

PAY ITEM NOTES - WATERLINE

1. TESTING AND CHLORINATION OF WATER MAINS SHALL BE PERFORMED BY THE CONTRACTOR. TESTING, CHLORINATION, AND FLUSHING SHALL BE DONE IN ACCORDANCE WITH AWWA C-600 AND C651 GENERAL SPECIFICATIONS.

CONTRACTOR SHALL FURNISH AND INSTALL TEMPORARY PLUGS WITH ADEQUATE BLOCKING OR RESTRAINTS, PLUS CORPORATION STOPS, ONCE TESTING, CHLORINATION AND FLUSHING BY CONTRACTOR IS COMPLETED, REMOVE TEMPORARY BLOCKING AND TIE INTO EXISTING SYSTEM, USING FITTINGS SWABBED INTERNALLY WITH 2% BLEACH SOLUTION.

TESTING, CHLORINATION, AND FLUSHING OF NEW WATER MAIN SHALL BE PERFORMED BY CONTRACTOR ON MAINS WHICH ARE PHYSICALLY DISCONNECTED FROM THE EXISTING WATER SYSTEM. TESTING, CHLORINATION, AND FLUSHING OF NEW WATER MAINS SHALL NOT BE PERFORMED AGAINST VALVES WHICH ARE PHYSICALLY CONNECTED TO EXISTING SYSTEM.

ALL COSTS FOR TEMPORARY PLUGS, BLOCKING, RESTRAINING, CORPORATION STOPS, TUBING, THREADED CONNECTIONS, BLEACH AND OTHER INCIDENTALS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR PIPE.

2. CONTRACTOR TO EXCAVATE ALL UTILITY CROSSINGS AHEAD OF PIPE LAYING SO THAT THE GRADES CAN BE ADJUSTED ON THE PROPOSED WATER MAIN TO AVOID UTILITY CONFLICTS. FAILURE TO DO SO SHALL NOT ENTITLE THE CONTRACTOR TO CLAIM EXTRA COMPENSATION FOR ADJUSTMENTS TO THE PROPOSED WATER MAIN. COST FOR EXCAVATING UTILITY CROSSINGS SHALL BE INCLUDED IN UNIT PRICE BID FOR PIPE.

3. CONTRACTOR SHALL INSURE ALL POLES WHICH ARE AFFECTED BY TRENCHING CONDITIONS ARE BRACED BY OWNERS. PAYMENT SHALL BE INCLUDED IN "RIGHT-OF-WAY CLEARING AND RESTORING". NO ADDITIONAL PAYMENT SHALL BE MADE.

4. CONTRACTOR SHALL REPAIR ANY IRRIGATION SYSTEMS, ROOF DRAINS, AND FENCING DAMAGED IN THE ZONE OF CONSTRUCTION DURING THE COURSE OF CONSTRUCTION TO SATISFACTION OF THE PROPERTY OWNER. PAYMENT SHALL BE INCLUDED IN "RIGHT-OF-WAY CLEARING AND RESTORING". NO ADDITIONAL PAYMENT SHALL BE MADE.

5. ALL FENCE TO BE REMOVED AND REPLACED IS INCLUDED IN RIGHT OF WAY AND CLEARING AND GRUBBING. NO ADDITIONAL PAYMENT IS TO BE MADE.

6. ALL COSTS FOR COMPONENTS NECESSARY TO RESTRAIN JOINTS FOR PIPE AND FITTINGS DESIGNATED RESTRAINED JOINT ("RJ") SHALL BE INCLUDED IN UNIT PRICE BID FOR PIPE OR FITTINGS. US PIPE TRIFLEX, GRIFFIN SNAPLOK, MCWANE THRUSTLOCK, AMERICAN FLEXRING; OR EBAA MEGALUG, SMITH-BLAIR CAMLOCK, CLOW TUFGRIP OR EQUAL SHALL BE USED ON THIS PROJECT. LOCKING GASKETS NOT ALLOWED. SHOULD RJ PIPE BE SPECIFIED THRU UNCASSED BORES, ONLY US PIPE TRIFLEX, GRIFFIN SNAPLOK, MCWANE THRUSTLOCK, OR AMERICAN FLEXRING IS TO BE USED. NO ADDITIONAL PAYMENT SHALL BE MADE.

7. WHERE NON-METALLIC PIPE IS SPECIFIED, TRACER WIRE AND DETECTABLE MARKING TAPE SHALL BE INSTALLED ABOVE ALL PVC AND HDPE PIPE, TERMINATING ONLY ONTO HYDRANTS JUST ABOVE GROUND LEVEL. COST OF TRACER WIRE AND DETECTABLE MYLAR TAPE SHALL BE INCLUDED IN UNIT PRICE BID FOR PVC AND HDPE PIPE. TRACER WIRE SHALL BE #8 COPPER WIRE AS TRACER WIRE ATOP PVC AND HDPE PIPE.

8. DETECTABLE MARKING TAPE SHALL BE INSTALLED OVER DUCTILE IRON PIPE. COST WILL BE INCLUDED IN COST OF DUCTILE IRON PIPE.

9. BURIED BOLTS, HARNESS LUGS, AND COUPLINGS SHALL BE GIVEN TWO COATS OF KOPPER'S BITUMASTIC 300-M (DRY MIL THICKNESS OF 16 MILS) OR EQUAL. COST TO BE INCLUDED IN UNIT PRICE BID FOR PIPE AND FITTINGS.

10. ALL LABOR, MATERIALS, AND EQUIPMENT TO CONNECT PROPOSED WATER MAINS TO EXISTING WATER MAINS ARE INCLUDED IN COST OF SLEEVES AND/OR TAPPING. NO ADDITIONAL PAYMENT SHALL BE MADE.

11. CONTRACTOR IS REMINDED TO BED AND BACKFILL ALL TRENCHES EXCAVATED ACROSS ANY EXISTING OR PROPOSED DRIVING OR PARKING SURFACE WITH 1-1/2" TYPE A AGGREGATE BASE, PLACED IN 8-INCH MAXIMUM LIFTS AND COMPACTED TO 98% MODIFIED PROCTOR DENSITY. COST TO BE INCLUDED IN COST OF THE UNIT BID FOR PIPE. NO ADDITIONAL PAYMENT SHALL BE MADE.

12. CONTRACTOR IS REMINDED THAT COSTS ASSOCIATED WITH ALL TRENCH EXCAVATION FOR THE WATER LINE SHALL BE INCLUDED IN THE COST OF THE UNIT PRICE BID FOR PIPE. NO ADDITIONAL PAYMENT SHALL BE MADE. CONTRACTOR IS REMINDED THAT COSTS ASSOCIATED WITH ALL TRENCH EXCAVATION FOR THE WATER LINE SHALL BE INCLUDED IN THE COST OF THE UNIT PRICE BID FOR PIPE. NO ADDITIONAL PAYMENT SHALL BE MADE.

13. THE "CONSTRUCTION CONTINGENCY ALLOWANCE" CAN BE USED FOR VARIOUS WORK AND MISCELLANEOUS ITEMS NOT IDENTIFIED IN THE CONTRACT DOCUMENTS WITH THE FOLLOWING PROVISIONS:

I. THE ALLOWANCE SHALL BE USED FOR COST OF MATERIALS, LABOR, INSTALLATION AND OVERHEAD AND PROFIT FOR ADDITIONAL WORK AND MISCELLANEOUS ITEMS THAT ARE NOT IDENTIFIED IN THE CONSTRUCTION DOCUMENTS AND PLANS, AND NOT INCLUDED IN THE BID ITEMS OF THE CONTRACT.

II. THE ALLOWANCE SHALL BE USED ONLY AT THE DISCRETION OF THE OWNER. ANY ALLOWANCE BALANCE REMAINING AT THE COMPLETION OF THE PROJECT WILL BE CREDITED BACK TO OOWA ON THE FINAL APPLICATION FOR PAYMENT SUBMITTED BY THE CONTRACTOR.

III. THE CONTRACTOR SHALL PROVIDE, TO THE OWNER, A WRITTEN REQUEST FOR THE USE OF ANY ALLOWANCE, WITH A SCHEDULE OF VALUES, AND ALL ASSOCIATED BACKUP INFORMATION, INCLUDING ANY TIME EXTENSIONS REQUIRED TO PERFORM THE WORK.

IV. THE CONTRACTOR SHALL PROCEED WITH THE WORK INCLUDED IN THE ALLOWANCE ONLY AFTER RECEIVING A WRITTEN ORDER, FROM THE ENGINEER AND OWNER AUTHORIZING SUCH WORK. PROCEEDING WITH WORK IN THE ALLOWANCE WITHOUT A WRITTEN ORDER FROM THE OWNER WILL BE AT THE CONTRACTOR'S EXPENSE.

Item No.	Spec. #	ITEM	UNIT	QTY.
GENERAL				
1	641	MOBILIZATION	LS	1
2	642(B)	CONSTRUCTION STAKING LEVEL 2	LS	1
3	616(V)	HYDROSTATIC PRESSURE TESTING AND DISINFECT	LS	1
4		8-INCH METER VAULT (BERRY GLOBAL)	EA	1
5		OWNER ALLOWANCE	LS	1

Item No.	Spec. #	ITEM	UNIT	QTY.
WATER LINE 'A'				
1	221(B)	EROSION CONTROL, SILT FENCE-IN-PLACE	LF	4500
2	221113	8" GASKETED PVC C200 SDR-21	LF	2250
3	221113	6" GASKETED PVC C200 SDR-21	LF	30
4		10" BLIND FLANGE	EA	1
5	616(O)	8" 11.25 DEGREE BEND (MJ) (RJ)	EA	4
6	616(O)	8" 45 DEGREE BEND (MJ) (RJ)	EA	14
7	616(O)	8" 90 DEGREE BEND (MJ) (RJ)	EA	1
8	616(T)	10"X10"X8" TEE (MJ) (RJ)	EA	1
9	616(T)	8"X8"X8" TEE (MJ) (RJ)	EA	7
10	616(T)	8"X8"X8" TEE (MJ) (RJ)	EA	5
11	616(T)	8"X8" CROSS (MJ) (RJ)	EA	2
12	616(D)	8" GATE VALVE (FLGXMJ) (RJ)	EA	37
13	616(D)	6" GATE VALVE (FLGXMJ) (RJ)	EA	5
14	616(D)	STANDARD VALVE BOX	EA	42
15	616(G)	FIRE HYDRANT ASSEMBLY	EA	5
16		CONCRETE PLUG	EA	4
17		REMOVE AND REPLACE EXISTING PAVEMENT	LF	232
18	616(J)	JACK AND BORE	LF	60
19	616(J)	16" CASING	LF	387

Item No.	Spec. #	ITEM	UNIT	QTY.
WATER LINE 'B'				
1	221(B)	EROSION CONTROL, SILT FENCE-IN-PLACE	LF	1,324
2	221113	8" GASKETED PVC C200 SDR-21	LF	662
3	616(O)	8" 45 DEGREE BEND (MJ) (RJ)	EA	2
4	616(T)	8"X8"X8" TEE (MJ) (RJ)	EA	2
5	616(T)	8"X8"X2" TEE (MJ) (RJ)	EA	1
6	616(R)	10"X8" REDUCER (MJ) (RJ)	EA	2
7	616(D)	10" GATE VALVE (FLGXMJ) (RJ)	EA	3
8	616(D)	8" GATE VALVE (FLGXMJ) (RJ)	EA	10
9	616(D)	2" GATE VALVE (FLGXMJ) (RJ)	EA	1
10	616(D)	STANDARD VALVE BOX	EA	14
11		8-INCH METER VAULT	EA	1
12		2-INCH METER CAN	EA	1
13		CONCRETE PLUG	EA	2
14		REMOVE AND REPLACE EXISTING PAVEMENT	LF	291
15	616(J)	16" CASING	LF	68
16		8" SERVICE CONNECTION WITH APPROPRIATE APPERTENANCES	LF	50
17		2" SERVICE CONNECTION WITH APPROPRIATE APPERTENANCES	LF	50

Item No.	Spec. #	ITEM	UNIT	QTY.
WATER LINE 'C'				
1	221(B)	EROSION CONTROL, SILT FENCE-IN-PLACE	LF	2920
2	221113	8" GASKETED PVC C200 SDR-21	LF	1460
3	221113	6" GASKETED PVC C200 SDR-21	LF	18
4	616(T)	8"X8"X8" TEE (MJ) (RJ)	EA	3
5	616(T)	8"X8"X6" TEE (MJ) (RJ)	EA	3
6	616(T)	8"X8"X2" TEE (MJ) (RJ)	EA	1
7	616(D)	8" GATE VALVE (FLGXMJ) (RJ)	EA	17
8	616(D)	6" GATE VALVE (FLGXMJ) (RJ)	EA	3
9	616(D)	2" GATE VALVE (FLGXMJ) (RJ)	EA	1
10	616(D)	STANDARD VALVE BOX	EA	21
11		8-INCH METER VAULT	EA	1
12		2-INCH METER CAN	EA	1
13	616(G)	FIRE HYDRANT ASSEMBLY	EA	3
14		REMOVE AND REPLACE EXISTING PAVEMENT	LF	34
15		CONCRETE PLUG	EA	2
16		16" CASING	LF	89
17		8" SERVICE CONNECTION WITH APPROPRIATE APPERTENANCES	LF	50
18		2" SERVICE CONNECTION WITH APPROPRIATE APPERTENANCES	LF	50

Item No.	Spec. #	ITEM	UNIT	QTY.
WATER LINE 'D'				
1	221(B)	EROSION CONTROL, SILT FENCE-IN-PLACE	LF	1436
2	221113	8" GASKETED PVC C200 SDR-21	LF	718
3		6" GASKETED PVC C200 SDR-21	LF	12
4	616(T)	8"X8"X6" TEE (MJ) (RJ)	EA	2
5		8" PLATE	EA	1
6	616(D)	8" GATE VALVE (FLGXMJ) (RJ)	EA	6
7	616(D)	6" GATE VALVE (FLGXMJ) (RJ)	EA	2
8	616(D)	STANDARD VALVE BOX	EA	8
9	616(G)	FIRE HYDRANT ASSEMBLY	EA	2
10		REMOVE AND REPLACE EXISTING PAVEMENT	LF	45
11		16" CASING	LF	45

Item No.	Spec. #	ITEM	UNIT	QTY.
WATER LINE 'E'				
1	221(B)	EROSION CONTROL, SILT FENCE-IN-PLACE	LF	172
2	221113	8" GASKETED PVC C200 SDR-21	LF	86
3	616(T)	8"X8"X8" TEE (MJ) (RJ)	EA	1
4	616(R)	8"X8" REDUCER (MJ) (RJ)	EA	2
5	616(R)	6"X2" REDUCER (MJ) (RJ)	EA	1
6	616(D)	8" GATE VALVE (FLGXMJ) (RJ)	EA	3
7	616(D)	STANDARD VALVE BOX	EA	3
8		2-INCH METER CAN	EA	1
9		REMOVE AND REPLACE EXISTING PAVEMENT	LF	27
10		CONCRETE PLUG	EA	2
11		16" CASING	LF	65
12		2" SERVICE CONNECTION WITH APPROPRIATE APPERTENANCES	LF	50

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WATER LINE NOTES & QUANTITIES

MIDAMERICA INDUSTRIAL PARK
ZARROW ROAD WATER LINE RELOCATION

PRYOR, OKLAHOMA

2023

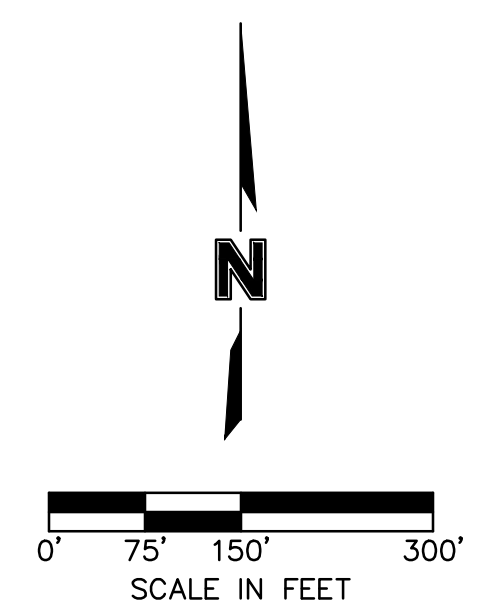
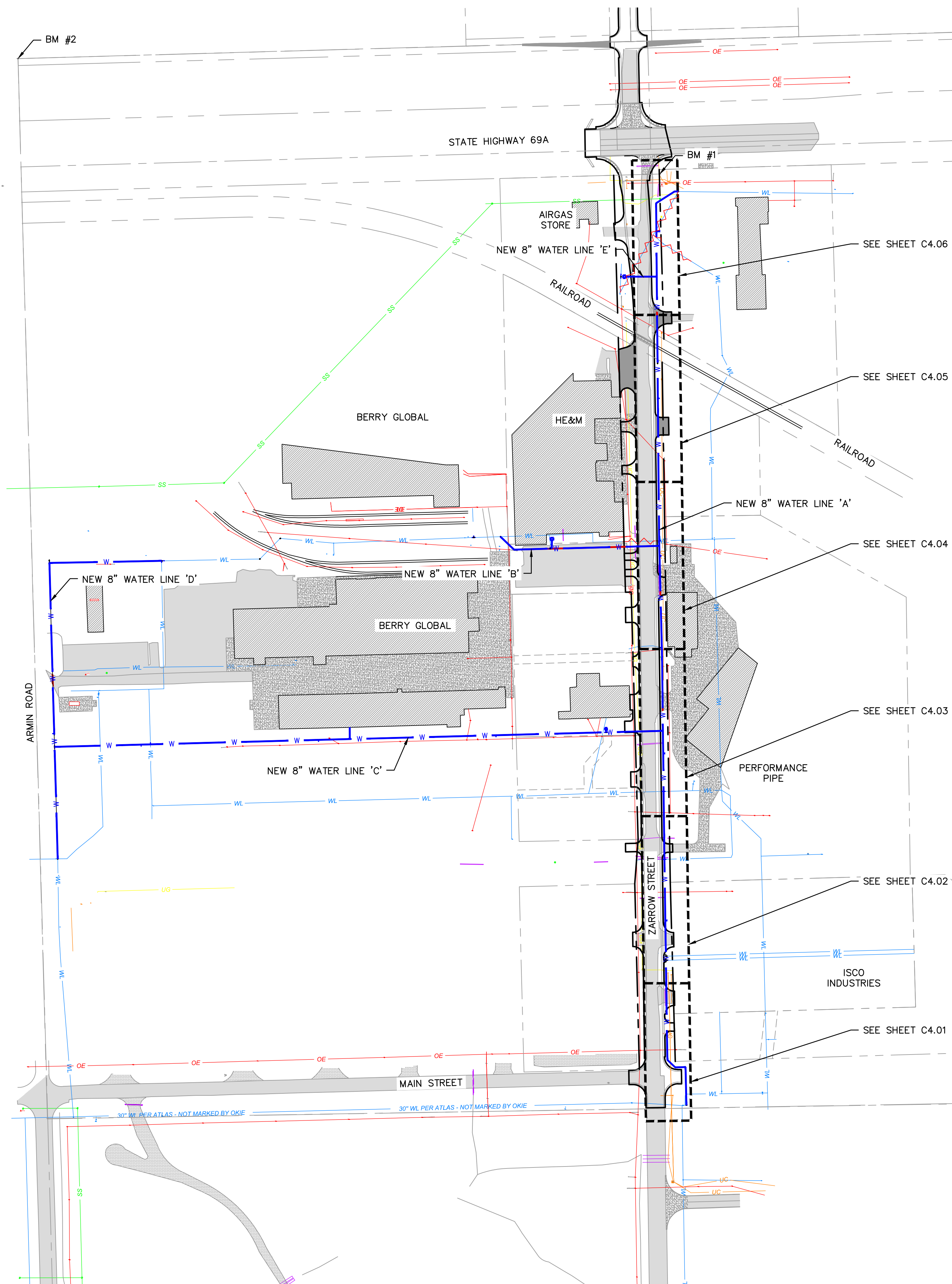
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Call before you dig.

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LEGEND

	SECTION LINE
	RIGHT OF WAY
	ROADWAY CENTERLINE
	PROPERTY LOT LINE
	EDGE OF ROAD
	EXISTING EASEMENT
	EXISTING WATER LINE
	WATER LINE REMOVED FROM SERVICE
	EXISTING SANITARY SEWER
	EXISTING STORM SEWER
	EXISTING OVERHEAD ELECTRIC
	EXISTING NATURAL GAS LINE
	EXISTING COMMUNICATION LINE
	PROPOSED WATER LINE
	EXISTING ASPHALT PAVEMENT
	EXISTING CONCRETE PAVEMENT
	EXISTING BUILDING

GENERAL NOTES:

1. THE CONTRACTOR SHALL CONSTRUCT ALL WATER LINES AND CONNECTIONS IN ACCORDANCE WITH THE APPLICABLE STANDARDS AND SPECIFICATIONS OF THE LOCAL UTILITY PROVIDER.
2. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING UTILITY SERVICE CONNECTIONS WITH THE APPROPRIATE UTILITY COMPANY/OWNER.
3. ALL WATER SERVICE CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE BUILDING CODES AWWA SPECIFICATIONS. CONTRACT OKLAHOMA ORDINANCE WORKS AUTHORITY (OOWA) TO PROVIDE OPPORTUNITY TO INSPECT.
2. COORDINATE WITH KEITH HARRIS FROM MIDAMERICA INDUSTRIAL PARK FOR NEARBY VALVE LOCATIONS FOR PIPE ISOLATION AND WATER SERVICE SHUTDOWN TIMETABLE.
3. ALL DUCTILE IRON FITTINGS AND PIPE MUST BE CEMENT LINED IN ACCORDANCE WITH AWWA C104/A21 4-80.
4. WATER LINES SHALL BE PRESSURE TESTED FOR LEAKS AND DISINFECTED IN ACCORDANCE WITH OKLAHOMA DEPT. OF ENVIRONMENTAL QUALITY STANDARDS SECTION 252:626-19-1(e)(f)
5. IF THE CONTRACTOR OVER-CUTS THE TRENCH, THE ADDITIONAL BACKFILL MATERIAL WILL BE CONSIDERED INCIDENTAL AND WILL BE AT CONTRACTORS EXPENSE.
6. THE CONTRACTOR MAY BE REQUIRED TO INSTALL ADDITIONAL EROSION CONTROL DEVICES BEFORE FLUSHING WATER LINE TO MINIMIZE EROSION & TO REMAIN IN COMPLIANCE WITH LOCAL AND FEDERAL N.P.D.E.S. PERMIT REQUIREMENTS.
7. THE CONTRACTOR SHALL DISPOSE OF WATER FLUSHED FROM THE LINES TO A LOCATION APPROVED BY THE CITY ENGINEER OR DESIGNATED REPRESENTATIVE. IN NO CASE SHALL THE WATER BE FLUSHED INTO THE PAVING SUBGRADE.
8. THE CONTRACTOR IS RESPONSIBLE FOR THE REPLACEMENT OR REPAIR OF ALL EROSION CONTROL DEVICES DAMAGED DUE TO CONSTRUCTION.

SURVEY CONTROL DATA

HORIZONTAL DATUM: OKLAHOMA STATE PLANE COORDINATE SYSTEM
 NAD 83 (NORTH ZONE 3501) VERTICAL DATUM: NAVD 88

BM #1 3/8" IRON PIN N: 465457.1970 E: 2761655.8230 ELEV=613.19'
BM #2 1" PIPE WITH CONCRETE NW SECTION CORNER N: 465733.6910 E: 2760119.0240 ELEV=603.28'
BM #3 3/8" IRON PIN W/PINK CAP N: 461138.4020 E: 2761617.5240 ELEV=640.82'



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MidAmerica INDUSTRIAL PARK

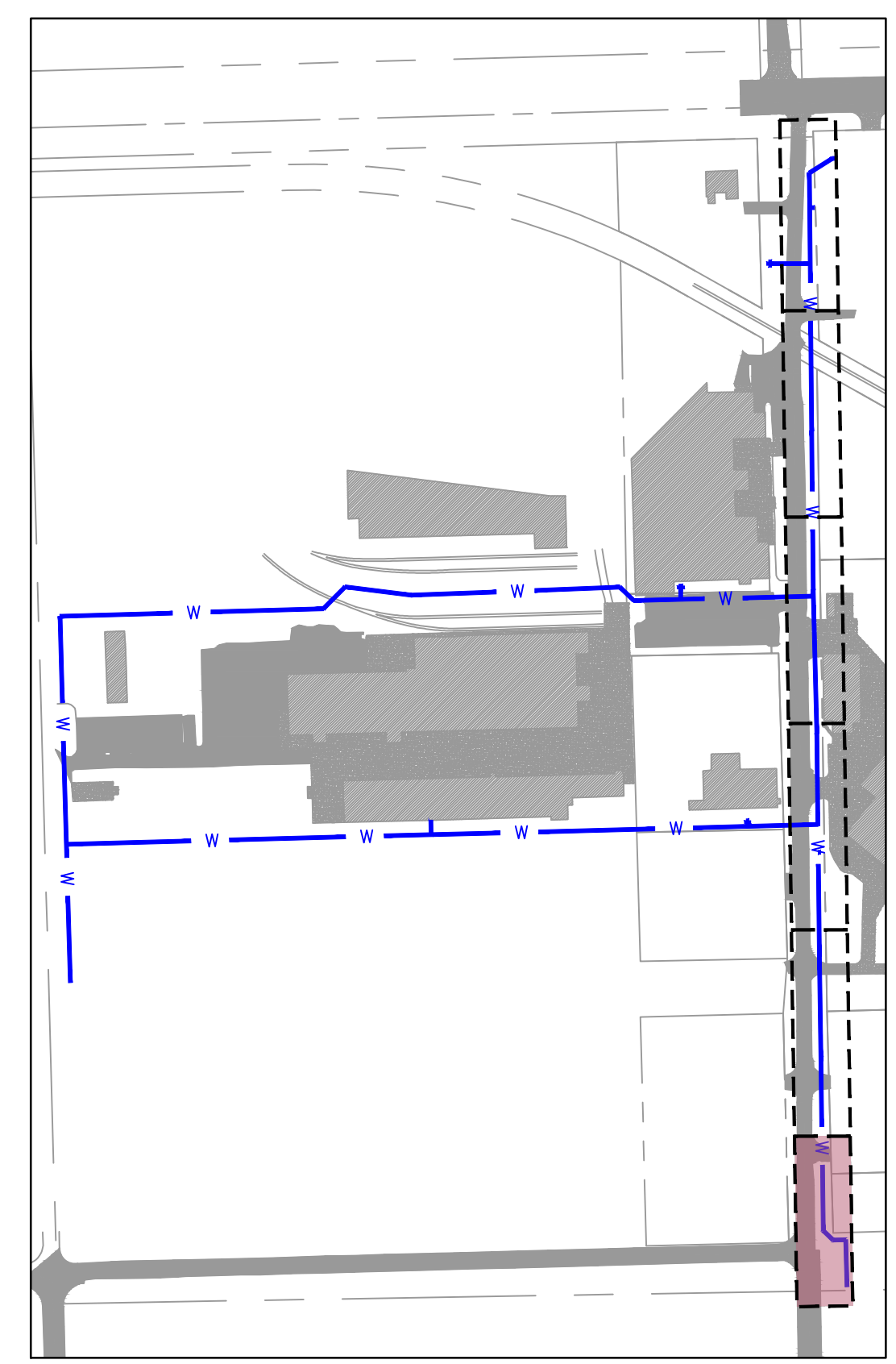
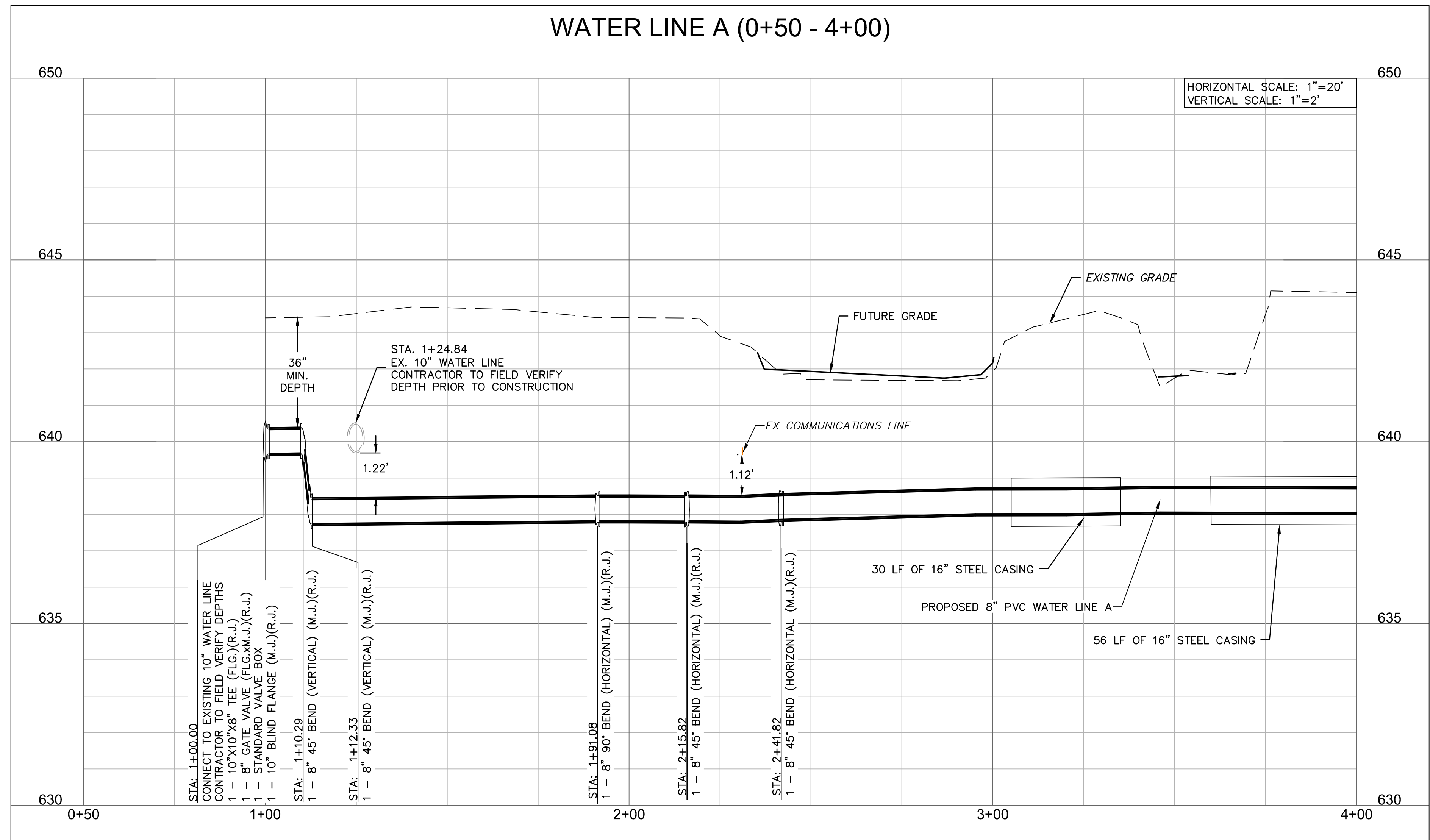
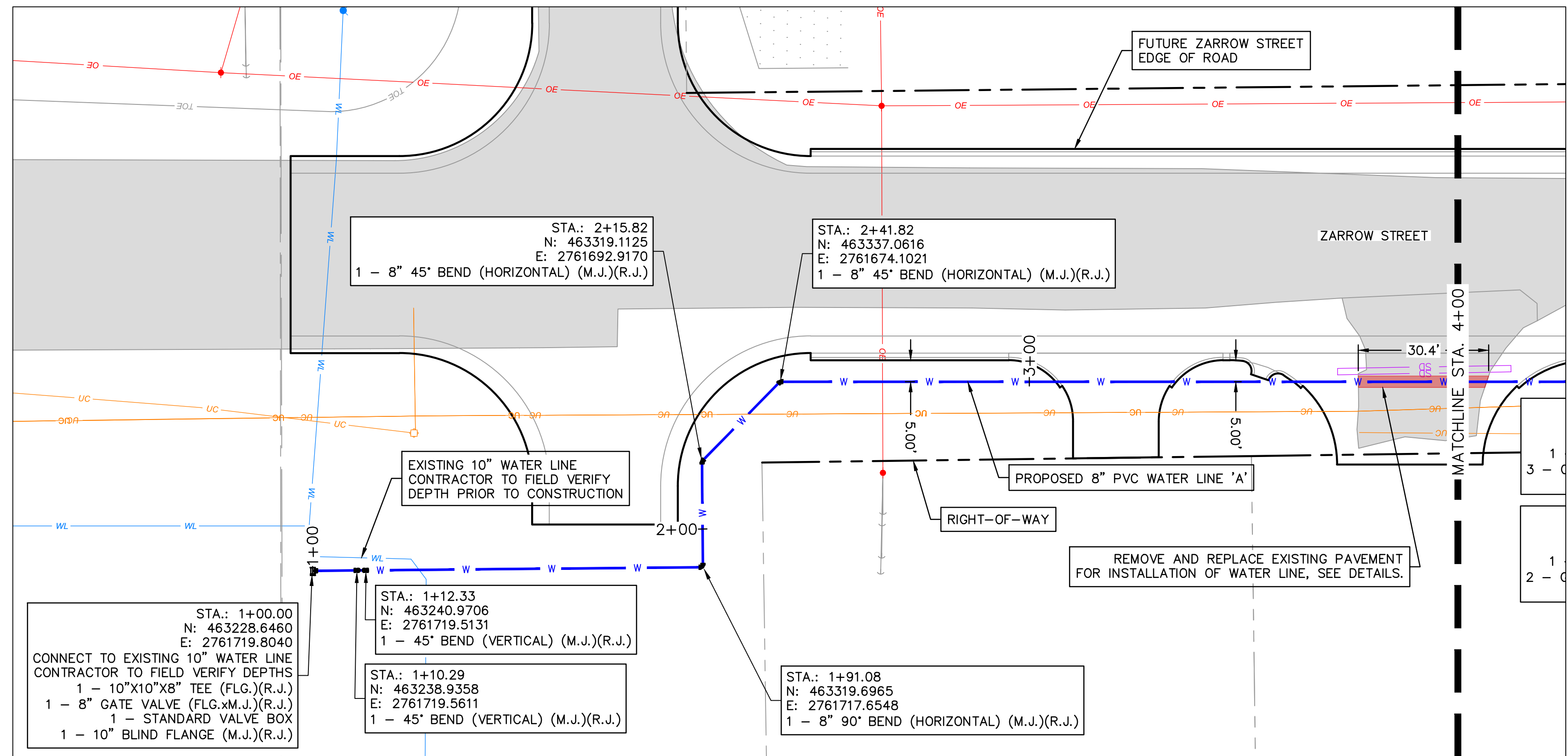
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WATER LINE 'A' KEYMAP
 MIDAMERICA INDUSTRIAL PARK
 ZARROW ROAD WATER LINE RELOCATION
 PRYOR, OKLAHOMA
 2023

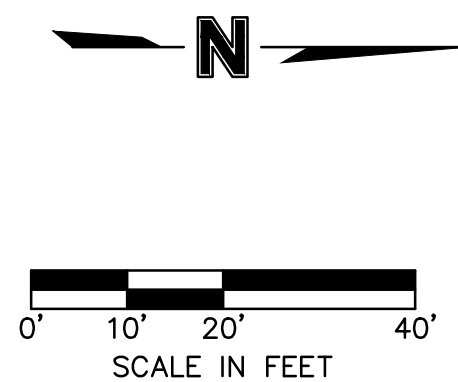
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NOTE:
 CONTRACTOR TO VERIFY EXISTING WATER LINE PIPE LOCATIONS, MATERIALS AND DEPTH PRIOR TO CONSTRUCTION.



LEGEND

	SECTION LINE
	RIGHT OF WAY
	ROADWAY CENTERLINE
	PROPERTY LOT LINE
	EDGE OF ROAD
	EXISTING EASEMENT
	EXISTING WATER LINE
	WATER LINE REMOVED FROM SERVICE
	EXISTING SANITARY SEWER
	EXISTING STORM SEWER
	EXISTING OVERHEAD ELECTRIC
	EXISTING NATURAL GAS LINE
	EXISTING COMMUNICATION LINE
	PROPOSED WATER LINE
	EXISTING ASPHALT PAVEMENT
	EXISTING CONCRETE PAVEMENT
	EXISTING BUILDING

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WATER LINE 'A' PLAN & PROFILE

MIDAMERICA INDUSTRIAL PARK
 ZARROW ROAD WATER LINE RELOCATION

PRYOR, OKLAHOMA

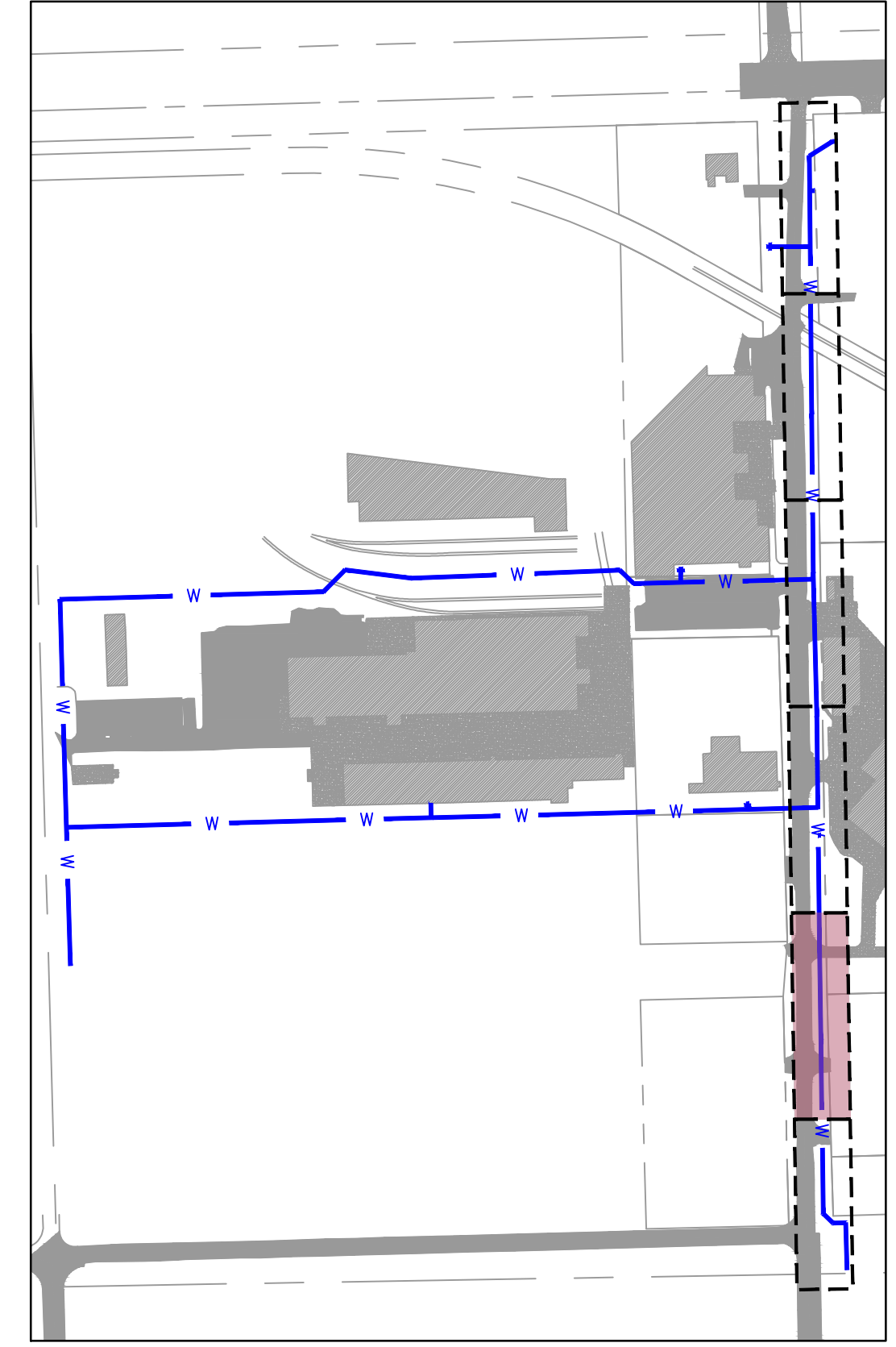
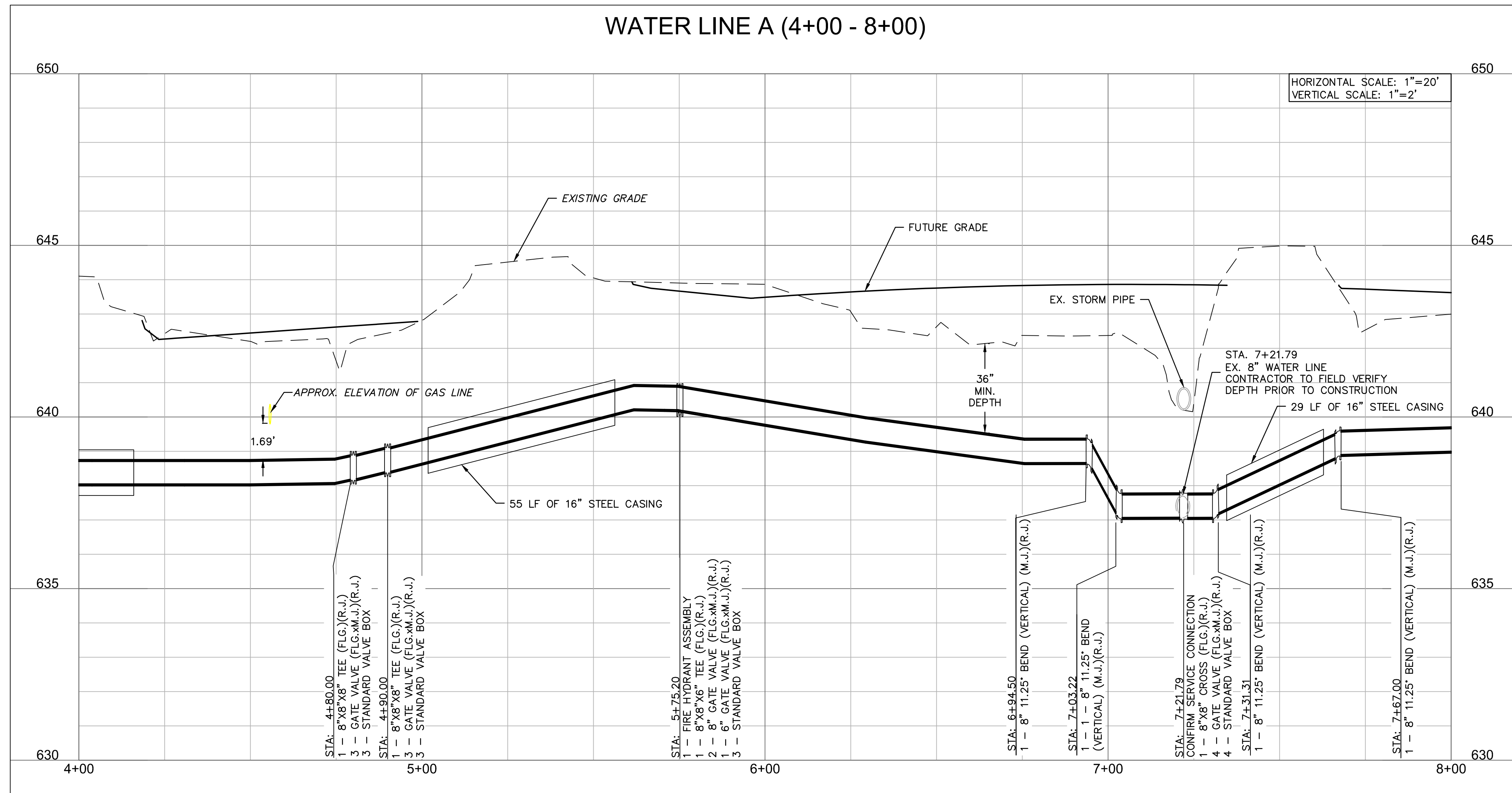
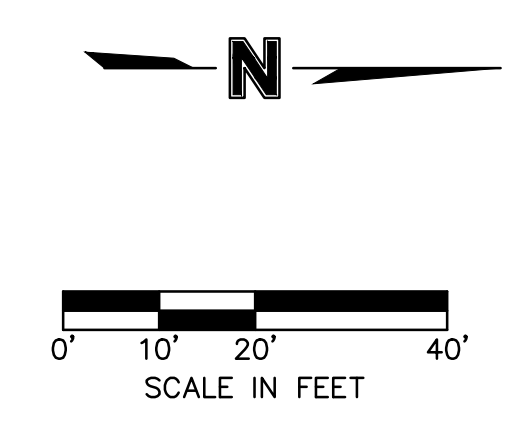
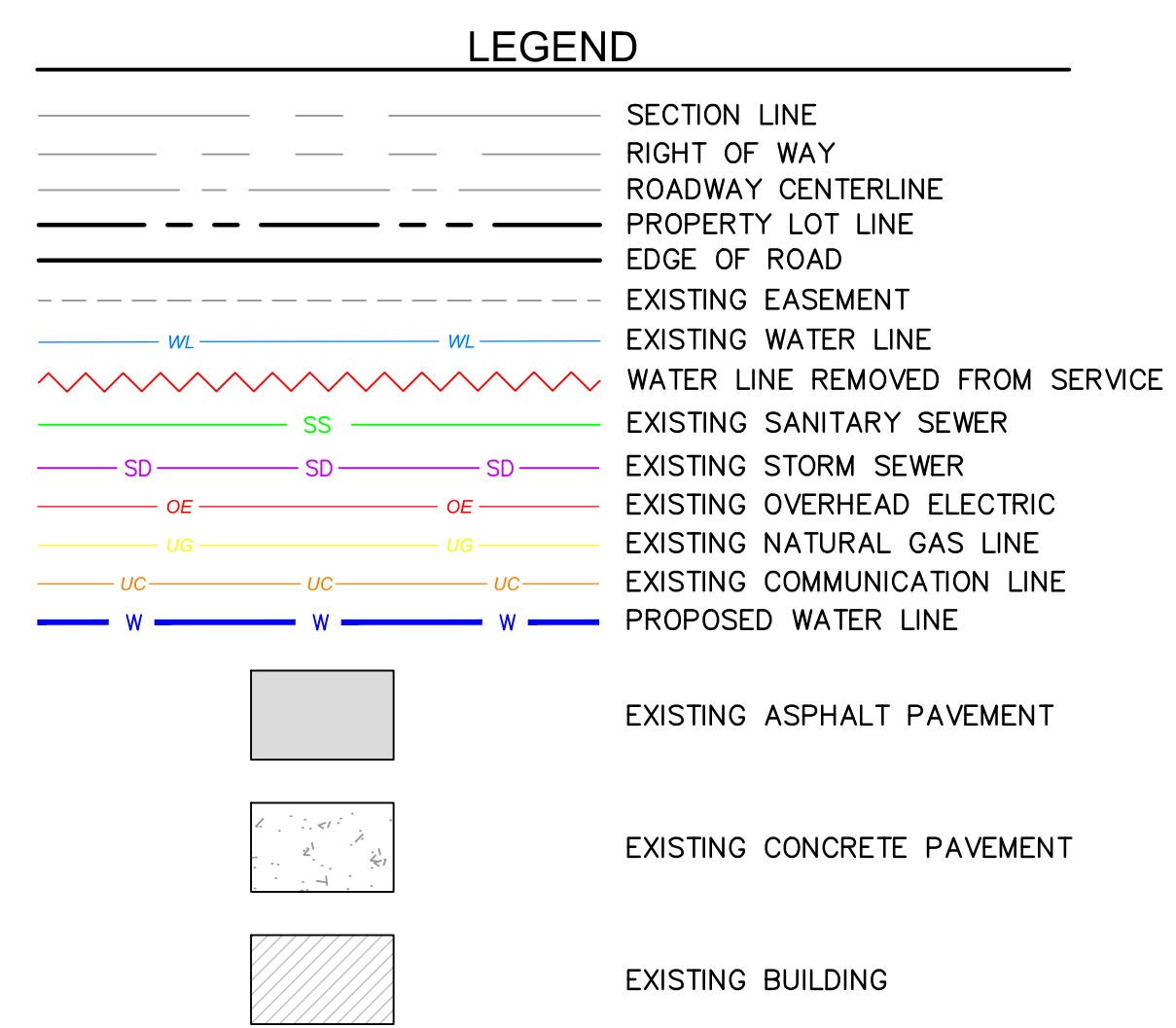
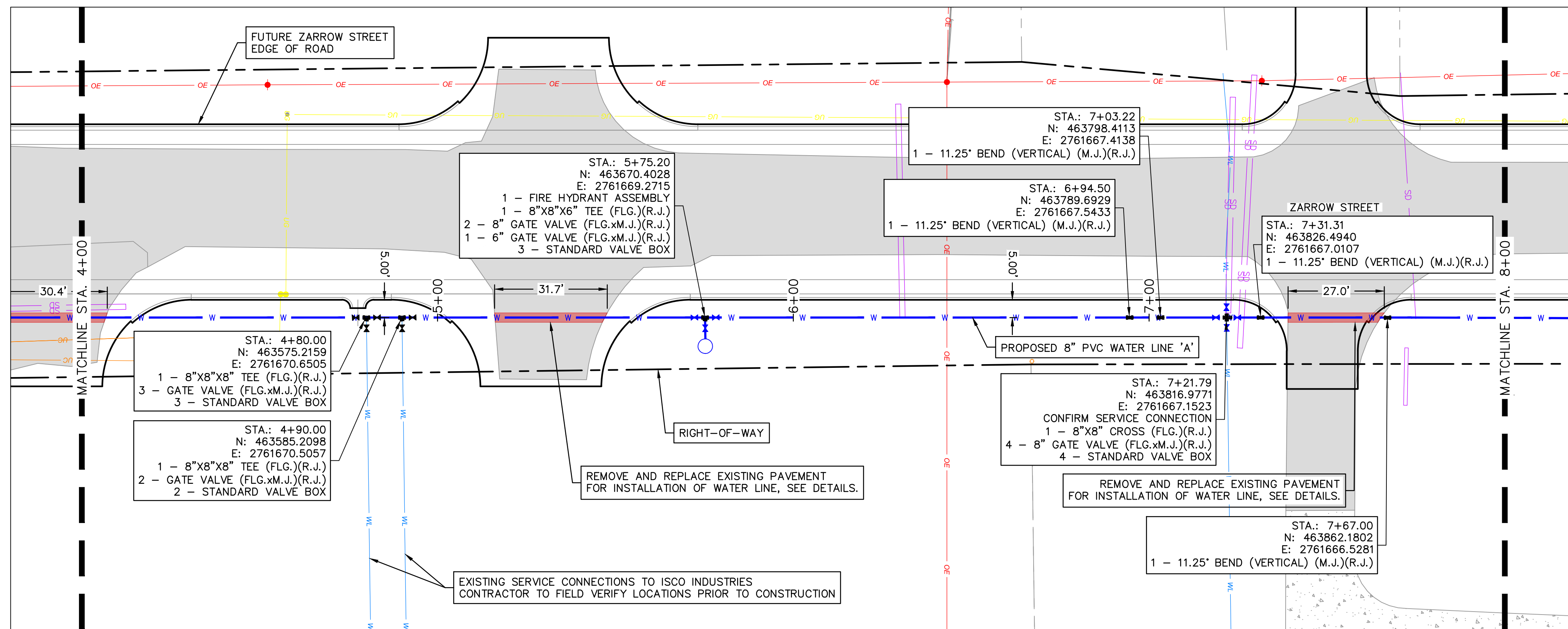
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NOTE:
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WATER LINE 'A' PLAN & PROFILE 2

MIDAMERICA INDUSTRIAL PARK
ZARROW ROAD WATER LINE RELOCATION

PRYOR, OKLAHOMA

2023

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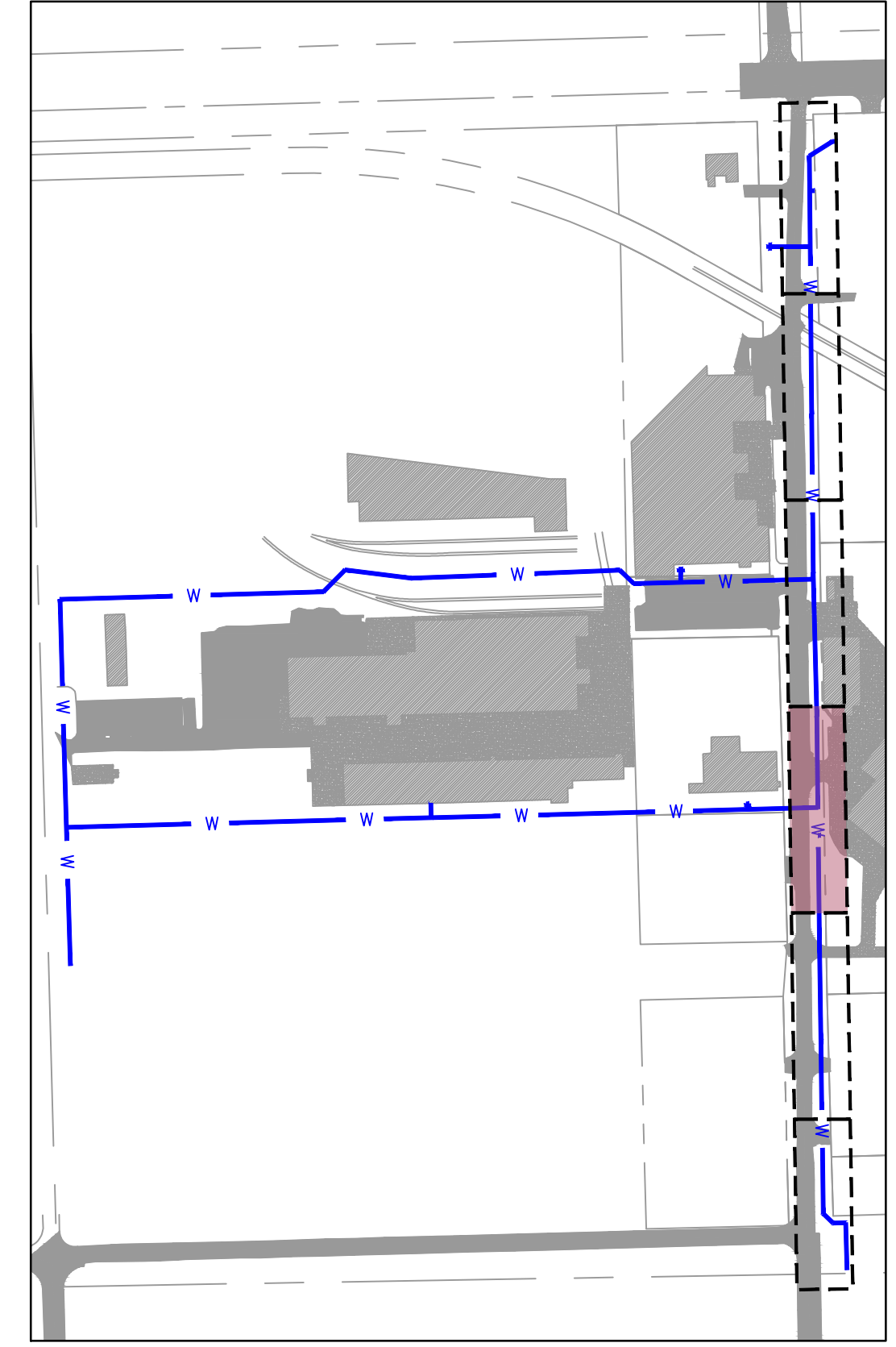
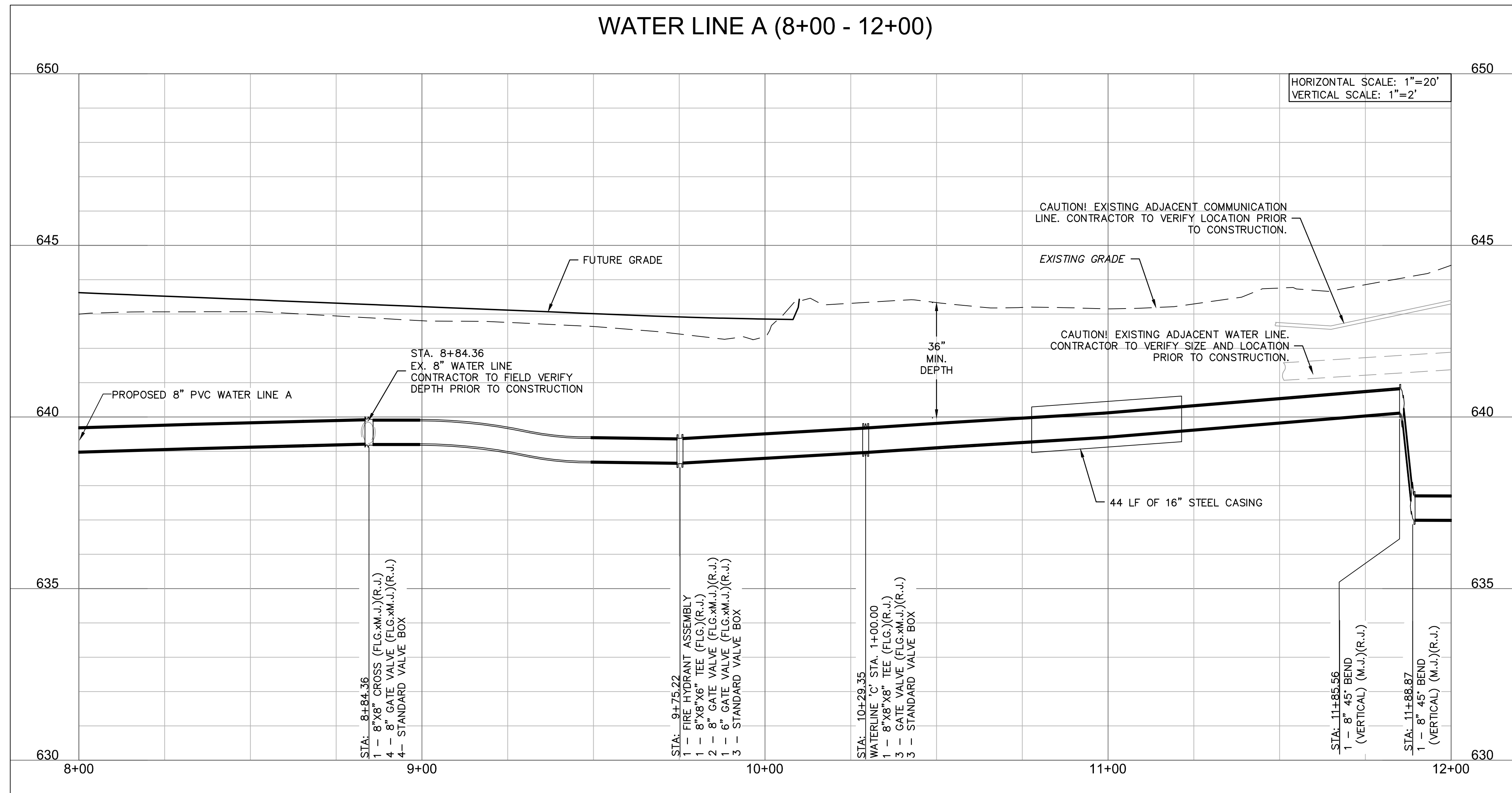
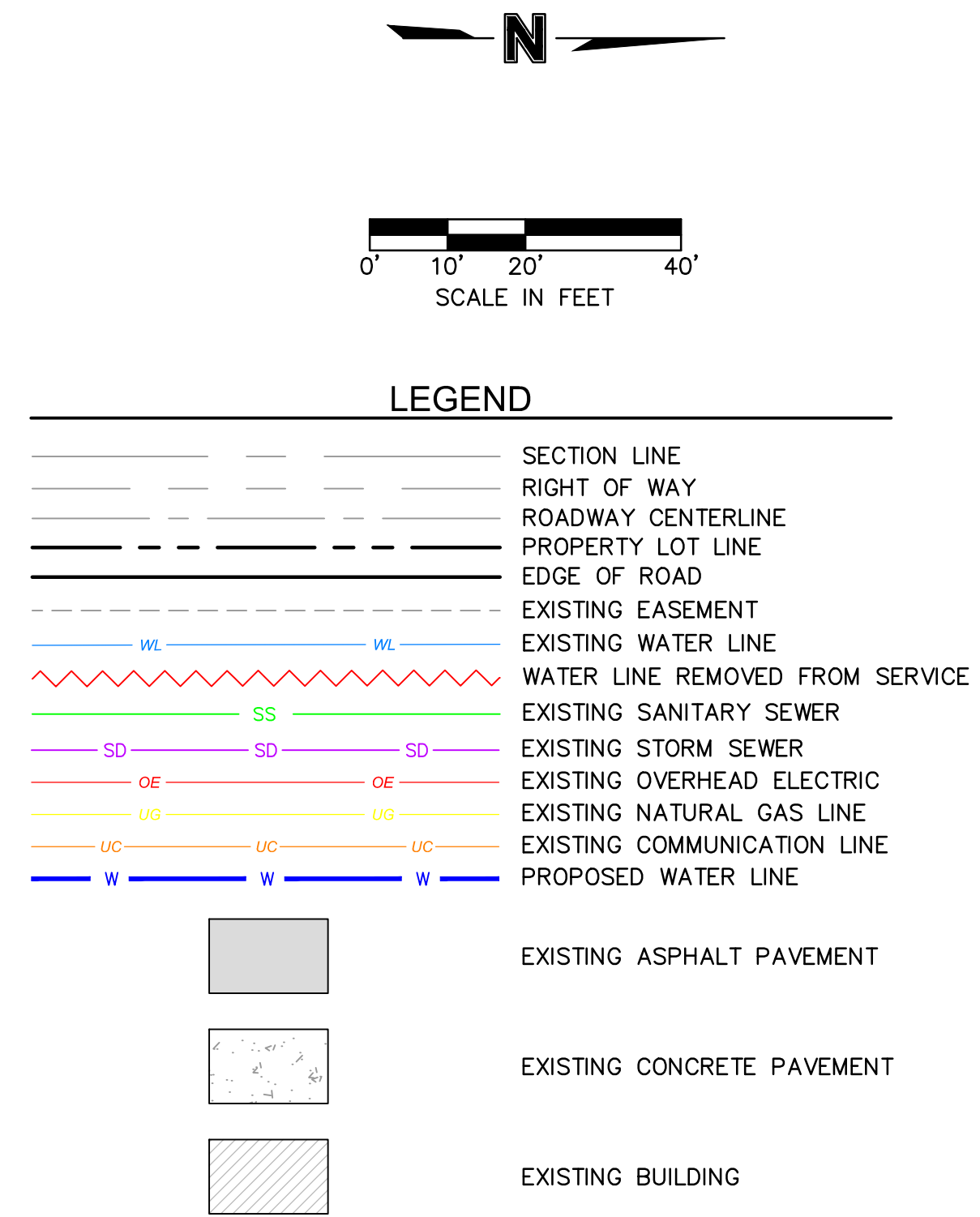
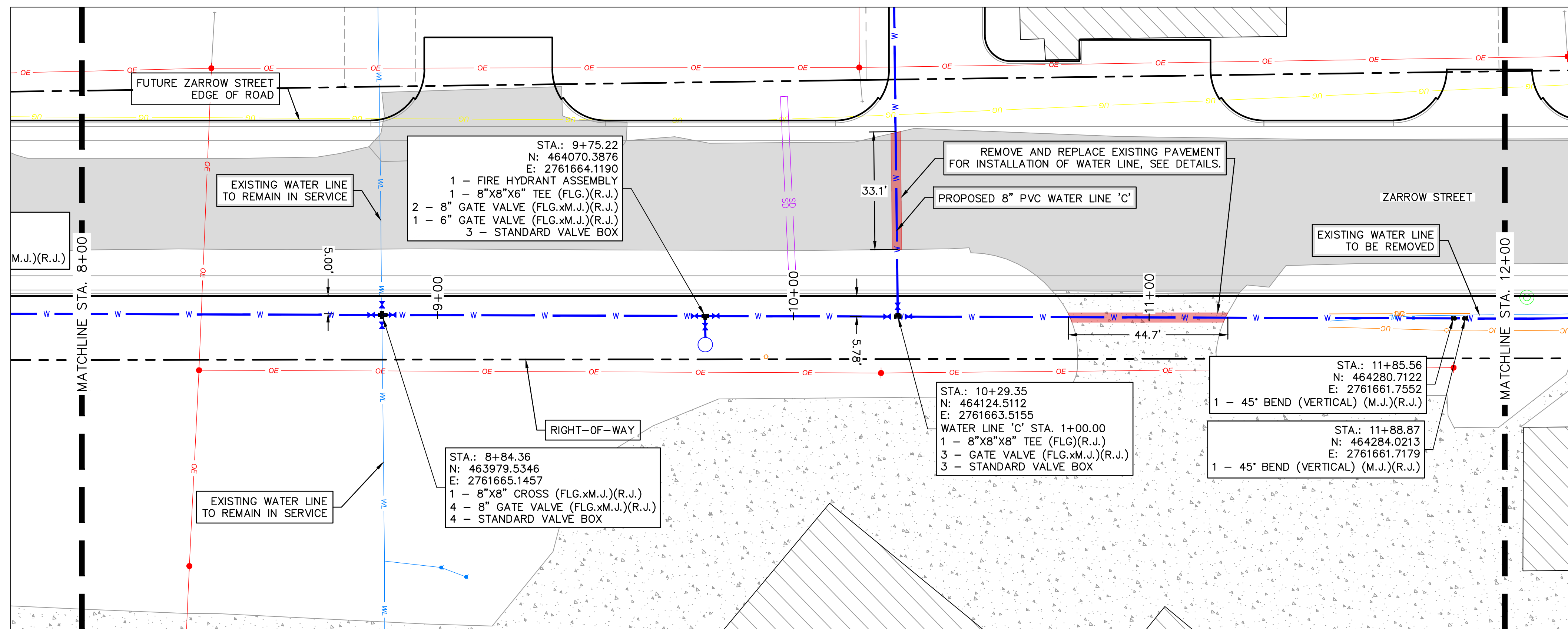
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NOTE:
CONTRACTOR TO VERIFY EXISTING WATER LINE PIPE LOCATIONS, MATERIALS AND DEPTH PRIOR TO CONSTRUCTION.



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MidAmerica INDUSTRIAL PARK

WATER LINE 'A' PLAN & PROFILE 3

**MIDAMERICA INDUSTRIAL PARK
ZARROW ROAD WATER LINE RELOCATION**

PRYOR, OKLAHOMA

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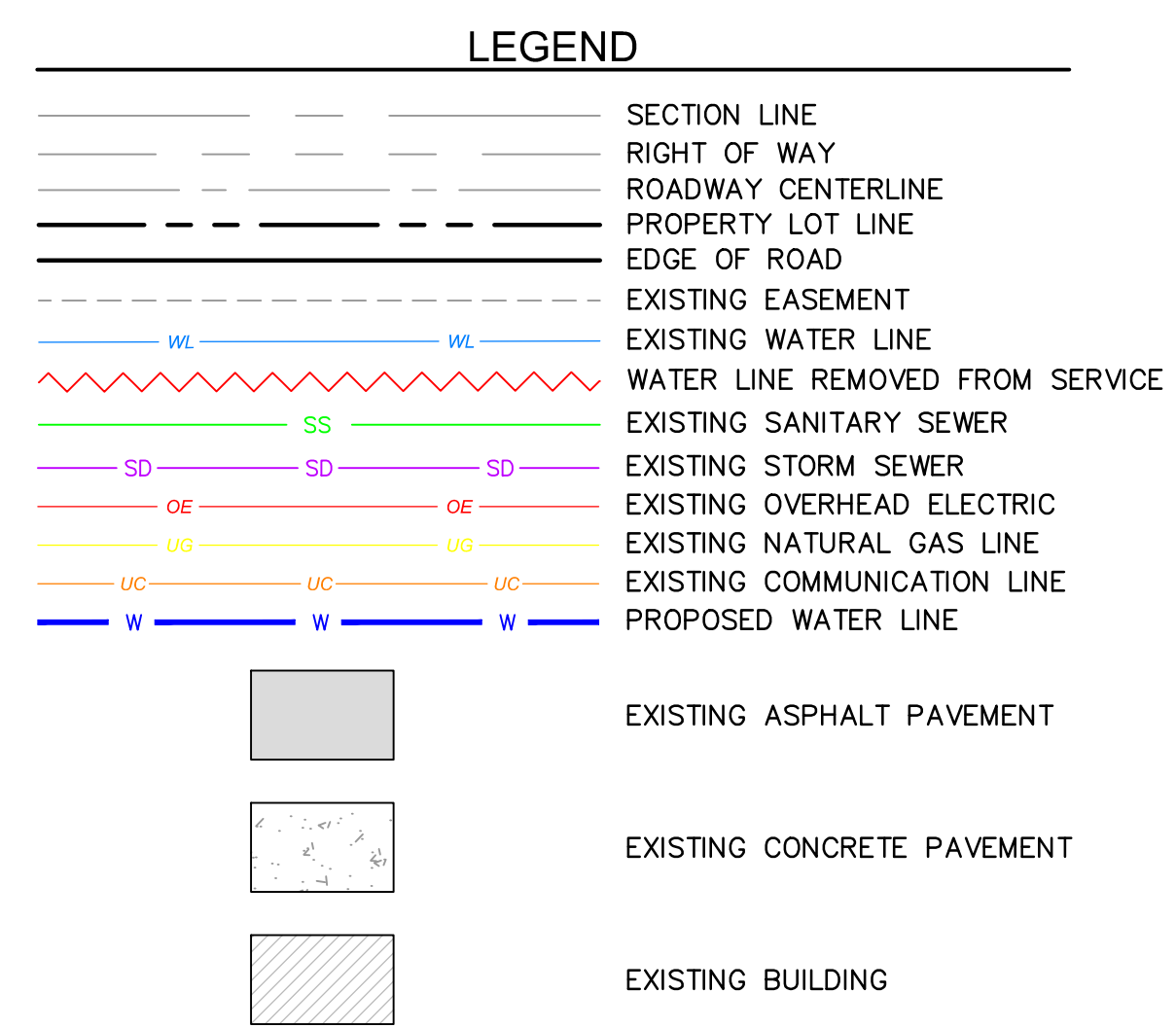
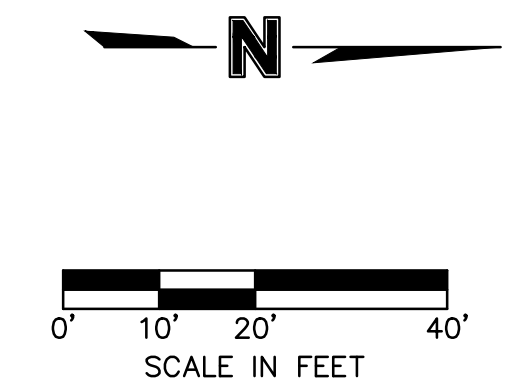
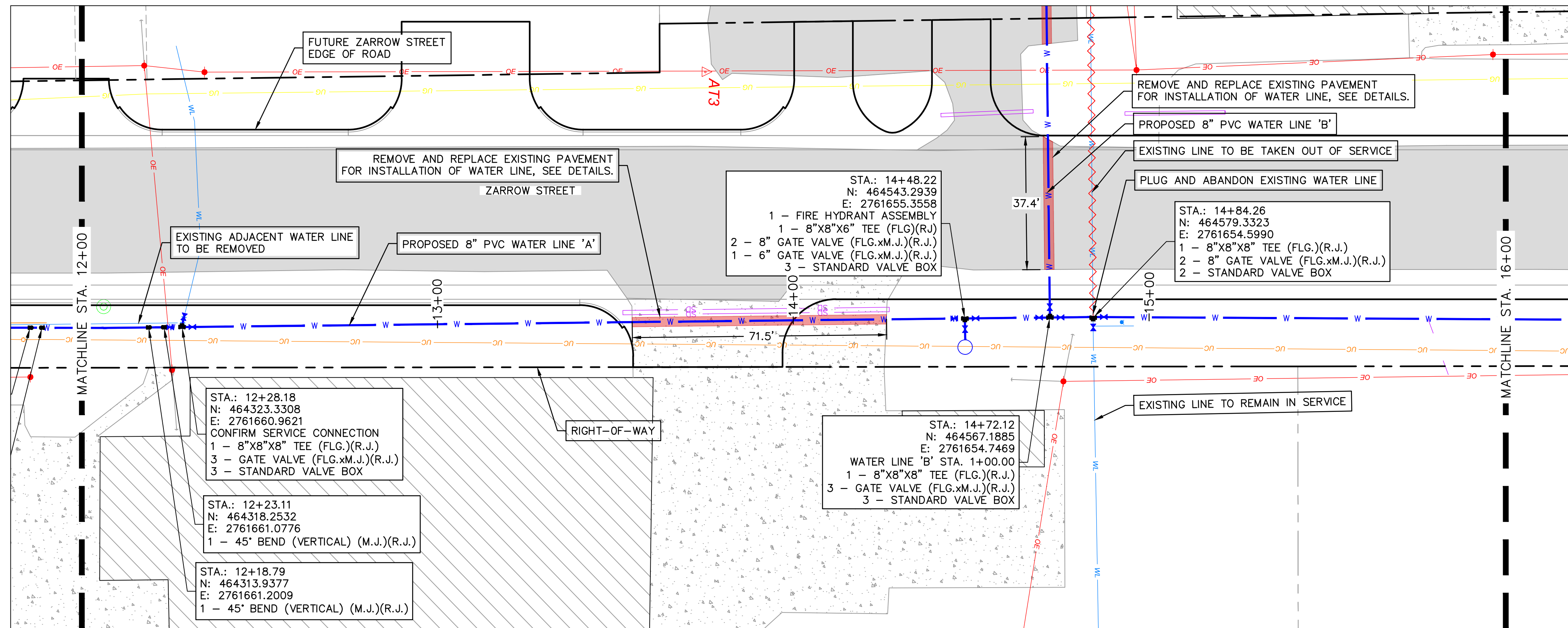
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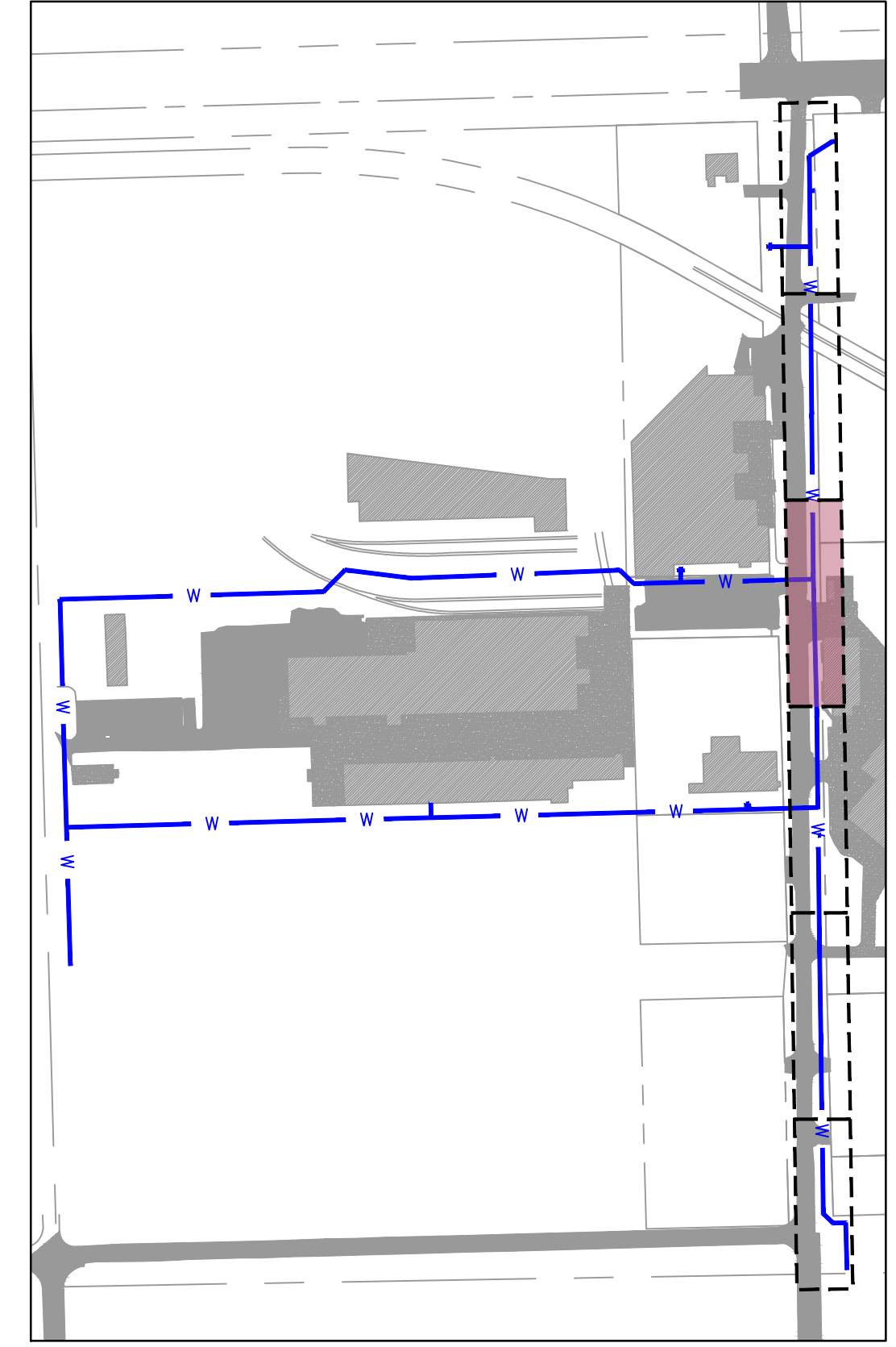
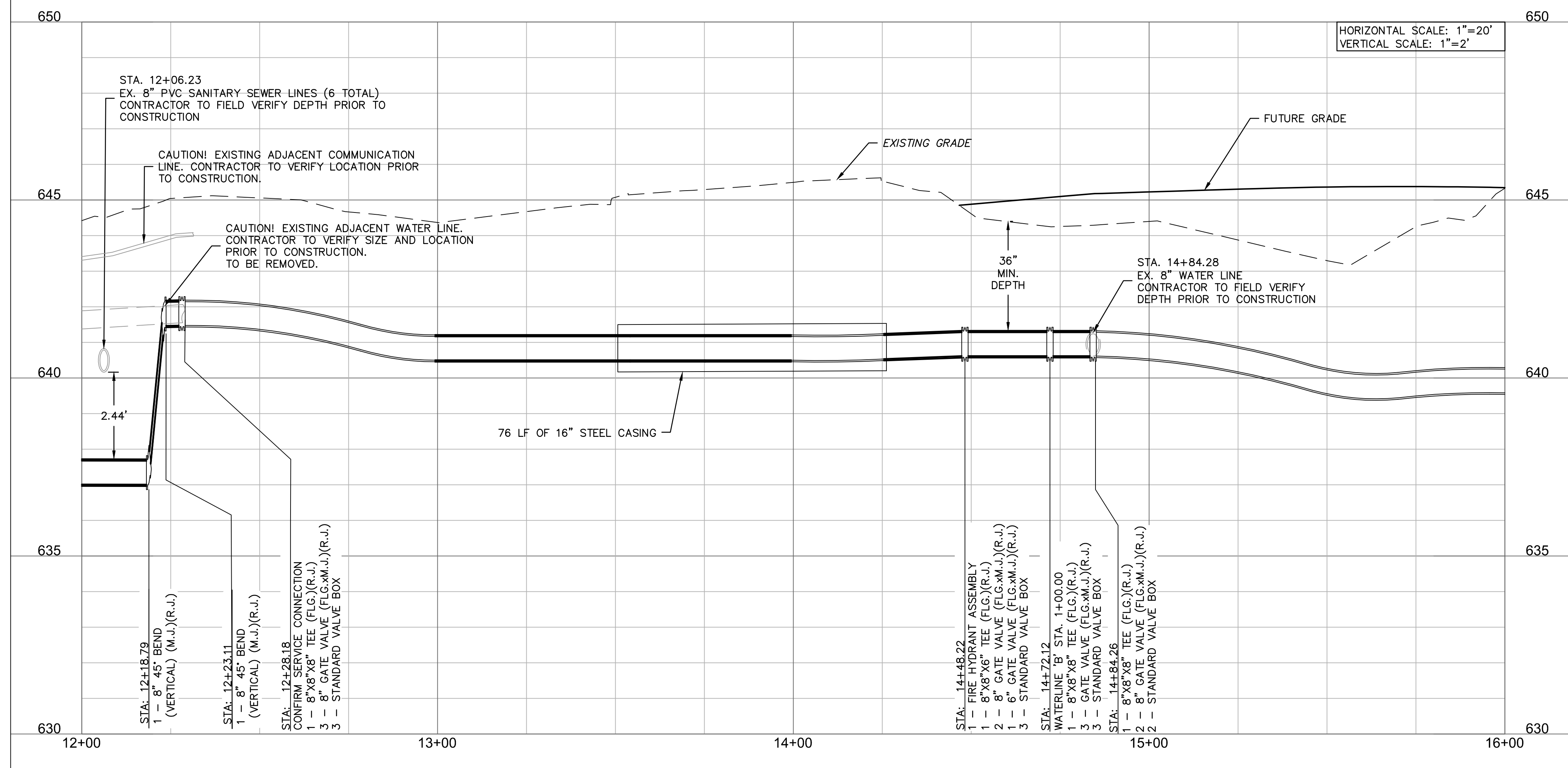
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WATER LINE A (12+00 - 16+00)



KEYMAP
SCALE: 1"=300'

NOTE:
CONTRACTOR TO VERIFY EXISTING WATER LINE PIPE LOCATIONS, MATERIALS AND DEPTH PRIOR TO CONSTRUCTION.



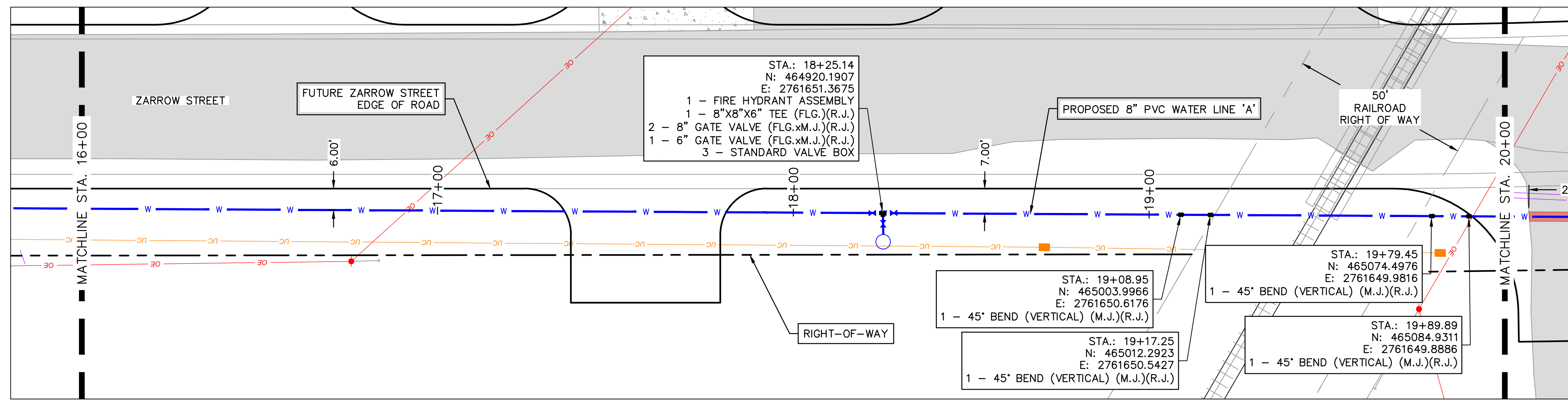
REV. NO.	DATE	REVISIONS DESCRIPTION	BY

WATER LINE 'A' PLAN & PROFILE	4
MIDAMERICA INDUSTRIAL PARK	
ZARROW ROAD WATER LINE RELOCATION	
PRYOR, OKLAHOMA	2023

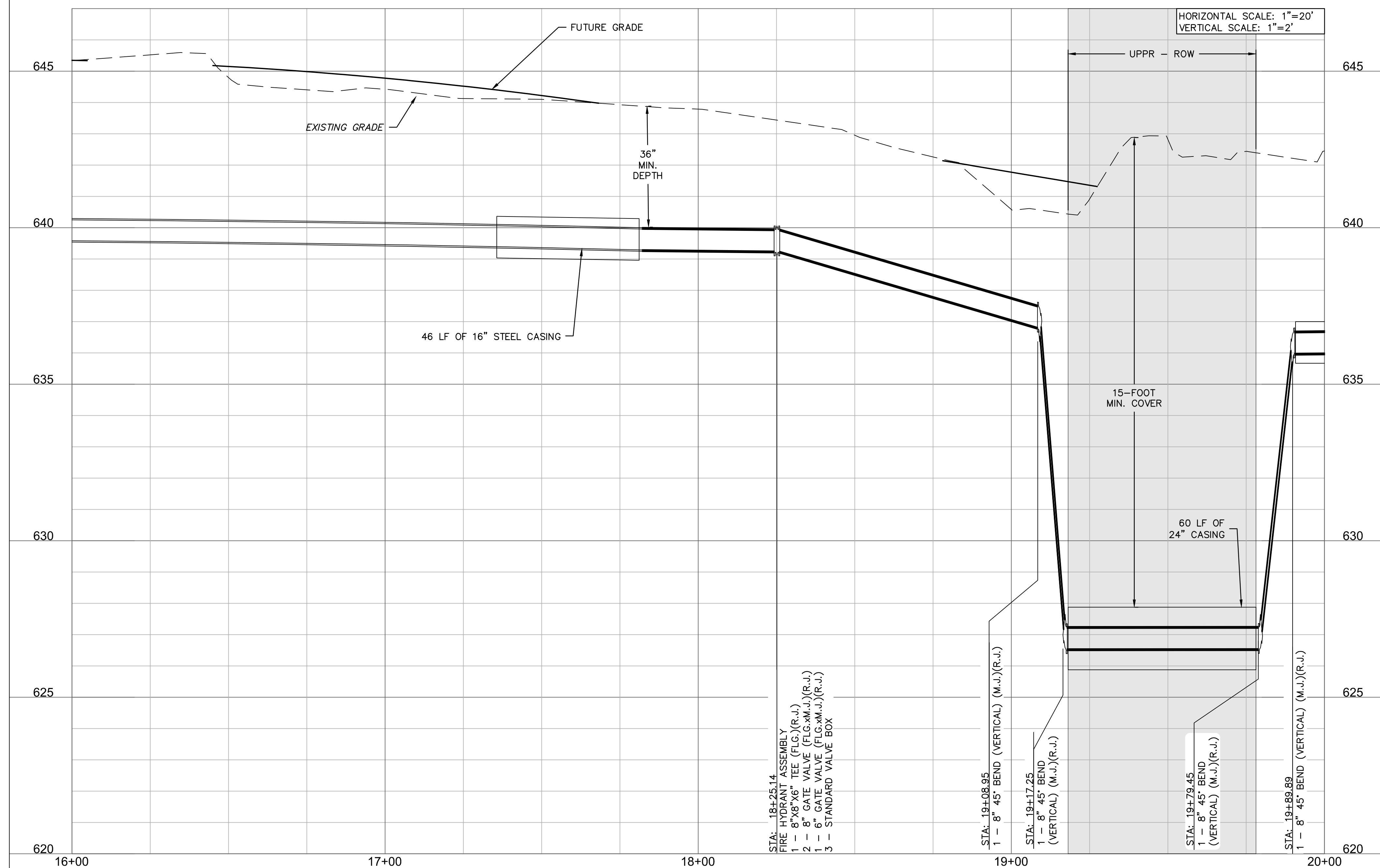
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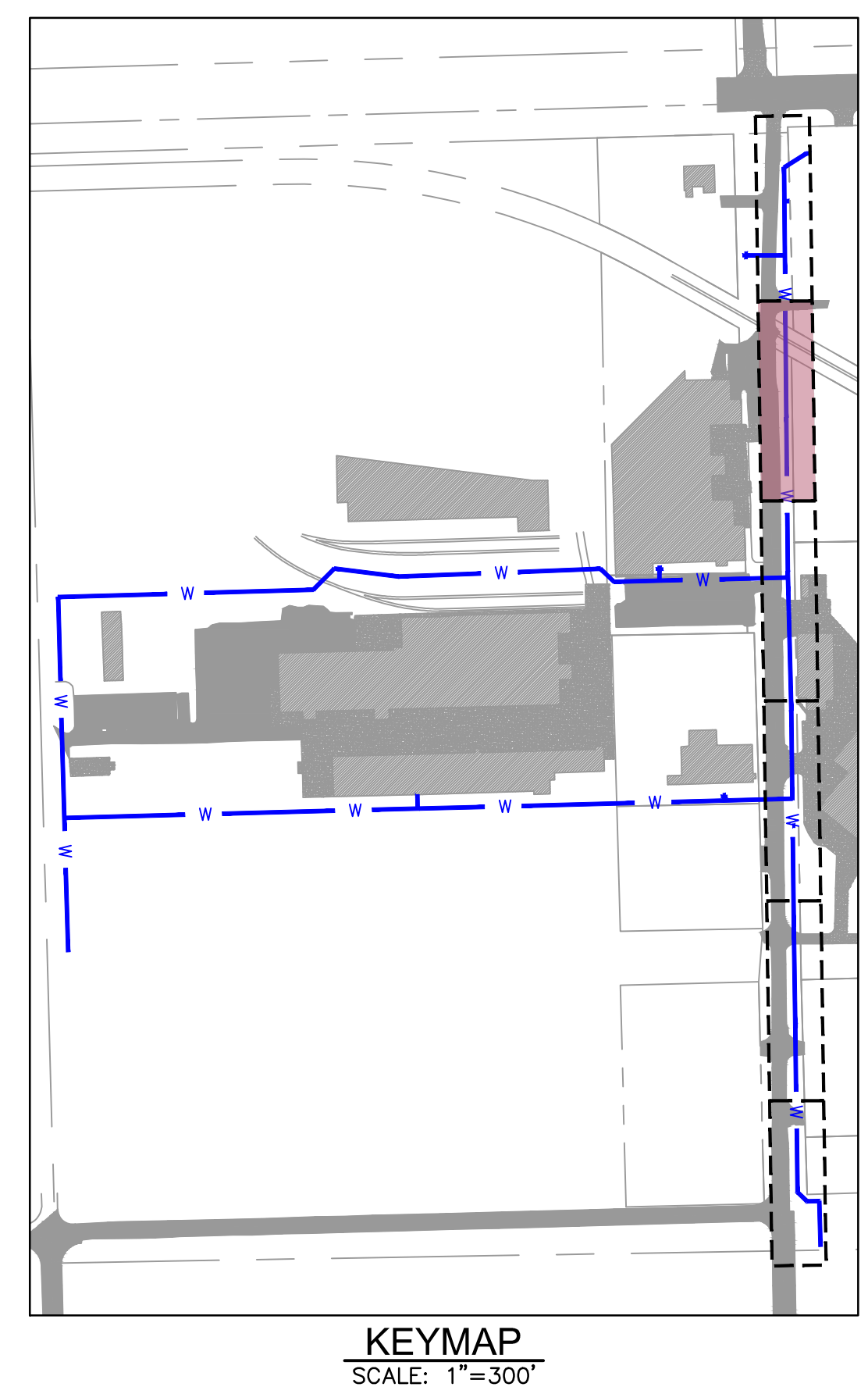
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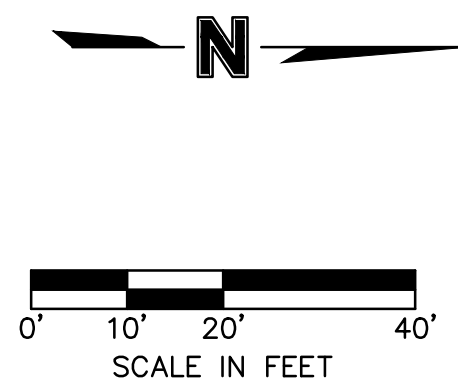
LEGEND

- SECTION LINE
- RIGHT OF WAY
- ROADWAY CENTERLINE
- PROPERTY LOT LINE
- EDGE OF ROAD
- EXISTING EASEMENT
- EXISTING WATER LINE
- WATER LINE REMOVED FROM SERVICE
- EXISTING SANITARY SEWER
- EXISTING STORM SEWER
- EXISTING OVERHEAD ELECTRIC
- EXISTING NATURAL GAS LINE
- EXISTING COMMUNICATION LINE
- PROPOSED WATER LINE

- EXISTING ASPHALT PAVEMENT
- EXISTING CONCRETE PAVEMENT
- EXISTING BUILDING



NOTE:
CONTRACTOR TO VERIFY EXISTING WATER LINE PIPE LOCATIONS, MATERIALS AND DEPTH PRIOR TO CONSTRUCTION.



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WATER LINE 'A' PLAN & PROFILE 5

MIDAMERICA INDUSTRIAL PARK
ZARROW ROAD WATER LINE RELOCATION

PRYOR, OKLAHOMA

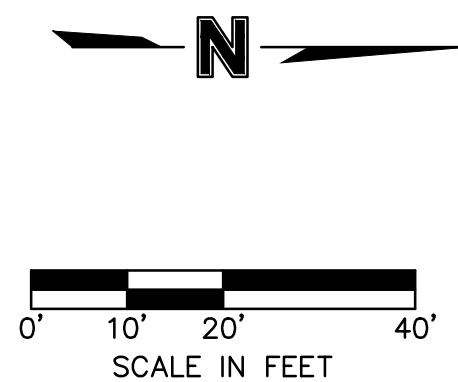
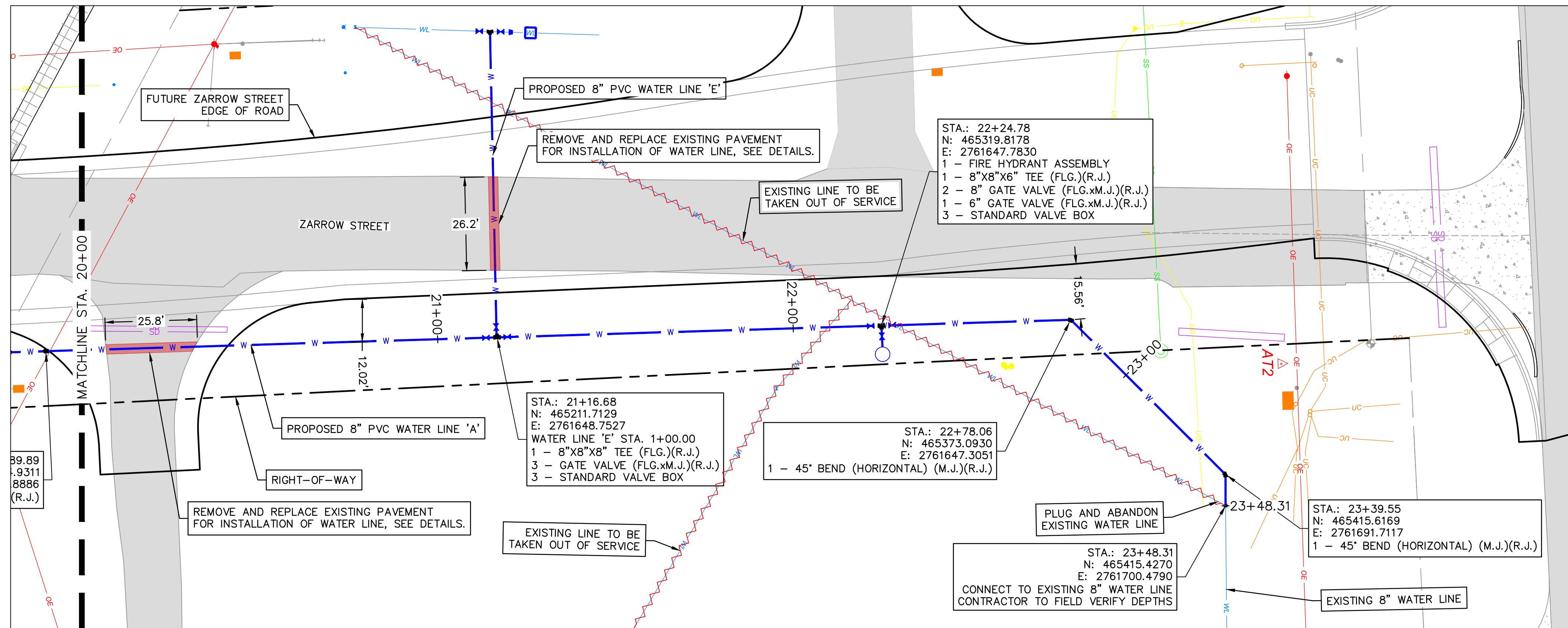
2023

REVISIONS

drawn by: _____	AMA
checked by: _____	JAT
approved by: _____	JEP
QA/QC by: _____	
project no.: 022-06912	
date: 13NOV2023	

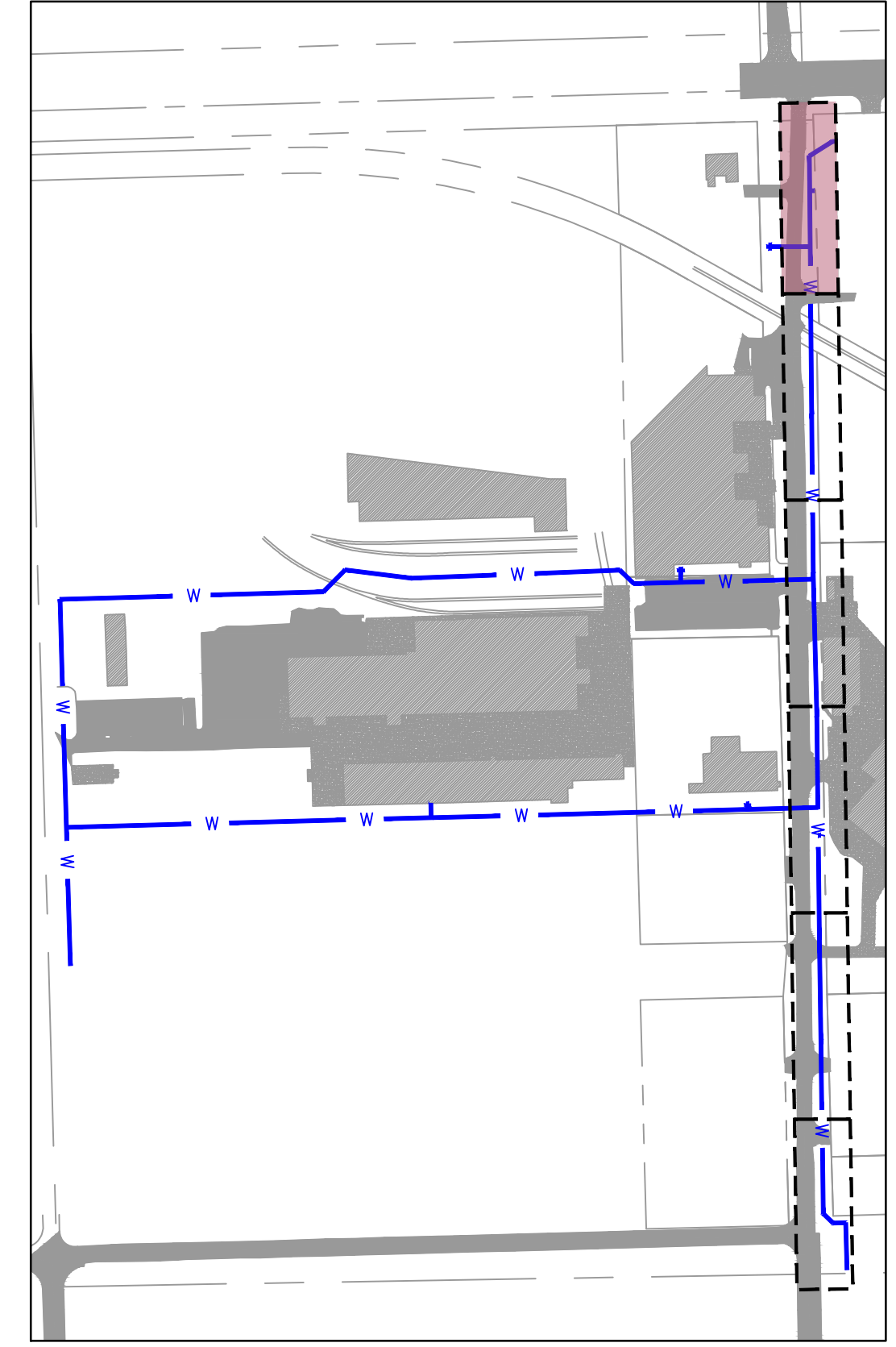
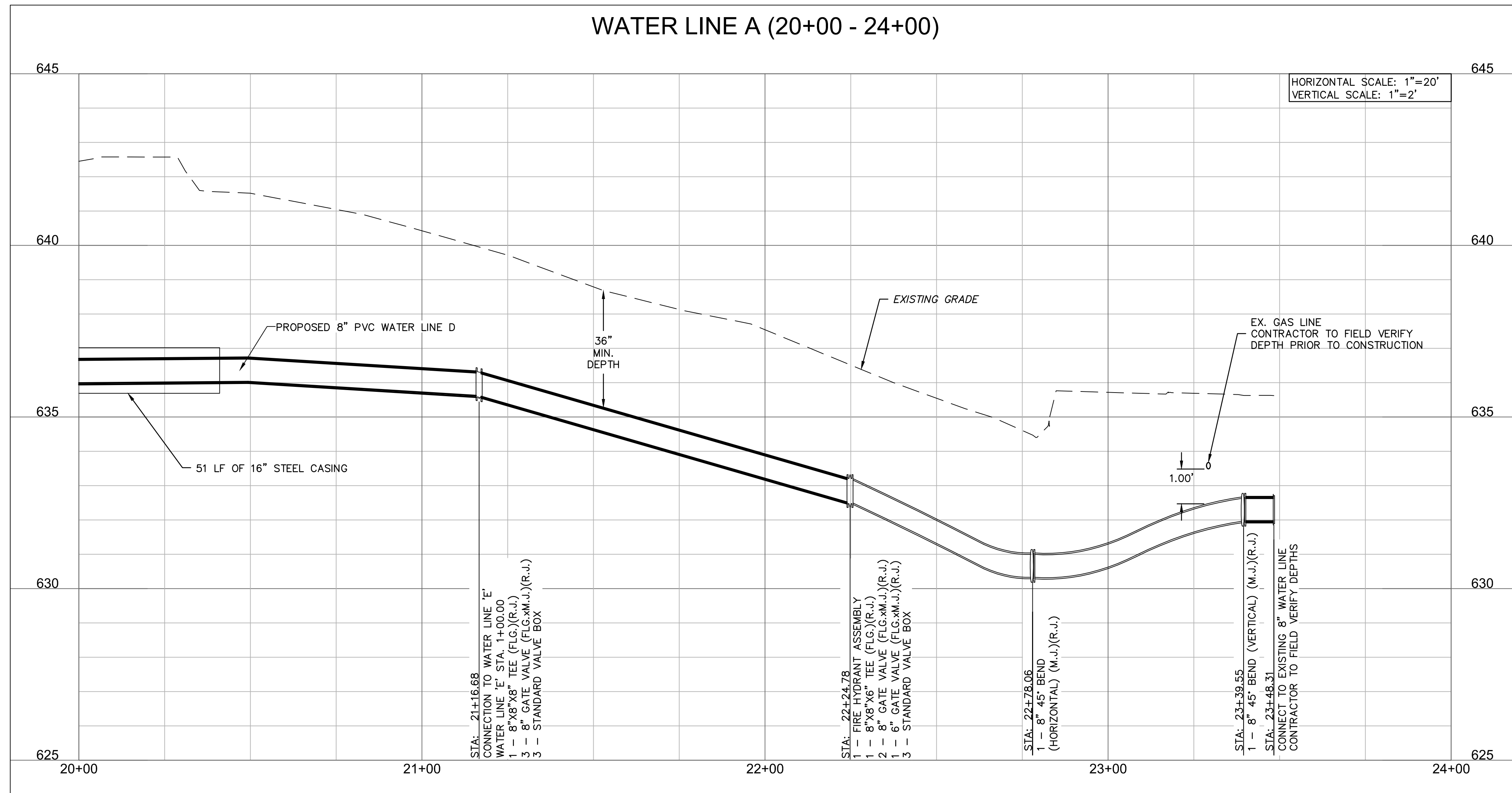
SHEET C4.05

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LEGEND

	SECTION LINE
	RIGHT OF WAY
	ROADWAY CENTERLINE
	PROPERTY LOT LINE
	EDGE OF ROAD
	EXISTING EASEMENT
	EXISTING WATER LINE
	WATER LINE REMOVED FROM SERVICE
	EXISTING SANITARY SEWER
	EXISTING STORM SEWER
	EXISTING OVERHEAD ELECTRIC
	EXISTING NATURAL GAS LINE
	EXISTING COMMUNICATION LINE
	PROPOSED WATER LINE
	EXISTING ASPHALT PAVEMENT
	EXISTING CONCRETE PAVEMENT
	EXISTING BUILDING



KEYMAP
SCALE: 1"=300'

NOTE:
CONTRACTOR TO VERIFY EXISTING WATER LINE PIPE LOCATIONS, MATERIALS AND DEPTH PRIOR TO CONSTRUCTION.



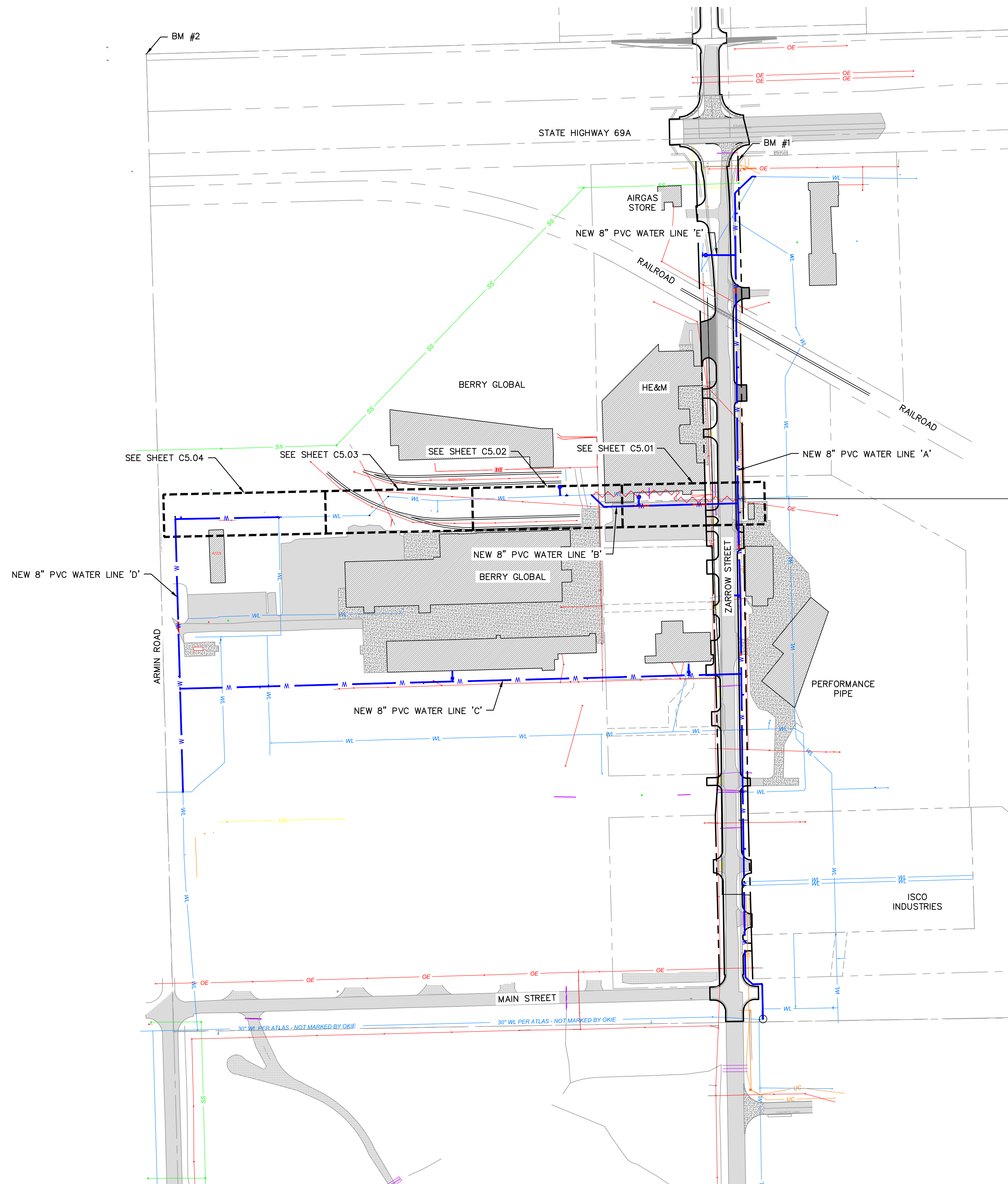
REV. NO.	DATE	REVISIONS DESCRIPTION	BY

WATER LINE 'A' PLAN & PROFILE 6	2023
MIDAMERICA INDUSTRIAL PARK ZARROW ROAD WATER LINE RELOCATION	
PRYOR, OKLAHOMA	

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LEGEND

- SECTION LINE
- RIGHT OF WAY
- ROADWAY CENTERLINE
- PROPERTY LOT LINE
- EDGE OF ROAD
- EXISTING EASEMENT
- EXISTING WATER LINE
- WATER LINE REMOVED FROM SERVICE
- EXISTING SANITARY SEWER
- EXISTING STORM SEWER
- EXISTING OVERHEAD ELECTRIC
- EXISTING NATURAL GAS LINE
- EXISTING COMMUNICATION LINE
- PROPOSED WATER LINE
- EXISTING ASPHALT PAVEMENT
- EXISTING CONCRETE PAVEMENT
- EXISTING BUILDING

GENERAL NOTES:

1. THE CONTRACTOR SHALL CONSTRUCT ALL WATER LINES AND CONNECTIONS IN ACCORDANCE WITH THE APPLICABLE STANDARDS AND SPECIFICATIONS OF THE LOCAL UTILITY PROVIDER.
2. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING UTILITY SERVICE CONNECTIONS WITH THE APPROPRIATE UTILITY COMPANY/OWNER.
3. ALL WATER SERVICE CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE BUILDING CODES AWWA SPECIFICATIONS. CONTRACT OKLAHOMA ORDINANCE WORKS AUTHORITY (OOWA) TO PROVIDE OPPORTUNITY TO INSPECT.
2. COORDINATE WITH KEITH HARRIS FROM MIDAMERICA INDUSTRIAL PARK FOR NEARBY VALVE LOCATIONS FOR PIPE ISOLATION AND WATER SERVICE SHUTDOWN TIMETABLE.
3. ALL DUCTILE IRON FITTINGS AND PIPE MUST BE CEMENT LINED IN ACCORDANCE WITH AWWA C104/A21 4-80.
4. WATER LINES SHALL BE PRESSURE TESTED FOR LEAKS AND DISINFECTED IN ACCORDANCE WITH OKLAHOMA DEPT. OF ENVIRONMENTAL QUALITY STANDARDS SECTION 252:626-19-1(e)(f)
5. IF THE CONTRACTOR OVER-CUTS THE TRENCH, THE ADDITIONAL BACKFILL MATERIAL WILL BE CONSIDERED INCIDENTAL AND WILL BE AT CONTRACTORS EXPENSE.
6. THE CONTRACTOR MAY BE REQUIRED TO INSTALL ADDITIONAL EROSION CONTROL DEVICES BEFORE FLUSHING WATER LINE TO MINIMIZE EROSION & TO REMAIN IN COMPLIANCE WITH LOCAL AND FEDERAL N.P.D.E.S. PERMIT REQUIREMENTS.
7. THE CONTRACTOR SHALL DISPOSE OF WATER FLUSHED FROM THE LINES TO A LOCATION APPROVED BY THE CITY ENGINEER OR DESIGNATED REPRESENTATIVE. IN NO CASE SHALL THE WATER BE FLUSHED INTO THE PAVING SUBGRADE.
8. THE CONTRACTOR IS RESPONSIBLE FOR THE REPLACEMENT OR REPAIR OF ALL EROSION CONTROL DEVICES DAMAGED DUE TO CONSTRUCTION.

SURVEY CONTROL DATA

HORIZONTAL DATUM: OKLAHOMA STATE PLANE COORDINATE SYSTEM
 NAD 83 (NORTH ZONE 3501) VERTICAL DATUM: NAVD 88

- BM #1**
 3/8" IRON PIN
 N: 465457.1970
 E: 2761655.8230
 ELEV=613.19'
- BM #2**
 1" PIPE WITH CONCRETE
 NW SECTION CORNER
 N: 465733.6910
 E: 2760119.0240
 ELEV=603.28'
- BM #3**
 3/8" IRON PIN W/PINK CAP
 N: 461138.4020
 E: 2761617.5240
 ELEV=640.82'



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MidAmerica
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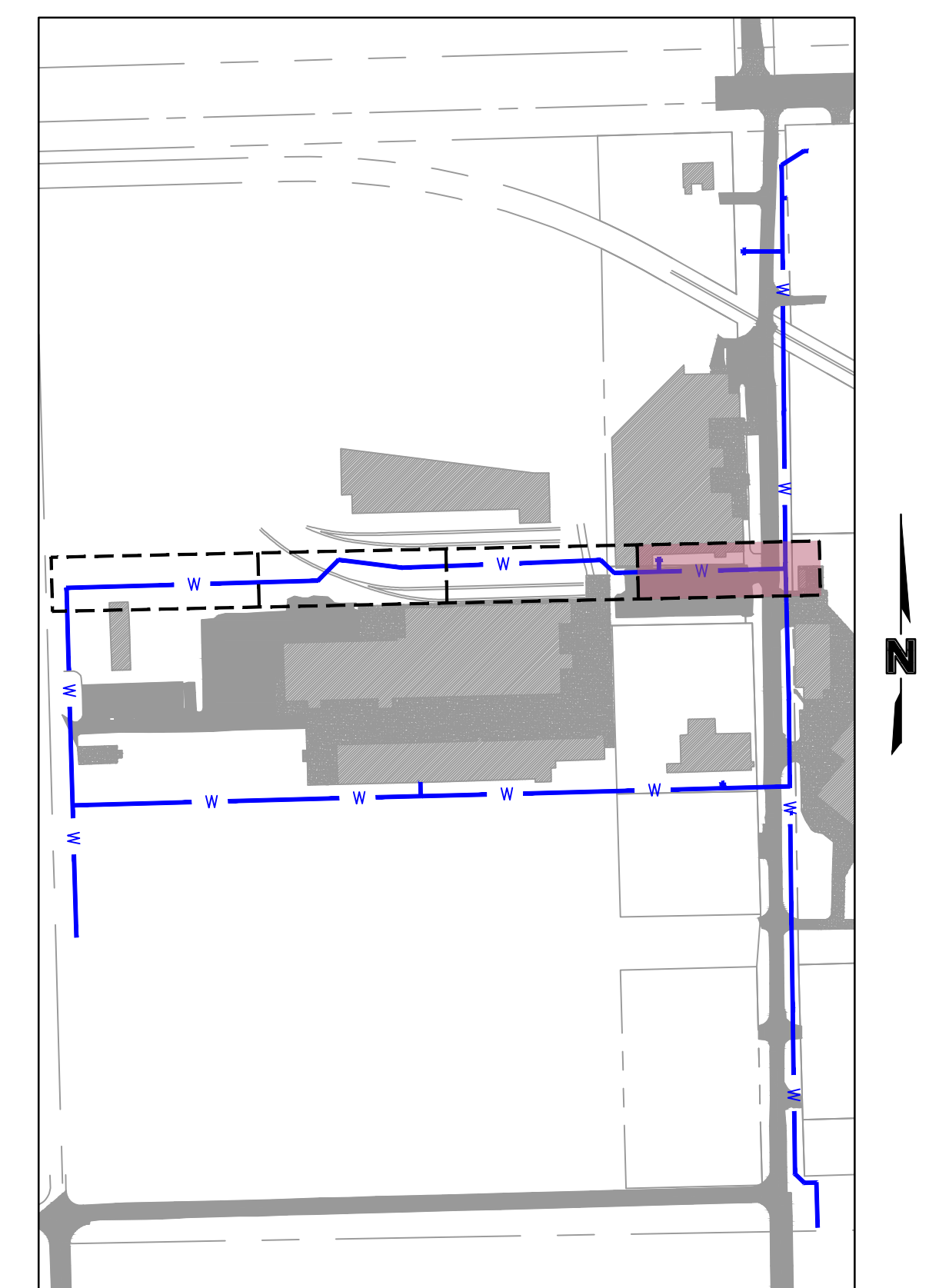
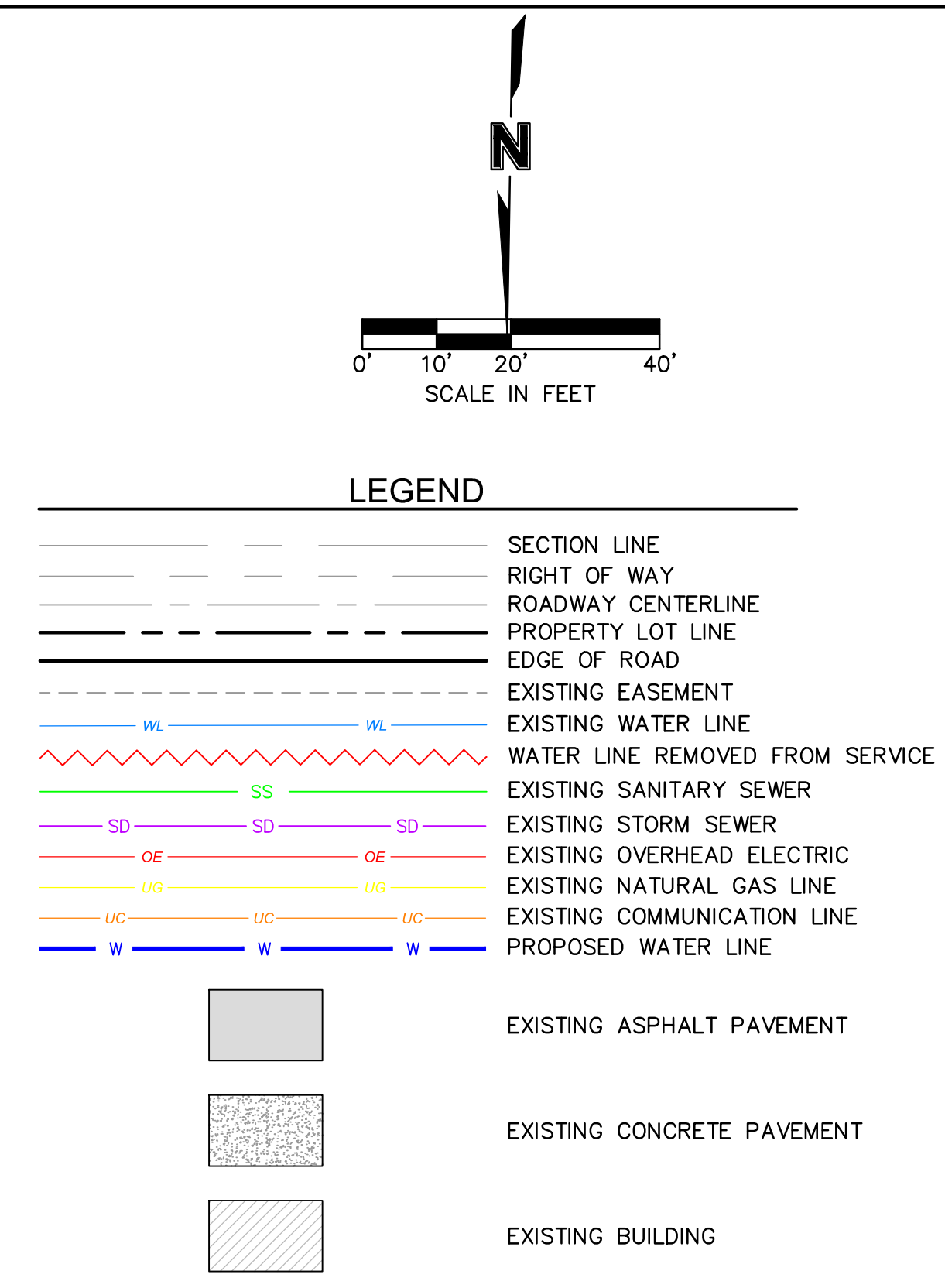
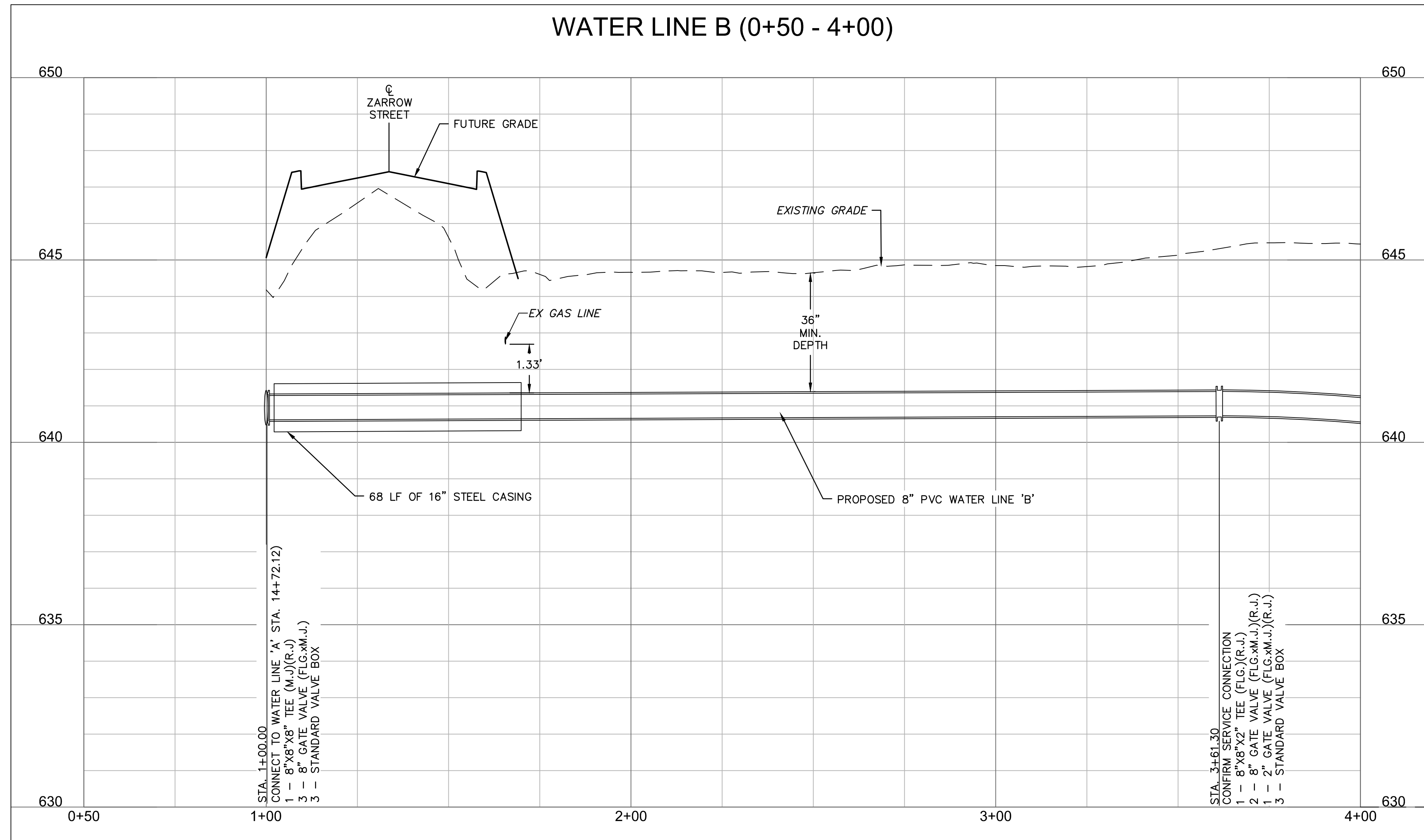
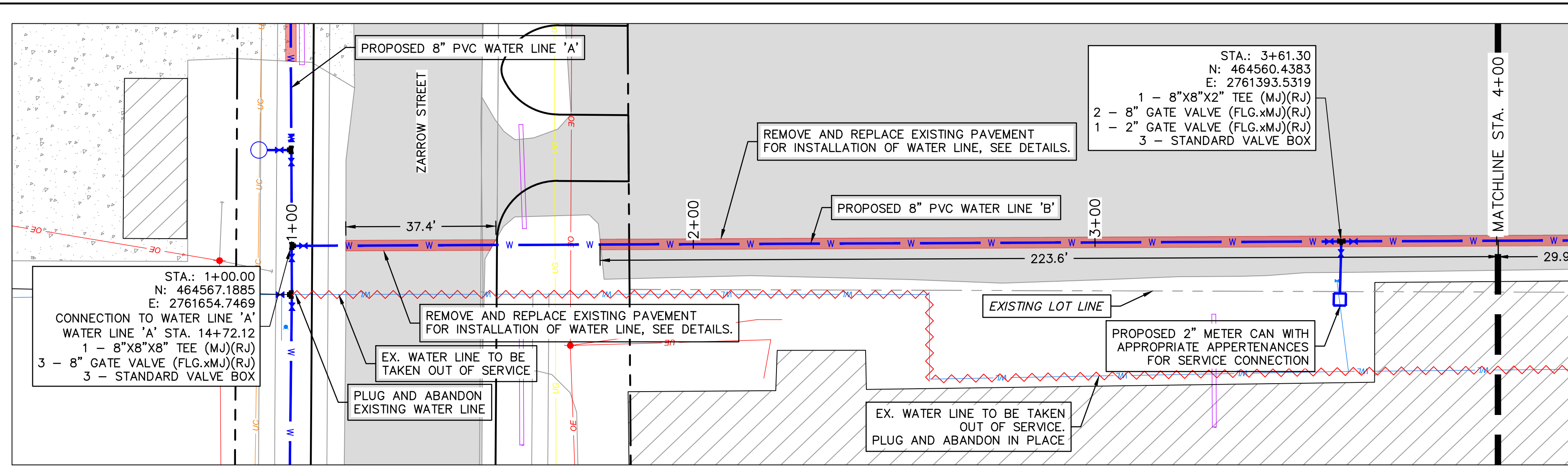
REV. NO.	DATE	REVISIONS DESCRIPTION	BY

WATER LINE 'B' KEYMAP
 MIDAMERICA INDUSTRIAL PARK
 ZARROW ROAD WATER LINE RELOCATION
 PRYOR, OKLAHOMA
 2023

drawn by: _____ AMA
 checked by: _____ JAT
 approved by: _____ JEP
 QA/QC by: _____
 project no.: 022-06912
 drawing no.: _____
 date: 13NOV2023

SHEET
 C5.00

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NOTE:
CONTRACTOR TO VERIFY EXISTING WATER LINE PIPE LOCATIONS, MATERIALS AND DEPTH PRIOR TO CONSTRUCTION.

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REV. NO.	DATE	REVISIONS DESCRIPTION	BY

WATER LINE 'B' PLAN AND PROFILE 1

MIDAMERICA INDUSTRIAL PARK
ZARROW ROAD WATER LINE RELOCATION

PRYOR, OKLAHOMA

2023

REVISIONS

drawn by: _____ AMA
checked by: _____ JAT
approved by: _____ JEP
QA/QC by: _____
project no.: 022-06912
drawing no.: _____
date: 13NOV2023

SHEET
C5.01

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MidAmerica INDUSTRIAL PARK

PRYOR, OKLAHOMA

2023

REVISIONS

WATER LINE 'B' PLAN AND PROFILE 1

MIDAMERICA INDUSTRIAL PARK
ZARROW ROAD WATER LINE RELOCATION

PRYOR, OKLAHOMA

2023

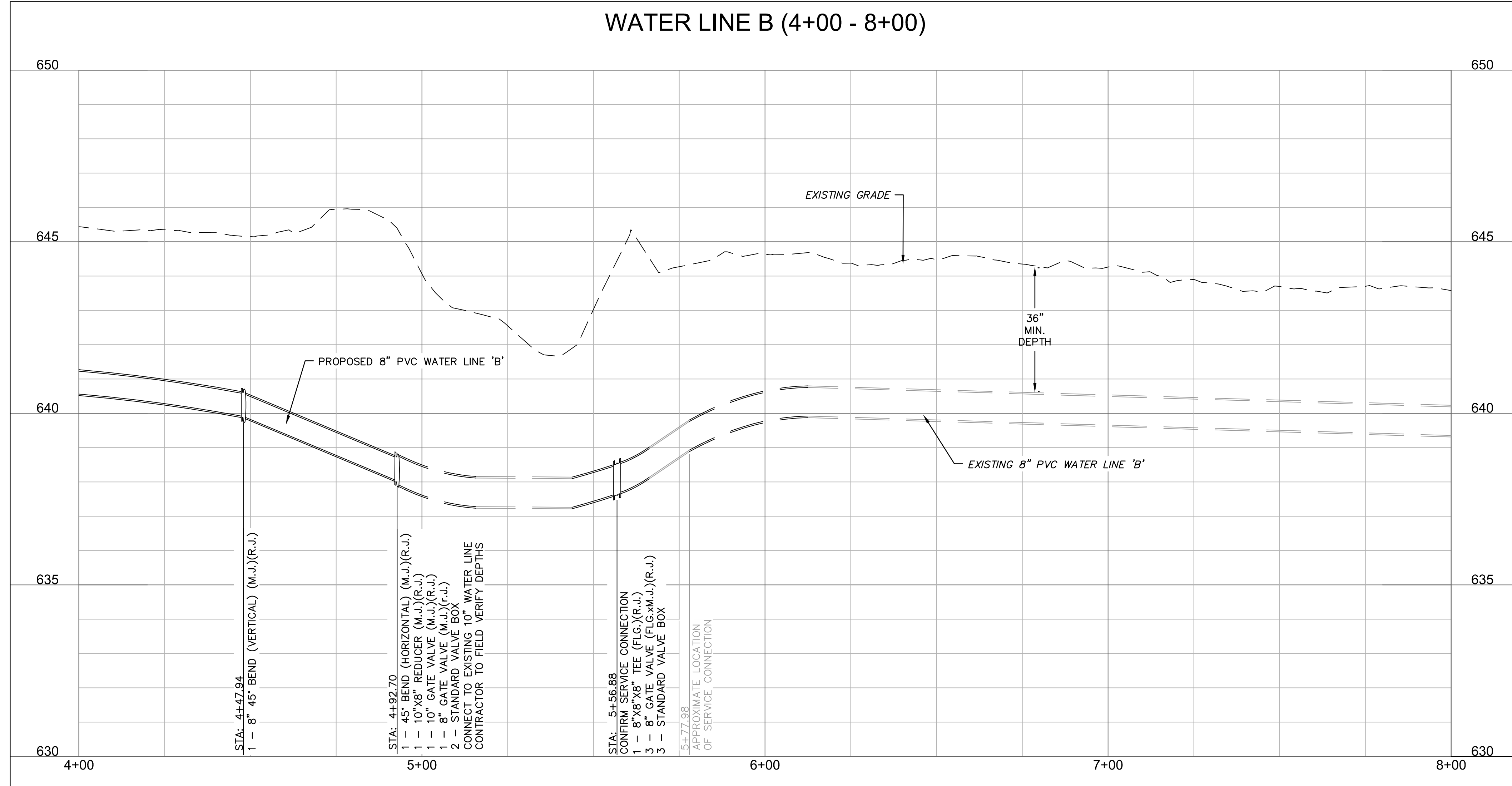
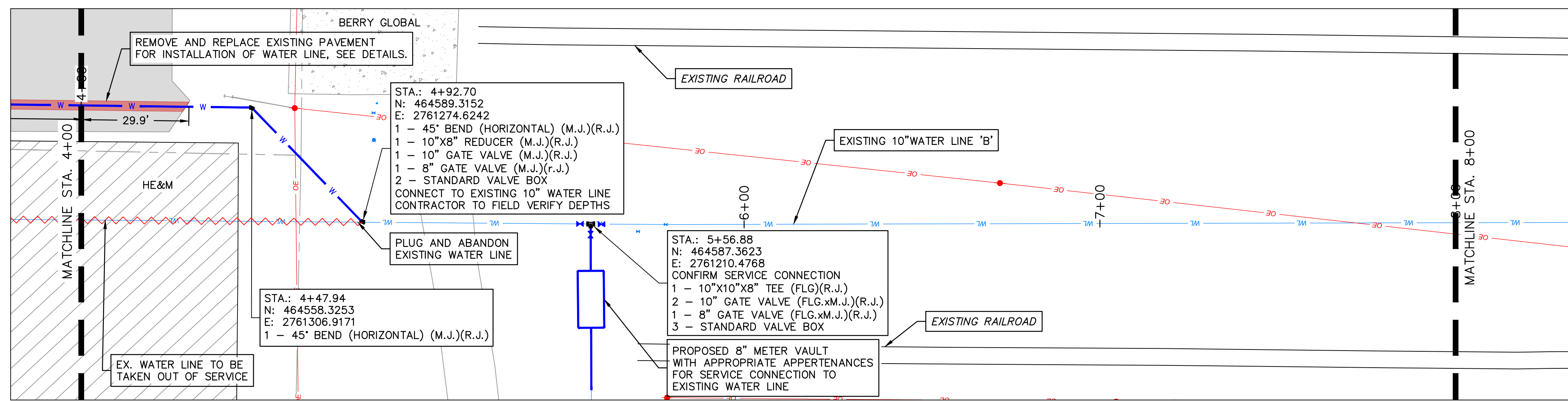
REVISIONS

drawn by: _____ AMA
checked by: _____ JAT
approved by: _____ JEP
QA/QC by: _____
project no.: 022-06912
drawing no.: _____
date: 13NOV2023

SHEET
C5.01

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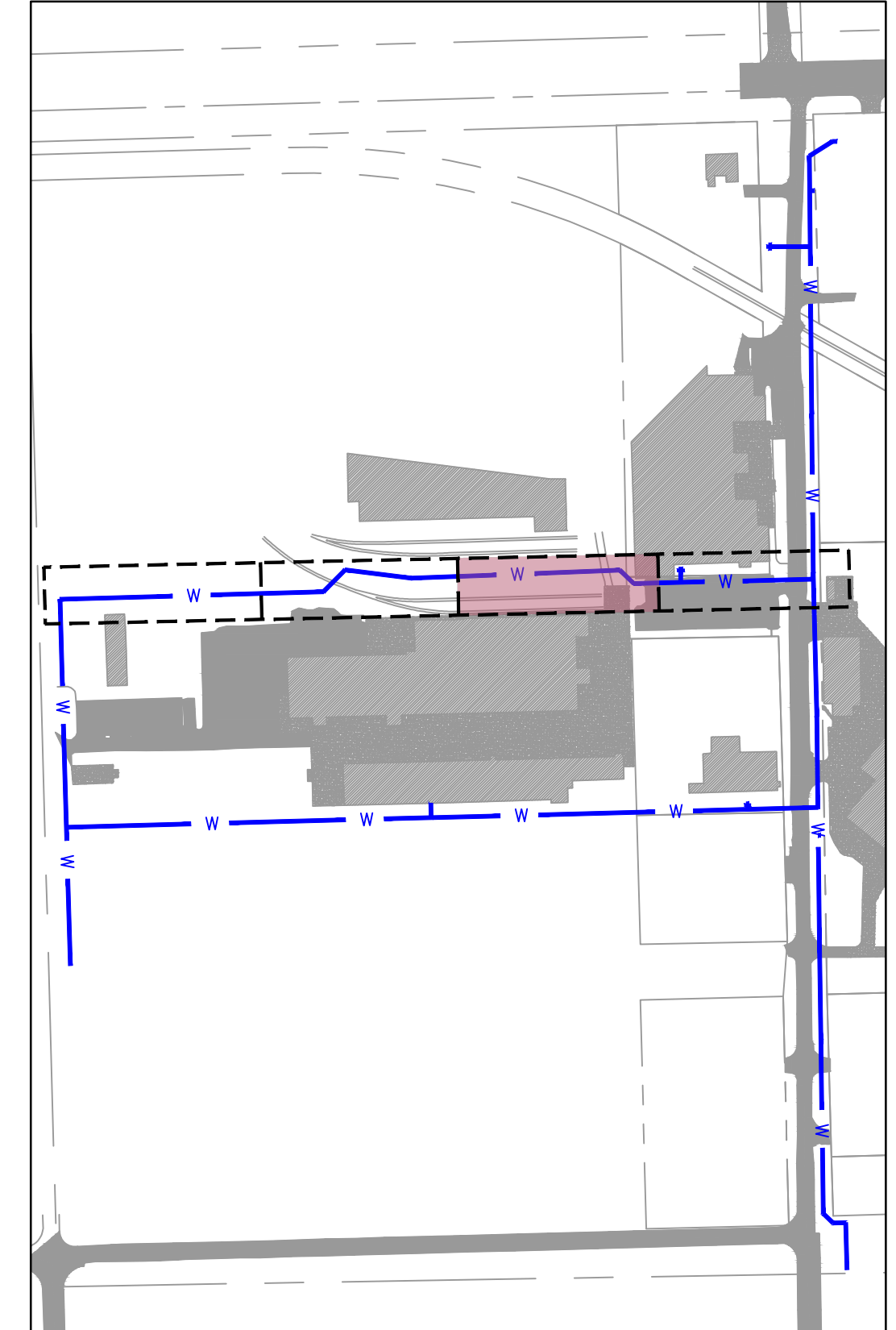
HORIZONTAL SCALE: 1"=20'
VERTICAL SCALE: 1"=2'

SCALE IN FEET

LEGEND

	SECTION LINE
	RIGHT OF WAY
	ROADWAY CENTERLINE
	PROPERTY LOT LINE
	EDGE OF ROAD
	EXISTING EASEMENT
	EXISTING WATER LINE
	WATER LINE REMOVED FROM SERVICE
	EXISTING SANITARY SEWER
	EXISTING STORM SEWER
	EXISTING OVERHEAD ELECTRIC
	EXISTING NATURAL GAS LINE
	EXISTING COMMUNICATION LINE
	PROPOSED WATER LINE

	EXISTING ASPHALT PAVEMENT
	EXISTING CONCRETE PAVEMENT
	EXISTING BUILDING



KEYMAP
SCALE: 1"=300'

NOTE:
CONTRACTOR TO VERIFY EXISTING WATER LINE PIPE LOCATIONS, MATERIALS AND DEPTH PRIOR TO CONSTRUCTION.



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REV. NO.	DATE	REVISIONS DESCRIPTION	BY

WATER LINE 'B' PLAN AND PROFILE 2

MIDAMERICA INDUSTRIAL PARK
ZARROW ROAD WATER LINE RELOCATION

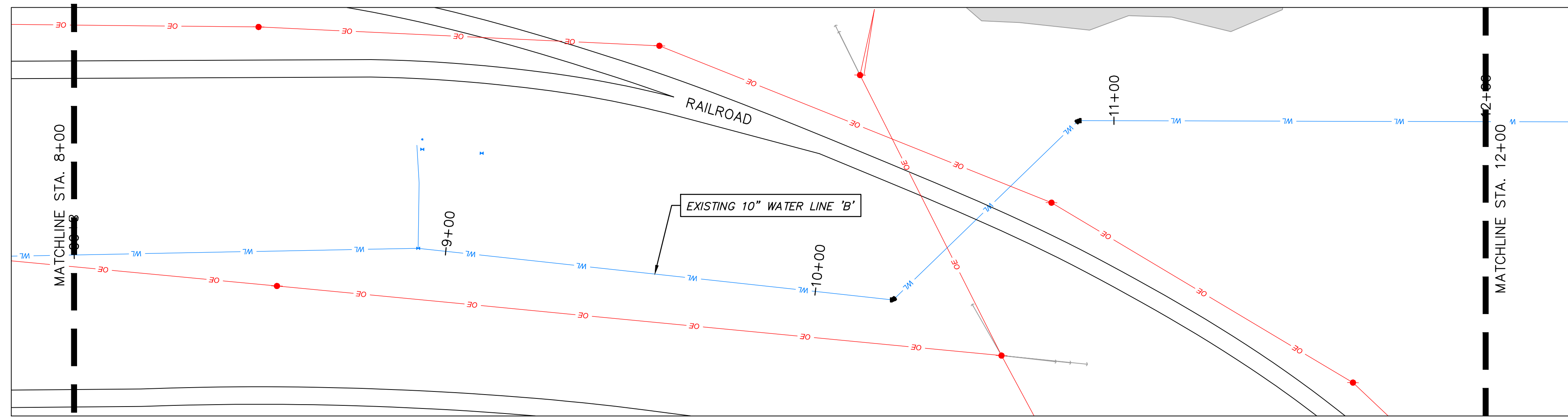
PRYOR, OKLAHOMA

2023

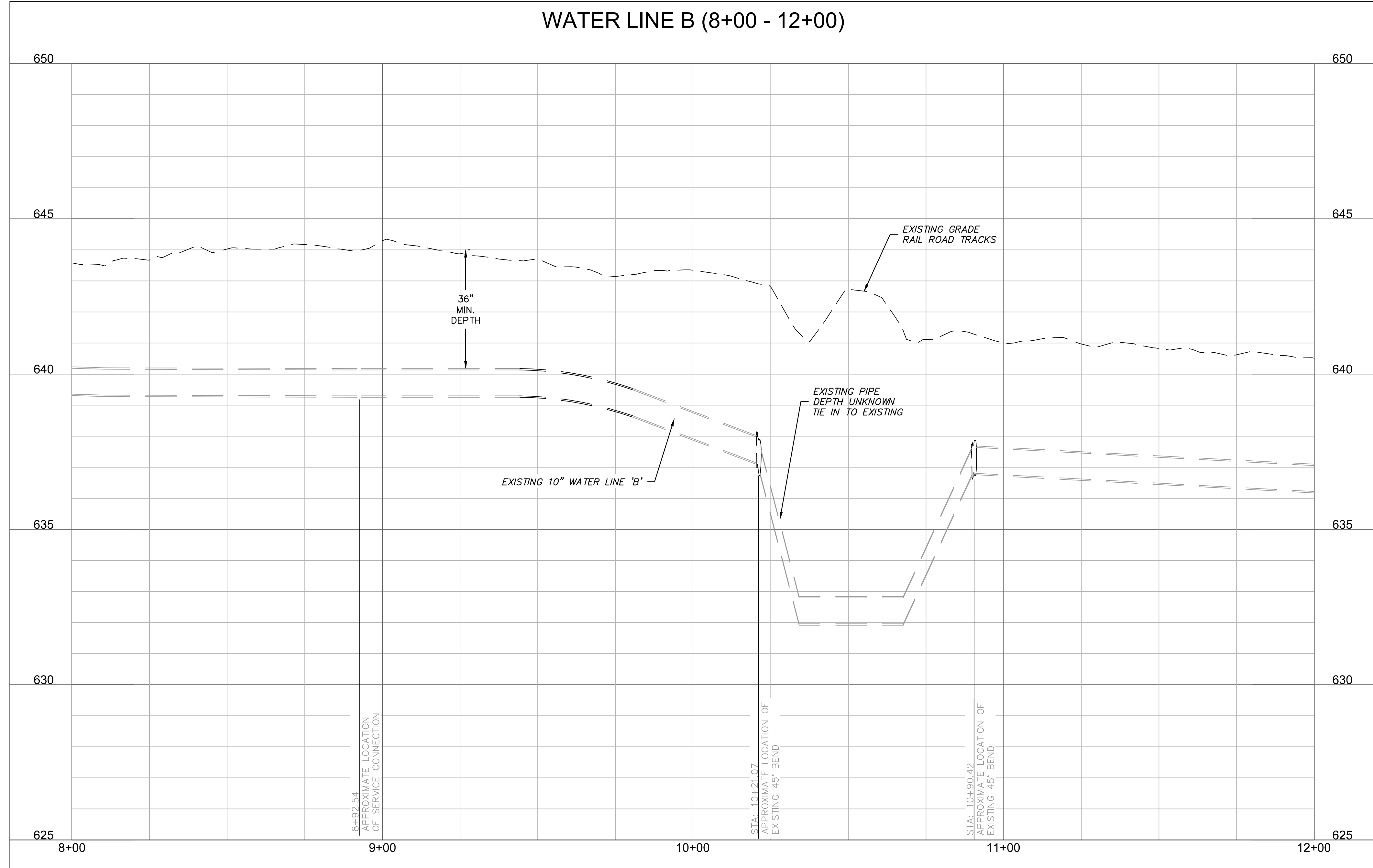
REVISIONS

drawn by: _____ AMA checked by: _____ JAT approved by: _____ JEP QA/QC by: _____ project no.: 022-06912 drawing no.: _____ date: 13NOV2023	<p>SHEET C5.02</p>
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WATER LINE B (8+00 - 12+00)



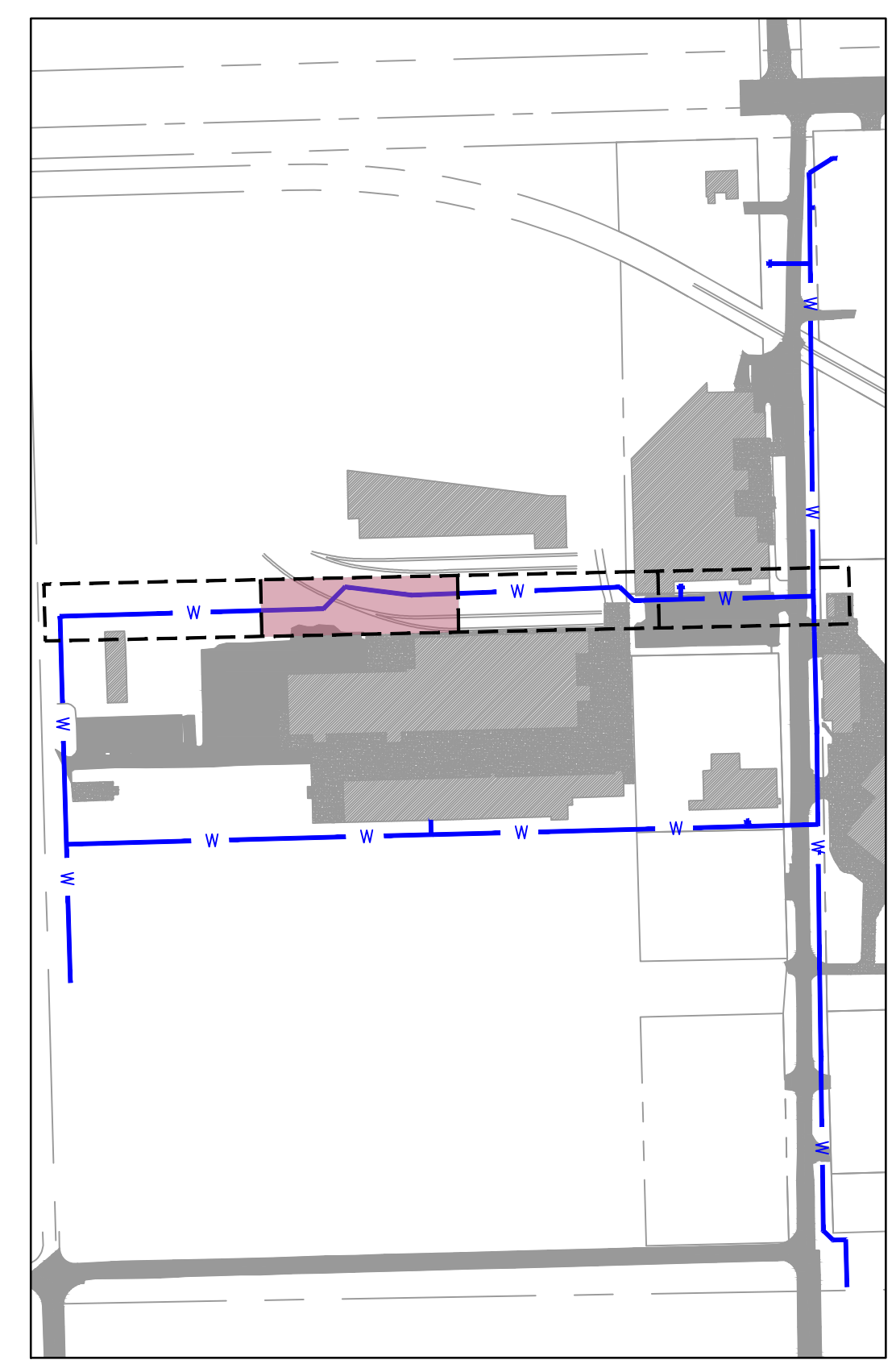
HORIZONTAL SCALE: 1"=20'
VERTICAL SCALE: 1"=2'

SCALE IN FEET

LEGEND

	SECTION LINE
	RIGHT OF WAY
	ROADWAY CENTERLINE
	PROPERTY LOT LINE
	EDGE OF ROAD
	EXISTING EASEMENT
	EXISTING WATER LINE
	WATER LINE REMOVED FROM SERVICE
	EXISTING SANITARY SEWER
	EXISTING STORM SEWER
	EXISTING OVERHEAD ELECTRIC
	EXISTING NATURAL GAS LINE
	EXISTING COMMUNICATION LINE
	PROPOSED WATER LINE

	EXISTING ASPHALT PAVEMENT
	EXISTING CONCRETE PAVEMENT
	EXISTING BUILDING



KEYMAP
SCALE: 1"=300'

NOTE:
CONTRACTOR TO VERIFY EXISTING WATER LINE PIPE LOCATIONS, MATERIALS AND DEPTH PRIOR TO CONSTRUCTION.



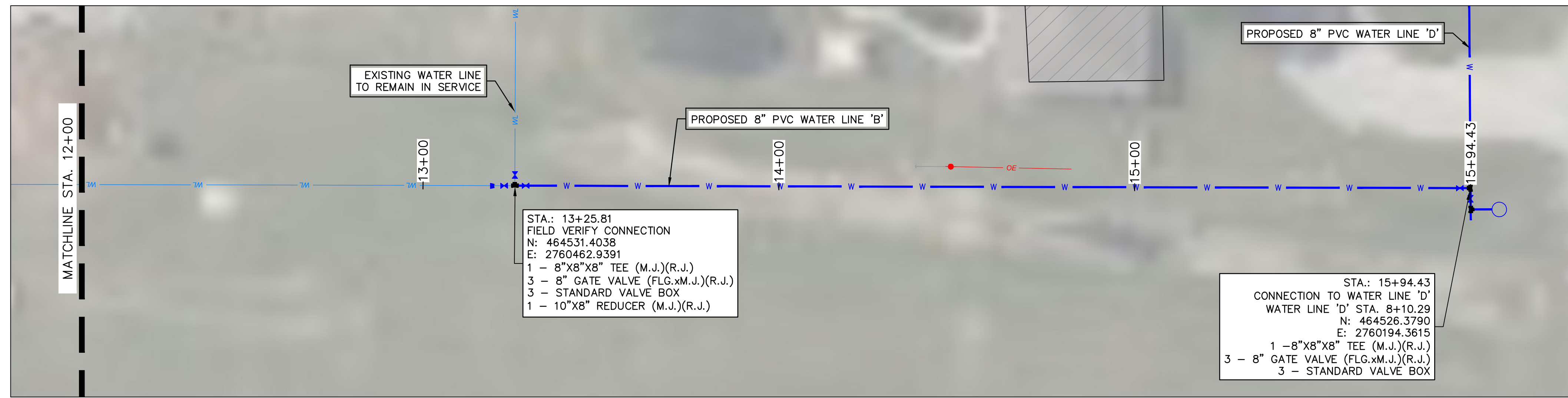
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MidAmerica INDUSTRIAL PARK

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

WATER LINE 'B' PLAN AND PROFILE 3	2023
MIDAMERICA INDUSTRIAL PARK ZARROW ROAD WATER LINE RELOCATION	
PRYOR, OKLAHOMA	

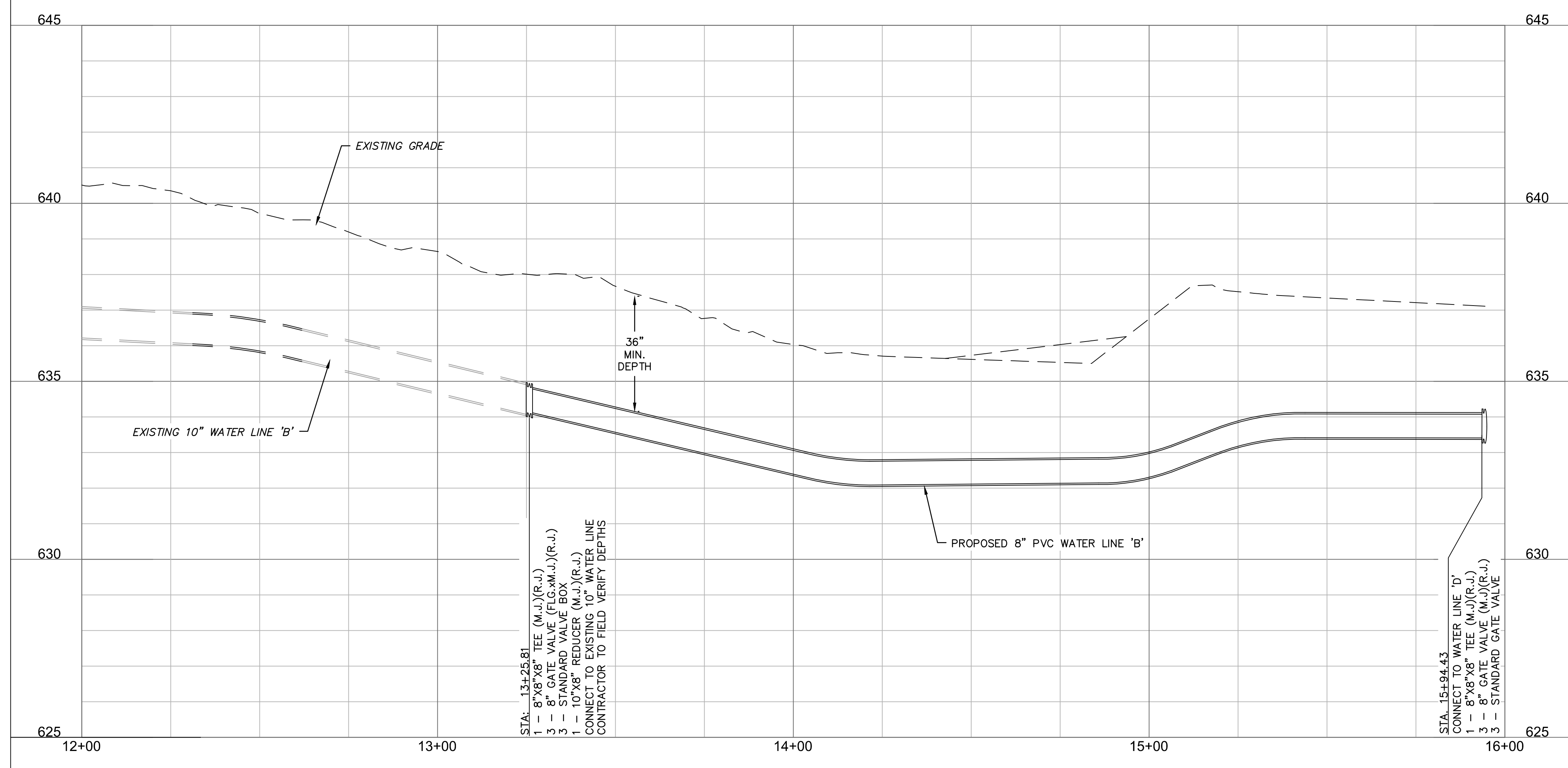
drawn by: _____	AMA
checked by: _____	JAT
approved by: _____	JEP
QA/QC by: _____	
project no.: 022-06912	
drawing no.: _____	
date: 13NOV2023	



STA.: 13+25.81
 FIELD VERIFY CONNECTION
 N: 464531.4038
 E: 2760462.9391
 1 - 8"x8"x8" TEE (M.J.)(R.J.)
 3 - 8" GATE VALVE (FLG.xM.J.)(R.J.)
 3 - STANDARD VALVE BOX
 1 - 10"x8" REDUCER (M.J.)(R.J.)

STA.: 15+94.43
 CONNECTION TO WATER LINE 'D'
 WATER LINE 'D' STA. 8+10.29
 N: 464526.3790
 E: 2760194.3615
 1 - 8"x8"x8" TEE (M.J.)(R.J.)
 3 - 8" GATE VALVE (FLG.xM.J.)(R.J.)
 3 - STANDARD VALVE BOX

WATER LINE B (12+00 - 16+00)



STA.: 13+25.81
 1 - 8"x8"x8" TEE (M.J.)(R.J.)
 3 - 8" GATE VALVE (FLG.xM.J.)(R.J.)
 3 - STANDARD VALVE BOX
 1 - 10"x8" REDUCER (M.J.)(R.J.)
 CONNECT TO EXISTING 10" WATER LINE
 CONTRACTOR TO FIELD VERIFY DEPTHS

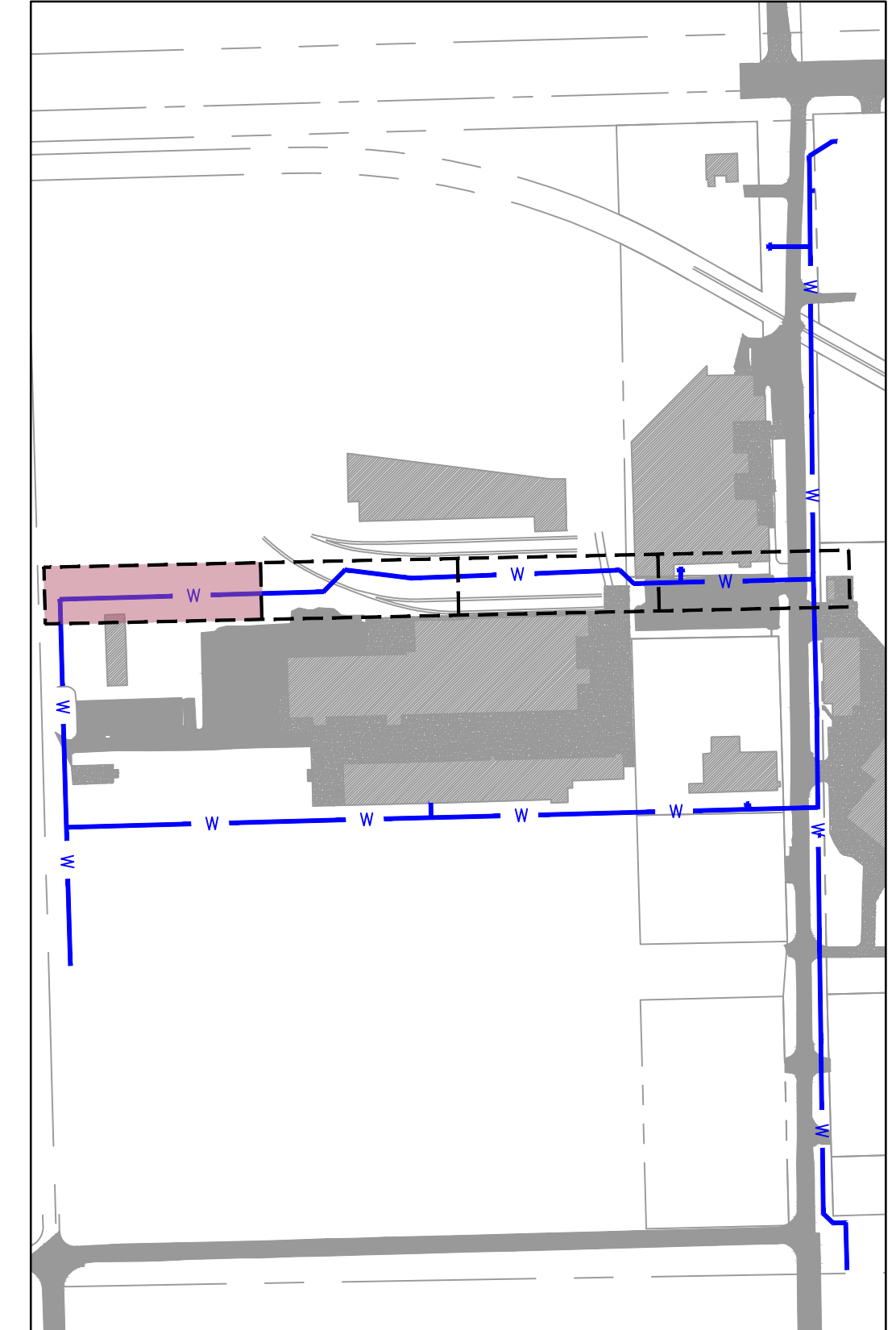
STA.: 15+94.43
 CONNECT TO WATER LINE 'D'
 1 - 8"x8"x8" TEE (M.J.)(R.J.)
 3 - 8" GATE VALVE (M.J.)(R.J.)
 3 - STANDARD GATE VALVE

HORIZONTAL SCALE: 1"=20'
 VERTICAL SCALE: 1"=2'

LEGEND

- SECTION LINE
- RIGHT OF WAY
- ROADWAY CENTERLINE
- PROPERTY LOT LINE
- EDGE OF ROAD
- EXISTING EASEMENT
- EXISTING WATER LINE
- WATER LINE REMOVED FROM SERVICE
- EXISTING SANITARY SEWER
- EXISTING STORM SEWER
- EXISTING OVERHEAD ELECTRIC
- EXISTING NATURAL GAS LINE
- EXISTING COMMUNICATION LINE
- PROPOSED WATER LINE

- [Hatched Box] EXISTING ASPHALT PAVEMENT
- [Dotted Box] EXISTING CONCRETE PAVEMENT
- [Diagonal Lines Box] EXISTING BUILDING



KEYMAP
 SCALE: 1"=300'

NOTE:
 CONTRACTOR TO VERIFY EXISTING WATER
 LINE PIPE LOCATIONS, MATERIALS AND
 DEPTH PRIOR TO CONSTRUCTION.



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WATER LINE 'B' PLAN AND PROFILE 4

MIDAMERICA INDUSTRIAL PARK
 ZARROW ROAD WATER LINE RELOCATION

PRYOR, OKLAHOMA

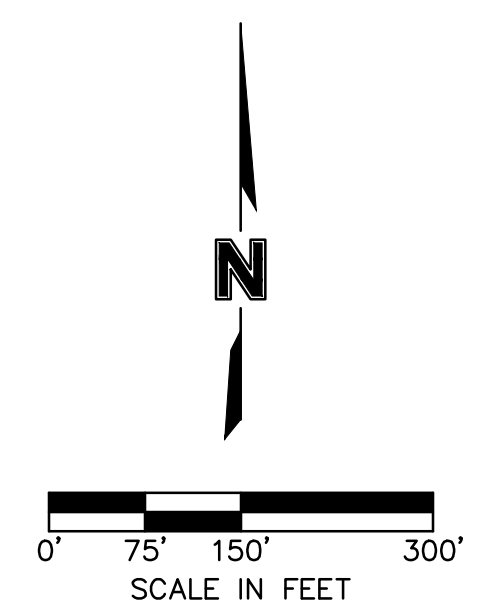
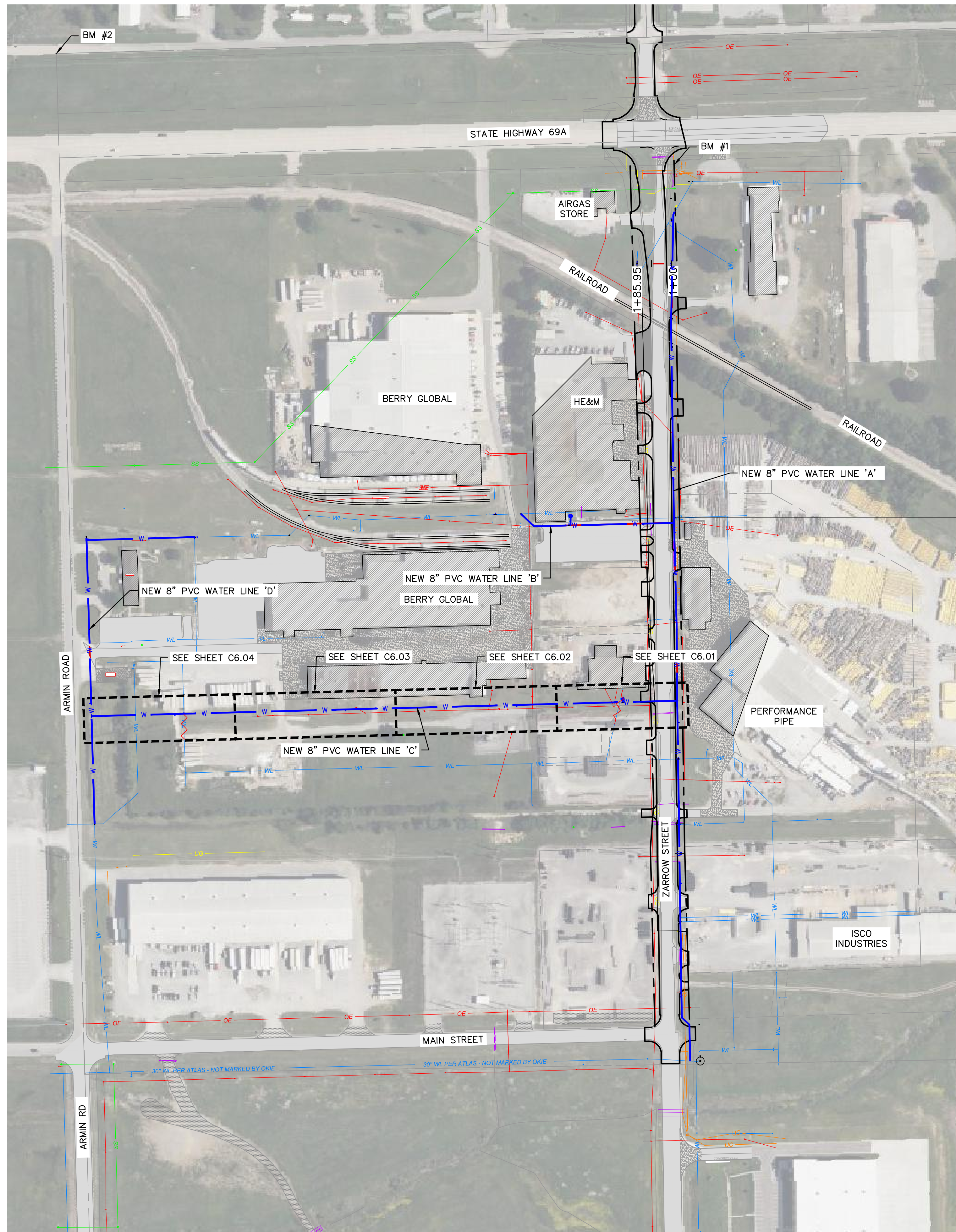
2023

REVISIONS

drawn by: AMA	checked by: JAT
approved by: JEP	QA/QC by: JEP
project no.: 022-06912	date: 13NOV2023

SHEET
C5.04

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LEGEND

- SECTION LINE
 - - - RIGHT OF WAY
 - ROADWAY CENTERLINE
 - PROPERTY LOT LINE
 - EDGE OF ROAD
 - - - EXISTING EASEMENT
 - EXISTING WATER LINE
 - WATER LINE REMOVED FROM SERVICE
 - EXISTING SANITARY SEWER
 - EXISTING STORM SEWER
 - EXISTING OVERHEAD ELECTRIC
 - EXISTING NATURAL GAS LINE
 - EXISTING COMMUNICATION LINE
 - PROPOSED WATER LINE
-
- [Pattern] EXISTING ASPHALT PAVEMENT
 - [Pattern] EXISTING CONCRETE PAVEMENT
 - [Pattern] EXISTING BUILDING

GENERAL NOTES:

1. THE CONTRACTOR SHALL CONSTRUCT ALL WATER LINES AND CONNECTIONS IN ACCORDANCE WITH THE APPLICABLE STANDARDS AND SPECIFICATIONS OF THE LOCAL UTILITY PROVIDER.
2. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING UTILITY SERVICE CONNECTIONS WITH THE APPROPRIATE UTILITY COMPANY/OWNER.
3. ALL WATER SERVICE CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE BUILDING CODES AWWA SPECIFICATIONS. CONTRACT OKLAHOMA ORDINANCE WORKS AUTHORITY (OOWA) TO PROVIDE OPPORTUNITY TO INSPECT.
2. COORDINATE WITH KEITH HARRIS FROM MIDAMERICA INDUSTRIAL PARK FOR NEARBY VALVE LOCATIONS FOR PIPE ISOLATION AND WATER SERVICE SHUTDOWN TIMETABLE.
3. ALL DUCTILE IRON FITTINGS AND PIPE MUST BE CEMENT LINED IN ACCORDANCE WITH AWWA C104/A21 4-80.
4. WATER LINES SHALL BE PRESSURE TESTED FOR LEAKS AND DISINFECTED IN ACCORDANCE WITH OKLAHOMA DEPT. OF ENVIRONMENTAL QUALITY STANDARDS SECTION 252:626-19-1(e)(f)
5. IF THE CONTRACTOR OVER-CUTS THE TRENCH, THE ADDITIONAL BACKFILL MATERIAL WILL BE CONSIDERED INCIDENTAL AND WILL BE AT CONTRACTORS EXPENSE.
6. THE CONTRACTOR MAY BE REQUIRED TO INSTALL ADDITIONAL EROSION CONTROL DEVICES BEFORE FLUSHING WATER LINE TO MINIMIZE EROSION & TO REMAIN IN COMPLIANCE WITH LOCAL AND FEDERAL N.P.D.E.S. PERMIT REQUIREMENTS.
7. THE CONTRACTOR SHALL DISPOSE OF WATER FLUSHED FROM THE LINES TO A LOCATION APPROVED BY THE CITY ENGINEER OR DESIGNATED REPRESENTATIVE. IN NO CASE SHALL THE WATER BE FLUSHED INTO THE PAVING SUBGRADE.
8. THE CONTRACTOR IS RESPONSIBLE FOR THE REPLACEMENT OR REPAIR OF ALL EROSION CONTROL DEVICES DAMAGED DUE TO CONSTRUCTION.

SURVEY CONTROL DATA

HORIZONTAL DATUM: OKLAHOMA STATE PLANE COORDINATE SYSTEM
 NAD 83 (NORTH ZONE 3501) VERTICAL DATUM: NAVD 88

- BM #1**
 3/8" IRON PIN
 N: 465457.1970
 E: 2761655.8230
 ELEV=613.19'
- BM #2**
 1" PIPE WITH CONCRETE
 NW SECTION CORNER
 N: 465733.6910
 E: 2760119.0240
 ELEV=603.28'
- BM #3**
 3/8" IRON PIN W/PINK CAP
 N: 461138.4020
 E: 2761617.5240
 ELEV=640.82'



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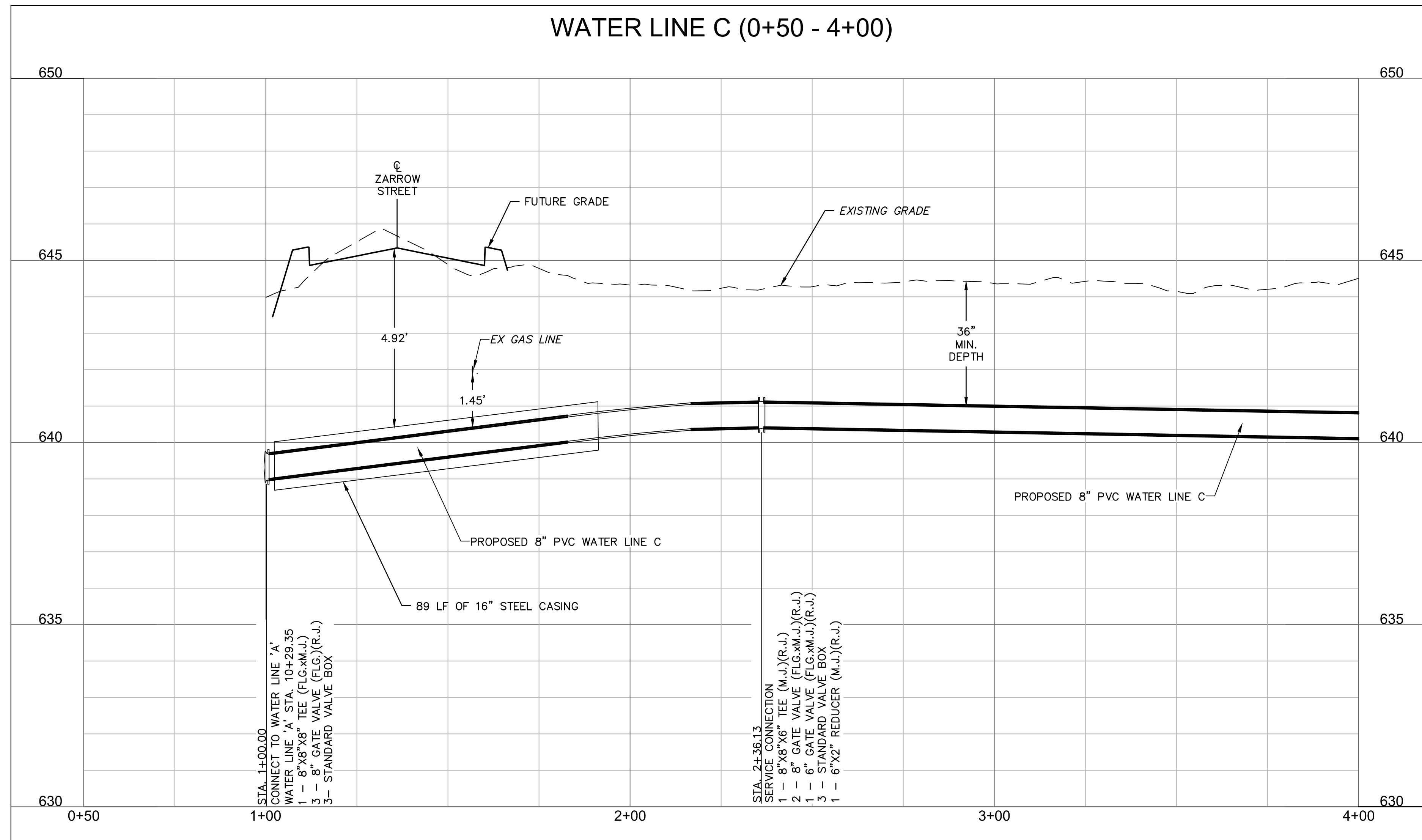
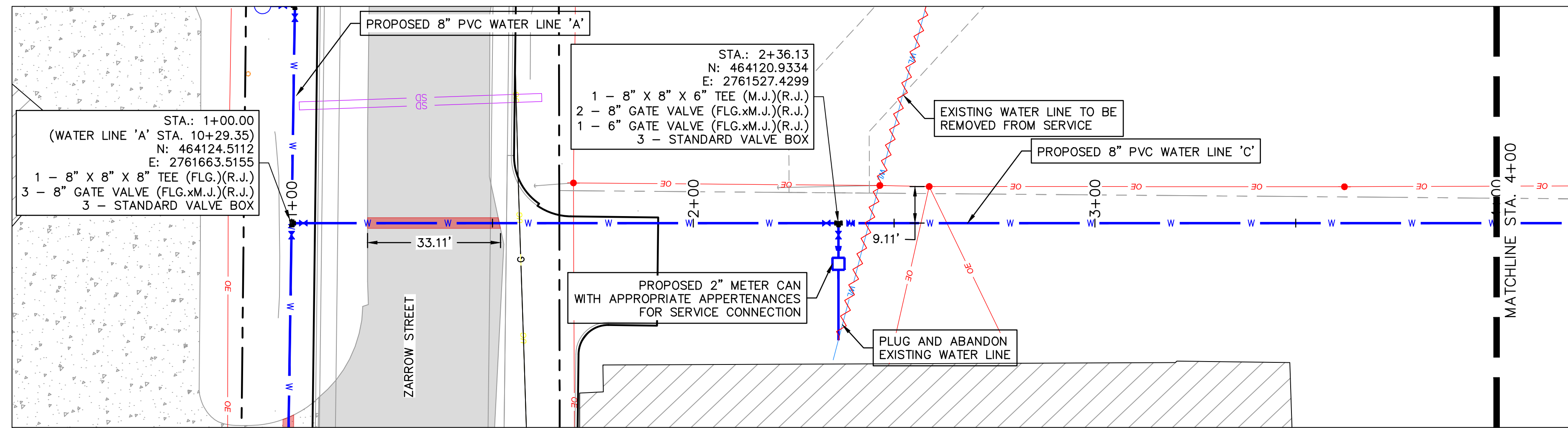
REV. NO.	DATE	REVISIONS DESCRIPTION	BY

WATER LINE 'C' KEYMAP
 MIDAMERICA INDUSTRIAL PARK
 ZARROW ROAD WATER LINE RELOCATION
 PRYOR, OKLAHOMA
 2023

drawn by: _____ AMA
 checked by: _____ JAT
 approved by: _____ JEP
 QA/QC by: _____
 project no.: 022-06912
 drawing no.: _____
 date: 13NOV2023

SHEET C6.00

DWG: F:\2022\06501-07000\022-06912\40-Design\AutoCAD\Final Plans\Sheets\GNVC\C_WAT03_02206912.dwg USER: jpace

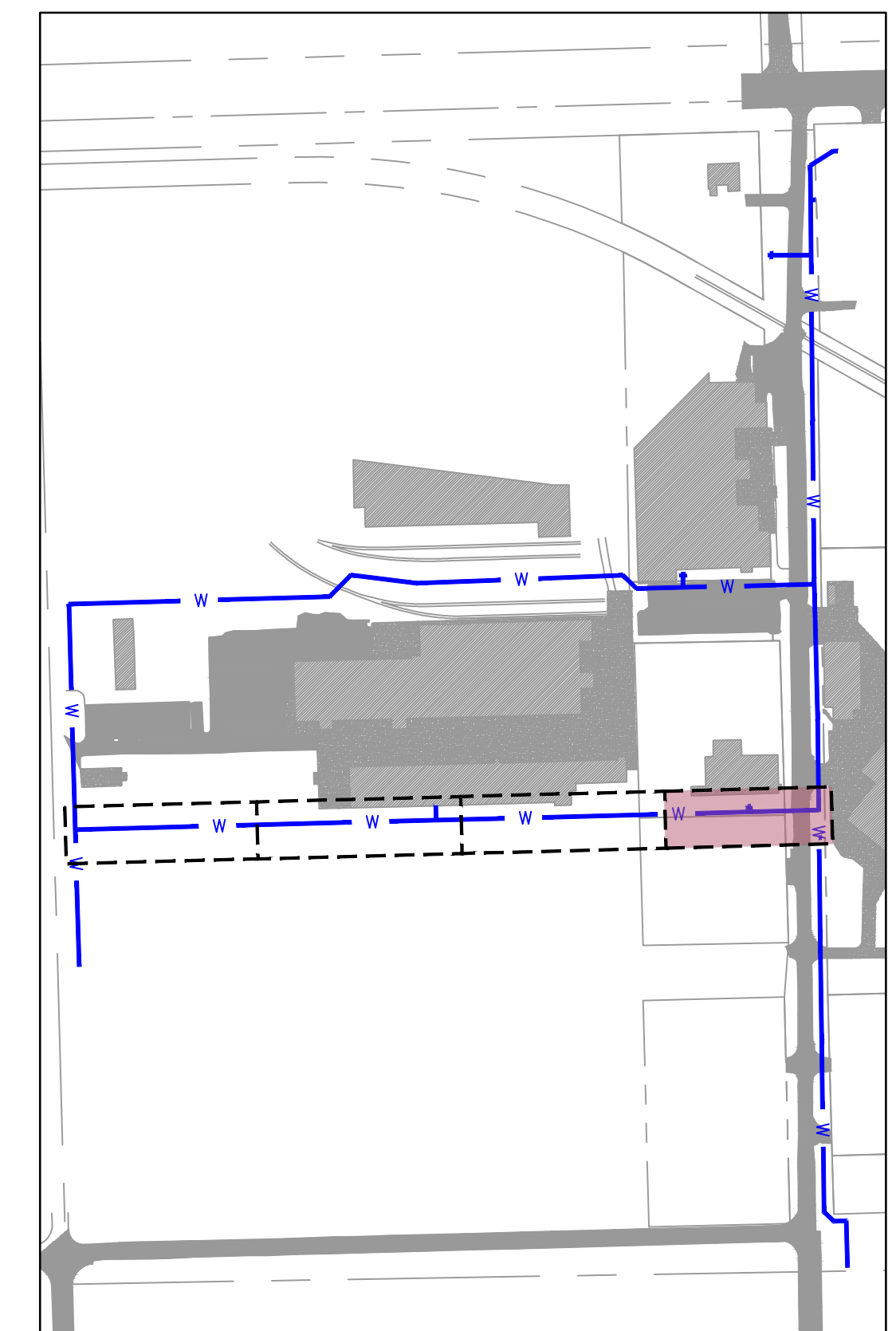


HORIZONTAL SCALE: 1"=20'
 VERTICAL SCALE: 1"=2'

LEGEND

- SECTION LINE
- RIGHT OF WAY
- ROADWAY CENTERLINE
- PROPERTY LOT LINE
- EDGE OF ROAD
- EXISTING EASEMENT
- EXISTING WATER LINE
- WATER LINE REMOVED FROM SERVICE
- EXISTING SANITARY SEWER
- EXISTING STORM SEWER
- EXISTING OVERHEAD ELECTRIC
- EXISTING NATURAL GAS LINE
- EXISTING COMMUNICATION LINE
- PROPOSED WATER LINE

- EXISTING ASPHALT PAVEMENT
- EXISTING CONCRETE PAVEMENT
- EXISTING BUILDING



NOTE:
 CONTRACTOR TO VERIFY EXISTING WATER LINE PIPE LOCATIONS, MATERIALS AND DEPTH PRIOR TO CONSTRUCTION.

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MidAmerica INDUSTRIAL PARK

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

WATER LINE 'C' PLAN AND PROFILE 1

MIDAMERICA INDUSTRIAL PARK
 ZARROW ROAD WATER LINE RELOCATION

PRYOR, OKLAHOMA

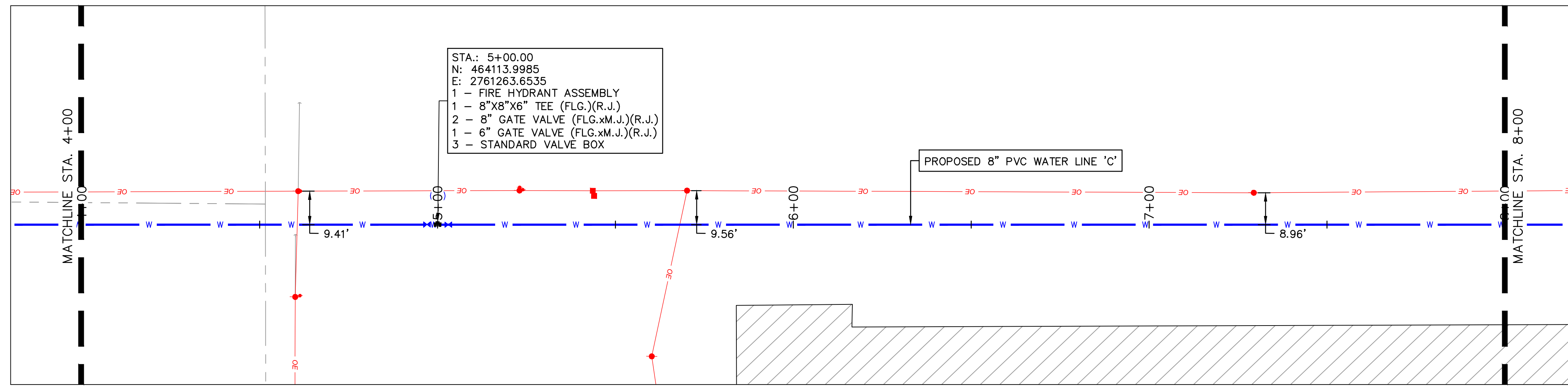
2023

REVISIONS

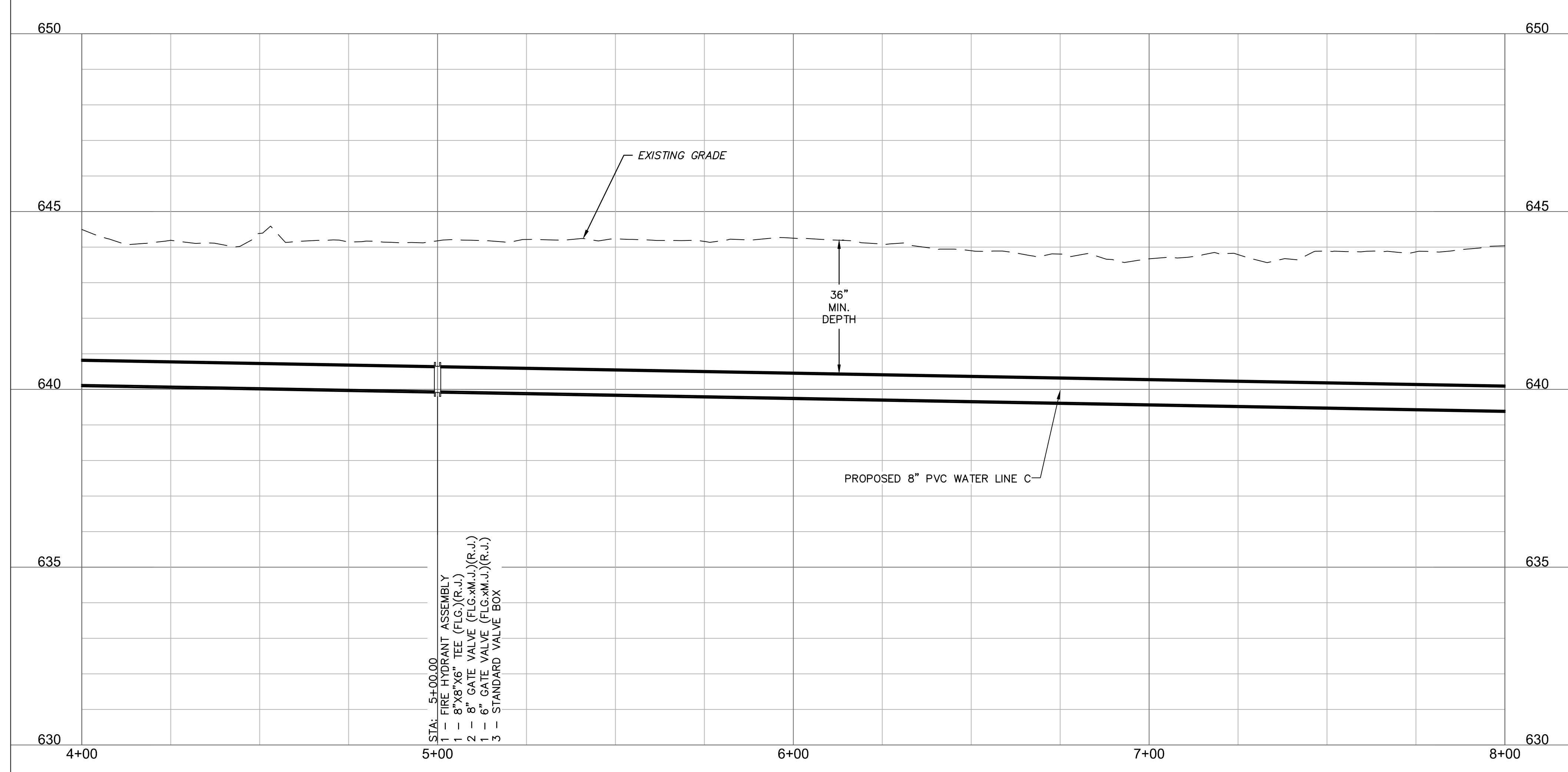
drawn by: AMA
 checked by: JAT
 approved by: JEP
 QA/QC by: JEP
 project no.: 022-06912
 drawing no.:
 date: 13NOV2023

SHEET
 C6.01

DWG: F:\2022\06501-07000\022-06912\40-Design\AutoCAD\Final Plans\Sheets\GNCV\C_WAT03_02206912.dwg USER: jpace



WATER LINE C (4+00 - 8+00)



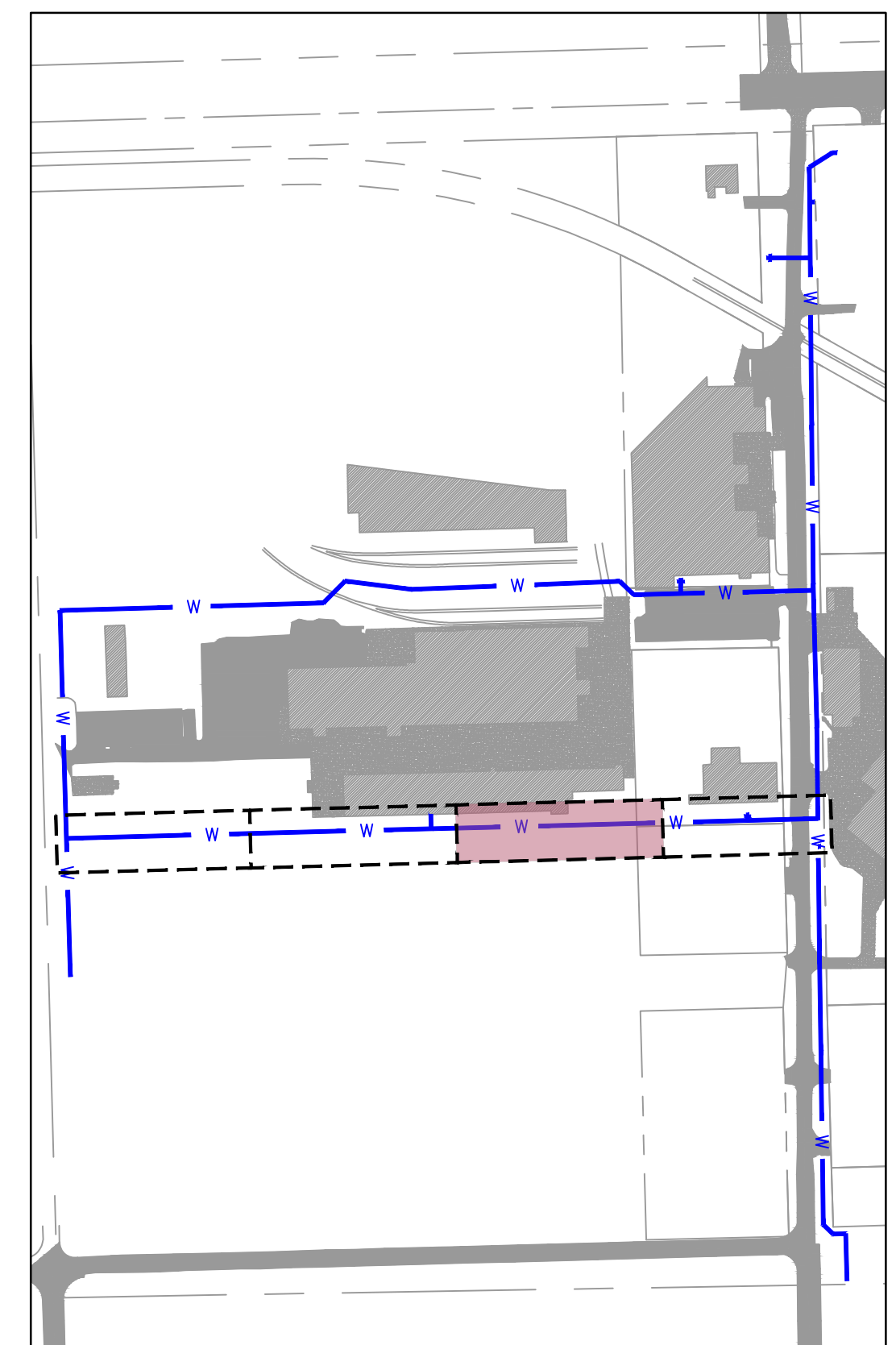
HORIZONTAL SCALE: 1"=20'
VERTICAL SCALE: 1"=2'

SCALE IN FEET

LEGEND

- SECTION LINE
- - - RIGHT OF WAY
- - - ROADWAY CENTERLINE
- - - PROPERTY LOT LINE
- - - EDGE OF ROAD
- - - EXISTING EASEMENT
- WL --- EXISTING WATER LINE
- WL --- WATER LINE REMOVED FROM SERVICE
- SS --- EXISTING SANITARY SEWER
- SD --- EXISTING STORM SEWER
- OE --- EXISTING OVERHEAD ELECTRIC
- UG --- EXISTING NATURAL GAS LINE
- UC --- EXISTING COMMUNICATION LINE
- W --- PROPOSED WATER LINE

- █ EXISTING ASPHALT PAVEMENT
- █ EXISTING CONCRETE PAVEMENT
- █ EXISTING BUILDING



KEYMAP
SCALE: 1"=300'

NOTE:
CONTRACTOR TO VERIFY EXISTING WATER
LINE PIPE LOCATIONS, MATERIALS AND
DEPTH PRIOR TO CONSTRUCTION.



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INDUSTRIAL PARK

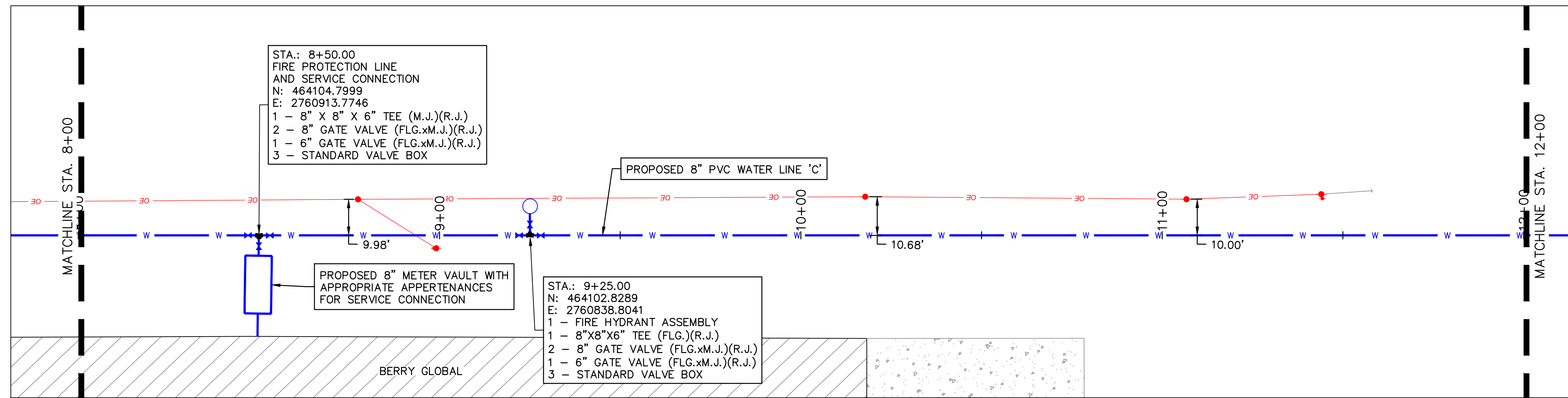
REV. NO.	DATE	REVISIONS DESCRIPTION	BY

WATER LINE 'C' PLAN AND PROFILE 2	2023
MIDAMERICA INDUSTRIAL PARK ZARROW ROAD WATER LINE RELOCATION	
PRYOR, OKLAHOMA	

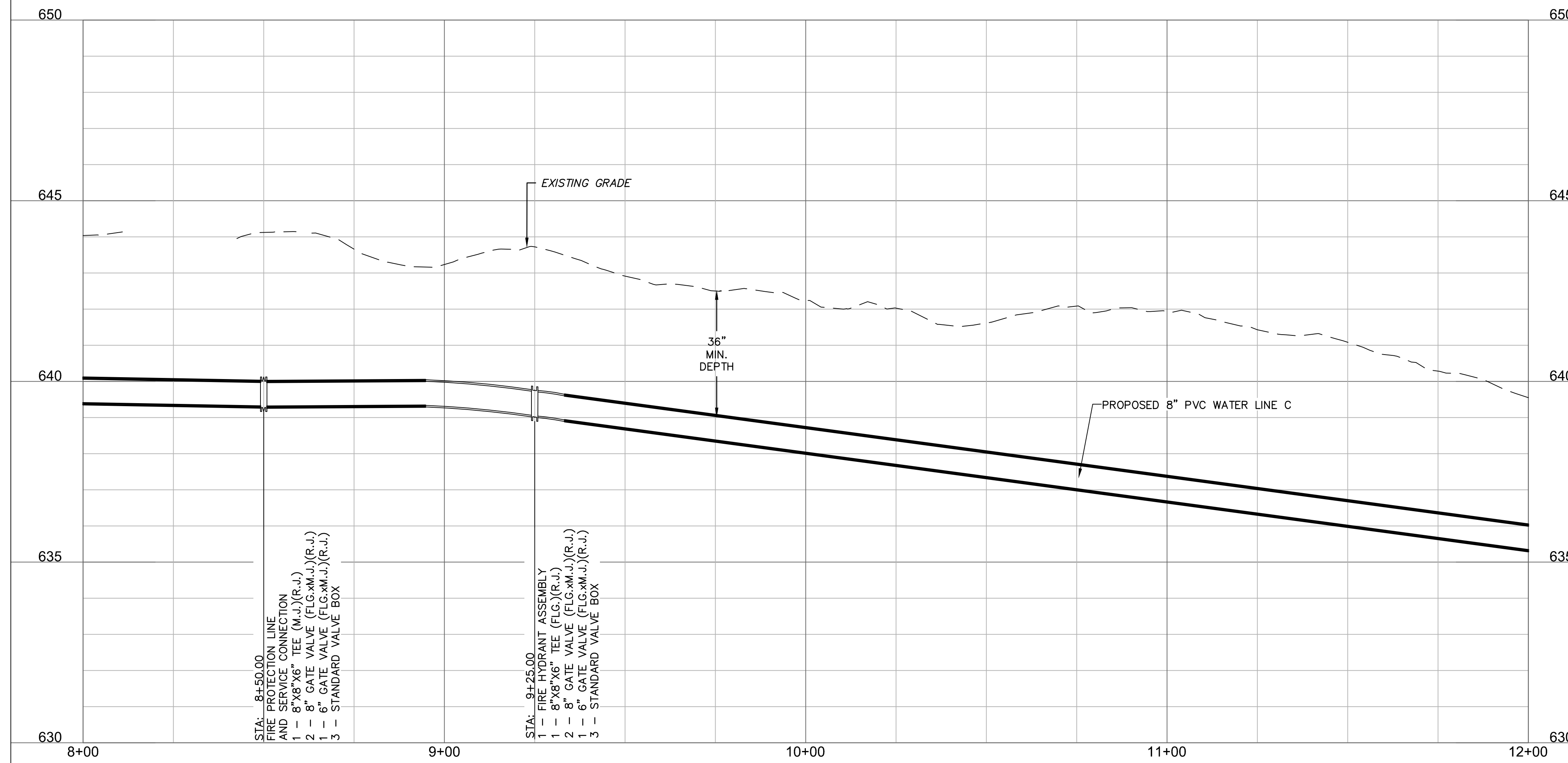
drawn by: AMA
checked by: JAT
approved by: JEP
QA/QC by:
project no.: 022-06912
drawing no.:
date: 13NOV2023

SHEET
C6.02

DWG: F:\2022\06501-07000\022-06912\40-Design\AutoCAD\Final Plans\Sheets\GNVC\C_WAT03_02206912.dwg USER: jpace



WATER LINE C (8+00 - 12+00)



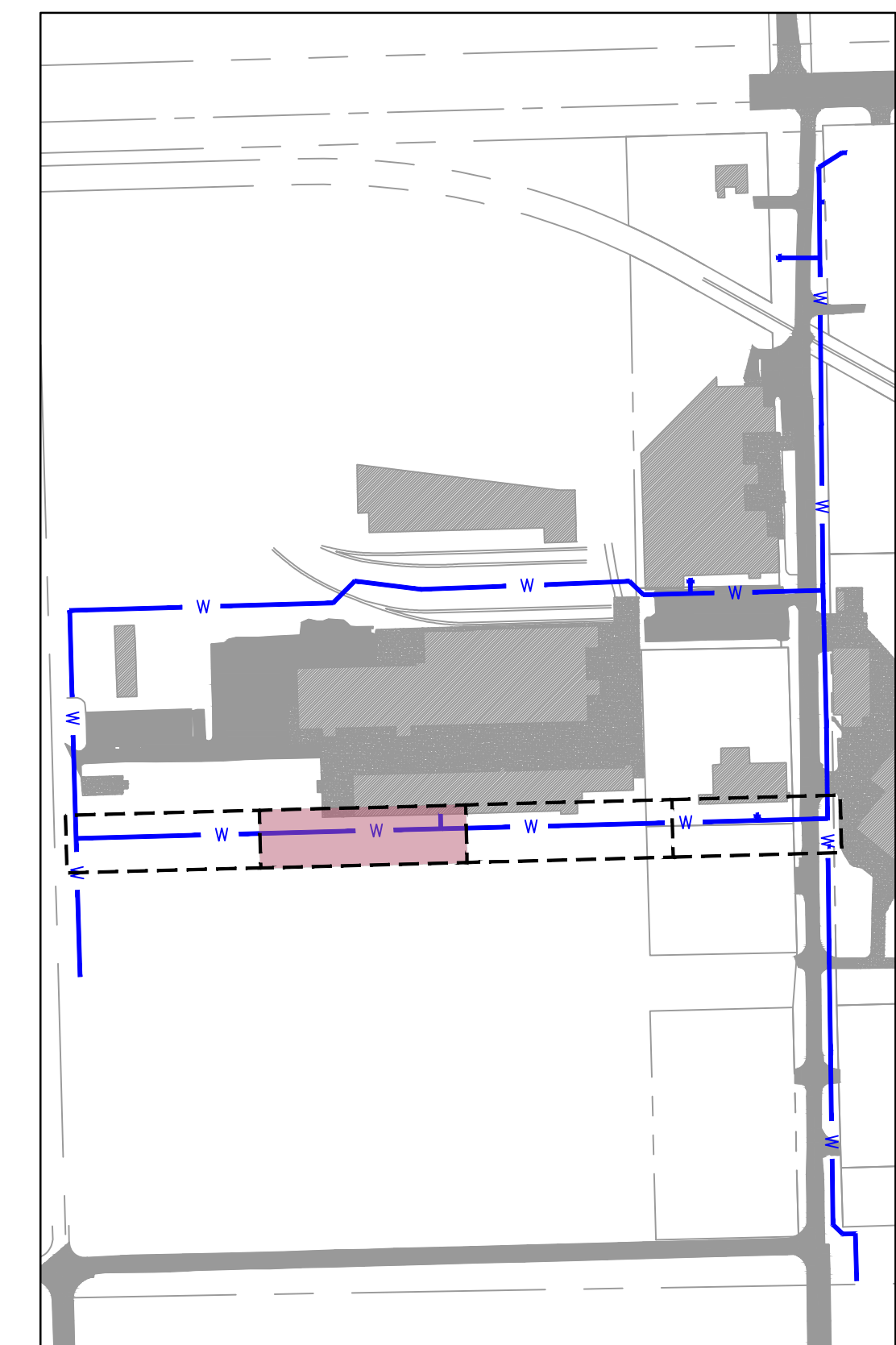
HORIZONTAL SCALE: 1"=20'
VERTICAL SCALE: 1"=2'

0' 10' 20' 40'
SCALE IN FEET

LEGEND

- SECTION LINE
- RIGHT OF WAY
- ROADWAY CENTERLINE
- PROPERTY LOT LINE
- EDGE OF ROAD
- EXISTING EASEMENT
- EXISTING WATER LINE
- WATER LINE REMOVED FROM SERVICE
- EXISTING SANITARY SEWER
- EXISTING STORM SEWER
- EXISTING OVERHEAD ELECTRIC
- EXISTING NATURAL GAS LINE
- EXISTING COMMUNICATION LINE
- PROPOSED WATER LINE

- EXISTING ASPHALT PAVEMENT
- EXISTING CONCRETE PAVEMENT
- EXISTING BUILDING



NOTE:
CONTRACTOR TO VERIFY EXISTING WATER LINE PIPE LOCATIONS, MATERIALS AND DEPTH PRIOR TO CONSTRUCTION.



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WATER LINE 'C' PLAN AND PROFILE 3

MIDAMERICA INDUSTRIAL PARK
ZARROW ROAD WATER LINE RELOCATION
PRYOR, OKLAHOMA

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

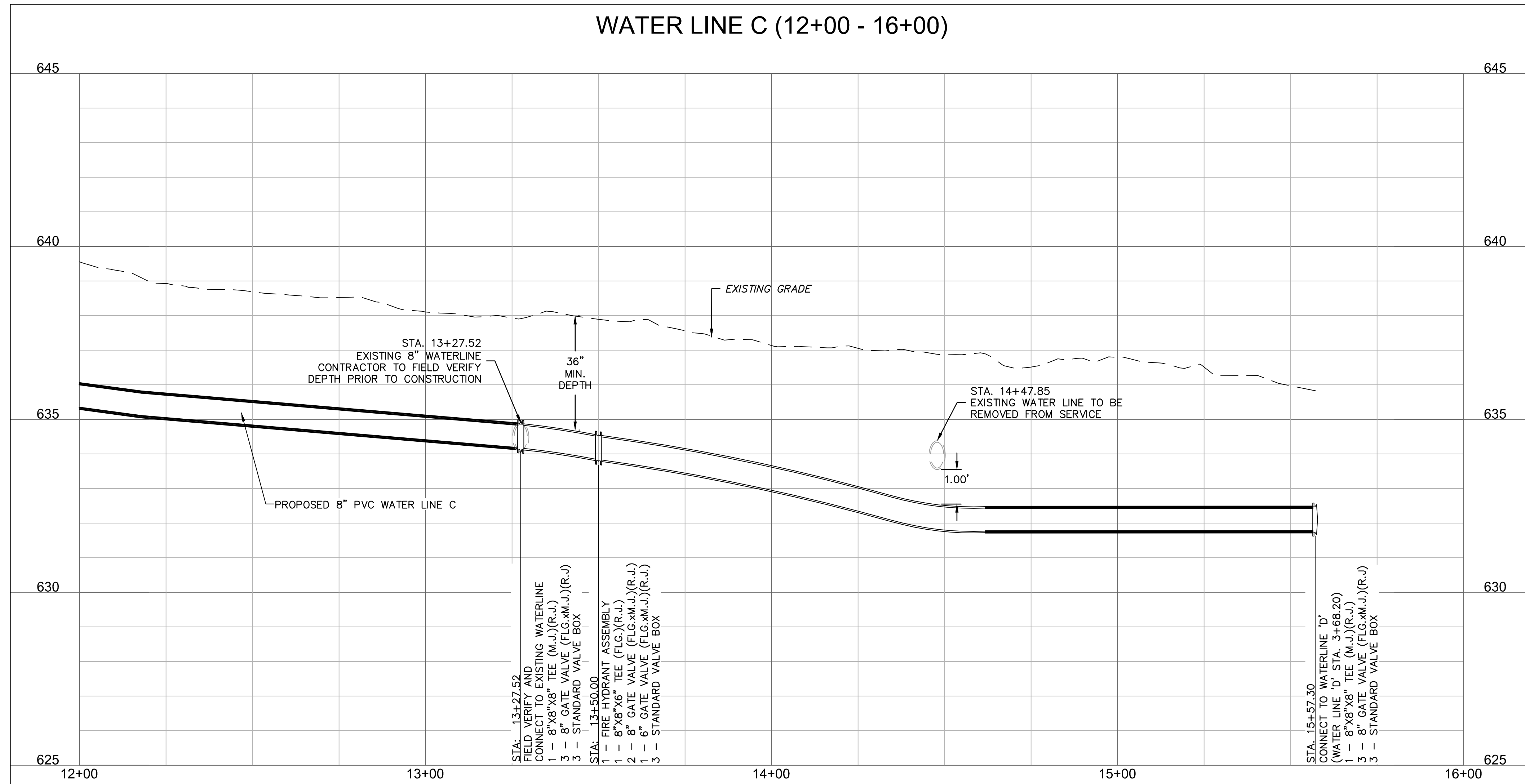
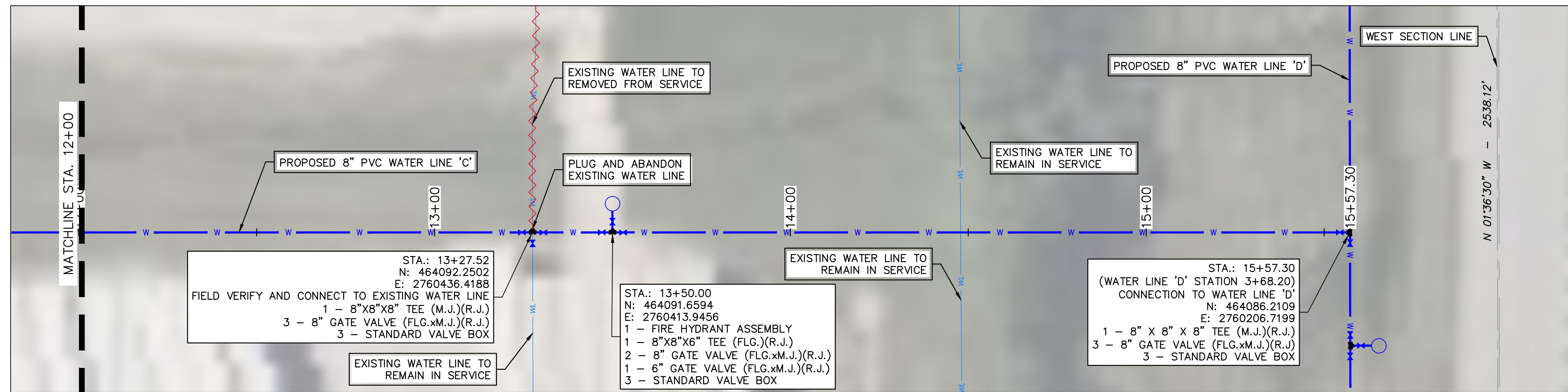
2023

REVISIONS

drawn by: AMA
checked by: JAT
approved by: JEP
QA/QC by: JEP
project no.: 022-06912
drawing no.:
date: 13NOV2023

SHEET
C6.03

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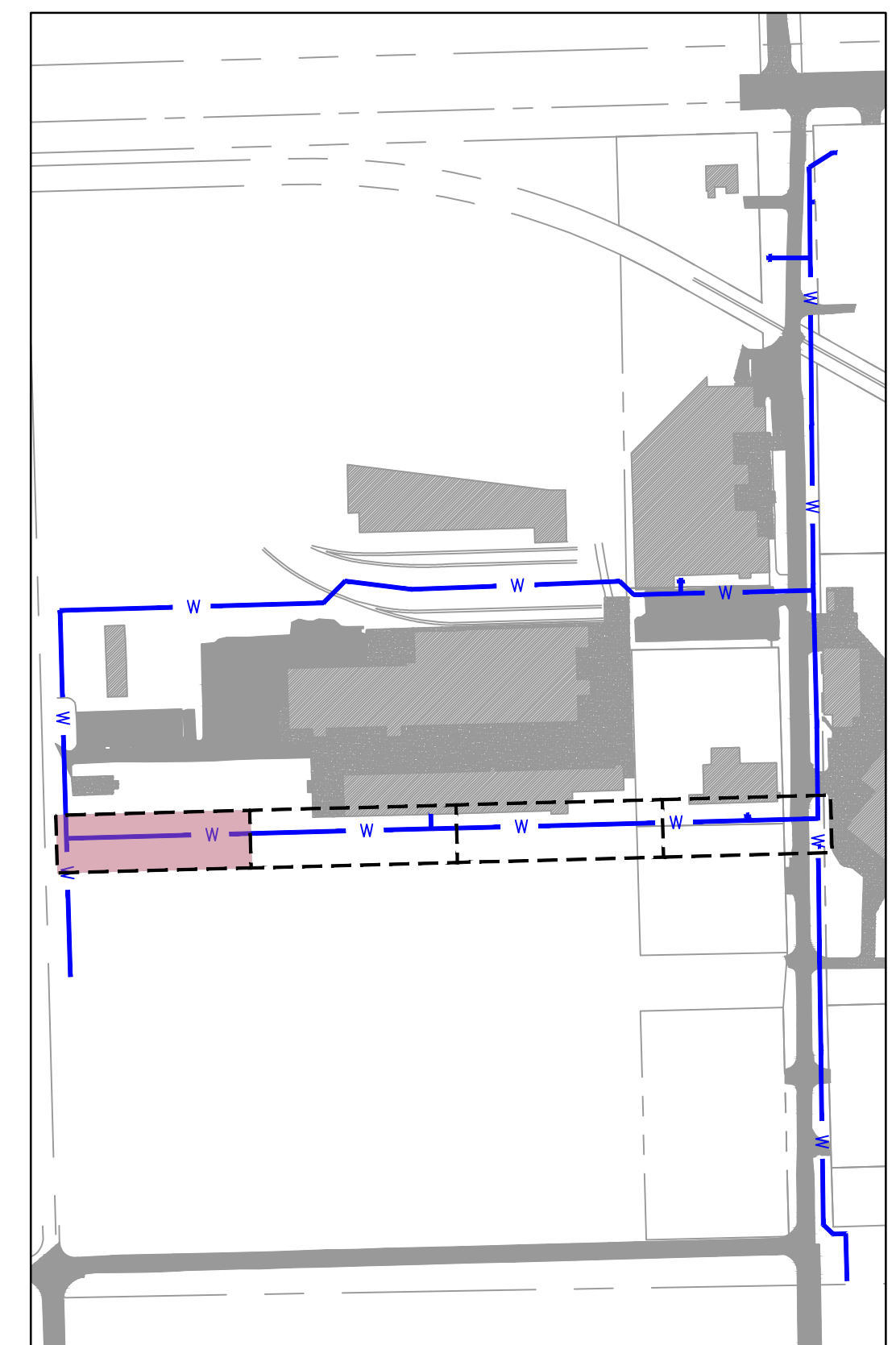


HORIZONTAL SCALE: 1"=20'
VERTICAL SCALE: 1"=2'

LEGEND

- SECTION LINE
- - - RIGHT OF WAY
- - - ROADWAY CENTERLINE
- - - PROPERTY LOT LINE
- - - EDGE OF ROAD
- - - EXISTING EASEMENT
- WL --- EXISTING WATER LINE
- WL --- WATER LINE REMOVED FROM SERVICE
- SS --- EXISTING SANITARY SEWER
- SD --- EXISTING STORM SEWER
- OE --- EXISTING OVERHEAD ELECTRIC
- UG --- EXISTING NATURAL GAS LINE
- UC --- EXISTING COMMUNICATION LINE
- W --- PROPOSED WATER LINE

- [Pattern] EXISTING ASPHALT PAVEMENT
- [Pattern] EXISTING CONCRETE PAVEMENT
- [Pattern] EXISTING BUILDING



KEYMAP
SCALE: 1"=300'

NOTE:
CONTRACTOR TO VERIFY EXISTING WATER LINE PIPE LOCATIONS, MATERIALS AND DEPTH PRIOR TO CONSTRUCTION.



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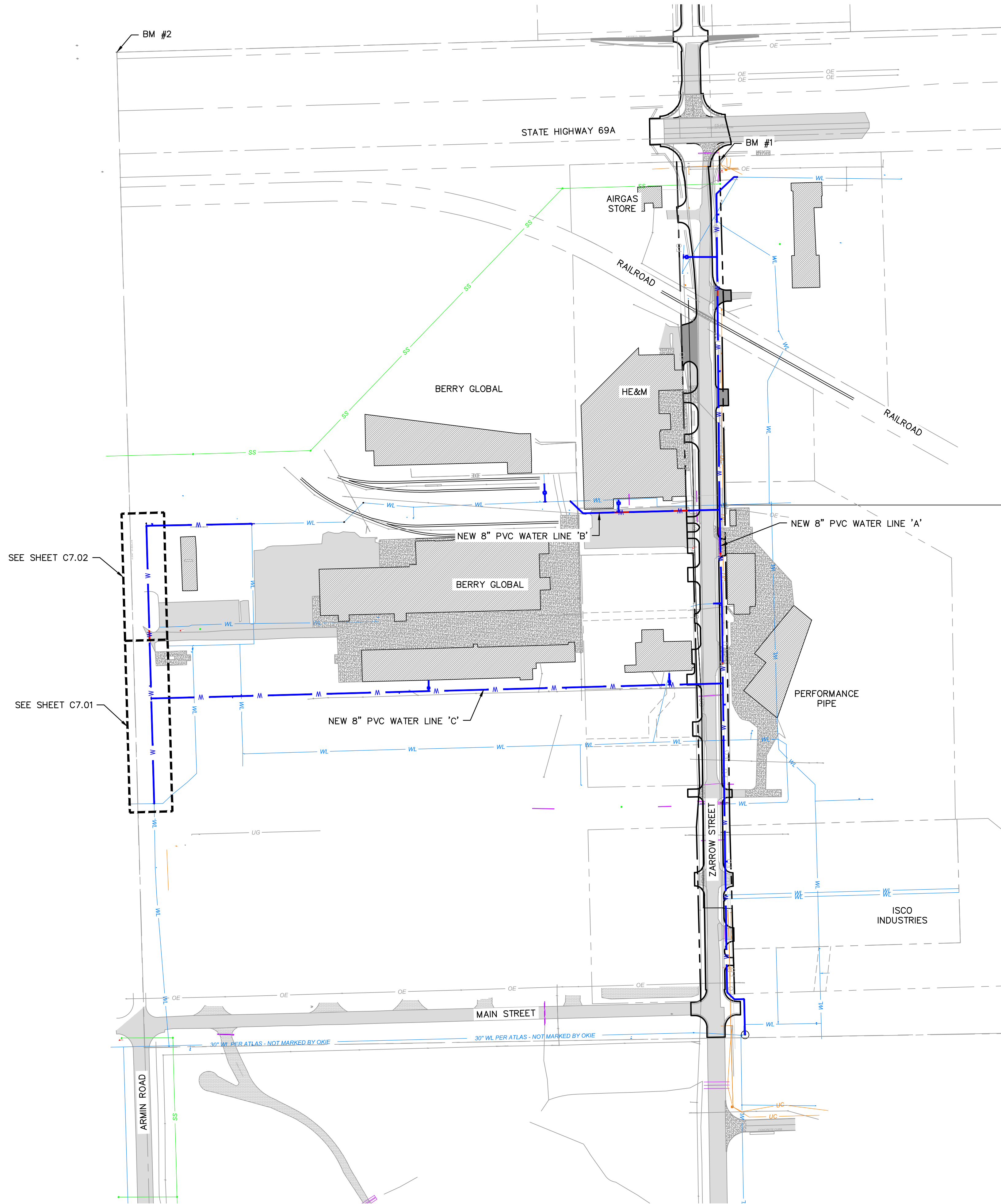
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REV. NO.	DATE	REVISIONS DESCRIPTION	BY

WATER LINE 'C' PLAN AND PROFILE 4
MIDAMERICA INDUSTRIAL PARK
ZARROW ROAD WATER LINE RELOCATION
PRYOR, OKLAHOMA
2023

drawn by:	AMA
checked by:	JAT
approved by:	JEP
QA/QC by:	
project no.:	022-06912
drawing no.:	
date:	13NOV2023

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LEGEND

	SECTION LINE
	RIGHT OF WAY
	ROADWAY CENTERLINE
	PROPERTY LOT LINE
	EDGE OF ROAD
	EXISTING EASEMENT
	EXISTING WATER LINE
	EXISTING SANITARY SEWER
	EXISTING STORM SEWER
	EXISTING OVERHEAD ELECTRIC
	EXISTING NATURAL GAS LINE
	EXISTING COMMUNICATION LINE
	PROPOSED WATER LINE
	EXISTING ASPHALT PAVEMENT
	EXISTING CONCRETE PAVEMENT
	EXISTING BUILDING

GENERAL NOTES:

1. THE CONTRACTOR SHALL CONSTRUCT ALL WATER LINES AND CONNECTIONS IN ACCORDANCE WITH THE APPLICABLE STANDARDS AND SPECIFICATIONS OF THE LOCAL UTILITY PROVIDER.
2. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING UTILITY SERVICE CONNECTIONS WITH THE APPROPRIATE UTILITY COMPANY/OWNER.
3. ALL WATER SERVICE CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE BUILDING CODES AWWA SPECIFICATIONS. CONTRACT OKLAHOMA ORDINANCE WORKS AUTHORITY (OOWA) TO PROVIDE OPPORTUNITY TO INSPECT.
2. COORDINATE WITH KEITH HARRIS FROM MIDAMERICA INDUSTRIAL PARK FOR NEARBY VALVE LOCATIONS FOR PIPE ISOLATION AND WATER SERVICE SHUTDOWN TIMETABLE.
3. ALL DUCTILE IRON FITTINGS AND PIPE MUST BE CEMENT LINED IN ACCORDANCE WITH AWWA C104/A21 4-80.
4. WATER LINES SHALL BE PRESSURE TESTED FOR LEAKS AND DISINFECTED IN ACCORDANCE WITH OKLAHOMA DEPT. OF ENVIRONMENTAL QUALITY STANDARDS SECTION 252:626-19-1(e)(f)
5. IF THE CONTRACTOR OVER-CUTS THE TRENCH, THE ADDITIONAL BACKFILL MATERIAL WILL BE CONSIDERED INCIDENTAL AND WILL BE AT CONTRACTORS EXPENSE.
6. THE CONTRACTOR MAY BE REQUIRED TO INSTALL ADDITIONAL EROSION CONTROL DEVICES BEFORE FLUSHING WATER LINE TO MINIMIZE EROSION & TO REMAIN IN COMPLIANCE WITH LOCAL AND FEDERAL N.P.D.E.S. PERMIT REQUIREMENTS.
7. THE CONTRACTOR SHALL DISPOSE OF WATER FLUSHED FROM THE LINES TO A LOCATION APPROVED BY THE CITY ENGINEER OR DESIGNATED REPRESENTATIVE. IN NO CASE SHALL THE WATER BE FLUSHED INTO THE PAVING SUBGRADE.
8. THE CONTRACTOR IS RESPONSIBLE FOR THE REPLACEMENT OR REPAIR OF ALL EROSION CONTROL DEVICES DAMAGED DUE TO CONSTRUCTION.

SURVEY CONTROL DATA

HORIZONTAL DATUM: OKLAHOMA STATE PLANE COORDINATE SYSTEM
 NAD 83 (NORTH ZONE 3501) VERTICAL DATUM: NAVD 88

BM #1 3/8" IRON PIN N: 465457.1970 E: 2761655.8230 ELEV=613.19'
BM #2 1" PIPE WITH CONCRETE NW SECTION CORNER N: 465733.6910 E: 2760119.0240 ELEV=603.28'
BM #3 3/8" IRON PIN W/PINK CAP N: 461138.4020 E: 2761617.5240 ELEV=640.82'



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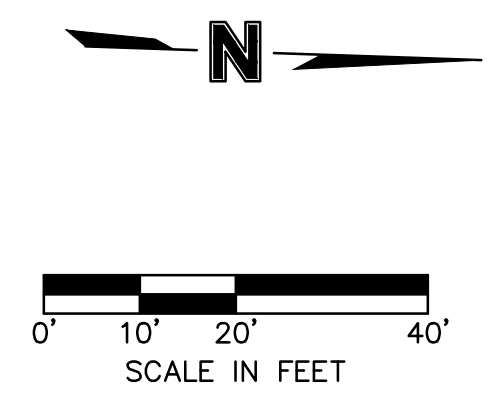
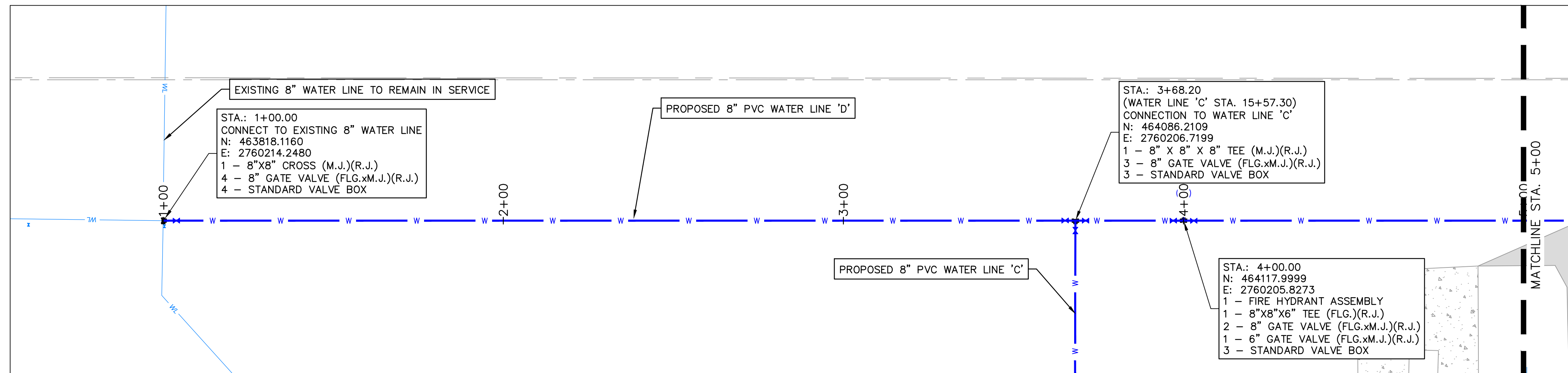
REV. NO.	DATE	REVISIONS DESCRIPTION	BY

WATER LINE 'D' KEYMAP
 MIDAMERICA INDUSTRIAL PARK
 ZARROW ROAD WATER LINE RELOCATION
 PRYOR, OKLAHOMA
 2023

drawn by:	AMA
checked by:	JAT
approved by:	JEP
QA/QC by:	
project no.:	022-06912
drawing no.:	
date:	13NOV2023

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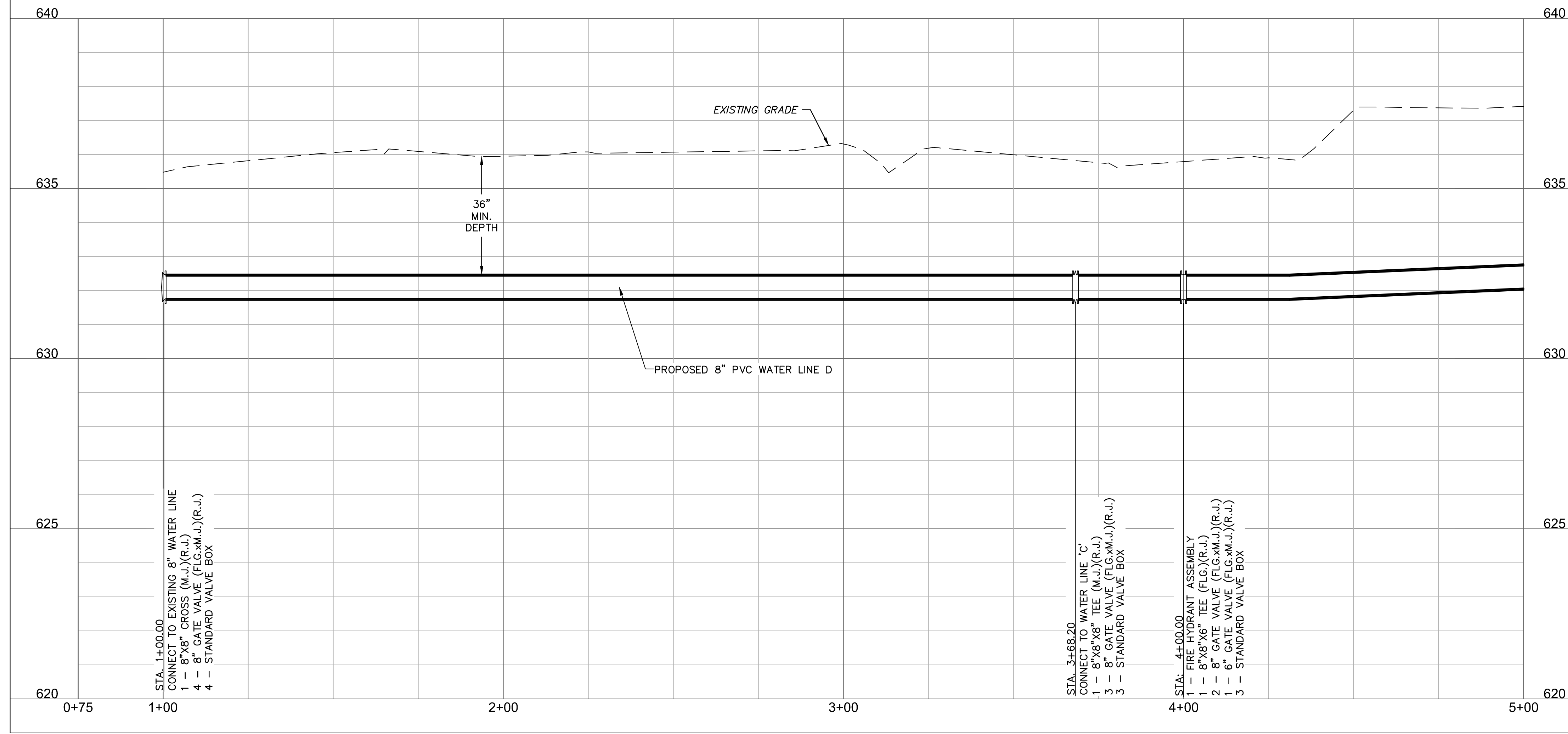


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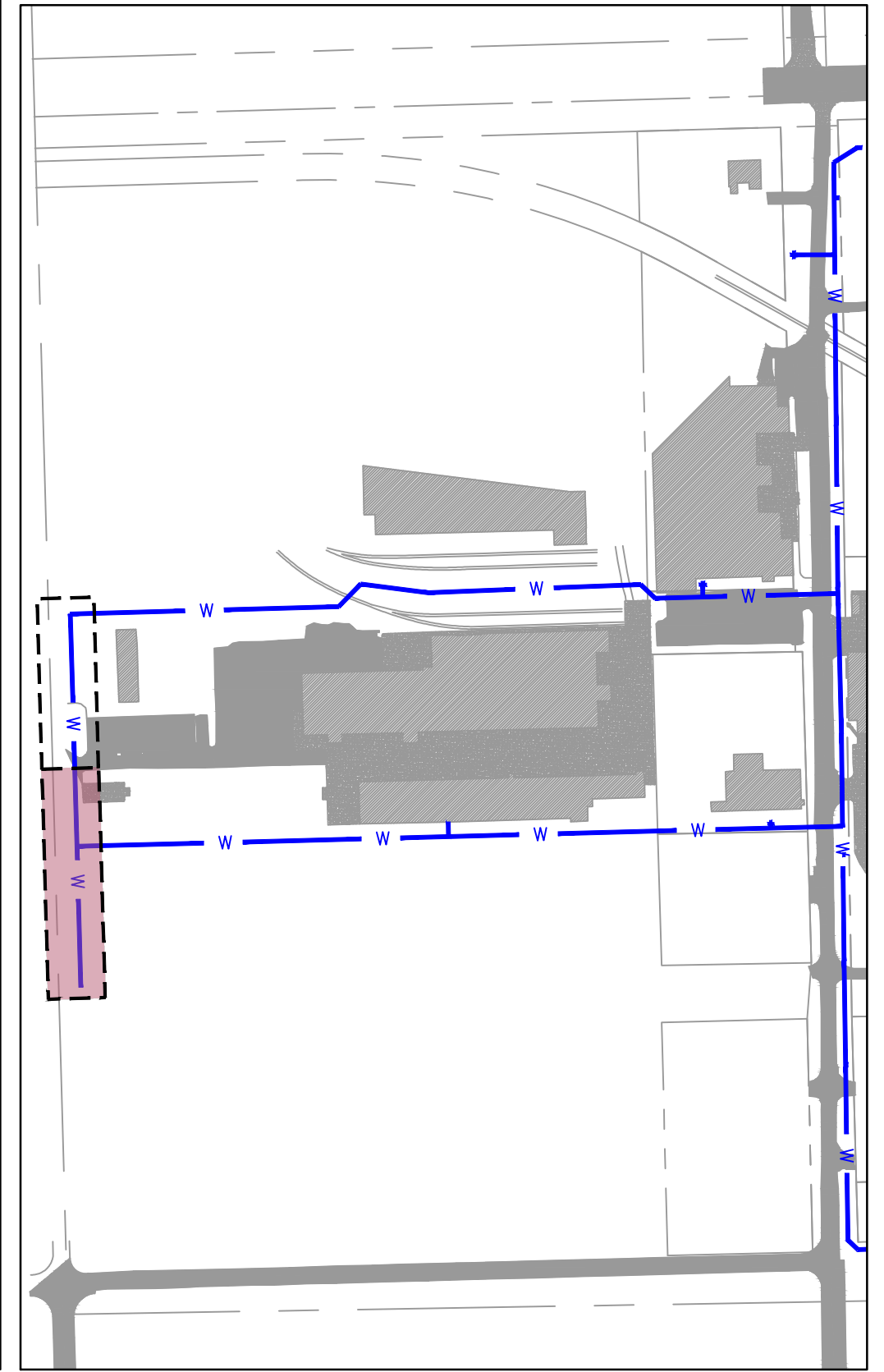
---	SECTION LINE
---	RIGHT OF WAY
---	ROADWAY CENTERLINE
---	PROPERTY LOT LINE
---	EDGE OF ROAD
---	EXISTING EASEMENT
WL	EXISTING WATER LINE
SS	EXISTING SANITARY SEWER
SD	EXISTING STORM SEWER
OE	EXISTING OVERHEAD ELECTRIC
UG	EXISTING NATURAL GAS LINE
UC	EXISTING COMMUNICATION LINE
W	PROPOSED WATER LINE

[Pattern]	EXISTING ASPHALT PAVEMENT
[Pattern]	EXISTING CONCRETE PAVEMENT
[Pattern]	EXISTING BUILDING

WATER LINE D (0+75 - 5+00)



HORIZONTAL SCALE: 1"=20'
VERTICAL SCALE: 1"=2'



KEYMAP
SCALE: 1"=300'

NOTE:
CONTRACTOR TO VERIFY EXISTING WATER LINE PIPE LOCATIONS, MATERIALS AND DEPTH PRIOR TO CONSTRUCTION.



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WATER LINE 'D' PLAN AND PROFILE 1

MIDAMERICA INDUSTRIAL PARK
ZARROW ROAD WATER LINE RELOCATION

PRYOR, OKLAHOMA

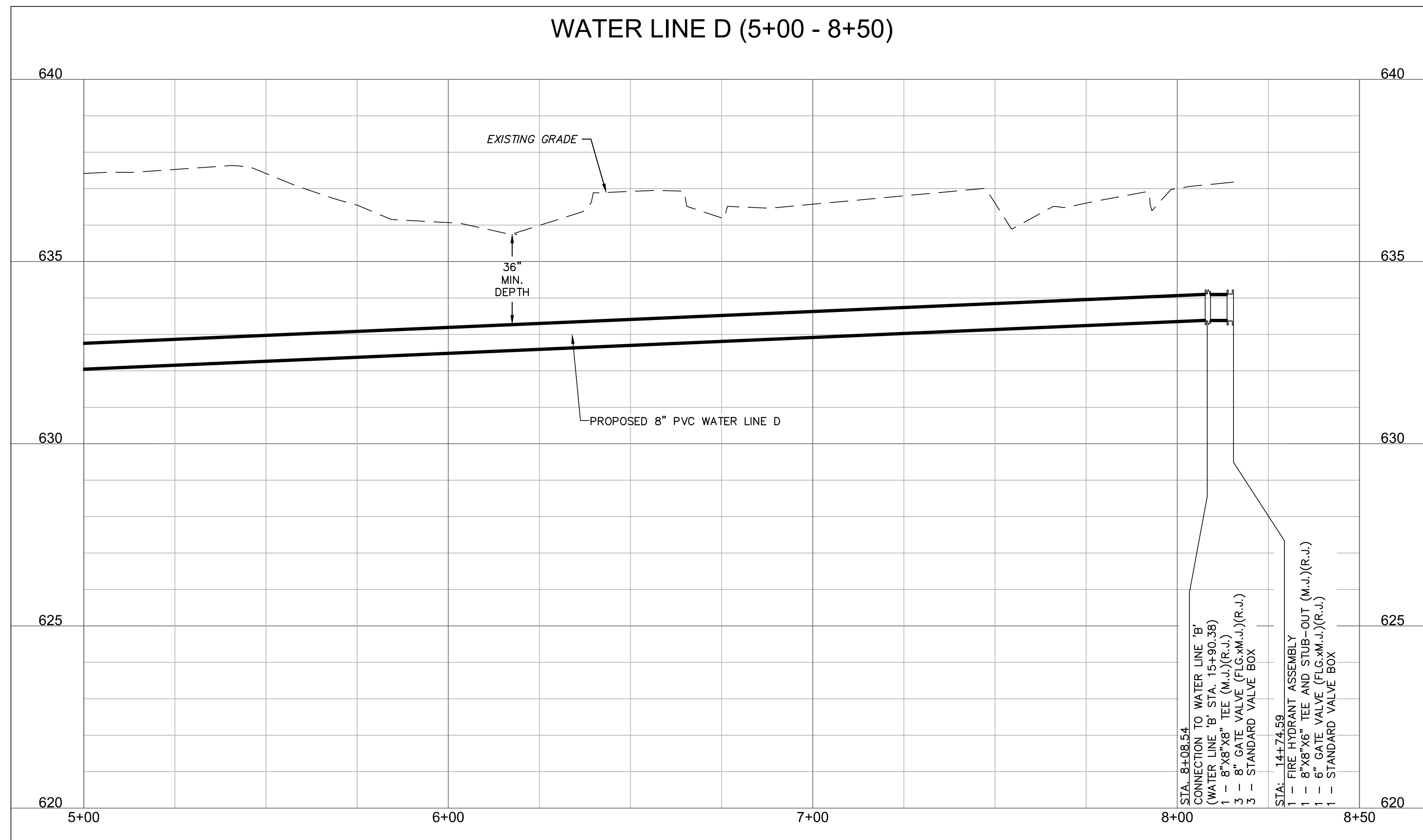
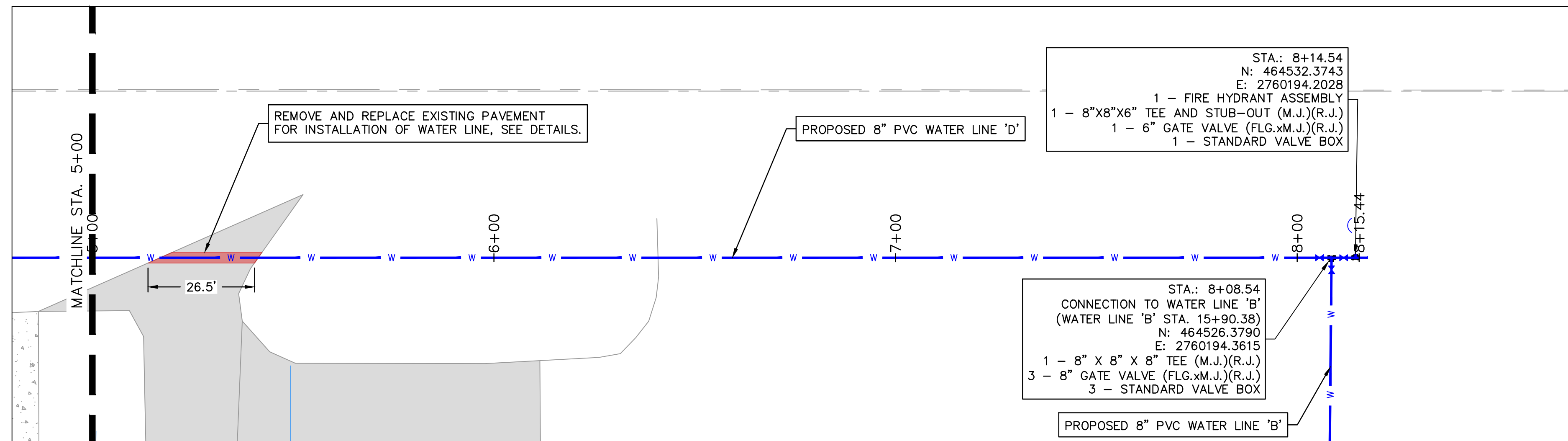
2023

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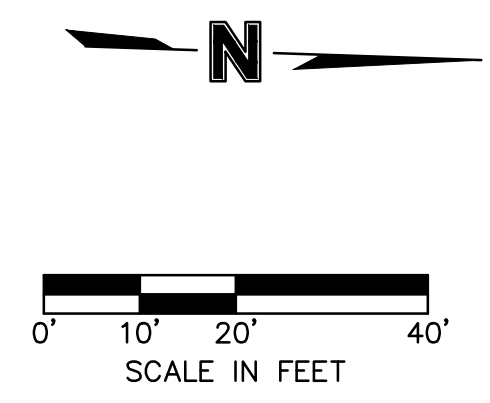
drawn by:	AMA
checked by:	JAT
approved by:	JEP
QA/QC by:	
project no.:	022-06912
drawing no.:	
date:	13NOV2023

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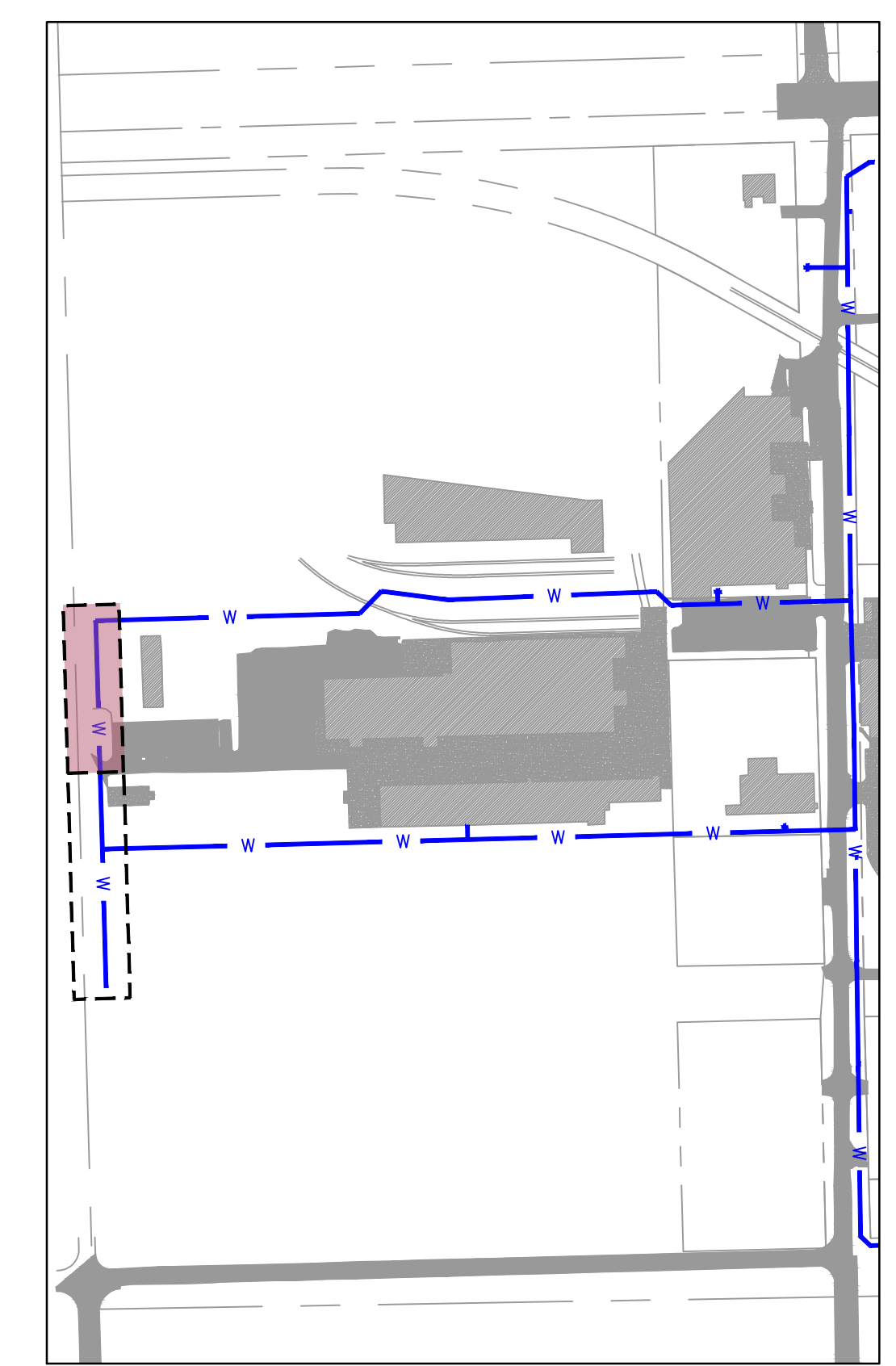
HORIZONTAL SCALE: 1"=20'
VERTICAL SCALE: 1"=2'



LEGEND

- SECTION LINE
- RIGHT OF WAY
- ROADWAY CENTERLINE
- PROPERTY LOT LINE
- EDGE OF ROAD
- EXISTING EASEMENT
- EXISTING WATER LINE
- EXISTING SANITARY SEWER
- EXISTING STORM SEWER
- EXISTING OVERHEAD ELECTRIC
- EXISTING NATURAL GAS LINE
- EXISTING COMMUNICATION LINE
- PROPOSED WATER LINE

- EXISTING ASPHALT PAVEMENT
- EXISTING CONCRETE PAVEMENT
- EXISTING BUILDING



NOTE:
CONTRACTOR TO VERIFY EXISTING WATER LINE PIPE LOCATIONS, MATERIALS AND DEPTH PRIOR TO CONSTRUCTION.



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WATER LINE 'D' PLAN AND PROFILE 2

MIDAMERICA INDUSTRIAL PARK
ZARROW ROAD WATER LINE RELOCATION

PRYOR, OKLAHOMA

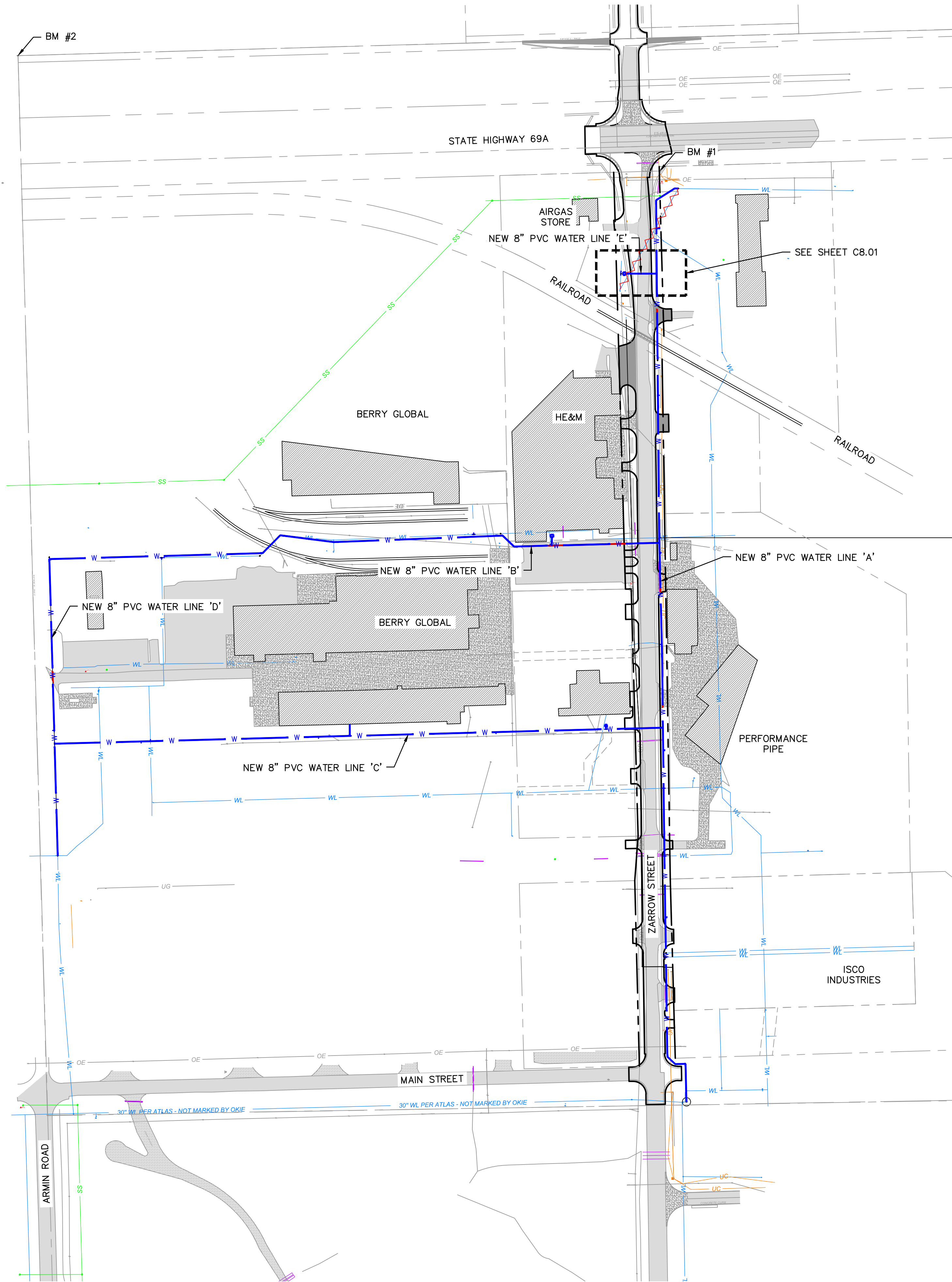
2023

REVISIONS

drawn by: _____	AMA
checked by: _____	JAT
approved by: _____	JEP
QA/QC by: _____	
project no.: _____	022-06912
drawing no.: _____	
date: _____	13NOV2023

SHEET
C7.02

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LEGEND

	SECTION LINE
	RIGHT OF WAY
	ROADWAY CENTERLINE
	PROPERTY LOT LINE
	EDGE OF ROAD
	EXISTING EASEMENT
	EXISTING WATER LINE
	WATER LINE REMOVED FROM SERVICE
	EXISTING SANITARY SEWER
	EXISTING STORM SEWER
	EXISTING OVERHEAD ELECTRIC
	EXISTING NATURAL GAS LINE
	EXISTING COMMUNICATION LINE
	PROPOSED WATER LINE
	EXISTING ASPHALT PAVEMENT
	EXISTING CONCRETE PAVEMENT
	EXISTING BUILDING

- GENERAL NOTES:
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 8. THE CONTRACTOR IS RESPONSIBLE FOR THE REPLACEMENT OR REPAIR OF ALL EROSION CONTROL DEVICES DAMAGED DUE TO CONSTRUCTION.

SURVEY CONTROL DATA
 HORIZONTAL DATUM: OKLAHOMA STATE PLANE COORDINATE SYSTEM
 NAD 83 (NORTH ZONE 3501) VERTICAL DATUM: NAVD 88

- | |
|---|
| BM #1
3/8" IRON PIN
N: 465457.1970
E: 2761655.8230
ELEV=613.19' |
| BM #2
1" PIPE WITH CONCRETE
NW SECTION CORNER
N: 465733.6910
E: 2760119.0240
ELEV=603.28' |
| BM #3
3/8" IRON PIN W/PINK CAP
N: 461138.4020
E: 2761617.5240
ELEV=640.82' |



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WATER LINE 'E' KEYMAP

MIDAMERICA INDUSTRIAL PARK
ZARROW ROAD WATER LINE RELOCATION

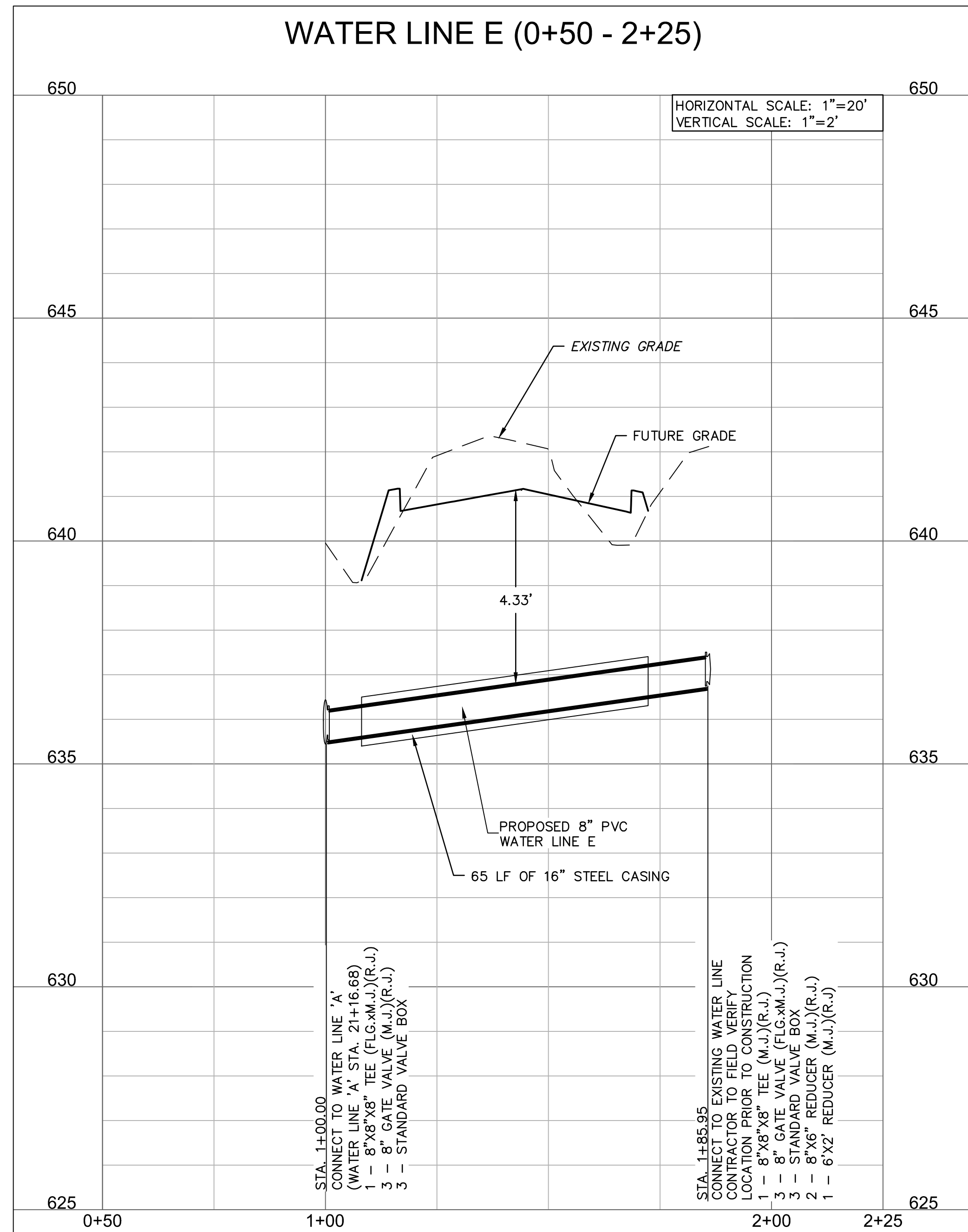
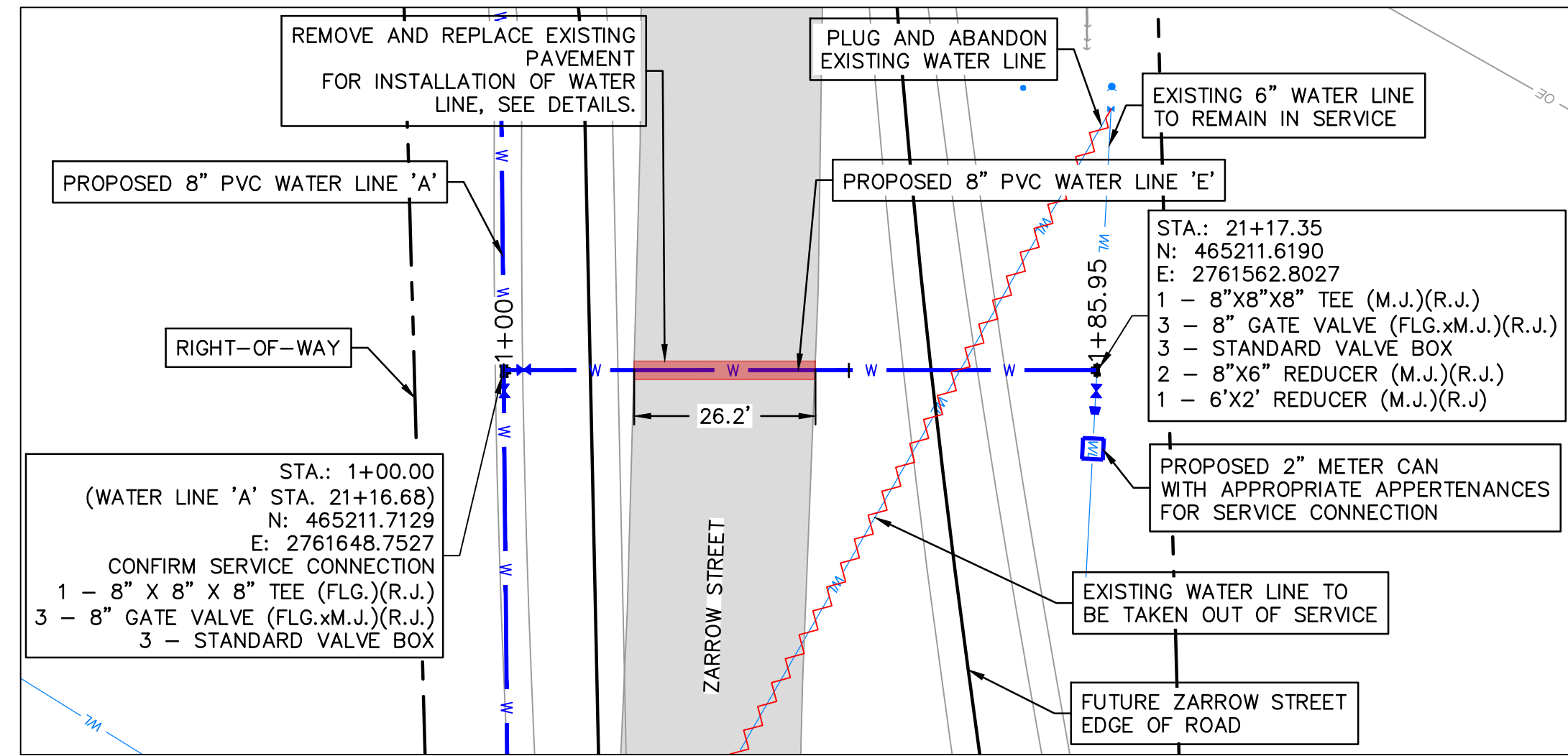
PRYOR, OKLAHOMA

2023

REVISIONS

drawn by: _____	checked by: _____	approved by: _____	AMA
QA/QC by: _____	JAT	JEP	
project no.: 022-06912			
drawing no.: _____			
date: 13NOV2023			

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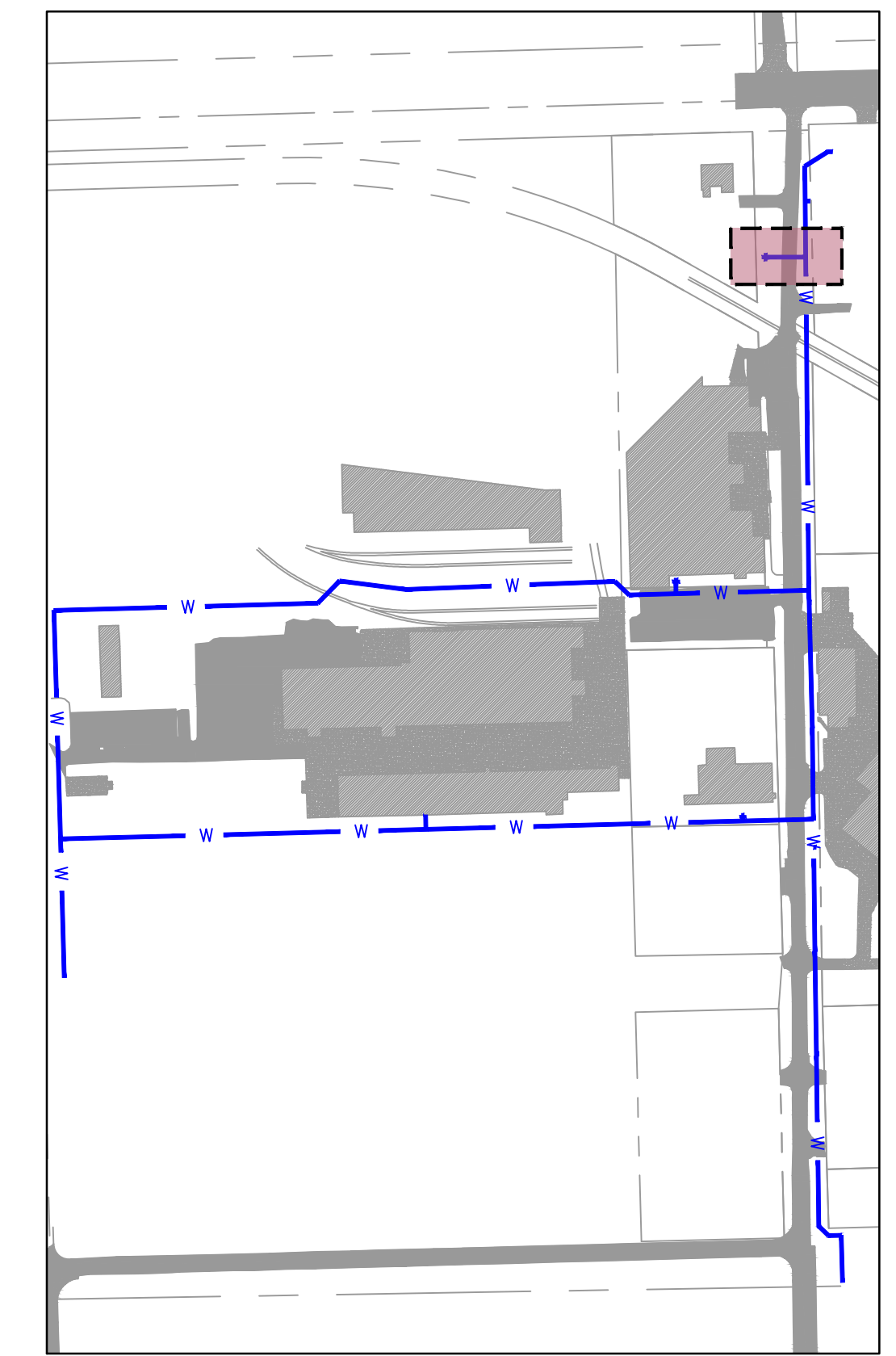


SCALE IN FEET

LEGEND

	SECTION LINE
	RIGHT OF WAY
	ROADWAY CENTERLINE
	PROPERTY LOT LINE
	EDGE OF ROAD
	EXISTING EASEMENT
	EXISTING WATER LINE
	WATER LINE REMOVED FROM SERVICE
	EXISTING SANITARY SEWER
	EXISTING STORM SEWER
	EXISTING OVERHEAD ELECTRIC
	EXISTING NATURAL GAS LINE
	EXISTING COMMUNICATION LINE
	PROPOSED WATER LINE

	EXISTING ASPHALT PAVEMENT
	EXISTING CONCRETE PAVEMENT
	EXISTING BUILDING



KEYMAP
SCALE: 1"=300'

NOTE:
CONTRACTOR TO VERIFY EXISTING WATER LINE PIPE LOCATIONS, MATERIALS AND DEPTH PRIOR TO CONSTRUCTION.



Oklaoma Certificate of Authorization
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Tulsa, OK 74119
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REV. NO.	DATE	REVISIONS DESCRIPTION	BY

WATER LINE 'E' PLAN AND PROFILE
STA. 0+50 - 2+25

MIDAMERICA INDUSTRIAL PARK
ZARROW ROAD WATER LINE RELOCATION

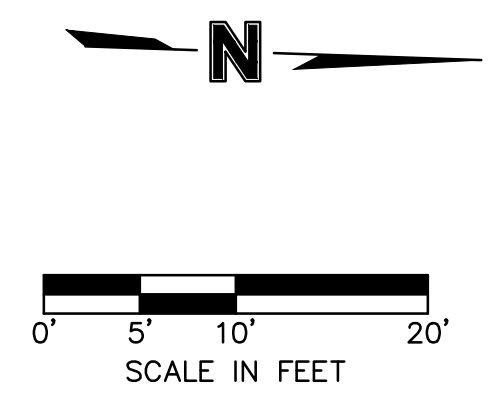
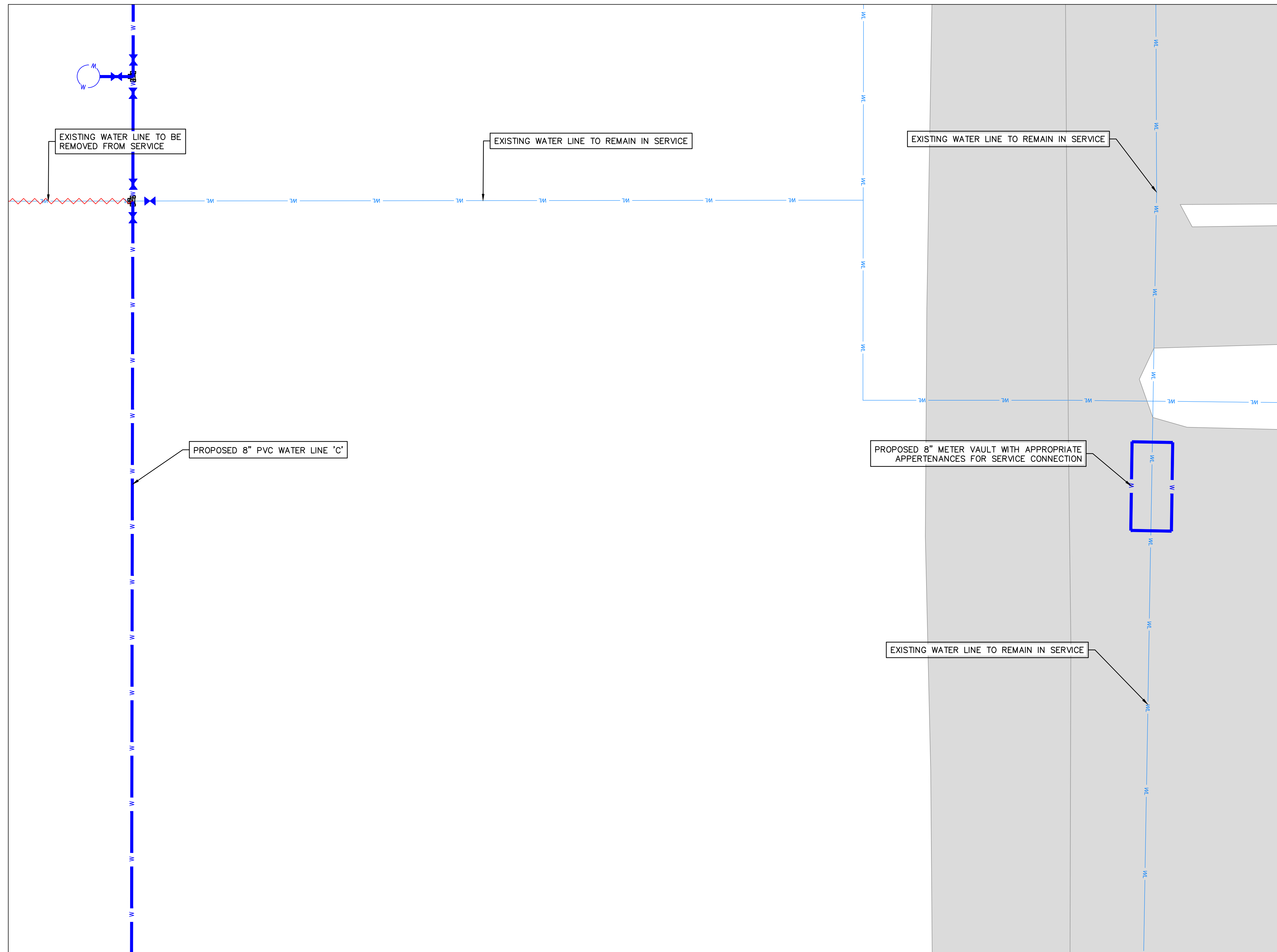
PRYOR, OKLAHOMA

2023

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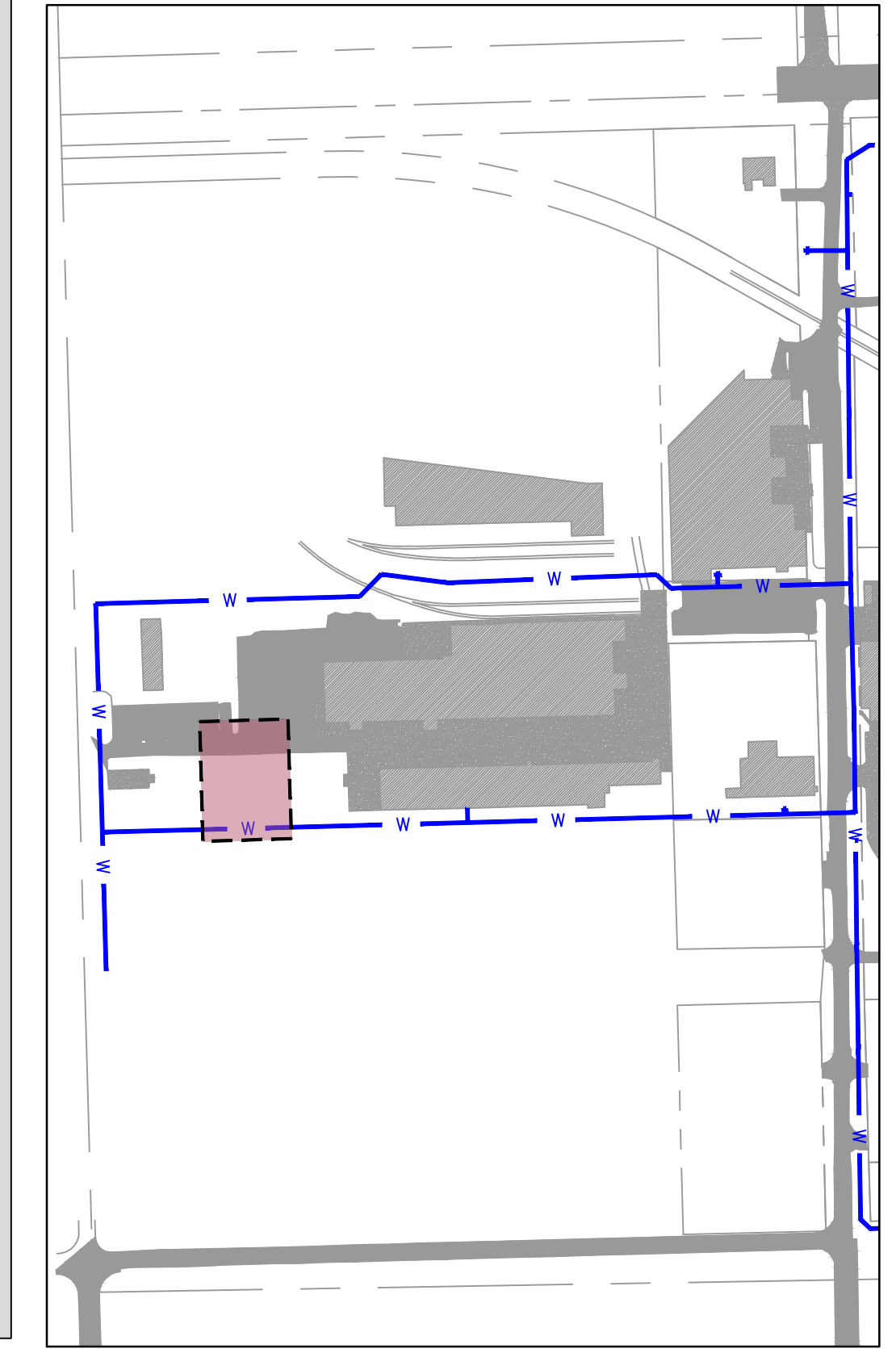
drawn by:	AMA
checked by:	JAT
approved by:	JEP
QA/QC by:	
project no.:	022-06912
date:	13NOV2023

SHEET
C8.01



LEGEND

	SECTION LINE
	RIGHT OF WAY
	ROADWAY CENTERLINE
	PROPERTY LOT LINE
	EDGE OF ROAD
	EXISTING EASEMENT
	EXISTING WATER LINE
	WATER LINE REMOVED FROM SERVICE
	EXISTING SANITARY SEWER
	EXISTING STORM SEWER
	EXISTING OVERHEAD ELECTRIC
	EXISTING NATURAL GAS LINE
	EXISTING COMMUNICATION LINE
	PROPOSED WATER LINE
	EXISTING ASPHALT PAVEMENT
	EXISTING CONCRETE PAVEMENT
	EXISTING BUILDING



NOTE:
CONTRACTOR TO VERIFY EXISTING WATER
LINE PIPE LOCATIONS, MATERIALS AND
DEPTH PRIOR TO CONSTRUCTION.



Know what's below.
Call before you dig.

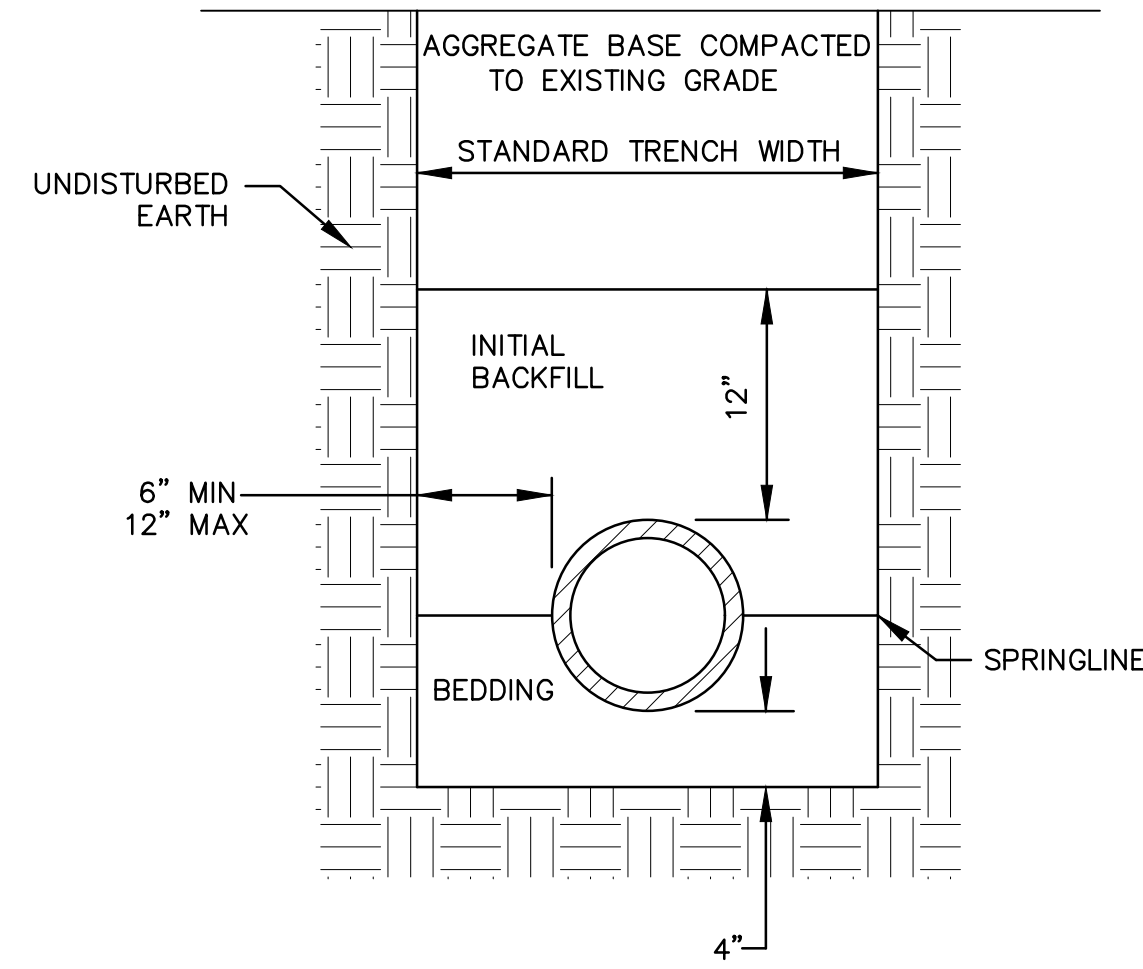
Oklahoma Certificate of Authorization
#CZ2683 Renewal Date: 06-30-2025
1717 South Boulder Ave
Suite 200
Tulsa, OK 74119
TEL 918.376.4294 www.olsson.com

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

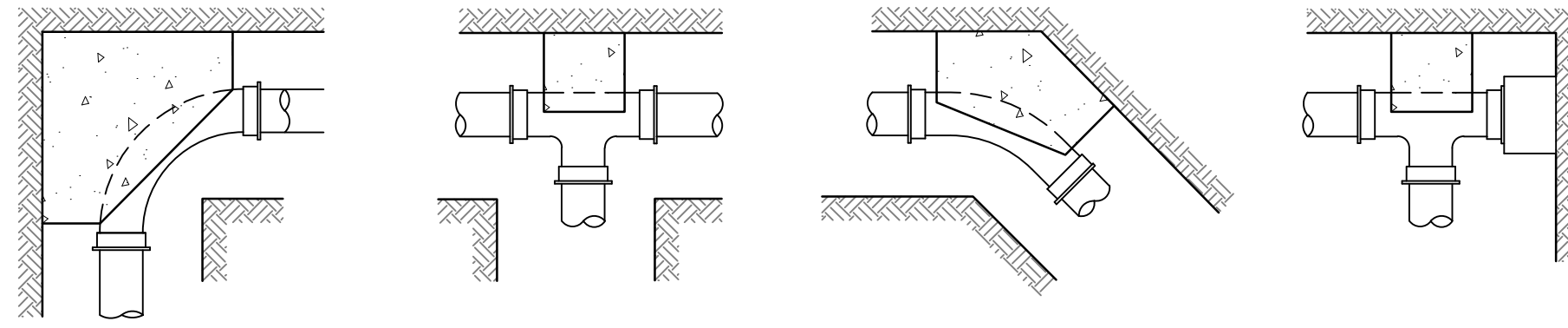
ADDITIONAL 8-INCH METER VAULT	2023	REVISIONS
MIDAMERICA INDUSTRIAL PARK		
ZARROW ROAD WATER LINE RELOCATION		
PRYOR, OKLAHOMA		

drawn by:	AMA
checked by:	JAT
approved by:	JEP
QA/QC by:	
project no.:	022-06912
drawing no.:	
date:	13NOV2023

DWG: F:\2022\06501-07000\022-06912_40-Design\AutocAD\Final Plans\Sheets\GNVC\C_TIL01_02206912.dwg USER: jpace



1 PIPE BEDDING DETAIL
SCALE: NTS



2 THRUST BLOCKS
SCALE: NTS

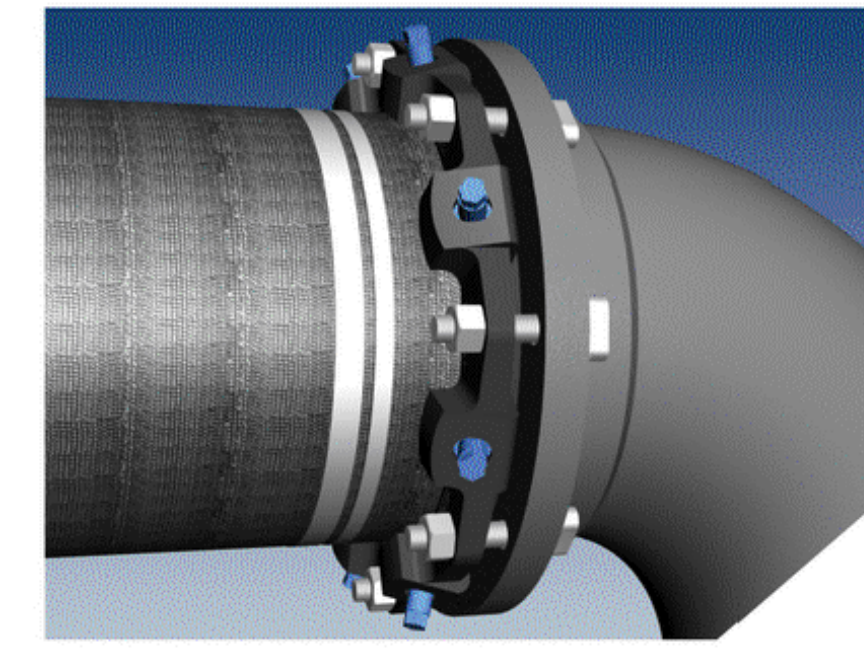
SIZE OF THRUST BLOCK, SQUARE FEET OF BEARING AREA AGAINST UNDISTURBED EARTH

PIPE SIZE	DEAD END OR TEE	90° BEND	45° BEND	11 1/4' OR 22 1/2' BEND
4"	1.0	1.0	1.0	1.0
6"	1.5	1.0	1.0	1.0
8"	2.5	2.0	2.0	1.0
10"	3.5	3.0	3.0	1.5
12"	5.0	4.0	4.0	2.0
14"	7.0	5.5	5.5	2.5
16"	9.0	7.0	7.0	3.5
18"	12.0	9.0	9.0	4.5
20"	14.5	11.0	11.0	5.5
24"	21.0	16.0	16.0	8.0



MEGALUG® Series 1100

Mechanical Joint Restraint for Ductile Iron Pipe



Features and Applications:

- Sizes 3 inch through 54 inch
- Constructed of ASTM A536 Ductile Iron
- Torque Limiting Twist-Off Nuts
- MEGA-BOND® Restraint Coating System
For more information on MEGA-BOND, refer to www.ebaa.com
- The Mechanical Joint Follower Gland is incorporated into the restraint
- Heavy Duty thick wall design

Nominal Pipe Size	Series Number	Shipping Weights	Post Assembly Deflection	Pressure Rating (PSI)
3	1103	6.1	3°	350
4	1104	7.7	3°	350
6	1106	11.9	3°	350
8	1108	14.8	3°	350
10	1110	23.9	3°	350
12	1112	31.2	3°	350
14	1114	48.5	2°	350
16	1116	56.4	2°	350
18	1118	63.1	1½°	250
20	1120	72.3	1½°	250
24	1124	133.1	1½°	250
30	1130	194.6	1°	250
36	1136	234.0	1°	250
42	1142	536.0	1°	250
48	1148	653.0	1°	250
54	1154	700.2	0.5°	200

NOTE: For applications or pressures other than those shown please contact EBAA for assistance.



U.S. Patent Nos.
4092036, 4627774, 4779900, 4896903, 5544922

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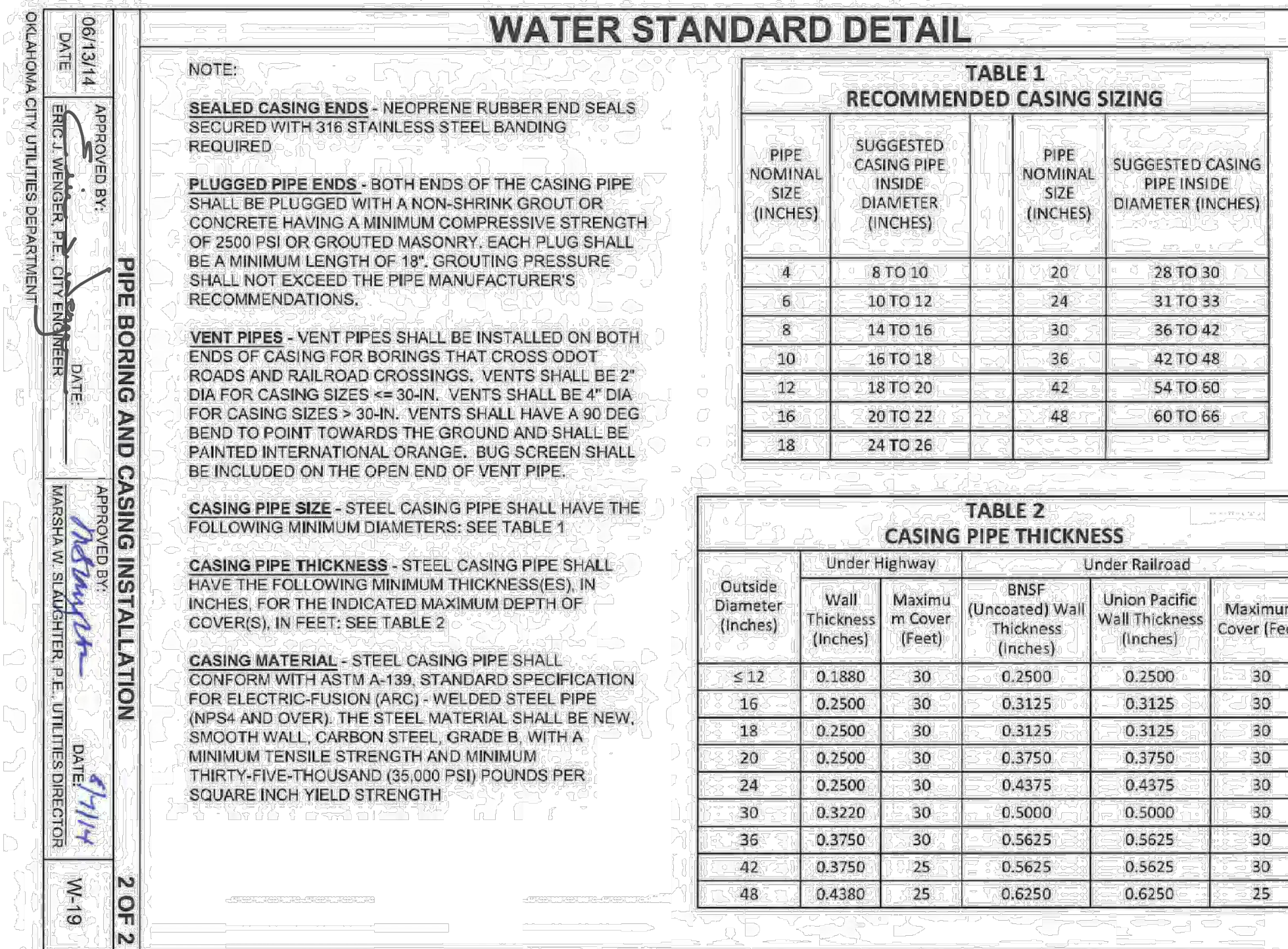
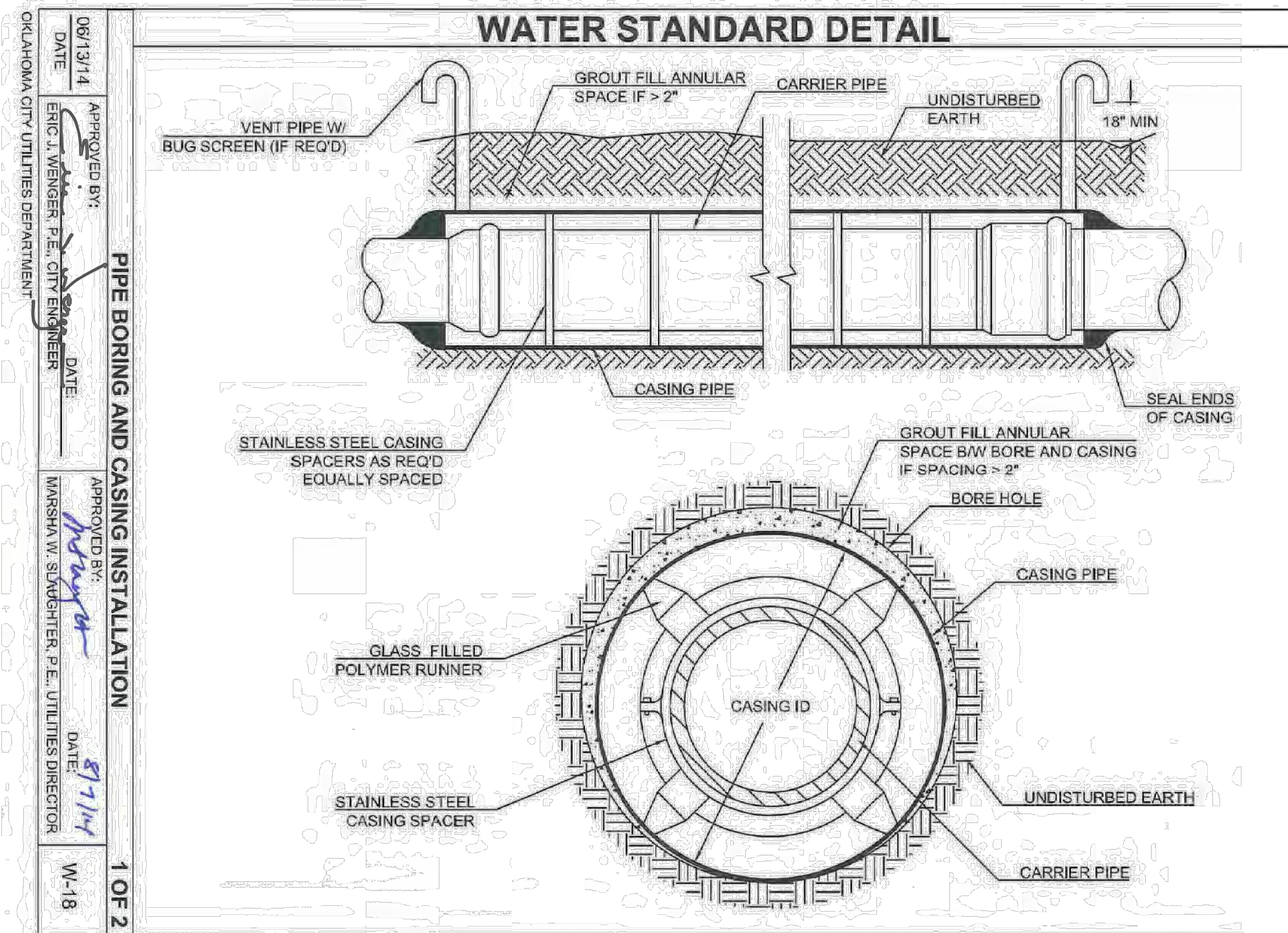
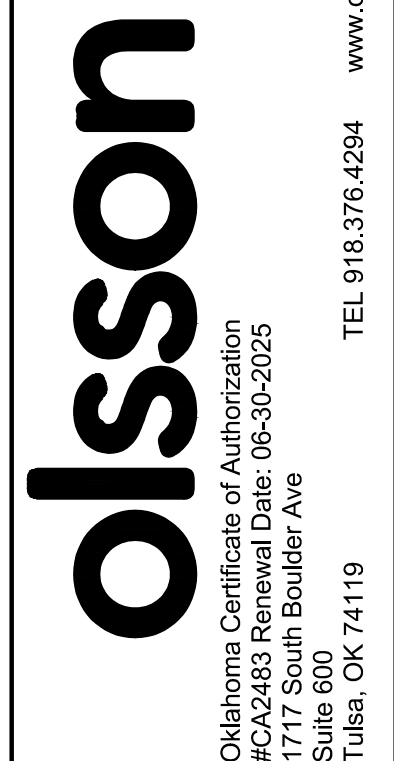


TABLE 1 RECOMMENDED CASING SIZING

PIPE NOMINAL SIZE (INCHES)	SUGGESTED CASING PIPE INSIDE DIAMETER (INCHES)	PIPE NOMINAL SIZE (INCHES)	SUGGESTED CASING PIPE INSIDE DIAMETER (INCHES)
4	8 TO 10	20	28 TO 30
6	10 TO 12	24	31 TO 33
8	14 TO 16	30	36 TO 42
10	16 TO 18	36	42 TO 48
12	18 TO 20	42	54 TO 60
16	20 TO 22	48	60 TO 66
18	24 TO 26		

TABLE 2 CASING PIPE THICKNESS

Outside Diameter (Inches)	Under Highway		Under Railroad		
	Wall Thickness (Inches)	Maximum Cover (Feet)	BNSF (Uncoated) Wall Thickness (Inches)	Union Pacific Wall Thickness (Inches)	Maximum Cover (Feet)
≤ 12	0.1880	30	0.2500	0.2500	30
16	0.2500	30	0.3125	0.3125	30
18	0.2500	30	0.3125	0.3125	30
20	0.2500	30	0.3750	0.3750	30
24	0.2500	30	0.4375	0.4375	30
30	0.3220	30	0.5000	0.5000	30
36	0.3750	30	0.5625	0.5625	30
42	0.3750	25	0.5625	0.5625	30
48	0.4380	25	0.6250	0.6250	25



REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

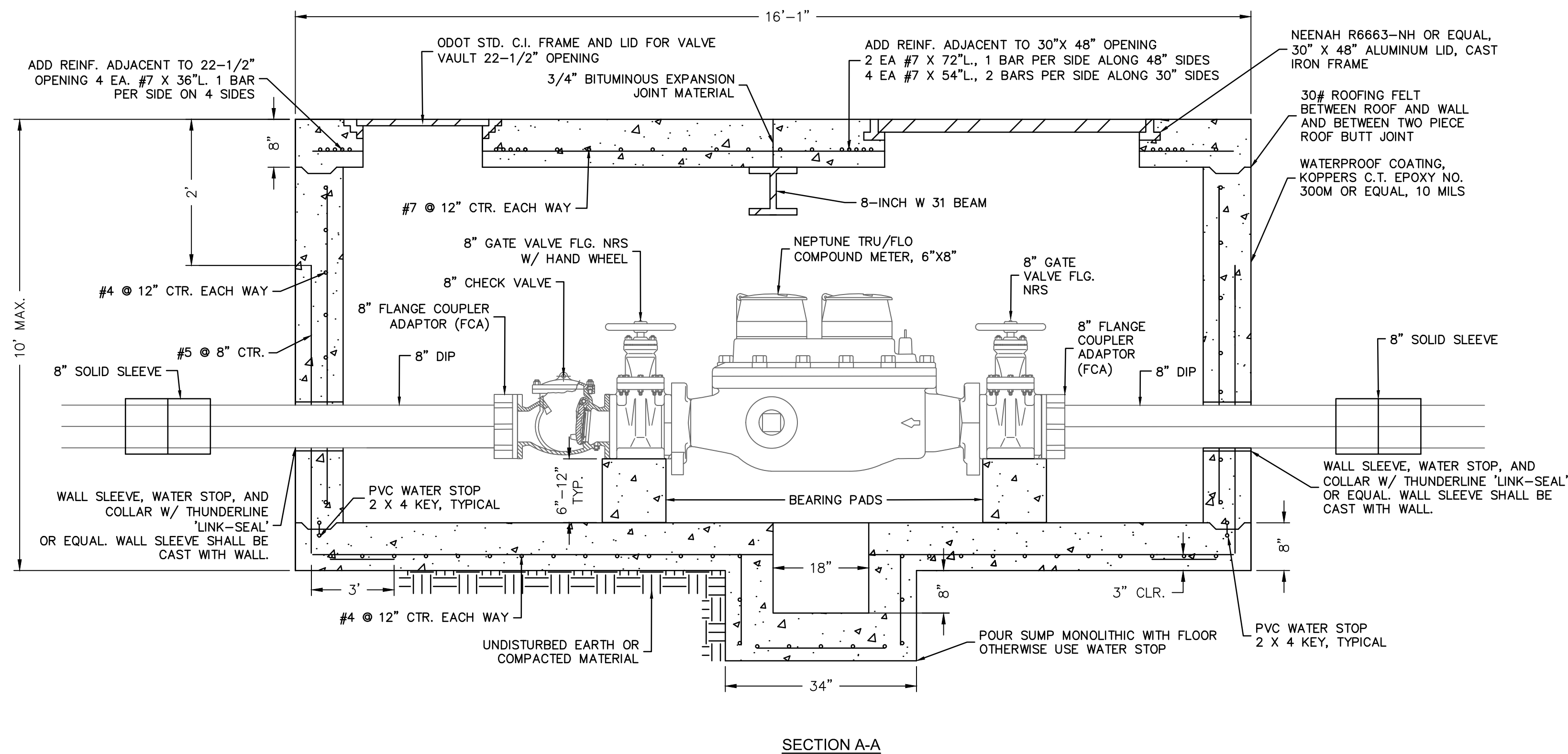
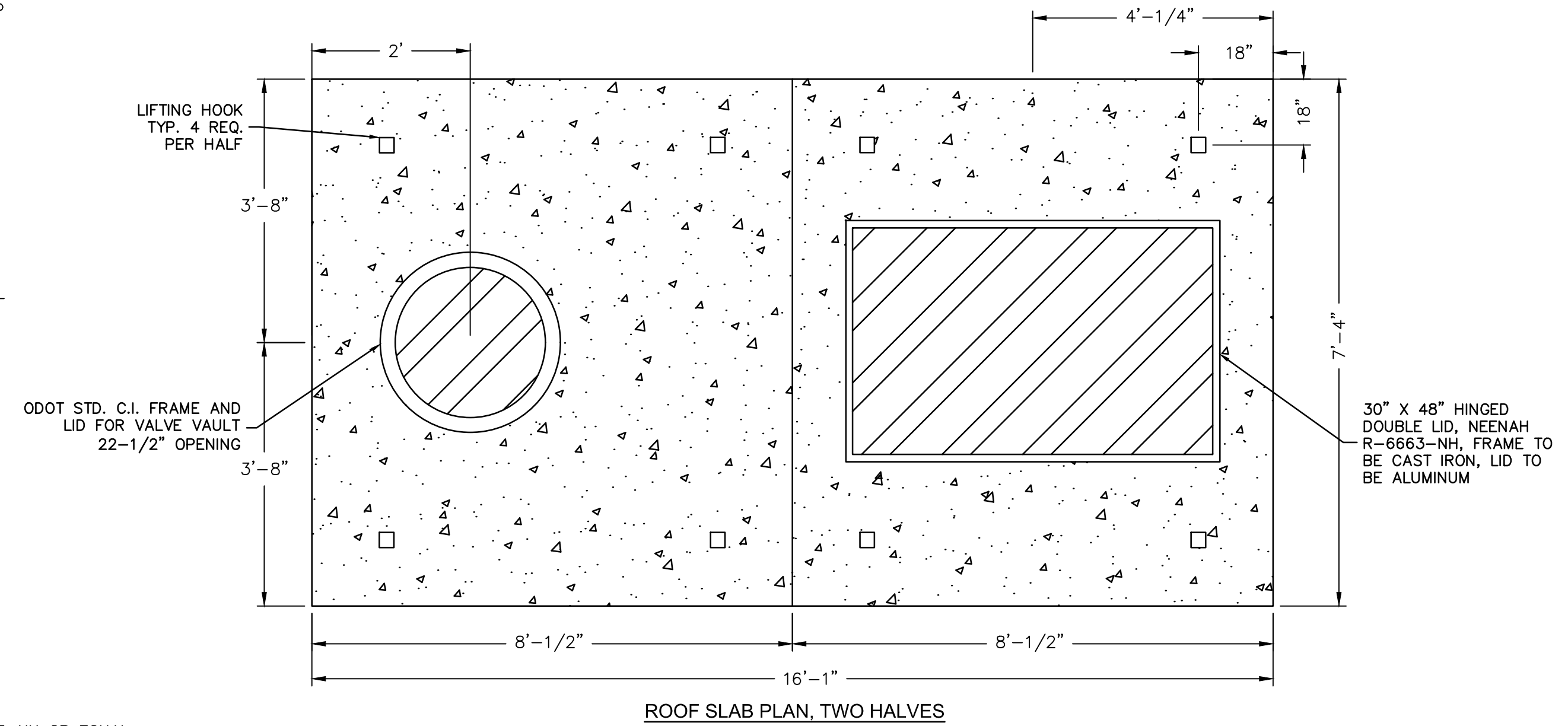
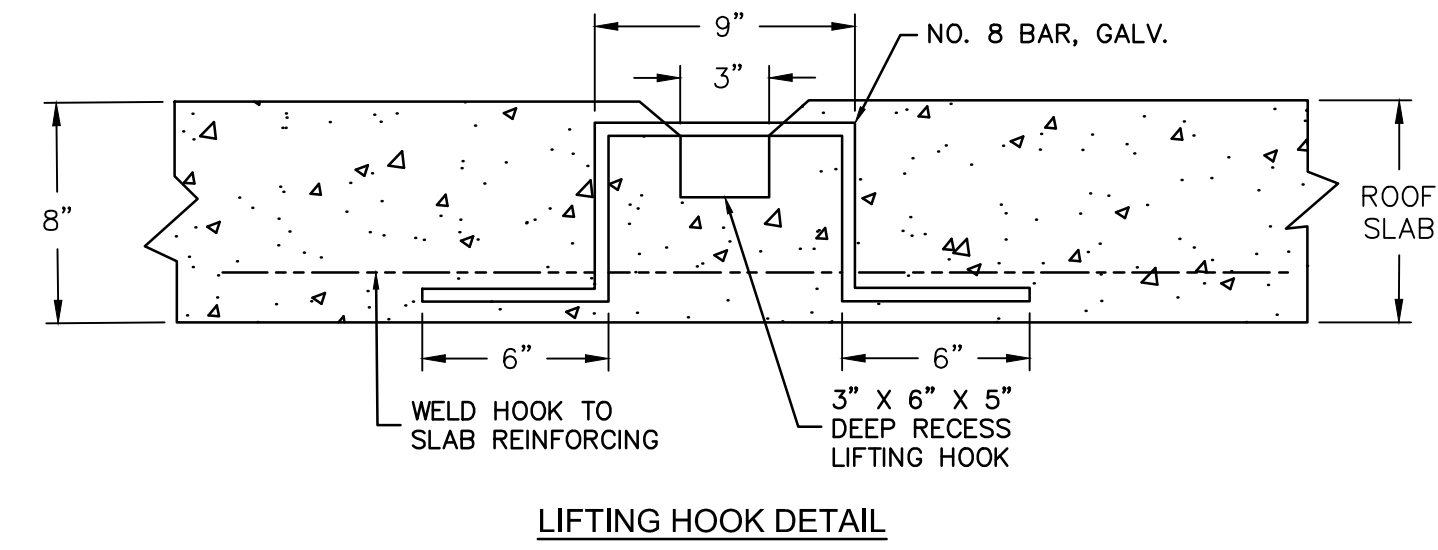
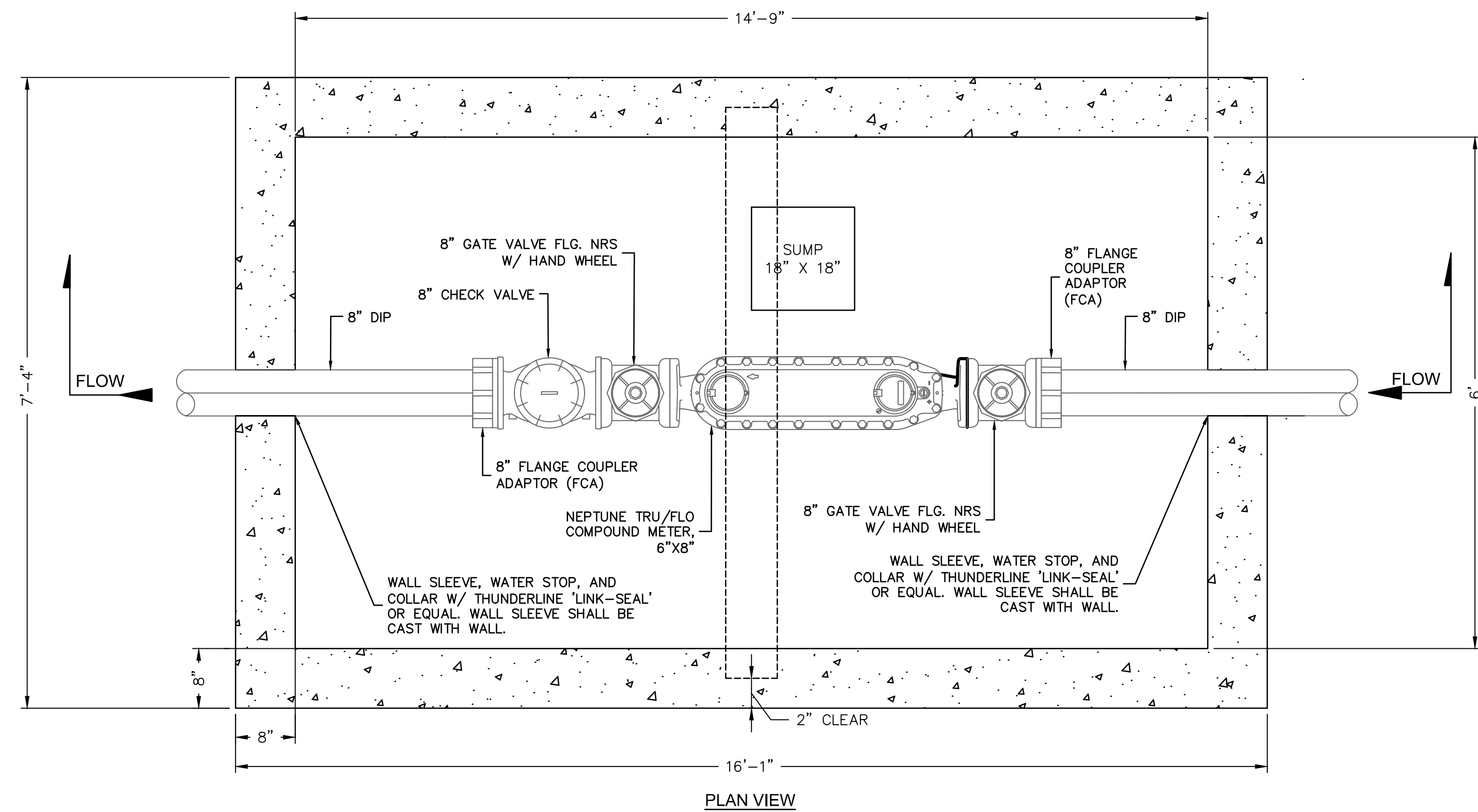
STANDARD DETAILS SHEET
 MIDAMERICA INDUSTRIAL PARK
 ZARROW ROAD WATER LINE RELOCATION
 PRYOR, OKLAHOMA
 2023

drawn by: _____
 checked by: JAT
 approved by: JEP
 QA/QC by: _____
 project no.: 022-06912
 drawing no.: _____
 date: 13NOV2023

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- NOTE:**
1. NOTICE SHALL BE GIVEN TO THE OOWA FACILITIES MANAGER 48 HOURS IN ADVANCE SO THAT A OOWA MAY WITNESS THE POURING OF THE VAULT AND INSPECT THE MATERIALS. A REPORT SHALL BE FURNISHED ON THE 7 DAY AND 28 DAY STRENGTH OF THE CONCRETE WHICH SHALL BE AT LEAST 4000 PSI. REINFORCING STEEL SHALL BE GR. 60.
 2. WHERE RESTRAINED JOINTS ARE REQUIRED, THEY SHALL EBBA MEGALUG SERIES 1100 OR EQUAL.
 3. METER AND FITTINGS FROM VALVE TO VALVE SHALL BE ASSEMBLED IN A SHOP ENVIRONMENT APPROVED BY A REPRESENTATIVE OF THE OOWA. METER AND FITTINGS SHALL BE DELIVERED TO THE JOB SITE WITH THE VALVES CLOSED IN ORDER TO PROTECT THE METER AND STRAINER.
 4. USE DUCTILE IRON PIPING AND DI/OI FITTINGS FROM THE MAIN LINE TAPPING SLEEVE TO DOWNSTREAM FROM THE METER CHECK VALVE AT THE CONNECTING SLEEVE. PIPE SHALL BE WRAPPED WITH POLYETHYLENE FILM AND TAPED.
 5. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO FURNISH FITTINGS COMPATIBLE WITH THE TYPE OF PIPE FURNISHED.
 6. BOLTS AND NUTS SHALL CONFORM TO ASTM A-307 GR. B, AND ASTM A-563 GR. A RESPECTIVELY. STRUCTURAL STEEL SHALL BE ASTM A-36.
 7. CHAMFER EXPOSED CORNERS. EDGE AROUND OPENINGS IN TOP.
 8. BEARING PADS HAVE NO REBAR.

METER VAULT DETAIL
SCALE: NTS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

MISCELLANEOUS DETAILS

MIDAMERICA INDUSTRIAL PARK
ZARROW ROAD WATER LINE RELOCATION
PRYOR, OKLAHOMA

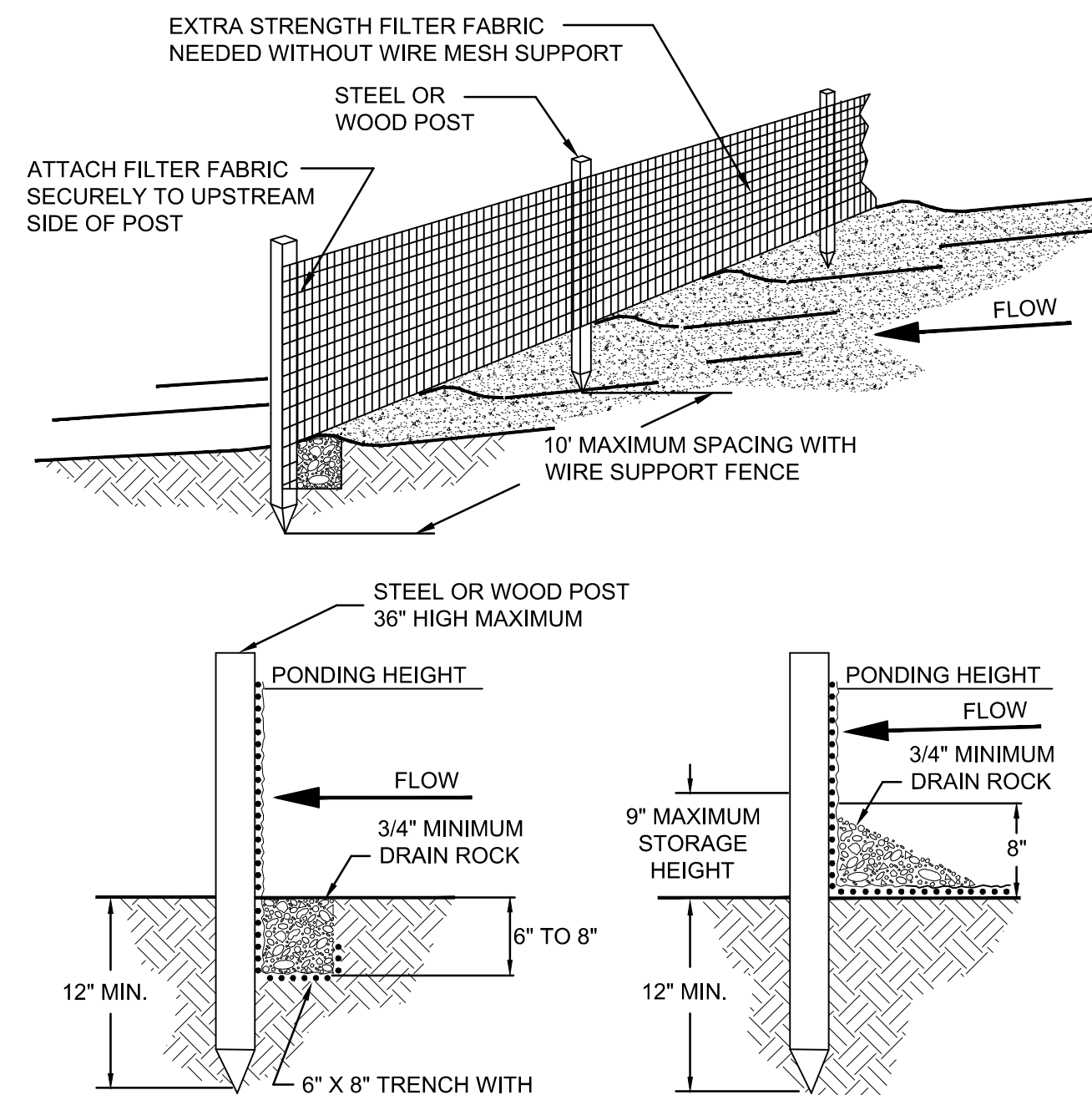
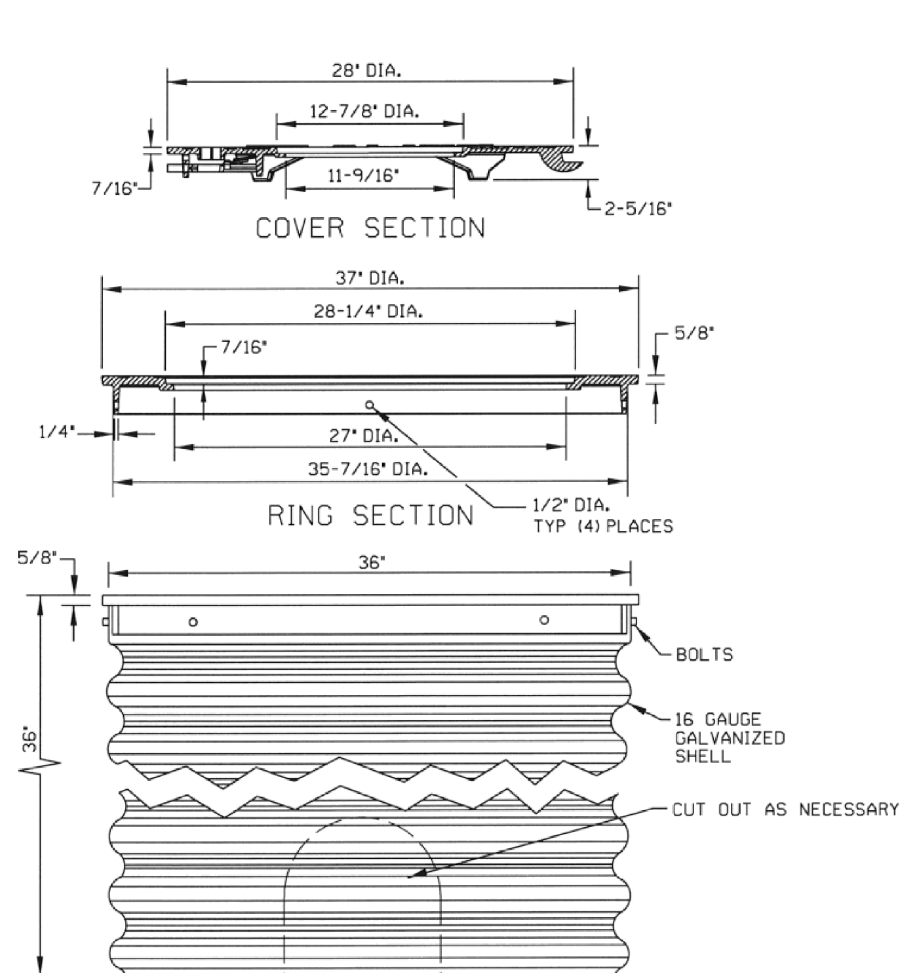
2023

drawn by: AMA
checked by: JAT
approved by: JEP
QA/QC by: JEP
project no.: 022-06912
drawing no.:
date: 13NOV2023

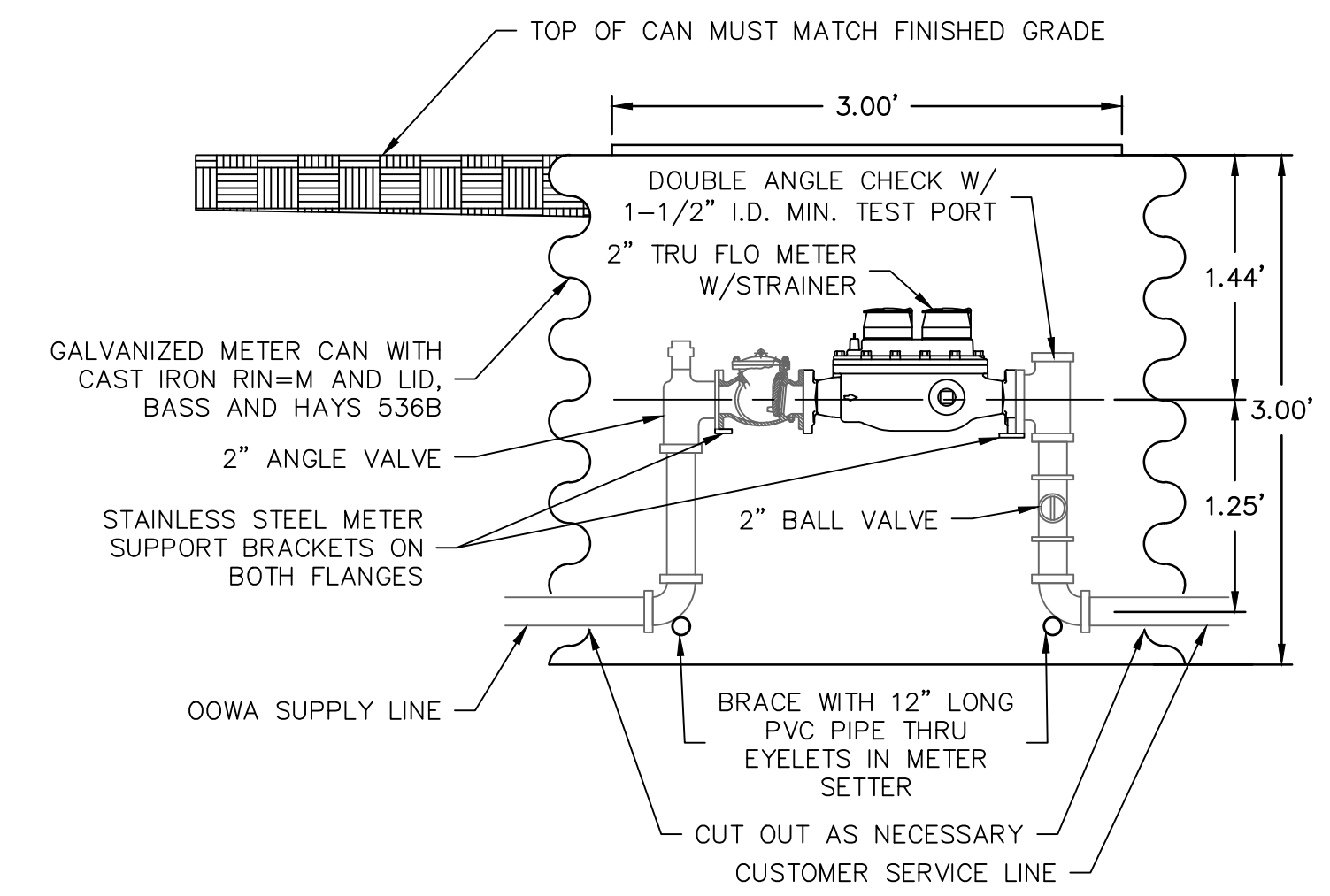
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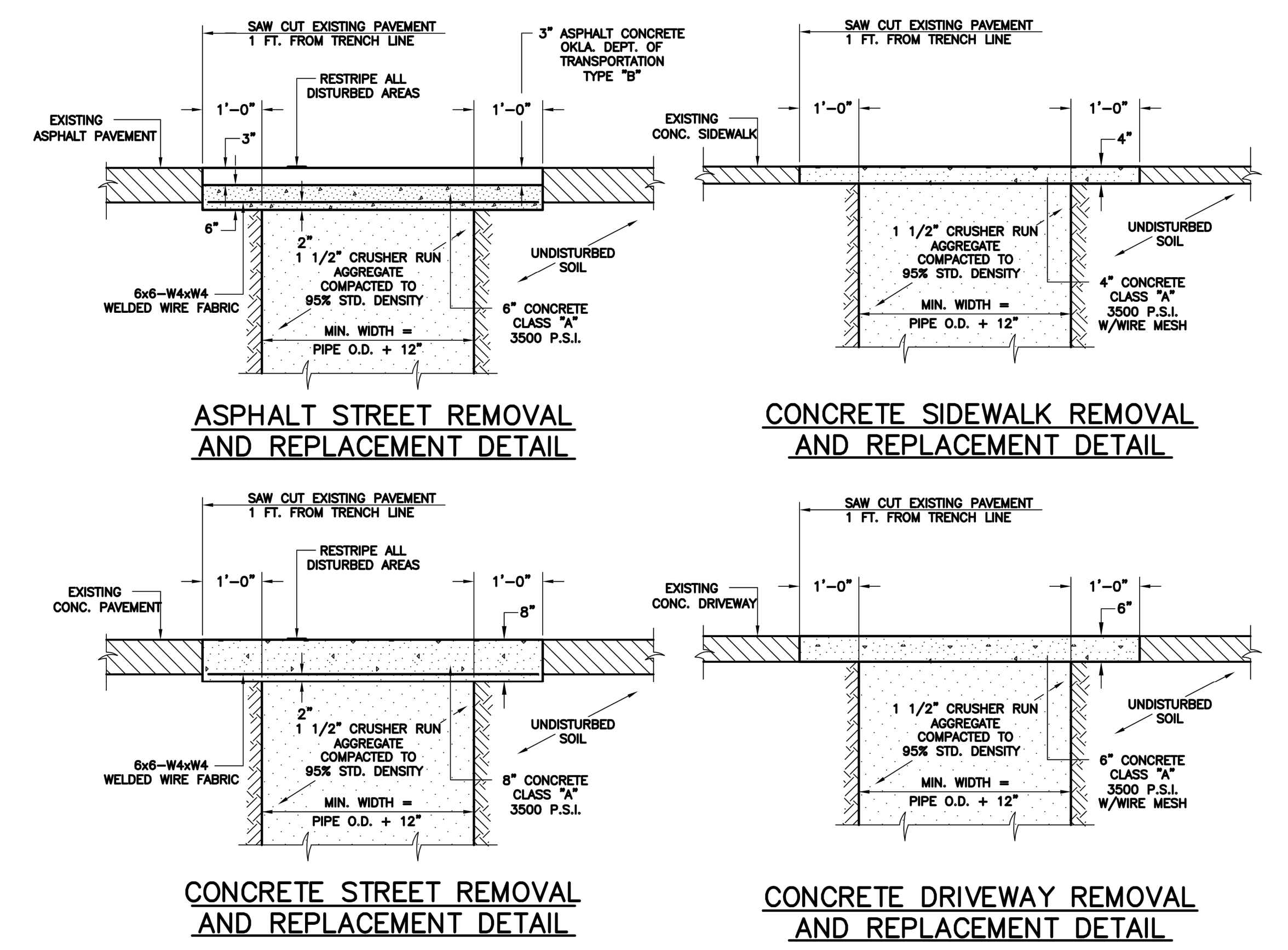


- TRENCH DETAIL**
SCALE: NTS
- INSTALLATION WITHOUT TRENCHING**
SCALE: NTS
- NOTES:
- MUST BE INSTALLED PROPERLY TO AVOID NOTICE OF VIOLATION.
 - SILT FENCE SHALL BE PLACED ON SLOPE CONTOURS TO MAXIMIZE PONDING EFFICIENCY.
 - INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN NECESSARY. 9' MAXIMUM RECOMMENDED STORAGE HEIGHT.
 - REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE TO SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.



- NOTE:
- NOTICE SHALL BE GIVEN TO THE OOWA FACILITIES MANAGER 48 HOURS IN ADVANCE SO THAT A OOWA MAY WITNESS THE INSTALLATION AND INSPECT THE MATERIALS.
 - WHERE RESTRAINED JOINTS ARE REQUIRED, THEY SHALL EBBA MEGALUG SERIES 1100 OR EQUAL.
 - METER AND FITTINGS FROM VALVE TO VALVE SHALL BE ASSEMBLED IN A SHOP ENVIRONMENT APPROVED BY A REPRESENTATIVE OF THE OOWA. METER AND FITTINGS SHALL BE DELIVERED TO THE JOB SITE WITH THE VALVES CLOSED IN ORDER TO PROTECT THE METER AND STRAINER.
 - IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO FURNISH FITTINGS COMPATIBLE WITH THE TYPE OF PIPE FURNISHED.
 - THE METER MUST BE PROTECTED BY CHECK VALVE MOUNTED VERTICALLY OR HORIZONTALLY WITH IN THE LAYING LENGTH OF THE SETTER.
 - COMPRESSION FITTINGS NOT ALLOWED
 - CONTRACTOR TO COORDINATE WITH OOWA FOR LETTERING FOR WATER CAN LID.

METER CAN SETTING - 2"
SCALE: NTS



**COLLECTION SYSTEM REHABILITATION
PAVED SURFACE REPAIR DETAILS**

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

MISCELLANEOUS DETAILS	2023
MIDAMERICA INDUSTRIAL PARK ZARROW ROAD WATER LINE RELOCATION	
PRYOR, OKLAHOMA	

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checked by:	JAT
approved by:	JEP
QA/QC by:	
project no.:	022-06912
drawing no.:	
date:	13NOV2023

