



ADDENDUM NO. 1
APRIL 5, 2023
FOR
FARGO REGIONAL WATER DISTRIBUTION EXTENSION: SOUTH SEGMENT
CITY OF FARGO
FARGO, NORTH DAKOTA
MARCH 2023

This Addendum No. 1 forms a part of the Contract Documents and modifies the original Bidding Documents as noted within this Addendum. All provisions of the Contract Documents not in conflict with this Addendum shall remain in full force. Acknowledge receipt of this Addendum in the space provided on the Bid Form. Failure to do so may subject the Bidder to disqualification.

This addendum consists of six (6) pages and six (6) attachments.

SPECIFICATIONS

1. Specification Section 00 11 13 – Advertisement for Bids:
 - a. Page 00 11 13 – 1, In the first paragraph, **REPLACE** the words “**Wednesday, April 19, 2023 at the hour of 11:30 AM**” with the words “**Wednesday, April 26, 2023 at the hour of 11:30 AM**”. The bid opening date shall be moved to April 26, 2023 at the same time and location.

2. Specification Section 00 11 13 – Advertisement for Bids:
 - a. Page 00 11 13 – 1, In the description of the work to be completed under **Contract No. 1: General Construction**;, **REPLACE** the paragraph with the following:

“Work generally consists of general construction associated with the furnishing and installation of approximately 1,450 feet of new buried 36-inch diameter PVC water main; installation of approximately 517 feet of new 36-inch fusible PVC water main (approximately 200 ft of which is encased in a steel casing pipe and approximately 317 ft of which is installed by open-cut methods); installation of approximately 200 feet of 48-inch diameter steel casing pipe; installation of approximately 100 feet of new buried 16-inch diameter PVC water main; installation of a new electric actuator on an existing 24-inch butterfly valve, and associated appurtenances; electrical equipment and Work including bringing power to an electric actuator, furnishing and installing a new programable logic control module, power, and conduit (programming shall be provided by the Owner), at the Fargo Ground Storage Reservoir and Pump Station.”

3. Specification Section 00 41 00 – Bid Form:
 - a. **REPLACE** Section 00 41 00 – Bid Form with the attached Specification Section 00 41 00 – Bid Form (REV1) consisting of seven (7) pages.

2. Specification Section 01 22 00 – Measurement and Payment, **DELETE** Paragraph VIII.3 Water Main; linear foot (l.f.) in its entirety and **REPLACE** with the following Paragraph VIII.3:
 3. **Water Main; linear foot (l.f.):** Unit price includes, but is not limited to, all cost for furnishing; handling; laying; materials; pipe; restraints; couplings; saddles and tapping saddles; special placing of bedding materials; removal and replacement of topsoil; trench excavation; dewatering; sheeting; shoring; bracing; backfilling with job excavated material or select backfill; tracer wire, locator tape, and tracer wire pedestals; compacting, compaction testing; surface restoration; leakage and hydrostatic pressure testing; sterilization; disinfection; surveying and staking; recording as-built information; utility repair of utilities damaged by Contractor's operation; coordination of utility relocation by the utility; connections to existing and new water main; thrust blocking of reaction backing; pipe restraints and associated fittings; surface restoration; flag persons; warning lights; and barricades. Includes all topsoil removal and stockpiling. Includes removal, transportation, and disposal of excess excavated material and cleaning, repair, and maintenance of haul routes. Includes length of pipe within boring and receiving pits. Length will be measured along centerline of pipe with no deduction for fittings or valves. Contractor shall furnish and install all required couplings for transitions between pipe sizes and materials and all couplings shall be considered incidental to the pipe. Includes all costs for fusing and act of fusing fusible pvc pipe joints; connections to fittings; restraints at fittings; all other associated pipe materials; assembly, supporting, and installing fusible pvc pipe into a steel casing pipe or bedding and backfilling the open-cut trench, as applicable for fusible pvc pipe. **The unit price bid item for 36-inch DR 25 C900 Fusible PVC shall include the unit price per linear foot to install the pipe in an open-cut trench. The cost for installing 36-inch DR 25 C900 Fusible PVC inside of a steel casing pipe shall be included in the unit price for the Cased Bores line item (see below).**
 - a. Owner will hold a minimum of 5% retainage until completion of filling, flushing, and disinfection.
 - b. Payment will be made for various sizes, types, and classes listed in the Bid Form.

3. Specification Section 01 22 00 – Measurement and Payment, **DELETE** Paragraph VIII.4 Non-Cased Bores; linear foot (l.f.) in its entirety and **REPLACE** with the following Paragraph VIII.4:
 4. **Cased Bores; linear foot (l.f.):** Unit price includes, but not limited to, all costs for furnishing; handling; installing; steel casing pipe; fusible pvc carrier pipe;

fusing and act of fusing fusible pvc pipe joints; pipe materials including welding of joints and installation of steel casing pipe; casing spacers, link seals, and end seals; all other associated pipe materials; labor, tools, and equipment to bore and install pipeline/casing pipe; tracer wire, locator tape, and tracer wire pedestals; removal and replacement of topsoil; excavation; boring pits; launching and receiving pits; removal of rocks; dewatering; sheeting; shoring; bracing; backfilling with job excavated material or select backfill; compaction and compaction testing; surveying and staking; recording as-built information; utility repair of utilities damaged by Contractor's operation; coordination of utility relocation by the utility company; surface restoration; and flag persons, warning lights, and barricades. Includes removal, transportation, and disposal of excess excavated material; import of select backfill, if excavated material is unsuitable for compaction; cleaning, repair, and maintenance of haul routes; rock or other obstructions encountered during bores are incidental to contract, including large rock, cobble, and shale. Varying soil conditions (sand, rocks, etc.) encountered during the boring process shall be incidental to the cost. Payment will be made for various sizes listed in the Bid Form. Pay length shall be predetermined by the length of steel casing pipe shown on the Drawings unless otherwise approved. Payment shall include the costs for verification of the horizontal and vertical alignments shown on the Drawings. Payment shall be made for successfully completed Bores. Defective bores, including bore hole abandonment and the costs to verify the alignments shown on the Drawings, shall not be measured for payment. **Payment for the cased bore unit price bid item shall include the cost for the fusible pvc carrier pipe contained within the steel casing pipe.**

4. Specification Section 01 22 00 – Measurement and Payment, **DELETE** Paragraph VIII.9 Surface Water Crossing Meter and Sampling Station; each (ea) in its entirety.
5. Specification Section 01 22 00 – Measurement and Payment, Paragraph VIII.11 Process Improvements; lump sum (l.s.), **ADD** the following sentence to the end of the paragraph: Process Improvements shall include all costs for materials, labor, and equipment to furnish and install a tap in the existing ductile iron pipe/fitting, ball valve, pressure gauge, pressure transmitter, and hose bib or ball valve discharge as shown on the Drawings.
6. Page 33 05 07.23 – 1: Paragraph 1.01.A, **ADD** the following:
“2. Cased Bores.”
7. Page 33 05 07.23 – 2: Paragraph 2.01, **ADD** the following:
“B. Casing Pipe Materials
1. Casing Pipe
 - a. Material: Carbon Steel.
 - b. Minimum Yield Strength: 35,000 psi.
 - c. Steel casing pipe shall conform to ASTM A53, Grade B.
 - d. The minimum wall thickness shall be 0.375-inch for the 48-inch diameter steel casing pipe.”

- e. The ends of the casing pipe shall be beveled for field welding.
 - f. The welded joints shall be full penetration butt type.
2. Casing Spacers
- a. Band
 - i. Shall be 14 gauge, T-304 stainless steel.
 - ii. Minimum 8-inches wide.
 - b. Liner
 - i. Polyvinyl chloride or EPDM
 - ii. 0.09-inches thick minimum
 - iii. Hardness-Durometer 85-90.
 - iv. Dielectric Strength 60,000 V.min
 - c. Risers
 - i. Minimum 10 gauge T-304 stainless steel.
 - ii. MIG welded to band.
 - d. Studs
 - i. 5/16-inch T-304 stainless steel.
 - e. Runners
 - i. Glass reinforced plastic or nylon, or.
 - ii. Ultra-high molecular weight polymer.
 - iii. Minimum 2-inch width.
 - f. Casing spacers shall be in a centered restrained position configuration in the casing pipe.
 - g. Approved Manufacturers:
 - i. PSI Pipeline Seal & Insulator, Inc.
 - ii. Cascade.
 - iii. Maloney.
 - iv. BWM Company
 - v. Advance Products and Systems, Inc.
 - vi. Approved equivalent.
3. Casing Pipe End Seals.
- a. Once the carrier pipe has been installed inside of the casing pipe with all properly installed casing spacers, the annular space between the carrier pipe and the casing pipe shall be sealed by the installation of a link seal at each end of the casing pipe with a rubber boot seal with stainless steel clamps.
 - b. Boot Seals
 - i. End seals shall consist of a neoprene rubber with a minimum thickness of 1/8-inch.
 - ii. End seals shall be connected to the steel casing pipe with 1/2-inch wide T-304 stainless steel banding with non-magnetic worm gear mechanism.
 - iii. Temperature Limits: -20 Ft to 221 F.
 - iv. Color: Black
 - v. Durometer: 65 shore A +/- 5
 - vi. Elongation: 250%
 - vii. Approved Manufacturers:

1. PSI Pipeline Seal & Insulator, Inc.
 2. Cascade
 3. Maloney
 4. BWM Company
 5. Approved Equivalent.”
8. Specification Section 33 05 09 – Piping Specials for Utilities:
- a. Page 33 05 09 – 6: Paragraph 2.4.C.5, **REPLACE** Paragraph 5 with the following:
“5. Approved air release valve model and manufacturer:
 - a. Air Release Valve: 3-inch air release valve, Model 200 with 3-inch inlet, 0.25-inch orifice, 1-inch threaded outlet pipe, and external check valve assembly to prevent backflow into the air release valve as manufactured by APCO or approved equal with inflow preventor and vent piping as shown.”
9. Specification Section 33 05 07.23 – Utility Boring and Jacking:
- a. Page 33 05 07.23 - 3: Paragraph 3.04.B, **ADD** the following:
 - “6. Steel casing joints shall be continuously welded with butt joints per AWS D1.1. The welds shall attain full strength of the pipe and shall result in a full watertight section. The inner face of the internal weld shall be flush with the pipe to facilitate the installation of the conveyance pipe in the pipe casing.
 7. Casing spacers shall be placed on the carrier pipe per manufacturer's instructions to ensure centering of the carrier pipe within the casing pipe as shown on the Drawings.
 8. End of the casing pipe shall be sealed as indicated within these Specifications.”
10. Specification Section 33 05 7.23 – Utility Boring and Jacking:
- a. Page 33 05 31 – 4: Paragraph 2.01.D, **DELETE** Paragraph 2.01.D.2 in its entirety.
11. Specification Section 33 05 31 – Thermoplastic Utility Pipe:
- a. Page 33 05 31 – 4: Paragraph 2.01.D.g, **DELETE** the words “DR 18 (235 psi rating)” and **REPLACED WITH** the words “DR 25 (165 psi rating).”

DRAWINGS

1. **SHEET C103 – WATER MAIN PLAN AND PROFILE**
 - A. **DELETE** Sheet C103 in its entirety and **REPLACE** with the attached SHEET C103 – WATER MAIN PLAN AND PROFILE.
2. **SHEET C104 – WATER MAIN PLAN AND PROFILE**
 - A. **DELETE** Sheet C103 in its entirety and **REPLACE** with the attached SHEET C104 – WATER MAIN PLAN AND PROFILE.
3. **SHEET C501 – STANDARD DETAILS**
 - A. **DELETE** Sheet C501 in its entirety and **REPLACE** with the attached SHEET C501 – STANDARD DETAILS. A steel casing pipe detail has been added to the sheet.

Fargo, North Dakota

*Fargo Regional Water Distribution Extension:
South Segment*

April 5, 2023

Addendum No. 1 - 5

Project No. P00803-2022-002

4. SHEET C503 – STANDARD DETAILS
 - A. **DELETE** Sheet C503 in its entirety and **REPLACE** with the attached SHEET C503 – STANDARD DETAILS.

5. SHEET P101 – GROUND STORAGE RESERVOIR PIPE GALLERY PLAN
 - A. **DELETE** Sheet P101 in its entirety and **REPLACE** with the attached SHEET P101 – GROUND STORAGE RESERVOIR PIPE GALLERY PLAN.

END OF ADDENDUM NO. 1

SECTION 00 41 00 – BID FORM (REV1)

PROJECT IDENTIFICATION: Fargo Regional Water Distribution Extensions: South Segment
City Project No. WA2254
City of Fargo, ND

THIS BID IS SUBMITTED TO: City of Fargo
Attn: City Auditor
225 4th Street North
Fargo, ND 58102

CONTRACT NUMBER AND IDENTIFICATION:

Contract No. 1 – General Construction

ARTICLE 1 – BID RECIPIENT

1.01 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with Owner in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

ARTICLE 2 – BIDDER’S ACKNOWLEDGEMENTS:

2.01 Bidder accepts all of the terms and conditions of the Advertisement and Instructions to Bidders, including without limitation those dealing with the dispositions of Bid security. The Bid will remain subject to acceptance for forty-five (45) days after the day of Bid opening, or for such longer time that Bidder may agree to in writing upon request of Owner. Bidder will sign and deliver the required number of counterparts of the Agreement with the Bonds and other documents required by the Bidding Requirements within fifteen (15) days after the date of Owner’s Notice of Award.

ARTICLE 3 – BIDDERS’S REPRESENTATIONS:

3.01 In submitting this Bid, Bidder represents, as set forth in the Agreement, that:

A. Bidder has examined and carefully studied the Bidding Documents, the other related data identified in the Bidding Documents, and the following Addenda, receipt of which is hereby acknowledged:

<u>Addendum No.</u>	<u>Addendum Date</u>
_____	_____
_____	_____
_____	_____
_____	_____

B. Bidder has visited the Site and become familiar with and is satisfied as to the general local and site conditions that may affect cost, progress, and performance of the Work.

- C. Bidder is familiar with and is satisfied as to all Federal, State, and local Laws and Regulations that may affect cost, progress, and performance of the Work.
- D. Bidder has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or adjacent to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings.
- E. Bidder has considered the information known to Bidder itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and any Site-related reports and drawings identified in the Bidding Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder; and (3) Bidder's safety precautions and programs.
- F. Bidder does not consider that any further examinations, investigations, explorations, tests, studies or data are necessary for the determination of this Bid for performance of the Work at the price(s) bid and within the times and in accordance with other terms and conditions of the Bidding Documents.
- G. Bidder is aware of the general nature of Work to be performed by Owner and others at the Site that relates to Work as indicated in the Bidding Documents.
- H. Bidder has correlated the information known to Bidder, information and observations obtained from visits to the Site, reports and drawings identified in the Bidding Documents and all additional examinations, investigations, explorations, tests, studies, and data with the Bidding Documents.
- I. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents and the written resolution thereof by Engineer is acceptable to Bidder.
- J. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance of the Work for which this Bid is submitted.

ARTICLE 4 – FURTHER REPRESENTATIONS:

- 4.01** Bidder further represents that this Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any agreement or rules of any group, association, organization, or corporation; Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid; Bidder has not solicited or induced any individual or entity to refrain from bidding; and Bidder has not sought by collusion to obtain for itself any advantage over any other Bidder or over Owner.

ARTICLE 5 – BASIS OF BID:

5.01 Bidder will complete the Work, whether specifically listed on the BID FORM, shown on the Drawings, described in the Specifications, or described in Addendum in accordance with the Contract Documents for the following price(s):

CONTRACT NO. 1 – GENERAL CONSTRUCTION

BASE BID

<u>ITEM</u>	<u>ITEM DESCRIPTION</u>	<u>QTY.</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>EXTENDED PRICE</u>
A.	Mobilization	1	l.s.	\$ _____	\$ _____
B.	Erosion & Sediment Control	1	l.s.	\$ _____	\$ _____
C.	Water Main				
	1. 16-inch DR 18 C900 PVC	100	l.f.	\$ _____	\$ _____
	2. 36-inch DR 18 C900 PVC	1,190	l.f.	\$ _____	\$ _____
	3. 36-inch DR 25 C900 Fusible PVC	317	l.f.	\$ _____	\$ _____
D.	Cased Bores (Includes 48" Steel Casing and 36" FPVC Carrier Pipe)				
	1. 48-inch Steel Cased Bore	200	l.f.	\$ _____	\$ _____
E.	Fittings	10,000	lbs	\$ _____	\$ _____
F.	Connect to Existing Pipe	2	ea.	\$ _____	\$ _____
G.	Gate Valves				
	1. 16-inch	1	ea.	\$ _____	\$ _____
H.	Air Release Valve Manhole	1	ea.	\$ _____	\$ _____
I.	Not Used	0	ea.	\$ _____	\$ _____
J.	Seeding	5	acre	\$ _____	\$ _____
K.	Process Improvements	1	l.s.	\$ _____	\$ _____
L.	Electrical Improvements	1	l.s.	\$ _____	\$ _____

TOTAL BASE BID: (\$ _____)
 (Use Figures)

(Use Words)

ARTICLE 6 – TIME OF COMPLETION

6.01 Bidder agrees to complete the Work to Substantial Completion by the calendar dates indicated below, and have all Work completed and ready for Final Payment, in accordance with paragraph 15.06 of the General Conditions, by the below-indicated calendar dates.

Contract Days to Complete

Contract No.1 – General Construction:

Substantial Completion: October 31, 2023
Final Completion November 30, 2023

6.02 Bidder accepts the provisions of the Agreement regarding Liquidated Damages in the event of failure to complete the Work within the times specified above, and to pay Owner specified Liquidated Damages as indicated below:

Contract Liquidated Damages

All Contracts

Substantial Completion: \$1,000/day
Final Completion: \$500/day

ARTICLE 7 – ATTACHMENTS TO THIS BID:

7.01 The following documents are attached to and made a condition of this Bid:

- A. Required Bid Security in the form of a Bid Bond.
- B. Non-collusion Affidavit
- C. Contractor's License or Certificate of Renewal.
- D. Completed MBE/WBE Solicitation Information
- E. Completed SRF Certification Regarding Debarment, Suspension, and Other Responsible Matters.

ARTICLE 8 – DEFINED TERMS:

8.01 The terms used in this Bid with initial capital letters have the meanings indicated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.

SUBMITTED on _____, 2023.

This Bid is submitted by:

An Individual

Name (typed or printed): _____

By: _____

(Individual's Signature)

Doing business as: _____

Business address: _____

Phone No.: _____ Fax No.: _____

A Partnership

Partnership Name: _____

By: _____

(Signature of general partner – attach evidence of authority to sign)

Name (typed or printed): _____

Business address: _____

Phone No.: _____ Fax No.: _____

A Corporation

Corporation Name: _____

State of Incorporation: _____

Type (General Business, Profession, Service, Limited Liability): _____

By: _____

(Signature – attach evidence of authority to sign)

Name (typed or printed): _____

Title: _____

Attest: _____

(Signature of Corporate Secretary)

Business address: _____

Phone No.: _____ Fax No.: _____

A Joint Venture

Joint Venture Name: _____

By: _____

(Signature of joint venture partner)

Name (typed or printed): _____

Title: _____

Business address: _____

Phone No.: _____ Fax No.: _____

Joint Venturer Name: _____

By: _____

(Signature of joint venture partner)

Name (typed or printed): _____

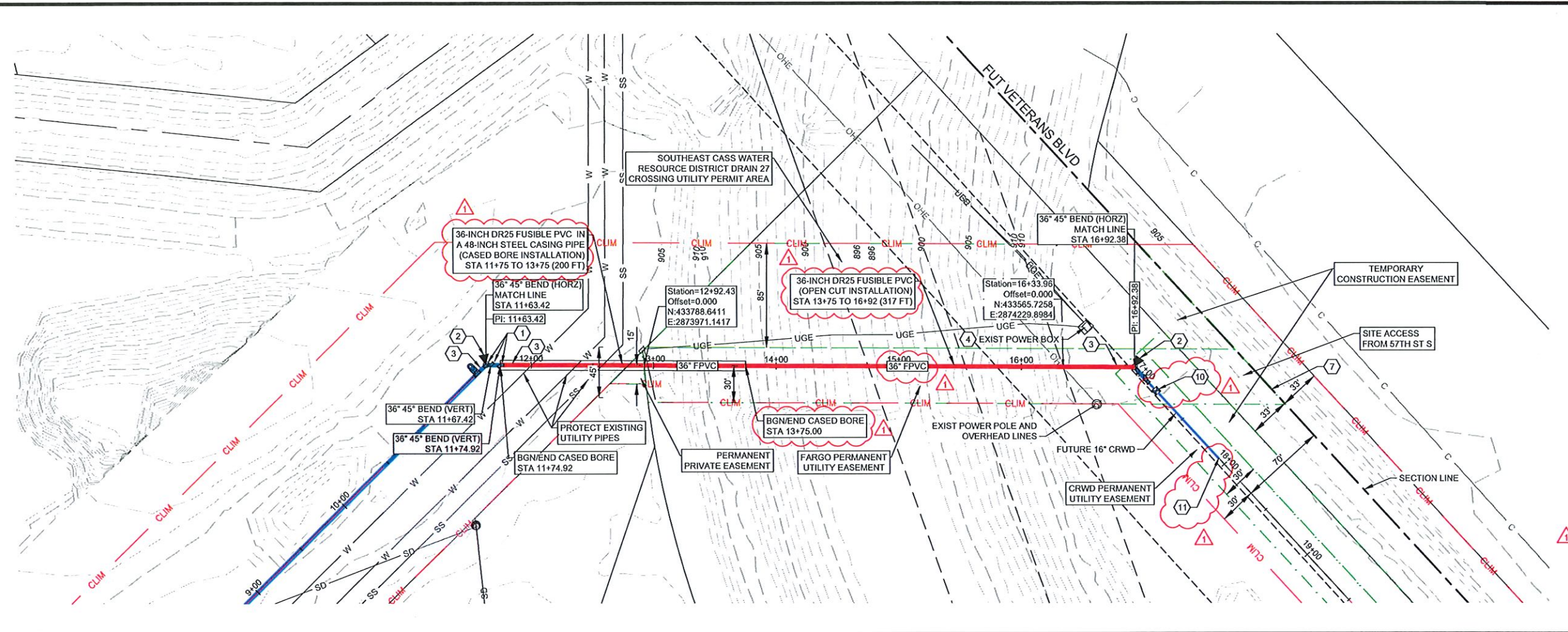
Title: _____

Business address: _____

Phone No.: _____ Fax No.: _____

(Each joint venturer must sign. The manner of signing for each individual, partnership, and corporation that is a party to the joint venture should be in the manner indicated above.)

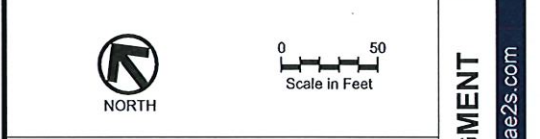
File: W:\Fargo\00803-2022-002\CAD Drawings\DWG\1-Challenger\South 30inch Plan and profile.dwg



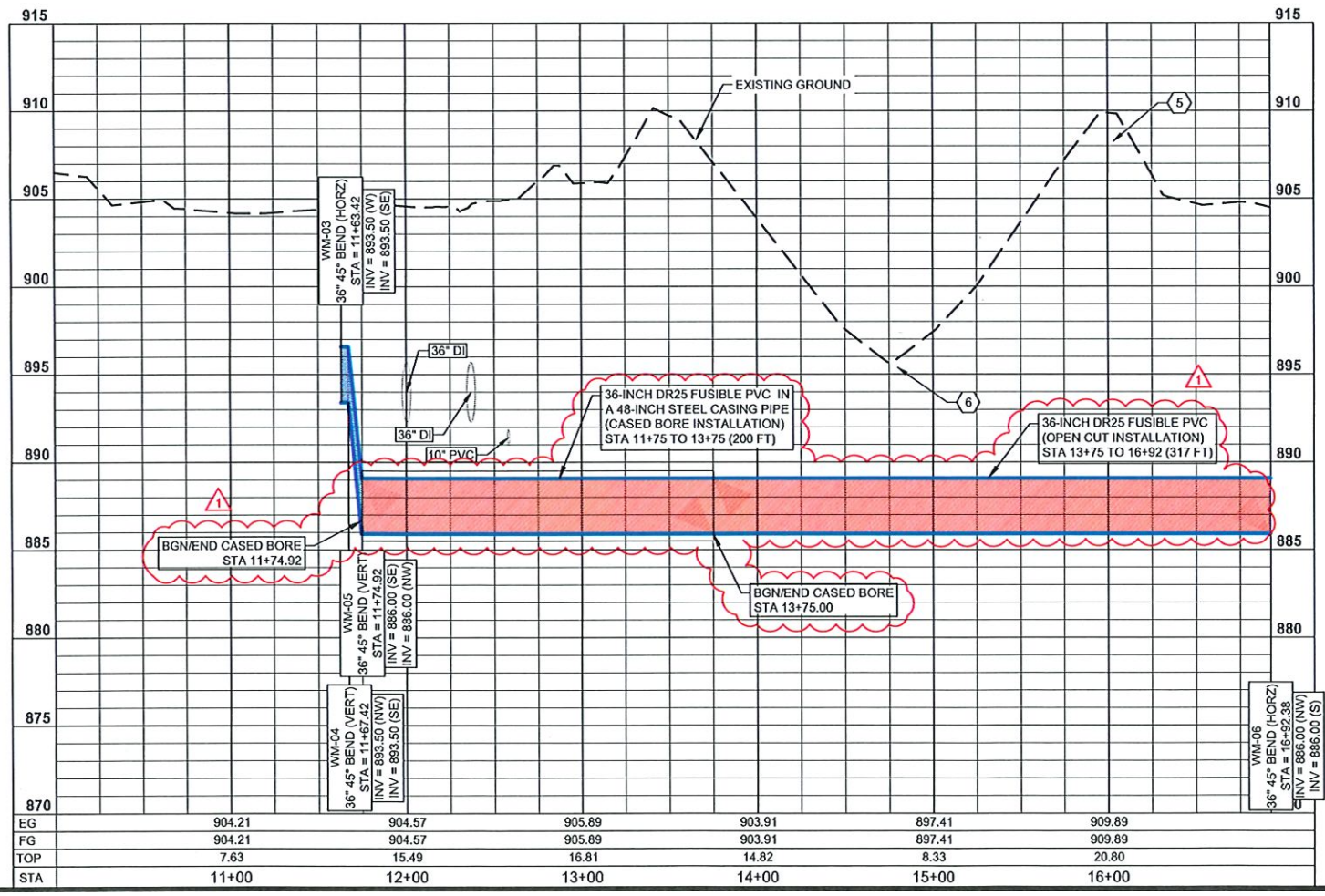
AES
 Certification of Individual Project Design Disciplines Are Included On Their Individual Drawings, Respectively

REGISTERED PROFESSIONAL ENGINEER
 Kevin M. Johnson
 PE-4964
 DATE 4-5-23
 NORTH DAKOTA

STATUS: FINAL
 APPR: KMJ
 SYM: DATE: 3-29-23
 ADDENDUM NO. 1



- CONSTRUCTION NOTES**
- INSTALL 36" DI 45° BEND. RESTRAIN FITTING AND PIPE JOINTS MECHANICALLY PER CITY OF FARGO DETAIL 1/C502
 - INSTALL CONCRETE THRUST BLOCK BEHIND HORIZONTAL BEND. THRUST BLOCK DIMENSIONS SHALL BE A MINIMUM OF HEIGHT = 7 FT, LENGTH = 14 FT, THICKNESS = 3 FT
 - RESTRAIN PIPE FOR A MINIMUM DISTANCE OF 56 FT, EACH DIRECTION, FROM THE HORIZONTAL BEND
 - CONTRACTOR SHALL MAINTAIN POWER TO EXISTING ELECTRICAL POWER SWITCH BOX AT ALL TIMES, UNLESS OTHERWISE APPROVED. COORDINATE WORK NEAR THE ELECTRICAL BOX WITH THE UTILITY OWNER (CASS COUNTY ELECTRIC).
 - THE EXISTING LEVEES AND RIGHT-OF-WAY WITHIN DRAIN 27 HAVE SPECIFIC BACKFILL AND RECONSTRUCTION REQUIREMENTS. REFER TO SPECIFICATION SECTION 31 23 33 AND COF STANDARD SPECIFICATIONS SECTION 3600.
 - CONTRACTOR SHALL COMPLETE THE WORK DURING NON-WET WEATHER AND MINIMIZE DISRUPTION TO THE FLOW WITHIN DRAIN 27. CONTRACTOR MAY DAM THE WATER TO A MAXIMUM DEPTH OF 2FT AT ANY GIVEN TIME. CONTRACTOR SHALL MAKE PROVISIONS TO BYPASS PUMP WATER, IF REQUIRED. THE CONSTRUCTION WORK WITHIN DRAIN 27 RIGHT-OF-WAY SHALL BE LIMITED TO A MAXIMUM OF A ONE (1) WEEK DURATION, UNLESS OTHERWISE APPROVED.
 - CONTRACTOR SHALL RESTORE DITCH AND MINIMUM MAINTENANCE ROAD TO PRECONSTRUCTION CONDITION.
 - NOT USED
 - NOT USED
 - INSTALL A 16" GATE VALVE
 - CONNECT TO EXISTING 16" WATER MAIN (16" DR 11 DIPS HDPE) BY OTHERS.



**SHEET REISSUED BY
 ADDENDUM NO. 1**

SHEET TITLE: **WATER MAIN PLAN & PROFILE**

CLIENT: **CITY OF FARGO**
 FARGO, NORTH DAKOTA

PREPARED BY: MRK
 CHECKED BY: KMJ
 APPROVED BY: KMJ

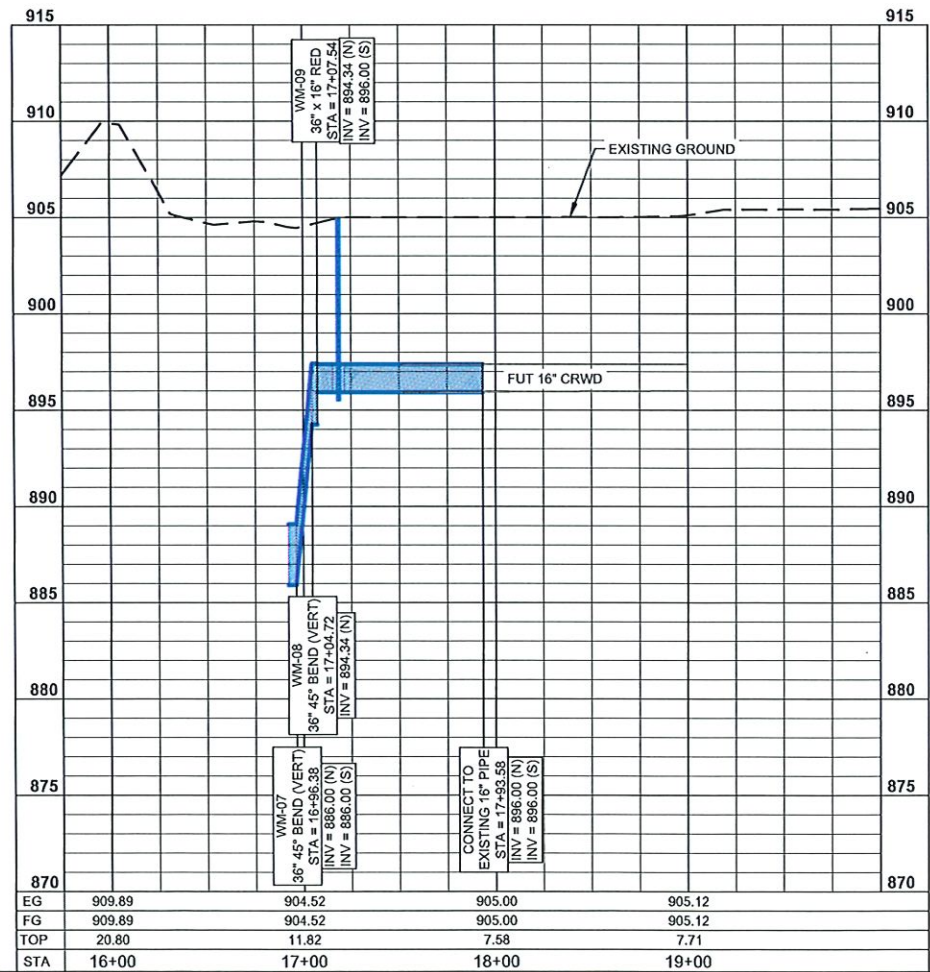
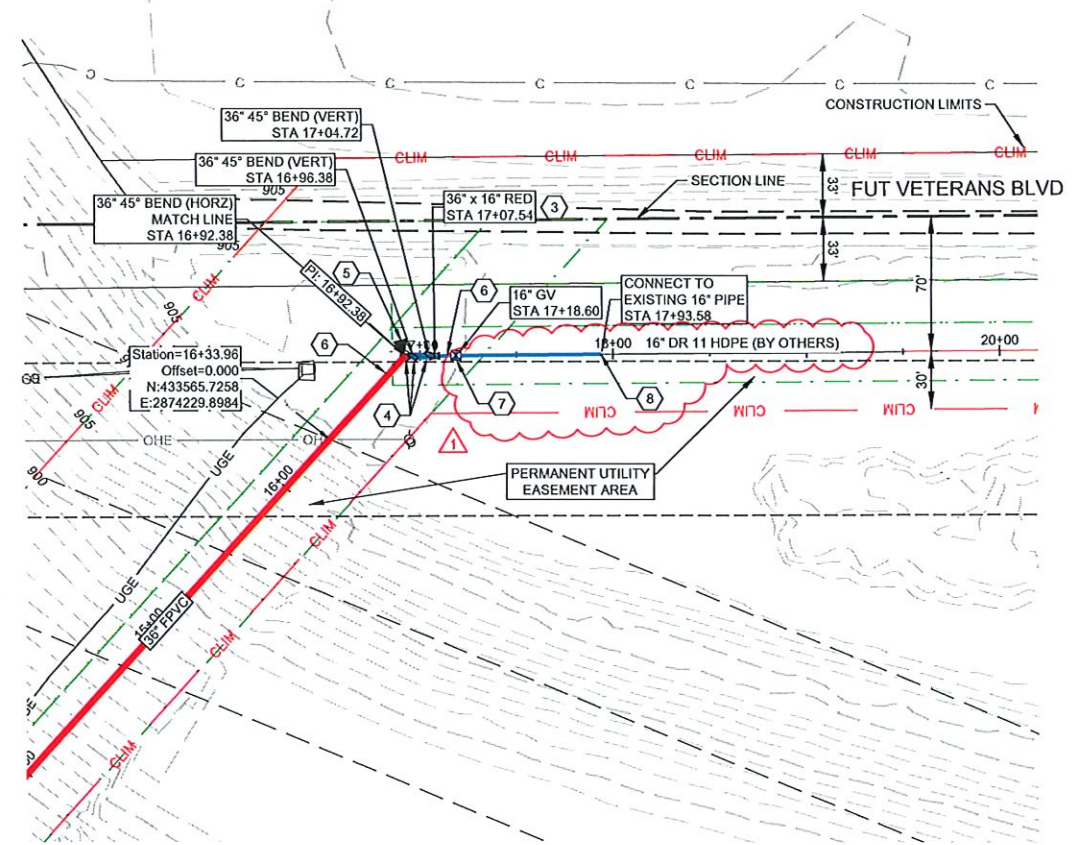
PROJECT NO: 00803-2022-002
 DATE: MARCH 2023
 SHEET DESIGNATOR: **PP**
 SHEET NO: **C103**

Printed By: Erik Jones Date: Wednesday, April 5, 2023

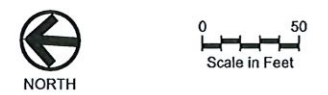
PROJECT TITLE: **FARGO REGIONAL WATER DISTRIBUTION EXTENSION: SOUTH SEGMENT**
 www.ae2s.com
 Advanced Engineering and Environmental Services, LLC

File: W:\F\0803-2022-002\02-DWG\11-Civil\DWG\11-South_Silica_Plan_and_Profile.dwg

Plotted By: Erik Jones Date: Wednesday, April 5, 2023



Certification of Individual Project Design Disciplines Are Included On Their Individual Drawings, Respectively



- CONSTRUCTION NOTES**
- 1 NOT USED
 - 2 NOT USED
 - 3 INSTALL 36" x 16" REDUCER. RESTRAIN FITTING AND PIPE JOINTS MECHANICALLY PER CITY OF FARGO DETAIL 1/C502
 - 4 INSTALL 36" DI 45° BEND. RESTRAIN FITTING AND PIPE JOINTS MECHANICALLY PER CITY OF FARGO DETAIL 1/C502
 - 5 INSTALL CONCRETE THRUST BLOCK BEHIND HORIZONTAL BEND. THRUST BLOCK DIMENSIONS SHALL BE A MINIMUM OF HEIGHT = 7 FT, LENGTH = 14 FT, THICKNESS = 3 FT
 - 6 RESTRAIN PIPE FOR A MINIMUM DISTANCE OF 56 FT, EACH DIRECTION, FROM THE HORIZONTAL BEND
 - 7 INSTALL 16" GATE VALVE
 - 8 CONNECT TO EXISTING 16" DR 11 DIPS HDPE (BY OTHERS)

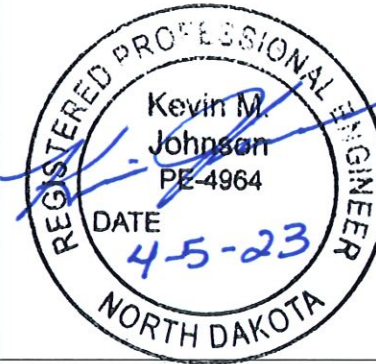
**SHEET REISSUED BY
ADDENDUM NO. 1**

SHEET TITLE: WATER MAIN PLAN & PROFILE			
CLIENT: CITY OF FARGO FARGO, NORTH DAKOTA	PREPARED BY: MRK	CHECKED BY: KMJ	APPROVED BY: KMJ
PROJECT NO: 00803-2022-002	SHEET DESIGNATOR: PP	SHEET NO: C104	
DATE: MARCH 2023	ALT. PROJECT NO: UN-23-A1		

STATUS: FINAL
 DATE: 3-29-23
 APPR: KMJ
 SYM: DATE: 4-5-23
 ADDENDUM NO. 1
 PROJECT TITLE: FARGO REGIONAL WATER DISTRIBUTION EXTENSION: SOUTH SEGMENT
 www.ae2s.com
 Advanced Engineering and Environmental Services, LLC

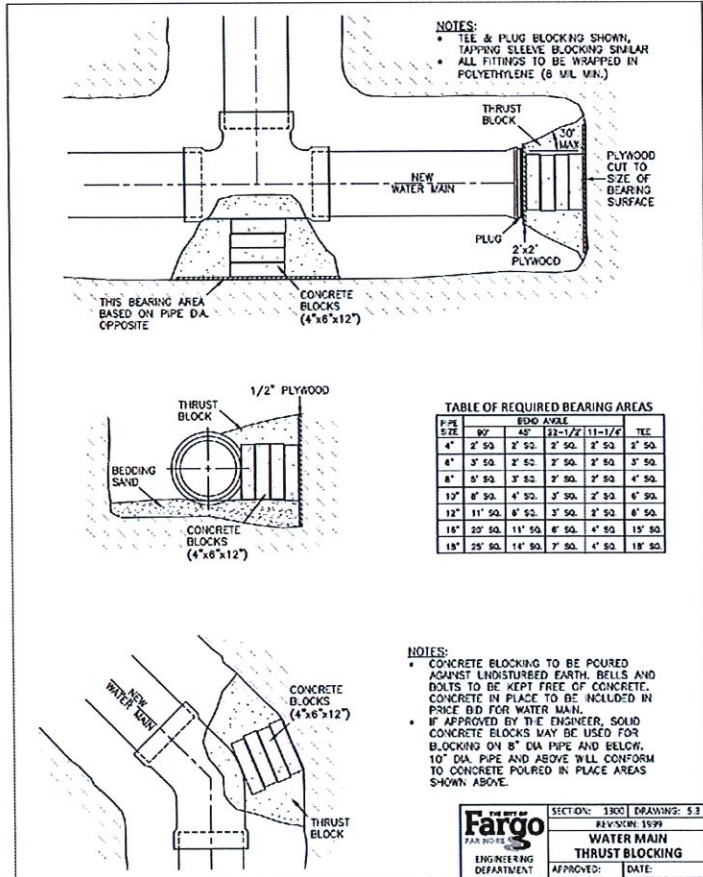


Certification of Individual Project Design Disciplines Are Included On Their Individual Drawings, Respectively



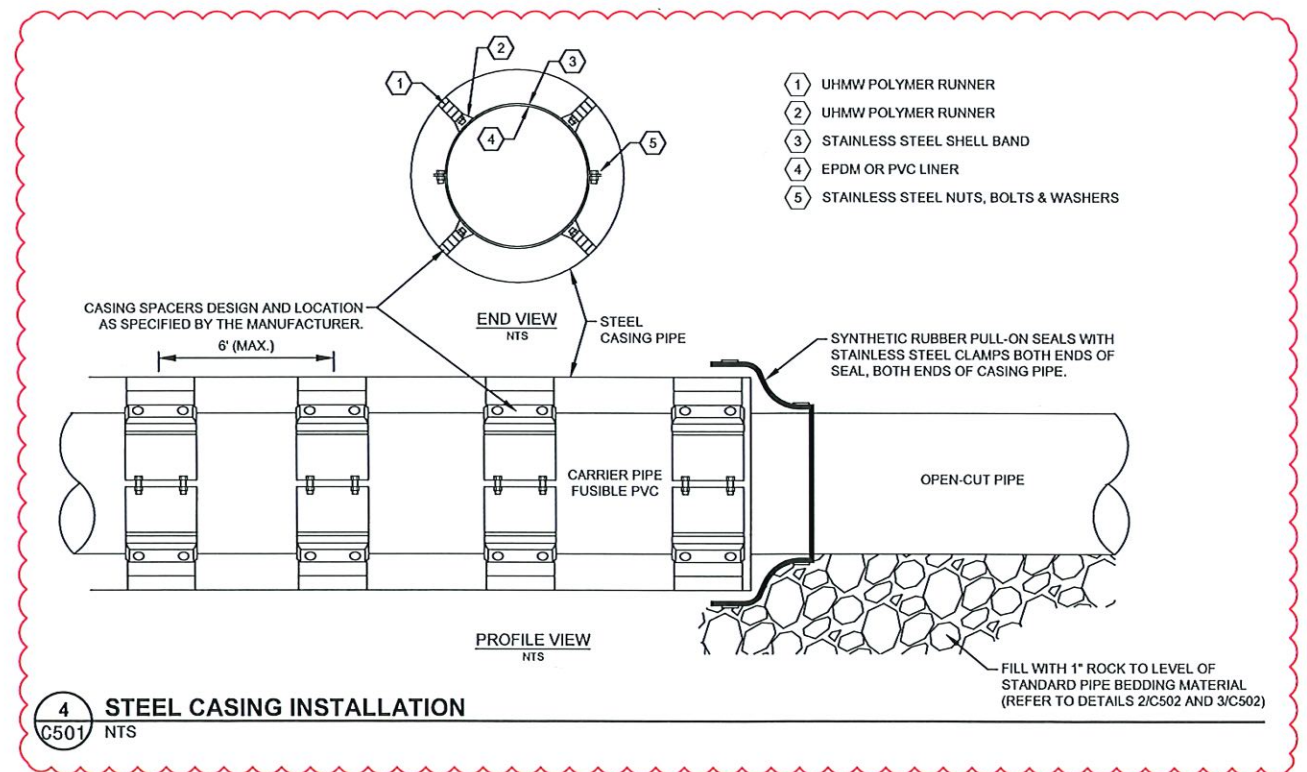
STATUS: FINAL
 DATE: 3-29-23
 SYM: A
 APPR: KJH
 ADDENDUM NO. 1

1 REMOVED
 C501 NTS



2 WATERMAIN THRUST BLOCKING
 C501 NTS

3 REMOVED
 C501 NTS



4 STEEL CASING INSTALLATION
 C501 NTS

**SHEET REISSUED BY
 ADDENDUM NO. 1**

FARGO REGIONAL WATER DISTRIBUTION EXTENSION: SOUTH SEGMENT
 Advanced Engineering and Environmental Services, LLC www.ae2s.com

SHEET TITLE: STANDARD DETAILS

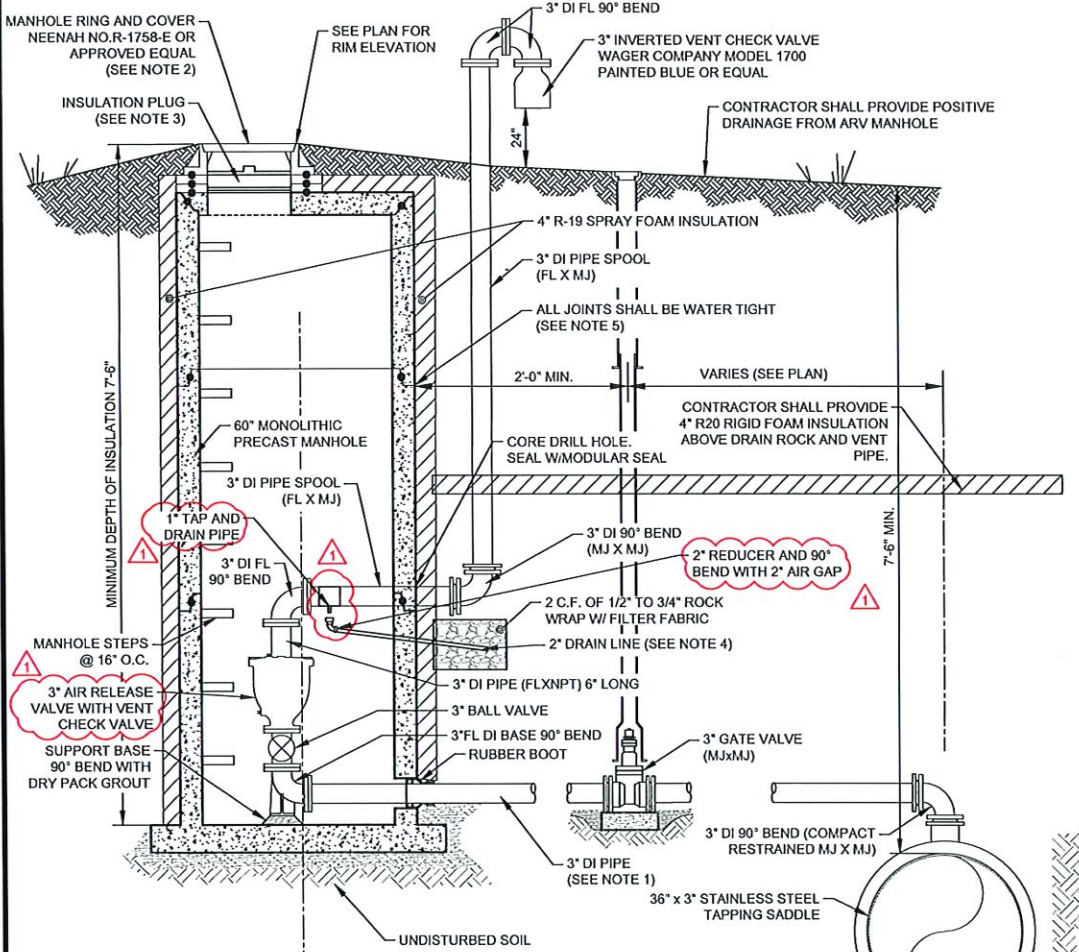
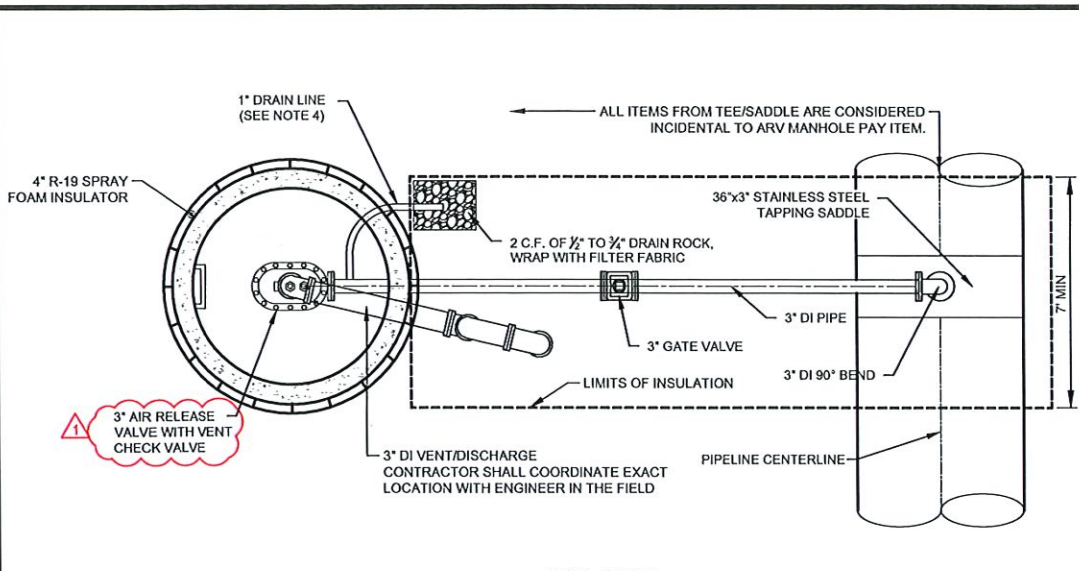
CLIENT: CITY OF FARGO, FARGO, NORTH DAKOTA

PREPARED BY: MRK
 CHECKED BY: KMJ
 APPROVED BY: KMJ

PROJECT NO: 00803-2022-002
 DATE: MARCH 2023
 ALT. PROJECT NO: UN-23-A1

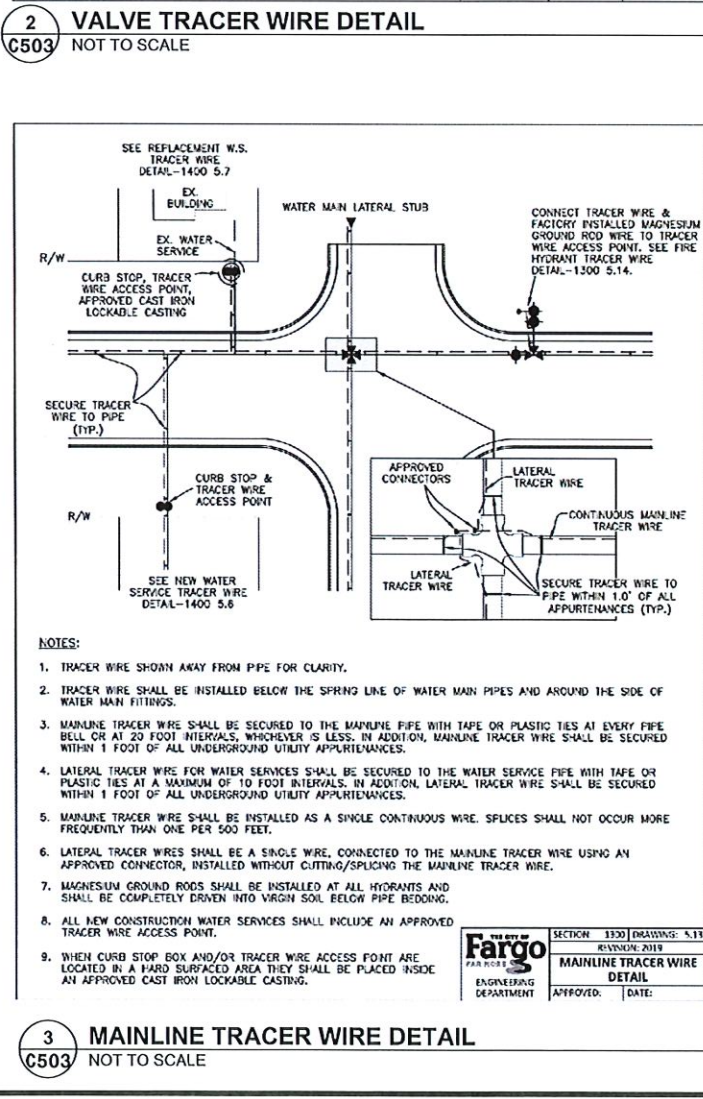
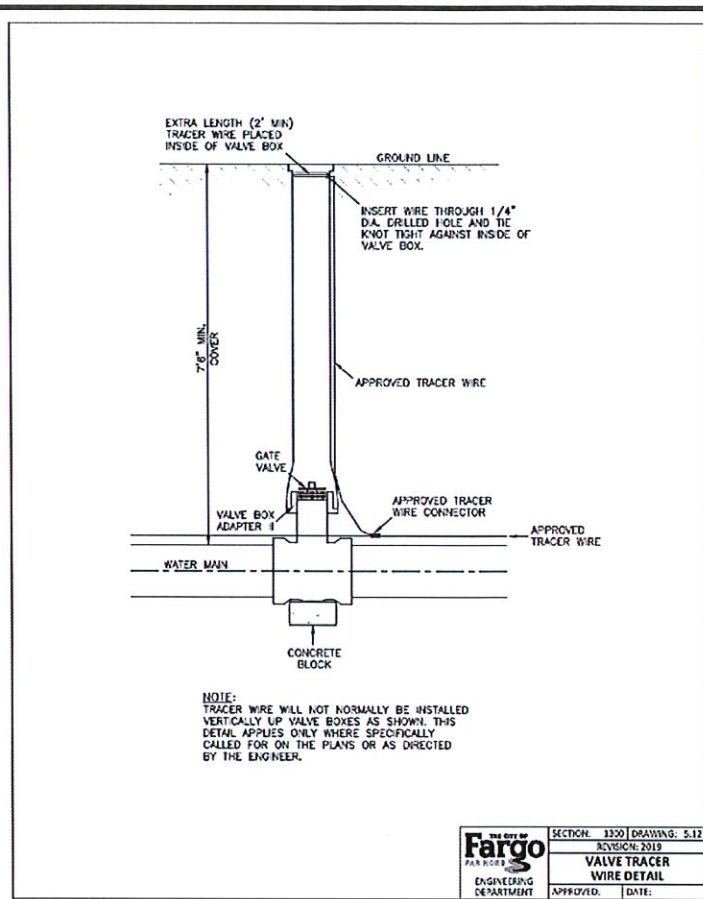
SHEET DESIGNATOR: DTL
 SHEET NO: C501

File: W:\P\Farm\00803-2022-002\CAD\Drawings\DWG\01-Civil\Design\NCH\NCH-Detail.dwg
Published By: Erik Jensen Date: Wednesday, April 5, 2023



NOTE:
1. ALL BURIED JOINTS TO BE RESTRAINED.
2. FROST-RETARDANT FRAME WITH SOLID LID AND INNER LID REQUIRED.
3. A INSULATION PLUG SHALL BE CONSTRUCTED OF NON-CORROSIIVE SHEET METAL TOP AND BOTTOM WITH 4\"/>
4. DRAIN LINE SHALL PROVIDE POSITIVE SLOPE TO ROCK OUTSIDE OF MANHOLE. 1\"/>
5. MANHOLE JOINTS AND RINGS SHALL BE WATER TIGHT. MANHOLE JOINTS SHALL BE FILLED WITH PREFORMED SEALING COMPOUND OR GASKET. ALL JOINTS SHALL BE WRAPPED WITH 6\"/>
6. CONTRACTOR SHALL PROVIDE ALL FITTING, COUPLINGS AND ADAPTERS, AS REQUIRED, TO PROVIDE A COMPLETE AND FUNCTIONAL INSTALLATION.

1 OFFSET AIR RELIEF (ARV) MANHOLE
C503 NOT TO SCALE



STANDARD DETAILS

CITY OF FARGO
FARGO, NORTH DAKOTA

PROJECT NO: 00803-2022-002
DATE: MARCH 2023
ALT. PROJECT NO: UN-23-A1

PREPARED BY: MKK
CHECKED BY: KMJ
APPROVED BY: KMJ

SHEET DESIGNATOR: DTL
SHEET NO: C503

PROJECT TITLE: STANDARD DETAILS
PROJECT NO: 00803-2022-002
DATE: MARCH 2023
ALT. PROJECT NO: UN-23-A1
SHEET DESIGNATOR: DTL
SHEET NO: C503

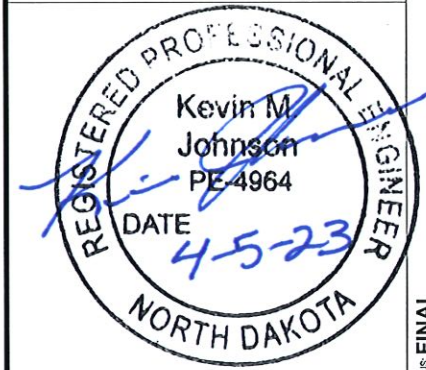
FARGO REGIONAL WATER DISTRIBUTION EXTENSION: SOUTH SEGMENT
Advanced Engineering and Environmental Services, LLC www.ae2s.com

SHEET REISSUED BY
ADDENDUM NO. 1

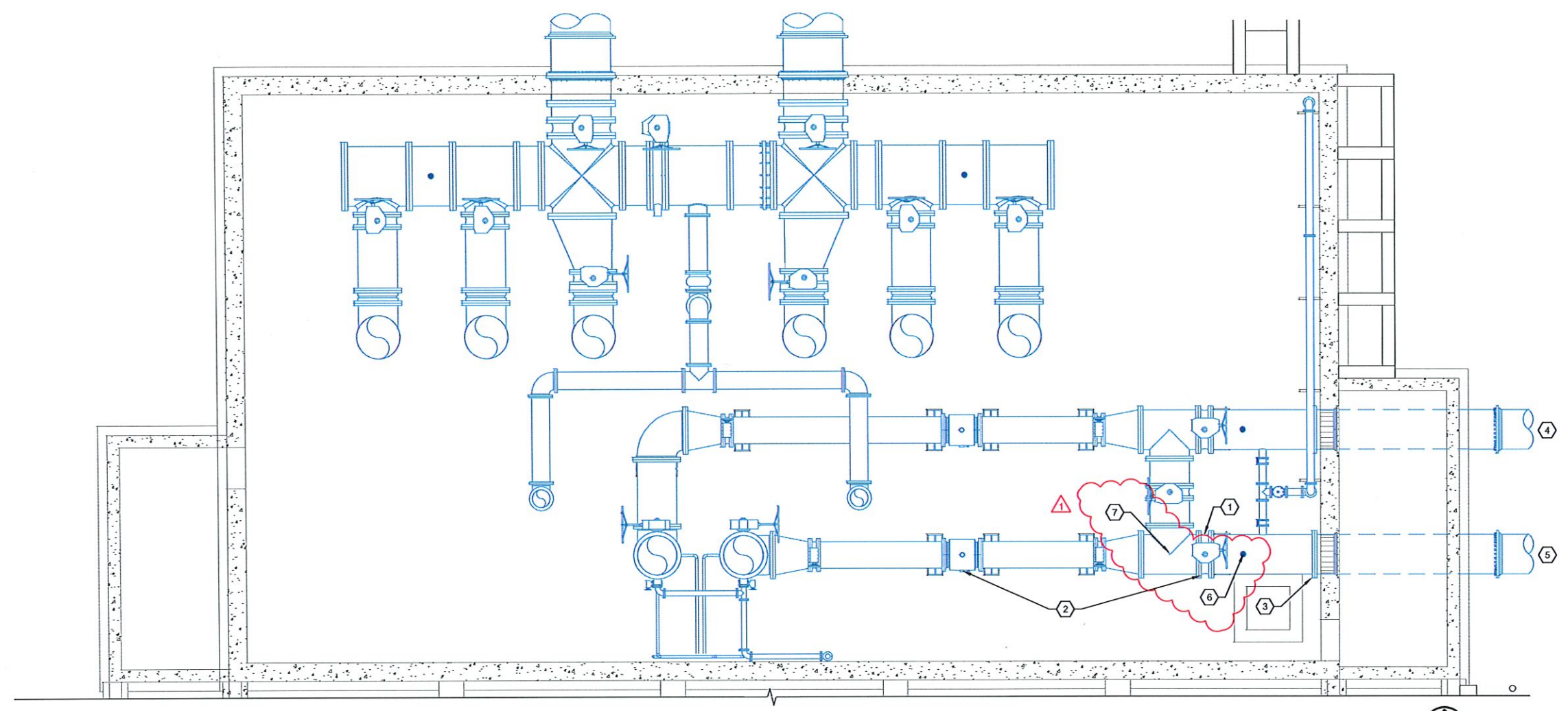
File: W:\Fargo\0803-2022-002\DWG\04-Processt\ProcessPipePlan.dwg



Certification of Individual Project Design Disciplines Are Included On Their Individual Drawings, Respectively

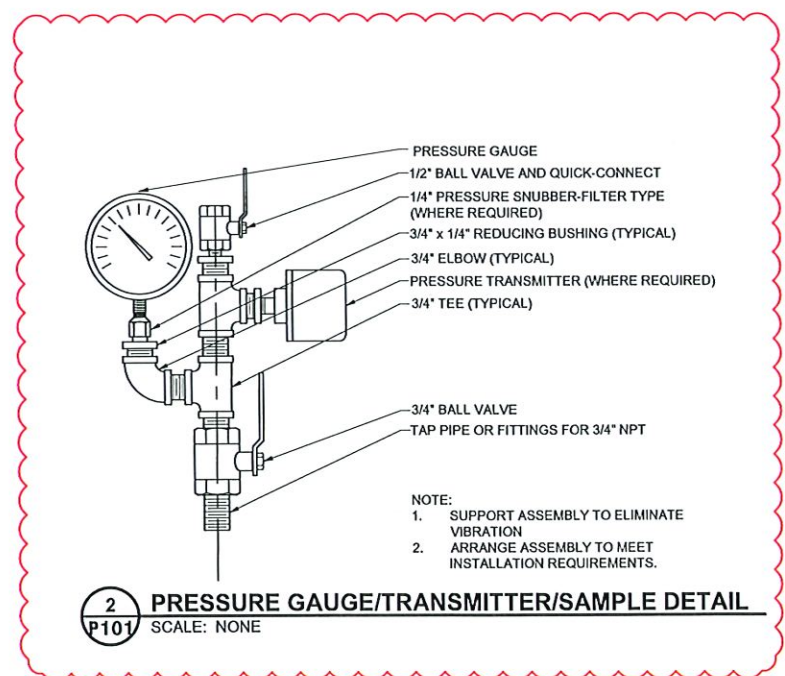


STATUS: FINAL
 DATE: 3-29-23
 SYM:
 APPR:
 ADDENDUM NO. 1



1 GROUND STORAGE RESERVOIR PIPE GALLERY PLAN - PLAN VIEW
 P101 1' 0" 2.5' 5' 7.5' 10' 12.5' 15'

- CONSTRUCTION NOTES**
- 1 FURNISH AND INSTALL AN ELECTRIC ACTUATOR ON EXISTING 24-INCH BUTTERFLY VALVE
 - 2 CONTRACTOR SHALL COMPLETE SCADA UPGRADES FOR THE EXISTING MAGNETIC FLOW METER AND THE NEW ELECTRONICALLY ACTUATED 24-INCH CONTROL VALVE TO DEDICATED WATER SERVICE TO CASS RURAL WATER DISTRICT THROUGH THIS PIPELINE. SEE ELECTRICAL DRAWINGS AND SPECIFICATIONS.
 - 3 CONTRACTOR SHALL TIGHTEN BOLTS ON EXISTING 36-INCH WALL PIPE TO CORRECT AND EXISTING LEAK EXISTING PIPELINE TO CITY OF FARGO
 - 4 EXISTING PIPELINE TO CITY OF FARGO
 - 5 DEDICATED PIPELINE TO CRWD (SEE SHEET C101 FOR CONTINUATION AND CONNECTION)
 - 6 EXISTING 3/4" TAP, BALL VALVE, PRESSURE GAUGE, PRESSURE TRANSMITTER AND HOSE BIB
 - 7 INSTALL NEW 3/4" THREADED TAP, BALL VALVE, PRESSURE GAUGE, PRESSURE TRANSMITTER AND HOSE BIB. SEE DETAIL 2/P101. THE PRESSURE GAUGES, SAMPLE TAPS AND HOSE BIB CONNECTIONS ON BOTH SIDES OF THE 24-INCH VALVE MAY BE USED AS A SURFACE WATER CROSSING METER AND SAMPLING STATION.



**SHEET REISSUED BY
 ADDENDUM NO. 1**

SHEET TITLE: GROUND STORAGE RESERVOIR PIPE GALLERY PLAN		
CLIENT: CITY OF FARGO FARGO, NORTH DAKOTA	PREPARED BY: EJ CHECKED BY: KNJ APPROVED BY: KNJ	
PROJECT NO: 00803-2022-002 DATE: MARCH 2023	SHEET DESIGNATOR: PS	SHEET NO: P101
ALT. PROJECT NO. UN-23-A1		

PROJECT TITLE: FARGO REGIONAL WATER DISTRIBUTION EXTENSION: SOUTH SEGMENT
 Advanced Engineering and Environmental Services, LLC www.ae2s.com

Printed By: Erik Johns Date: Monday, April 3, 2023