH	12A-3516.0	932.30'	927.35' (12" CNC)	927.63' (12" CNC)		
S-8b	SSMH	12A-3001.0	934.38'	928.23' (12" CNC)	929.18' (12" CNC)		
S-9	SSMH	12A-0011.0	935.75'	916.82' (24" CNC)	916.82' (24" CNC) W	929.22' (8" DIP) N	

WEALTH OF	
Paula J. Moss	
PAULA J. MOORE Lic. No. 035821 0. 09/02/2020	VVKX
STONAL ENGIN	Whitman, Requardt & Associa

	WESTERN VIRGINIA WATER
equardt & Associates, LLP Suite 1200, Blacksburg, VA 24060	601 South Jefferson Street, Su Roanoke, Virginia 24017
Suite 1200, blacksburg, VA 24000	

#	RIM	TOP_OF_NUT	DECRIPTION
W-A	937.06'	930.96	Valve
W-B	938.40'	931.83'	Blow-Off Valve
W-C	939.63'	938.30'	Valve
W-D	939.36'	936.63'	Valve
W–E	942.78'	937.51 ' B	Blow-Off Valve
W–F	941.55'	937.66'	Valve
W-G	941.61	934.51'	Valve
W-H	941.55	935.01'	Air Release Valve
W− <i>J</i>	940.46	933.86' TP	Valve
W-K	938.84	936.49'	Valve
W-L	938.77'	936.84	Valve
W-M	938.35'	Full	Valve
W-N	937.90'	934.84'	Valve
W-P	937.66'	934.59'	Valve
W-Q	937.68'	935.23'	Valve
W–R	936.47	931.72'	Valve

Notes:

- 1) THIS PLAT IS BASED ON A CURRENT FIELD SURVEY.
- 2) THIS PLAT WAS PREPARED WITHOUT THE BENEFIT OF A CURRENT TITLE REPORT AND THERE MAY EXIST ENCUMBRANCES WHICH EFFECT THE SUBJECT PROPERTY THAT ARE NOT SHOWN HEREON.
- 3) A PORTION OF THIS SURVEY (SEE SHEET 4 of 4) DOES LIE WITHIN THE LIMITS OF A SPECIAL FLOOD HAZARD AREA AS DESIGNATED BY FEMA. THIS OPINION IS BASED ON AN INSPECTION OF THE FLOOD INSURANCE RATE MAPS AND HAS BEEN VERIFIED BY ACTUAL FIELD ELEVATIONS, SEE MAP #51161C0166G, DATED: SEPTEMBER 28, 2007. ZONE "AE", ZONE "X" (SHADED) AND ZONE "X" (unShaded).
- 4) THIS PLAT IS BASED ON VIRGINIA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD 83 ADJUSTMENT, SURFACE VALUES. SURFACE VALUES WERE OBTAINED BY SCALING GRID COORDINATES BY A COMBINED SCALE FACTOR OF 1.000093669 AT POINT #11001 (N: 3629665.3400, E: 11063530.4300, ELEV: 937.84).
- 5) CONTOURS AS SHOWN HEREON ARE AT 2-FOOT INTERVALS.
- 6) THIS PLAT DOES NOT GUARANTEE THE EXISTENCE OR LOCATION OF ANY UNDERGROUND UTILITIES. ALL SURFACE UTILITIES WERE FIELD LOCATED. ALL UNDERGROUND UTILITIES SHOWN WERE ESTABLISHED USING ABOVE GROUND STRUCTURES, AND MARKINGS BY MISS UTILITY. SEE MISS UTILITY TICKET NUMBERS A900400602, A900400544 & A900400586. ALL UNDERGROUND UTILITY LINES ARE APPROXIMATE AND SHOULD BE FIELD VERIFIED PRIOR TO THE START OF ANY CONSTRUCTION.

PATTERN LEGEND (EXISTING)

	CONCRETE
	STONE/MODULAR
	PLANTED BED
* * *	VEGETATION

----- R/W AND PROPERTY BOUNDARY

SYMBOL LEGEND (EXISTING) — FO — UNDERGROUND FIBER OPTICS _____ W ____ WATER LINE SANITARY SEWER LINE STORM DRAIN LINE

——— G ———— G GIS DATA GAS LINE —— E —— E —— UNDERGROUND ELECTRIC LINE **─•** • • • • GUARDRAIL RAILROAD — ACTIVE

--- -1030 --- EXISTING MAJOR CONTOURS — 1032— — EXISTING MINOR CONTOURS

— — — — — — UNKNOWN UTILITY

PROPERTY CORNER PROPERTY MONUMENT

 ${\mathbb P}$ property line

S SANITARY SEWER MANHOLE oco Sanitary Sewer Cleanout

D STORM DRAINAGE MANHOLE ○ ♦ UTILITY POLE

GUY WIRE

额 TREE

TRAFFIC ARROWS

o^{MB} ₩ MAILBOX

→ SIGN

 \otimes GATE VALVE

₩ WATER METER W WATER MANHOLE

W WATER VAULT

→ FIRE HYDRANT C GAS VALVE

E ELECTRIC VAULT

TRAFFIC SIGNAL POLE

TELEPHONE MANHOLE

TELEPHONE VAULT

B GAS METER

© ELECTRIC MANHOLE

 $^{\dot{
ho}}$ LAMP POST

△ ELECTRIC TRANSFORMER AIR RELEASE VALVE

TRAFFIC MANHOLE

AEP AMERICAN ELECTRIC POWER BOTTOM OF MANHOLE

B.W.L. BROKEN WHITE LINE

CORRUGATED METAL PIPE

CONCRETE PIPE

CONCRETE & GUTTER

DUCTILE IRON PIPE DRAINAGE MANHOLE

D.Y.L. DOUBLE YELLOW LINE

UNDERGROUND FIBER OPTIC UNDERGROUND GAS

GUY WIRE

NO PARKING

OVERHEAD ELECTRIC

OVERHEAD UTILITIES POLYVINYL CHLORIDE PIPE

REINFORCED CONCRETE PIPE

SANITARY SEWER LINE

SANITARY SEWER MANHOLE

S.W.L. SOLID WHITE LINE

TOP OF PIPE TRAFFIC SIGNAL WIRE

UNDERGROUND ELECTRIC

UNDERGROUND GAS

UNDERGROUND TELEPHONE

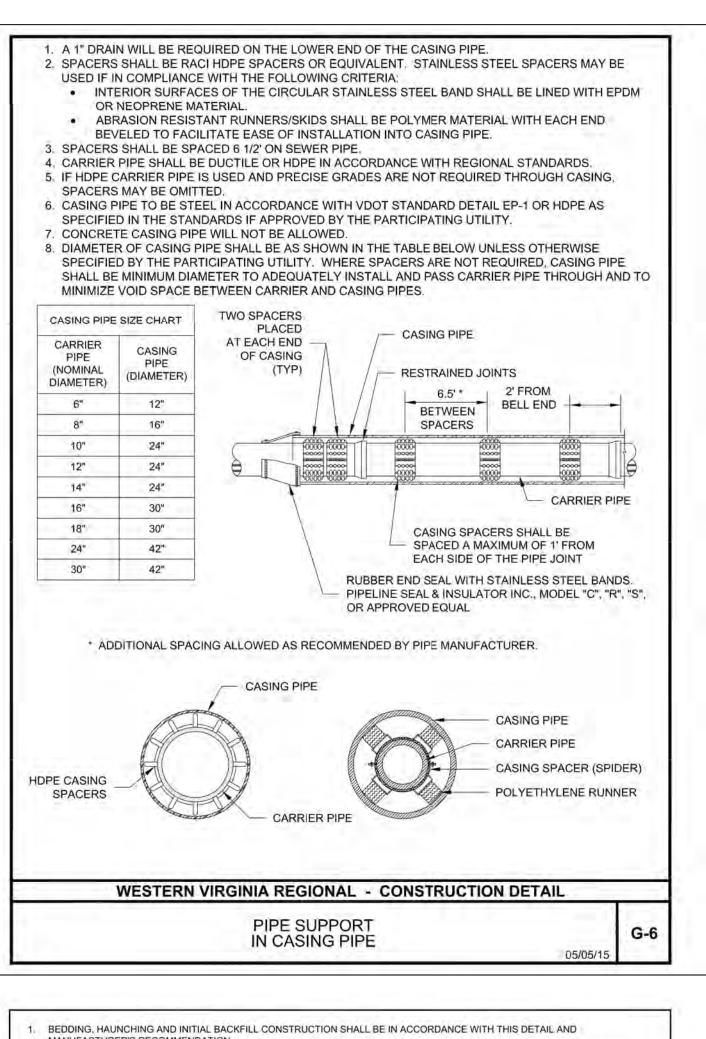
UNDERGROUND VERIZON VITRIFIED CLAY PIPE

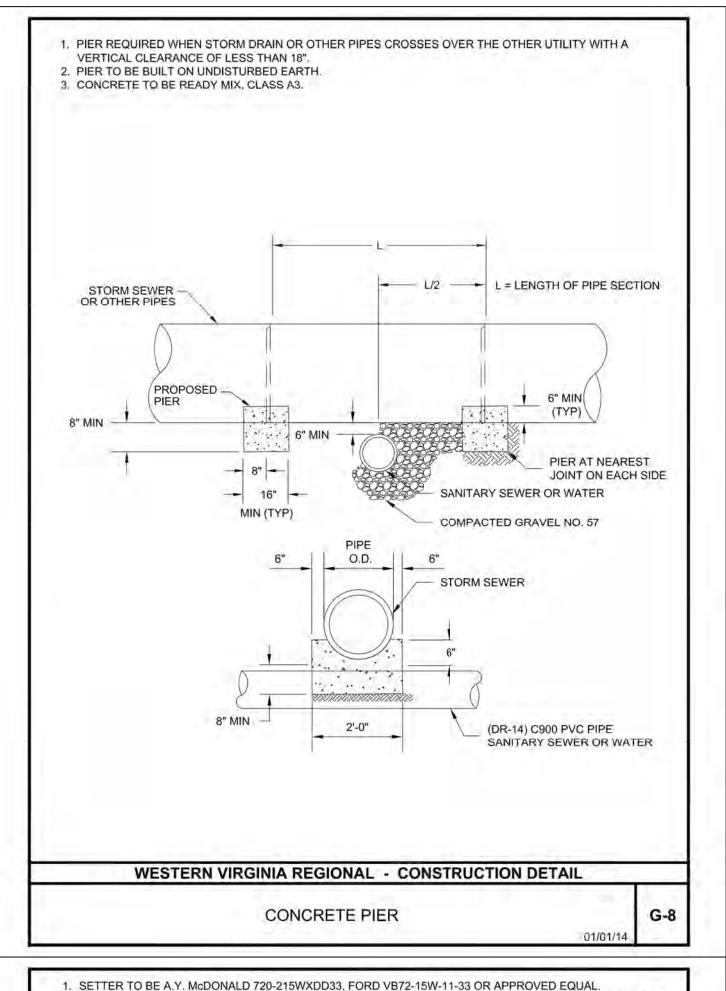
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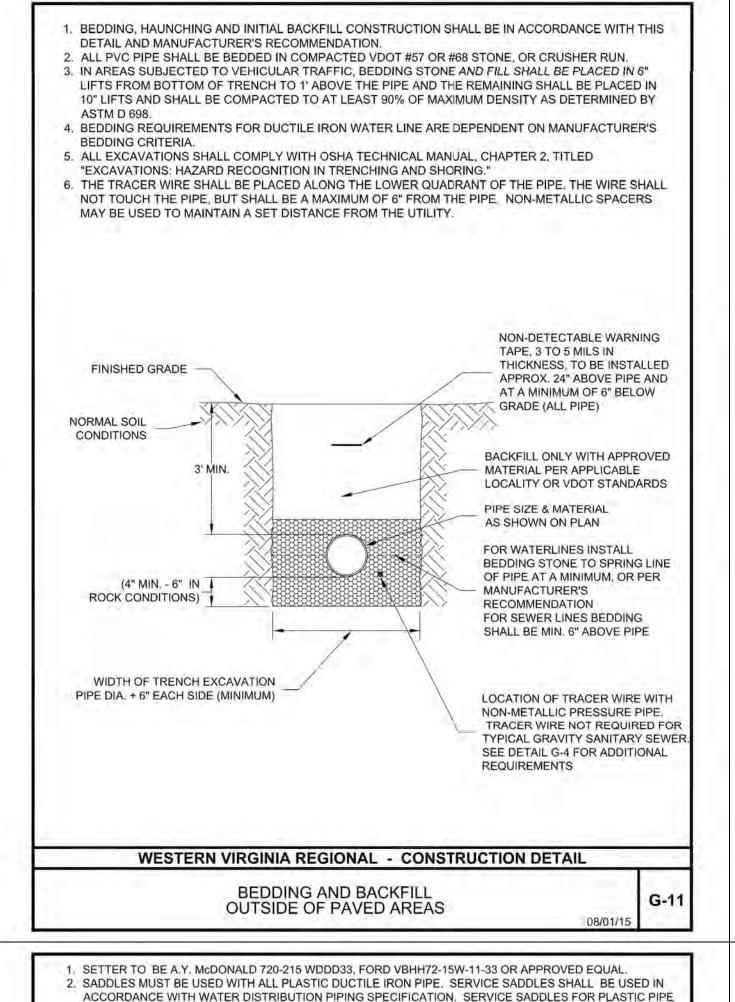
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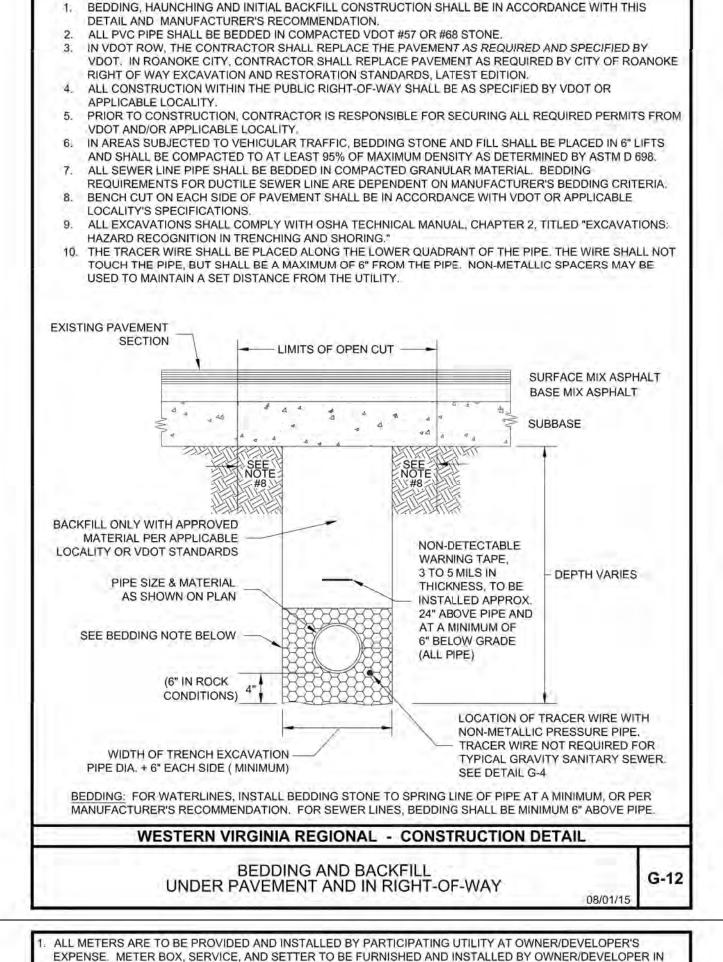
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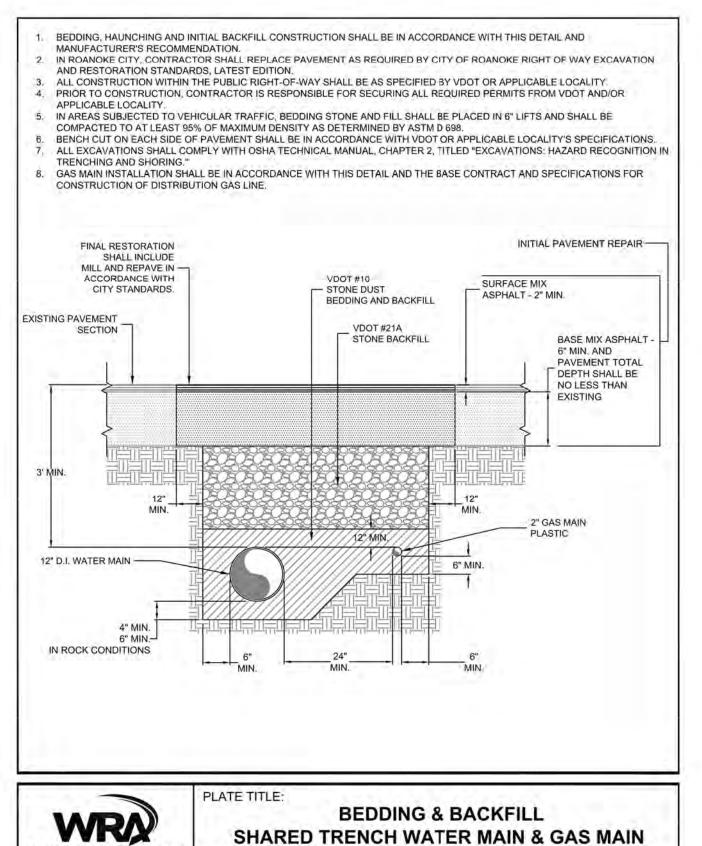
ESTERN	VIRGINIA WATER AUTHORITY	
601	South Jefferson Street, Suite 300	
	Rognoke, Virginia 24011	

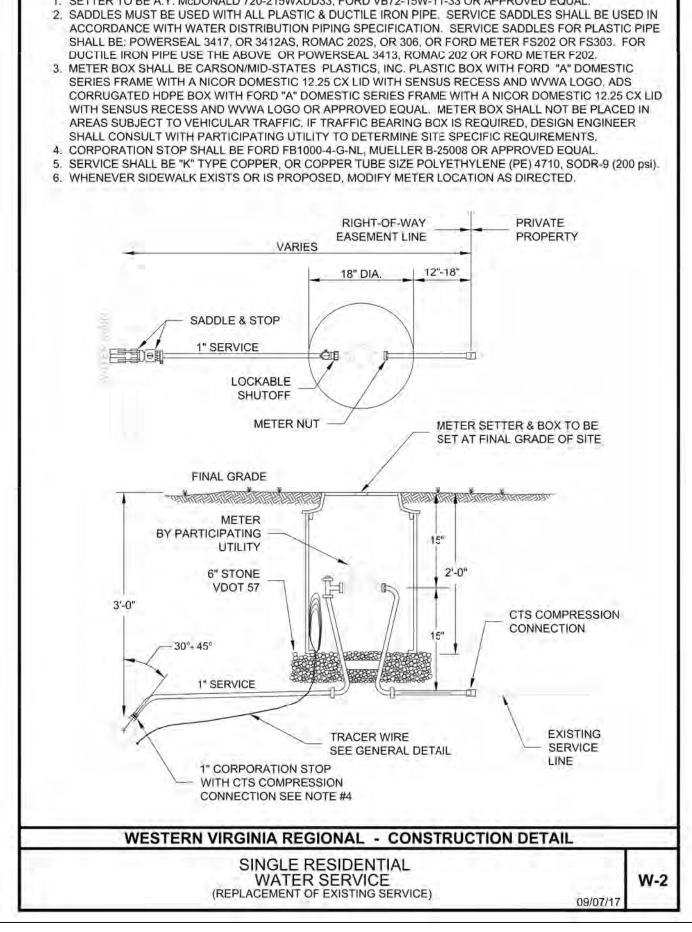


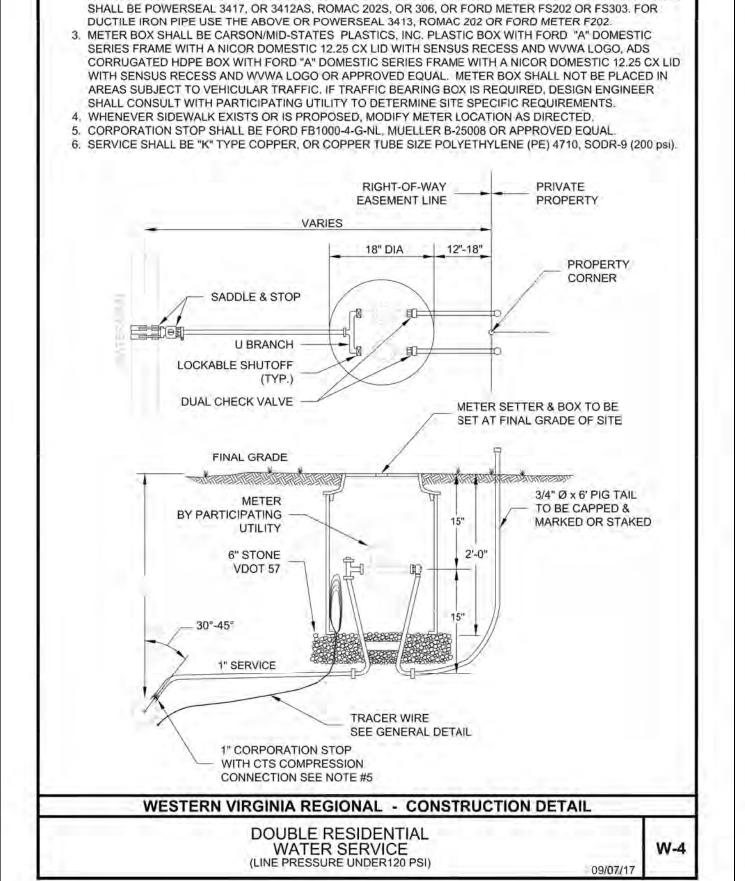


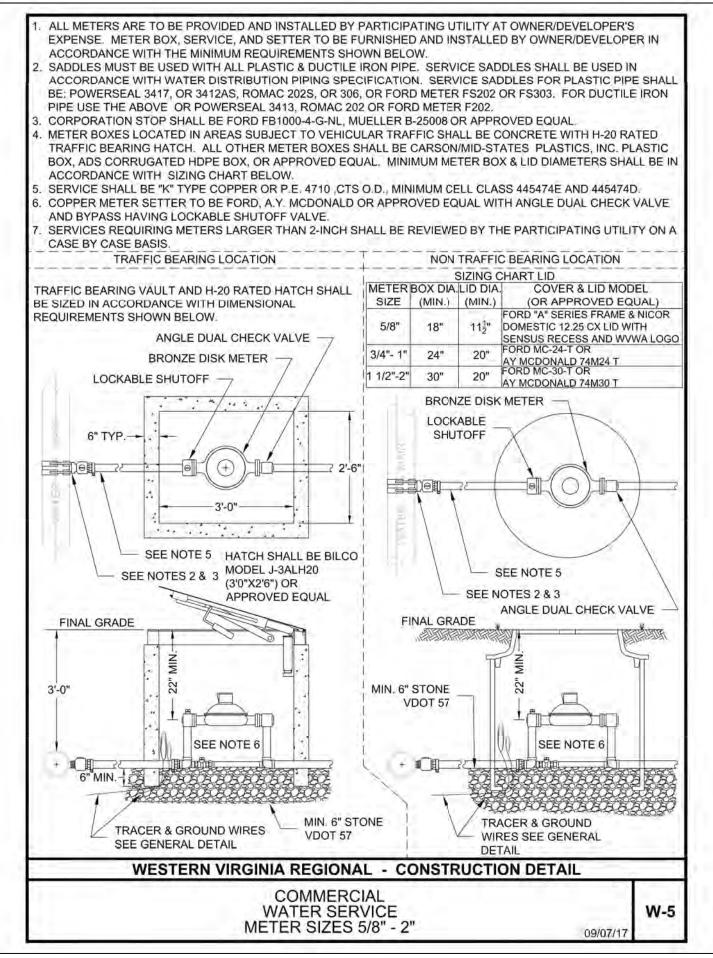


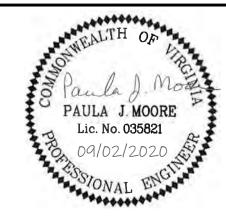












itman, Requardt & Associates, LLF

SCALE: N.T.S.

PLATE #:



G-13

8/14/20

WESTERN VIRGINIA WATER AUTHORITY

601 South Jefferson Street, Suite 300
Roanoke, Virginia 24011

DES:	PJM	SCALE:	N/A
DRAWN:	JES	HORIZ:	N/A
CHECK:	PJM	VERT:	N/A
DATE:	9/02/2020		

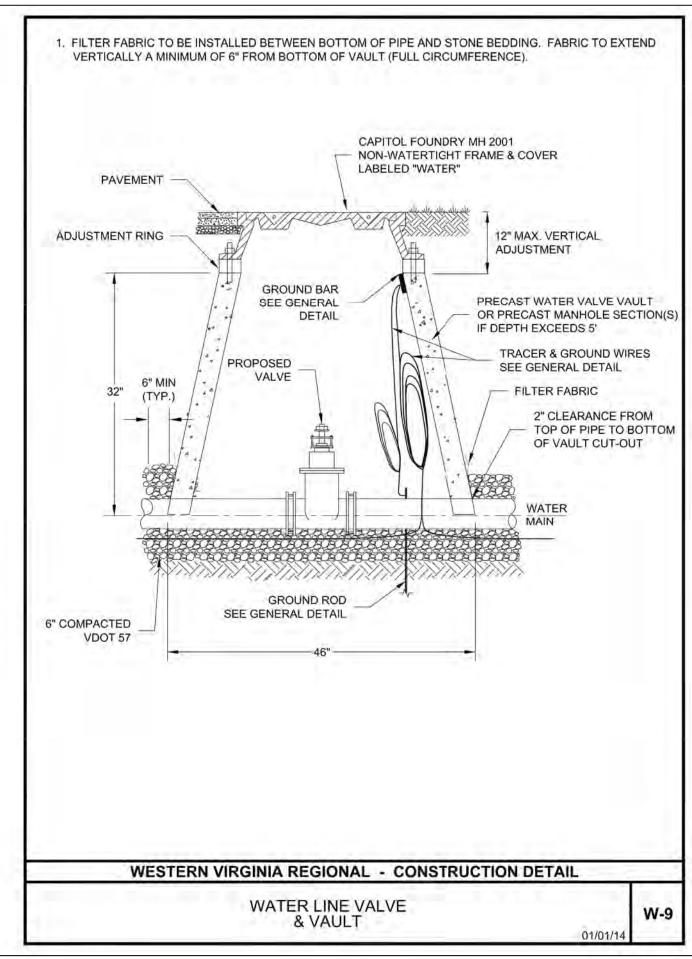
WILLIAMSON ROAD
WATER MAIN REPLACEMENT &
ROANOKE GAS COMPANY GAS MAIN REPLACEMENT

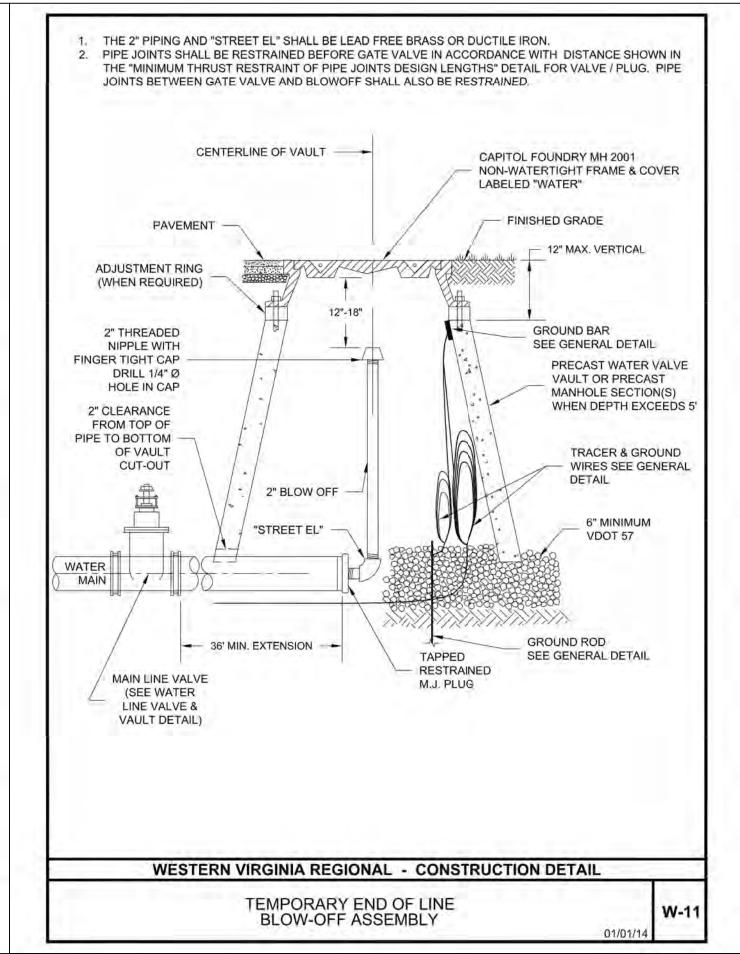
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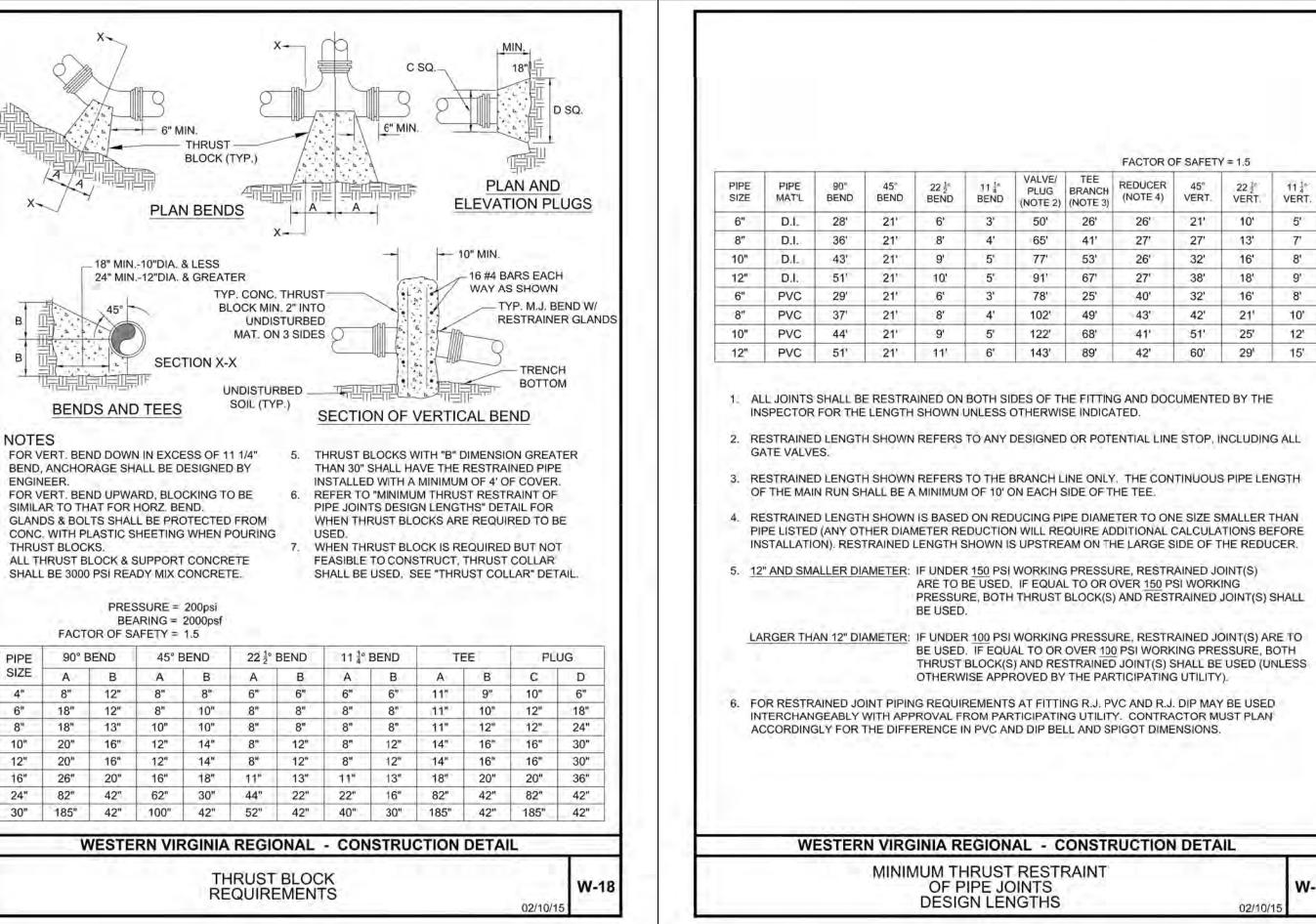
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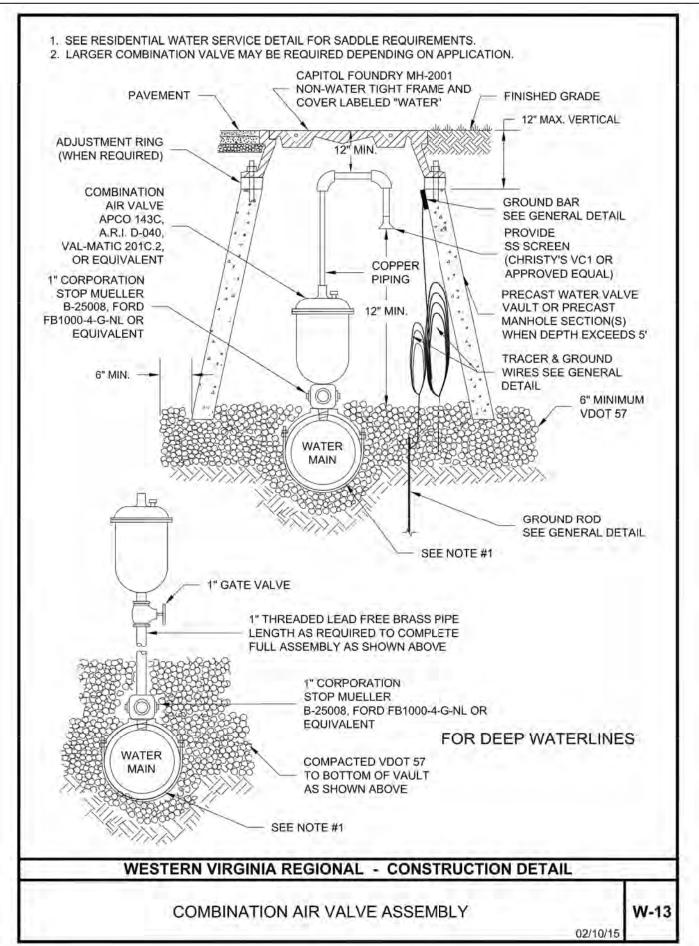
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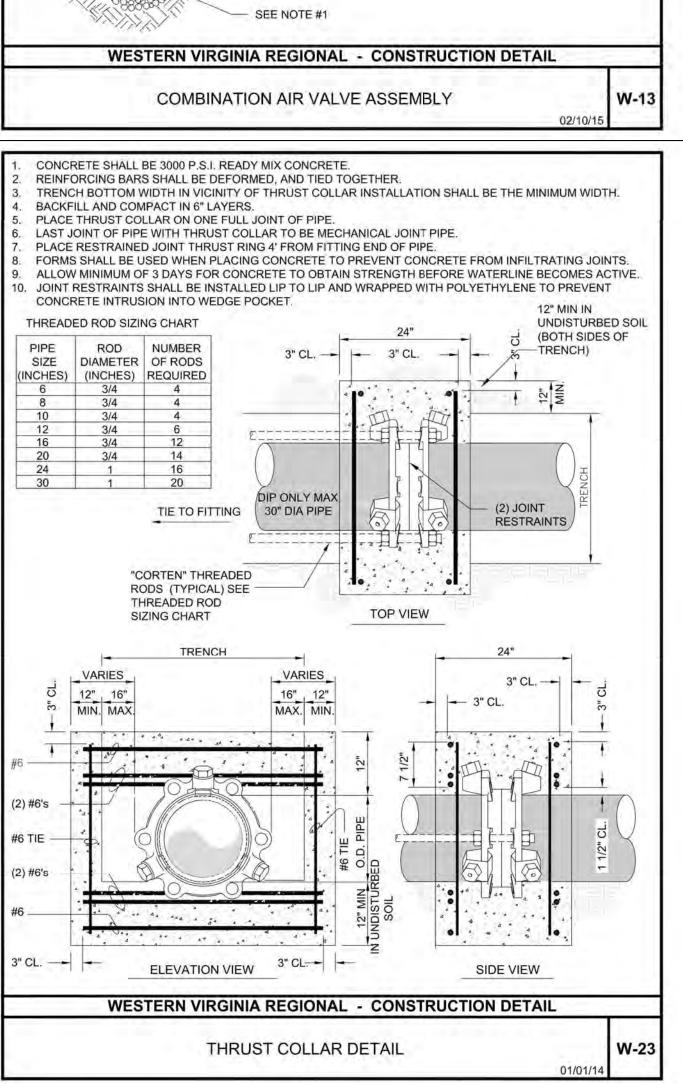
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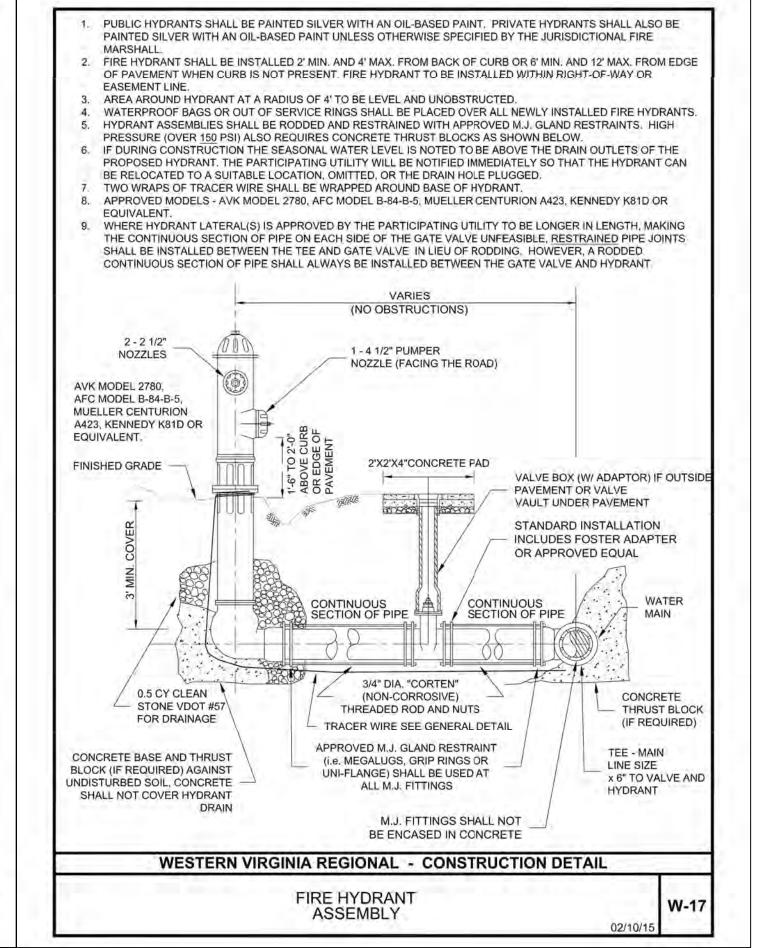
















1700 Kraft Dr, Suite 1200, Blacksburg, VA 24060

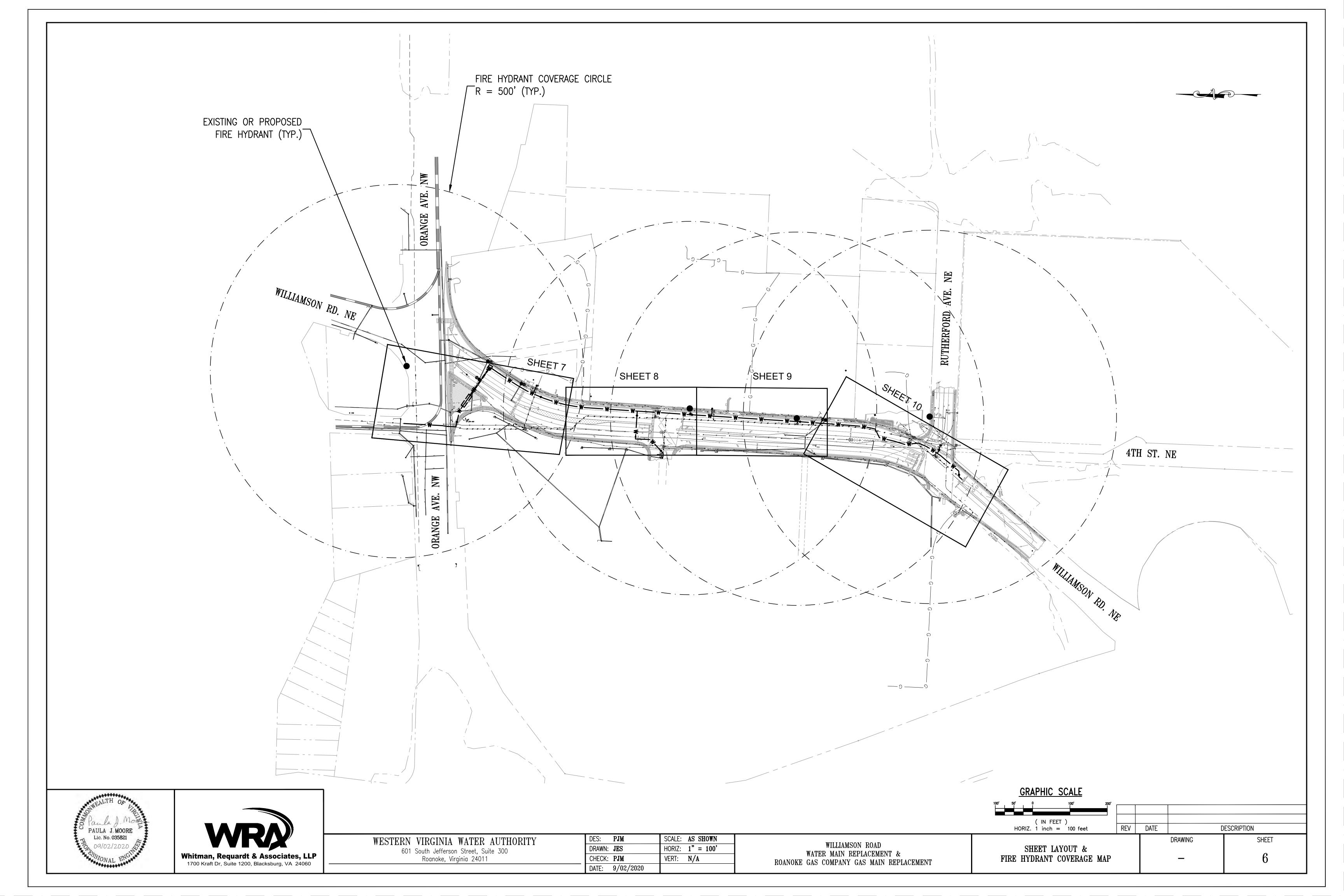
WESTERN VIRGINIA WATER AUTHORITY 601 South Jefferson Street, Suite 300 Roanoke, Virginia 24011

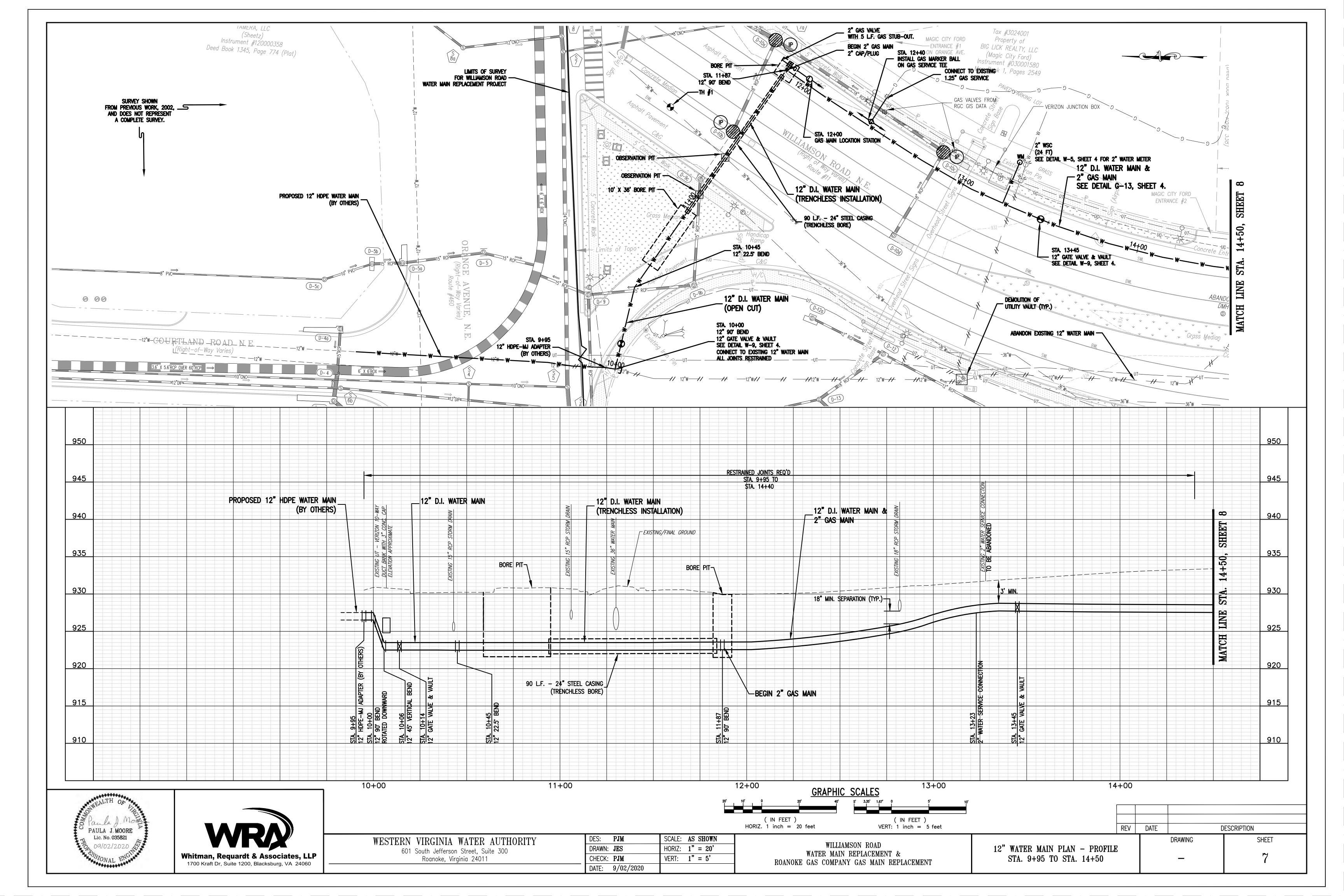
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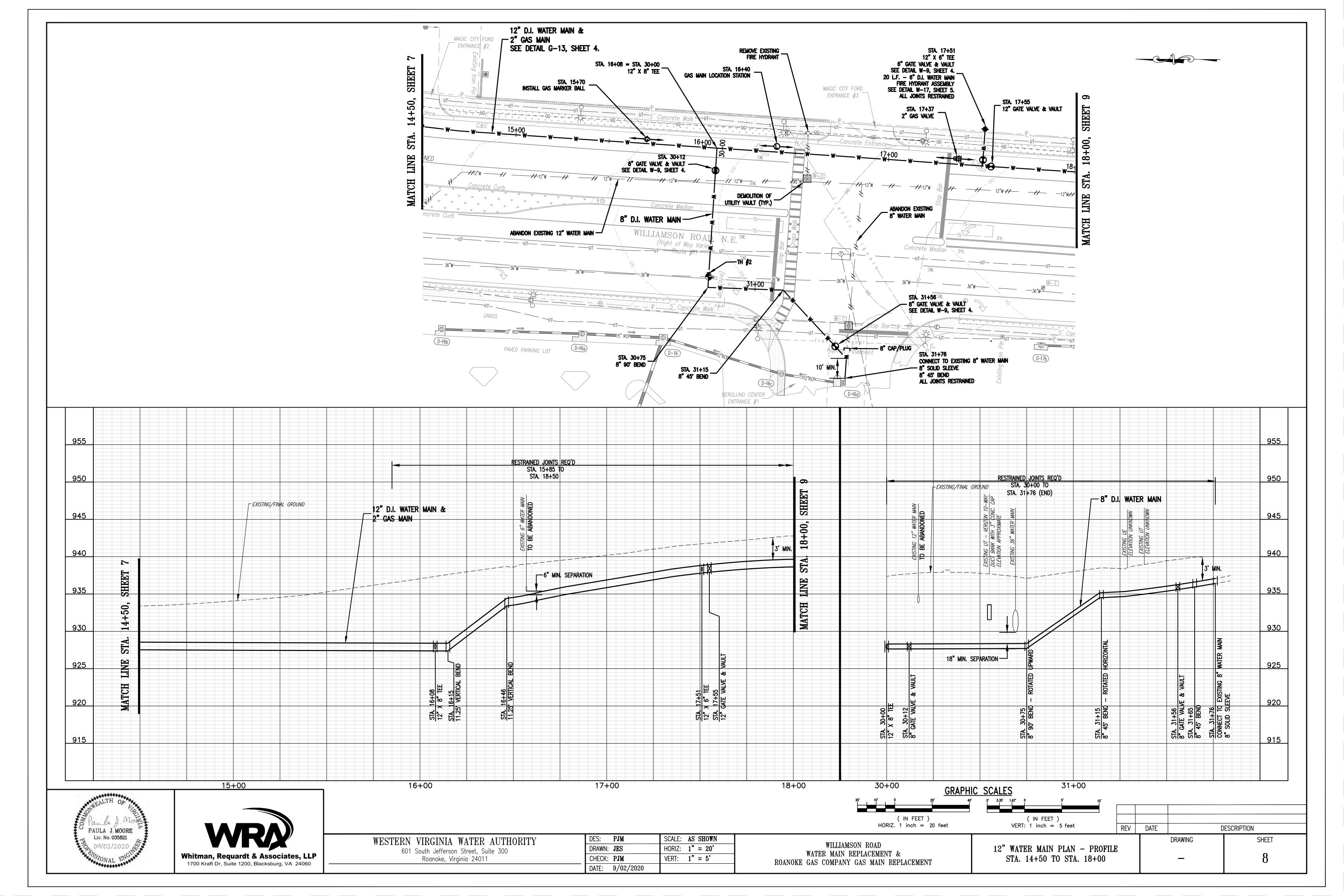
W-19

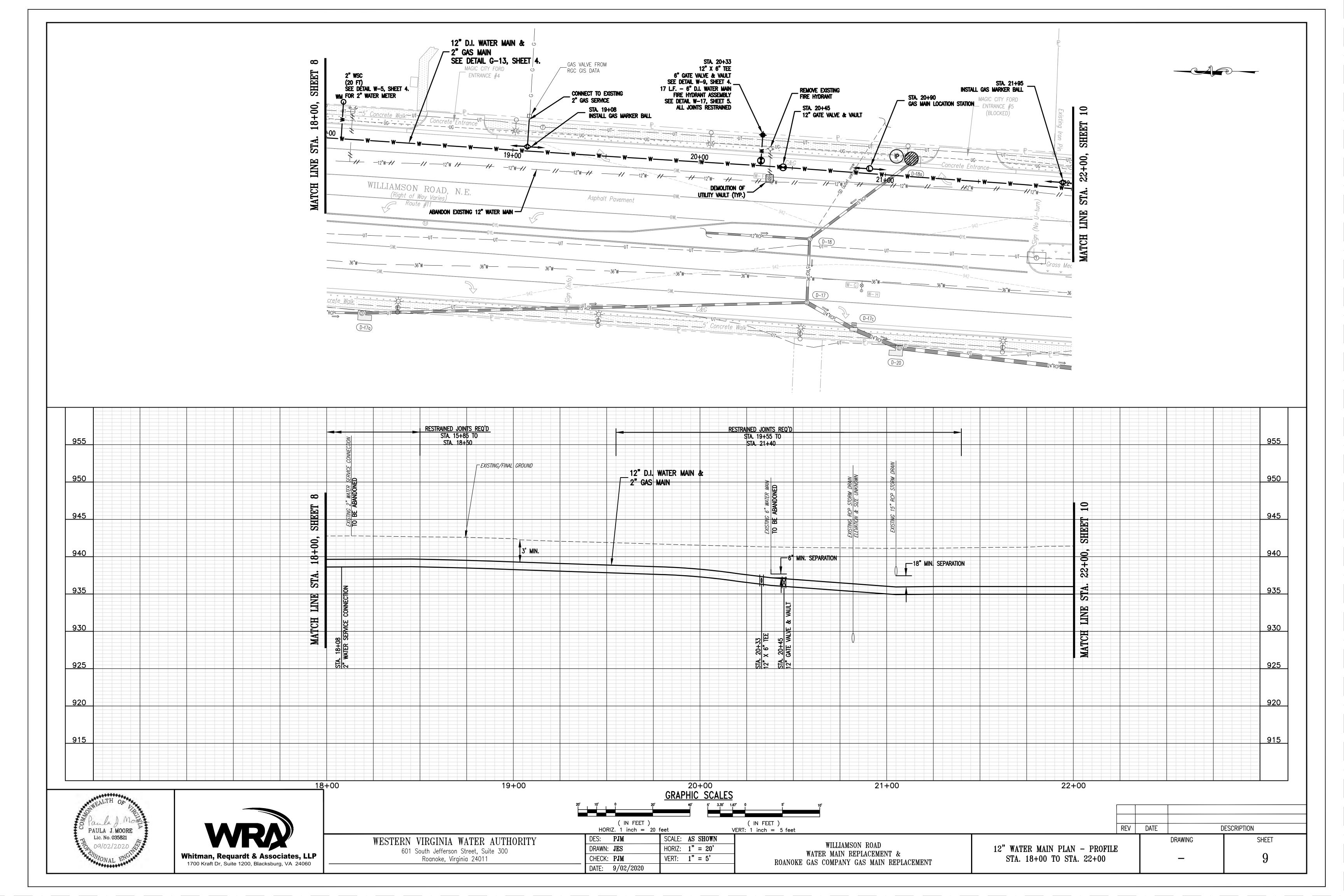
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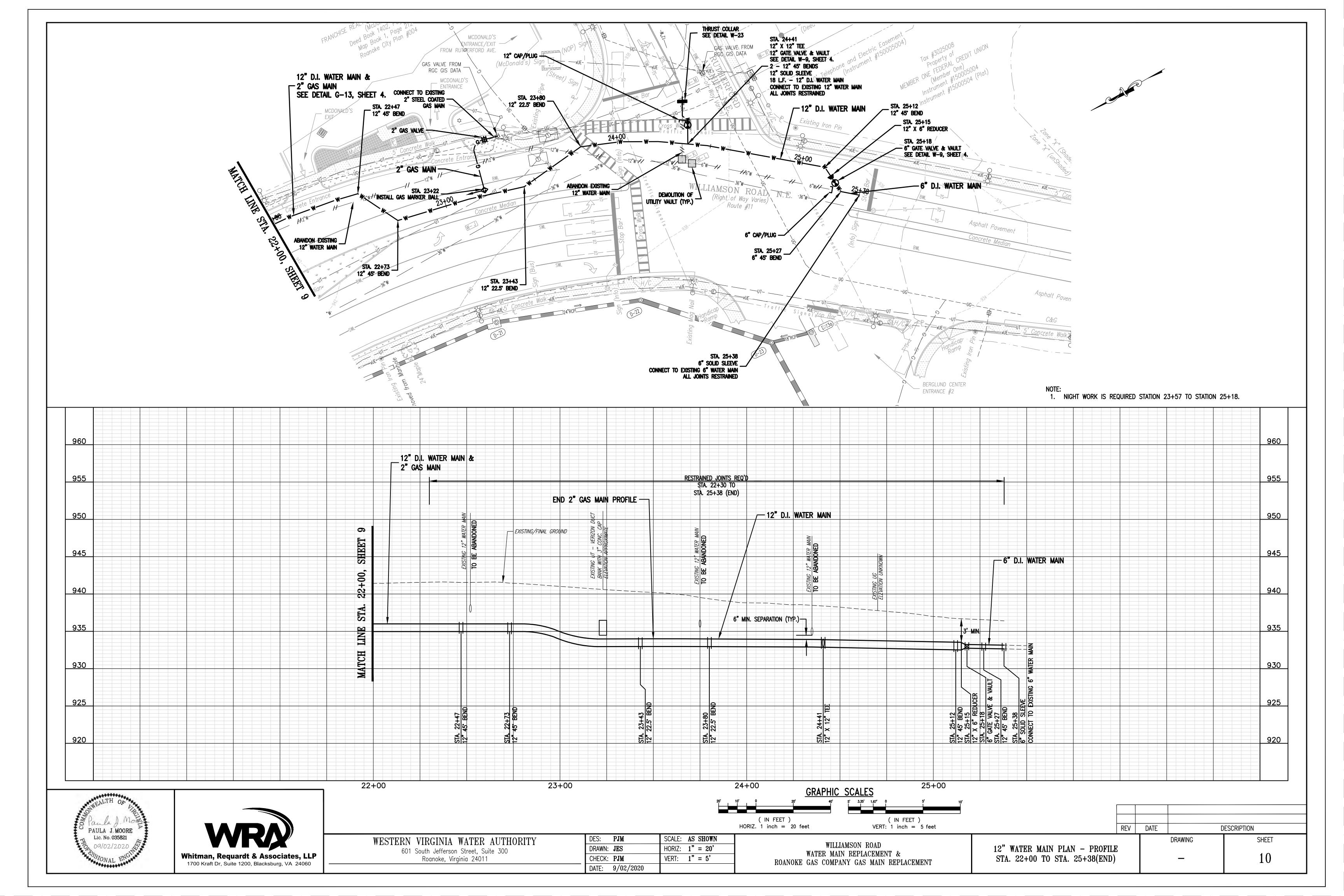
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WILLIAMSON ROAD WATER MAIN REPLACEMENT & OANOKE GAS COMPANY GAS MAIN REPLACEMENT	STANDARD DETAILS			DRAWING —	











CONTACT LIST

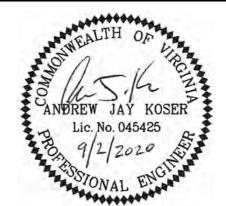
IAN COFFEY — TRAFFIC ENGINEERING, CITY OF ROANOKE: 540.853.2210 E-911 CENTER — ADMINISTRATIVE NUMBER: 540.853.2411

TEMPORARY TRAFFIC CONTROL PLAN NOTES:

- 1. UNLESS OTHERWISE APPROVED OR DIRECTED BY THE ENGINEER, THE CONTRACTOR SHALL PLAN AND PERFORM THE WORK IN ACCORDANCE WITH THE FOLLOWING NOTES AND TEMPORARY TRAFFIC CONTROL PLANS.
- 2. IF THE CONTRACTOR PROPOSES TO DEVIATE FROM THE APPROVED TRAFFIC CONTROL PLANS, THE CONTRACTOR SHALL SUBMIT A DETAILED TRAFFIC CONTROL PLAN TO THE CONSTRUCTION ENGINEER FOR APPROVAL PRIOR TO BEGINNING CONSTRUCTION. ANY MAINTENANCE OF TRAFFIC PLANS SUBMITTED BY THE CONTRACTOR THAT DIFFER FROM THE APPROVED MAINTENANCE OF TRAFFIC PLANS MUST BE SUBMITTED WITH THE SAME LEVEL OF DETAIL AS THE APPROVED MAINTENANCE OF TRAFFIC PLANS.
- 3. LANE CLOSURES ARE NOT PERMITTED BETWEEN 6 AM. AND 9 AM., AND 4 PM. AND 7 PM. LANES SHALL BE FULLY OPEN TO TRAFFIC DURING THESE HOURS.
- 4. TRAFFIC CONTROL DEVICES SHALL COMPLY WITH:
 - A. 2011 VIRGINIA WORK AREA PROTECTION MANUAL (VA WAPM) WITH REVISION 2.
 - B. 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) WITH REVISIONS 1 AND 2.
 - C. 2011 VIRGINIA SUPPLEMENT TO THE MUTCD WITH REVISION 1.
 - D. 2016 VDOT ROAD AND BRIDGE STANDARDS LATEST REVISION.
- 5. IT IS NOT THE INTENT OF THESE PLANS TO ENUMERATE EVERY DETAIL WHICH MUST BE CONSIDERED IN THE CONSTRUCTION OF EACH STAGE, BUT ONLY TO SHOW THE GENERAL HANDLING OF TRAFFIC.
- 6. THE TRAFFIC CONTROL FEATURES SHOWN HERE DEPICT THE MAJOR TRAFFIC CONTROL ITEMS (FOR EXAMPLE, LOCATION OF SHADOW VEHICLES NOT SHOWN). DAILY CONTROL OF TRAFFIC INCLUDING THE PLACEMENT, MAINTENANCE AND REMOVAL OF TRAFFIC CONTROL DEVICES SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
- 7. ALL SIGNS, CHANNELIZING DEVICES, AND ANY OTHER DEVICES USED IN THE CONSTRUCTION ZONE SHALL BE FURNISHED BY THE CONTRACTOR AND SHALL BE KEPT CLEAN AND PROPERLY ALIGNED AT ALL TIMES.
- 8. THE CONTRACTOR SHALL MAINTAIN ADEQUATE SIGHT DISTANCE WITH THE PLACEMENT OF ALL TRAFFIC CONTROL DEVICES AND CONSTRUCTION EQUIPMENT / MATERIAL.
- 9. EXCAVATED AREAS SHALL BE BACKFILLED AND REPAIRED OR OTHERWISE PROTECTED IN ACCORDANCE WITH SECTION 4.4 OF THE CITY OF ROANOKE RIGHT—OF—WAY EXCAVATION AND RESTORATION STANDARDS, LATEST REVISION. IF STEEL PLATES ARE USED (IN ACCORDANCE WITH SECTION 4.4), THEY SHALL BE USED FOR A MAXIMUM OF 48 HOURS.
- 10. WHEN A DROPOFF CONDITION EXISTS, THE CONTRACTOR SHALL ADHERE TO VA WAPM APPENDIX A.
- 11. ALL CONFLICTING HIGHWAY SIGNS SHALL BE COVERED. ADDITIONALLY, ALL WORK ZONE SIGNS NOT IN USE SHALL BE COVERED OR REMOVED. IF COVERED, SIGNS SHALL BE DELINEATED PER THE VA WAPM (SEC. 6F.04).
- 12. CONTRACTOR SHALL NOTE THE POSSIBLE PRESENCE OF EXISTING UTILITIES ADJACENT TO EXISTING ROADWAYS. CONTRACTOR SHALL CONFIRM POST MOUNTING OF CONSTRUCTION SIGNS DO NOT CONFLICT WITH EXISTING UTILITIES.
- 13. ACCESS TO BUSINESSES SHALL BE MAINTAINED DURING THE OPERATING HOURS OF EACH BUSINESS. BUSINESS OWNERS MUST BE CONTACTED PRIOR TO CLOSING AN ENTRANCE. THE CLOSURE MUST NOT NEGATIVELY IMPACT THE BUSINESS. IF CONTRACTOR DOES NOT OBTAIN AGREEMENT FROM BUSINESS OWNER FOR TEMPORARY CLOSURE OF ENTRANCES DURING BUSINESS HOURS, CONTRACTOR SHALL PERFORM THE WORK OUTSIDE OF BUSINESS HOURS FOR THE IMPACTED BUSINESS. NIGHT WORK MAY BE REQUIRED TO SATISFY THESE CONDITIONS, AT NO ADDITIONAL COST TO THE OWNER.
- 14. COORDINATION WITH MAGIC CITY FORD, MCDONALD'S AND THE BERGLUND CENTER IS REQUIRED PRIOR TO CLOSURE OF ANY ENTRANCE.
- 15. WHERE WORK IS OCCURRING IN FRONT OF ENTRANCES, SUFFICIENT TRAFFIC CONTROL DEVICES SHALL BE PROVIDED IN ORDER TO DIRECT MOTORISTS AROUND THE WORK AREA.
- 16. CHANNELIZING DEVICE SPACING:
- TRANSITION / TURN LANE SPACING: 20-FT
- TRAVELWAY SPACING: 40-FT
- 17. UNLESS OTHERWISE NOTED, SIGN SIZES SHALL MEET THE REQUIREMENTS OF VA WAPM TABLE 6F-1.
- 18. "UTILITY WORK AHEAD" (W21-7) SIGNS MAY BE SUBSTITUTED FOR "ROAD WORK AHEAD" (W20-1) SIGNS WHERE APPROPRIATE. SEE VA WAPM SECTION 6F.45.
- 19. DAILY CONTACT WITH 911 SERVICES IS REQUIRED WHEN LANE/ROAD CLOSURES OCCUR.
- 20. PRIOR TO BEGINNING CONSTRUCTION, CONTRACTOR SHALL SUBMIT COMPLETE CONSTRUCTION SCHEDULE (EXPECTED START DATE, SEQUENCE OF CONSTRUCTION AND DURATION OF CONSTRUCTION) TO IAN COFFEY.

TEMPORARY TRAFFIC CONTROL PLAN FIGURE NOTES:

- 1. FIGURE 1 THIS FIGURE DEPICTS A SETUP FOR THE WORK WITHIN AND ADJACENT TO THE RIGHT TURN RAMP FROM EB ORANGE AVENUE TO SB WILLIAMSON ROAD BETWEEN STA. 10+00 AND 11+00. DURING CLOSURE, DETOUR TRAFFIC AS SHOWN (INSET DETOUR MAP 'A').
 - THE RIGHT TURN RAMP MAY BE CLOSED UNTIL THE WORK IS COMPLETED. THE WORK SHALL PLANNED FOR AND EXECUTED DURING A TIME WHEN THERE ARE NO EVENTS AT THE BERGLUND CENTER. COORDINATION WITH THE BERGLUND CENTER IS REQUIRED. ADVANCE PLANNING IS REQUIRED TO ENSURE THAT THE WORK CAN BE DONE COMFORTABLY PRIOR TO THE NEXT EVENT AT THE BERGLUND CENTER.
 - WHEN THE SIDEWALK IS CLOSED, PEDESTRIANS SHALL BE DETOURED TO THE SIDEWALK ALONG THE ISLAND VIA A SAFE AND CLEAR PATH. SEE VA WAPM TTC-35.1.
- 2. FIGURE 2 THIS FIGURE DEPICTS A TYPICAL SETUP FOR THE WORK ALONG WILLIAMSON ROAD BETWEEN STA. 11+90 AND STA. 22+50. TYPE A WARNING LIGHTS SHALL BE MOUNTED ON TOP OF THE CHANNELIZING DEVICES FOR THIS FIGURE.
- IF THE ENTRANCE AT STA. 16+85 IS CLOSED, THE SB LEFT TURN LANE SHALL BE CLOSED IN ACCORDANCE WITH VA WAPM TTC-29.2.
- FOR THE TRENCHLESS CROSSING FROM STA. 11+00 TO STA. 11+90, THE NB RIGHT TURN LANE SHALL BE CLOSED AS SHOWN IN FIGURE 2. THE NB RIGHT THROUGH LANE SHALL BE NARROWED WITH TAPERED CHANNELIZING DEVICES TO MOVE VEHICLES AWAY FROM THE PIT.
- FOR THE CROSSING OF WILLIAMSON ROAD (STA. 30+00 TO STA. 31+76), THE FOLLOWING SEQUENCE IS RECOMMENDED:
- A) CLOSE THE NB RIGHT THROUGH AND RIGHT TURN LANES IN ACCORDANCE WITH VA WAPM TTC-16.2 AND CONSTRUCT THE WATER MAIN IN THESE TWO LANES.
- B) RE-OPEN THE NB RIGHT THROUGH LANE AND RIGHT TURN LANES. CLOSE THE NB LEFT THROUGH LANE AND SB LEFT THROUGH AND LEFT TURN LANES IN ACCORDANCE WITH VA WAPM TTC-17.2 AND CONSTRUCT THE WATER MAIN WITHIN THESE THREE LANES.
- C) RE-OPEN THE NB LEFT THROUGH LANE AND SB LEFT THROUGH AND LEFT TURN LANES. CLOSE THE SB RIGHT THROUGH AND RIGHT TURN LANES IN ACCORDANCE WITH VA WAPM TTC-16.2 AND CONSTRUCT THE WATER MAIN WITHIN THESE TWO LANES.
- D) KEEP THE SB RIGHT TURN LANE CLOSED IN ACCORDANCE WITH VA WAPM TTC-29.2; RE-OPEN THE SB RIGHT THROUGH LANE. CLOSE THE NB LEFT TURN LANE IN ACCORDANCE WITH VA-WAPM TTC-29.2. CLOSE THE BERGLUND CENTER ENTRANCE AND COMPLETE THE REMAINING WORK.
- LANES MAY BE NARROWED AS NECESSARY (10-FT MIN.) TO KEEP MOTORISTS AWAY FROM THE WORK. TYPE A WARNING LIGHTS SHALL BE MOUNTED ON ALL CHANNELIZING DEVICES FOR LANE CLOSURES FOR THIS WORK.
- 3. FIGURES 3&4 THESE FIGURES DEPICT A SETUP FOR THE WORK AT THE INTERSECTION BETWEEN WILLIAMSON ROAD AND RUTHERFORD AVENUE BETWEEN STA. 23+70 AND 25+15. THE RIGHT LANE SHALL BE CLOSED AS SHOWN AND TRAFFIC DETOURED AS SHOWN (SEE INSET DETOUR MAPS 'B' AND 'C'). THE SB LEFT TURN LANE SHALL BE CLOSED AS SHOWN AND TRAFFIC DETOURED AS SHOWN (SEE INSET DETOUR MAP 'D').
- FOR WORK IN THE NB LEFT LANE BETWEEN STA. 22+50 AND 23+70 AND BETWEEN STA. 25+15 AND STA. 25+38, THE LEFT LANE SHALL BE CLOSED IN ACCORDANCE WITH VA WAPM TTC-17.2. IF NO WORK IS REQUIRED IN THE LEFT LANE WITHIN THE INTERSECTION ITSELF, THE INTERSECTION MAY REMAIN OPEN TO TRAFFIC.
- FOR OTHER WORK WITHIN WILLIAMSON ROAD, LANES SHALL BE CLOSED AS NECESSARY IN ACCORDANCE WITH WA WAPM TTC-16.2. TTC-17.2. TTC-29.2 OR OTHER APPROPRIATE FIGURES.
- FOR WORK OCCURRING WITHIN SIDEWALKS OR CROSSWALKS, PEDESTRIANS SHALL BE PROVIDED A SAFE AND CLEAR PATH AROUND THE WORK. IF NECESSARY, PEDESTRIANS SHALL BE DETOURED IN ACCORDANCE WITH VA WAPM TTC-35.1 OR TTC-36.2.





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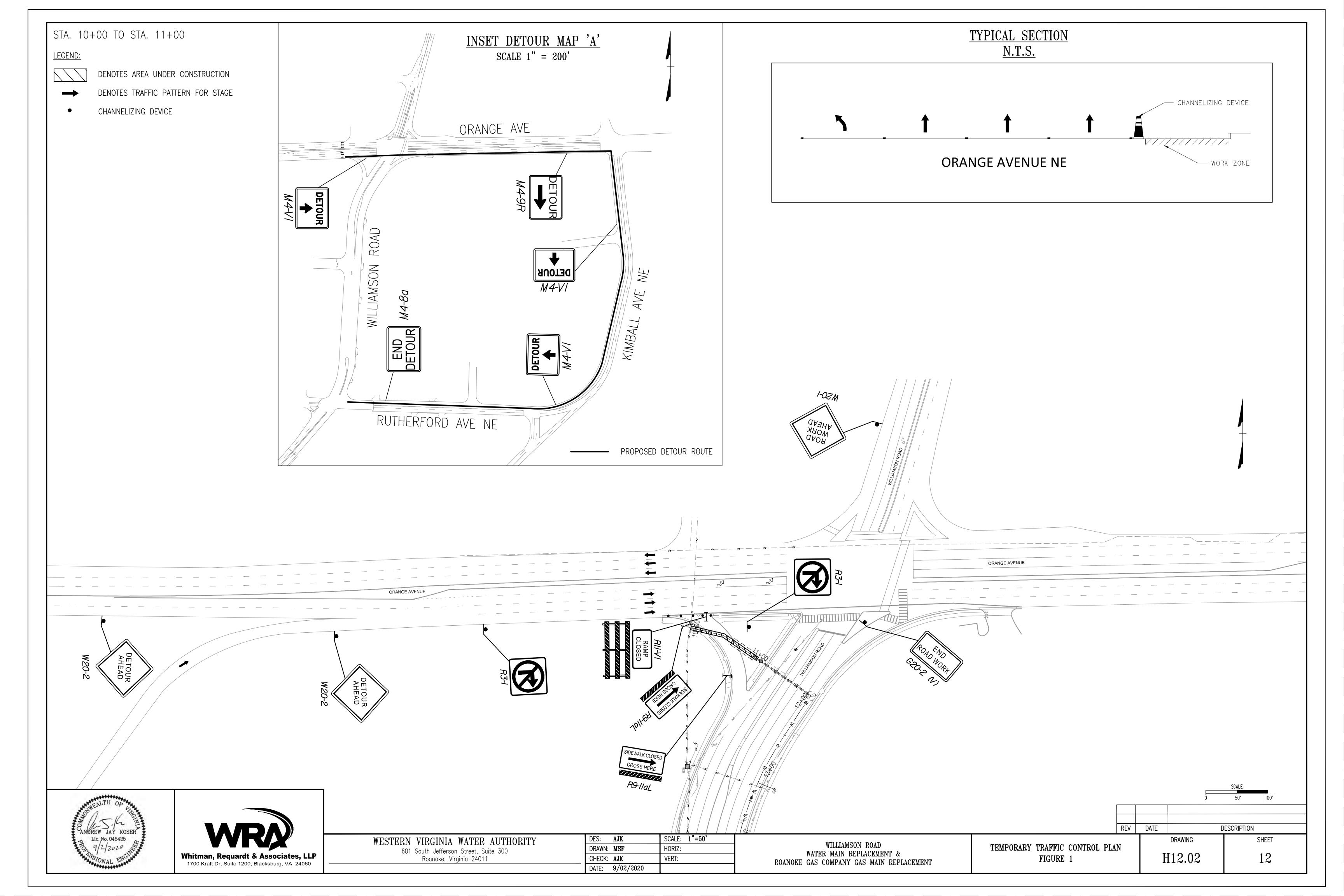
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WATER MAIN REPLACEMENT &
ROANOKE GAS COMPANY GAS MAIN REPLACEMENT

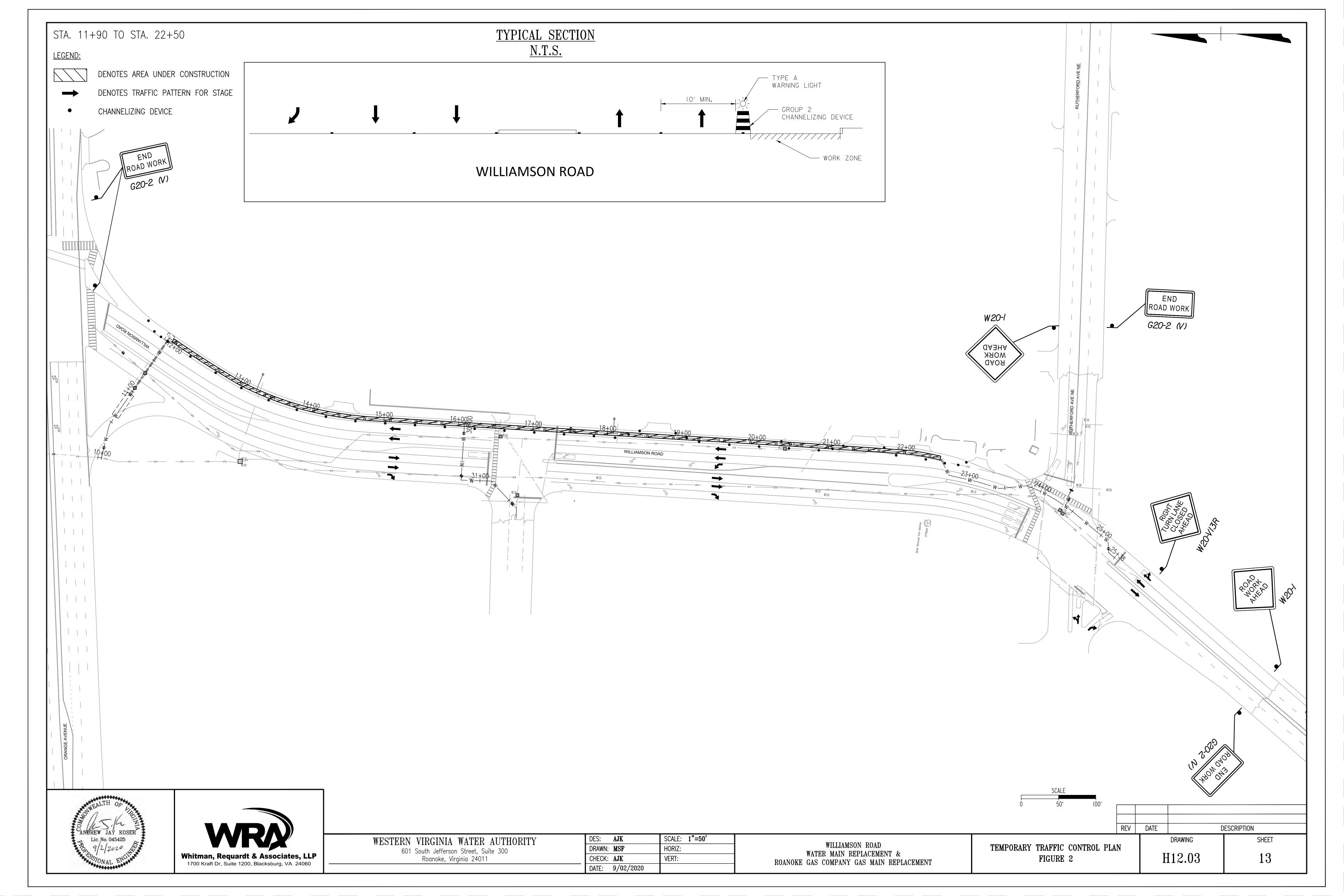
TEMPORARY TRAFFIC CONTROL PLAN NOTES

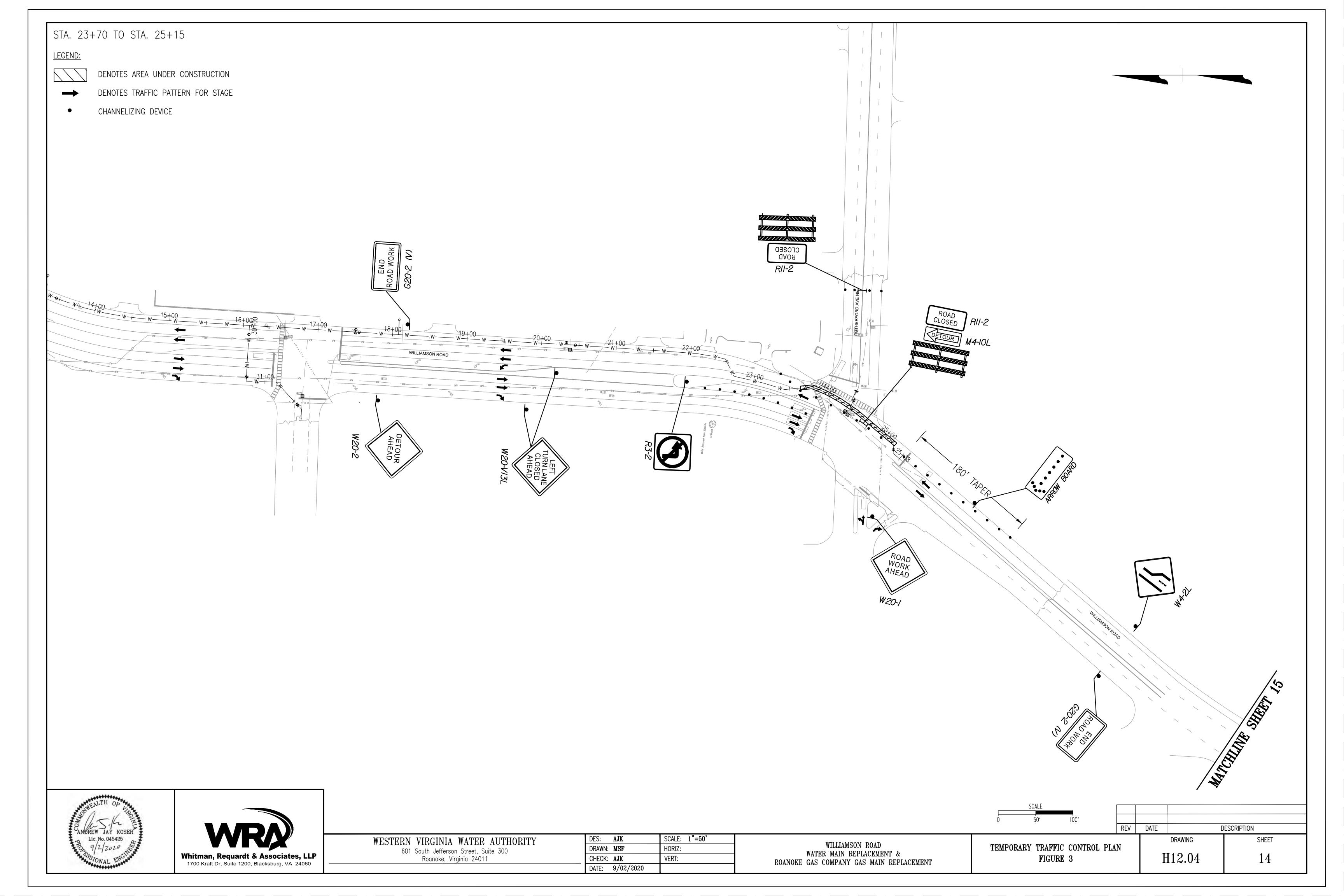
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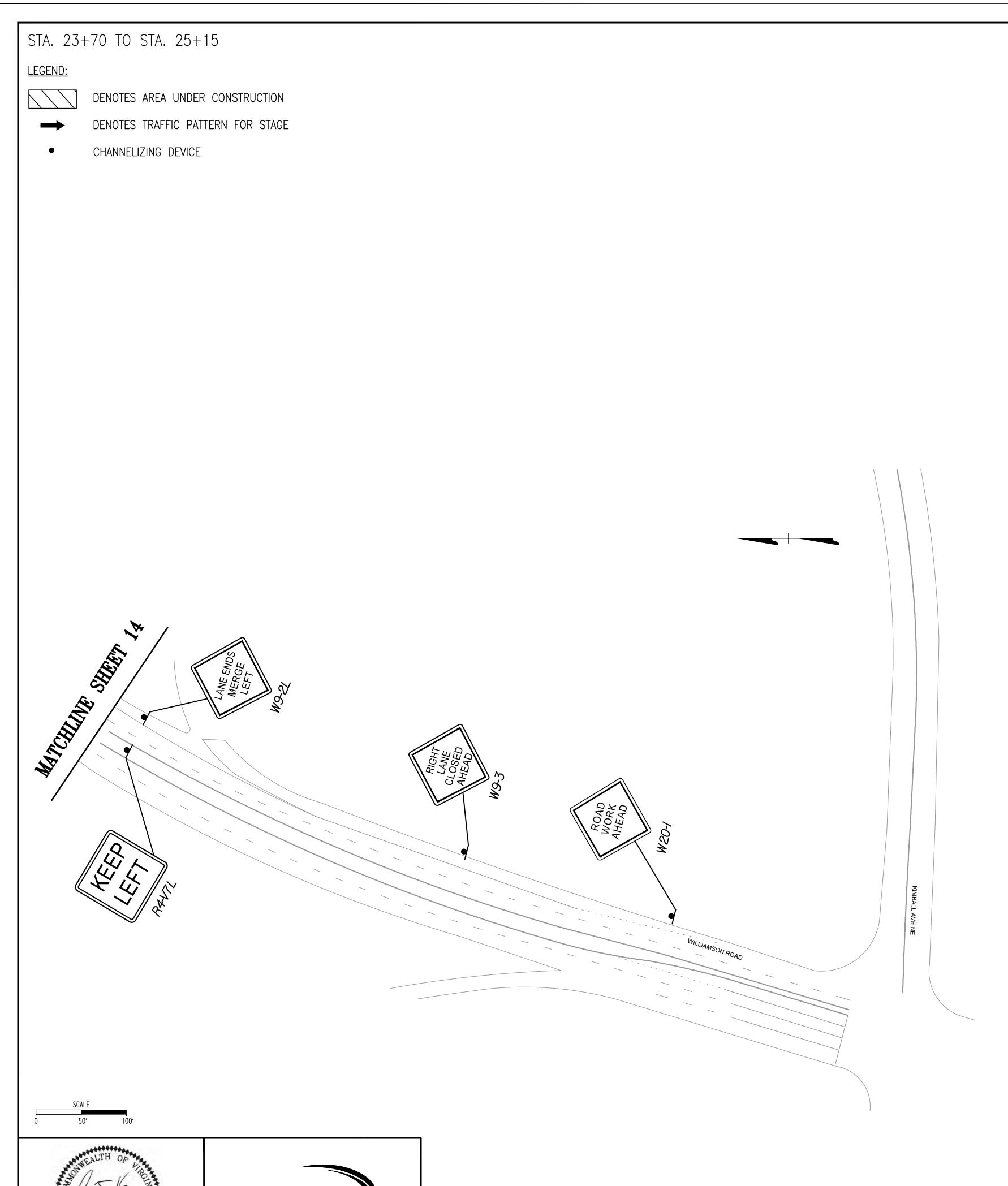
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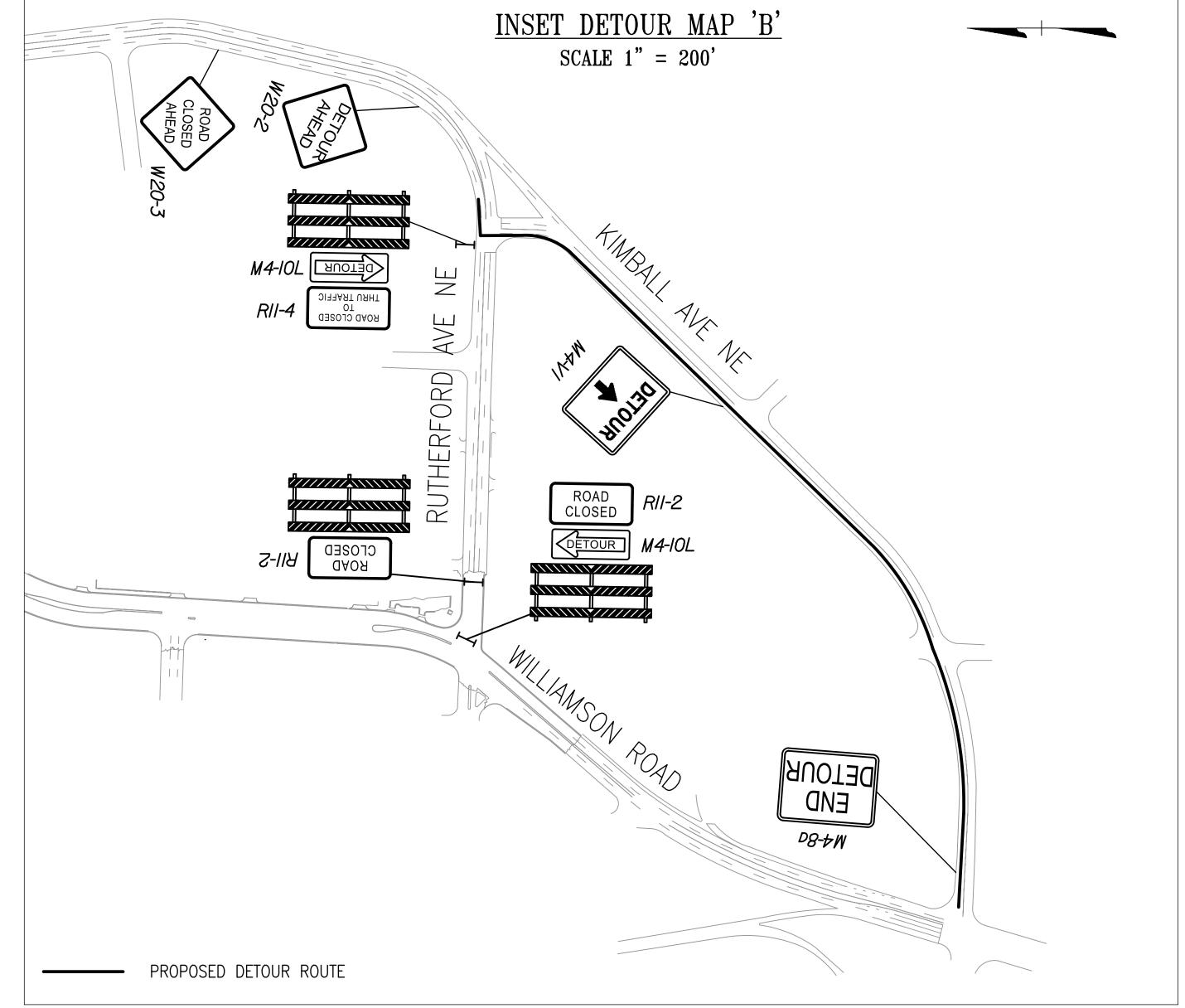
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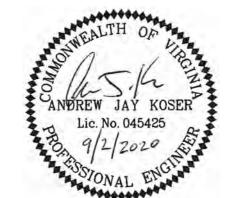














WESTERN VIRGINIA WATER AUTHORITY

601 South Jefferson Street, Suite 300
Roanoke, Virginia 24011

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DATE:	9/02/2020		

WILLIAMSON ROAD
WATER MAIN REPLACEMENT &
ROANOKE GAS COMPANY GAS MAIN REPLACEMENT

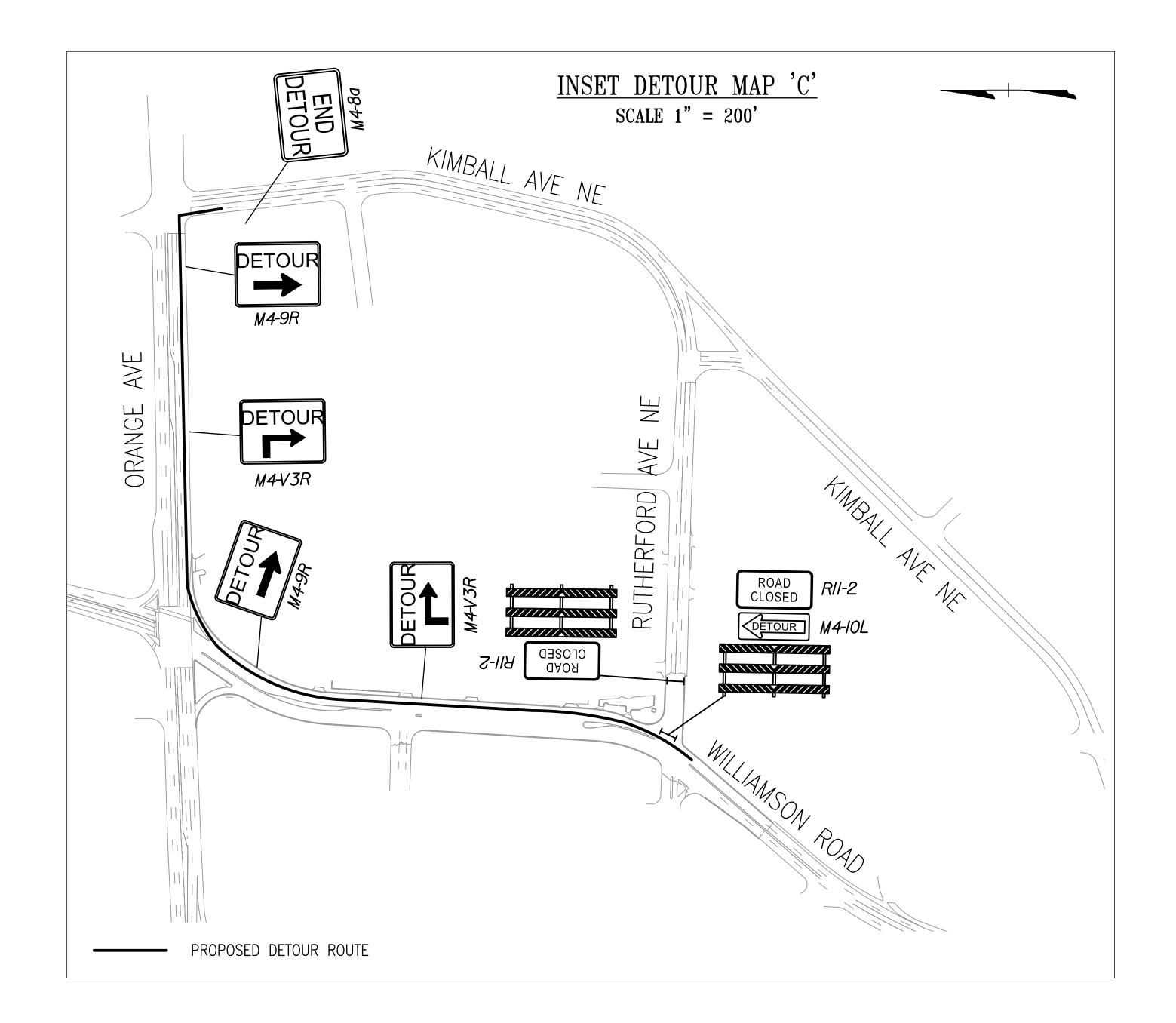
TEMPORARY TRAFFIC CONTROL PLAN FIGURE 4

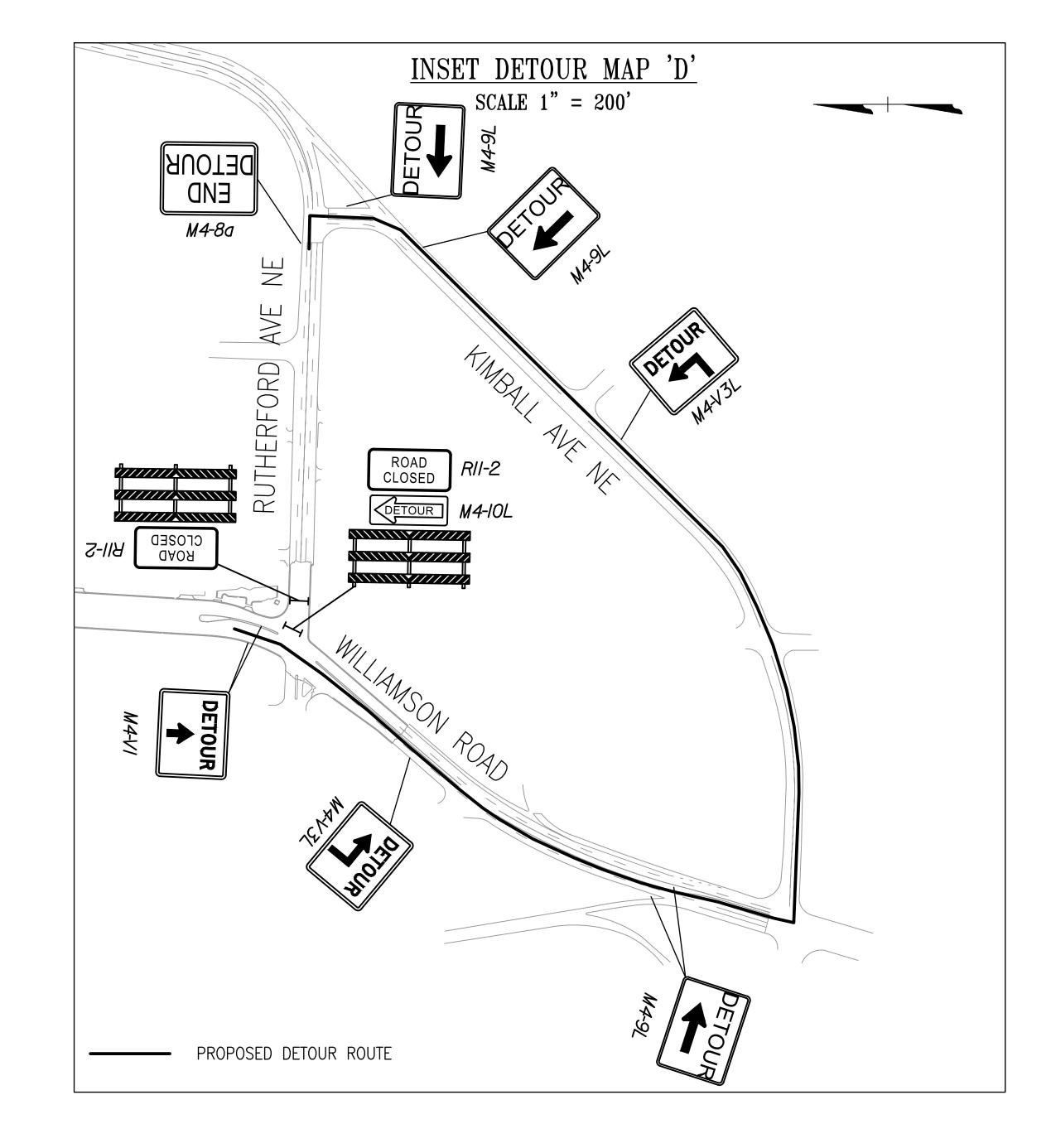
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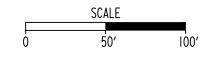
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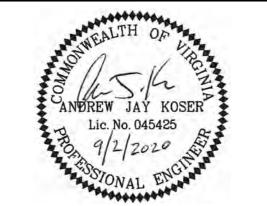
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WESTERN

VIRGINIA WATER AUTHORITY	DES: AJK	SCALE: 1"=50'
601 South Jefferson Street, Suite 300	DRAWN: MSF	HORIZ:
Roanoke, Virginia 24011	CHECK: AJK	VERT:
	DATE: 9/02/2020	

REV DATE DESCRIPTION DRAWING SHEET WILLIAMSON ROAD WATER MAIN REPLACEMENT & TEMPORARY TRAFFIC CONTROL PLAN H12.06 16 FIGURE 5 ROANOKE GAS COMPANY GAS MAIN REPLACEMENT