Souder, Miller & Associates ♦ 5454 Venice Avenue NE, Suite D ♦ Albuquerque, NM 87113
(505) 299-0942 ♦ fax (505) 293-3430

ADDENDUM NO. 1

to

SPECIFICATIONS, CONTRACT DOCUMENTS AND DRAWINGS

for

PLACITAS FIRE STATION 41 WATER SYSTEM IMPORVEMENTS

Bid Package
Published April 2024

Owner:

Sandoval County
2708 Iris NE
Rio Rancho, NM 87144

Engineer of Record:

Souder, Miller & Associates
5454 Venice Ave NE, Suite D
Albuquerque, NM 87113
505-299-0942

This Addendum constitutes clarifications, changes, additions, modifications and/or deletions to the Contract Documents. All provisions of the Contract Documents not affected by this Addendum shall remain in full force. This Addendum is hereby made a part of the Contract Documents to the same extent as those provisions contained in the original Contract Documents and previous Addenda, if any. Receipt of this Addendum shall be acknowledged on the Bid Form.

Keaton P. Chancellor, P.E.

5/10/2024
Date

TO ALL HOLDERS OF CONTRACT DOCUMENTS FOR:

Placitas Fire Station
Water System Improvements

ADDENDUM NO. 1

May 9, 2024

This Addendum shall be incorporated into the Contract Documents for the above referenced project.

Item No. 1 – Pre-Bid Conference
The Pre-Bid Conference was held on April 25th, 2024. The sign-in sheet and meeting minutes for the Pre-Bid Conference are included as an attachment in this addendum. This pre-bid conference was mandatory for all prime contractors, not subcontractors or suppliers.

Item No. 2 – Wage Decision
The New Mexico State Wage Rate Determination has been issues as Approved Decision Number SA-24-1500-B. It is included as an attachment to this addendum and shall be incorporated in the Contract Documents as Appendix A.

Item No. 3 – Funding Source and Domestic Materials Requirements
This project is funded entirely by the County through a County Bond, therefore there are no American Iron and Steel (AIS) or Buy American requirements for this project.

Item No. 4 – Revised Bid Form
The Bid Form included in the Contract Documents shall be replaced with the attached Bid Form. Bid Items 21 and 22 were added to the Base Bid, and some descriptions and quantities have been updated.

Item No. 5 – Bid Item for 6" Gate Valve on Sheet C-3 Keyed Note 33
A new bid item was added for a 6-inch gate valve and appurtenance. See bid item #21 on revised bid form included as an attachment to this addendum.

Item No. 6 – Pump House Hose Bib
Technical Specifications section 22 11 00 2.12 specifies bronze or brass for the smooth nose hose bib, a stainless-steel smooth nose hose bib would be acceptable, so long as it is NSF-61 certified. Dielectric transition coupling will be required for dissimilar metals.

Item No. 7- Sleeve Size for Riser Entering Pump House

The riser entering the pump house is 2-inch steel Schedule 40 with an outer diameter of 2.375 inches. The sleeve pipe size shall be minimum 3.5-inch inside diameter.

Item No. 8- Floor Drain Outlet and Riser

The floor drain outlet pipe shall be installed at a minimum 1% slope to allow to drain. The contractor shall be responsible for transitioning from the drain line to the No Hub Floor Drain. A small riser may be necessary for the floor drain. The transition from the floor drain to the drain line shall be watertight. MJ 90-degree bend would be acceptable.

Item No. 9- Coating for Nuts and Bolts

All buried nuts and bolts shall be Zinc-plated or fluoropolymer coated and shall be carbon steel conforming to ASTM A307, Grade A, unless otherwise indicated on the approved drawings.

Item No. 10- Detail 1 Sheet DT-2, Keyed Note 4

Keyed Note 4 shall be revised and shall read as "NIPPLE, 1"x LENGTH AS NEEDED POLYETHYLENE SIDR 7".

Item No. 11- Additive Bid Alternate 1 Bid Item #A.1.11

Bid item #A.1.11 previously called for gate valves incorrectly, please see attached revised Bid Form. Bid Item A.1.11 has been revised to correctly call for ball valves, as shown in the drawings.

Item No. 12 – Bid Item for 2" Gate Valve on Sheet C-3 Keyed Note 37

A new bid item was added for a 2-inch gate valve and appurtenance. See bid item #22 on attached revised Bid Form.

Item No. 13 – Technical Specification 09 90 00 – High Performance Coatings

Technical Specification 09 90 00 – High Performance Coatings is included as an attachment to this addendum.

Sandoval County
Placitas Fire Station
Water System Improvements
Pre-Bid Conference Minutes

April 25, 2024
10:00 am

Owner

Sandoval County
2708 Iris NE
Rio Rancho, NM 87144

Souder, Miller and Associates

5454 Venice Ave NE, Suite D
Albuquerque, NM 87113
Project Manager: Keaton Chancellor, P.E.
Phone: 505-299-0942
Cell: 575-420-3872
Email keaton.chancellor@soudermiller.com

Funding

County is funding this project through a County Bond.

Bid Submittal

Deliver by 3:00 pm, Wednesday, May 15th to the office of Souder, Miller & Associates at:

Keaton P. Chancellor
5454 Venice Ave. NE, Suite D
Albuquerque, NM 87113

With the envelope clearly identified as indicated in the Instructions to Bidders:

"BID ENCLOSED FOR SANDOVAL COUNTY FIRE 41 PLACITAS TANK"

Things to include with Bid

Note: If the required attachments to the Bid are not included with the Bid, the Bidder will be deemed NONRESPONSIVE and the Bid will not be considered for award. Contractors shall refer to Article 7 of EJCDC 410 – Bid Form for all required documents to be submitted.

1. Signed Bid Form
2. Acknowledgement of Addenda
3. Bid Bond or Certified Check
4. List of Proposed Subcontractors
5. Equipment Suppliers List
6. Bidders Qualifications Statement
7. Copy of Registration with the Labor Relations Division, New Mexico Department of Workforce Solutions, Public Works Bureau;

8. Copy of a valid resident business certificate or valid resident contractor certificate issued by the taxation and revenue department of the State of New Mexico (if applicable);
9. Copy of a valid resident veteran business certificate or valid resident veteran contractor certificate issued by the taxation and revenue department of the State of New Mexico (if applicable);
10. Campaign Contribution Disclosure Form

Bid Evaluation - Special Provision

Resident Contractor and Resident Veteran Contractor Preferences shall apply to this Project per Section 13-1-21 NMSA 1978 (as amended).
ded).

Project Description

Base Bid: This project consists of the construction of a new well building to be able to relocate the chlorination equipment and hydro-pneumatic pressure tank out from the current location within the fire house and the installation of a new plumbing manifold equipped with a new master meter, and reduced pressure zone backflow prevention device. This includes the construction of a new pre-engineered metal building.

Additive Bid Alternates:

Additive Bid Alternate 1: include the construction of a new foundation and relocation of three existing water storage tanks for fire storage facilities.

Additive Bid Alternate 2: includes the installation of approximately 840 linear feet of 6-inch fire line to a new fire hydrant located at the fire station and at the Placitas Community Library. Perform Work of Contract under a stipulated price basis with Owner in accordance with Conditions of Contract.

Construction Period

The Construction is dependent on the project that is awarded.

Base Bid Only: Substantial Completion within 75 calendar days of Notice to Proceed; 105 calendar days to ready for final payment.

Base Bid and Additive Bid Alternates 1 and/or 2: Substantial Completion within 150 calendar days of Notice to Proceed; 180 calendar days to ready for final payment.

Material Storage Site

Contractor shall propose and get approval from Owner of an area to store construction debris including unsuitable material from site grading and/or excavation where it will not be a nuisance. All debris shall be contained in such a manner that will prevent scattering. All debris, including trees and undergrowth, shall be disposed of properly within a properly permitted landfill. All debris shall be removed from the site prior to substantial completion. The handling, storage, and disposal of debris is incidental to the project.

Fire station property can be used for materials storage, Contractor must stay within property boundaries. Space is limited and Contractor must ensure that material storage does not impede fire station personnel from performing any of their essential duties.

Water for Construction

Contractor must provide water for construction at the Contractor's expense. ~~The Owner has indicated that water can be made available for purchase.~~

The Owner does not have water available for purchase. The County identified that Town of Bernalillo has a water source that can likely be purchased from located on Frontage Rd.

Other Special Considerations

1. Contractor is responsible for restoring the site to original or better condition at the Contractor's expense. Site restoration including temporary erosion control provisions is a prerequisite for periodic and final payment.

2. Should nesting of a species protected under the Migratory Bird Treaty Act be identified in the construction zone, construction will be limited to a time of year outside the general migratory bird nesting season of March through August, avoided until nesting is complete, or the nest will be relocated by a properly trained and authorized expert.

3. The Contractor must backfill and close all trenches at the end of the day and submit a stamped and certified traffic control plan for Engineers and Owners approval prior to construction. No open excavations shall be left open at the end of each day.

4. ~~Contractor will be responsible for re-grading the existing road and replacing base course to restore to original or better condition.~~

5. Contractor must provide water for construction at the Contractor's expense. ~~The Owner has indicated that water can be made available for purchase.~~ See "Water for Construction" note.

6. Contractor shall submit a Testing and Disinfection schedule to the Engineer for approval prior to performing the respective activities. Hydrostatic testing of the waterline, disinfection and bacteriological testing shall follow specifications outlined in Section 33 11 00 Water Utility Distribution Piping, 33 13 00 Disinfection of Water Distribution, AWWA C600, AWWA C605, AWWA C651 and New Mexico Standard Specifications for Public Works Construction.

7. Prior to beginning construction activities, the Contractor must furnish full-coverage video documentation of the entire construction site, per SC-2.05.B of the EJCDC C-800 Supplementary Conditions. The video must include coverage of all areas and adjacent features that may potentially be impacted by the impending construction work. Contractor must submit two (2) copies of the video documentation on flash drives as part of the submittal process.

8. Contractor shall prepare record drawing information under the direction of a Licensed Professional Surveyor. Refer to Article 1.51 Project Record Documents below and General Notes on the Drawings for specific requirements related to As-Built Drawings.

9. Contractor shall coordinate with Owner for tie-in to existing infrastructure. Contractor shall notify Engineer prior to performing the respective activities.

10. Contractor must maintain a full set of Drawings and Technical Specifications at the construction site at all times throughout the construction process. All subcontractors must possess at least all Drawings and Technical Specifications pertaining to their portion of the work while on the construction site at all times.

11. ~~Contractor shall be responsible for notifying residents of construction.~~ Access to driveways must be maintained at all times.

12. Construction work will generally not be permitted on the following Federal-recognized holidays: New Year's Day, Martin Luther King, Jr.'s Birthday, President's Day, Memorial Day, Juneteenth, Independence Day, Labor Day, Indigenous People's Day, Veterans' Day, Thanksgiving Day, and Christmas Day. When any of the above holidays fall on a Saturday and the preceding Friday is established as a holiday for Government employees, or when any of the above holidays fall on a Sunday and the Monday following that day is established as a holiday for Government employees, no construction will be permitted on those days. However, the Owner, when in his/her opinion it is justified, may grant the Contractor permission to work on any of the above days upon advance written request by the Contractor.

13. Upon completion of the Work, ground surfaces will be restored to their original condition by grading and seeding with native plant species.

14. In the event the Contractor encounters items of historical importance, the Engineer and the Owner shall be notified immediately and the work in the area shall immediately cease. Activity will cease until the Owner has consulted the Resident Project Representative and informed the Contractor of any steps to be taken or told to proceed with construction.

15. Contractor shall confine operations to the construction site. Contractor shall be responsible for obtaining permission for any activity outside of the established and approved construction areas.

16. Contractor shall implement the necessary site erosion control devices for inhibiting dust, wind, and air sediment movement offsite throughout construction in accordance with NPDES Best Management Practices and in accordance with the project SWPPP, if applicable.

Permits

Contractor must submit a Traffic Control Plan, which shall be approved by the Engineer, before continuing with the project. Main priority is ensuring necessary access is maintained for fire station personnel.

Obtain all applicable and required permits, not already obtained by the Owner or Engineer, from the local, state or federal agencies with jurisdiction (i.e.: New Mexico Department of Transportation (NMDOT), Construction Industries Division of the Regulation and Licensing Department of the State of New Mexico (CID), county, municipality, etc.).
There are no County permits that need to be obtained.
Contractor must prepare, submit and implement a Storm Water Pollution Prevention Plan (SWPPP) for the project.

Coordination

1. Coordinate scheduling, submittals, and Work of various sections of specifications to ensure efficient and orderly sequence of installation of interdependent construction elements.
2. Verify utility requirement characteristics of operating equipment are compatible with building utilities.
3. Coordinate space requirements and installation of mechanical and electrical work indicated diagrammatically on Drawings. Follow routing shown for pipes, ducts, and conduit, as closely as practicable.
4. All notices, demands, requests, instructions, approvals, proposals and claims must be in writing.
    a. Any notice to or demand upon the Contractor shall be sufficiently given if delivered at the office of the Contractor stated on the signature page of the Agreement.
    b. All papers required to be delivered to the Owner shall, unless otherwise specified in writing to the Contractor, be delivered to the Owner at the address stated on the signature page of the Agreement.
    c. Any such notice shall be deemed to have been given as of the time of actual delivery, in the case of mailing, when the same should have been received in due course of post, or in the case of telegrams, certified mail, or telephone facsimiles, at the time of actual receipt as the case may be.

State Wage Rate Determination

This project will be subject to State Wage Rate Determination. The State Wage Rates will be included as an attachment via addendum.

Bid Alternates

Additive Bid Alternates:

- Additive Bid Alternate 1: includes the construction of a new foundation and relocation of three existing water storage tanks for fire storage facilities.

- Additive Bid Alternate 2: includes the installation of approximately 840 linear feet of 6-inch fire line to a new fire hydrant located at the fire station and at the Placitas Community Library. Perform Work of Contract under a stipulated price basis with Owner in accordance with Conditions of Contract.

Maintenance Materials

Identify any materials that will need to be furnished at the conclusion of the project such as wrenches for each valve type, hydrant wrenches for each hydrant type, etc.

Questions and Inquiries

Inquires and questions during bidding shall be submitted in writing via email to jacqueline.groarke@soudermiller.com, and CC Keaton.chancellor@soudermiller.com. **Questions shall be submitted no later than Wednesday, May 8th at 5:00 p.m.** Responses will be issued by addendum. Questions from the pre-bid conference will be collected and addressed by addendum. To ensure questions asked during the Pre-Bid Meeting are answered, please submit all questions in writing as stated above. Addenda will be issued by email and posted to www.soudermiller.com, and will be added to County's website _____.

Verbal statements during this pre-bid conference may not be relied upon and will not be binding or legally effective.

Other Items

- Contractor concerns regarding lead times for pre-engineering buildings.
- Owner would like to review draft Addendum before they are issued.

Sandvoal County Fire 41 Placitas Tank Project
April 25th, 2024 10:00 am
Sandoval County Placitas Fire Station 41

SMA Civil/Environmental Scientists & Engineers

	Name	Company	Address	Phone	Fax	Email
1	Charles Martinez	SCPW	2708 Iris NE	389-8928		Chmartinez@sandovalcountynm.gov
2	Michelle Trujillo	SCPW	2708 Iris NE RR, NM 87144	(505) 771-8500		mxtrujillo@sandovalcountynm.gov
3	Keaton Chancellor	SMA	5454 Venice Ave. NE Suite D, Abq. NM	575-420-3572		keaton.chancellor@sandermiller.com
4	Thomas Wisneski	File Construction		505-977-4008		thomasw@fconst.com
5	Jaime Cruz	File Construction		505-400-3611		Jaimec@fconst.com
6	Ryan Louchard	Fire Dept.		505 206-2885		rlouchard@sandovalcountynm.gov
7	Jackie groarke	SMA		229-894-4277		~~jgroarke18~~ jacqueline.groarke@sandermiller.com
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401 Broadway NE
Albuquerque, NM 87102
Phone: 505-841-4400
Fax: 505-841-4424

226 South Alameda Blvd
Las Cruces, NM 88005
Phone: 575-524-6195
Fax: 575-524-6194

Wage Decision Approval Summary

1) Project Title: Fire Station 41 Water System Improvements
Requested Date: 04/25/2024
Approved Date: 04/26/2024
Approved Wage Decision Number: SA-24-1500-B

Wage Decision Expiration Date: 08/24/2024

2) Physical Location of Jobsite for Project:
Job Site Address: 463 NM-165
Job Site City: Placitas
Job Site County: Sandoval

3) Contracting Agency Name (Department or Bureau): Sandoval County
Contracting Agency Contact's Name: Michelle Trujillo
Contracting Agency Contact's Phone: (505) 771-8500 Ext.

4) Estimated Contract Award Date: 06/01/2024

5) Estimated total project cost: $875,000.00
a. Are any federal funds involved?: No
b. Does this project involve a building?: Yes - Chlorine injection point into the existing building will be replaced to a new outside well house.
c. Is this part of a larger plan for construction on or appurtenant to the property that is subject to this project?: No
d. Are there any other Public Works Wage Decisions related to this project?: No
e. What is the ultimate purpose or functional use of the construction once it is completed?: Move the chlorinated out of a confined space in the building and provide fire fighting water for the area

6) Classifications of Construction:

Classification Type and Cost Total	Description
General Building (B) **Cost:** $875,000.00	Construction of a new well building to be able to relocate the chlorination equipment and hydro-pneumatic pressure tank out from the current location within the fire house and the installation of a new plumbing manifold equipped with a new master meter, and reduced pressure zone backflow prevention device. This includes the construction of a new pre-engineered metal building, a new foundation and relocation of three existing waster storage tanks for fire storage facilities, and installation of approximately 840 linear feet of 6 inch fire line to a new fire hydrant located at the fire station and the Placitas Community Library.

TYPE "B" – GENERAL BUILDING

Effective January 1, 2024

Trade Classification	Base Rate	Fringe Rate	Apprenticeship
Asbestos Workers/Heat and Frost insulators	35.86	12.46	0.60
Asbestos Workers/Heat and Frost insulators: Los Alamos County	38.29	12.46	0.60
Boilermaker/blacksmith	35.88	32.28	0.60
Boilermaker/blacksmith: San Juan County	36.83	31.88	0.60
Bricklayer/Block layer/Stonemason	27.03	10.99	0.60
Bricklayer/Block layer/Stonemason Curry, DeBaca, Quay and Roosevelt counties	23.10	8.98	0.60
Bricklayer/Block layer/Stonemason Dona Ana, Otero, Eddie and Lea counties	26.42	8.98	0.60
Carpenter/Lather	29.11	12.79	0.60
Carpenter: Los Alamos County	33.18	13.58	0.60
Millwright/pile driver	39.00	29.40	0.60
Cement Mason	24.31	11.16	0.60
Electricians-Outside Classifications: Zone 1			
Ground man	26.32	12.79	0.60
Equipment Operator	37.76	17.13	0.60
Lineman/technician	47.70	19.92	0.60
Cable Splicer	48.87	20.22	0.60

Electricians-Outside Classification: Zone 2			
Ground man	26.32	12.79	0.60
Equipment Operator	37.76	17.13	0.60
Lineman/technician	47.70	19.92	0.60
Cable Splicer	48.87	20.22	0.60
Electricians-Outside Classifications: Los Alamos County			
Ground man	27.07	12.81	0.60
Equipment Operator	38.85	17.17	0.60
Lineman/technician	48.95	20.24	0.60
Cable Splicer	53.75	21.44	0.60
Electricians-Inside Classifications: Zone 1			
Wireman/low voltage technician	38.30	12.60	0.60
Cable Splicer	42.13	12.71	0.60
Electricians-Inside Classification: Zone 2			
Wireman/low voltage technician	41.75	12.70	0.60
Cable Splicer	45.58	12.82	0.60
Electricians-Inside Classification: Zone 3			
Wireman/low voltage technician	44.05	12.72	0.60
Cable Splicer	47.88	12.89	0.60
Electricians-Inside Classification: Zone 4			
Wireman/low voltage technician	48.26	12.90	0.60
Cable Splicer	52.09	13.01	0.60
Electricians-Inside Classification: Dona Ana, Hidalgo, Luna and Otero Counties			
Wireman/low voltage technician	32.72	9.65	0.60
Cable splicer	32.72	9.65	0.60

Electricians-Inside Classification: Los Alamos County			
Wireman/low voltage technician	44.05	14.97	0.60
Cable Splicer	47.88	15.28	0.60
Elevator Constructor	49.77	39.19	0.60
Elevator Constructor Helper	34.84	39.19	0.60
Glazier/Fabricator	21.75	7.10	0.60
Glazier: Los Alamos county	21.75	7.10	0.60
Ironworker			
Ironworker Journeyman	28.49	18.71	0.60
Probationary Ironworker	22.79	18.71	0.60
Painter	21.00	5.75	0.60
Painter: Los Alamos county	31.18	11.50	0.60
Paper Hanger	21.00	5.75	0.60
Paper Hanger: Los Alamos county	32.06	11.50	0.60
Drywall Finisher/Taper - Light Commercial & Residential			
Ames tool operator	27.40	8.86	0.60
Hand finisher/machine texture	26.40	8.86	0.60
Drywall Finisher/Taper – Light Commercial & Residential: Los Alamos county	21.18	11.50	0.60
Plasterer	24.76	9.99	0.60
Plumber/Pipefitter	36.91	14.75	0.60
Roofer			
Roofer Journeyman	26.94	9.36	0.60
Roofer Helper	16.16	9.36	0.60
Sheet metal worker			
Zone 1	37.50	19.08	0.60
Zone 2 – Industrial	38.50	19.08	0.60
Zone 3 – Los Alamos County	39.50	19.08	0.60
Soft Floor Layer	21.00	9.20	0.60

Soft Floor Layer: Los Alamos county	31.20	11.62	0.60
Sprinkler Fitter	35.75	24.56	0.60
Tile Setter	24.46	8.81	0.60
Tile Setter Helper/Finisher	16.53	8.81	0.60
Laborers			
Group I- Unskilled	20.44	7.96	0.60
Group II – Semi-skilled	20.44	7.96	0.60
Group III- Skilled	21.44	7.96	0.60
Group IV - Specialty	23.69	7.96	0.60
Operators			
Group I	24.49	8.22	0.60
Group II	26.76	8.22	0.60
Group III	27.24	8.22	0.60
Group IV	27.70	8.22	0.60
Group V	27.90	8.22	0.60
Group VI	28.12	8.22	0.60
Group VII	28.23	8.22	0.60
Group VIII	31.43	8.22	0.60
Group IX	33.94	8.22	0.60
Group X	37.51	8.22	0.60
Truck Drivers			
Group I-VII	16.65	8.27	0.60
Group VIII	16.71	8.27	0.60
Group IX	18.65	8.27	0.60

NOTE: All contractors are required to pay SUBSISTENCE, ZONE AND INCENTIVE PAY according to the particular trade. Details are located in a PDF attachment at WWW.DWS.STATE.NM.US. Search Labor Relations/Labor Information/Public Works/Prevailing Wage Rates.

For more information about the Subsistence, Zone, and Incentive Pay rates, or to file a wage claim, contact the Labor Relations Division at (505) 841-4400 or visit us online at www.dws.state.nm.us.

BID FORM

Sandoval County Placitas Fire Station 41

Water System Improvements

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ARTICLE 1 – BID RECIPIENT

1.01 This Bid is submitted to:

Souder, Miller & Associates
Attn: Keaton Chancellor, PE
5454 Venice Ave. NE, Suite D
Albuquerque, NM 87113

1.02 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 Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for 60 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner.

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ARTICLE 3 – BIDDER'S REPRESENTATIONS

3.01 In submitting this Bid, Bidder represents that:

A. Bidder has examined and carefully studied the Bidding Documents, and any data and reference items identified in the Bidding Documents, and hereby acknowledges receipt of the following Addenda:

Addendum No.	Addendum Date	Addendum No.	Addendum Date

B. Bidder has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and satisfied itself as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.

C. Bidder is familiar with and has satisfied itself as to all 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 agrees, based on the information and observations referred to in the preceding paragraph, that no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price bid and within the times required, and in accordance with the 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 the Work as indicated in the Bidding Documents.

H. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and confirms that the written resolution thereof by Engineer is acceptable to Bidder.

I. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance and furnishing of the Work.

J. The submission of this Bid constitutes an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article, and that without exception the

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Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.

ARTICLE 4 – BIDDER'S CERTIFICATION

4.01 Bidder certifies that:

A. 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 collusive agreement or rules of any group, association, organization, or corporation;

B. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid;

C. Bidder has not solicited or induced any individual or entity to refrain from bidding; and

D. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 4.01.D:

1. "corrupt practice" means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the bidding process;

2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Owner, (b) to establish bid prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;

3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish bid prices at artificial, non-competitive levels; and

4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the e execution of the Contract.

ARTICLE 5 – BASIS OF BID

5.01 Bidder will complete the Work in accordance with the Contract Documents for the following price(s):

Note: Gross receipts tax not included.

Sandoval Country Placitas Fire Station 41 Waterline Improvements Project				
Engineer's Opinion of Probable Construction Costs (EOPCC)				
BASE BID: Well House and plumbing manifold and connection to the existing facilities				
Item	**Description**	**Unit**	**Qty**	**Unit Price**
1	Mobilization (75%)/Demobilization (25%), not to exceed 5% of the Base Bid	LS	1	
2	Testing allowance	Allow	1	$ 7,500.00
3	Electrical Extension Allowance	Allow		$ 10,000.00
4	Traffic control plan	LS	1	
5	Construction staking, including pipe alignments, appurtenances, and surveyed as-builts, CIP	LS	1	

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6	Relocate existing 10,000-gallon welded steel tank for construction of the new well building at a location specified by the Owner.	EA	1	
7	Connection to existing 2-inch well line, including all fittings and appurtenances, CIP	EA	2	
8	Relocate existing chlorination system. Furnish and install chlorination piping and appurtenances as needed to connect to new plumbing manifold.	EA	1	
9	Saw cut remove and replace existing 2-inch asphalt concrete, CIP	SY	60	
10	Building site preparation including clearing, grading, import engineered fill, compaction and leveling, CIP	LS	1	
11	Well building foundation, including all labor, materials, excavation, backfill, reinforcement, and concrete, CIP	SF	150	
12	Pre-engineered manufactured building as shown on plans, including chlorination room, access doors, detailed in Technical Specifications, CIP	LS	1	
13	Concrete building apron including reinforcement, forms, all labor, and equipment.	SF	55	
14	4-inch base course, including all material, labor, compaction, CIP	SF	149	
15	Pump house plumbing, including all fittings, piping, air valve, silent check valves, gate valves, flow meter, reduced pressure backflow preventor, and all appurtenances, CIP	LS	1	
16	Relocate existing hydro pneumatic pressure tank, including capping the existing copper line and reconnect to new plumbing manifold including all piping and appurtenances.	LS	1	
17	Furnish and install fire hydrant assembly, including tee, piping, gate valve, joint restraints, and all appurtenances, CIP	EA	1	
18	Furnish and install 6-inch PVC C900 pipe including all trenching, required fittings, restraints, bedding, backfill, tracer wire, warning tape, compaction, disinfection, testing, and all related appurtenances not included on Bid Form, CIP	LF	60	
19	Furnish and install 2-inch Schedule 40 steep pipe including all trenching, required fittings, restraints, bedding, backfill, tracer wire, warning tape, compaction, disinfection, testing, and all related appurtenances not included on Bid Form, CIP	LF	60	

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20	Electrical and controls, including pump control panels, combination disconnects, pressure switch, surge protection devices, fusible disconnect, trenching and backfill, equipment racks, heater relocations, exhaust fan, grounding, and conduit and wiring as shown on plans, CIP	LS	1	
21	Furnish and install 6-inch diameter gate valves including valve box, including concrete collar, fittings, trenching, backfill, materials, and labor, CIP	EA	1	
22	Furnish and install 2-inch diameter gate valves including valve box, including concrete collar, fittings, couplings, trenching, backfill, materials, and labor, CIP	EA	1	

TOTAL OF BID: $_____

IN WORDS: _____

_____

ADDITIVE BID ALTERNATE 1: Includes the construction of a new concrete foundation and retaining wall for three (3) existing water storage tank, including the piping to the water storage tanks

Item	Description	Unit	Qty	Unit Price
A.1.1	Mobilization (75%)/Demobilization (25%), not to exceed 5% of the Additive Bid Alternate 1	LS	1	
A.1.2	Testing allowance	Allow	1	$ 14,000.00
A.1.3	Construction staking, including pipe alignments, appurtenances, and surveyed as-builts, CIP	LS	1	
A.1.4	Relocate and re-install existing 10,000-gallon welded steel tank including establishing connection to new piping	EA	1	
A.1.5	Relocate and re-install existing 15,000-gallon fiber glass tank including establishing connection to new piping	EA	2	
A.1.6	Tank Foundation Site Preparation including clearing, grading, import engineered fill, compaction and leveling, CIP	LS	1	
A.1.7	Concrete foundation for existing tanks including all reinforcements, excavation, backfill, forms, and all labor and equipment, CIP	LS	1	
A.1.8	Saw cut remove and replace existing 2-inch asphalt, CIP	SY	40	

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A.1.9	Furnish and install 6-inch PVC C900 fire waterline pipe including all trenching, required fittings, restraints, bedding, backfill, tracer wire, warning tape, compaction, disinfection, testing, and all related appurtenances not included on Bid Form, CIP	LF	50	
A.1.10	Furnish and install 2-inch stainless steel pipe	LF	22	
A.1.11	Furnish and install 2-inch diameter ball valves including valve box, including concrete collar, fittings, trenching, backfill, materials, and labor, CIP	EA	3	
A.1.12	Furnish and install CMU retaining wall including all reinforcements, excavation, backfill, forms, and all labor and equipment, CIP	LF	68	
A.1.13	Preparation and implementation of a Storm Water Prevention Plan (SWPPP), CIP	LS	1	

TOTAL OF ADDITIVE BID ALTERNATE 1: $_____

IN WORDS: _____

_____

ADDITIVE BID ALTERNATE 2: Includes the installation of approximately 873 linear feet (LF) of new 6" fire waterline from the Station 0+00 to Approximately Sta. 8+40, including the installation of a new fire hydrant at the Placitas Library and all valves and appurtenances

Item	Description	Unit	Qty	Unit Price
A.2.1	Mobilization (75%)/Demobilization (25%), not to exceed 5% of the Additive Bid Alternate 2	LS	1	
A.2.2	Testing allowance	Allow	1	$ 6,400.00
A.2.3	Construction staking, including pipe alignments, appurtenances, and surveyed as-builts, CIP	LS	1	
A.2.4	Furnish and install 6-inch PVC C900 fire waterline pipe including all trenching, required fittings, restraints, bedding, backfill, tracer wire, warning tape, compaction, disinfection, testing, and all related appurtenances not included on Bid Form, CIP	LF	840	
A.2.5	Furnish and install fire hydrant assembly, including tee, piping, gate valve, joint restraints, and all appurtenances, CIP	EA	1	

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A.2.6	Furnish and install 6-inch diameter gate valves including valve box, including concrete collar, fittings, trenching, backfill, materials, and labor, CIP	EA	3	
A.2.7	Furnish and Install 1-inch combination air release valve, including all appurtenances, fittings, piping, saddles, vault, and braces, CIP	EA	1	
A.2.8	Preparation and implementation of a Storm Water Prevention Plan (SWPPP), CIP	LS	1	

TOTAL OF ADDITIVE BID ALTERNATE 2: $_____

IN WORDS: _____

_____

Bidder acknowledges that (1) each Bid Unit Price includes an amount considered by Bidder to be adequate to cover Contractor's overhead and profit for each separately identified item, and (2) estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all unit price Bid items will be based on actual quantities, determined as provided in the Contract Documents.

ARTICLE 6 – TIME OF COMPLETION

6.01 Bidder agrees that the Work will be substantially complete and will be completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions on or before the dates or within the number of calendar days indicated in the Agreement.

6.02 Bidder accepts the provisions of the Agreement as to liquidated damages.

ARTICLE 7 – ATTACHMENTS TO THIS BID

7.01 The following documents are submitted with and made a condition of this Bid:

A. Required Bid security;

B. List of Proposed Subcontractors;

C. List of Proposed Suppliers;

D. Required Bidder Qualification Statement with supporting data;

E. Evidence of authority to do business in the state of the Project;

F. New Mexico Contractor's License No.: _____;

G. Copy of Registration with the Labor Relations Division, New Mexico Department of Workforce Solutions, Public Works Bureau;

H. Copy of a valid resident business certificate or valid resident contractor certificate issued by the taxation and revenue department of the State of New Mexico (if applicable);

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I. Copy of a valid resident veteran business certificate or valid resident veteran contractor certificate issued by the taxation and revenue department of the State of New Mexico (if applicable);

J. Campaign Contribution Disclosure Form

ARTICLE 8 – DEFINED TERMS

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

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ARTICLE 9 – BID SUBMITTAL

BIDDER: *[Indicate correct name of bidding entity]*

_____

By:
[Signature] _____

[Printed name] _____
(If Bidder is a corporation, a limited liability company, a partnership, or a joint venture, attach evidence of authority to sign.)

Attest:
[Signature] _____

[Printed name] _____

Title: _____

Submittal Date: _____

Address for giving notices:

_____

_____

_____

Telephone Number: _____

Fax Number: _____

Contact Name and e-mail address: _____

_____

New Mexico Department of Workforce Solutions Registration No. _____

Is Bidder eligible for Resident Contractor Preference or Resident Veteran Contractor Preference as defined in the Instructions to Bidders?

Yes _____	Circle one:	Resident Contractor Preference	Resident Veteran Contractor Preference
No _____			

If yes, attach documentation of Resident Contractor or Resident Veteran Contractor eligibility.

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SECTION 09 90 00

HIGH PERFORMANCE COATINGS

PART 1 – GENERAL

1.01 SUMMARY

A. Section includes surface preparation and field application of paints and other coatings.

B. Related Sections:

1. Section 05 12 00 – Structural Steel.
2. Section 05 31 00 – Steel Decking.
3. Section 05 40 00 – Cold Formed Metal Framing.
4. Section 05 50 01 – Miscellaneous Metalwork.
5. Section 05 53 00 – Metal Gratings.
6. Section 08 11 14 – Bullet Resistant Steel Doors and Frames.
7. Section 33 11 13.13 – Ductile Iron Water Pipe and Fittings
8. Section 33 12 15 – Water Surge Control Tanks
9. Section 33 12 61.23 – Gate Valves
10. Section 33 12 64.16 – Butterfly Valves
11. Section 33 12 64.17 – Ball Valves
12. Section 33 12 69 – Automated Control Valves
13. Section 33 12 78.19 – Air Valves

1.02 REFERENCES

A. American Water Works Association (AWWA):

1. C213, Fusion-Bonded Epoxy Coatings for the Interior and Exterior of Steel Water Pipelines.
2. C217, Microcrystalline Wax and Petrolatum Tape Coating System for Steel Water Pipe and Fittings.
3. AWWA C550 - Protective Interior Coatings for Valves and Hydrants

B. Environmental Protection Agency (EPA).

C. NACE International (NACE): SP0188, Discontinuity (Holiday) Testing of New Protective Coatings on Conductive Substrates.

D. Occupational Safety and Health Act (OSHA).

E. The Society for Protective Coatings (SSPC):

1. PA 2, Procedure for Determining Conformance to Dry Coating Thickness Requirements.

2. PA 10, Guide to Safety and Health Requirements for Industrial Painting Projects.
3. SP 1, Solvent Cleaning.
4. SP 2, Hand Tool Cleaning.
5. SP 3, Power Tool Cleaning.
6. SP 5, White Metal Blast Cleaning.
7. SP 6, Commercial Blast Cleaning.
8. SP 7, Joint Surface Preparation Standard Brush-Off Blast Cleaning.
9. SP 10, Near-White Blast Cleaning.
10. SP 11, Power Tool Cleaning to Bare Metal.
11. SP 16, Brush-Off Blast Cleaning of Coated and Uncoated Galvanized Steel, Stainless Steels, and Non-Ferrous Metals.
12. SP 13, Surface Preparation of Concrete.
13. Guide 15, Field Methods for Retrieval and Analysis of Soluble Salts on Steel and Other Nonporous Substrates.

1.03 DEFINITIONS

A. Terms used in this section:

1. Coverage: Total minimum dry film thickness in mils or square feet per gallon.
2. FRP: Fiberglass Reinforced Plastic.
3. HCl: Hydrochloric Acid.
4. MDFT: Minimum Dry Film Thickness, mils.
5. MDFTPC: Minimum Dry Film Thickness per Coat, mils.
6. Mil: Thousandth of an inch.
7. PPDS: Paint Product Data Sheet.
8. PSDS: Paint System Data Sheet.
9. PVC: Polyvinyl Chloride.
10. SFPG: Square Feet per Gallon.
11. SFPGPC: Square Feet per Gallon per Coat.
12. SP: Surface Preparation.

1.04 SUBMITTALS

A. Section 01 33 00 – Submittal Procedures.

B. Factory Applied Coatings:

1. Manufacturer's certification stating factory applied coating system meets or exceeds requirements specified.

2. For fusion bonded epoxy coatings, provide manufacturer's certifications that coatings conform to AWWA and NSF standards specified in this section.
3. Field coating repair plan for any damage to factory-applied coatings prior to installation.

C. Manufacturer's written verification that submitted material is suitable for the intended use.

D. Manufacturer's written instructions and special details for applying each type of paint.

1. Special surface preparation procedures.
2. Substrate condition requiring special attention.

E. Submit color swatches for approval by Owner.

F. Closeout Submittal: Operation and Maintenance Data on cleaning, touch-up, and repair of painted and coated surfaces.

1.05 QUALITY ASSURANCE

A. Qualifications:

1. Manufacturer: Company specializing in manufacturing product specified in this section with minimum 5 years experience.
2. Applicator: Company specializing in performing work of this section with minimum 5 years experience.

B. Regulatory Requirements:

1. Meet federal, state, and local requirements limiting the emission of volatile organic compounds.
2. Perform surface preparation and painting in accordance with recommendation of the following:
   a. Paint manufacturer's instructions.
   b. SSPC PA 10.

1.06 DELIVERY, STORAGE, AND HANDLING

A. Shipping

1. Where precoated items are to be shipped to the Site, protect coating from damage. Batten coated items to prevent abrasion.
2. Deliver coating products to site in sealed and labeled containers; inspect to verify acceptability.

B. Container Label: Include manufacturer's name, type of paint, brand name, lot number, brand code, coverage, surface preparation, drying time, cleanup requirements, environmental requirements, color designation, and instructions for mixing and reducing.

C. Paint Materials: Store at minimum ambient temperature of 45 degrees F and maximum of 90 degrees F, in ventilated area, and as required by manufacturer's instructions.

1.07 ENVIRONMENTAL REQUIREMENTS

A. Do not apply materials when surface and ambient temperatures are outside temperature ranges required by paint product manufacturer.

B. Do not apply exterior coatings during rain or snow when relative humidity is outside humidity ranges, or moisture content of surfaces exceed those required by paint product manufacturer.

C. Do not perform final abrasive blast cleaning whenever relative humidity exceeds 85 percent, or whenever surface temperature is less than 5 degrees F above dew point of ambient air.

PART 2 – PRODUCTS

2.01 MANUFACTURERS:

A. Nationally recognized manufacturers of paints and protective coatings who are regularly engaged in the production of such materials for essentially identical service conditions.

2.02 ABRASIVE MATERIALS

A. Select abrasive type and size to produce surface profile that meets coating manufacturer's recommendations for specific primer and coating system to be applied.

2.03 PAINT MATERIALS

A. General:

1. Manufacturer's highest quality products suitable for intended service.

2. Compatibility: Only compatible materials from a single manufacturer shall be used in the Work. Particular attention shall be directed to compatibility of primers and finish coats.

3. Thinners, Cleaners, Driers, and Other Additives: As recommended by coating manufacturer.

B. Product Definitions:

1. Acrylic Latex: Single-component, finish as required.

2. Alkyd (semigloss): Semigloss alkyd.

3. Alkyd Enamel: Optimum quality, gloss or semigloss finish as required, medium long oil.

4. Block Filler: Primer-sealer designed for rough masonry surfaces, 100% acrylic emulsion.

5. Epoxy Primer – Ferrous Metal: Anticorrosive, converted epoxy primer containing rust-inhibitive pigments.

6. Fusion Bonded Epoxy: 100% solids, thermosetting, fusion bonded, dry powder epoxy, suitable for the intended service.

7. High Build Epoxy: Polyamidoamine epoxy, minimum 69% volume solids, capability of 4 to 8 MDFT per coat.

8. Polyurethane Enamel: Two-component, aliphatic or acrylic based polyurethane; high gloss finish.

9. Rust-Inhibitive Primer: Single-package steel primers with anticorrosive pigment loading.

10. Stain, Concrete: Acrylic, water repellent, penetrating stain.

2.04 SOURCE QUALITY CONTROL

A. Cure testing for fusion bonded or liquid epoxy coatings: ASTM D4752 and ASTM D3363, Every 1000 sq. ft. of epoxy coating.

B. Holiday testing for epoxy coatings:

1. All fusion-bonded epoxy coatings and cold-applied tape coatings on all pipes and fittings shall be holiday tested prior to installation, at no additional cost to the Owner.

2. Perform testing in accordance with NACE Standard SP0274, using electrical holiday tester. Use test voltage below:

Total Coating Thickness (Mils)	Test Voltage (Volts)
20 or less	6000
30	7500
50	9000
70	11500
80 or more	12000

3. All holidays shall be repaired and re-tested, at no additional cost to the Owner.

C. Touch up and repair of Fusion Bonded Epoxy Coatings

1. Applies to all FBE coated valves for field repair of minor holidays, scratches, breaks or other damage to FBE coating.

2. Does not include repair or touch up of systemic or large area holidays in FBE coating. Repair of systematic holidays or damaged areas larger than three (3) sq. in. will require the damaged coating be ground off and the valve be newly shop-coated.

3. Materials and application:

1) NSF/ ANSI 61 certified, two-part, 100% solids, liquid epoxy coating meeting the requirements of AWWA C210.

2) Manufacturer: 3M Scotchkote Epoxy Coating 323, OAE.

4. If temperature is below 55 degrees Fahrenheit, the metal substrate shall be pre-heated in accordance with coating manufacturer's recommendations prior to applying the coating.

5. Prepare surface and apply per coating manufacturer's instructions for use as a field repair material.

PART 3 – EXECUTION

3.01 EXAMINATION

A. Provide Engineer 7 days' advance notice to start of field surface preparation work and coating application work.

B. Perform the Work only in presence of Engineer, unless Engineer grants prior approval to perform the Work in Engineer's absence.

C. Schedule inspection of cleaned surfaces and all coats prior to succeeding coat in advance with Engineer.

D. Verify Surfaces are read to receive Work as instructed by the product manufacturer.

E. Examine surfaces scheduled to be finished prior to commencement of work. Report conditions capable of affecting proper application.

F. Test shop applied primer for compatibility with subsequent cover materials.

G. Measure moisture content of surfaces using electronic moisture meter. Do not apply finishes unless moisture content of surfaces are below the following maximums:

1. Plaster and Gypsum Wallboard: 12%.
2. Masonry and Concrete: 12%.
3. Concrete Floors: 8%.

3.02 PROTECTION OF ITEMS NOT TO BE PAINTED

A. Remove, mask, or otherwise protect hardware, lighting fixtures, switch plates, aluminum surfaces, machined surfaces, couplings, shafts, bearings, nameplates on machinery, and other surfaces not specified elsewhere to be painted.

B. Provide drop cloths to prevent paint materials from falling on or marring adjacent surfaces.

C. Protect working parts of mechanical and electrical equipment from damage during surface preparation and painting process.

D. Mask openings in motor to prevent paint and other materials from entering.

E. Protect surfaces adjacent to or downwind of Work area from overspray.

3.03 PREPARATION

A. Surface Appurtenances: Remove or mask electrical plates, hardware, light fixture trim, escutcheons, and fittings prior to preparing surfaces or finishing.

B. Surfaces: Correct defects and clean surfaces capable of affecting work of this section. Remove or repair existing coatings exhibiting surface defects.

C. Concrete Floors: Remove contamination, acid etch, and rinse floors with clear water. Verify required acid-alkali balance is achieved. Allow to dry.

D. Gypsum Board Surfaces: Fill minor defects with filler compound. Spot prime defects

after repair.

E. Galvanized Surfaces: Remove surface contamination and oils and wash with solvent. Apply coat of etching primer.

F. Concrete and Unit Masonry Surfaces Scheduled to Receive Paint Finish: Remove dirt, loose mortar, scale, salt or alkali powder, and other foreign matter. Remove oil and grease with solution of tri-sodium phosphate; rinse well and allow to dry. Remove stains caused by weathering of corroding metals with solution of sodium metasilicate after thoroughly wetting with water. Allow to dry.

G. Shop Primed Steel Surfaces: Sand and scrape to remove loose primer and rust. Feather edges to make touch-up patches inconspicuous. Clean surfaces with solvent. Prime bare steel surfaces. Prime metal items including shop primed items.

H. Metal Doors Scheduled for Painting: Prime metal door top and bottom edge surfaces.

3.04 EXISTING WORK

A. Extend existing paint and coatings installations using materials and methods compatible with existing installations and as specified.

3.05 MIXING

A. Multiple-component Coatings:

1. Prepare using each component as packed by manufacturer.
2. No partial batches will be permitted.
3. Do not use multiple-component coatings that have been mixed beyond their pot life.
4. Furnish small quantity kits for touchup and coating small areas.
5. Mix only components specified and furnished by coating Manufacturer.
6. Do not intermix additional components for reasons of color or otherwise, even within the same generic type of coating.

B. Colors: Formulate paints with colorants free of lead, lead components, or other materials that might be affected by presence of chemicals likely to be present at the Site.

3.06 APPLICATION

A. Do not apply finishes to surfaces that are not dry. Allow applied coats to dry before next coat is applied.

B. Apply each coat to uniform appearance. Apply each coat of paint slightly darker than preceding coat unless specified otherwise.

C. Sand metal surfaces lightly between coats to achieve required finish.

D. Vacuum clean surfaces of loose particles. Use tack cloth to remove dust and particles just prior to applying next coat

E. Finishing Mechanical and Electrical Equipment:

1. Paint shop primed equipment.
2. Remove unfinished louvers, grilles, covers, and access panels on mechanical and electrical components and paint separately.
3. Prime and paint insulated and exposed pipes, conduit, boxes, insulated and exposed ducts, hangers, brackets, collars and supports, except where items are shop finished.
4. Paint interior surfaces of air ducts visible through grilles and louvers with one coat of flat black paint to visible surfaces. Paint dampers exposed behind louvers, grilles, to match face panels.
5. Paint exposed conduit and electrical equipment occurring in finished areas.
6. Color code equipment, piping, conduit, and exposed duct work in accordance with requirements indicated.
7. Reinstall electrical cover plates, hardware, light fixture trim, escutcheons, and fittings removed prior to finishing.

3.07 FINISH SCHEDULE

A. Unless otherwise shown or specified, paint surfaces in accordance with the following application schedule. In the event of discrepancies or omissions in the following, request clarification from Engineer before starting work in question.

B. When required by equipment specifications, such equipment shall be primed and finish coated in shop by manufacturer and touched up in field with identical material after installation.

C. Where manufacturer's standard coating is not suitable for intended service condition, Engineer may approve use of a tie-coat to be used between manufacturer's standard coating and specified field finish. In such cases, tie-coat shall be surface tolerant epoxy as recommended by manufacturer of specified field finish coat. Coordinate details of equipment manufacturer's standard coating with field coating manufacturer.

D. Valves, including ball valves, butterfly valves, air valves, control valves, and gate valves.

1. Surface Preparation: Near-white metal blast, NACE No. 2/ SSPC-10
2. Coating:
   a. Fusion Bonded Epoxy Coating
   b. Thickness: 1 coat, 12 to 20 MDFT.
      1) Gate valves: 10 MDFT.
   c. Color: Blue
   d. Gloss at 60 degrees F: 60 to 80 units
   e. Impact resistance: > 44 in-lb
   f. Elongation: > 5%
   g. Hardness: > 100

h. Adhesion: 2320 psi at 7 days

3. Certifications: Provide certifications from manufacturer that fusion bonded coatings conform to the following standards:

a. AWWA C550 – Protective Interior Coatings for Valves and Hydrants

b. NSF Standard 61 – Drinking Water System Components – Health Effects

E. Surge Tank:

1. All painting and coating shall be completed at the factory in accordance with coating manufacturer's instructions. Field painting and coating will not be accepted. Prior to painting all surfaces shall be thoroughly dried and cleaned of all rust, dirt, grease, mill scale and other foreign material.

2. Internal surface preparation and coating:

a. Surface preparation: Sandblast to SSPC-SP-10.

b. Coat with NSF-61 approved 10-12 mil polyamide-cured epoxy
1) Manufacturers:
a) Tnemec N140
b) Sherwin Williams 646-PW
c) Substitutions: Approved Equal.

c. Color: Blue.

3. External surface preparation and coating:

a. Surface preparation: Sandblast to SSPC-SP-6.

b. Coat with at least 10 mil total thickness of polyurethane coating system with a zinc-rich primer.

c. Color: Blue.

F. Corrugated Metal Pipe (CMP) Valve Boxes:

1. Coating: Factory applied Polymer Coating.

G. Exposed FRP, PVC:

1. Surface prep.:

a. Hand sand plastic surfaces to be coated with medium grit sandpaper to provide tooth for coating system.

b. Large areas may be power sanded or brush-off blasted, provided sufficient controls are employed so surface is roughened without removing excess material.

2. Coating: Acrylic Latex Gloss, 2 coats, 320 SFPGPC.

H. Exposed Metal – Mildly Corrosive:

1. Scope: Exposed metal surfaces, located inside or outside of structures and exposed to weather or in a highly humid atmosphere, such as pipe galleries and similar areas, and the following specific surfaces:
    a. Atmospherically exposed metallic piping.
2. Surface Prep.: SP6, Commercial Blast Cleaning.
3. Coating: Epoxy Primer – Ferrous Metal, 1 coat 4-6 MDFT.

I. Ductile Iron Pipe, Exposed (Exterior):

1. Surface prep and application of primer shall be performed by pipe manufacturer.
2. Surface prep: NAPF 500-03-04, Abrasive Blast Cleaning.
3. Coating: Rust-inhibitive primer, followed by a high build epoxy (polyamidoamine epoxy, min 69% volume solids, capability of 4 - 8 MDFT per coat) and one coat of polyurethane enamel (aliphatic or acrylic based), 3 MDFT.

J. Ductile Iron Pipe, Buried (Exterior):

1. Coating: Asphaltic coating approximately 1 mil thick in compliance with AWWA C151.
2. This lining shall be applied in the pipe manufacturer's shop prior to shipment to the Project site.

K. Steel Sleeve

1. Scope: Steel sleeve around ductile iron pipe for Terminal Facility floor penetrations
2. Surface prep and application of primer shall be performed by pipe manufacturer.
3. Surface prep: SP-10 Near white blast cleaning
4. Coating: Rust-inhibitive primer, followed by 2 coats of high build epoxy (polyamidoamine epoxy, min 69% volume solids, total thickness 16 to 20 MDFT.

L. Galvanized bollards and vault vent pipes:

1. Surface Prep.: SP 16.
2. Coatings:
    a. Primer: Alkyd Primer, MDFT per manufacturer.
    b. Finish: Alkyd Semigloss Enamel, 2 coats, 3 to 5 MDFT.

M. Galvanized Metal:

1. Exclusions: Concealed galvanized, copper, and nonferrous metal alloy surfaces (behind building panels or walls) do not require painting, unless specifically indicated on the Drawings.
2. Surface Prep.: SP 16.
3. Coatings:

a. Primer: Recommended primer and thickness per manufacturer, 1 coat minimum.

b. Finish: Alkyd Enamel (semigloss), 2 coats, 4 MDFT.

N. Metal Trim and Structural Steel:

1. Surface Prep.: SP 6.

2. Coatings:

a. Primer: Rust-Inhibitive Primer, 1 coat, 2MDFT.

b. Finish: Alkyd Enamel (semigloss), 2 coats, 4 MDFT

O. Masonry:

1. Scope: CMU Walls.

2. Surface Prep.:

a. Filler/Surfacer: Use coating manufacturer's recommended product to fill air holes, bug holes, and other surface voids or defects.

b. Prime Coat: May be thinned to provide maximum penetration and adhesion.

c. Type and Amount of Thinning: Determined by paint manufacturer and dependent on surface density and type of coating.

d. Surface Specified to Receive Water Base Coating: Damp, but free of running water, just prior to application of coating.

3. Coating:

a. Block Filler, 1 coat, 75 SFPG

b. Exterior Anti-graffiti coating – Refer to Section 09 92 00 – Protective Anti-Graffiti Coatings.

c. Interior – No coating.

P. Concrete and Masonry:

1. Scope: Exposed concrete at base of exterior wall.

2. Surface prep.:

a. Do not begin until 30 days after concrete has been placed.

b. Meet requirements of SSPC SP 13.

c. Remove grease, oil, dirt, salts or other chemicals, loose materials, or other foreign matter by solvent, detergent, or other suitable cleaning methods.

d. Brush-off blast clean to remove loose concrete and laitance, and provide a tooth for binding. Upon approval by Engineer, surface may be cleaned by acid etching method. Approval is subject to producing desired profile equivalent to No. 80 grit flint sandpaper. Acid etching of vertical or overhead surfaces shall not be allowed.

e. Secure coating manufacturer's recommendations for additional preparation, if required, for excessive bug holes exposed after blasting.

f. Unless otherwise required for proper adhesion, ensure surfaces are dry prior to painting.

3. Coatings:

a. Stain, Concrete, 2 coats, 250 SFPGPC.

b. <or> Acrylic Sealer, 2 coats, 100 SFPGPC.

3.08 COLOR SCHEDULE

A.	Exposed ductile iron pipe inside vaults:	White
B.	Terminal Facility piping upstream of control valve:	SW6787 Fountain Blue
C.	Terminal Facility piping downstream of control valve:	SW9036 Retro Mint
D.	Valves:	Factory Blue
E.	Drains:	SW4004 Tan
F.	Bollards:	Safety Yellow
G.	Above-grade flush valve outlet:	Safety Yellow

3.09 SOURCE QUALITY CONTROL

A. Testing Equipment:

1. Provide calibrated electronic type dry film thickness gauge to test coating thickness specified in mils.

2. Provide low-voltage wet sponge electrical holiday detector to test completed coating systems, 20 mils dry film thickness or less, except zinc primer, high-build elastomeric coatings, and galvanizing, for pinholes, holidays, and discontinuities, as manufactured by Tinker and Rasor, San Gabriel, CA, Model M-1.

3. Provide high-voltage spark tester to test completed coating systems in excess of 20 mils dry film thickness. Unit as recommended by coating manufacturer.

B. Testing:

1. Thickness and Continuity Testing:

a. Measure coating thickness specified in mils with a magnetic type, dry film thickness gauge, in accordance with SSPC PA 2. Check each coat for correct millage. Do not make measurement before a minimum of 8 hours after application of coating.

2. Holiday detect coatings 20 mils thick or less, except zinc primer and galvanizing, with low voltage wet sponge electrical holiday detector in accordance with NACE SP0188.

3. Holiday detect coatings in excess of 20 mils dry with high voltage spark tester as

recommended by coating manufacturer and in accordance with NACE SP0188.

4. After repaired and recoated areas have dried sufficiently, retest each repaired area. Final tests may also be conducted by Engineer.

C. Inspection: Leave staging and lighting in place until Engineer has inspected surface or coating. Replace staging removed prior to approval by Engineer. Provide additional staging and lighting as requested by Engineer.

D. Unsatisfactory Application:

1. If item has an improper finish color or insufficient film thickness, clean surface and topcoat with specified paint material to obtain specified color and coverage. Obtain specific surface preparation information from coating manufacturer.

2. Evidence of runs, bridges, shiners, laps, or other imperfections is cause for rejection.

3. Repair defects in accordance with written recommendations of coating manufacturer.

E. Damaged Coatings, Pinholes, and Holidays:

1. Hand or power sand visible areas of chipped, peeled, or abraded paint, and feather edges. Follow with primer and finish coat. Depending on extent of repair and appearance, a finish sanding and topcoat may be required.

2. Remove rust and contaminants from metal surface. Provide surface cleanliness and profile in accordance with surface preparation requirements for specified paint system.

3. Feather edges and repair in accordance with recommendations of paint manufacturer.

4. Apply finish coats, including touchup and damage-repair coats in a manner that will present a uniform texture and color-matched appearance.

3.10 FIELD QUALITY CONTROL

A. OWNER reserves the right to inspect and approve or disapprove coatings of all materials, including factory-applied coatings, prior to installation.

B. All damaged coatings shall be repaired to the satisfaction of the OWNER, at CONTRACTOR's cost, in accordance with the Contractor's field coating repair plan which must be approved in advance by the OWNER.

3.11 CLEANUP

A. Place cloths and waste that might constitute a fire hazard in closed metal containers or destroy at end of each day.

PART 4 – MEASUREMENT AND PAYMENT

4.01 The work covered in this section for each item shall be considered incidental to the cost of their

respective bid items.

END OF SECTION