JORDAN VALLEY WATER CONSERVANCY DISTRICT
WELL PUMP STATION CONSTRUCTION
700 EAST (7618 S 700 E, SANDY CITY)
1000 EAST (7750 S 1000 E, MIDVALE CITY
DOCUMENT 00 91 13.1
ADDENDUM NO. 1

PART 1 - GENERAL

A. Receipt of this Addendum must be acknowledged by indicating acknowledgement on Document "Bid".

1.1 DOCUMENT INCLUDES

A. Changes to the Bid Documents.

1.2 CONSTRUCTION CONTRACT

A. The Construction Contract is known as: **JORDAN VALLEY WATER CONSERVANCY DISTRICT – WELL PUMP STATION CONSTRUCTION, 700 EAST (7618 S 700 E, SANDY CITY), 1000 EAST (7750 S 1000 E, MIDVALE CITY**

B. Date of this Addendum: December 3, 2024.

1.3 PRE-BID QUESTIONS AND CLARIFICATIONS

A. The following are questions asked during the bidding process with answers:

Q: Who is responsible for paying for quality control materials testing as required in Section 01 45 00 of the Technical Specifications?
A: As stated in paragraph 1.6.A of Section 01 45 00:
"The testing agency and testing for quality control and material testing shall be furnished by OWNER as part of the project. CONTRACTOR shall coordinate work to ensure all required testing is performed by OWNER provided testing agency."

Q: Can the bid opening be delayed?
A: Yes, see changes in Part 2 Changes.

Q: Can JVWCD provide copies of the Geotechnical Investigation Reports for the 700 East Site and for the 1000 East Site?
A: Yes, copies of the Geotechnical Investigation Reports for the 700 East Site and for the 1000 East Site have been posted by JVWCD to their website.

Q: *Can JVWCD provide a copy of the Storm Water Pollution Prevention Plan approved by Sandy City for the 700 East Site that Bidder must revise, adopt and implement?*
A: Yes, a copy of the Storm Water Pollution Prevention Plan approved by Sandy City for the 700 East Site has been posted by JVWCD to their website.

Q. *Can the drive access on the south side of the 700 East Site be used by Contractor for construction access to the site?*

A. No, not without getting approval from the Homeowners Association that owns the access roadway on the south side of the 700 East Site. The primary construction access should be from the access roadway into the site from 700 East Street.

Q. *Is there any site Access through the secondary driveways?*
A. Site access through the driveways at the 700 East site is addressed above. Site access at the 1000 East site can be either through the driveway from the east or the driveway from the south.

Q. *Will both the 700 East Well Pump Station and the 1000 East Well Pump Station be awarded to a single Contractor?*
A. Yes, both Well Pump Stations will be awarded under a single contract.

Q. *Will JVWCD provide a cut sheet for the Tablet Chlorinator that Owner is to supply, and the Contractor is to install at the 1000 East Well Pump House?*
A. Attached is a schematic of the Tablet Chlorinator the Owner will be supplying.

Q. *The surge tank for 1000 East is 6'6" long. If we use the same size surge vault as 700 East, the tank will extend 4' into the vault from the outside edge of wall. That only leaves 2.5' of tank outside of the vault. There won't be much room for the tank support (B/ST-4). Will we need the additional tank support, or do we increase the vault wall thickness to provide support?*
A. Modify the length of the tank to be 7' 0"". Make the footing continuous as noted in the detail on Sheet ST-2 and provide the support per plan.

Q. *Has there been any more recent monitoring on groundwater levels at 700 E?*
A. No.

Q. *Please provide the scope of supply for Tablet Chlorinator that the District will be providing.*
A. See the schematic attached. That includes what JVWCD will be supplying. The Contractor is to provide all other piping, valves, etc. to and from the Tablet Chlorinator and is responsible for testing and startup.

Q. *C-5: does the type P Curb run all the way around the metering and transformer vault?*
A, No, the Type P Curb stops at the junction with the curb and gutter that is located on the east side of the metering and transformer vault.

Q. *C-1A: Is the existing 16" line live? Where does it terminate to the southwest?*
A. The 16" line is connected to the existing JVWCD 30" diameter pipeline in 700 East. There is a valve at this connection on the 16 pipeline that is off. This pipeline was stubbed out in anticipation of the construction of the well house. The end of this existing pipeline is the location indicated for the 16" x 12" reducer.

Q. C-*1A: What type of piping is the 8" and 12" waterline outside the building?*
A. The 8" diameter and 12" diameter waterline outside of the building are to be ductile iron pipe.

Q. *C-1A - What size is the existing gas line?*
A. 3/4" diameter.

Q. *What are the requirements for pipe abandonment for both storm drain and waterlines?*

A. For the 2" waterline at the 700 East site, the corporation stop is to be turned off at the connection with the JVWCD 30" diameter pipeline in 700 East. The pipe is to be cut and capped at the corporation stop. The 15" diameter stormwater pipeline that is to be abandoned at the 700 East site is to have a concrete plug at both ends of the pipeline segment to be abandoned.

Q. *Does the District have a security system installer/supplier that will be working on this project or a preferred vendor that the contractor will need to work with?*

A. The District does have a security system installer/supplier that will supply and install the security system. The Contractor will furnish and install the CCTV Enclosure and Security Enclosure (see Sheet E1.3 for required enclosures), and is to furnish and install all conduits related to the security system. Under a separate contract with JVWCD, the security system installer/supplier will then install all wires and instrumentation.

Q. *Specification 22 11 24 states "Pumps shall be of deep well, oil lubricated, vertical turbine type suitable for pumping culinary water. Material, manufacturing, and performance standards shall be in compliance with AWWA E103, NSF 60, NSF 61 and NSF 372, as applicable." The last few wells by HAL have required NSF-61 CERTIFICATION. Please clarify compliance or certification.*

A. Utah Drinking Water Rule R309-540-6 – Pumps indicates in paragraph (5)(a) and (b) "Chemicals added to drinking water at pump facilities shall be certified to meet NSF/ANSI 60. Products, components, and materials used in pump facilities that may impart chemical contaminants or impurities to drinking water shall be certified to meet NSF/ANSI 61. The Utah Division of Drinking Water had become more stringent in its interpretation and application of this rule. In accordance with the rule, pumps must be certified to meet NSF/ANSI 61.

B. The following clarifications are provided based on discussions during the Pre-Bid Conference.

1. All questions from Bidders are due by 5:00 p.m. on Friday December 13, 2024.

2. Both the 700 East Site and the 1000 East Site are active sites for JVWCD. Access must always be maintained for JVWCD operations personnel.

C. Additional Clarifications:

1. Contractor shall remove existing trees along the south portion of the 1000 east property and remove 4' diameter stump on the north side of northern driveway into the site. A bid item has been added to the bid schedule for this work. See attached photos that show trees to be removed along the south portion of the property.

2. 700 E Well and 1000 E Well - Clarification and Scope Information for the Main Control Panel/RTU.
   a) The Contractor will furnish and install the Main Control Panel/RTU enclosure. Provide a Hoffman A36H30DLP3PT enclosure with A3630 panel. The

contractor will install the enclosure and associated conduit/wire as shown on the plans.

b) JVWCD (the Owner) will terminate the field wiring in the Main Control Panel/RTU. JVWCD will furnish and install the RTU interior (and door) components with the contractor providing the back panel.
c) The Contractor will terminate the Main Control Panel/RTU field component field wiring at the various devices and equipment.
d) JVWCD will program and test the programming in the Main Control Panel/RTU and the field devices/equipment. Contractor shall provide two man-days to support JVWCD to test and troubleshoot the MCP/RTU. Test issues with the field devices shall be corrected by the contractor.

3. 700 E Well and 1000 E Well - Power Quality Meter (Shark 250).

a) Replace the Shark 250 Power Quality Meter (PQM) with a Schweitzer SEL-735 Power Quality and revenue Meter Part #735BX10944EXXB4XX16101XX.
b) 700 E, install the SEL-735 on Panelboard MDP as shown on E3.3. Eliminate the power quality meter and associated PT/CT's shown on the VFD Control Diagram on E3.14.
c) Installation requirements and locations at both sites will remain as shown on the drawings.

PART 2 - CHANGES

Addendum to include Location and Description of Change:

Item	Location	Description of Change
1	Notice Inviting Bids	Modify the Bid Opening date from 3:00 p.m. on Thursday, December 12th, 2024, to **3:00 p.m. on Thursday December 19th, 2024.**
2	BID	Delete "BID" in its entirety and substitute in lieu thereof attached "BID"
3	Supplemental General Conditions	Modify Article 17.03 – Testing Costs to read: "Paragraph 13.03 of the General Conditions is amended as follows: OWNER shall pay for quality control and materials testing costs identified in Section 01 45 00 of the Technical Specifications."
4	Section 01 30 00	Modify the frequency for coordination with adjacent property owners specified in the first line of paragraph 1.1.G.1 to be monthly instead of weekly.
5	Section 22 11 24	1. Modify Paragraph 2.01.A to read as follows: "Pumps shall be of deep well, oil lubricated, vertical turbine type suitable for pumping culinary water. Material, manufacturing, and performance standards shall be in compliance with AWWA E103, and shall be certified to meet NSF 60, NSF 61 and NSF 372, as applicable. 2. Modify the Efficiency in Table 1 for the 1000 East Well from "82.0% to "81.0%. 3. Modify the Model No. in Table 1 for the 1000 East Well from "H14XHO" to "H14MC". 4. Modify the Maximum Bowl Diameter in Table 1 for the 1000 East Well from "15.63 in." to "14.12 in."

Item	Location	Description of Change
		5. Modify the last sentence of 2.01.C.4.c to read: “The bowl wear rings shall be Type 416 stainless steel and impeller wear rings shall be Type 316 stainless steel.” 6. Add the following sentence to 2.01.C.5.b – “The largest outside diameter of the cone strainer shall not exceed the diameter of the designated pump.”
6	Section 26 05 05	Delete paragraph 2.13.D FEEDER PROTECTIVE RELAY in its entirety.
7	Section 26 05 05	Add the following paragraph 2.14.A WELL LEVEL MEASUREMENT SYSTEM. 1. Manufacturer: a. Endruss+Hauser FMX21 (FMX21-AA211PGF25+Z1, or equal. 2. Well level measurement shall consist of a down-well submersible level sensor with transmitter. 3. Level sensor shall be enclosed in a 0.87-inch (0.22mm) diameter body tube welded to the sensor to provide high stability and integrity for the sensing elements and to encapsulate the electronics. 4. A cable shall be molded directly to the sensor to give NEMA 6 rating for permanent immersion. Cable shall consist of electrical conductors, vent tube, and Kelvar strain relieving cord within a thick-walled polyurethane sheath. Cable length shall be as shown on the drawings. 5. Sensor shall provide a 4-20 mA output proportional to displayed value. 6. Cable from sensor shall terminate in a sensor termination enclosure with desiccant. 7. Full-scale range: 150 psi H2O.
8	Section 33 05 26	Add attached technical specification Section 33 05 26 – Utility Identification to the technical specifications.
9	Section 43 32 76	Delete paragraph 1.1.A.1 in its entirety, which states: “All equipment for the chlorination system shall be Evoqua Wallace and Tiernan, no approved equal.”
10	Section 43 32 76	Delete paragraph 2.10.E of Section 43 32 76 in its entirety and substitute in lieu thereof the following: “E. The radar level sensor shall be Krohne Model BM702, Siemens LR150 PN: 7ML5340-1AA07-4AK3, or approved equal.”
11	Section 43 42 21	Modify the volume in the Surge Tank Schedule Table for the 7750 S 1000 East site to read 225 Cubic Feet (1,680 Gallons) and the Approximate Length in the 7750 S 1000 East site to read 7’-0”.
12	Sheet A-3	Delete Interior Painting Schedule table on Sheet A-3 in its entirety and substitute in lieu thereof the following Interior Painting Schedule Table.

Item	Location	Description of Change

INTERIOR PAINTING SCHEDULE			
LOCATION	MATERIAL	COLOR	REMARKS
FLOOR	CONCRETE	GRAY	NONSKID, SYSTEM #9 FOR PUMP ROOM, SYSTEM #10 FOR ROOMS AND SECONDARY CONTAINMENT SUMP AROUND BULK TANKS W/ CHEMICAL EXPOSURE
WALLS	DRY WALL OR MASONRY	OWNER	SYSTEM #11 FOR DRYWALL, SYSTEM #12 FOR EXPOSED MASONRY, & SYSTEM # 13 FOR EXPOSED MASONRY EXPOSED TO CHEMICALS
CEILING	DRY WALL	OWNER	SYSTEM #11
PIPING	METAL	OWNER	EXPOSED PIPE, VALVES & FITTINGS TO BE PAINTED, SYSTEM #3 & SYSTEM #8

13	Sheet C-1	Add the following to Note F pertaining to the 700 East vinyl fence that is to be removed and replaced: "Note that the eastern 2/3s of the north fence segment is on an existing retaining wall. Connect the new fence to the existing retaining wall. The western 1/3 of existing north fence segment and the west fence segment have a concrete mow curb. Remove existing mow curb and install new 8" wide by 6" deep mow curb with new fence along western 1/3 of north fence segment and along the new west fence segment. The south fence segment does not require a mow curb. Also replace man gate on western fence segment."
14	Sheet C-1A	Modify call out on existing storm drain on immediate east side of Pond from "Existing 12" RCP Storm Drain" to "Existing 15" CPP Storm Drain". Modify callout on existing storm drain on south side of Pond from Existing 12" Storm Drain" to "Existing Storm Drain".
15	Sheet C-6	Add the following Note 6: "Contractor shall remove existing trees along south portion of the property and remove 4' diameter stump on the north side of northern driveway into the site."
16	Sheet C-14	Replace Detail B – Typical Pipe Encasement with the attached revised Detail B – Typical Pipe Encasement in Figure 1.
17	Sheet ST-2	Modify dimensions in the Surge Tank Data Table for the 1000 East Location to be 7'-0" Diameter by 7'-0" length, and the volume for the 1000 East location to be 225 cf (1680 gal).
18	Sheet E-3.2	Panel Schedule H: Spaces 25,27,29: Provide a 20A/3P CB and the branch circuit shall be "312" conduit/conductor.

THIS ADDENDUM IS HEREBY ATTACHED TO AND MADE A PART OF THE CONTRACT DOCUMENTS, AND EACH BIDDER SHALL ACKNOWLEDGE RECEIPT OF THIS ADDENDUM WITH THE BID.

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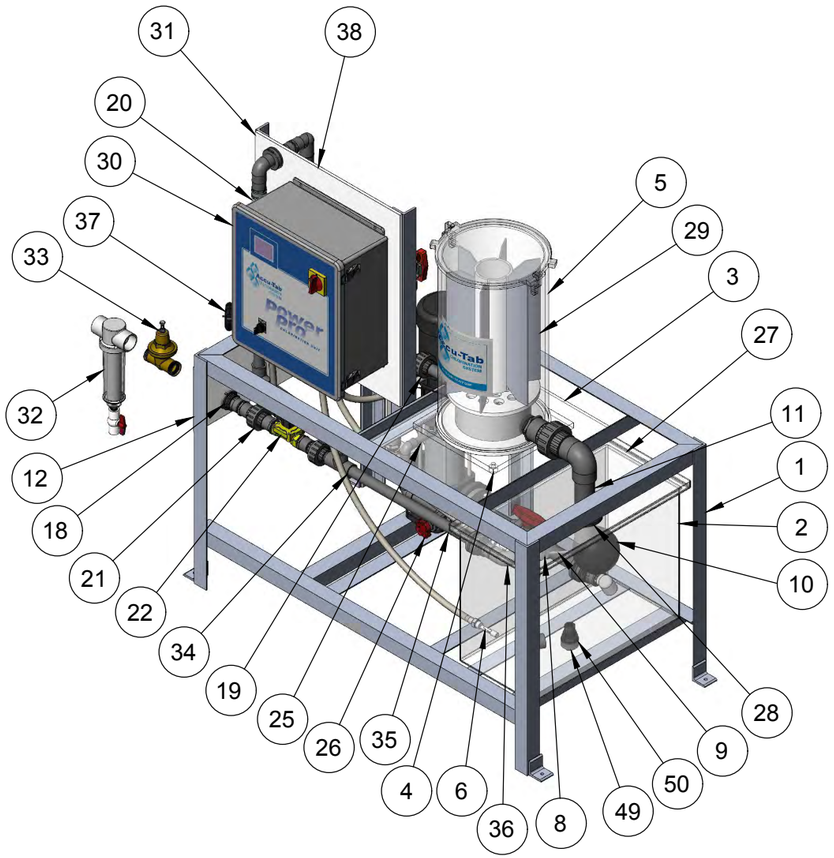
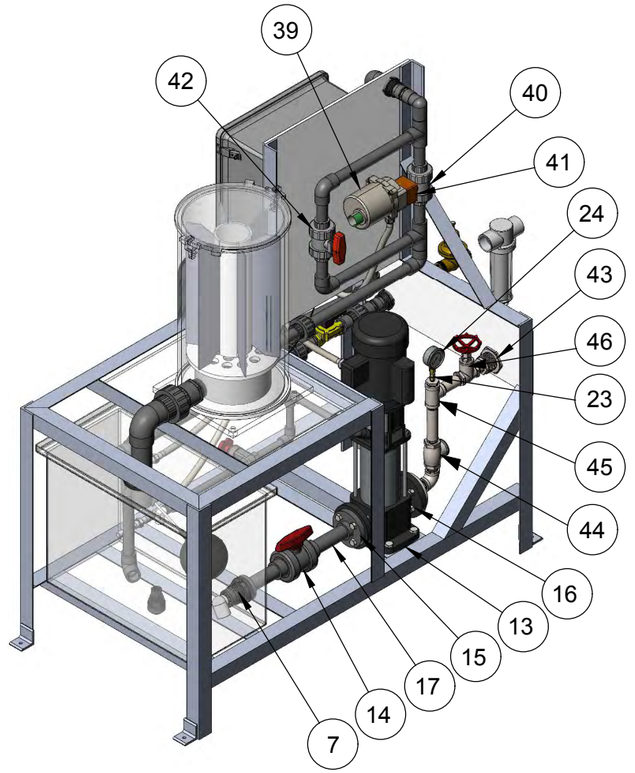
PROFESSIONAL ENGINEER
12/2024
NO. 151898
MARVIN E. ALLEN
STATE OF UTAH

ITEM NO.	DESCRIPTION	QTY.
1	Frame, FR-1000 (With VFD)	1
2	22 Gal Solution Tank No VFD Bottom Drain	1
3	18.5in x 24in x .375in PVC Plate	1
4	Scale, 13"	1
5	3075 Chlorintor Hopper Assembly	1
6	M9710, Level Switch	2
7	1.25in FNPT x FNPT BULKHEAD TANK FITTING	1
8	1in Kerrick Float Valve PS100SS	1
9	.25in Threaded Rod (5.5in)	1
10	Float, PF06	1
11	2in SCH 80 PVC Pipe	As Req'd
12	3075 Inlet-Outlet PVC Plate	1
13	Grundfos Pump, Per Customer Specifications	1
14	1.25in True Union Ball Valve Assembly	1
15	1.25in SCH 80 Flange Socket 854-012	1
16	1.25in SCH 80 Flange Socket St St	1
17	1.25in SCH 80 PVC Pipe	2
18	1in FNPT x FNPT BULKHEAD FITTING	1
19	1in Union Assembly	1
20	1in FNPT Blue White F-41000LN-16	1
21	1in SCH 80 Union Assembly	2
22	1 in 2-Way NC Direct Lift Diaphragm Valve	1
23	Brass Fitting	1
24	Pressure Gauge	1
25	.5in SCH 80 PVC Pipe	As Req'd
26	.5in Gate Valve	1
27	Solution Tank Lid, 22 Gallon	1
28	2in ADAPTAFLEX	1
29	3075 Stacking Cartridge	1
30	Power Pro STD J1816HPL Control Box	1
31	27in x 23.5in PVC Control Box Plate (No VFD)	1
32	1.5in Rusco Filter (Ship Loose)	1
33	1in Pressure Reducing Valve (Ship Loose)	1
34	1in SCH 80 Socket Tee PVC	1
35	1in SCH 80 x PVC Pipe	As Req'd
36	1in 90 SOC X SOC 806-010	4
37	1in Georg Fischer Diaphragm Valve	1
38	1in SCH 80 Socket Tee PVC	2
39	HRSN2A-HaywardFlowControl-3D-02-16-2021	1
40	.75 Ball Valve	1
41	Actuator Connector	1
42	1in Ball Valve	1
43	1in St. St. Bulkhead	1
44	1in Thd St. St. Check Valve	1
45	1in - 150 Thd St. St. Tee	1
46	1in - 150 St. St. Gate Valve	1

ITEM NO.	DESCRIPTION	QTY.
47	.25in x 1in St. St. Thd Bushing	1
48	Conduit Connector, CCNY-500-8	1
49	0.5in Sch. 80 Plug	1
50	0.5in FNPT x FNPT BULKHEAD TANK FITTING	1





THE MANUFACTURE RESERVES THE RIGHT TO SUSTITUTE/ CHANGE COMPONENTS OF THE SYSTEM AS DEEMED NECESSARY WITHOUT PRIOR NOTICE OF THE CUSTOMER, THESE COMPONENTS WILL BE COVERED BY THE MANUFACTURER'S WARRANTY.

axiall WTP

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL±
ANGULAR: MACH± BEND±
TWO PLACE DECIMAL ±
THREE PLACE DECIMAL±

WORK ORDER 2022-0000

MATERIAL

PART NUMBER

DO NOT SCALE DRAWING

	NAME	DATE
DRAWN	MRA	4/19/2022
CHECKED		
ENG APPR.		
MFG APPR.		
Q.A.		

Westlake Chemical Corporation

TITLE: PowerPro 3075 w/Auto Control Valve

JOB: Jordan Valley Water

Xxx

SIZE	DWG. NO.	REV
B	PP-3075	

SCALE: 1:16 WEIGHT: SHEET 1 OF 2

Trees to be removed along south and west side of property at 1000 East Site

BID

BID TO: JORDAN VALLEY WATER CONSERVANCY DISTRICT

The undersigned Bidder hereby proposes to furnish all plant machinery, labor, services, materials, equipment, tools, supplies, transportation, utilities, and all other items and facilities necessary to perform all work required under the Bidding Schedule of the Owner's Contract Documents entitled “700 E & 1000 E Well Pump Station Construction” drawings and all addenda issued by said Owner prior to opening of the bids.

Addenda are only notified by e-mail and available to download through the internet.

The undersigned bidder acknowledges receipt of the following addenda:

No.	Date Received	No.	Date Received

Bidder agrees that, within 10 calendar days after receipt of Notice of Award from Owner, he will execute the Agreement in the required form, of which the Notice Inviting Bids, Instructions to Bidders, Bid, Information Required of Bidder, Technical Specifications, Drawings, and all addenda issued by Owner prior to the opening of bids, are a part, and will secure the required insurance and bonds and furnish the required insurance certificates; and that upon failure to do so within said time, then the bid guarantee furnished by Bidder shall be forfeited to Owner as liquidated damages for such failure; provided, that if Bidder shall execute the Agreement, secure the required insurance and bonds, and furnish the required insurance certificates within said time, his check, if furnished, shall be returned to him within five days thereafter, and the bid bond, if furnished, shall become void. It is further understood that this bid may not be withdrawn for a period of 45 days after the date set for the opening thereof, unless otherwise required by law.

Dated: _____ Bidder: _____

By: _____
(Signature)

Title: _____

Bidder further agrees to complete all work required within the time stipulated in the Contract Documents, and to accept in full payment therefore the price(s) named in the above-mentioned Bidding Schedule(s).

Modified by Addendum 1

BID

Bid Item #1: 7618 South 700 East Well Pump Station and Site Improvements

Item No.	Description	Qty	Unit	Unit Cost	Total Amount
1	Mobilization/Demobilization	1	L.S.		$
2	Surge Tank, Piping and Vault Complete	1	L.S.		$
3	Pump House Structure Complete	1	L.S.		$
4	Furnish and Install 300 HP Pump, Motor, & Discharge Head	1	L.S.		$
5	Pump House Piping Complete with connection to existing pipelines	1	L.S.		$
6	Site work including removing and replacing 8 feet of fill under building and concrete flatwork around building, site grading, asphalt parking area and driveway, sidewalks, curb, curb and gutter, etc.	1	L.S.		$
7	Furnish and install drainage piping, structures and new detention pond	1	L.S.		$
8	Pump Station Electrical System Complete	1	L.S.		$
9	Pump Station HVAC System Complete	1	L.S.		$
10	Chlorine chemical feed & instrumentation system complete	1	L.S.		$
11	Other instrumentation, including conductivity, pH, and turbidity	1	L.S.		$
12	Furnish and install new 3' ornamental iron man-gate complete	1	L.S.		$
13	Furnish and install 6” drain piping to Detention Pond	1	L.S.		$
14	New gas piping from relocated gas meter on New Pump House to Existing Chemical Building	1	L.S.		$
15	Construction surveying and control services	1	L.S.		$
16	Landscaping complete	1	L.S.		$
17	Irrigation System complete	1	L.S.		$

Modified by Addendum 1

Item No.	Description	Qty	Unit	Unit Cost	Total Amount
18	Remove existing vinyl fence and install new 6-foot Bufftech Allegheny molded vinyl fence, or approved equal on north, west, and south property segments; and including new mow strip on western 1/3 of north fence segment, new mow strip along western fence segment, and replacing man gate in western fence segment.	1	L.S.		$
19	Replace existing ornamental iron gate on east drive entrance with new ornamental iron gate.	1	L.S.		$
20	Adopt and Implement Storm Water Pollution Prevention Plan (SWPPP)	1	L.S.		$
21	Permit allowance. Contractor to submit permit receipts for reimbursement.	1	L.S.		$10,000.00
22	Complete all other appurtenant work for a fully functional system, including but not limited to clean-up, commissioning, and any other items not included in the above bid items, etc.	1	L.S.		$
				Total Lump Sum for Bid Item #1:	$

Bid Item #2: 7750 South 1000 East Well Pump Station and Site Improvements

Item No.	Description	Qty	Unit	Unit Cost	Total Amount
1	Mobilization/Demobilization	1	L.S.		$
2	Surge Tank, Piping and Vault Complete	1	L.S.		$
3	Pump House Structure Complete	1	L.S.		$
4	Furnish and Install 700 HP Pump, Motor, & Discharge Head	1	L.S.		$
5	Pump House Piping Complete with connection to existing pipelines	1	L.S.		$
6	Furnish and install 18" RCP drainage piping and system	1	L.S.		$
7	Site work including removing and replacing 2.5 feet of fill under building and concrete flatwork around building, site grading, asphalt and concrete parking area and driveway, sidewalks, curb, etc.	1	L.S.		$

Modified by Addendum 1

Item No	Description	Qty	L.S.	Unit Cost	Total Amount
8	Pump Station Electrical System Complete	1	L.S.		$
9	Pump Station HVAC System Complete	1	L.S.		$
10	Chlorine chemical feed & instrumentation system complete, including installation and start-up of Tablet Chlorination unit to be supplied by OWNER.	1	L.S.		$
11	Fluoride chemical feed & instrumentation system complete	1	L.S.		$
12	Other instrumentation, including conductivity, pH, and turbidity	1	L.S.		$
13	Remove existing fence and install new 6' vinyl coated chain link fence (298 l.f.)	1	L.S.		$
14	Construction surveying and control services	1	L.S.		$
15	Landscaping complete	1	L.S.		$
16	Irrigation Systems complete	1	L.S.		$
17	New seal coat on existing asphalt surface at the site (8,564 ft2).	1	L.S..		$
18	New gas piping from the meter at the Existing East Building to the New Pump House	1	L.S		$
19	Remove existing trees along south portion of the property and remove 4' diameter tree stump on north side of northern driveway into the site.	1	L.S.		$
20	Develop and Implement Storm Water Pollution Prevention Plan as Required by Midvale City	1	L.S.		$
21	Permit allowance. Contractor to submit permit receipts for reimbursement.	1	L.S.		$10,000.00
22	Complete all other appurtenant work for a fully functional system, including but not limited to clean-up, commissioning, and any other items not included in the above bid items, etc.	1	L.S		$
				Total Lump Sum for Bid Item #2:	$

TOTAL LUMP SUM BID AMOUNT for BID ITEMS #1 & #2:
$_____

The BIDDER acknowledges to the OWNER that the BID provided herein includes total cost required to build a fully functioning well house and appurtenances, pipelines and related items as outlined

within these specifications and shown in the drawings.

Company: _____

Signed: _____

Title: _____

Date: _____

ATTACHMENTS TO THIS BID

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

1. Required Bid security in the form of Bid Bond.
2. Information Required of Bidder
3. Disadvantaged Business Enterprise - Bidder Good Faith Effort Documentation

Modified by Addendum 1

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SECTION 33 05 26
UTILITY IDENTIFICATION

PART 1 GENERAL

1.1 DESCRIPTION

A. CONTRACTOR shall provide and install identification markers for all exposed valves, piping, equipment, tanks, and warning signs, all in accordance with these specifications and the Contract Documents.

1.2 RELATED WORK

A. Related work specified in other Sections includes, but is not limited to:

1. Section 01 33 00 Submittal Procedures
2. Section 09 90 00 Painting and Finishes

1.3 REFERENCES

A. The latest edition of the following publications form a part of this Specification to the extent referenced. The publications are referred to in the text by basic designation only.

B. AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

1. ANSI A13.1 Scheme for the Identification of Piping Systems
2. ANSI Z535 Safety Signs and Colors

C. AMERICAN SOCIETY FOR TESTING MATERIALS (ASTM)

1. ASTM D 1593 Standard Specification for Nonrigid Vinyl Chloride Plastic Film and Sheeting
2. ASTM D 3652 Standard Test Method for Thickness of Pressure-Sensitive Tapes

1.4 SUBMITTALS

A. Provide submittals in accordance with Section 01 33 00 – Submittal Procedures.

B. Submit manufacturer’s data sheets showing wording, symbols, letter size, and color coding.

C. Submit one sample of each type of identification device to be used.

D. Submit sample of each proposed color required by the color schedule.

E. Submit the manufacturer’s installation instructions.

1.5 QUALITY ASSURANCE

A. Product manufacturer shall be ISO 9001 Quality Certified.

PART 2 PRODUCTS

2.1 VALVE TAGS

A. General: Provide each valve of size 2-inch and larger with an identification tag. Tag shall show the pipeline station (if applicable), type, manufacturer, date of manufacture, and pressure rating.

B. Plastic Tags:

1. Acrylic: Flexible 0.060-inch (1.52 mm) thick, multi-layered acrylic square engraved tags. Model **Setonply by Seton, B-418 by Brady**, or approved equal.

C. Beaded Chains: No. 6 stainless steel, 114 mm (4-1/2 inch) long, with locking link.

D. Chart: Typewritten letter size list in anodized aluminum frame.

2.2 PIPE MARKERS

A. General: Labels for piping shall bear the full piping system name. Provide flow arrows and working pressure next to each label.

B. Self-Adhesive Pipe Markers:

1. Vinyl: Factory fabricated vinyl, 0.102 mm (5 mil) thick, preformed to fit around pipe or pipe covering. Model **Opti-Code by Seton, B-946 by Brady**, or approved equal.
2. Polyester: Factory fabricated polyester, 0.05 mm (2 mil) thick, coated with acrylic adhesive. Model **Poly-Code by Seton**, or approved equal.
3. Plastic: Factory fabricated plastic film, roll formed, clear laminated to protect lettering.

C. Identify fluid being conveyed and include flow direction arrow.

1. Language: English
2. Lettering: Size and Color according to ANSI A 13.1.

D. Color and Text per the Schedule at the end of this Section.

2.3 HOSE BIB SIGNS NON-POTABLE WATER

A. Provide a properly labeled, rigid sign for each hose bib. Signs shall contain the header, pictogram/alert symbol, and messaging conforming to OSHA/ANSI A 535 requirements. Minimum size shall be 7-inch high by 10-inch wide. Signs shall be plastic with overlaminate and be pre-drilled for mounting. Manufacturer shall be **Seton, Brady**, or approved equal.

2.4 LABELS FOR EQUIPMENT AND TANKS

A. Provide a label for each piece of mechanical equipment and/or tank. The label shall contain the equipment name, tag number, and identifying information such as size, liquid, horsepower, etc. Minimum label size shall be1-1/2 inches by 4-inches. Labels shall be stainless steel, brass, or aluminum. Fiberglass labels may be used for corrosive environments. Manufacturer shall be **Brady, Seton**, or approved equal.

2.5 LABELS FOR AUTOMATIC START/STOP EQUIPMENT

A. Provide a sign reading “CAUTION – EQUIPMENT STARTS AND STOPS AUTOMATICALLY” on equipment as shown on the drawings on identified in the specifications. Signs shall be vinyl with self-adhesive for application to the equipment. Minimum size shall be 7-inches by 10-inches. Manufacturer shall be **Brady, Seton**, or approved equal.

2.6 WARNING SIGNS

A. Provide a properly labeled, rigid warning sign as shown on the drawings. Signs shall contain the header, pictogram/alert symbol, and messaging conforming to OSHA/ANSI A 535 requirements. Minimum size shall be 7-inch high by 10-inch wide. Signs shall be plastic with overlaminate and be pre-drilled for mounting. Manufacturer shall be **Seton, Brady**, or approved equal.

PART 3 EXECUTION

3.1 GENERAL

A. Markers and identification tags shall be installed in accordance with the manufacturer’s printed instructions and shall be neat and uniform in appearance. Tags and markers shall be readily visible from all normal working locations.

3.2 PREPARATION

A. Degrease and clean surfaces to receive adhesive for identification materials.

3.3 INSTALLATION

A. Valve Tags:

1. Install tags with corrosion resistant chains
2. Identify valves in main and branch piping with tags.
3. Identify small devices, such as in-line pumps, with tags.
4. Tag automatic controls, instruments, and relays.

B. Pipe Markers:

1. Identify all above grade piping. Include service, flow direction, and working pressure.
2. Provide snap-on type markers for pipes 6-inch diameter and smaller. Provide strap-on type for pipes over 6-inch diameter.
3. Each pipe shall me marked at:
   a. Intervals of 20-feet in straight runs.
   b. At least once in every room.
   c. Within 2 –feet of bends and valves.
   d. On the upstream side of Tees, branches, and other distribution points.
   e. On both sides of walls and floors through which the piping passes.

C. Automatic Start/Stop Equipment

1. Attach signs for exposed equipment directly to the equipment.
2. Attach signs for sump pumps on the adjacent wall.

D. Warning Signs

1. Attach to walls according to the manufacturer's recommendations.

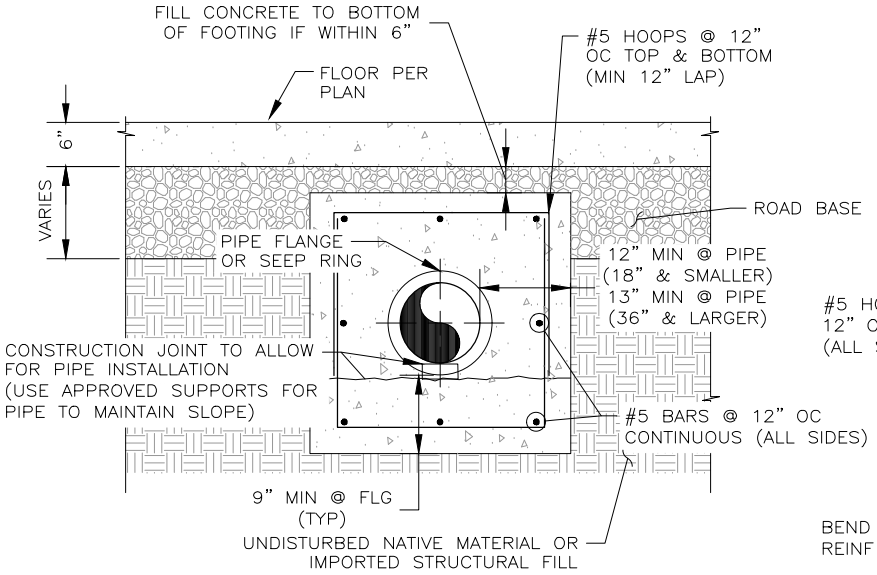
E. Equipment and Tank Labels

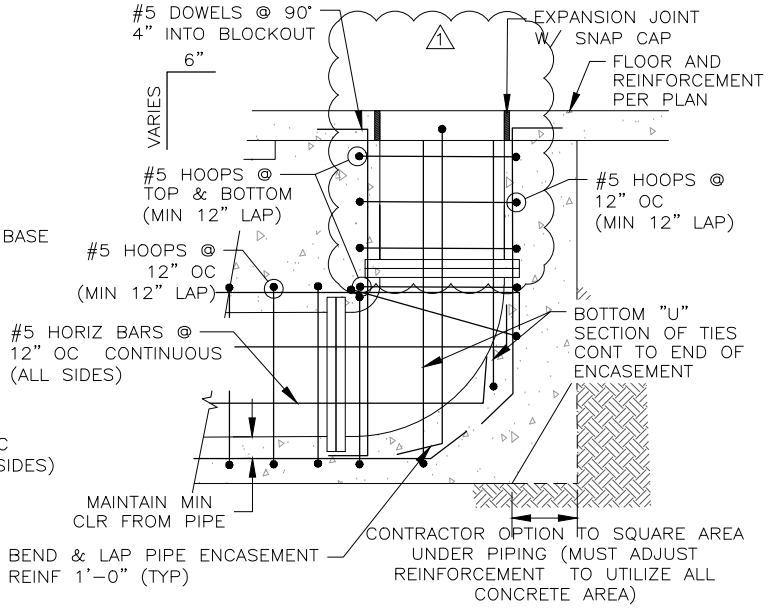
1. Attach labels to equipment with a pop rivet or equal.

3.4 SCHEDULES

Color Schedule				
Pipe Contents		Pipe Color	Marker Color	Letter Color
Abbreviation	Identification			
AHP	Air, High Pressure	Dark Green	Blue	White
AI	Air, Instrument	Dark Green	Blue	White
CL	Chlorine (gas or liquid state)	Yellow	Orange	Black
CLS	Chlorine Solution	Yellow	Orange	Black
CLV	Chlorine Gas Under Vacuum	Yellow	Orange	Black
CV	Chlorine Vent & Detection Line	Yellow	Orange	Black
EE	Engine Exhaust		Yellow	Black
EWR	Engine Cooling Water Return		Green	White
EWS	Engine Cooling Water Supply		Green	White
FL	Fluoride	Light Blue/Red	Orange	Black
FOR	Fuel Oil Return		Brown	White
FOS	Fuel Oil Supply		Brown	White
FSP	Fire Protection Sprinkler System	Red	Red	White
HWR	Domestic Hot Water Return		Yellow	Black
HWS	Domestic Hot Water Supply		Yellow	Black
LSS	Landscape Sprinkler System		Green	White
NG	Natural Gas	Org-Red/Black	Yellow	Black
OF	Overflow		Green	White
PD	Plant Drain	Green	Green	White
PPS	Pump Suction (Potable Water)	Light Blue	Green	White
PTW	Pump to Waste	Green	Yellow	Black
PW	Potable Water	Dark Blue	Green	White
RS	Raw Sludge	Black	Yellow	Black
RWL	Rain Water Leader		Green	White
RW	Raw Water	Olive Green	Green	White
SA	Sample Line		Yellow	Black
SD	Sanitary Drains	Dark Gray	Yellow	Black
SDR	Storm Drain	Green	Green	White
SL	Sludge	Dark Brown	Yellow	Black
SUC	Structure Underdrain Collector		Green	White
UW	Utility Water (Non-Potable Water)	Magenta	Yellow	Black
V	Vent	Dark Brown	Yellow	Black

- END OF SECTION –





TYPICAL PIPE ENCASEMENT	B C-3	B C-4	B C-5	B CF-2B	B S-2

NTS

DETAIL NOTE:

MAINTAIN ELECTRICAL ISOLATION BETWEEN NEW STEEL PIPING AND CONCRETE ENCASEMENT REINFORCEMENT.

HANSEN ALLEN & LUCE inc ENGINEERS

10/07

1 11/25/24 DEFINE REINFORCEMENT

FIGURE 1

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