

LEGEND

W	PROPOSED WATER MAIN
W _x	EXISTING WATER MAIN
G _x	NATURAL GAS
FO _x	EXISTING FIBER OPTIC
OE	OVERHEAD ELECTRIC
ES _x	BURIED ELECTRIC
	PROPERTY LINE
SS _x	EXISTING SANITARY SEWER
SS	SANITARY SEWER
SD _x	EXISTING STORM SEWER
SD	STORM SEWER
WV	PERIMETER EROSION BARRIER
WV	VALVE
HYDRANT	HYDRANT
CURB STOP AND BOX	CURB STOP AND BOX
REDUCER	REDUCER
SANITARY MANHOLE	SANITARY MANHOLE
STORM MANHOLE	STORM MANHOLE
AREA LIGHT	AREA LIGHT
STREET LIGHT	STREET LIGHT
UTILITY POLE	UTILITY POLE
CONTROL POINTS	CONTROL POINTS
PROPERTY CORNER	PROPERTY CORNER
TREE	TREE

ABBREVIATIONS

APPROX	APPROXIMATE
AVE	AVENUE
DI	DUCTILE IRON
DR	DRIVE
EXIST	EXISTING
INV	INVERT
LF	LINEAR FEET
MAX	MAXIMUM
MH	MANHOLE
MIN	MINIMUM
N	NORTH
PH	PHASE
S	SOUTH
SAN	SANITARY
ST	STREET
STA	STATION
Typ	TYPICAL

WEST HILL AREA SEWER SEPARATION - PHASE 6D WATER MAIN PROJECT CITY OF MUSCATINE MUSCATINE, IOWA

DRAWING INDEX

SHEET NUMBER	TITLE	REVISION NUMBER
MPW A.01	COVER SHEET	0
MPW B.01	DETAILS	0
MPW C.01	QUANTITIES, ERN, AND TABULATIONS	0
MPW M.01	WATER SHEETS	0
MPW M.02	WATER SHEETS	0

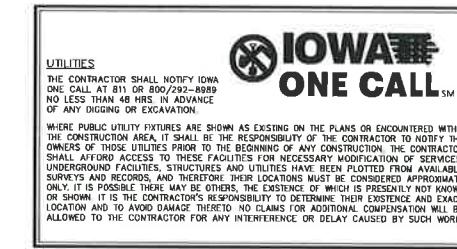
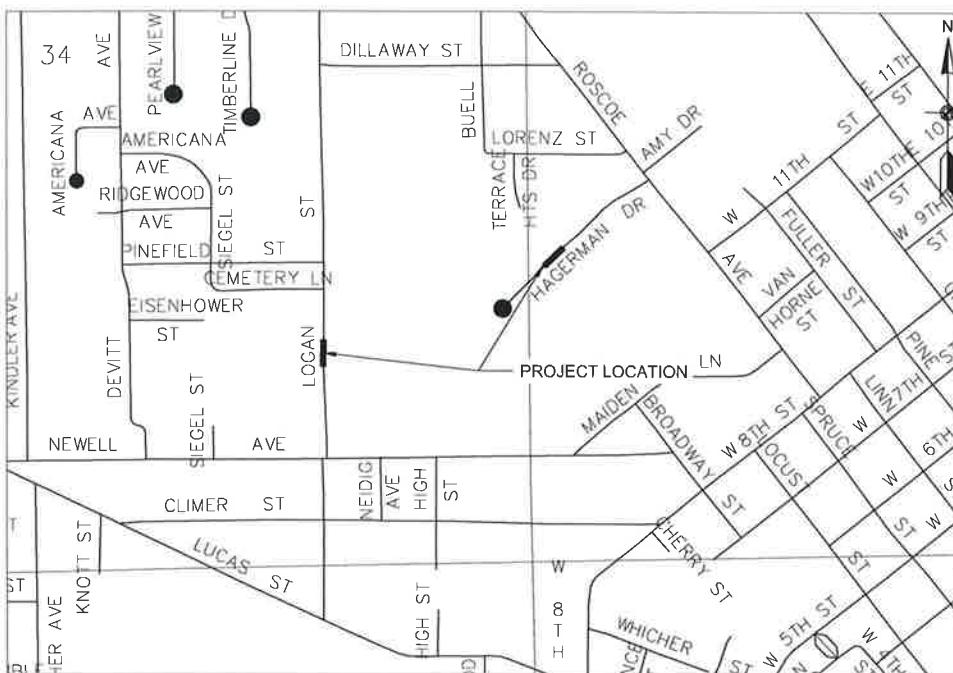


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GENERAL NOTES

1. CONSTRUCT ACCORDING TO MUSCATINE POWER AND WATER STANDARD SPECIFICATIONS FOR WATER DISTRIBUTION SYSTEM IMPROVEMENTS, 2023.
2. ALL BURIED UTILITY LOCATIONS ARE APPROXIMATE AND SHALL BE FIELD LOCATED PRIOR TO EXCAVATION. SEWER, NATURAL GAS, IRRIGATION, TELECOM, AND OTHER HOUSE SERVICE LINES ARE NOT SHOWN ON PLANS. THERE MAY BE OTHER EXISTING UTILITY LINES, STRUCTURES, AND SERVICE CONNECTIONS NOT KNOWN AND NOT SHOWN ON THE DRAWINGS. IN ADDITION, CONTRACTOR SHALL USE POTHOLING OR OTHER METHODS AT KNOWN UTILITY CROSSINGS FOR VISUAL CLEARANCE CHECK DURING DIRECTIONAL DRILLING OPERATIONS.
3. CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES, DRIVES, STREETS AND OTHER ITEMS TO REMAIN, INCLUDING ANY NOT SPECIFICALLY SHOWN IN THE DRAWINGS. DAMAGE TO EXISTING UTILITIES, DRIVES, STREETS AND OTHER ITEMS SHALL BE REPAIRED BY THE CONTRACTOR AT THEIR EXPENSE.
4. CONTRACTOR SHALL COORDINATE WITH RESIDENTS REGARDING CONTINUATION OF TRASH REMOVAL, MAIL BOXES AND MAIL DELIVERIES, AND ACCESS TO THEIR DRIVEWAYS DURING CONSTRUCTION.
5. CONTRACTOR SHALL NOTIFY THE OWNER IMMEDIATELY OF ANY CONFLICTS BETWEEN THE DRAWINGS AND EXISTING FEATURES.
6. CONTRACTOR SHALL NOTIFY THE OWNER IMMEDIATELY OF UNEXPECTED SUB-SURFACE CONDITIONS. DISCONTINUE WORK IN AREA UNTIL NOTIFIED BY OWNER TO RESUME WORK.
7. CONTRACTOR IS RESPONSIBLE FOR PROVIDING CONSTRUCTION LAYOUT FOR ALL GRADES AND FEATURES.

LOCATION MAP



IOWA ONE CALL UTILITY CONTACTS

ALLIANT ENERGY
Contact Name : Alliant Energy Field Engineer
Contact Phone: 8002554268 Contact Email: locate_IPL@alliantenergy.com

CENTURYLINK
Contact Name : SADIE HULL
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MUSCATINE POWER AND WATER
Contact Name : Gabriel Jones / Mark Nelson
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Contact Phone: 5632638933
Contact Email: sewerlocates@muscatineiowa.gov



I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.

3/14/2025

Date
My license renewal date is
December 31, 2025

Sheets covered by this seal: MPW A.01, MPW B.01, MPW C.01, MPW M.01, AND MPW M.02

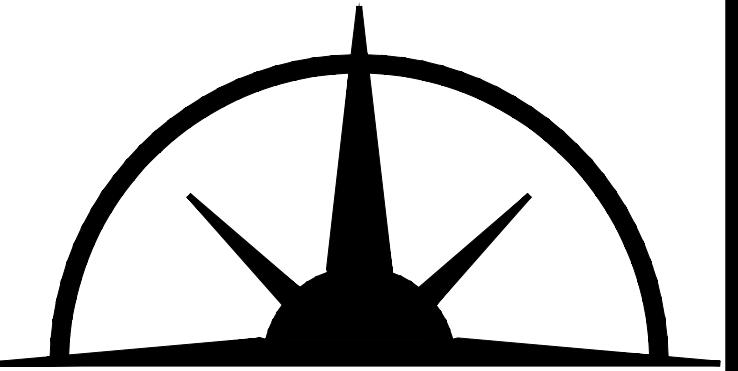
COVER SHEET

MPW WHSSP6D WATER MAIN

WEST HILL AREA SEWER
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IOWA

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Date:	3/3/2025
Designed by:	AAE
Drawn by:	AAE
Checked by:	KJC
Project No:	MPW A.01 WHSSP6



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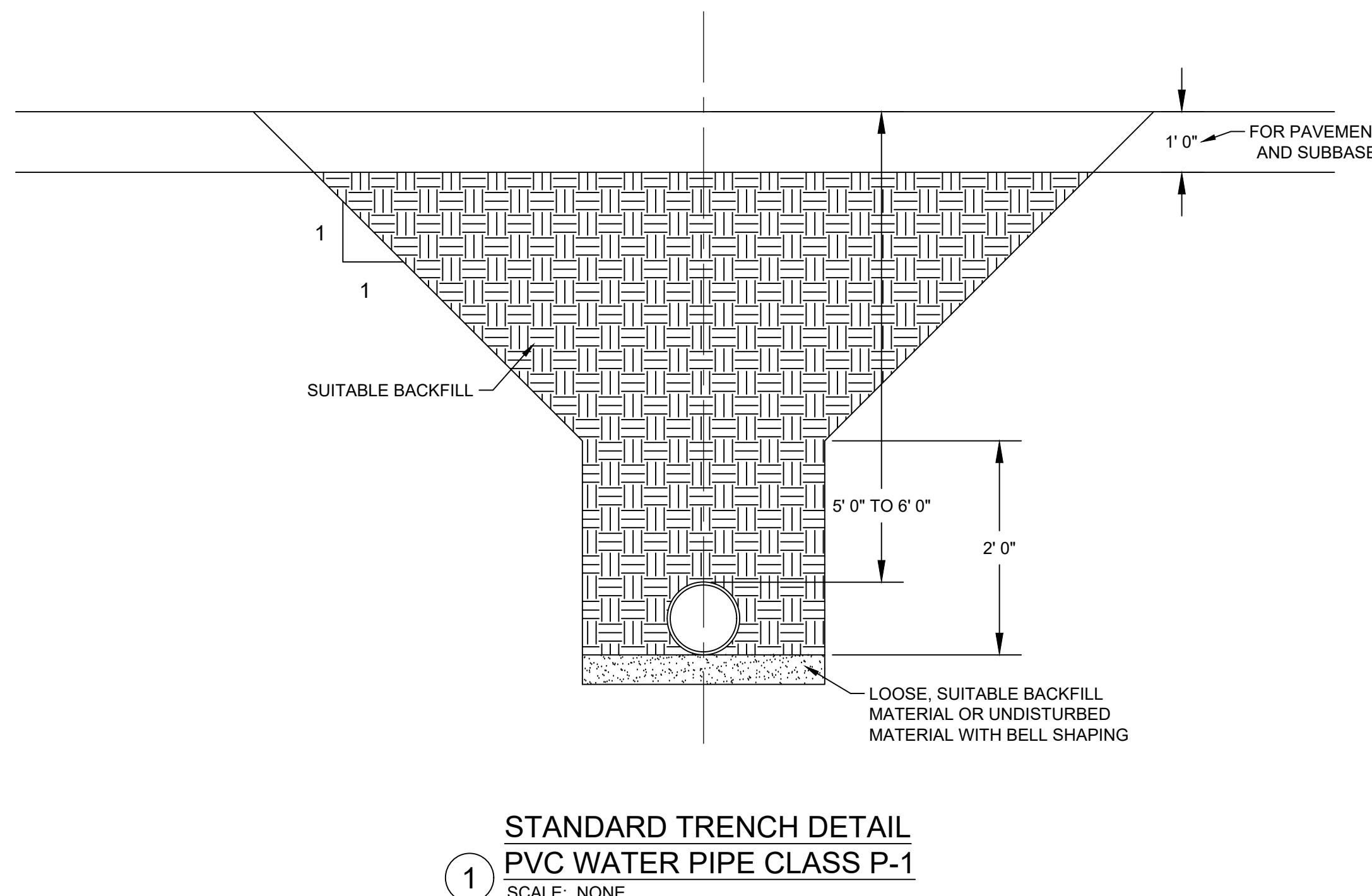
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Designed by: **AAE** Field Book No:

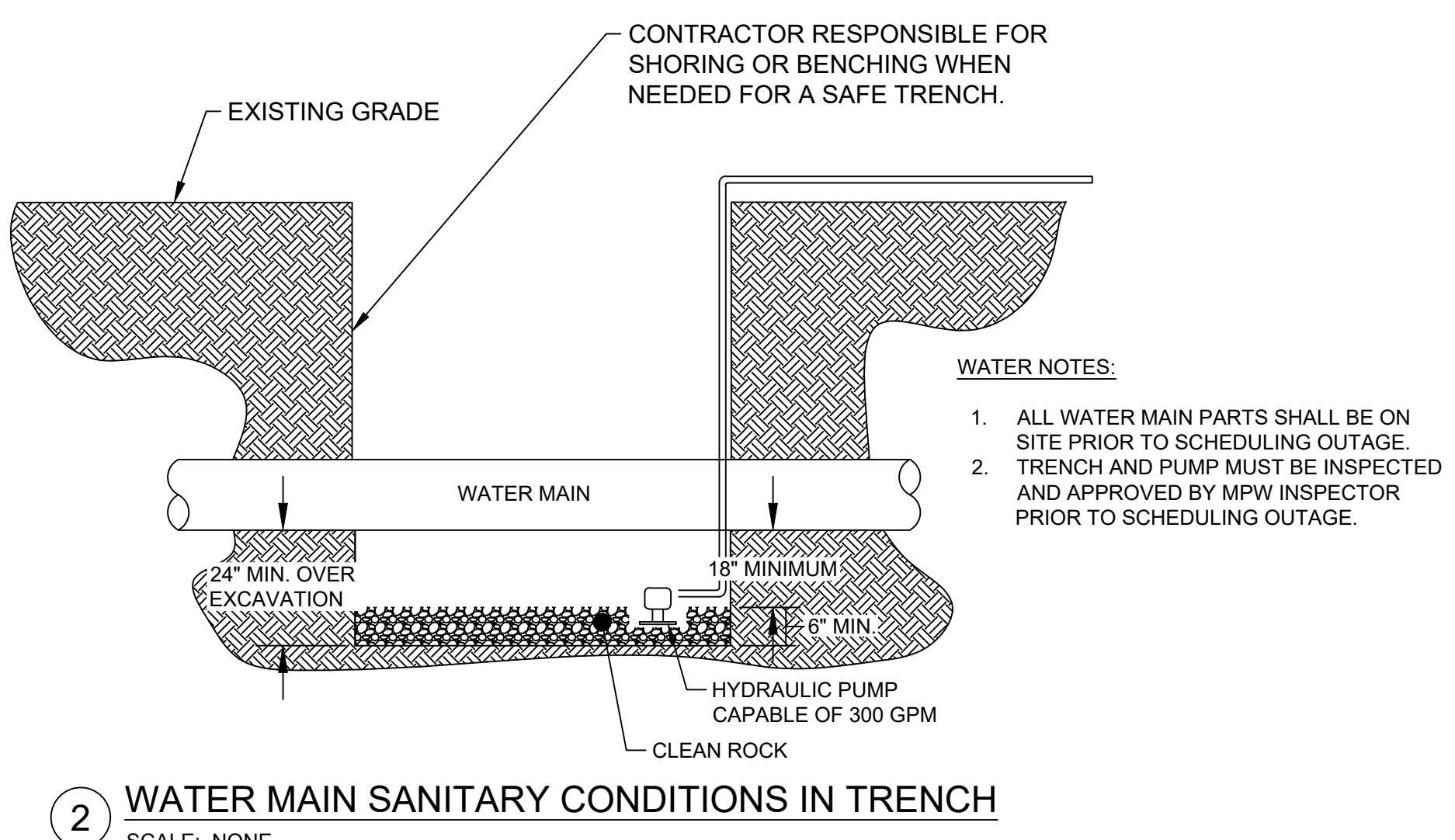
Drawn by: **AAE** Scale:

Checked by: **KJC** Sheet No:

Project No: **MPW B.01**



STANDARD TRENCH DETAIL
① **PVC WATER PIPE CLASS P-1**
SCALE: NONE



② WATER MAIN SANITARY CONDITIONS IN TRENCH
SCALE: NONE

PROJECT QUANTITIES

PROJECT QUANTITIES				
ITEM NO.	SUDAS	DESCRIPTION	UNIT	ESTIMATED QUANTITIES
201	5010-A1	WATER MAIN, TRENCHED, C-900 PVC, RESTRAINED JOINT 6"	LF	97
202	5010-C1	FITTINGS, 90 DEGREE ELBOW, 6"	EA	1
203	5010-C1	FITTINGS, 45 DEGREE ELBOW, 6"	EA	7
204	5010-C1	FITTINGS, 90 DEGREE STREET ELBOW, 6"	EA	1
205	5010-E	WATER SERVICE ADJUSTMENT, COPPER, 3/4" (REF. NOTE 1)	EA	2
206	5010-E	WATER SERVICE ADJUSTMENT, COPPER, 1" (REF. NOTE 2)	EA	1
207	5010-F	WATER MAIN ABANDONMENT	LF	85
208	5010-F	WATER MAIN ABANDONMENT, CAP	EA	2
209	5010-XX	CUT-IN-CONNECTION, 6"	EA	2
210	5020-B	TAPPING SLEEVE AND VALVE, 6"	EA	2

ESTIMATE REFERENCE NOTES

ESTIMATE REFERENCE NOTES			
ITEM NO.	SUDAS	UNIT	DESCRIPTION
WATER MAIN, TRENCHED, C-900 PVC, RESTRAINED JOINT			
A. REFER TO SHEETS MPW M.01 THRU MPW M.02 FOR LAYOUT AND SHEET MPW C.01 FOR TABULATION. THIS ITEM INCLUDES TRENCHING HAULING OFF EXCAVATED SOIL TO AN APPROVED LOCATION, INSTALLATION OF PIPE APPURTENANCES, PLACEMENT OF BEDDING AND BACKFILL MATERIAL, COMPACTION TRACER SYSTEM, TESTING AND DISINFECTION.			
B. BEDDING CLASS SHALL BE P-1 AS SHOWN ON B.01 TESTING AND DISINFECTION SHALL BE COMPLETED BY THE CONTRACTOR IN ACCORDANCE WITH SPECIFICATIONS. AFTER COMPLETION OF DISINFECTION THE HIGHLY CHLORINATED WATER MUST BE DECHLORINATED TO LESS THAN 3 PPM CHLORINE.			
FITTINGS			
A. REFER TO SHEETS MPW M.01 THRU MPW M.02 FOR LAYOUT AND SHEET MPW C.01 FOR TABULATION. THIS ITEM INCLUDES INSTALLATION OF FITTINGS, RESTRAINTS, THRUST BLOCKS, AND POLYETHYLENE WRAP			
B. ALL FITTINGS SHALL BE MECHANICAL JOINT. ALL BOLTS, NUTS, AND WASHERS SHALL BE STAINLESS STEEL OR HIGH STRENGTH LOW ALLOY CORTEN BLUE.			
WATER SERVICE ADJUSTMENT, COPPER, 3/4", (REFERENCE NOTE 1)			
A. REFER TO SHEETS MPW M.01 THRU MPW M.02 FOR LAYOUT AND SHEET MPW C.01 FOR TABULATION. THIS ITEM INCLUDES THE REPLACEMENT OR ADJUSTMENT OF 1" TYPE K COPPER SERVICE LINE TO PROVIDE CLEARANCE FOR PROPOSED SEWER, UP TO 10 LF OF TYPE K COPPER SERVICE LINE, AND RECONNECTION TO EXISTING SERVICE.			
WATER SERVICE CONNECTION, COPPER, 1", (REFERENCE NOTE 2)			
A. REFER TO SHEETS MPW M.01 THRU MPW M.02 FOR LAYOUT AND SHEET MPW C.01 FOR TABULATION. THIS ITEM INCLUDES THE INSTALLATION OF A 1" SERVICE SADDLE WITH CORP STOP, UP TO 10 LF OF 1" TYPE K COPPER SERVICE LINE, AND RECONNECTION TO EXISTING WATER SERVICE.			
WATER MAIN ABANDONMENT, CAP			
A. REFER TO SHEETS MPW M.01 THRU MPW M.02 FOR LAYOUT AND SHEET MPW C.01 FOR TABULATION. THIS ITEM INCLUDES TRENCHING, HAULING OFF EXCAVATED SOIL TO AN APPROVED LOCATION, PIPE CUTTING, REMOVAL AND DISPOSAL OF PIPE, DISPOSAL OF TRENCH WATER, INSTALLATION OF CAP WITH THRUST RESTRAINT, PLACEMENT OF BEDDING AND BACKFILL MATERIAL AND COMPACTION.			
B. THIS ITEM REQUIRES THE INSTALLATION OF TWO CAPS AND DRY BLOCKING BETWEEN CAPS.			
C. ALL CAPS SHALL BE MECHANICAL JOINT. ALL BOLTS, NUTS, AND WASHERS SHALL BE STAINLESS STEEL OR HIGH STRENGTH LOW ALLOY CORTEN BLUE.			
D. THE CONTRACTOR SHALL CONFIRM OUTSIDE DIAMETER OF WATER MAIN PRIOR TO THE OUTAGE FOR CAPS (WATERMAIN IN THIS AREA MAY BE CAST IRON SIZE PIPE). THE LENGTH OF CUT AND CAP TIME SHALL BE KEPT TO A MINIMUM.			
E. CONTRACTOR SHALL PROVIDE MPW WITH MINIMUM 3 DAYS NOTICE PRIOR TO ANY CUSTOMER OUTAGE.			
CUT-IN-CONNECTION			
MEASUREMENT & PAYMENT BY EACH CUT-IN CONNECTION MADE. THE UNIT PRICE FOR EACH ITEM INCLUDES, BUT IS NOT LIMITED TO ADVANCED COORDINATION WITH MUSCATINE POWER AND WATER FOR REQUIRED CUSTOMER NOTICES AND OUTAGES; MEASURING, CUTTING, AND REMOVING SECTION OF EXISTING WATER PIPE, PLUG, OR FITTING; Dewatering and Cleaning Existing Water Pipe; FURNISHING AND USING ALL TEMPORARY PLUGS AND DISINFECTANT TO PREVENT CONTAMINATION OF EXISTING WATER PIPE; POLYETHYLENE WRAP; FURNISHING AND INSTALLING COUPLING, SLEEVE (S), GASKETS, MECHANICAL JOINT GLAND, RESTRAINING DEVICES; LEAK TESTING; BRACING; CONNECTING NEW WATER PIPE TO EXISTING WATER PIPE, FITTING, OR VALVE; EXCAVATION; BACKFILL; COMPACTION; AND FURNISHING ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY TO COMPLETE WORK.			
TAPPINGS SLEEVE AND VALVE			
A. REFER TO SHEETS MPW M.01 THRU MPW M.02 FOR LAYOUT AND SHEET MPW C.01 FOR TABULATION. THIS ITEM INCLUDES, BUT IS NOT LIMITED TO, TAPPING SLEEVE, TAPPING VALVE, THE TAP, VALVE BOX AND COVER, VALVE BOX EXTENSION, AND VALVE STEM EXTENSION.			
B. THE TAPPING VALVE AND SLEEVE MUST MEET MPW'S MATERIAL SPECIFICATIONS.			

TABULATIONS

VALVE				
NO.	ALIGNMENT	APPROX. STATION	APPROX. ELEVATION	TYPE
1	LOGAN	500+03.99'	665.24'	MJ GATE VALVE, 6"
2	LOGAN	500+75.76'	663.44'	MJ GATE VALVE, 6"

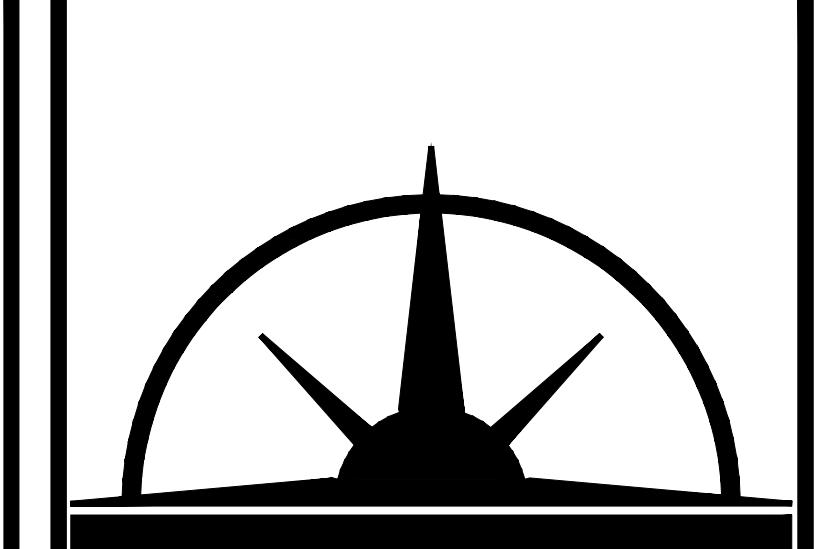
WATER MAIN FITTINGS				
NO.	ALIGNMENT	APPROX. STATION	APPROX. ELEVATION	TYPE
1	HAGERMAN	400+09.69'	622.39'	45 DEGREE VERTICAL ELBOW, 6" MJ
2	HAGERMAN	400+17.31'	618.55'	45 DEGREE VERTICAL ELBOW, 6" MJ
3	HAGERMAN	400+25.21'	618.53'	45 DEGREE VERTICAL ELBOW, 6" MJ
4	HAGERMAN	400+32.25'	622.22'	45 DEGREE VERTICAL ELBOW, 6" MJ
5	LOGAN	500+02.58'	665.23'	6" TAPPING SLEEVE
6	LOGAN	500+11.05'	663.88'	90 DEGREE ELBOW, 6" MJ
7	LOGAN	500+13.64', 8.5' RIGHT	665.25'	6" CAP ON EXISTING MAIN
8	LOGAN	500+51.23'	663.16'	45 DEGREE ELBOW, 6" MJ
9	LOGAN	500+59.19'	662.12'	45 DEGREE ELBOW, 6" MJ
10	LOGAN	500+71.38'	662.07'	45 DEGREE VERTICAL ELBOW, 6" MJ
11	LOGAN	500+72.41', 2.5' RIGHT	663.84'	6" CAP ON EXISTING MAIN
12	LOGAN	500+74.41'	663.41'	90 DEGREE STREET ELBOW, 6" MJ
13	LOGAN	500+76.90'	663.44'	6" TAPPING SLEEVE

WATER SERVICE ADJUSTMENTS						
NO.	ALIGNMENT	APPROX. STATION	SIDE	ADDRESS	TYPE	EXISTING MATERIAL
1	HAGERMAN	400+28.87'	LEFT	538 HAGERMAN ST	ADJUSTMENT	COPPER, 3/4"
2	HAGERMAN	400+29.99'	LEFT	542 HAGERMAN ST	ADJUSTMENT	COPPER, 1"
3	LOGAN	500+70.91'	RIGHT	1224 LOGAN ST	ADJUSTMENT	COPPER, 3/4"

WATER MAIN					
NO.	ALIGNMENT	APPROX. START STATION	APPROX. END STATION	SIZE (IN)	TYPE
1	HAGERMAN	400+09.69'	400+32.25'	6	C-900 PVC 22.6
2	LOGAN	500+02.55'	500+76.90'	6	C-900 PVC 74.4

REFERENCE NOTES

- ① INSTALL 3/4" SERVICE SADDLE WITH CORP STOP. INSTALL UP TO 10 LF OF 3/4" TYPE K COPPER SERVICE LINE. RECONNECT TO EXISTING WATER SERVICE.
- ② INSTALL 1" SERVICE SADDLE WITH CORP STOP. INSTALL UP TO 10 LF OF 1" TYPE K COPPER SERVICE LINE. RECONNECT TO EXISTING WATER SERVICE.
- ③ REFER TO PROPOSED SEWER PLANS FOR LOCATION AND ELEVATION. SEWERS ARE SHOWN ON WATER PLANS FOR REFERENCE ONLY.



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MPW WHSSP6D
WATER MAIN

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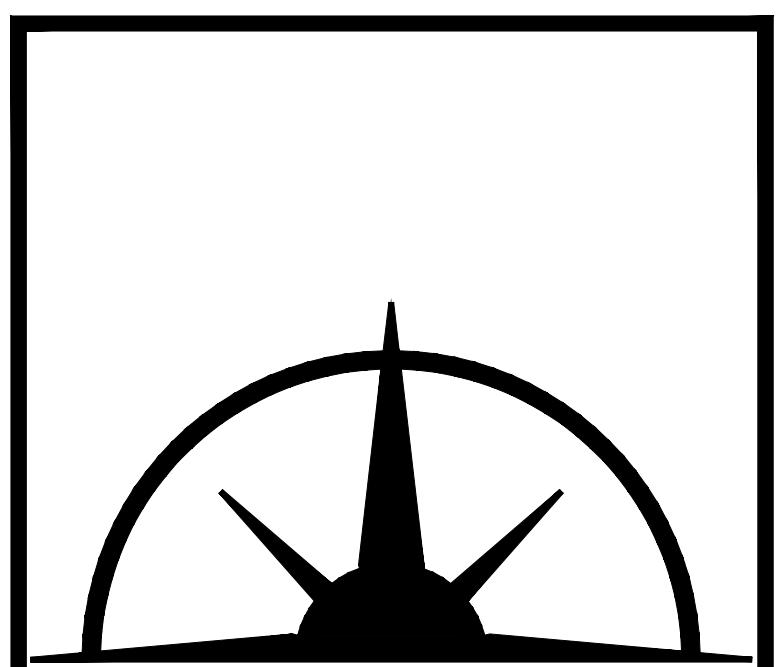
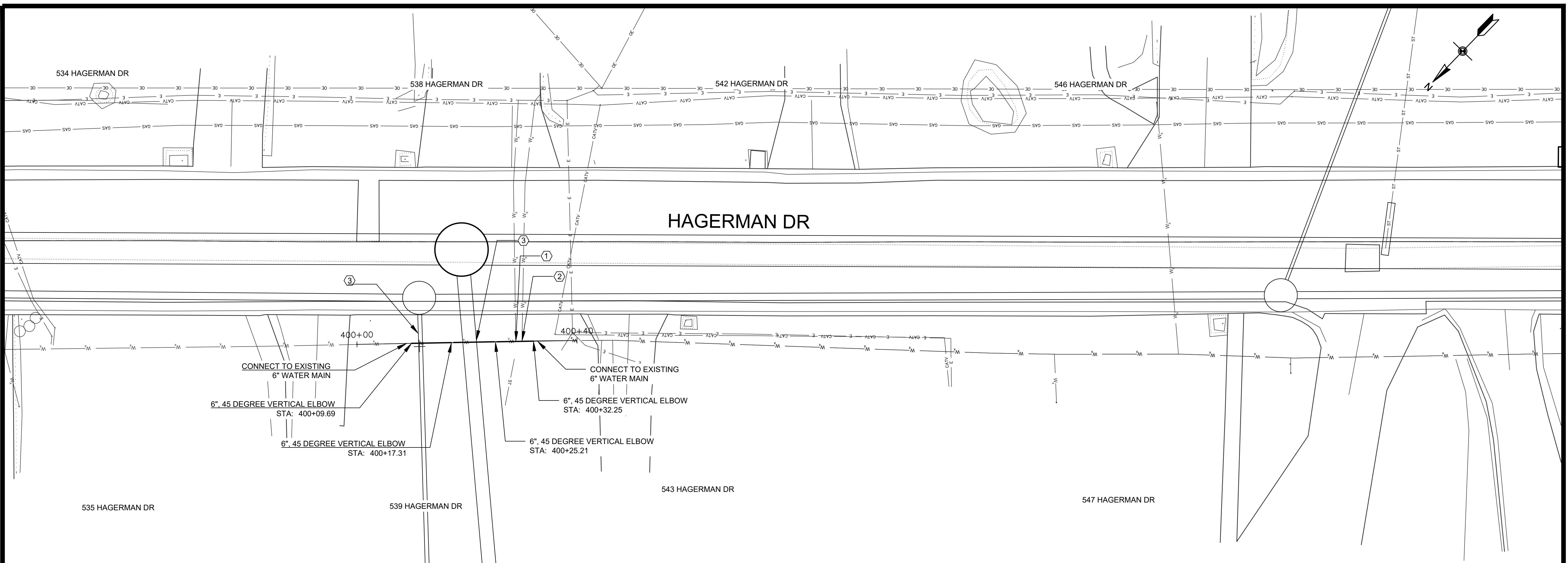
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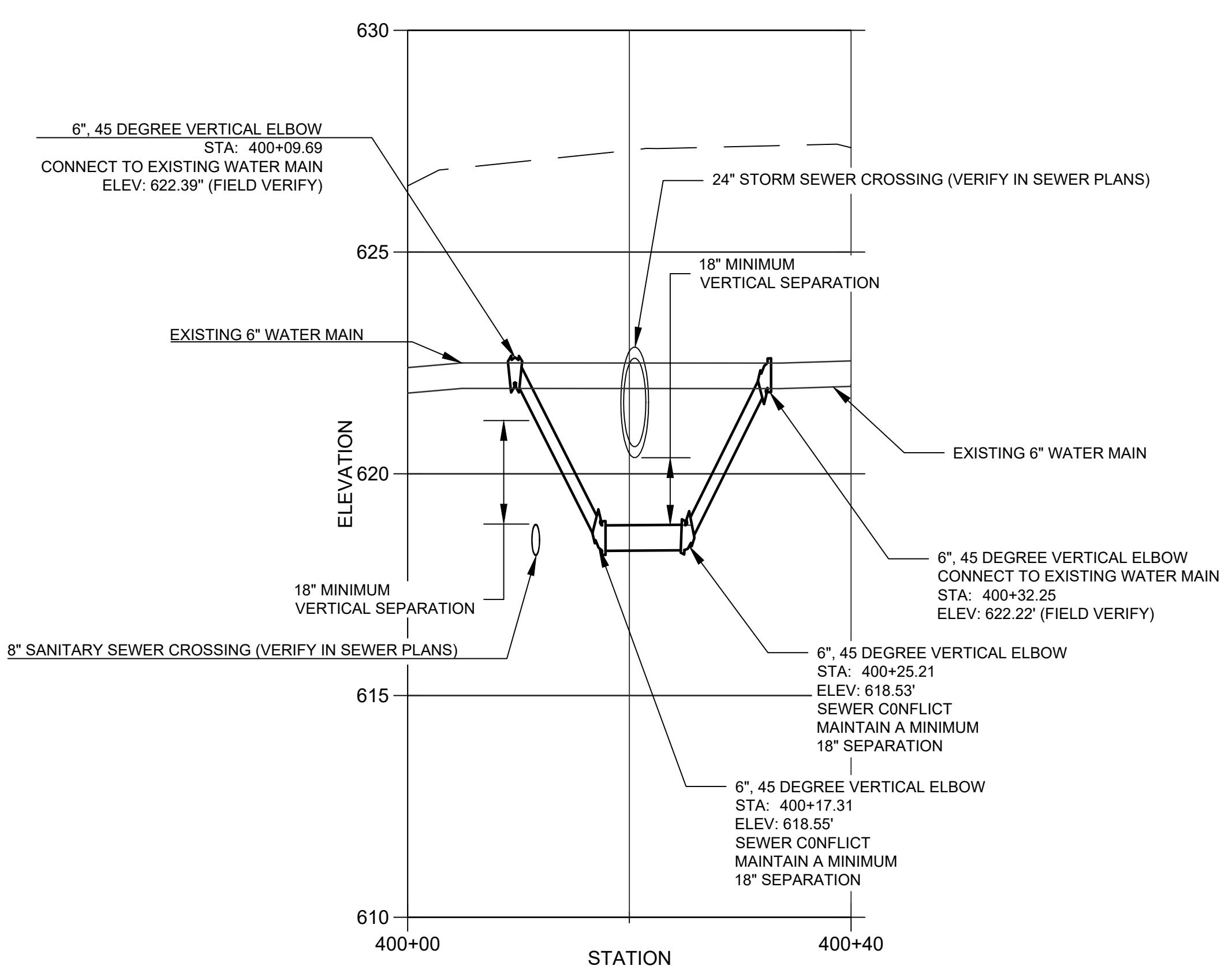
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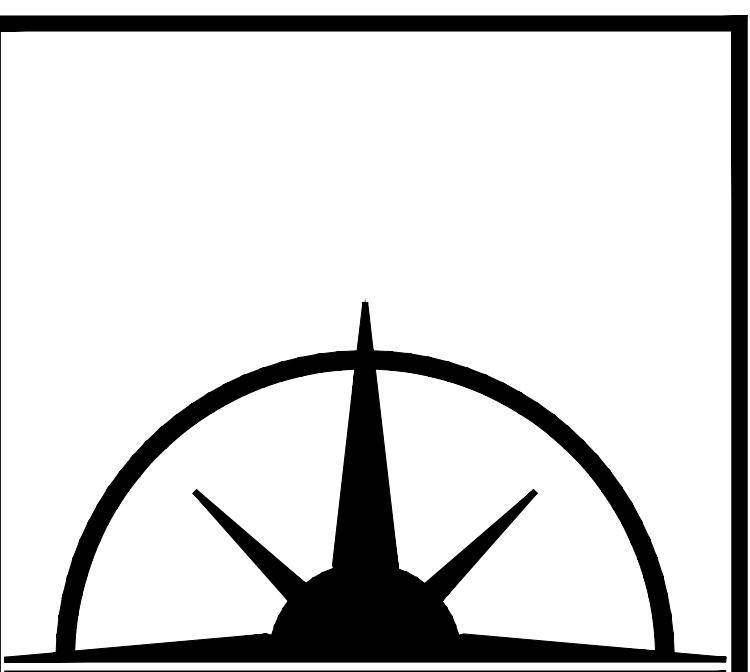
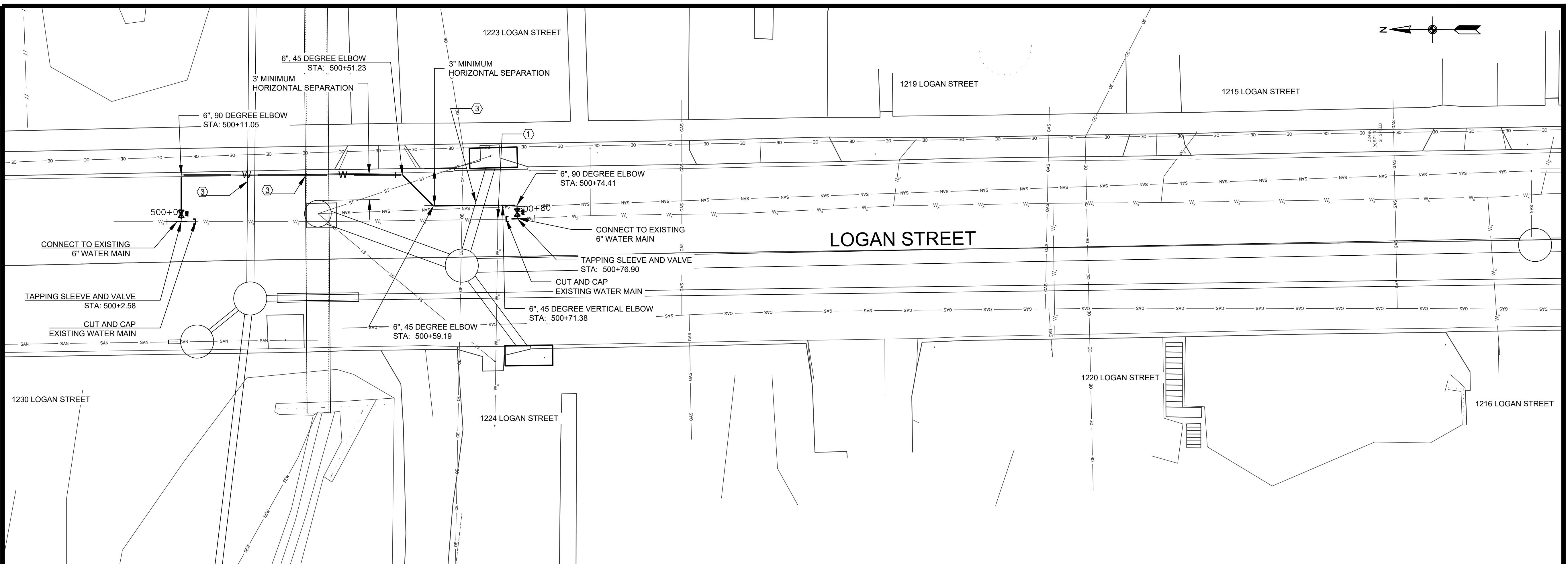
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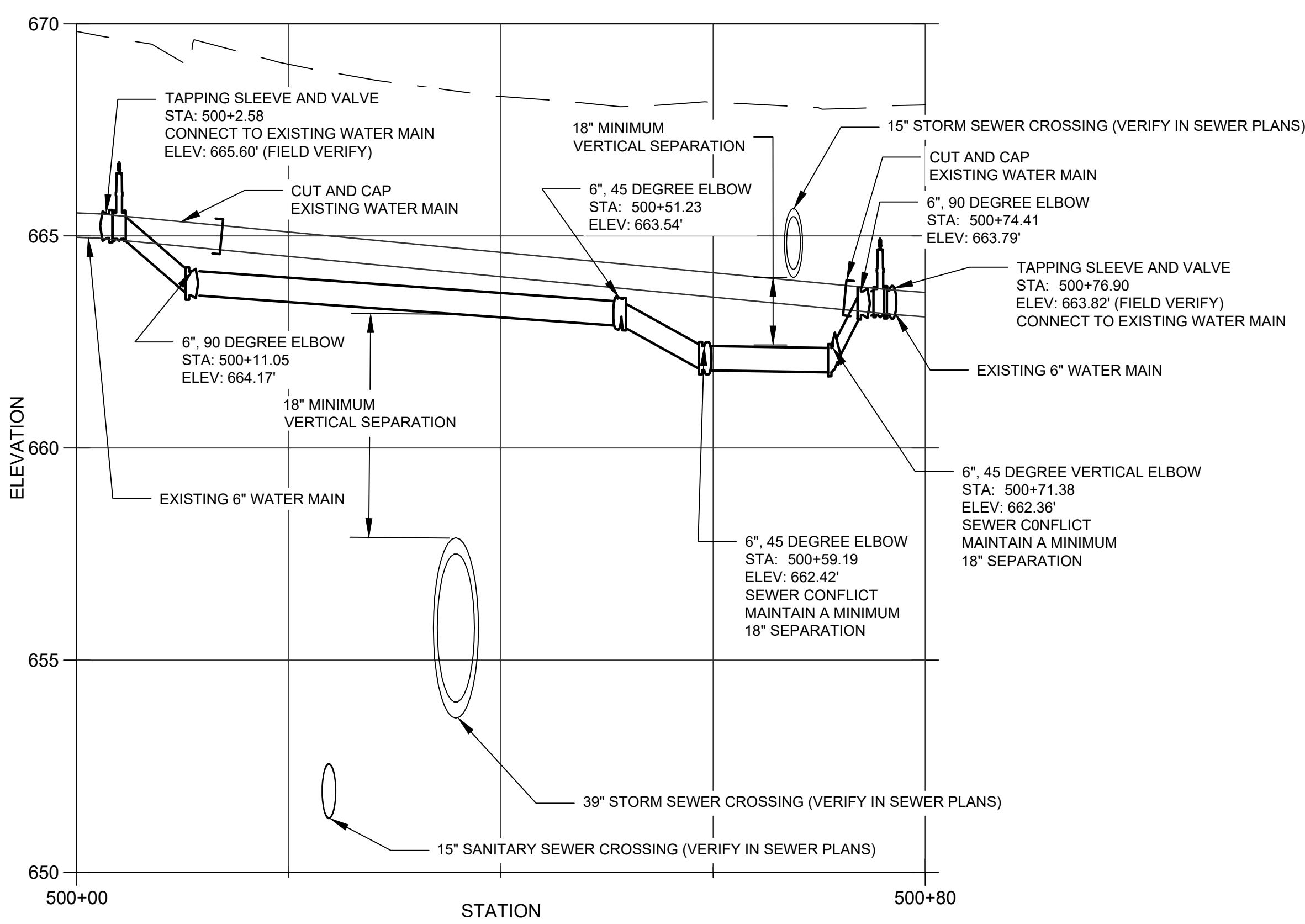


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MPW WHSSP6D WATER MAIN

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