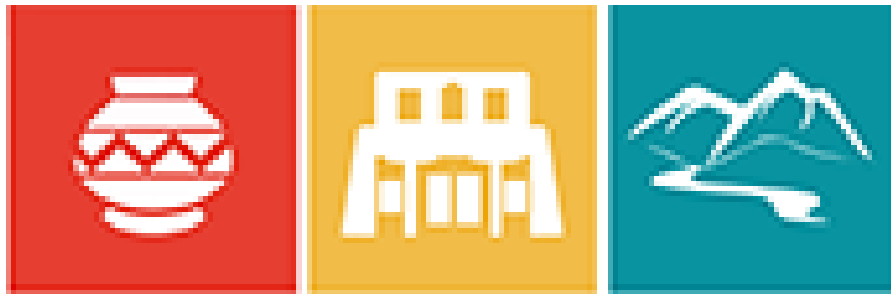


**NEW MEXICO
COMMUNITY DEVELOPMENT BLOCK GRANT
PUBLIC WORKS PROJECTS**

**SANTA FE COUNTY
GROWTH MANAGEMENT DEPARTMENT**

INVITATION FOR BID



SANTA FE COUNTY

IFB No. 2022-0234-GM/APS

**GREATER GLORIETA REGIONAL WELL
CDBG No. 19-C-NR-I-01-G-17**

JULY 2022

Note: These documents are issued by the Owner for use for Small Cities Community Development Block Grant construction projects and include pertinent federal and state procurement statutes and regulations. The document format promulgated by the Construction Specifications Institute, CSI Document MP-2-1 and was used as a guideline in formulating the organization of these documents. These documents have important legal consequences; consultation with an attorney is encouraged with respect to its modification or completion and approval by the Funding Agency with respect to its modification. Any approved modifications are to be included at the end of each section. This Document has been formatted and pages numbered so copies can be run on both sides (front and back).

SANTA FE COUNTY

Gregory S. Shaffer
Santa Fe County Manager

Date

FINANCE DIVISION DIRECTOR:

Yvonne S. Herrera

BOARD OF COUNTY COMMISSIONERS:

Henry Roybal, District 1

Anna Hansen, District 2

Rudy N. Garcia, District 3

Anna T. Hamilton, District 4

Hank Hughes, District 5

GREATER GLORIETA MDWCA

Trent Botkin
President



CONSULTANT

HDR Engineering, Inc.
2155 Louisiana Boulevard NE, Suite 9500
Albuquerque, NM 87110
Phone: (505) 830-5400
Fax: (505) 830-5454

The technical material and data contained in the specifications were prepared under the supervision and direction of the undersigned, whose seal as a Professional Engineer licensed to practice in the State of New Mexico, is affixed below.



7/21/22

Chris Rodriguez
Engineer of Record

Date

All questions about the meaning or intent of these documents shall be submitted only to the Architect/Engineer of Record, stated above, in writing. Refer to paragraph 3.2 of the Instructions to Bidders as to interpretations.

**ACKNOWLEDGEMENT OF RECEIPT FOR
IFB NO. 2022-0234-GM/APS
GREATER GLORIETA REGIONAL WELL**

In acknowledgement of receipt of this Invitation for Bids the undersigned agrees that he/she has received a complete copy, beginning with the title page, and ending with the contractual documents. Completed forms must be submitted to Amanda Patterson-Sanchez no later than August 19, 2022 to receive any addenda for this solicitation.

Only Bidders that return this form in a timely manner will receive copies of addenda to this IFB.

FIRM: _____
REPRESENTED BY: _____
TITLE: _____
PHONE NO.: _____
FAX NO.: _____
E-MAIL ADDRESS: _____
MAILING ADDRESS: _____

DELIVERY ADDRESS: _____

By: _____ Date: _____
(Signature)
Name: _____
(Printed)
Title: _____

This name and address will be used for all correspondence related to the Invitation for Bids (IFB).

Amanda Patterson-Sanchez, Procurement Specialist Senior
Santa Fe County Purchasing Division
102 Grant Avenue
Santa Fe, NM 87501
Phone: (505) 992-6753 Fax: (505) 989-3243
E-mail: apatterson-sanchez@santafecountynm.gov

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TECHNICAL SPECIFICATIONS

[Instructions: this page(s) to be replaced by Architect/Engineer with Index pages of Technical Specifications, if additional pages are needed, label as pages 4A-4, 4B-4, etc.]

Technical Specifications begin on page 119

PRE-BID INFORMATION

PRE-BID INFORMATION
Section 00010

1.0 PREQUALIFICATION FORMS

Section 00011

[Authority for prequalification - §13-1-134 NMSA 1978, insert "Not Required" if not used for this project]

2.0 DEBARRED OR SUSPENDED CONTRACTORS

Section 00012

2.1 A business (contractor, subcontractor or supplier) that has either been debarred or suspended pursuant to the requirements of Sections §13-1-177 through §13-1-180, and §Sections 13-4-11 through §13-4-17 NMSA 1978 as amended, shall not be permitted to do business with the Owner and shall not be considered for award of contract during the period for which it is debarred or suspended with the Owner.

3.0 FEDERAL AND STATE LAWS AND REGULATIONS

Section 00013

3.1 State administered Community Development Block Grant monies are Federal funds. Section 13-1-30B NMSA 1978 of the Procurement Code stipulates: "When a procurement involves the expenditure of federal funds, the procurement shall be conducted in accordance with mandatory applicable federal law and regulations. When mandatory applicable federal law or regulations are inconsistent with the provisions of the Procurement Code, compliance with federal law or regulations shall be compliance with the Procurement Code." The applicable governing federal procurement standards are defined in OMB Circular A-102, Attachment O. When federal and state procurement policies are different, the more restrictive policies apply so long as they are consistent with Circular A-102 standards.

3.2 For purposes of these Bidding Documents, the term "Grantee" means the Owner. The term "Funding Agency" means the Local Government Division, Department of Finance and Administration, Bataan Memorial Building, Suite 202, Santa Fe, New Mexico 87501, 505-827-8051.

4.0 REGISTRATION OF CONTRACTORS AND SUBCONTRACTORS

Section 00014

4.1 A contractor or subcontractor that submits a bid valued at more than \$60,000 for a public works project subject to the Public Works Minimum Wage Act shall be registered with the Labor and Industrial Division of the New Mexico Department of Workforce Solutions (NMDWS).

4.2 The contractor submitting a bid and all subcontractors must have a Dun and Bradstreet Number ([DUNS](#)) and registration with System of Awards Management ([SAM](#)).

4.3 A contractor or subcontractor that submits a bid regardless of the contract amount must be licensed and registered, and cannot be debarred. For any contracts \$60,000 and over the contractor or subcontractor must be current with annual Labor Enforcement Fund payments.

4.4 The Owner shall not accept a bid on a public works project from a Contractor that does not provide proof of required registration for itself (§13-4-13.1 NMSA 1978). Contractors, prime contractors and subcontractors shall be registered with the NMDWS.

4.5 See Bid Form and Subcontractor Listing form for Registration Numbers to be provided.

NOTICE OF INVITATION FOR BID

PRE-BID INFORMATION
Section 00021

Competitive sealed bids will be received by the Owner, for Greater Glorieta Regional Well for IFB N°. 2022-0234-GM/APS Project No.: **CDBG No. 19-C-NR-I-01-G-17.**

Project: The Santa Fe Growth Management Department request bids for the purpose of procuring a licensed construction company to upgrade the Greater Glorieta Mutual Domestic Water Consumer Association's (MDWCA) infrastructure and water quality. The well will be located at the site of the MDWCA's existing well at 80 Avenida Ponderosa, Glorieta, NM 87535 or approximately 35.574079 latitude and -105.76012 longitude. This project will replace the existing well with a deep water supply well (at a depth of 1,200-1,500 ft. into the Madera formation) which will directly benefit the combined Glorieta Village and Estates communities as a long term water source to address the public health risk of elevated radium above drinking water standards, a regional water supply source for both communities in the near term, a potential water source of East Glorieta should that subsystem be physically connected in the future, and a source of system redundancy for emergency purposes. The project will include siting and drilling a hole approximately 14 in. in width and 1,200 ft. in depth into the Madera Formation and constructing a water supply well and appurtenances including a well head, pump, approximately 50 ft. of pipe and fittings to connect to the existing distribution system. The well and connections will be fenced and the area graded for positive drainage following construction of the well. A Preliminary Engineering Report, complete with a geologic formation study, has been completed. Bids will be held for ninety (90) days subject to all action by the County. Santa Fe County reserves the right to reject any and all bids in part or in whole. A complete bid package must be submitted in a sealed container indicating the bid title and number along with the bidding firm's name and address clearly marked on the outside of the container. **All bids must be received at Santa Fe County Purchasing Division, 102 Grant Avenue (First Floor), Santa Fe, N.M. 87501 until Wednesday, September 7, 2022. At 2:00p.m. which time bids will be opened and publicly read aloud.**

Santa Fe County has taken preventative measures to insure the safety of its staff and the public. In an effort to combat the spread of the recent COVID-19 Pandemic, the Bid Opening will be held via **WebEx by using the link below or by calling (408) 418-9388 meeting number: 2494 543 4676.** If a bidder submitting a bid chooses to stay for the bid opening, only ONE (1) person representing the firm may be in the conference room. Social distancing will be maintained during the opening and hand sanitizer will be available, all surfaces will be wiped down with disinfectant. If you plan on attending in person please email apatterson-sanchez@santafecountynm.gov.
<https://sfco.webex.com/sfco/j.php?MTID=mdfef09b7b21a0410cb6e03ab26864496>

EQUAL OPPORTUNITY EMPLOYMENT: All qualified bidders will receive consideration of contract(s) without regard to race, color, religion, sex, national origin, ancestry, age, physical and mental handicap, serious mental condition, disability, spousal affiliation, sexual orientation or gender identity.

An Invitation for Bid packages is available by contacting Amana Patterson-Sanchez, Santa Fe County, by telephone at (505) 992-6753, by email at apatterson-sanchez@santafecountynm.gov or by accessing the Santa Fe County website at http://www.santafecountynm.gov/asd/current_bid_solicitations

Prospective bidders **must** attend a Pre-Bid Conference which will be held at the **Glorieta Pass Fire Station, #43 Fire Station Road, Village of Glorieta, New Mexico 87535 on Wednesday, August 17, 2022 at 10:30a.m.**

This Project is funded in whole or in part by a grant from the state of New Mexico Small Cities Community Development Block Grant Program and is subject to requirements of the United States Department of Housing and Urban Development and the funding agency.

Purchasing Agent:

Amanda Patterson-Sanchez Date: August 7, 2022

(FOR OWNER USE ONLY)

Newspaper:	<u>Albuquerque Journal</u>	Publish:	<u>August 7, 2022</u>
Newspaper:	<u>Santa Fe New Mexican</u>	Publish:	<u>August 8, 2022</u>
Newspaper:	<u></u>	Publish:	<u></u>

(Note: This Notice is issued pursuant to the requirements of §13-1-104 NMSA 1978)

INVITATION FOR BID

PRE-BID INFORMATION
Section 00022

Project: Greater Glorieta Regional Well

Project No. **CDBG No. 19-C-NR-I-01-G-17**

INVITATION FOR BID CONSTRUCTION CONTRACT

Bid Number: 2022-0234-GM/APS

Architect/Engineer of Record:

HDR Engineering, Inc.
Chris Rodriguez, PE
2155 Louisiana Blvd. NE, Suite 9500
Albuquerque, NM 87110

Sealed bids shall be submitted to:

Office of the Purchasing Agent
102 Grant Avenue (First Floor)
Santa Fe, New Mexico 87501

Owner:

Santa Fe County Growth Management
100 Catron Street
Santa Fe, NM 87501

Bids will be publicly opened after the Bid Deadline:

Date: September 7, 2022 **Time:** 2:00(MDT) P.M.

IMPORTANT: Bids must be submitted in a sealed envelope with the bid number and opening date clearly indicated on the bottom left-hand side of the front of the envelope.

BIDDING DOCUMENTS MAY BE REVIEWED BY
VISTING THE SANTA FE COUNTY WEBSITE AT:

[https://www.santafecountynm.gov/asd/current
bid_solicitations](https://www.santafecountynm.gov/asd/current_bid_solicitations)

Sealed Bids will be received until the above-specified date and local time, then publicly opened and read aloud. All hand-delivered bids must be received at the Office of the Purchasing Agent, address shown above.

Bids shall be presented in the form of a total Base Bid proposal under a Lump Sum Contract plus any additive or deductive alternates that are selected by the Owner. A bid must be submitted on all bid items and alternates; segregated bids will not be accepted. [Base Bid price shall not include state gross receipts or local options taxes. However, estimated tax shall be shown on the bid. In submitting this bid, each Bidder must satisfy all terms and conditions of the Bidding Documents]

This Bid is subject to the requirements of the Bidding Documents as defined in the "Instructions to Bidders," Section 00100. The Bid Form must be accompanied by a surety bond, subcontractor listing form, and documents specified in the "Instructions to Bidders."

All work covered by this Invitation for Bid shall be in accordance with applicable state laws and is subject to the minimum wage rate determination issued by the office of the Labor Commissioner for this project.

Proposed Bid Schedule:

Date Published: August 7 & 8, 2022
Prebid meeting: Wednesday, August 17, 2022
Bid Opening: Wednesday, September 7, 2022

Bid security in the form of a surety bond executed by a surety company authorized to do business in the state of New Mexico in the amount of **5%** of the total bid, or the equivalent in cash by means of a cashier's

check or in a form satisfactory to the Owner, must accompany each bid in accordance with the Instructions to Bidders.

⌘ End of Invitation for Bid □

A 100% performance bond and a 100% payment and materials bond executed by a surety company authorized to do business in this state and said surety to be approved in federal circular 570 as published by the United States treasury department shall be required from the successful Bidder.

A completed Subcontractor Listing Form must accompany each bid.

The Bidding Documents contain a time for completion of the work and further impose liquidated damages for failure to complete the work within that time period.

No Bidder may withdraw his bid for **10 days** after the actual date of the opening thereof. The Owner intends to award this Project to the lowest responsible Bidder.

The Owner reserves the right to reject any and all bids, to waive technical irregularities, and to award the contract to the Bidder whose bid it deems to be in the best interest of the Owner.

The Bidder's attention is directed to the requirements of the Contract Documents for adherence to applicable federal, state and local statutes, regulations and ordinances; including but not limited to, requirements as to conditions of employment to be observed, minimum wage rates to be paid under the Contract, Section 3, Segregated Facilities, Section 109, Executive Order 11246, and bonding and insurance requirements.

This Project is funded in whole or in part by a grant from the state of New Mexico Small Cities Community Development Block Grant Program and is subject to requirements of the United States Department of Housing and Urban Development and the funding agency.

All potential bidders must attend a Pre-bid Conference which will be held on:

Date: **August 17, 2022** Time: **10:30 A.M. (MDT)**

Location: **Glorieta Pass Fire Station, #43 Fire Station Road, Village of Glorieta, NM 87535**

INSTRUCTIONS TO BIDDERS

INSTRUCTIONS TO BIDDERS

Section 00100

1.0 DEFINITIONS AND TERMS

1.1 Terms used in these Bidding Documents which are defined in the Instructions to Bidders and in the Conditions of the Contract for Construction (General, Supplementary, and Other Conditions) have the meanings assigned to them in those documents.

1.1.1 *Addendum* means a written or graphic instrument issued prior to the opening of Bids which clarifies, corrects, or changes the Bidding Documents or Contract Documents. Plural: Addenda.

1.1.2 *Alternate Bid* means the amount stated in the Bid as the sum to be added from the amount of the Base Bid if the corresponding change in the project scope, materials, and/or methods of construction is awarded by the Owner.

1.1.3 *Base Bid* means the amount stated in the Bid as the sum for which the Bidder offers to perform the work, excluding alternate Bids.

1.1.4 *Bid* means the offer of the bidder submitted on the prescribed form setting forth the prices for the work to be performed in conformance with the Bidding Documents. This amount does not include gross receipts or local options taxes.

1.1.5 *Bid Lot* means a major item of work for which a separate quotation or proposal is requested.

1.1.6 *Bidder* means the one who submits a Bid directly to the Owner, as distinct from a subcontractor who submits a bid to a contractor.

1.1.7 *Bidding Documents* means the Bidding Requirements and the Contract Documents.

1.1.8 *Bid Form*. A form which shall include space in which the bid price shall be inserted and which the bidder shall sign and submit along with all other necessary submissions. A Bidder may submit a reasonable facsimile of the Bid Form. Oral, telephonic, and telegraphic bids are invalid and will not be considered.

1.1.9 *Bidding Requirements* means the Notice of Invitation for Bid, Pre-bid Information, Instructions to Bidders, Information Available for Bidders, the Bid Form, Supplements to the Bid Form, and portions of

Addenda relating to any of these.

1.1.10 *Invitation for Bid (IFB)* means all documents including those attached or incorporated by reference or utilized for soliciting sealed bids.

1.1.11 *Responsible Bidder* means a Bidder who submits a Responsive Bid and who has furnished, when required, information and data to prove that his financial resources, production or service facilities, personnel, service reputation, and experience are adequate to make satisfactory delivery of the services, construction, or items of tangible personal property described in the Invitation for Bid.

1.1.12 *Responsive Bid* means a bid that conforms in all material respects to the requirements set forth in the Invitation for Bid.

1.1.13 *Successful Bidder* means the lowest responsible Bidder to whom the Owner, on the basis of the Owner's evaluation, makes an award. A Successful Bidder does not become the contractor until an agreement with the Owner is signed.

2.0 EXAMINATION OF BIDDING DOCUMENTS AND SITE

2.1 Before submitting a Bid, each Bidder must:

2.1.1 Examine the bidding Documents thoroughly;

2.1.2 Visit the site to familiarize himself with local conditions that may in any manner affects cost, progress, or performance;

2.1.3 Familiarize himself with federal, state, and local laws, ordinances, rules, and regulations that may in any manner affect cost, progress, or performance of the Work; and

2.1.4 Study and carefully correlate the Bidder's observations with the Bidding Documents.

2.2 On request, the Owner will provide each Bidder access to the site to conduct such investigations and tests as each Bidder deems necessary for submission of his Bid.

2.3 The land upon which the Work is to be performed, rights-of-way for access thereto, and other lands designated for use by the Contractor in performing the work are identified in the Bidding Documents.

2.4 The submission of a Bid will constitute an incontrovertible representation by the Bidder that he has complied with every requirement of this Part and that the Bidding Documents are sufficient in scope and detail to indicate and convey understanding of all terms and conditions for performance of the Work.

3.0 BIDDING DOCUMENTS

3.1 Copies of Bidding Documents

3.1.1 Complete sets of the Bidding Documents in the number and for the deposit sum, if any, stated in the Invitation may be obtained from the Architect/ Engineer (unless another issuing office is designated in the Invitation for Bid). The deposit will be refunded to Bidders who submit a bona-fide bid and return the bidding Documents in good and complete condition within 15 calendar days after opening of Bids.

3.1.2 Complete sets of Bidding Documents shall be used in preparing bids; neither the Owner nor the Architect/Engineer assumes responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.

3.1.3 The Owner and the Architect/Engineer, in making copies of Bidding Documents available on the above terms, do so only for the purpose of obtaining Bids on the Work and do not confer a license or grant for any other use.

3.2 Interpretations

3.2.1 All questions about the meaning or intent of the Bidding Documents shall be submitted to the Architect/ Engineer in writing. Replies will be issued by addenda mailed or delivered to all parties recorded by the Architect/ Engineer as having received the Bidding Documents. Questions received less than 7 calendar days prior to the date for opening of Bids will not be answered. Only questions answered by formal written Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.

3.2.2 Bidders and Subcontractor shall promptly notify the Architect/Engineer of any ambiguity, inconsistency, or error that they may discover upon examination of the Bidding Documents or of the site and local conditions.

3.3 Substitute Material and Equipment

3.3.1 The contract, if awarded, will be on the basis of material and equipment described in the Drawings or

specified in the Specifications without consideration of possible substitute or "or-equal" items. Whenever it is indicated in the Drawings or specified in the Specifications that a substitute or "or-equal" item of material or equipment may be furnished or used by the contractor if acceptable to the Architect/Engineer, application for such acceptance will not be considered by the Architect/Engineer unless submitted to the Architect/Engineer at least ten days prior to the date for opening Bids. Any allowance of substitutions will be published to all prospective Bidders via addendum. The procedure for submittal of any such application by the Contractor and consideration by the Architect/ Engineer is set forth in the Contract Documents.

3.4 Addenda

3.4.1 Addenda will be mailed or delivered to all that are known by the Architect/ Engineer to have received a complete set of Bidding Documents.

3.4.2 Copies of addenda will be made available for inspection wherever Bidding Documents are on file for that purpose.

3.4.3 Addenda will be issued no later than four days prior to the date for receipt of Bids, except an addendum withdrawing the request for bids or one which includes postponement of the date for receipt of bids.

4.0 BIDDING PROCEDURES

4.1 Form and Style of Bids

4.1.1 Bids shall be submitted on forms identical to the form included with the Bidding Documents.

4.1.2 All blanks on the Bid Form shall be filled in by typewriter or manually in ink.

4.1.3 Where so indicated by the makeup of the bid firm, sums shall be expressed in both words and figures, and, in case of discrepancy between the two, the amount written in words shall govern.

4.1.4 The signer of the bid must initiate any interlineations, alteration, or erasure.

4.1.5 All requested additive or deductive alternate bids shall be bid. If no change in the Base Bid is required, enter "No Change."

4.1.6 Where there are two or more major items of work (identified as "Bid Lots") for which separate

quotations are requested, the Bidder may, at his discretion, submit quotations for any or all items, unless otherwise specified. Additionally, the Bidder may submit a lump sum price for all lots for which the Bidder has submitted separate quotations.

4.1.7 Each copy of the bid shall include the complete name of the bidder and a statement that the bidder is a sole proprietor, a partnership, a corporation, or some other legal entity. Each copy shall be signed by the person or persons legally authorized to bind the bidder to a contract. A Bid by a corporation shall further give the state of incorporation and have the applicable New Mexico Certificate of Incorporation number or Certificate of Authority number. The Bid shall include the current contractor's license number and type, and the current Contractor's preference number. A bid submitted by an agent shall have a current power of attorney attached certifying the agent's authority to bind the Bidder.

4.1.8 The Bid shall contain an acknowledgment of receipt of all addenda (the numbers of which shall be filled in on the Bid Form).

4.1.9 The address to which communications regarding the Bid are to be directed must be shown.

4.1.10 The project name and number, as well as the Owner's invitation to bid number, shall be clearly shown on the outside of the envelope in which the Bid is submitted.

4.2 Bid Security

4.2.1 Bid security in an amount equal to at least five percent (5%) of the amount of the Bid shall be a bond provided by a surety company authorized to do business in this state, or the equivalent in cash, a cashier's check, or otherwise supplied in a form satisfactory to the Owner ([§13-1-146 NMSA 1978](#)) and approved in writing by the Owner in advance. All bonds shall be executed by such sureties as are named in the current list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies," as published in circular 570, latest edition, by the Audit Staff Bureau of Accounts, United States Treasury Department.

4.2.2 The bid security shall be in the amount of 5% of the highest Bid amount submitted, unless otherwise stipulated, pledging that the Bidder will enter into a contract with the Owner on the terms stated herein and will furnish bonds covering the faithful performance of

the contract and payment of all obligations arising thereunder. Should the Bidder refuse to enter into such contract or fail to furnish bid security, the amount of the bid security shall be forfeited to the Owner as liquidated damages, not as a penalty.

4.2.3 The Owner will have the right to retain the bid security of Bidders to whom an award is being considered until either:

A. The contract has been executed and performance and labor/material bonds have been furnished,

B. The specified time has elapsed so that Bids may be withdrawn, or

C. All Bids have been rejected.

4.2.4 When the Bidding Documents require bid security, noncompliance by the Bidder requires that the Bid be rejected ([§13-1-147A NMSA 1978](#)).

4.2.5 If a Bidder is permitted to withdraw his Bid before award, no action shall take place against the Bidder or the bid security ([§13-1-147B NMSA 1978](#)).

4.2.6 The Owner may reduce bid security requirements authorized by the Procurement Code, §§13-1-28 to 13-1-199 NMSA 1978, to encourage procurement from small businesses. Reduction, if any, and the manner thereof will be stipulated in §7.0 of this section, Other Instructions to Bidders. Reduction of the amount of bid security, if any, shall in no way reduce requirements for performance, payment, or other bonds referenced in the Bidding Documents.

4.3 Pre-bid Conference

4.3.1 The Architect/Engineer shall conduct a pre-bid conference approximately 15 calendar days prior to the bid opening date stated in the Invitation for Bid.

4.3.2 The Architect/Engineer and his consultants, as applicable, shall be represented. Prospective Bidders, prospective Subcontractors, and prospective Vendors are encouraged to attend and should be prepared to ask questions regarding substitutions and/or to request clarification of the Bidding Documents.

4.3.3 Questions and requests for clarification are to be presented in written form. Responses will be written and issued as addenda. No verbal response shall be binding.

4.4 Resident Contractor's Preference

- Not used for federally funded projects

4.5 Subcontractors

4.5.1 The bidder shall list the Subcontractors he proposes to use for all trades or items on the Subcontractor Listing Form attached to the Bidding Documents.

4.5.2 *Definitions.* As used in this subpart 4.5, subcontractor listing shall be in compliance with the Subcontractors Fair Practices Act, the pertinent provisions of which are summarized in this subpart 4.5.

A. *Contractor* means the prime contractor on a public works construction project who contracts directly with the Owner (using agency);

B. *Subcontractor* is a person or entity often skilled in a specific type of construction work that enters into a contractual agreement with the prime contractor to perform part or all of the construction work.

C. *Listing threshold* means the dollar amount, stipulated in the bidding documents, above which subcontractors must be listed;

D. *Notice* means information, advice or a written warning intended to apprise a contractor or subcontractor of some proceeding in which his interests are involved or to inform him of some fact which is his right to know. Notice may be sent to a contractor or subcontractor by certified or registered mail and shall be deemed to be completed upon date of mailing; and

E. *Using Agency* means the Owner requiring services or construction.

4.5.3 Listing of Subcontractors, Requirements. The Owner shall provide in the bidding documents prepared for that project a listing threshold which shall be \$5,000 or one-half of one percent of the architect's or engineer's estimate of the total project cost, whichever is greater. Any person submitting a bid shall in his bid set forth:

A. The name location of the place of business of each subcontractor under subcontract to the contractor who will perform work or labor or render service to the contractor in or about the construction of the public works construction project in an amount in excess of the listing threshold; and

B. The nature of the work which will be done by each subcontractor under the Subcontractor Fair Practices Act. The contractor shall list only one subcontractor for each category as defined by the contractor in his bid.

4.5.4 Substitution of Subcontractor

A. No contractor whose bid is accepted shall substitute any person as subcontractor in place of the subcontractor listed in the original bid, except that the using agency shall consent to the substitution of another person as a subcontractor in the following circumstances: (1) when the subcontractor listed in the bid, after having had a reasonable opportunity to do so, fails or refuses to execute a written contract, when such written contract, based upon the general terms, conditions, plans and specifications for the project involved and the terms of such subcontractor's written bid, is presented to him by the contractor; (2) when the subcontractor listed in the original bid becomes bankrupt or insolvent prior to execution of a subcontract; (3) when the using agency refuses to approve the subcontractor listed in the original bid, provided such approval has been reserved in the bidding documents; (4) when the subcontractor listed in the original bid fails or refuses to perform his subcontract; (5) when the contractor demonstrates to the using agency or its duly authorized officer that the name of the subcontractor was listed as the result of an inadvertent clerical error; (6) when a bid alternate accepted by the using agency causes the listed subcontractor's bid not to be low; (7) when the contractor can substantiate to the using agency that a listed subcontractor's bid is incomplete; (8) when the listed subcontractor fails or refuses to meet the bond requirements of the contractor; (9) when it is determined that the listed subcontractor does not have a proper license to perform the work and the contractor has submitted the name of the subcontractor along with proof that the subcontractor bid work for which he was not licensed by the construction industries division of the regulation and licensing department; or (10) when it is determined by the using agency, the prime contractor or the director of the labor and industrial division of the labor department that a listed subcontractor is not a registered subcontractor on the date bids are unconditionally accepted for consideration.

B. Prior to approval of the contractor's request for such substitution, the Owner shall give notice in writing to the listed subcontractor of the contractor's request to substitute and of the reasons for such request. Such notice shall be served by certified or registered mail to

the last known address of the subcontractor. The listed subcontractor who has been so notified has 5 working days within which to submit written objections to the substitution to the Owner. Failure to file such written objections shall constitute the listed subcontractor's consent to the substitution. If written objections are filed, the Owner shall give at least 5 working days' notice in writing to the listed subcontractor of a hearing by the Owner on the contractor's request for substitution.

C. No contractor whose bid is accepted shall permit any such subcontract to be voluntarily assigned or transferred or allow it to be performed by anyone other than the original subcontractor listed in the original bid without the consent of the Owner.

D. No contractor whose bid is accepted, other than in the performance of change orders causing changes or deviations from the original contract, shall sublet or subcontract any portion of the work in excess of the listing threshold as to which his original bid did not designate a subcontractor unless the contractor fails to receive a bid for a category of work. Under such circumstances, the contractor may subcontract. The contract shall designate on the listing form that no bid was received.

4.5.5 Subcontractor Bond, Requirements. As to subcontractor required performance and payment bond if requested by the contractor, see §13-4-37 NMSA 1978.

4.5.6 Failure to Specify Subcontractor. If a contractor fails to specify a subcontractor in excess of the listing threshold, he represents that he is fully qualified to perform that portion himself and that he shall perform that portion himself. If after the award of the contract the contractor subcontracts any portion of the work, except as provided in the Subcontractors Fair Practices Act, the contractor shall be guilty of violation of the Subcontractors Fair Practices Act and subject to the penalties provided in subpart 4.5.9 of this section.

4.5.7 Inadvertent Clerical Error.

A. The contractor, as a condition to assert a claim of inadvertent clerical error in the listing of a subcontractor, shall within 2 working days after the time of the prime bid opening by the Owner give written notice to the Owner and to both the subcontractor he claims to have listed in error and the subcontractor who had bid to the contractor prior to bid opening.

B. Any listed subcontractor who has been notified by the contractor in accordance with the provisions of

this section as to an inadvertent clerical error shall be allowed 6 working days from the time of the prime bid opening within which to submit to the Owner and to the contractor written objection to the contractor's claim of inadvertent clerical error. Failure of such listed subcontractor to file such written notice within 6 working days shall be primary evidence of his agreement that an inadvertent clerical error was made.

C. The Owner shall, after a public hearing and in the absence of compelling reasons to the contrary, consent to the substitution of the intended contractor: 1) If the contractor, the subcontractor listed in error, and the intended subcontractor each submit an affidavit to the Owner, along with such additional evidence as the parties may wish to submit, that an inadvertent clerical error was in fact made, provided that the affidavits from each of the three parties are filed within eight working days from the time of the prime bid opening; or 2) If such affidavits are filed by both the contractor and the intended subcontractor within such specified time but the subcontractor whom the contractor claims to have listed in error does not submit within six working days to the Owner and to the contractor written objection to the contractor's claim of inadvertent clerical error as provided in this section.

D. If such affidavits are filed by both the contractor and the intended subcontractor but the listed subcontractor has within six working days from the time of the prime bid opening submitted to the Owner and to the contractor written objection to the contractor's claim of inadvertent clerical error, the Owner shall investigate the claims of the parties and hold a public hearing to determine the validity of such claims. Any determination made shall be based on facts contained in the affidavits submitted by all three parties and supported by testimony under oath and subject to cross-examination. The Owner may on its motion or that of any other party admit testimony of other contractors, any bid registries or depositories, or any other party in possession of facts that may have a bearing on the decision of the Owner.

4.5.8 Emergency Subcontracting. Subcontracting any portion of the work in excess of the listing threshold as to which no subcontractor was designated in the original bid shall be permitted only in the case of public emergency or necessity and then only upon a written finding by the Owner setting forth the facts constituting the emergency or necessity.

4.5.9 Penalties.

A. A contractor who violates the provisions of the

Subcontractors Fair Practices Act violates his own contract, and the Owner may exercise the option of: 1) canceling the contract; or 2) assessing the contractor a penalty in an amount of not more than ten percent of the amount of the subcontract involved but in no case less than the difference of the amount between the listed subcontractor and the subcontractor used, which penalty shall be deposited into the fund out of which the contract is awarded. In any proceeding under this subpart, the contractor shall be entitled to a hearing after notice.

B. A violation of the provisions of the Subcontractors Fair Practices Act constitutes grounds for disciplinary action against a contractor pursuant to regulations of the Construction Industries Division of the Regulation and Licensing Department.

C. A contractor who attempts to circumvent the provisions of the Subcontractors Fair Practices Act shall be subject to the penalties established pursuant to this subpart.

4.5.10 Dispute Resolution. Once the Owner has determined the existence of a valid claim under the provisions of the Subcontractors Fair Practices Act, the Owner or agent of the Owner may:

A. Hold a public hearing for the purpose of providing an informal resolution of the dispute by preparing a "front of dispute" which shall be available to all parties. The form shall state concisely, in numbered paragraphs, the matter at issue or dispute that the complainant expects to be determined. The agent or the Owner shall evaluate the issues presented by both sides of the dispute and render a decision within 10 days after the hearing, and provide the parties with a written copy of the decision by certified mail, return receipt requested; or

B. Refer the matter in dispute to be resolved through arbitration.

4.5.11 The Bidder shall not list himself as the supplier or as the Subcontractor for any trade unless he has previously performed work of this type or can prove to the Architect's/Engineer's and the Owner's satisfaction that he actually has, or will obtain, fully adequate facilities and plans to perform the work with his own forces.

4.5.12 Failure to comply with subcontractor listing requirements or provisions of the Subcontractors Fair Practices Act shall be grounds for considering a Bid as nonresponsive.

4.5.13 Prior to the award of the Contract, the Architect/Engineer will notify the Bidder in writing if either the Owner or the Architect/Engineer, after due investigation and written findings of fact, has reasonable and substantial objection to any person or organization on such list. If the Owner or Architect/Engineer has reasonable and substantial objection to any person or organization on such list and refuses in writing to accept such person or organization, the Bidder may, at his option:

A. Withdraw his Bid, or

B. Submit an acceptable substitute Subcontractor with no increase in his bid price.

C. In the event of withdrawal under this paragraph, bid security will not be forfeited.

4.5.14 The Successful Bidder shall, within 7 calendar days of notice of the award of a contract for the Work, submit the following information to the Architect/Engineer:

A. A signed list of the proprietary names and the suppliers of principal items or systems of material and equipment proposed for the Work; and

B. A list signed by all Subcontractors proposed for the principal portions of the Work in accordance with the Subcontractors Listing Form submitted with the Bid. Refer to Section 00430 for form of Subcontractors Listing.

4.5.15 The Successful Bidder will be required to establish to the satisfaction of the Architect/Engineer and the Owner the reliability and responsibility of the persons or entities proposed to furnish and perform the Work described in the Bidding Documents.

4.5.16 Persons and organizations proposed by the Bidder and to whom the Owner and the Architect/Engineer have made no reasonable objection under the provisions of subpart 4.5.15 above must be used on the Work for which they were proposed and shall not be changed except with the written consent of the Owner and the Architect/Engineer.

4.5.17 No Successful Bidder shall be required to employ any Subcontractor, other person, or organization against which he has reasonable objection.

4.6 Submission of Bids

4.6.1 Bids shall be submitted at the time and place indicated in the Invitation for Bid and shall be included in an opaque sealed envelope marked with the Project title and name and address of the Bidder and accompanied by the bid security, subcontractors listing, and other required documents listed in the Bidding Requirements.

4.6.2 The envelope shall be addressed to the Owner at the address shown on the cover page. The following information shall be provided on the front lower left corner of the bid envelope: invitation for bid number, date of opening, and time of opening. If the bid is sent by mail, the sealed envelope shall have the notation "**SEALED BID ENCLOSED**" on the face thereof.

4.6.3 Bids received after the date and time for receipt of Bids will be returned unopened.

4.6.4 The Bidder shall assume full responsibility for timely delivery of Bids at the office noted on the Invitation for Bid, including those Bids submitted by mail. Hand-delivered bids shall be submitted at the location stated in the Invitation for Bid, Section 00022, and will be clocked in at the time received, which must be prior to the time specified. Bids will then be held for public opening.

4.6.5 Oral, telephonic, or telegraphic bids are invalid and will not receive consideration.

4.7 Correction or Withdrawal of Bids

4.7.1 A Bid containing a mistake discovered before bid opening may be modified or withdrawn by a Bidder prior to the time set for bid opening by delivering written or telegraphic notice to the location designated in the invitation for bid as the place where bids are to be received.

4.7.2 Bid security, if required, shall be in an amount sufficient for the Bid as modified or resubmitted in conformance with subpart 4.2 of this section.

4.7.3 Withdrawn Bids may be resubmitted up to the time and date designated for the receipt of Bids, provided they are then fully in conformance with the Bidding Documents.

4.7.4 After bid opening, no modifications in Bid Prices or other provisions of Bids shall be permitted. A low Bidder alleging a material mistake of fact that makes his Bid nonresponsive may be permitted to withdraw his

Bid if:

A. The mistake is clearly evident on the fact of the Bid Document; or

B. The Bidder submits evidence which clearly and convincingly demonstrates that a mistake was made.

C. Any decision by the Owner to permit or deny the withdrawal of a Bid on the basis of a mistake contained therein shall be supported by a determination setting forth the grounds for the decision. If withdrawal is permitted, bid security will not be forfeited.

4.8 Notice of Contract Requirements Binding on Bidder

4.8.1 In submitting this bid, the Bidder represents that he has familiarized himself with the nature and extent of the following requirements of the Conditions of the Construction Contract (General, Supplementary, and Other Conditions):

A. Definitions - Sections 00700, Part 1.0 and 00810, §1.0;

B. Bribes, Gratuities, and Kickbacks - Section 00820;

C. Nonresident Contractor Requirements Regarding Gross Receipts Tax Surety Bond - Section 00820;

D. Contractor's Gross Receipts Tax Registration - Section 00820;

E. Contracts with Nonresident Persons or Partnerships or Unadmitted Foreign Corporations, Agent for Service of Process- Section 00820;

F. Assignment of Antitrust Claims - Section 00820;

G. Equal Employment Opportunity - Section 00820; and

H. Others listed within the Contract Documents.

4.9 Rejection or Cancellation of Bids

An invitation for bid may be canceled, or any or all Bids may be rejected in whole or in part, when it is in the best interest of the Owner. A determination containing the reasons therefor shall be made part of the project file ([§13-1-131 NMSA 1978](#)). Bid security for rejected Bids

shall be returned to the Bidder.

4.10 Protests

4.10.1 Any Bidder, Offerer, or Contractor who is aggrieved in connection with this Bid may protest to the Owner. The protest should be made in writing within 24 hours after the facts or occurrences giving rise thereto, but in no case later than 15 calendar days after the facts or occurrences giving rise thereto (§13-1-172, NMSA 1978).

4.10.2 In the event of a timely protest under subsection 4.10.1 above (§13-1-172 NMSA 1978), the procurement officer and the Owner shall not proceed further with the procurement unless the procurement officer or the Owner makes a determination that the award of contract is necessary to protect substantial interests of the Owner (§13-1-173 NMSA 1978).

4.10.3 The procurement officer or his designee shall have the authority to take any action reasonably necessary to resolve a protest of an aggrieved Bidder, Offerer, or contractor concerning procurement.

4.10.4 The procurement officer or his designee shall promptly issue a determination relating to the protest. The determination shall:

A. State the reasons for the action taken; and

B. Inform the protestant of the right to judicial review of the determination pursuant to §13-1-183 NMSA 1978 (§13-1-175 NMSA 1978).

C. A copy of the determination issued under §13-1-175 NMSA 1978 shall immediately be mailed to the protestant and other bidders or offerors involved in the procurement (§13-1-176 NMSA 1978).

5.0 CONSIDERATION OF BIDS

5.1 Receipt, Opening, and Recording

Bids received on time will be opened publicly and will be read aloud, and an abstract of the amounts of the Base Bids and alternates or Bid items, if any, will be made available to the Bidders. Each Bid shall be open to public inspection (§13-1-107 NMSA 1978).

5.2 Bid Evaluation and Award. If the lowest bid, including alternates, exceeds the amount budgeted for construction, the Grantee may negotiate with the low bidder to bring the contract within the available funds, if

the bid amount does not exceed 10% of available funds. Owner may reject all bids and may start the process over if necessary.

5.2.1 The Owner shall have the right to waive technical irregularities in the form of the Bid of the low Bidder which do not alter the price, quality, or quantity of the services, construction, or items of tangible personal property bid (§13-1-132 NMSA 1978).

5.2.2 It is the intent of the Owner to award a contract to the lowest responsible Bidder, provided the Bid has been submitted in accordance with the requirements of the Bidding Documents. The unreasonable failure of a Bidder to promptly supply information in connection with an inquiry with respect to responsibility is grounds for a determination that the Bidder is not a responsible Bidder (§13-1-133 NMSA 1978). See subpart 6.6 of this section as to Post-Bid Information that may be required of a contractor as to qualifications.

5.2.3 If the Base Bid is within the amount of funds available to finance the construction, contract award will be made to the responsible Bidder submitting the low Base Bid; except that, if sufficient funds are available to fund alternates, the Owner may award the contract to the responsible Bidder submitting the low combined Bid within the amount of funds available (Base Bid plus or minus alternates). If the award is based on alternates, the Owner shall accept them based on available funding.

5.2.4 Discrepancies in the Bid form between words and figures will be resolved in favor of words. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum.

5.2.5 Conditional Bids or Bids with additional terms will not be accepted.

5.3 Notice of Award

The Owner shall issue a written Notice of Award after review and approval of the bid and related documents by the Owner with reasonable promptness §§13-1-100 and 13-1-108 NMSA 1978).

5.4 Identical Bids

When two or more of the bids submitted are identical in price and are the low Bid, the Owner may:

A. Award pursuant to the multiple source award provisions of §§13-1-153 and 13-1-154 NMSA 1978 of

the procurement code;

B. Award to a resident business if the identical low Bids are submitted by a resident business and a nonresident business;

C. Award to a resident manufacturer if the identical low Bids is submitted by a resident manufacturer and a resident business;

D. Award by lottery to one of the identical low Bidders; or

E. Reject all Bids and resolicit Bids or proposals for the required services, construction, or items of tangible personal property (§13-1-110 NMSA 1978).

F. Subsections B and C are not applicable to federally funded projects.

5.5 Cancellation of Award

When in the best interest of the public, the Owner may cancel the award of any contract at any time before the execution of said contract by all parties without any liability against the Owner.

6.0 POST-BID INFORMATION

6.1 Submittals to Architect/ Engineer

Within 7 days after Notice of Award, the following shall be submitted to the Architect/Engineer:

A. The required bonds and certificate of insurance,

B. The requirements under subpart 4.5.5 of this section, and

C. A brief resume of the Successful Bidder's superintendent.

6.2 Return of Bid Security

6.2.1 All bid security in the form of checks, except those of the two lowest Bidders, will be returned immediately following the opening and checking of the Bids. The retained bid security of the unsuccessful of the two lowest Bidders, if in the form of a check, will be returned within 15 days following the award of contract.

6.2.2 The retained bid security of the Successful Bidder, if in the form of a check, will be returned after a satisfactory contract bond has been furnished and the

Agreement has been executed. Bid securities in the form of bid bonds will be returned only upon the request of the unsuccessful Bidder, but will be released by the procurement officer after the Owner sends the Notice of Award.

6.3 Execution and Approval of Agreement

6.3.1 The agreement shall be prepared and sent to the Successful Bidder by the Owner and shall be signed by the Successful Bidder and returned, together with both the contract bonds and certificate of insurance, within 15 calendar days after the date of the Notice of Award.

6.3.2 If the Owner does not execute the agreement within 30 days following receipt from the Bidder of the signed Agreement with bonds and certificate, the Bidder shall have the right to withdraw his proposal without penalty. No contract shall be effective until it has been fully executed by all of the parties thereto.

6.4 Notice to Proceed

The Owner will issue a written Notice to Proceed to the contractor stipulating the date from which contract time will be charged and the date contract time is to expire, subject to valid modifications of the contract authorized by change order.

6.5 Failure to Execute Contract

Failure to return the signed Agreement with acceptable contract bonds and certificate of insurance within 15 calendar days after the date of the Notice of Award shall be just cause for the cancellation of the award and the forfeiture of the bid security, which shall become the property of the Owner, not as a penalty, but in liquidation of damages sustained. Award may then be made to the next lowest responsible Bidder, or the Work may be re-advertised and constructed under contract or otherwise, as the Owner may decide.

6.6 Contractor's Qualifications Statement

Bidders to whom award of a contract is under consideration shall submit, upon request, information and data to prove that their financial resources, production or service facilities, personnel, and service reputation and experience are adequate to make satisfactory delivery of the services, construction, or items of personal property described in the Bidding Documents (§13-1-82 NMSA 1978).

7.0 OTHER INSTRUCTIONS TO BIDDERS

The bid will be awarded on the lowest responsible base bid and the accepted alternates.

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GEOTECHNICAL INVESTIGATION REPORT

INFORMATION AVAILABLE TO BIDDERS
Section 00220

1.0 INVESTIGATION

(list any special conditions bidders need to be aware of at job site)

2.0 INTERPRETATION

These data are for information only and not intended as representations or warranties of continuity of conditions between borings.

The Owner and the Architect/Engineer disclaim any responsibility for accuracy, true location and extent of soils investigation that had been prepared by others. They further disclaim responsibility for interpretation of these data by bidders; as in projecting soil bearing values, soil profiles and soil stability.

BID FORM
Lump Sum or Unit Price

BID FORMS
Section 00310

Project: **CDBG No. 19-C-NR-I-01-G-17**

IFB No. 2022-0234-GM/APS

Bidder:

This Bid is submitted to:

Santa Fe County
102 Grant Avenue (First Floor)
Santa Fe, New Mexico 87501

Attn: Amanda Patterson-Sanchez

1.0 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an agreement with the Owner in the form included in the Bidding Documents to perform and furnish all Work as specified or indicated in the Bidding Documents for the Contract Price and within the Contract Time indicated in this Bid and in accordance with the other terms and conditions of the Contract Documents.

2.0 The Bidder accepts all of the terms and conditions of the Invitation for Bid and Instructions to Bidders, including without limitation those dealing with the disposition of bid security and other Bidding Documents. This Bid will remain subject to acceptance for **90** days after the day of Bid opening. The Bidder shall sign and submit the Agreement between Owner and Contractor (hereinafter called Agreement) with the bonds and other documents required by the Bidding Requirements within 15 calendar days after the date of the Owner's Notice to Award.

3.0 In submitting this Bid, the Bidder represents, as more fully set forth in the Agreement, that:

A. The Bidder has examined copies of all the Bidding Documents and of the following Addenda (receipt of all of which is hereby acknowledged):

No. _____ Dated _____

No. _____ Dated _____

No. _____ Dated _____

No. _____ Dated _____

No. _____ Dated _____

No. _____ Dated _____

B. The Bidder has familiarized himself with the nature and extent of the Bidding Documents, Work, site, locality, and all local conditions, laws, and regulations that in any manner may affect cost, progress, performance, or furnishing of the Work.

C. The Bidder has carefully studied all reports and drawings of subsurface conditions which are identified in the Information Available to Bidders and accepts the determination set forth in the Information Available to Bidders of the extent of the technical data contained in such reports and drawings upon which the Bidder is entitled to rely.

D. The Bidder has correlated the results of all such observations, examinations, investigations, explorations, tests, reports, and studies with the terms and conditions of the Bidding Documents.

E. The Bidder has given the Architect/Engineer written notice of all conflicts, errors, and discrepancies that he has discovered in the Bidding Documents, and the written resolution thereof by the Architect/Engineer is acceptable to the Bidder.

F. This Bid is genuine and not made in the interest of or on behalf of any undisclosed person, firm, or corporation and is not submitted in conformity with any agreement or rules of any group, association, organization, or corporation; the Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid; the Bidder has not solicited or induced any person, firm, or corporation to refrain from bidding; and the Bidder has not sought by collusion to obtain for himself any advantage over any other Bidder or over the Owner.

G. The Bidder acknowledges that he has attended any mandatory pre-bid conference scheduled by the Owner and/or the Architect/Engineer pertaining to this

project.

H. The Bidder agrees to show clearly on the envelope in which the Bid is submitted the Project Name and Number, as well as Invitation for Bid Number.

I. The Bidder will complete the Work for the following price(s) which do not include any gross

receipts tax in the price(s):

4.0 Bids shall be presented in the form of a total Base Bid proposal under a lump sum contract plus any additive or deductive alternates that are selected by the Owner. A bid must be submitted on all bid items and alternatives. The Owner will not select segregated bids.

BID SHEETS

IFB# 2022-0234-GM/APS GREATER GLORIETA REGIONAL WELL

Item No.	Description (Complete in Place)	Unit	Quantity	Unit Price	Extended Price
1	Construction Staking, Complete in Place	LS	1		
2	Construction Mobilization/Demobilization, Complete and in Place	LS	1		
3	Site Cleaning and Grubbing, including tree removal, for treatment complete in place	AC	2		
4	8" Waterline Pipe (std. Spc. Sec. 801), incl. trench & compacted backfill to 6' depth, including fittings & joint restraint, CIP	LF	2,600		
5	6" Waterline Pipe (std. Spc. Sec. 801) incl. trench & compacted backfill to 6' depth, including fittings & joint restraint, CIP	LF	1,400		
6	3/4" Water service Line, new single connection to existing water main per SD 2362, CIP	EA	22		
7	Fire Hydrant, 4' bury, MJ, including blocking & aggregate, CIP	EA	8		
8	Flush Hydrant, 4' bury, MJ, including blocking & aggregate, CIP	EA	1		
9	Combination Single Vault (dual purpose), Vault includes Isolation Valve and Drain with ARV, including excavation, backfill, reinforced concrete, all piping, and appurtenances, CIP	EA	2		
10	Bore & Jack 14" and 16" casing 6" pipes (std. Spc. Sec. 2380) including Grouting of annular space & corrosion protection, EXCLUDING Waterline pipe, CIP	LF	110		
11	Subgrade Prep. 12" at 95% compaction, CIP	SY	1,600		
12	Aggregate Base Course, crushed, 6" at 95% compaction, CIP SD 2408	SY	1,600		

13	Existing Pavement, Asphalt Concrete, Any Thickness, Sawcut, Remove, and Dispose, CIP	SY	1,000		
14	Chip-seal double bituminous pavement, NMSSP for Public works 334 or Santa Fe County approved equal, CIP	SY	1,000		
15	6" Gate Valve, CIP	EA	7		
16	8" Gate Valve, CIP	EA	12		
17	Pilot Well	LS	1		
18	Regional Well	LS	1		
Subtotal Bid Items 1 through 18					
Allowances					
Materials Testing Allowance					\$10,000.00
Utility Relocation					\$50,000.00
Electrical Allowance					\$30,000.00
Total Base Bid + Allowances written in number					
		Dollars & Cents			
Total Base Bid + Allowances written in words					

ALL BID ITEMS MUST BE EXCLUSIVE OF NMGR

5.0 The Bidder agrees that:

A. The Work to be performed under this Contract shall be commenced not later than 10 consecutive calendar days after the date of written Notice to Proceed, and that Substantial Completion shall be achieved not later than (120) calendar days after the date of written Notice to Proceed, except as hereafter extended by valid written Change Order by the Owner.

B. Should the Contractor neglect, refuse, or otherwise fail to complete the Work within the time specified, the Contractor agrees to pay to the Owner in partial consideration for the award of this Contract the amount of One Thousand Dollars (\$ 1,000.00) per consecutive calendar day, not as a penalty, but as liquidated damages for such breach of the Contract.

C. The above prices shall include all labor, materials, removal, overhead, profit, insurance, taxes (not including gross receipts tax), etc., to cover the finished work of the several kinds called for. Changes shall be processed in accordance with the Contract Documents.

D. It is understood that the Owner reserves the right to reject any or all Bids and to waive any technical irregularities in the bidding.

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

8.0 If the Bidder is

A. An **INDIVIDUAL**:

By _____
(Individual's Signature)

doing business as _____

Business address: _____

Telephone: (____) _____ Fax: (____) _____

[Seal]

B. A **PARTNERSHIP**:

By _____

A. Bid Bond

B. Bid Security with Agent's Affidavit

C. Subcontractors Listing & NMDWS Registration form.

D. Certification of Bidder Regarding Equal Employment Opportunity, Form 950.1

E. Certification of Bidder Regarding Section 3 and Segregated Facilities

F. Section 3 Plan

G. Table A Proposed Subcontracts Breakdown

H. Table B Estimated Project Workforce Breakdown

I. Active or "in progress" status in the System of Award Management (sam.gov) for contractor and subcontractor(s)

J. Other (list):

7.0 The terms used in this Bid and the Bidding and Contract Documents which are defined in the Conditions of the Construction Contract (General, Supplementary, and Other Conditions), included as part of the Bidding Documents, have the meanings assigned to them in those Conditions.

(Firm Name)

(General Partner's Signature)

Business address: _____

Telephone: (____) _____ Fax: (____) _____ [Seal]

C. A CORPORATION:

Corporation Name: _____

State of Incorporation: _____

By: _____ Title: _____
(Name of Person Authorized to Sign)

If a New Mexico Corporation: _____
NM Certificate of Incorporation Number

If a Foreign Corporation: _____
NM Certificate of Authority Number

Attest (Secretary): _____

Business address: _____

Telephone: (____) _____ Fax: (____) _____

D. A JOINT VENTURE:

By _____
(Name)

Address: _____

Telephone: (____) _____ Fax: (____) _____

By _____
(Name)

Address: _____

Telephone: (____) _____ Fax: (____) _____

[Each Joint Venturer must sign. The manner of signing for each individual, partnership, and corporation that is a party to the joint venture should be in the manner indicated in the appropriate category]

BIDDER MUST FILL IN THE FOLLOWING (If none, write none)

NM License N°.	_____	Classification(s)	_____
Resident Contractor's		Workforce	
Preference N°.	<u>Not Applicable for this Project</u>	Solutions Dept.	
		Registration N°.	_____

System of Award Management Registration No.
(CAGE Number or DUNS Number) _____

Federal Employer Tax ID No. _____

State of New Mexico Tax ID No. _____

BID BOND

SUPPLEMENTS TO BID FORMS
Section 00420

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned, _____ as Principal, and _____ as Surety, are hereby held and firmly bound unto _____ as Owner in the penal sum of _____ for which, well and truly to be made, we hereby jointly and severally bind ourselves, our heirs, executives, administrators, successors and assigns.

SIGNED, this _____ day of _____, 20__.

The condition of the above obligation is such that whereas the Principal has submitted to the Owner a certain Bid, attached hereto and hereby made a part hereof to enter into a contract in writing, for (Project) _____

NOW, THEREFORE,

- A. If said Bid shall be rejected, or in the alternate,
- B. If said Bid shall be accepted and the Principal shall execute and deliver a contract in the Form of Contract, attached hereto (properly completed in accordance with said Bid) and shall furnish a Bond (Bid Security) for the faithful performance of said Contract, and for the payment of all persons performing labor or furnishing materials in connection therewith, and shall in all other respects perform the agreement created by the acceptance of said Bid.

Then this obligation shall be void, otherwise the same shall remain in force and effect; it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

The Surety, for value received, hereby stipulates and agrees that the obligations of said Surety and its bond shall be in no way impaired or affected by any extension of the time within which the Owner may accept such Bid; and said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to signed by their proper officers, the day and year first set forth above.

Principal: _____ (L.S.)

Surety: _____

[Seal]

By: _____

CERTIFICATE AS TO CORPORATE PRINCIPAL

I, _____, certify that I am the _____
, Secretary of the Corporation named as Principal in this bond, that _____ who signed
the bond on behalf of the Principal was then _____ of said corporation; that I
know his/her signature, and his/her signature thereto is genuine; and that said bond was duly signed, sealed, and
attested to for and on behalf of said corporation by authority of this governing body.

[Corporate Seal]

Title: _____

BID SECURITY REVIEW FORM

SUPPLEMENTS TO BID FORMS
Section 00421

1. **Review and Approval:** This Bond has been executed by a Surety named in the current list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies," as published in Circular 570 (July 1st edition) by the Audit Staff Bureau of Accounts, United States Treasury Department.

☐ Yes ☐ No (If **No**, report to Funding Agency immediately)

2. I, as Owner's Representative, have verified with (Name of Contact) _____ of the
Office of the Superintendent of Insurance, 1-855-427-5674 that the Surety Company listed on the Bid Bond
is licensed/authorized to do business in the state of New Mexico in accordance with ☐ 13-1-46 and ☐ 13-4-18
NMSA 1978. If source of verification is other than the State Corporation Commission, Insurance Division,
identify the source document below and publication date.

(Name of Source Document) Dated: _____

(Signature of Owner's Representative) Date _____

AGENT'S AFFIDAVIT

SUPPLEMENTS TO BID FORMS
Section 00422

[To be filled in by Agent]

This Form Must Be
Used By Surety

STATE OF _____)
) ss.
COUNTY OF _____)

_____, being first duly sworn, deposes and says that he/she is the duly appointed agent for _____ and is licensed in the State of New Mexico.

Deponent further states that a certain bond given to indemnify the Owner in connection with the construction of _____ dated the _____ day of _____, 20____, executed by _____, Contractor, as principal, and _____, as surety, signed by this Deponent; and Deponent further states that said bond was written, signed, and delivered by him/her; that the premium on the same has been or will be collected by him/her; and that the full commission thereon has been or will be retained by him/her.

SUBSCRIBED AND SWORN TO BEFORE ME THIS _____ DAY OF _____, 20_____.

NOTARY PUBLIC _____

MY COMMISSION EXPIRES: _____

[Seal]

Agent's Address:

Telephone (_____) _____ Fax (_____) _____

[This form must be used for all bonds required in the Bidding Documents. Power of Attorney for person signing for Surety Company must be attached to bond]

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SUBCONTRACTORS LISTING, NMDWS REGISTRATION, & ASSIGNMENT OF ANTITRUST CLAIMS

Project: _____ Project No. _____

1.0 SUBCONTRACTORS LISTING, NMDWS REGISTRATION, & ASSIGNMENT OF ANTITRUST CLAIMS [by Contractor, Subcontractors, Sub-Subcontractors, and Suppliers]

1.1 To be fully executed and included with Bid as a condition of the Bid, including all Subcontractors providing services valued at \$5,000 or more, pursuant to §13-4-34 NMSA 1978.

1.2 To be signed after award of Contract by individual empowered to obligate Supplier, Subcontractor, or Sub-subcontractor.

1.3 See Instructions to Bidders, subsection 4.5 of section 00100, Subcontractors, for rules regarding changes in this list after bidding.

1.4 The undersigned agrees that any and all claims which the firm may have or may incur to it for overcharges resulting from antitrust violations as to goods, services, and materials purchased in connection with the above-referenced project are hereby assigned

to the Owner, but only to the extent that such overcharges are passed on to the Owner. It is agreed that the firm retains all rights to any such antitrust claims to the extent of any overcharges not passed on to the Owner, including the right to any treble damages attributable thereto.

1.5 A contractor or subcontractor that submits a bid valued at more than \$60,000 for a public works project subject to the Public Works Minimum Wage Act shall be registered with the Labor and Industrial Division of the Workforce Solutions Department (NMDWS) (formerly the Department of Labor (DOL)). The Owner shall not accept a bid on a public works project from a Contractor that does not provide proof of required registration for itself. Contractors, prime contractors and subcontractors must be registered with the NMDWS (§13-4-13.1 NMSA 1978)

Company Name of Contractor/Subcontractor	Email and phone number	NMDWS Registration No	DUNS number	SAMs registration number

U. S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
**CERTIFICATION OF BIDDER REGARDING
EQUAL EMPLOYMENT OPPORTUNITY**

INSTRUCTIONS

This certification is required pursuant to Executive Order 11246 (30 F. R. 12319-25). The implementing rules and regulations provide that any bidder or prospective contractor, or any of their proposed subcontractors, shall state as an initial part of the bid or negotiations of the contract whether it has participated in any previous contract or subcontract subject to the equal opportunity clause; and, if so, whether it has filed all compliance reports due under applicable instructions.

Where the certification indicates that the bidder has not filed a compliance report due under applicable instructions, such bidder shall be required to submit a compliance report within seven calendar days after bid opening. No contract shall be awarded unless such report is submitted.

CERTIFICATION BY BIDDER

NAME AND ADDRESS OF BIDDER *(Include ZIP Code)*

1. Bidder has participated in a previous contract or subcontract subject to the Equal Opportunity Clause. ☐ Yes ☐ No

2. Compliance reports were required to be filed in connection with such contract or subcontract ☐ Yes ☐ No

3. Bidder has filed all compliance reports due under applicable instructions, including SF-100. ☐ Yes ☐ No

4. Have you ever been or are you being considered for sanction due to violation of Executive Order 11246, as amended? ☐ Yes ☐ No

(Name And Title Of Signer Please type)

Signature

Date

**CERTIFICATION OF BIDDER REGARDING SECTION 3
AND SEGREGATED FACILITIES**

SUPPLEMENTS TO BID FORMS
Section 00441

[SAMPLE]

Name of Prime Contractor

Project Name

Project Number

The undersigned hereby certifies that:

(a) Section 3 provisions are included in the Contract.

(b) A written Section 3 plan was prepared and submitted as part of the bid proceedings (if bid equals or exceeds \$10,000).

(c) No segregated facilities will be maintained.

Name and Title of Signer (Print or Type)

Signature

Date

CONTRACTOR - SECTION 3 PLAN FORMAT

_____, (Name of contractor) agrees to implement the following specific affirmative action steps directed at increasing the utilization of lower income residents and businesses with the Municipality/County of _____, New Mexico.

A. To ascertain from the locality's CDBG program official the exact boundaries of the Section 3 covered project area and where advantageous, seek the assistance of local officials in preparing and implementing the affirmative action plan.

B. To attempt to recruit from within the municipality or county (as applicable), the necessary number of lower income residents through: local advertising media, signs placed at the proposed site for the project, and community organizations and public or private institutions operating within or serving the project area such as Service Employment and Redevelopment (SER), Opportunities Industrialization Center (OIC), Urban League, Concentrated Employment Program, Hometown Plan, or the U. S. Employment Service.

C. To maintain a list of all lower income residents who have applied either on their own or on referral from any source, and to employ such persons, if otherwise eligible and if a vacancy exists.

D.* To insert this Section 3 Plan in all bid documents, and to require all bidders on subcontracts to submit a Section 3 affirmative action plan including utilization goals and the specific steps planned to accomplish these goals.

E.* To ensure that subcontracts which are typically let on a negotiated rather than a bid

basis in areas other than Section 3 covered project areas are also let on a negotiated basis, however, feasible, when let in a Section 3 covered project area.

F. To formally contact unions, subcontractors, and trade associations to secure their cooperation for this program.

G. To ensure that all appropriate project area business concerns are notified of pending sub-contractual opportunities.

H. To maintain records, including copies of correspondence, memoranda, etc., which document that all of the above affirmative action steps have been taken.

I. To appoint or recruit an executive official of the company or agency as Equal Opportunity Officer to coordinate the implementation of this Section 3 plan.

J. To list on Table A, information related to subcontracts to be awarded.

K. To list on Table B, all projected workforce needs for all phases of this project by occupation, trade, skill level, and number of positions.

* Loans, grants, contracts, and subsidies for less than \$10,000 will be exempt.

As officers and representatives of (name of contractor) _____, we the undersigned have read and fully agree to this Affirmative Action Plan, and become party to the full implementation of this program.

Signature

Title

Date

Signature

Title

Date

TABLE A
PROPOSED SUBCONTRACTS BREAKDOWN

For the Period Covering _____, 20__ through _____, 20__
[Duration of the CDBG-Assisted Project]

[illegible]

* The Project Area is coextensive with the Municipality/County of _____'s boundaries.

Company

Project Name

Project Number

EEO Officer (Signature)

Date _____

TABLE B
ESTIMATED PROJECT WORKFORCE BREAKDOWN

Column 1	Column 2	Column 3	Column 4	Column 5
Job Category	Total Estimated Positions	Number Positions Currently Occupied by Permanent Employees	Number Positions Not Currently Occupied	Number Positions to be filled with LIPAR*
Officers/Supervisors				
Professionals				
Technicians				
Housing Sales/Rental Management				
Office Clerical				
Service Workers				
Others				
TRADE:				
Journeyman				
Helpers				
Apprentices				
Maximum Number of Trainees				
Others				
TRADE:				
Journeyman				
Helpers				
Apprentices				
Maximum Number of Trainees				
Others				

*Lower Income Project Area Residents. Individuals residing within the Municipality/County of _____ whose family income does not exceed 80% of the median income of the State.

Company

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OTHER SUPPLEMENTS TO BID FORMS

SUPPLEMENTS TO BID FORMS
Section 00400

SUBSTITUTION LISTING

Section 00440

EQUIPMENT SUPPLIERS LISTING

Section 00450

NON-COLLUSION AFFIDAVIT

Section 00480

STATEMENT OF BIDDER'S QUALIFICATIONS

Section 00470

[If the above forms are required by the Owner or the Architect/Engineer to be inserted into the Bidding Documents, this page should be replaced by the appropriate forms – special mention under Section 7, Instructions to Bidders, and on the Bid Form, if applicable, should be made by the Architect/Engineer]

NON-COLLUSION AFFIDAVIT OF PRIME BIDDER

STATE OF NEW MEXICO

COUNTY OF _____

_____ being first duly sworn, deposes and says that:

(1) They are the _____ of _____ the Bidder that has submitted the attached Bid Proposal;

(2) They are fully informed respecting the preparation and contents of the attached Bid Proposal and of all pertinent circumstances respecting such bid;

(3) Such bid is genuine and is not a collusive or sham bid;

(4) Neither the said bidder nor any of its officers, partners, owners, agents, representatives, employees or parties in interest, including this affiant, has in any way colluded, conspired, connived or agreed, directly or indirectly with any other bidder, firm or person to submit a collusive or sham bid in connection with the contract for which the attached bid has been submitted or to refrain from bidding in connection with such contract, or has in any manner, directly or indirectly, sought by agreement or collusion or communications or conference with any other bidder, or to secure through any collusion, conspiracy, connivance or unlawful agreement any advantage against the Contracting Agency or any person interested in the proposed contract; and

(5) The price or prices quoted in the attached bid are fair and proper and are not tainted by any collusion, conspiracy, connivance or unlawful agreement on the part of the bidder or any of its agents, representatives, owners, employees, or parties in interest, including this affiant.

(SIGNED) _____

TITLE _____

SUBSCRIBED AND SWORN to before me this ____ day of _____ 2022.

NOTARY PUBLIC

My Commission Expires _____

**CONTRACTOR'S NON-COLLUSION AFFIDAVIT
OF SUBCONTRACTOR**

_____ of _____, hereinafter
(Name of subcontractor) *(Name of subcontractor's company)*
"Subcontractor".

1. Contractor is fully informed regarding the preparation and contents of the Subcontractor's proposal submitted by the Subcontractor to _____,
(name of contractor and contractor's company)
hereinafter "Contractor", for certain work or services in connection with the
_____, hereinafter "Contract," pertaining to the
(contract title and/or number)
_____ project in _____.
(description of the project) *(location of project)*

2. Contractor represents that Subcontractor's proposal is genuine and is not a collusive or sham proposal.

3. Neither the Subcontractor nor any of its officers, partners, owners, agents, representatives, employees or parties in interest, including this affiant, has in any way colluded, conspired, connived or agreed, directly or indirectly with any other bidder, firm or person to submit a collusive or sham bid in connection with the Contract for which the attached bid has been submitted, or refrained from bidding in connection with this Contract, or has in any manner, directly or indirectly, sought by agreement or collusion or communications or conference with any other bidder, or to secure through any collusion, conspiracy, connivance or unlawful agreement, any advantage against Santa Fe County or any person interested in the Contract.

4. The price or prices quoted in the Subcontractor's proposal are fair and proper and are not tainted by any collusion, conspiracy, connivance or unlawful agreement on the part of the bidder, Contractor or any of its agents, representatives, owners, employees, or parties in interest.

(Signature of Contractor and title)

Acknowledgement

SUBSCRIBED AND SWORN to before me this _____ day of _____ 2022,
by _____.

Notary Public

My commission expires: _____

SUBCONTRACTS

- A. Contractor shall not execute any agreement with any subcontractor or permit any subcontractor to perform any work under the Contract until the Contractor has submitted and signed this Non-Collusion Affidavit of Subcontractor and Santa Fe County has approved the subcontractor in writing. No subcontractor will be disapproved by Santa Fe County except for cause.
- C. Contractor shall be fully responsible to Santa Fe County for the acts and omissions of Contractor's Subcontractor(s), and of persons either directly or indirectly employed by the Subcontractor.
- D. Contractor shall cause appropriate provision(s) to be inserted in all written subcontracts relative to the work of this Contract requiring the Subcontractor's compliance with all the applicable provisions of the Contract.
- E. Nothing contained in this Contract shall create any contractual relation between any subcontractor or sub-subcontractor's and Santa Fe County.

CERTIFICATION OF NON-SEGREGATED FACILITIES

(Applicable to construction contracts and related subcontracts exceeding \$10,000, which are not exempt from the Equal Opportunity Clause).

The construction contractor certifies that it does not maintain or provide for its employees any segregated facility at any of its establishments, and that it does not permit its employees to perform their services at any location, under its control, where segregated facilities are maintained. The construction contractor certifies further that it will not maintain or provide for its employees any segregated facilities at any of its establishments, and that it will not permit its employees to perform their services at any location, under its control, where segregated facilities are maintained. The construction contractor agrees that a breach of this certification is a violation of the Equal Opportunity Clause in this contract. As used in this certification, the term "segregated facilities" means any waiting room, work areas, rest rooms and wash rooms, restaurants and other eating areas, time clock, locker rooms and other storage or dressing areas, parking lots, drinking foundations, recreating or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive or are in fact segregated on the basis of race, creed, color, or national origin, because of habit, local custom, or otherwise. The construction contractor agrees that (except where it has obtained identical certifications from proposed subcontractors for specific time periods) it will obtain identical certifications from proposed SUBCONTRACTORS prior to the award of subcontracts exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity Clause and that it will retain such certifications in its files.

SIGNED: _____

TITLE: _____

SUBSCRIBED AND SWORN to before me this ____ day of _____, 2022.

NOTARY PUBLIC

My Commission Expires: _____

**CERTIFICATION OF BIDDER REGARDING
EQUAL EMPLOYMENT OPPORTUNITY**

INSTRUCTIONS

This certification is required pursuant to Executive Order 11246 (30 F. R. 12319-25). The implementing rules and regulations provide that any bidder or perspective contractor, or any of their proposed subcontractors, shall state as an initial part of the bid or negotiations of the contract or subcontract whether it has participated in any previous contract or subcontract subject to the equal opportunity clause; and, if so, whether it has filed all compliance reports due under applicable instructions.

Where the certification indicates that the bidder has not filed a compliance report due under applicable instructions, such bidder shall be required to submit a compliance report within seven calendar days after bid opening. No contract shall be awarded unless such report is submitted.

CERTIFICATION OF BIDDER

Bidder's Name: _____

Address: _____

1. Bidder has participated in a previous contract or subcontract subject to the Equal Opportunity Clause.

Yes ____ No ____

2. Compliance reports were required to be filed in connection with such contract or subcontract.

Yes ____ No ____

Certification -- The information above is true and complete to the best of my knowledge and belief.

NAME AND TITLE OF SIGNER (PLEASE TYPE)

SIGNATURE

DATE

**CERTIFICATION OF SUBCONTRACTOR REGARDING
EQUAL EMPLOYMENT OPPORTUNITY**

INSTRUCTIONS

This certification is required pursuant to Executive Order 11246 (30 F. R. 12319-25). The implementing rules and regulations provide that any bidder or prospective contractor, or any of their proposed subcontractors, shall state as an initial part of the bid or negotiations of the contract or subcontract whether it has participated in any previous contract or subcontract subject to the equal opportunity clause; and, if so, whether it has filed all compliance reports due under applicable instructions.

Where the certification indicates that the bidder has not filed a compliance report due under applicable instructions, such bidder shall be required to submit a compliance report within seven calendar days after bid opening. No contract shall be awarded unless such report is submitted.

CERTIFICATION OF SUBCONTRACTOR

Subcontractor's Name: _____

Address: _____

1. Subcontractor has participated in a previous contract or subcontract subject to the Equal Opportunity Clause.

Yes ____ No ____

2. Compliance reports were required to be filed in connection with such contract or subcontract.

Yes ____ No ____

Certification -- The information above is true and complete to the best of my knowledge and belief.

NAME AND TITLE OF SIGNER (PLEASE TYPE)

SIGNATURE

DATE

CAMPAIGN CONTRIBUTION DISCLOSURE

Pursuant to the Procurement Code, Sections 13-1-28, et seq., NMSA 1978 and NMSA 1978, § 13-1-191.1 (2006), as amended by Laws of 2007, Chapter 234, any prospective contractor seeking to enter into a contract with any state agency or local public body **for professional services, a design and build project delivery system, or the design and installation of measures the primary purpose of which is to conserve natural resources** must file this form with that state agency or local public body. This form must be filed even if the contract qualifies as a small purchase or a sole source contract. The prospective contractor must disclose whether they, a family member or a representative of the prospective contractor has made a campaign contribution to an applicable public official of the state or a local public body during the two years prior to the date on which the contractor submits a proposal or, in the case of a sole source or small purchase contract, the two years prior to the date the contractor signs the contract, if the aggregate total of contributions given by the prospective contractor, a family member or a representative of the prospective contractor to the public official exceeds two hundred and fifty dollars (\$250) over the two year period.

Furthermore, the state agency or local public body may cancel a solicitation or proposed award for a proposed contract pursuant to Section 13-1-181 NMSA 1978 or a contract that is executed may be ratified or terminated pursuant to Section 13-1-182 NMSA 1978 of the Procurement Code if: 1) a prospective contractor, a family member of the prospective contractor, or a representative of the prospective contractor gives a campaign contribution or other thing of value to an applicable public official or the applicable public official's employees during the pendency of the procurement process or 2) a prospective contractor fails to submit a fully completed disclosure statement pursuant to the law.

The state agency or local public body that procures the services or items of tangible personal property shall indicate on the form the name or names of every applicable public official, if any, for which disclosure is required by a prospective contractor.

THIS FORM MUST BE INCLUDED IN THE REQUEST FOR PROPOSALS AND MUST BE FILED BY ANY PROSPECTIVE CONTRACTOR WHETHER OR NOT THEY, THEIR FAMILY MEMBER, OR THEIR REPRESENTATIVE HAS MADE ANY CONTRIBUTIONS SUBJECT TO DISCLOSURE.

The following definitions apply:

“Applicable public official” means a person elected to an office or a person appointed to complete a term of an elected office, who has the authority to award or influence the award of the contract for which the prospective contractor is submitting a competitive sealed proposal or who has the authority to negotiate a sole source or small purchase contract that may be awarded without submission of a sealed competitive proposal.

“Campaign Contribution” means a gift, subscription, loan, advance or deposit of money or other thing of value, including the estimated value of an in-kind contribution, that is made to or received by an applicable public official or any person authorized to raise, collect or expend contributions on that official's behalf for the purpose of electing the official to statewide or local office. “Campaign Contribution” includes the payment of a debt incurred in an election campaign, but does not include the value of services provided without compensation or unreimbursed travel or other personal expenses of individuals who volunteer a portion or all of their time on behalf of a candidate or political committee, nor does it include the administrative or solicitation expenses of a political committee that are paid by an organization that sponsors the committee.

“Family member” means spouse, father, mother, child, father-in-law, mother-in-law, daughter-in-law or son-in-law of (a) a prospective contractor, if the prospective contractor is a natural person; or (b) an owner of a prospective contractor.

“Pendency of the procurement process” means the time period commencing with the public notice of the request for proposals and ending with the award of the contract or the cancellation of the request for proposals.

“Prospective contractor” means a person or business that is subject to the competitive sealed proposal process set forth in the Procurement Code or is not required to submit a competitive sealed proposal because that person or business qualifies for a sole source or a small purchase contract.

“Representative of a prospective contractor” means an officer or director of a corporation, a member or manager of a limited liability corporation, a partner of a partnership or a trustee of a trust of the prospective contractor.

Name(s) of Applicable Public Official(s) if any: _____
(Completed by State Agency or Local Public Body)

DISCLOSURE OF CONTRIBUTIONS BY PROSPECTIVE CONTRACTOR:

Contribution Made By: _____

Relation to Prospective Contractor: _____

Date Contribution(s) Made: _____

Amount(s) of Contribution(s) _____

Nature of Contribution(s) _____

Purpose of Contribution(s) _____

(Attach extra pages if necessary)

Signature

Date

Title (position)

--OR--

NO CONTRIBUTIONS IN THE AGGREGATE TOTAL OVER TWO HUNDRED FIFTY DOLLARS (\$250) WERE MADE to an applicable public official by me, a family member or representative.

Signature

Date

Title (Position)

AGREEMENT BETWEEN OWNER AND CONTRACTOR

AGREEMENT FORMS - LUMP SUM PRICE OR UNIT PRICE
Section 00510



Contract No. _____

[Disclaimer: Changes and/or modifications made to this document, other than the typical construction items for which the contractor is bidding and/or will contract for, without the written consent of the Local Government Division, DFA shall render this document null and void]

This Agreement entered into this _____ day of _____, 20____, by and between the parties as follows:

THE OWNER:

Santa Fe County Growth Management
100 Catron Street
Santa Fe, NM 87501

THE CONTRACTOR:

Telephone: ____-____-_____

Telephone: ____-____-_____

E-mail address: _____

E-mail address: _____

For the following Project: _____

Project Number: _____

ARCHITECT/ENGINEER OF RECORD:

Telephone: __505_-830__-5400_____

E-mail address: _
chris.rodriquez@hdrinc.com_____

RECITALS

WHEREAS, _____

(insert funding authority); and

WHEREAS, the Owner, through its Mayor/Chairman, is authorized to enter into a construction contract for the Project pursuant to Sections 13-1-100 NMSA 1978; and

WHEREAS, the Owner has let this contract according to the established state and local purchasing procedures for contracts of the type and amount let; and

WHEREAS, award of the construction contract on this Project was approved by the Governing Body at its meeting of _____, 20____;

The OWNER and the CONTRACTOR agree as set forth below.

ARTICLE 1 THE CONTRACT DOCUMENTS

1.1 The Contract Documents consist of the following:

- Bid Form
- This Agreement
- Performance Bond
- Labor and Material Payment Bonds
- Agent's Affidavit
- Certificate of Insurance
- Assignment of Antitrust Claims
- Table A Subcontracts Breakdown
- Table B Estimated Project Workforce Breakdown
- Notice of Award
- Notice to Proceed
- Conditions of the Contract (General, Supplementary and Other Conditions)
- Drawings
- Specifications
- All Addenda Issued Prior to and
- All Modifications Issued after Execution of this Agreement
- Federal requirements, certifications and forms required by the CDBG program

These documents form the Contract, and all are as fully a part of the Contract as if attached to this Agreement or repeated herein. An enumeration of the Contract Documents appears in Article 7 of this Agreement.

ARTICLE 2 THE WORK

2.1 The Contractor shall perform all the Work required by the Contract for the following:
Santa Fe County will construct a regional well in Glorieta, NM as part of a system-wide capital improvement program to upgrade the Greater Glorieta Mutual Domestic Water Consumer Association's (MDWCA) infrastructure and water quality. The well will be located at the site of the MDWCA's existing well at 80 Avenida Ponderosa, Glorieta, NM 87535 or approximately 35.574079 latitude and -105.76012 longitude. This project will replace the existing well with a deep water supply well (at a depth of 1,200-1,500 ft. into the Madera formation) which will directly benefit the combined Glorieta Village and Estates communities as a long term water source to address the public health risk of elevated radium above drinking water standards, a regional water supply source for both communities in the near term, a potential water source of East Glorieta should that subsystem be physically connected in the future, and a source of system redundancy for emergency purposes. The project will include siting and drilling a hole approximately 14 in. in width and 1,200 ft. in depth into the Madera Formation and constructing a water supply well and appurtenances including a well head, pump, approximately 50 ft. of pipe and fittings to connect to the existing distribution system. The well and connections will be fenced and the area graded for positive drainage following construction of the well. A Preliminary Engineering Report, complete with a geologic formation study, has been completed.

ARTICLE 3 TIME OF COMMENCEMENT AND SUBSTANTIAL COMPLETION

3.1 The Work to be performed under the contract shall commence not later than ten (10) consecutive calendar days after the date of written Notice to Proceed. Substantial Completion shall be achieved not later than _____ calendar days after the date of written Notice to Proceed, except as hereafter extended by valid written Change Order by the Owner.

3.2 Should the Contractor neglect, refuse, or otherwise fail to complete the Work within the time specified in this article, the Contractor agrees, in partial consideration for the award of the Contract, to pay to the Owner the amount of _____ Dollars (\$_____) per consecutive calendar day, not as a penalty, but as liquidated damages for such breach of the

Contract.

ARTICLE 4 CONTRACT SUM

4.1 The Owner shall pay the Contractor in current funds for the performance of the Work, subject to additions and deductions by Change Order as provided in the Contract, the Contract Sum of

Dollars (\$ _____).

4.2 The Contract sum is determined as follows:

Base Bid	\$	_____
Alternatives (if any)	\$	_____
NM GRT @ ____ %	\$	_____
Contract Sum	\$	_____

ARTICLE 5 PROGRESS PAYMENTS

5.1 Based upon Applications for Payment submitted to the Architect/Engineer by the Contractor and Certificates for Payment issued by the Architect/Engineer, the Owner shall make progress payments on account of the Contract Sum to the Contractor as provided in the Contract for the period ending the 5th day of the month as follows:

5.2 Not later than thirty (30) working days following receipt by the Owner of an undisputed Application for Payment or as stated in Paragraph 25 of the Supplemental General Conditions, one hundred percent (100%) of the portion of the Contract Sum properly allocable to labor, materials, and equipment incorporated in the Work and one hundred percent (100%) of the portion of the Contract Sum properly allocable to materials and equipment suitably stored at the site or some other location agreed upon in writing for the period covered by the Application for Payment, less the aggregate of previous payments made by the Owner; less such amounts as the Architect/Engineer shall determine for all incomplete Work and unsettled claims as provided in the Contract Documents ([Section 57-28-5 NMSA 1978](#)). (48 CFR 52.232-27) (Title 5 Part 1315.14).

5.2.1 When making payments, an owner, contractor or subcontractor shall not retain, withhold, hold back or in any other manner not pay amounts owed for work performed. For

additional information regarding retainage and the Prompt Payment Act refer to Section 57-28-5 NMSA 1978.

ARTICLE 6 FINAL PAYMENT

6.1 Final payment, constituting the entire unpaid balance of the Contract Sum, shall be paid by the Owner to the Contractor within thirty (30) calendar days after notification of the Owner by the Architect/Engineer that all incomplete and unacceptable work that was noted during the Substantial Completion Inspection and listed on the attachment to the Certificate of Substantial Completion has been corrected, and provided the Contract has been fully performed and a final Certificate for Payment has been issued by the Architect/Engineer and final monitoring and close-out by the Funding Agency. In addition, the Contractor shall provide to the Owner a certified statement of Release of Liens (*AIA Document G706A or approved form*) and Consent of Surety.

ARTICLE 7 GENERAL AND SPECIAL PROVISIONS

7.1 This Agreement shall be governed exclusively by the provisions hereof and by the laws of the State of New Mexico as the same from time to time exist.

7.2 Terms used in this Agreement that are defined in the Conditions of the Contract shall have the meanings designated in those Conditions.

7.3 As between the parties to this Agreement. As to all acts or failures to act by either party to this Agreement, any applicable statute of limitations shall commence to run and any alleged cause of action shall be deemed to have accrued in any and all events not later than the relevant Date of Substantial Completion of the Work; and as to any acts or failures to act occurring after the relevant Date of Substantial Completion, not later than the date of the Owner's approval of the Final Certificate of Payment.

7.4 The Contractor shall hold harmless and indemnify the Owner against any and all injury, loss, or damage, including cost of defense - including but not limited to court costs and attorneys' fees - arising out of the negligent acts, errors, or omissions of the Contractor.

7.5 This Agreement shall not become effective until approved by the governing body; and signed by all

parties required to sign this Agreement and reviewed by the Funding Agency.

7.6 The Contractor and his agents and employees are independent contractors and are not employees of the Owner. The Contractor and his agents and employees shall not accrue leave, retirement, insurance, bonding, use of Owner vehicles, or any other benefits afforded to employees of the Owner as a result of this Agreement.

7.7 The Contractor, upon final payment of the amounts due under this Agreement, releases the Owner, his officers and employees from his liabilities and obligations arising from or under this Agreement, including but not limited to all damages, losses, costs, liability, and expenses, including but not limited to attorneys' fees and costs of litigation that the Contractor may incur.

7.8 The Contractor agrees not to purport to bind Owner to any obligation not assumed herein by Owner unless the Contractor has express written authority to do so, and then only within the strict limits of that authority.

7.9 Notices. All notices herein provided to be given, or which may be given, by either party to the other shall be deemed to have been fully given when made in writing and deposited in the United States mail, postage prepaid - in the instance of notice of termination of work also by certified mail - and addressed as shown on the title page of this Agreement.

7.10 Nothing herein contained shall preclude the giving of any such written notice by personal service. The address to which notices shall be mailed to either party may be changed by written notice given by such party to the other as hereinabove provided.

7.11 Gender - Singular/Plural. Words of any gender used in this Agreement shall be held and construed to include any other gender, and words in the singular number shall be held to include the plural, unless the context requires otherwise.

7.12 Captions and Section Headings. The captions and section headings contained in this Agreement are for convenience of reference only, and in no way limit, define, or enlarge the terms, scope, and conditions of this Agreement.

7.13 This document shall be executed in no less than

three (3) counterparts, each of which shall be deemed an original.

7.14 Certificates and Documents Incorporated. All certificates and documentation required by the provisions of this Agreement shall be attached to this Agreement at the time of execution and are hereby incorporated by reference as though set forth in full in this Agreement to the extent they are consistent with its conditions and terms.

7.15 Separability. If any clause or provision of this Agreement is illegal, invalid, or unenforceable under present or future laws effective during the term of this Agreement, then and in that event it is the intention of the parties hereto that the remainder of this Agreement shall not be affected thereby.

7.16 Waiver. No provision of this Agreement shall be deemed to have been waived by either party unless such waiver be in writing signed by the party making the waiver and addressed to the other party; nor shall any custom or practice which may evolve between the parties in the administration of the terms hereof be construed to waive or lessen the right of either party to insist upon performance by the other party in strict accordance with the terms hereof. Further, the waiver by any party of a breach by the other party of any term, covenant, or condition hereof shall not operate as a waiver of any subsequent breach of the same or any other term, covenant, or condition thereof.

7.17 Entire Agreement. This Agreement represents the entire contract between the parties and, except as otherwise provided herein, may not be amended, changed, modified, or altered without the written consent of the parties hereto. This Agreement incorporates all of the conditions, agreements, and understandings between the parties concerning the subject matter of this Agreement, and all such conditions, understandings, and agreements have been merged into this written Agreement. No prior condition, agreement, or understanding, verbal or otherwise, of the parties or their agents shall be valid or enforceable unless embodied in this written Agreement.

7.18 Interchangeable Terms. For purposes of all provisions within this Agreement and all attachments hereto, the terms "Agreement" and "Contract" shall have the same meaning and shall be interchangeable.

7.19 Words and Phrases. Words, phrases, and abbreviations which have well-known technical or trade meanings used in the Contract Documents shall be used

according to such recognized meanings. In the event of a conflict, the more stringent meaning shall govern.

7.20 Relationship of Contract Documents. The Contract Documents are complementary, and any requirement of one contract document shall be as binding as if required by all.

7.21 Pursuant to §13-1-191 NMSA 1978, reference is hereby made to the criminal laws of New Mexico, including §§30-14-1, 30-24-2, and 30-41-1 through 3 NMSA 1978, which prohibit bribes, kickbacks, and gratuities, violation of which constitutes a felony. Further, the Procurement Code, §§13-1-28 through 13-1-199 NMSA 1978, imposes civil and criminal penalties for its violation.

7.22 The Contract Documents, which constitute the entire Contract between the Owner and the Contractor, are listed in Article 1 and, except for

Modifications issued after execution of this Agreement, are enumerated as follows:

7.23 The following documents bound in the Project Manual:

<u>Documents</u>	<u>Section</u>
Bid Form	00310
Agreement between Owner and Contractor	00510
Performance Bond	00621
Labor and Material Payment Bond	00621
Agent's Affidavit	00422
Certificate of Insurance	-
Assignment of Antitrust Claims	00661
Table A Subcontracts Breakdown	-
Table B Estimated Project Workforce Breakdown	-
General Conditions	00700
Supplementary Conditions	00820
Technical Specifications -	

OWNER:

Mayor/Chairperson

Date: _____

Reviewed:

As to Legal Form and Sufficiency

By: _____

Title: _____

Date: _____

As to Budget Sufficiency

By: _____

Title: _____

Date: _____

APPROVED: This Agreement is entered into as of the day and year first written above.

CONTRACTOR: _____

By: _____

Title: _____

Date: _____

Federal Tax ID N°: _____

State Tax ID N°: _____

AGENCY CONCURRENCE:

By: _____

Title: _____

Date: _____

[Instructions: This page to be replaced by Architect/Engineer with *AIA Document A311*, form of **Performance Bond** or similar documents and labeled as pages 4A-45]

[Instructions: This page to be replaced by Architect/Engineer with *AIA Document A311*, form of **Labor and Material Payment Bond** or similar documents and labeled as page 4A-47]

RIDER TO BONDS

BONDS, CERTIFICATES AND NOTICES
Section 00621

This Form Must Be
Used By Surety

Performance Bond N°. _____ Labor & Material Payment Bond N°. _____

Obligee (Owner): _____

Surety _____

Surety's New Mexico Agent:

Name: _____

Address: _____

Telephone N°. (_____) _____

The Surety and Principal stipulate as follows:

Whenever, in the judgment of the Owner, the Surety on this bond shall be insolvent, or for any cause is not a proper or sufficient Surety, the Owner may require the Contractor to furnish a new or additional bond or security within ten (10) days; and thereupon, if the Owner shall so order, security shall be furnished. If such new or additional bond or security is not furnished within said time, the Owner may, at its option, take over and Surety, either doing the Work on force account, or letting the same by contract, and shall be entitled to use any equipment, materials and supplies of the delinquent Contractor in completing said Work.

The Surety hereby stipulates and agrees that no properly authorized Change Order altering Contract Time, Contract Sum, Conditions of the Contract, or the scope of nature of the Work to be performed thereunder shall in any way affect its obligation on this bond, and it does hereby waive any notice of such change.

Signed and sealed this _____ day of _____, 20____.

(Principal) (Seal)

(Witness)

(Title)

(Witness)

(Surety) (Seal)

(Title)

AGENT'S AFFIDAVIT

SUPPLEMENTS TO BID FORMS
Section 00422

[To be filled in by Agent]

This Form Must Be
Used By Surety

STATE OF _____)
) ss.
COUNTY OF _____)

_____, being first duly sworn, deposes and says that he/she is the duly appointed agent for _____ and is licensed in the State of New Mexico.

Deponent further states that a certain bond given to indemnify the Owner in connection with the construction of _____ dated the _____ day of _____, 20____, executed by _____, Contractor, as principal, and _____, as surety, signed by this Deponent; and Deponent further states that said bond was written, signed, and delivered by him/her; that the premium on the same has been or will be collected by him/her; and that the full commission thereon has been or will be retained by him/her.

SUBSCRIBED AND SWORN TO BEFORE ME THIS _____ DAY OF _____, 20_____.

NOTARY PUBLIC

MY COMMISSION EXPIRES: _____

[SEAL]

Agent's Address:

Telephone (____) _____ Fax (____) _____

[This form must be used for all bonds required in the Bidding Documents. ☐ Power of Attorney for person signing for Surety Company must be attached to bond. Power of Attorney for person signing for Surety Company must be attached to bond]

GUARANTY BOND/MAINTENANCE BOND

BONDS, CERTIFICATES, AND NOTICES
Section 00600

GUARANTY BOND

Section 00630

MAINTENANCE BOND

Section 00640

(Instructions: This is a listing of forms that are not supplied. If required by the Owner or the Architect/Engineer as part of the Bidding Documents, this page should be replaced by the appropriate forms - special mention under Section 7, Instructions to Bidders, and on the Bid Form, if applicable, should be made by the Architect/Engineer.)

[Instructions: this page to be replaced by Architect/Engineer with AIA Document G705, form of Certificate of Insurance or similar form and labeled as page 53. A/E to fill in minimum amounts of insurance required in the Supplemental General Conditions]

ASSIGNMENT OF ANTITRUST CLAIMS

(To be executed by Suppliers, Subcontractors, and Sub-Subcontractors of Contractors)

BONDS, CERTIFICATES, AND NOTICES
Section 00661

**This Form Must Be Submitted
Within 10 Days of Bid Award**

Project: _____ Project Number: _____

_____ agrees that any and all claims which it may have or may have endured for overcharges resulting from antitrust violations as to goods, services, and materials purchased in connection with the above-referenced project are hereby assigned to the Owner, but only to the extent that such overcharges are passed on to the Owner.

It is agreed that the undersigned retains all rights to any such antitrust claims to the extent of any overcharges not passed on to the Owner, including the right to any treble damages attributable thereto.

Firm: _____

By: _____

Title: _____

Date: _____

Signed by Individual Empowered to Obligate Supplier,
Subcontractor, or Sub-Subcontractor

CERTIFICATE OF OWNER'S ATTORNEY

BONDS, CERTIFICATES, AND NOTICES
Section 00670

I, the undersigned, _____, the duly authorized and acting
legal representative of the (municipality/county) of _____
do hereby certify as follows:

I have examined the attached contract(s) and surety bonds and the manner of execution thereof, and I am of the opinion that each of the aforesaid agreements has been duly executed by the proper parties thereto acting through their duly authorized representatives; that said representatives have full power and authority to execute said agreements on behalf of the respective parties named thereon; and that the foregoing agreements constitute valid and legally binding obligation upon the parties executing the same in accordance with terms, conditions and provisions thereof.

Name: _____

Address: _____

Date: _____ Telephone N°. ____-____-____

TABLE A SUBCONTRACTS BREAKDOWN

For the Period Covering _____, 20____ through _____, 20____
[Duration of the CDBG-Assisted Project]

Column 1	Column 2	Column 3	Column 4	Column 5
Type of Contract	Total Number of Contracts	Total Approximate Dollar (\$) Amount	Estimated Number of Contracts to Project Area Businesses*	Estimated Dollar (\$) Amount to Project Area Businesses*

* The Project Area is coextensive with the Municipality/County of _____'s boundaries.

Company

Project Name

Project Number

EEO Officer (Signature)

Date

TABLE B
ESTIMATED PROJECT WORKFORCE BREAKDOWN

Column 1	Column 2	Column 3	Column 4	Column 5
Job Category	Total Estimated Positions	Number Positions Currently Occupied by Permanent Employees	Number Positions Not Currently Occupied	Number Positions to be filled with LIPAR*
Officers/Supervisors				
Professionals				
Technicians				
Housing Sales/Rental Management				
Office Clerical				
Service Workers				
Others				
TRADE:				
Journeyman				
Helpers				
Apprentices				
Maximum Number of Trainees				
Others				
TRADE:				
Journeyman				
Helpers				
Apprentices				
Maximum Number of Trainees				
Others				

*Lower Income Project Area Residents. Individuals residing within the Municipality/County of _____ whose family income does not exceed 80% of the median income of the State.

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GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION

COMMUNITY DEVELOPMENT BLOCK GRANT PROGRAM

GENERAL CONDITIONS OF THE CONTRACT
Section 00700

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24. Construction Schedule/Periodic Estimate	
25. Payments to Contractor	

1. Contract and Contract Documents

1.1 The project to be constructed pursuant to this contract will be financed with the assistance of the New Mexico Small Cities Community Development Block Grant Program and is subject to all applicable federal and state laws and regulations. State administered Community Development Block Grant monies are federal funds. Section □ 13-1-30B NMSA 1978 of the Procurement Code stipulates: "When a procurement involves the expenditure of federal funds, the procurement shall be conducted in accordance with mandatory applicable federal law and regulations. When mandatory applicable federal law or regulations are inconsistent with the provisions of the Procurement Code, compliance with federal law or regulations shall be compliance with the Procurement Code."

1.2 The applicable governing federal procurement standards are defined in OMB Circular A-102,

Attachment O. When federal and state procurement policies are different, the more restrictive policies apply so long as they are consistent with Circular A-102 standards.

1.3 The plans, specifications and addenda, hereinafter enumerated in Paragraph 1 of the Supplemental General Conditions shall form part of this Contract and the provisions thereof shall be as binding upon the parties hereto as if they were herein fully set forth. The table of contents, titles, headings, running headlines and marginal notes contained herein and in said documents are solely to facilitate reference to various provisions of the Contract Documents and in no way affect, limit or cast light on the interpretation of the provisions to which they refer.

2. Definitions

The following terms as used in this contract are

respectively defined as follows:

2.1 *Contractor* is a person, firm or corporation with whom the contract is made by the Owner.

2.2 *Subcontractor* is a person, firm or corporation supplying labor and materials or only labor for work at the site of the project for, and under separate contract or agreement with, the Contractor.

2.3 *Work on (at) the project* is work to be performed at the location of the project, including the transportation of materials and supplies to or from the location of the project by employees of the Contractor and any Subcontractor.

3. Additional Instructions and Detail Drawings

3.1 The Contractor will be furnished additional instructions and detail drawings as necessary to carry out the work included in the contract. The additional drawings and instructions thus supplied to the Contractor will coordinate with the Contract Documents and will be so prepared that they can be reasonably interpreted as part thereof. The Contractor shall carry out the work in accordance with the additional detail drawings and instructions. The Contractor and the Architect/Engineer will prepare jointly (a) a schedule, fixing the dates at which special detail drawings will be required, such drawings, if any, to be furnished by the Architect/Engineer in accordance with said schedule, and (b) a schedule fixing the respective dates for the submission of shop drawings, the beginning of manufacture, testing and installation of materials, supplies and equipment, and the completion of the various parts of the work; each such schedule to be subject to change from time to time in accordance with progress of the work.

4. Shop or Setting Drawings

4.1 The Contractor shall submit promptly to the Architect/Engineer two copies of each shop or setting drawing prepared in accordance with the schedule predetermined as aforesaid. After examination of such drawings by the Architect/Engineer and the return thereof, the Contractor shall make such corrections to the drawings as have been indicated and shall furnish the Architect/Engineer with two corrected copies. If requested by the Architect/Engineer the Contractor must furnish additional copies. Regardless of corrections made in or approval given to such drawings by the Architect/Engineer, the Contractor will never the less be

responsible for the accuracy of such drawings and for their conformity to the Plans and Specifications, unless he notifies the Architect/Engineer in writing of any deviations at the time he furnishes such drawings.

5. Materials, Services, and Facilities

5.1 It is understood that except as otherwise specifically stated in the Contract Documents, the Contractor shall provide and pay for all materials, labor, tools, equipment, water, light, power, transportation, superintendence, temporary construction of every nature, and all other services and facilities of every nature whatsoever necessary to execute, complete, and deliver the work within the specified time.

5.2 Any work necessary to be performed after regular working hours, on Sundays or legal holidays, shall be performed without additional expense to the Owner.

6. Contractor's Title to Materials

6.1 No materials or supplies for the work shall be purchased by the Contractor or by any Subcontractor subject to any chattel mortgage or under a conditional sale contract or other agreement by which an interest is retained by the seller. The Contractor warrants that he has good title to all materials and supplies used by him in the work, free from all liens, claims or encumbrances.

7. Inspection and Testing of Materials

7.1 All materials and equipment used in the construction of the project shall be subject to adequate inspection and testing in accordance with accepted standards. The laboratory or inspection agency shall be selected by the Owner. The Owner will pay for all laboratory inspection service direct, and not as a part of the contract.

7.2 Materials of construction, particularly those upon which the strength and durability of the structure may depend, shall be subject to inspection and testing to establish conformance with specifications and suitability for uses intended.

8. "Or Equal" Clause

8.1 Whenever a material, article or piece of equipment is identified on the plans or in the specifications by reference to manufacturers' or vendors' names, trade names, catalogue numbers, etc., it is intended merely to establish a standard; and, any material, article, or

equipment or other manufacturers and vendors which will perform adequately the duties imposed by the general design will be considered equally acceptable provided the material, article, or equipment so proposed, is, in the opinion of the Architect/Engineer, of equal substance and function. It shall not be purchased or installed by the Contractor without the Architect/Engineer's written approval.

9. Patents

9.1 The Contractor shall hold and save the Owner and its officers, agents, servants, and employees harmless from liability of any nature or kind, including cost and expenses for, or on account of, any patented or unpatented invention, process, article, or appliance manufactured or used in the performance of the contract, including its use by the Owner, unless otherwise specifically stipulated in the Contract Documents.

9.2 License or Royalty Fees. License and/or Royalty Fees for the use of a process which is authorized by the Owner of the project must be reasonable, and paid to the holder of the patent, or his authorized licensee, direct by the Owner and not be or through the Contractor.

9.3 If the Contractor uses any design, device or materials covered by letters, patent or copyright, he shall provide for such use by suitable agreement with the Owner of such patented or copyrighted design, device or material. It is mutually agreed and understood, that, without exception, the contract prices shall include all royalties or costs arising from the use of such design, device or materials, in any way involved in the work. The Contractor and/or his Sureties shall indemnify and save harmless the Owner of the project from any and all claims for infringement by reason of the use of such patented or copyrighted design, device or materials, or any trademark or copyright in connection with work agreed to be performed under this contract, and shall indemnify the Owner for any cost, expense or damage which it may be obliged to pay by reason of such infringement at any time during the prosecution of the work or after, completion of the work.

10. Surveys, Permits, and Regulations

10.1 Unless otherwise expressly provided for in the Specifications, the Owner will furnish to the Contractor all surveys necessary for the execution of the work.

10.2 The Contractor shall procure and pay all permits, licenses and approvals necessary for the execution of his

contract.

10.3 The Contractor shall comply with all laws, ordinances, rules, orders, and regulations relating to performance of the work, the protection of adjacent property, and the maintenance of passageways, guard fences or other protective facilities.

11. Contractor's Obligations

11.1 The Contractor shall and will, in good workmanlike manner, do and perform all work and furnish all supplies and materials, machinery, equipment, facilities and means, except as herein otherwise expressly specified, necessary or proper to perform and complete all the work required by this contract, within the time herein specified. The Contractor will perform the Work in accordance with the provisions of this contract and said specifications and in accordance with the plans and drawings covered by this contract any and all supplemental plans and drawings, and in accordance with the directions of the Architect/Engineer as given from time to time during the progress of the work. He shall furnish, erect, maintain, and remove such construction plant and such temporary works as may be required.

11.2 The Contractor shall observe, comply with, and be subject to all terms, conditions, requirements, and limitations of the contract and specifications, and shall do, carry on, and complete the entire work to the satisfaction of the Architect/Engineer and the Owner.

12. Weather Conditions

12.1 In the event of temporary suspension of work, or during inclement weather, or whenever the Architect/Engineer shall direct, the Contractor will, and will cause his subcontractors to protect carefully his and their work and materials against damage or injury from the weather. If, in the opinion of the Architect/Engineer, any work or materials shall have been damaged or injured by reason of failure on the part of the Contractor or any of his Subcontractors so to protect his work, such materials shall be removed and replaced at the expense of the Contractor.

13. Protection of Work and Property-Emergency

13.1 The Contractor shall at all times safely guard the Owner's property from injury or loss in connection with this contract. He shall at all times safely guard and protect his own work, and that of adjacent property from

damage. The Contractor shall replace or make good any such damage, loss or injury unless such is caused directly by errors contained in the contract or by the Owner, or his duly authorized representatives.

13.2 In case of an emergency which threatens loss or injury of property, and/or safety of life, the Contractor will be allowed to act, without previous instructions from the Architect/Engineer, in a diligent manner. He shall notify the Architect/Engineer immediately thereafter. Any claim for compensation by the Contractor due to such extra work shall be promptly submitted to the Architect/Engineer for approval.

13.3 Where the Contractor has not taken action but has notified the Architect/Engineer of an emergency threatening injury to persons to damage to the work or any adjoining property, he shall act as instructed or authorized by the Architect/Engineer.

13.4 The amount of reimbursement claimed by the Contractor on account of any emergency action shall be determined in the manner provided in Paragraph 17 of the General Conditions.

14. Inspection

14.1 The authorized representatives and agents of the Department of Housing and Urban Development shall be permitted to inspect all work, materials, payrolls, records of personnel, invoices of materials, and other relevant data and records.

15. Reports, Records, and Data

15.1 The Contractor shall submit to the Owner such schedule of quantities and costs, progress schedules, payrolls, reports, estimates, records and other data as the Owner may request concerning work performed or to be performed under this contract.

16. Superintendence by Contractor

16.1 At the site of the work the Contractor shall employ a construction superintendent or foreman who shall have full authority to act for the Contractor. It is understood that such representative shall be acceptable to the Architect/Engineer and shall be one who can be continued in that capacity for the particular job involved unless he ceases to be on the Contractor's payroll.

17. Changes in Work

17.1 No changes in the work covered by the approved

Contract Documents shall be made without having prior written approval of the Owner and funding agency. Charges or credits for the work covered by the approved change shall be determined by one or more, or a combination of the following methods:

- A. Unit bid prices previously approved.
- B. An agreed lump sum.
- C. The actual cost of:
 - 1. Labor, including foremen;
 - 2. Materials entering permanently into the work;
 - 3. The ownership or rental cost of construction plant and equipment during the time of use on the extra work;
 - 4. Power and consumable supplies for the operation of power equipment;
 - 5. Insurance;
 - 6. Social Security and old age and unemployment contributions.

17.2 To the costs under 17.1 there shall be added a fixed fee to be agreed upon but not to exceed fifteen percent (15%) of the actual cost of the work. The fee shall be compensation to cover the cost of supervision, overhead, bond, profit and any other general expenses.

17.3 The Contractor must submit in writing any request for any modifications to the plans and specifications. Shop drawings that are submitted to the Architect/Engineer for review do not constitute "in writing" unless it is brought to the attention of the Architect/Engineer that specific changes are being proposed. In any event, the responsibility for proposing changes to the plans and specifications by means of shop drawings resides with the Contractor and no additional costs resulting from such changes will be paid to the Contractor.

17.4 All change orders will include the total added (or deducted) cost to the Owner, including gross receipts tax. The Owner must approve any increase or decrease to the Construction Cost.

17.5 All change orders will be approved by the funding agency (Local Government Division, DFA) before taking effect. Any additional project costs (including GRT) approved by the Owner without LGD approval, shall become the sole responsibility of the Owner.

17.6 Any party that becomes aware of an expected project cost over-run, will notify the Owner immediately. The Owner will notify the Funding Agency. If funding

is not already in place to cover the entire over-run, the owner and Architect/Engineer will: 1) amend the scope of work to bring the project back within budget, 2) secure additional and timely funding to cover the entire over-run or 3) deny approval of the change order.

18. Extras

18.1 Without invalidating the contract, the Owner may order extra work or make changes by altering, adding to or deducting from the work, the contract sum being adjusted accordingly, and the consent of the Surety being first obtained where necessary or desirable. All the work of the kind bid upon shall be paid for at the price stipulated in the proposal, and no claims for any extra work or materials shall be allowed unless the work is ordered in writing by the Owner or its Architect/Engineer, acting officially for the Owner, and the price is stated in such order.

19. Time for Completion and Liquidated Damages

19.1 It is hereby understood and mutually agreed, by and between the Contractor and the Owner, that the date of beginning and the time for completion as specified in the contract of the work to be done hereunder are *essential conditions* of this contract: and it is further mutually understood and agreed that the work embraced in this contract shall be commenced on a date to be specified in the "Notice to Proceed."

19.2 The Contractor agrees that said work shall be prosecuted regularly, diligently, and uninterruptedly at such rate of progress as will insure full completion thereof within the time specified. It is expressly understood and agreed, by and between the Contractor and the Owner, that the time for the completion of the work described herein is a reasonable time for the completion of the same, taking into consideration the average climatic range and usual industrial conditions prevailing in this locality.

19.3 If the said Contract shall neglect, fail or refuse to complete the work within the time herein specified, or any proper extension thereof granted by the Owner, then the Contractor does hereby agree, as a part consideration for the awarding of this contract, to pay to the Owner the amount specified in the contract, not as a penalty but as liquidated damages for such breach of contract as hereinafter set forth, for each and every calendar day that the contract shall be in default after the time stipulated in the contract for completing the work.

19.4 The said amount is fixed and agreed upon by and between the Contractor and the Owner because of the impracticability and extreme difficulty of fixing and ascertaining the actual damages the Owner would in such event sustain, and said amount is agreed to be the amount of damages which the Owner would sustain and said amount shall be retained from time to time by the Owner from current periodical estimates.

19.5 It is further agreed that time is of the essence of each and every portion of this contract and of the specifications wherein a definite and certain length of time is fixed for the performance of any act whatsoever; and where under the contract an additional time is allowed for the completion of any work, the new time limit fixed by such extension shall be of the essence of this contract. Provided, that the Contractor shall not be charged with liquidated damages or any excess cost when the Owner determines that the Contractor is without fault and the Contractor's reasons for the time extension are acceptable to the Owner; Provided, further, that the Contractor shall not be charged with liquidated damages or any excess cost when the delay in completion of the work is due:

A. To any preference, priority or allocation order duly issued by the Government;

B. To unforeseeable cause beyond the control and without the fault or negligence of the Contractor, including, but not restricted to, acts of God, or of the public enemy, acts of the Owner, acts of another Contractor in the performance of a contract with the Owner, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and severe weather; and

C. To any delays of Subcontractors or suppliers occasioned by any of the causes specified in subsections a) and b) of this article:

19.6 Provided further, that the Contractor shall, within ten (10) days from the beginning of such delay, unless the Owner shall grant a further period of time prior to the date of final settlement of the contract, notify the Owner, in writing, of the causes of the delay, who shall ascertain the facts and extent of the delay and notify the Contractor within a reasonable time of its decision in the matter.

20. Correction of Work

20.1 All work, all materials, whether incorporated in the work or not, all processes of manufacture, and all methods of construction shall be at all times and places subject to the inspection of the Architect/ Engineer who

shall be the final judge of the quality and suitability of the work, materials, processes of manufacture, and methods of construction for the purposes for which they are used. Should they fail to meet his approval they shall be forthwith reconstructed, made good, replaced and/or corrected, as the case may be, by the Contractor at his own expense. Rejected material shall immediately be removed from the site. If, in the opinion of the Architect/Engineer, it is undesirable to replace any defective or damaged materials or to reconstruct or correct any portion of the work injured or not performed in accordance with the Contract Documents, the compensation to be paid to the Contractor hereunder shall be reduced by such amount as in the judgment of the Architect/Engineer shall be equitable.

21. Subsurface Conditions Found Different

21.1 Should the Contractor encounter sub-surface and/or latent conditions at the site materially differing from those shown on the Plans or indicated in the Specifications, he shall immediately give notice to the Architect/Engineer of such conditions before they are disturbed. The Architect/Engineer will thereupon promptly investigate the conditions, and if he finds that they materially differ from those shown on the Plans or indicated in the Specifications, he will at once make such changes in the Plans and/or Specifications as he may find necessary, any increase or decrease of cost resulting from such changes to be adjusted in the manner provided in Paragraph 17 of the General Conditions.

22. Claims for Extra Cost

22.1 No claim for extra work or cost shall be allowed unless the same was done in pursuance of a written order of the Architect/Engineer approved by the Owner, as aforesaid, and the claim presented with the first estimate after the changed or extra work is done. When work is performed under the terms of subparagraph 17.3 of the General Conditions, the Contractor shall furnish satisfactory bills, payrolls and vouchers covering all items of cost and when requested by the Owner, give the Owner access to accounts relating thereto.

23. Right of the Owner to Terminate Contract

23.1 In the event that any of the provisions of this contract are violated by the Contractor, or by any of his subcontractors, the Owner may serve written notice upon the Contractor and the Surety of its intention to terminate the contract, such notices to contain the reasons for such intention to terminate the contract, and unless within ten (10) days after the serving of such

notice upon the Contractor, such violation or delay shall cease and satisfactory arrangement of correction be made, the contract shall, upon the expiration of said ten (10) days, cease and terminate. In the event of any such termination, the Owner shall immediately serve notice thereof upon the Surety and the Contractor and the Surety shall have the right to take over and perform the contract; Provided, however, that if the Surety does not commence performance thereof within ten (10) days from the date of the mailing to such Surety of notice of termination, the Owner may take over the work and prosecute the same to completion by contract or by force account for the account and at the expense of the Contractor and the Contractor and his Surety shall be liable to the Owner for any excess cost occasioned the Owner thereby, and in such event the Owner may take possession of and utilize in completing the work, such materials, appliances, and plant as may be on the site of the work and necessary therefor.

24. Construction Schedule and Periodic Estimates

24.1 Immediately after execution and delivery of the contract, and before the first partial payment is made, the Contractor shall deliver to the Owner an estimated construction progress schedule in form satisfactory to the Owner, showing the proposed dates of commencement and completion of each of the various subdivisions of work required under the Contract Documents and the anticipated amount of each monthly payment that will become due the Contractor in accordance with the progress schedule. The Contractor shall also furnish on forms to be supplied by the Owner (a) a detailed estimate giving a complete breakdown of the contract price and (b) periodic itemized estimates of work done for the purpose of making partial payments thereof. The costs employed in making up any of these schedules will be used only for determining the basis of partial payments and will not be considered as fixing a basis for additions to or deductions from the contract price.

25. Payments to Contractor

25.1 Based upon Applications for Payment submitted to the Architect/Engineer by the Contractor and Certificates for Payment issued by the Architect/Engineer, the Owner shall make progress payments on account of the Contract Sum to the Contractor as provided in the Contract for the period ending the ____ day of the month as follows:

A. Not later than thirty (30) working days

following receipt by the Owner of an undisputed Application for Payment or as stated in Paragraph 3 of the Supplemental General Conditions, one hundred percent (100%) of the portion of the Contract Sum properly allocable to labor, materials, and equipment incorporated in the Work and one hundred percent (100%) of the portion of the Contract Sum properly allocable to materials and equipment suitably stored at the site or some other location agreed upon in writing for the period covered by the Application for Payment, less the aggregate of previous payments made by the Owner; and less such amounts as the Architect/ Engineer shall determine for all incomplete Work and unsettled claims as provided in the Contract Documents.

B. When making payments, an owner, contractor or subcontractor shall not retain, withhold, hold back or in any other manner not pay amounts owed for work performed. For additional information regarding retainage and the Prompt Payment Act refer to Section 57-28-5 NMSA 1978.

25.2 In preparing estimates the material delivered on the site and preparatory work done may be taken into consideration.

25.3 All material and work covered by partial payments made shall thereupon become the sole property of the Owner, but this provision shall not be construed as relieving the Contractor from the sole responsibility for the care and protection of materials and work upon which payments have been made or the restoration of any damaged work, or as a waiver of the right of the Owner to require the fulfillment of all of the terms of the contract.

25.4 Owner's Right to Withhold Certain Amounts and Make Application Thereof: The Contractor agrees that he will indemnify and save the Owner harmless from all claims growing out of the lawful demands of subcontractors, laborers, workmen, mechanics, material men, and furnisher of machinery and parts thereof, equipment, power tools, and all supplies, including commissary, incurred in the furtherance of the performance of this contract. The Contractor shall, at the Owner's request, furnish satisfactory evidence that all obligations of the nature hereinabove designated have been paid, discharged, or waived. If the Contractor fails so to do, then the Owner may, after having served written notice on the said Contractor, either pay unpaid bills, of which the Owner has written notice, direct, or

withhold from the Contractor's unpaid compensation a sum of money deemed reasonably sufficient to pay any and all such lawful claims until satisfactory evidence is furnished that all liabilities have been fully discharged whereupon payment to the Contractor shall be resumed, in accordance with the terms of this contract, but in no event shall the provisions of this sentence be construed to impose any obligations upon the Owner to either the Contractor or his Surety. In paying any unpaid bills of the Contractor, the Owner shall be deemed the agent of the Contractor, and any payment so made by the Owner shall be considered as a payment made under the contract by the Owner to the Contractor and the Owner shall not be liable to the Contractor for any such payments made in good faith.

26. Acceptance of Final Payment Constitutes Release

26.1 The acceptance by the Contractor of final payment shall be and shall operate as a release to the Owner of all claims and all liability to the Contractor for all things done or furnished in connection with this work and for every act and neglect of the Owner and others relating to or arising out of this work. No payment, however, final or otherwise, shall operate to release the Contractor or his sureties from any obligations under this contract or the Performance and Payment Bond.

27. Payments by Contractor

27.1 Contractors and subcontractors shall make prompt payment to their subcontractors and suppliers for amounts owed for work performed on the construction project within seven days after receipt of payment from the owner, contractor or subcontractor. If the contractor or subcontractor fails to pay his subcontractor and suppliers by first-class mail or hand delivery within seven days of receipt of payment, the contractor or subcontractor shall pay interest to his subcontractors and suppliers beginning on the eighth day after payment was due, computed at one and one-half percent of the undisputed amount per month or fraction of a month until payment is issued. These payment provisions apply to all tiers of contractors, subcontractors and suppliers (Section 57-28-1 et. seq. NMSA 1978).

28. Insurance

28.1 The Contractor shall not commence work under this contract until he has obtained all the insurance required under this paragraph and such insurance has been approved by the Owner, nor shall the Contractor allow any subcontractor to commence work on his

subcontract until the insurance required of the subcontractor has been so obtained and approved.

28.2 Compensation Insurance. The Contractor shall procure and shall maintain during the life of this contract Workmen's Compensation Insurance as required by applicable State or territorial law for all of this employees to be engaged in work at the site of the project under this contract and, in case of any such work sublet, the Contractor shall require the subcontractor similarly to provide Workmen's Compensation Insurance for all of the latter's employees to be engaged in such work unless such employees are covered by the protection afforded by the Contractor's Workmen's Compensation Insurance. In case any class of employees engaged in hazardous work on the project under this contract is not protected under the Workmen's Compensation statute, the Contractor shall provide and shall cause each subcontractor to provide adequate employer's liability insurance for the protection of such of his employees as are not otherwise protected.

28.3 Contractor's Public Liability and Property Damage Insurance and Vehicle Liability Insurance. The Contractor shall procure and shall maintain during the life of this contract Contractor's Public Liability Insurance, Contractor's Property Damage Insurance and Vehicle Liability Insurance in the amounts specified in the Supplemental General Conditions.

28.4 Subcontractor's Public Liability and Property Damage Insurance and Vehicle Liability Insurance. The Contractor shall either 1) require each of his subcontractors to procure and to maintain during the life of his subcontract, Subcontractor's Public Liability and Property Damage Insurance and Vehicle Liability Insurance of the type and in the amounts specified in the Supplemental General Conditions specified in subparagraph 28.3 hereof or, 2) insure the activities of his policy, specified in subparagraph 28.3 hereof.

28.5 Scope of Insurance and Special Hazards. The insurance require under subparagraphs 28.3 and 28.4 hereof shall provide adequate protection for the Contractor and his subcontractors, respectively, against damage claims which may arise from operations under this contract, whether such operations be by the insured or by anyone directly or indirectly employed by him and, also against any of the special hazards which may be encountered in the performance of this contract as enumerated in the Supplemental General Conditions.

28.6 Builder's Risk Insurance (Fire and Extended

Coverage). Until the project is completed and accepted by the Owner, the Owner, or Contractor [at the Owner's option as indicated in the Supplemental General Conditions, Form HUD-4238-N] is required to maintain Builder's Risk Insurance (fire and extended coverage) on a 100 percent completed value basis on the insurable portion of the project for the benefit of the Owner, the Contractor, subcontractors as their interests may appear. The Contractor shall not include any costs for Builder's Risk Insurance (fire and extended coverage) premiums during construction unless the Contractor is required to provide such insurance; however, this provision shall not release the Contractor from his obligation to complete, according to plans and specifications, the project covered by the contract, and the Contractor and his Surety shall be obligated to full performance of the Contractor's undertaking. Certificates of insurance acceptable to the Owner shall be filed with the Owner within ten (10) days after receipt of the Notice of Award. These certificates shall contain a provision that coverage's afforded under the policies will not be cancelled unless a least thirty (30) days prior written notice has been given to the Owner. A copy of the Builder's All-Risk Policy, if required, shall be provided to the Owner before any portion of Work is commenced by the Contractor. The original Owner's Protective Liability Insurance Policy shall be provided to the Owner before any portion of the work is commenced by the Contractor.

28.7 Payment of Damages. Nothing contained in these insurance requirements is to be construed as limiting the extent of the Contractor's responsibility for payment of damages resulting from his operation under this contract.

28.8 Proof of Carriage of Insurance. The Contractor shall furnish the Owner with certificates showing the type, amount, class of operations covered, effective dates and date of expiration of policies. Such certificates shall also contain substantially the following statement: "The insurance covered by this certificate will not be canceled or materially altered, except after ten (10) days written notice has been received by the Owner."

29. Contract Security

29.1 The Contractor shall furnish a performance bond in an amount at least equal to one hundred percent (100%) of the contract prices as security for the faithful performance of this contract and also a payment bond in an amount not less than one hundred percent (100%) of the contract price or in a penal sum not less than that prescribed by state, territorial or local law, as security

for the payment of all persons performing labor on the project under this contract and furnishing materials in connection with this contract. The performance bond and the payment bond may be in one or in separate instruments in accordance with local law.

29.2 A claimant is further defined as set forth in □Sections 13-4-18 through □13-4-20 NMSA 1978. The security is bound by the provisions of □Sections 13-4-18 through □13-4-20 NMSA 1978.

30. Additional or Substitute Bond

30.1 If at any time the Owner for justifiable cause shall be or become dissatisfied with any surety or sureties, then upon the Performance or Payment Bonds, the Contractor shall within five (5) days after notice from the Owner so to do, substitute an acceptable bond (or bonds) in such form and sum and signed by such other surety or sureties as may be satisfactory to the Owner. The premiums on such bond shall be paid by the Contractor. No further payments shall be deemed due nor shall be made until the new surety or sureties shall have furnished such an acceptable bond to the Owner.

31. Assignments

31.1 The Contractor shall not assign the whole or any part of this contract or any moneys due or to become due hereunder without written consent of the Owner. In case the Contractor assigns all or any part of any moneys due or to become due under this contract, the instrument of assignment shall contain a clause substantially to the effect that it is agreed that the right of the assignee in and to any moneys due or to become due to the Contractor shall be subject to prior claims of all persons, firms and corporations of services rendered or materials supplied for the performance of the work called for in this contract.

32. Mutual Responsibility of Contractors

32.1 If, through acts of neglect on the part of the Contractor, any other Contractor or any subcontractor shall suffer loss or damage on the work, the Contractor agrees to settle with such other Contractor or subcontractor by agreement or arbitration if such other Contractor or subcontractors will so settle. If such other Contractor or subcontractor shall assert any claim against the Owner on account of any damage alleged to have been sustained, the Owner shall notify the Contractor, who shall indemnify and save harmless the Owner against any such claim.

33. Separate Contract

33.1 The Contractor shall coordinate his operations with those of other Contractors. Cooperation will be required in the arrangement for the storage of materials and in the detailed execution of the work. The Contractor, including his subcontractors, shall keep informed of the progress and the detail work of other Contractors and shall notify the Architect/ Engineer immediately of lack of progress or defective workmanship on the part of other Contractors. Failure of a contractor to keep informed of the work progressing on the site and failure to give notice of lack of progress or defective workmanship by others shall be construed as acceptance by him of the status of the work as being satisfactory for proper coordination with his own work.

34. Subcontracting

34.1 The Contractor may utilize the services of specialty subcontractors on those parts of the work which, under normal contracting practices, are performed by specialty subcontractors.

34.2 The Contractor shall not award any work to any subcontractor without prior written approval of the Owner, which approval will not be given until the Contractor submits to the Owner a written statement concerning the proposed award to the subcontractor, which statement shall contain such information as the Owner may require.

34.3 The Contractor shall be as fully responsible to the Owner for the acts and omissions of his subcontractors, and of persons either directly or indirectly employed by them, as he is for the acts and omissions of persons directly employed by him.

34.4 The Contractor shall cause appropriate provisions to be inserted in all subcontracts relative to the work to bind subcontractors to the Contractor by the terms of the General Conditions and other contract documents insofar as applicable to the work of subcontractors and to give the Contractor the same power as regards terminating any subcontract that the Owner may exercise over the Contractor under any provision of the contract documents.

34.5 Nothing contained in this contract shall create any contractual relation between any subcontractor and the Owner.

35. Architect/Engineer's Authority

35.1 The Architect/Engineer shall give all orders and directions contemplated under this contract and specifications, relative to the execution of the work. The Architect/Engineer shall determine the amount, quality, acceptability, and fitness of the several kinds of work and materials which are to be paid for under this contract and shall decide all questions which may arise in relation to said work and the construction thereof. The Architect/Engineer's estimates and decisions shall be final and conclusive, except as herein otherwise expressly provided. In case any question shall arise between the parties hereto relative to said contract or specifications, the determination or decision of the Architect/Engineer shall be a condition precedent to the right of the Contractor to receive any money or payment for work under this contract affected in any manner or to any extent by such question.

35.2 The Architect/Engineer shall decide the meaning and intent of any portion of the specifications and of any plans or drawings where the same may be found obscure or be in dispute. any differences or conflicts in regard to their work which may arise between the Contractor under this contract and other Contractors performing work for the Owner shall be adjusted and determined by the Architect/Engineer.

36. Stated Allowances

36.1 The Contractor shall include in his proposal the cash allowances stated in the Supplemental General Conditions. The Contractor shall purchase the "Allowed Materials" as directed by the Owner on the basis of the lowest and best bid of at least three competitive bids. If the actual price for purchasing the "Allowed Materials" is more or less than the "Cash Allowance," the contract price shall be adjusted accordingly. The adjustment in contract price shall be made on the basis of the purchase price without additional charges for overhead, profit, insurance or any other incidental expenses. The cost of installation of the "Allowed Materials" shall be included in the applicable sections of the Contract Specifications covering this work.

37. Use of Premises and Removal of Debris

37.1 The Contractor expressly undertakes at his own expense:

A. to take every precaution against injuries to persons or damage to property;

B. to store his apparatus, materials, supplies and equipment in such orderly fashion at the site of the work as will not unduly interfere with the progress of his work or the work of any other contractors;

C. to place upon the work or any part thereof only such loads as are consistent with the safety of the portion of the work;

D. to clean up frequently all refuse, rubbish, scrap materials, and debris caused by his operations, to the end that at all times the site of the work shall present a neat, orderly and workmanlike appearance;

E. before final payment to remove all surplus material, false-work, temporary structures, including foundations thereof, plant of any description and debris of every nature resulting from his operations, and to put the site in a neat, orderly condition.

F. to effect all cutting, fitting or patching of his work required to make the same to conform to the plans and specifications and, except with the consent of the Architect/Engineer, not to cut or otherwise alter the work of any other Contractor.

38. Quantities of Estimate

38.1 Wherever the estimated quantities of work to be done and materials to be furnished under this contract are shown in any of the documents including the proposal, they are given for use in comparing bids and the right is especially reserved except as herein otherwise specifically limited, to increase or diminish them as may be deemed reasonably necessary or desirable by the Owner to complete the work contemplated by this contract, and such increase or diminution shall in no way vitiate this contract, nor shall any such increase or diminution give cause for claims or liability for damages.

39. Lands and Rights-of-Way

39.1 Prior to the start of construction, the Owner shall obtain all lands and rights-of-way necessary for the carrying out and completions of work to be performed under this contract.

40. General Guaranty

40.1 Neither the final certificate of payment nor any provision in the Contract Documents, nor partial or entire occupancy of the premises by the Owner, shall constitute an acceptance of work not done in accordance with the Contract Documents or relieve the Contractor of liability in respect to any express warranties or responsibility for faulty materials or workmanship. The

Contractor shall remedy any defects in the work and pay for any damage to other work resulting therefrom, which shall appear within a period of one year from the date of final acceptance of the work unless a longer period is specified. The Owner will give notice of observed defects with reasonable promptness.

41. Conflicting Conditions

41.1 Any provisions in any of the Contract Documents which may be in conflict or inconsistent with any of the paragraphs in these General Conditions shall be void to the extent of such conflict or inconsistency.

42. Notice and Service Thereof

42.1 Any notice to any Contractor from the Owner relative to any part of this contract shall be in writing and considered delivered and the service thereof completed, when said notice is posted, by certified or registered mail, to the said Contractor at his last given address, or delivered in person to the said Contractor or his authorized representative on the work.

43. Provision Required by Law Deemed Inserted

43.1 Each and every provision of law and clause required by law to be inserted in this contract shall be deemed to be inserted herein and the contract shall be read and enforced as though it were included herein, and if through mistake or otherwise any such provision is not inserted, or is not correctly inserted, then upon the application of either party the contract shall forthwith be physically amended to make such insertion or correction.

44. Protection of Lives and Health

44.1 "The Contractor shall exercise proper precaution at all times for the protection of persons and property and shall be responsible for all damages to persons or property, either on or off the site, which occur as a result of his prosecution of the work. The safety provisions of applicable laws and building and construction codes, in addition to specific safety and health regulations described by Chapter XIII, Bureau of Labor Standards, Department of Labor, Part 1518, Safety and Health Regulations for Construction; as outlined in the Federal Register, Volume 36, No. 75, Saturday, April 17, 1971. Title 29 - LABOR, shall be observed and the Contractor shall take or cause to be taken, such additional safety and health measures as the Contracting Authority may determine to be reasonably necessary."

45. Subcontracts

45.1 It is the contractor's responsibility to provide the owner an updated listing of subcontractors or any further subcontracts (Table A) within 10 days of the award.

46. Interest of Member of or Delegate to Congress

46.1 No member of or Delegate to Congress, or Resident Commissioner, shall be admitted to any share or part of this contract or to any benefit that may arise therefrom, but this provision shall not be construed to extend to this contract if made with a corporation for its general benefit.

47. Other Prohibited Interests

47.1 No official of the Owner who is authorized in such capacity and on behalf of the Owner to negotiate, make, accept or approve, or to take part in negotiating, making accepting or approving any architectural, engineering, inspection, construction or material supply contract or any subcontract in connection with the construction of the project, shall become directly or indirectly interested personally in this contract or in any part hereof. No officer, employee, architect, attorney, engineer or inspector of or for the Owner who is authorized in such capacity and on behalf of the Owner to exercise any legislative, executive, supervisory or other similar functions in connection with the construction of the project, shall become directly or indirectly interested personally in this contract or in any part thereof, any material supply contract, subcontract, insurance contract, or any other contract pertaining to the project.

48. Use and Occupancy Prior to Acceptance by Owner

48.1 The Contractor agrees to the use and occupancy of a portion or unit of the project before formal acceptance by the Owner, provided the Owner:

A. Secures written consent of the Contractor except in the event, in the opinion of the Architect/ Engineer, the Contractor is chargeable with unwarranted delay in final cleanup of punch list items or other contract requirements.

B. Secures endorsement from the insurance carrier and consent of the surety permitting occupancy of the building or use of the project during the remaining period of construction, or,

C. When the project consists of more than one building, and one of the buildings is occupied, secures permanent fire and extended coverage insurance, including a permit to complete construction. Consent of the surety must also be obtained.

MODIFICATIONS TO GENERAL CONDITIONS

SUPPLEMENTARY CONDITIONS
Section 00700

***If the Architect/Engineer must make changes to the General Conditions of this contract they must be included here.**

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SUPPLEMENTAL GENERAL CONDITIONS

SUPPLEMENTARY CONDITIONS
Section 00820

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1. ENUMERATION OF PLANS, SPECIFICATIONS AND ADDENDA

Page ____ to ____, inclusive

Following are the Plans, Specifications and Addenda which form a part of this contract, as set forth in Paragraph 1 of the General Conditions, "Contract and Contract Documents":

DRAWINGS

General Construction: Nos. _____

Heating and Ventilating: Nos. _____

Plumbing: Nos. _____

Electrical: Nos. _____

_____ Nos. _____

_____ Nos. _____

SPECIFICATIONS

General Construction: Page ____ to ____, inclusive

Heating and Ventilating Page ____ to ____, inclusive

Plumbing: Page ____ to ____, inclusive

Electrical Page ____ to ____, inclusive

Page ____ to ____, inclusive

ADDENDA

No. _____	Date _____	No. _____	Date _____
No. _____	Date _____	No. _____	Date _____
No. _____	Date _____	No. _____	Date _____

2. STATED ALLOWANCES

A. Pursuant to paragraph 36 of the General Conditions, the Contractor shall include the following cash allowances in the Bid:

1. For (page ____ of Specifications) \$ _____

2. For (page ____ of Specifications) \$ _____

3. For (page ____ of Specifications) \$ _____

4. For (page ____ of Specifications) \$ _____

5. For (page ____ of Specifications) \$ _____

6. For (page ____ of Specifications) \$ _____

3. NOTICE OF EXTENDED PAYMENT PROVISION

This contract allows the Owner to make payment within _____ (not to exceed 45 days) days after submission of an undisputed request for payment (Section 57-28-5 B (2) NMSA 1978).

4. CONTRACTOR'S AND SUBCONTRACTOR'S PUBLIC LIABILITY, VEHICLE LIABILITY, AND PROPERTY DAMAGE INSURANCE

As required under paragraph 28 of the General Conditions, the policy shall be written for not less than the following or greater if required by law:

4.1 Worker's Compensation (including accident and occupational disease coverage):

- | | |
|-------------------------|---------------------------------|
| a. State | Statutory |
| b. Employer's Liability | \$ 100,000 each accident |
| | \$ 500,000 disease-policy limit |
| | \$ 100,000 disease-each |

employee

4.2 Comprehensive General Liability (including Premises Operations; Independent Contractor's Protective; Products and Completed Operations; Broad Form Property Damage):

- | | |
|--------------------|-----------------------------|
| a. Bodily Injury | \$ 500,000 per person |
| | \$1,000,000 each occurrence |
| b. Property Damage | \$ 500,000 each occurrence |
| | \$ 500,000 annual aggregate |
- c. Property Damage Liability Insurance shall provide X, C or coverage as applicable.

4.3 Comprehensive Automobile Liability:

- | | |
|--------------------|-----------------------------|
| a. Bodily Injury | \$ 500,000 per person |
| | \$1,000,000 each occurrence |
| b. Property Damage | \$ 500,000 each occurrence |
| | \$ 500,000 annual aggregate |

4.4 Umbrella Excess Liability: \$1,000,000 over primary insurance

4.5 The Contractor shall either: (1) require each of his subcontractors to procure and to maintain during the life of his subcontract, Subcontractor's Public Liability and Property Damage of the type and in the same amounts as specified in the preceding paragraph, or (2) insure the activities of his subcontractors in his own policy.

5. PHOTOGRAPHS OF PROJECT

As required by the Funding Agency, the Contractor will furnish photographs before construction, during construction and upon completion of the project.

6. SCHEDULE OF OCCUPATIONAL CLASSIFICATIONS AND MINIMUM HOURLY WAGE RATES.

Given on pages _____ through _____. Note: Applicable federal and state regulations require that the higher of the federal or the state wage rate for each classification must be paid. See Section 9 of the Additional Conditions.

7. BUILDER'S RISK INSURANCE

7.1 As provided in the General Conditions, Paragraph 28, the Contractor ☐ will ☐ will not* maintain Builder's Risk Insurance (fire and extended coverage) on a 100 percent completed value basis on the insurable portions of the project for the benefit of the Owner, the Contractor, and all subcontractors, as their interests may appear.

(* Check one - to be filled in by Architect/Engineer)

8. SPECIAL EQUAL OPPORTUNITY PROVISIONS - Executive Order 11246

A. Section 202 Equal Opportunity Clause

During the performance of this contract, the Contractor agrees as follows:

1. The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agree to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

2. The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration without regard to race, color, religion, sex, or national origin.

or representative of workers with which he has a collective bargaining agreement or other contract or understanding a notice to be provided by the Contract Compliance Officer advising the said labor union or workers' representatives of the Contractor's commitment under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

4. The Contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and the rules, regulations, and relevant orders of the Secretary of Labor.

5. The Contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the Department and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and others.

6. In the event of the Contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and the Contractor may be declared ineligible for further Government contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

7. The Contractor will include the provisions of the sentence immediately preceding paragraph 1. and the provisions of paragraphs 1 through 7 in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as the department may direct as a means of enforcing such provisions, including sanctions for noncompliance. Provided, however, that in the event a Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the Department, the Contractor may request the United States to enter into such litigation to protect the interest of the United States.

3. The Contractor will send to each labor union

B. Notice of Requirement for Affirmative Action to Ensure Equal Employment Opportunity (Executive Order 11246).

1. The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Opportunity Construction Contract Specifications" set forth herein.

2. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate work force in each trade on all construction work in the covered area, are as follows:

Goals for Minority Female Participation: * % listed by County below		Goals for Participation:	
	6.9%		
Bernalillo	38.3%	Catron	46.9%
Sandoval	"	Colfax	"
De Baca	"		
Chaves	49.0%	Guadalupe	"
Dona Ana	"	Lincoln	"
Eddy	"	Los Alamos	"
Grant	"	McKinley	"
Hidalgo	"	Mora	"
Luna	"	Rio Arriba	"
Otero	"	San Juan	"
Sierra	"	San Miguel	"
Santa Fe	"		
Lea	31.0%	Socorro	"
Roosevelt	"	Taos	"
Torrance	"		
Curry	11.0%	Valencia	"
Harding	"		
Quay	"		
Union	"		

These goals are applicable to all the Contractor's construction work (whether or not it is federal or federally assisted) performed in the covered area. If the Contractor performs construction work in a geographic area located outside of the covered area, it shall apply the goals established for such geographic area where the work is actually performed. With regard to this second area, the Contractor also is subject to the goals for both its federally involved and non-Federally involved construction.

The Contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal

Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals established for the geographic area where the contract resulting from this solicitation is to be performed. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the Contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order, and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within 10 working days of award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address, and telephone number of the subcontractor; employer identification number; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the contract is to be performed.

4. As used in this Notice, and in the contract resulting from this solicitation, the "covered area" is (insert description of the geographical areas where the contract is to be performed, giving the State, County, and Municipality, if any).

C. Standard Federal Equal Employment Opportunity Construction Contract Specifications (Executive Order 11246)

1. As used in these specifications:

a. *covered area* means the geographic area described in the solicitation from which this contract resulted;

b. *Director* means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority;

c. *Employer identification number* means the

Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941.

d. *Minority* includes:

(1) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);

(2) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish culture or origin, regardless of race);

(3) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands); and

(4) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).

2. When the Contractor, or any Subcontractor at any tier, subcontracts a portion of the Work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.

3. If the Contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or Subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors or Subcontractors toward a goal in an approved Plan does not excuse any covered Contractor's or Subcontractor's failure to

take good faith efforts to achieve the Plan goals and timetables.

4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7a through 7p of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered construction contractors performing contracts in geographical areas where they do not have a Federal or Federally-assisted construction contract shall apply the minority and female goals established for the geographic area where the contract is being performed. Goals are published periodically in the Federal Register in notice form and such notices may be obtained from any Office of Federal Contract Compliance Programs office or from Federal procurement contracting officers. The Contractor is expected to make substantially uniform progress in meeting its goals in each craft during the period specified.

5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.

6. In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.

7. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:

a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.

b. Establish and maintain a current list of minority and female recruitment sources, provided written notification to minority and female recruitment sources and to community or its unions have employment opportunities available, and maintain a record of the organizations' responses.

c. Maintain a current file of the names, addresses, and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source, or community organization and what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefor, along with whatever additional actions the Contractor may have taken.

d. Provide immediate written notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or female sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.

e. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and female, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under 7b above.

f. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.

g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination, or other employment decisions including specific review of these items with on-site supervisory personnel such as Superintendents, General Foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.

h. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other Contractors and Subcontractors with whom the Contractor does or anticipates doing business.

i. Direct its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.

j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer, and vacation employment to minority and

female youth both on the site and in other areas of a Contractor's work force.

k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.

l. Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.

m. Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.

n. Ensure that all facilities and company activities are non-segregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.

o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.

p. Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractor's EEO policies and affirmative action obligations.

8. Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (7a through 7p). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the Contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under 7a through 7p of these specifications provided that the Contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and females in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female work force participation, makes a good

faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation shall not be a defense for the Contractor's non-compliance.

9. A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, even though the Contractor has achieved its goals for women generally, the Contractor may be in violation of the Executive Order if a specific minority group of women is underutilized).

10. The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.

11. The Contractor shall not enter into any Subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.

12. The Contractor shall not carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended.

D. Civil Rights Act of 1964

Under Title VI of the Civil Rights Act of 1964, no person shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.

E. Section 109 of the Housing and Community Development Act of 1974

No person in the United States shall on the ground of race, color, national origin, religion, or sex be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any

program or activity funded in whole or in part with funds made available under this title.

F. "Section 3" Compliance in the Provision of Training, Employment and Business Opportunities

1. The work to be performed under this contract is on a project assisted under a program providing direct Federal financial assistance from the Department of Housing and Urban Development and is subject to the requirements of Section 3 of the Housing and Urban Development Act of 1968, as amended, 12 U.S.C. 1701u. Section 3 requires that to the greatest extent feasible opportunities for training and employment be given lower income residents of the project area and contracts for work in connection with the project be awarded to business concerns which are located in, or owned in substantial part by persons residing in the area of the project.

2. The parties to this contract will comply with the provisions of said Section 3 and the regulations issued pursuant thereto by the Secretary of Housing and Urban Development set forth in 24 CFR 134, and all applicable rules and orders of the Department issued thereunder prior to the execution of this contract. The parties to this contract certify and agree that they are under no contractual or other disability which would prevent them from complying with these requirements.

3. The Contractor will send to each labor organization or representative of workers with which he has a collective bargaining agreement or other contract or understanding, if any, a notice advising said labor organization or workers' representative of his commitments under this Section 3 clause and shall post copies of the notice in conspicuous places available to employees and applicants for employment or training.

4. Compliance with the provisions of Section 3, the regulations set forth in 24 CFR Part 135, and all applicable rules and orders of the Department issued hereunder prior to the execution of the contract, shall be a condition of the Federal financial assistance provided to the project, binding upon the applicant or recipient for such assistance, its successors and assigns. Failure to fulfill these requirements shall subject the applicant or recipient, its contractors or subcontractors, its successors and assigns to those sanctions specified by the grant or loan agreement or

contract through which federal assistance is provided, and to such sanctions as are specified by 24 CFR Part 135.

G. Section 504 Handicapped (if \$ 2,500 or over), Affirmative Action for Handicapped Workers

1. The Contractor will not discriminate against any employee or applicant for employment because of physical or mental handicap in regard to any position for which the employee or applicant is qualified. The Contractor agrees to take affirmative action to employ, advance in employment and otherwise treat qualified handicapped individuals without discrimination based upon their physical or mental handicap in all employment practices such as the following: employment upgrading, demotion or transfer, recruitment, advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship.

2. The Contractor agrees to comply with the rules, regulations and relevant orders of the Secretary of Labor issued pursuant to this Act.

3. In the event of the Contractor's noncompliance with the requirements of this clause, actions for noncompliance may be taken in accordance with the rules, regulations and relevant orders of the Secretary of Labor issued pursuant to this Act.

4. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices in a form to be prescribed by the Director, provided by or through the Contracting Officer. Such notices shall state the Contractor's obligation under the law to take affirmative action to employ and advance in employment qualified handicapped employees and applicants for employment, and the rights of applicants and employees.

5. The Contractor will notify each labor union or representative of workers with which it has a collective bargaining agreement or other contractual understanding, that the Contractor is bound by the terms of Section 503 of the Rehabilitation Act of 1973, and is committed to take affirmative action to employ and advance physically and mentally handicapped individuals.

6. The Contractor will include the provisions of this part in every subcontract or purchase order of \$2,500 or more unless exempted by the rules, regulation, or orders of the Secretary issued pursuant to Section 503 of the Act, so that such provisions will be binding upon each subcontractor and vendor. The Contractor will take such action with respect to any subcontract or purchase order as the Director of the Office of Federal Contract Compliance Programs may direct to enforce such provisions, including action for noncompliance.

H. Age Discrimination Act of 1975

No person in the United States shall, on the basis of age, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under, any program or activity receiving Federal financial assistance.

9. CERTIFICATION OF COMPLIANCE WITH AIR AND WATER ACTS

(Applicable to Federal assisted construction contracts and related subcontracts exceeding \$100,000).

Compliance with Air and Water Acts

A. During the performance of this contract, the Contractor and all subcontractors shall comply with the requirements of the Clean Air Act, as amended, 42 USC 1857 et seq., the Federal Water Pollution Control Act, as amended, 33 USC 1251 et seq., and the regulations of the Environmental Protection Agency with respect thereto, at 40 CFR Part 15, as amended.

B. In addition to the foregoing requirements, all nonexempt Contractors and Subcontractors shall furnish to the Owner, the following:

1. A stipulation by the Contractor or subcontractors, that any facility to be utilized in the performance of any nonexempt contract or subcontract, is not listed on the "List of Violating Facilities" issued by the Environmental Protection Agency (EPA) pursuant to 40 CFR 15.20.

2. Agreement by the Contractor to comply with all the requirements of Section 114 of the Clean Air Act, as amended, (42 USC 1857c-8) and Section 308 of the Federal Water Pollution Control Act, as amended, (33 USC 1318) relating to inspection,

monitoring, entry, reports and information, as well as all other requirements specified in said Section 114 and Section 308, and all regulations and guidelines issued thereunder.

3. A stipulation that as a condition for the award of the contract, prompt notice will be given of any notification received from the Director, Office of Federal Activities, EPA, indicating that a facility utilized, or to be utilized for the contract, is under consideration to be listed on the EPA "List of Violating Facilities".

4. Agreement by the Contractor that he will include, or cause to be included, the criteria and requirements in paragraph a through d of this section in every nonexempt subcontract and requiring that the Contractor will take such action as the Government may direct as a means of enforcing such provisions.

10. SPECIAL CONDITIONS PERTAINING TO HAZARDS, SAFETY STANDARDS AND ACCIDENT PREVENTION

A. Lead-Based Paint Hazards

(Applicable to contracts for construction or rehabilitation of residential structures)

The construction or rehabilitation of residential structures is subject to the HUD Lead-Based Paint regulations, 24 CFR Part 35. The Contractor and Subcontractors shall comply with the provisions for the elimination of lead-based paint hazards under sub-part B of said regulations. The Owner will be responsible for the inspections and certifications required under Section 35.14(f) thereof.

B. Use of Explosives

When the use of explosives is necessary for the prosecution of the work, the Contractor shall observe all local, state and federal laws in purchasing and handling explosives. The Contractor shall take all necessary precautions to protect completed work, neighboring property, water lines, or other underground structures. Where there is danger to structures or property from blasting, the charges shall be reduced and the material shall be covered with suitable timber, steel or rope mats.

The Contractor shall notify all Owners of public utility property of intention to use explosives at least

eight hours before blasting is done, close to such property. Any supervision or direction of use of explosives by the Architect/Engineer does not in any way reduce the responsibility of the Contractor or his Surety for damages that may be caused by such use.

C. Danger Signals and Safety Devices

The Contractor shall make all necessary precautions to guard against damages to property and injury to persons. He shall put up and maintain in good condition, sufficient red or warning lights at night, suitable barricades and other devices necessary to protect the public. In case the Contractor fails or neglects to take such precautions, the Owner may have such lights and barricades installed and charge the cost of this work to the Contractor. Such action by the Owner does not relieve the Contractor of any liability incurred under these specifications or contract.

11. FLOOD DISASTER PROTECTION

This contract is subject to the requirements of the Flood Disaster Protection Act of 1973 (P.L. 93-234).

Nothing included as a part of this contract is approved for acquisition or construction purposes as defined under Section 3(a) of said Act, for use in an area identified by the Secretary of HUD as having special flood hazards which is located in a community not then in compliance with the requirements for participation in the National Flood Insurance Program pursuant to Section 201(d) of said Act; and the use of any assistance provided under this contract for such acquisition or construction in such identified areas in communities then participating in the National Flood Insurance Program shall be subject to the mandatory purchase of flood insurance requirements of Section 102(a) of said Act.

Any contract or agreement for the sale, lease, or other transfer of land acquired, cleared or improved with assistance provided under this Contract shall contain, if such land is located in an area identified by the Secretary as having special flood hazards and in which the sale of flood insurance has been made available under the National Flood Insurance Act of 1968, as amended, 42 U.S.C. 4001 et seq., provisions obligating the transferee and its successors or assigns to obtain and maintain, during the ownership of such land, such flood insurance as required with respect to financial assistance for acquisition or construction purposes under Section 102(a) of the Flood Disaster

Protection Act of 1973.

12. ACCESS TO RECORDS AND MAINTENANCE OF RECORDS

The State grantor agency (funding agency), the Department of Housing and Urban Development, the Comptroller General of the United States, or any of their duly authorized representatives, shall have access to any books, documents, papers and records of the Contractor which are directly pertinent to this specific contract, for the purpose of audits, examinations, and making excerpts and transcriptions. All records connected with this contract will be maintained in a central location by the unit of local government and will be maintained for a period of six (6) years from the official date of close-out of the Grant.

13. CONFLICT OF INTEREST OF OFFICERS OR EMPLOYEES OF THE LOCAL JURISDICTION, MEMBERS OF THE LOCAL GOVERNING BODY, OR OTHER PUBLIC OFFICIALS

No officer or employee of the local jurisdiction or its designees or agents, no member of the governing body, and no other public official of the locality who exercises any function or responsibility with respect to this contract, during his/her tenure or for one year thereafter, shall have any interest, direct or indirect, in

any contract or subcontract, or the proceeds thereof, for work to be performed. Further, the Contractor shall cause to be incorporated in all subcontracts the language set forth in this paragraph prohibiting conflict of interest.

14. MINORITY AND FEMALE CONTRACTOR ASSOCIATIONS

Lists are available from various sources including the state Department of Transportation, the U.S. Department of Housing and Urban Development, Ft. Worth Area Office. These lists are provided solely for the benefit of the Contractor for the purpose of assisting him/her in meeting the Equal Opportunity Provisions contained in these Supplemental General Conditions. The lists do not contain a complete listing of minority and female businesses. The information may in some cases be out of date.

15. SPECIAL HAZARDS

The Contractor's and his Subcontractor's Public Liability and Property Damage Insurance shall provide adequate protection against the following special hazards:

[If none, insert "none"]

MODIFICATIONS TO SUPPLEMENTAL GENERAL CONDITIONS

SUPPLEMENTARY CONDITIONS
Section 00820

***If the Architect/Engineer must make any modifications to the Supplemental General Conditions of this contract they must be included here.**

ADDITIONAL CONDITIONS

SUPPLEMENTARY CONDITIONS
Section 00830

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1. CONSTRUCTION INDUSTRIES LICENSING ACT

1.1 This Contract is subject to the provisions of the New Mexico Construction Industries Licensing Act (§§60-13-1 to 60-13-59 NMSA 1978), the rules and regulations of the New Mexico Construction Industries Commission and the rules, regulations and codes of the various trade boards adopted pursuant to the Construction Industries Licensing Act.

2. CONTRACT AUDIT

2.1 The Owner shall be entitled to audit the books and records of a Contractor or any Subcontractor under any negotiated Contract or subcontract other than a firm fixed-price Contract to the extent that such books and records relate to the performance of such Contract or subcontract. Such books and records shall be maintained by the Contractor for a period of six years from the date of final payment under the prime Contract and by the Subcontractor for a period of six years from the date of final payment under the subcontract unless a shorter period is otherwise authorized by the Owner in writing (§13-1-161 NMSA 1978).

3. ASSIGNMENT OF ANTITRUST CLAIMS

3.1 All contractor, suppliers, subcontractors agree that any and all claims which it may have or may inure to it for overcharges resulting from antitrust violations as to goods, services and materials purchased in connection with this Project are hereby assigned to the Owner and

the funding agency, but only to the extent that such overcharges are passed on to the Owner. It is agreed that the contractor, supplier, subcontractor or sub-subcontractor retains all rights to any such antitrust claims to the extent of any overcharges not passed on to the Owner, including the right to any treble damages attributable thereto.

4. BRIBES, GRATUITIES, AND KICKBACKS

4.1 It is illegal in this state for any public employee to solicit or accept anything of value in connection with award of this Contract and for any person to offer or pay anything of value to any such public employee (§§30-24-1 through 2 NMSA 1978).

4.2 Pursuant to §13-1-191 NMSA 1978 reference is hereby made to the criminal laws of New Mexico, including §§30-24-1 through 30-24-2, and §§30-41-1 through 30-41-3 NMSA 1978, which prohibit bribes, kickbacks, and gratuities and violation of which constitutes a felony. Further, the Procurement Code, §§13-1-28 through 13-1-199 NMSA 1978, imposes civil and criminal penalties for its violation.

5. NON-RESIDENT CONTRACTOR'S REQUIREMENTS REGARDING GROSS RECEIPTS TAX SURETY BOND

5.1 Section 7-1-55A NMSA 1978 provides that any person (as defined in §7-1-3 NMSA 1978) engaged in the construction business who does not have his principal place of business in New Mexico and enters into a prime construction contract to be performed in this state shall, at the time such contract is entered into, furnish the Director of the Revenue Division, Taxation and Revenue Department, or his delegate with a surety bond or other acceptable security in a sum equivalent to the gross receipts tax to be paid under the contract multiplied by the applicable rate of the gross receipts tax imposed by §7-9-4 NMSA 1978 to secure payment of the tax imposed on the gross receipts from the contract, and shall obtain a certificate from the Director of the Revenue Division, Taxation and Revenue Department, or his delegate, that the requirements of this paragraph have been met.

5.2 If the total sum to be paid under the contract is

changed by ten percent or more after the date the surety bond or other acceptable security is furnished, to the Director or his delegate, such person shall increase or decrease, as the case may be, the amount of the bond or security within fourteen days after the change (§7-1-55B NMSA 1978).

5.3 In addition to the above requirements, the Contractor will be subject to all the requirements of §7-1-55 NMSA 1978.

6. CONTRACTOR'S GROSS RECEIPTS TAX REGISTRATION

6.1 §7-10-4 NMSA 1978 provides that any person (as defined in §7-10-3 NMSA 1978) performing services for the state or its political subdivisions, as those terms are used in the Gross Receipts and Compensating Tax Act (§§7-10-1 through 7-10-5 NMSA 1978) must be registered and be issued an identification number with the Revenue Division of the Taxation and Revenue Department of the state to pay the gross receipts tax.

6.2 For information in obtaining the identification number contact: Revenue Processing Division, Taxation and Revenue Department, Manuel Lujan Sr. Building, 1200 St. Francis Drive, Santa Fe, New Mexico 87505, or call (505) 827-0825.

6.3 If any person who performs services for the State or its political subdivisions is not registered to pay the gross receipts tax, the Owner shall withhold payment of the amount due until the person has presented evidence of registration with the Revenue Division to pay the gross receipts tax.

7. CONTRACTS WITH NONRESIDENT PERSONS OR PARTNERSHIPS OR UNADMITTED FOREIGN CORPORATIONS, AGENT FOR SERVICE OF PROCESS

Special attention of contractors is called to the requirements of §§ 13-4-21 through 13-4-24 NMSA 1978, whereby a public works contract with a nonresident person or partnership or foreign corporation not authorized to do business in the State shall contain a specific provision designating an agent resident within the State, and his address, upon whom process and writs in any action or proceeding against such business may be served in any action arising out of such contract.

7.1 The Contractor warrants and agrees that he, all subcontractors and any further subcontractors will

comply with all applicable provisions of the New Mexico Public Works Minimum Wage Act, §13-4-11 NMSA 1978. The attached Minimum Wage Rate Determinations are declared to be prevailing and apply to all construction. Note: Applicable federal and state regulations require that the higher of the federal or the state wage rate for each classification must be paid.

8. SAFETY STANDARDS AND ACCIDENT PREVENTION

With respect to all work performed under this contract, the Contractor shall:

A. Comply with the safety standards provisions of applicable laws, building and construction codes and the "Manual of Accident Prevention in Construction" published by the Associated General Contractors of America, the requirements of the Occupational Safety and Health Act of 1970 (P.L. 91-596), and the requirements of Title 29 of the Code of Federal Regulations, 1518 as published in the "Federal Register", Volume 36, No. 75, Saturday, April 17, 1971.

B. Exercise every precaution at all times for the prevention of accidents and the protection of persons (including employees) and property.

C. Maintain at his/her office or other well-known place at the job site, all articles necessary for giving first aid to the injured, and shall make standing arrangements for the immediate removal to a hospital or a doctor's care of persons (including employees), who may be injured on the job site. In no case shall employees be permitted to work at a job site before the employer has made a standing arrangement for removal of injured persons to a hospital or a doctor's care.

9. MINIMUM WAGE RATES

9.1 Submission of weekly payroll records to the Owner and Department of Workforce Solutions is mandatory. Include the decision number on Contractor's and subcontractor's payrolls. The scale of wages must also be posted in a prominent location at the site.

9.2 In the event it is found by the Labor Commission, that any laborer or mechanic employed by the Contractor, subcontractor or any further subcontractors on the site of the project covered by this Contract, has been or is being paid as a result of a willful violation, a rate of wages less than the rate of wages required by the Contract, the Owner may, by written notice to the


Contractor, his subcontractor or any further subcontractors if the violation involves a Subcontractor, terminate their right to proceed with the Work or such part of the Work as to which there has been a willful failure to pay the required wages and the Owner may prosecute the work to completion by contract or otherwise, and the Contractor, subcontractor or any further subcontractor shall be liable to the Owner and the State of New Mexico for any excess cost occasioned thereby. If the Owner or State of New Mexico is unable to collect from the Subcontractor or any further Subcontractors, the Contractor will be liable for all costs.

10. PROJECT IDENTIFICATION SIGN

10.1 The Contractor as an incidental cost shall provide, erect, and maintain for the duration of the construction project one identification sign at each construction site. The sign shall be painted on one side with a background color of yellow with red lettering of 3/4" thick, not smaller than 4' x 6' nor larger than 4' x 8', marine grade plywood. Each sign shall be mounted on two 4" x 4" posts, with the bottom of the sign at least four feet above grade. The sign shall be mounted level and at the location designated by the Architect/Engineer or the Owner's Project Manager. The sign shall be salvaged to the Owner at the end of the construction project.

Sample Sign

Sign shall be yellow background with red letters

[21/2"]	(SANTA FE COUNTY)	[2"]	NEW MEXICO COMMUNITY DEVELOPMENT COUNCIL PROJECT MICHELLE LUJAN GRISHAM, GOVERNOR [3"] GREATER GLORIETA REGIONAL WELL	
			ARCHITECT HDR ENGINEERING, INC. 2155 LOUISIANA BLVD. NE, SUITE 9500 ALBUQUERQUE, NM 87110 (TELEPHONE NO. 505-830-5400)	CONTRACTOR (NAME) (ADDRESS) (CITY, STATE, ZIP CODE) (TELEPHONE NO. 505-000-0000)
	[Logo - 1'-6" Dia./Sq.]		OWNER [SANTA FE COUNTY] (102 GRANT AVE) SANTA FE, NM 87501 (TELEPHONE NO. 505-992-6753) (GREGORY S. SHAFFER), MANAGER	FUNDING CDBG GRANT - \$750,000 CDBG-CV GRANT - \$381,968 (STATE FUNDS - \$1,047,227) (TOTAL PROJECT COST - \$1,562,786)
[1-1/2"]	COUNCIL/COMMISSION JEFF KIELY, DISTRICT 1 WAYNE SONCHAR, DISTRICT 2 BRUCE JOEL PERLMAN, DISTRICT 3 CONSTANCE WILLIAMS, DISTRICT 4 SPENSER BACA, DISTRICT 5 EVELYN CABALLERO HOLGUIN, DISTRICT 6 GARY WHITEHEAD, DISTRICT 7			
[1"]				
[1"]				
[1"]				
[1"]				
[1"]				
[1"]				
[1"]				
[1"]				
			[1-1/2" wide red outline, with rounded corners @ interior box]	

11. OTHER ADDITIONAL CONDITIONS (list):

- 11.1 Federal Labor Standards Provisions
- 11.2 Attachments to Federal Labor Standards Provisions

MODIFICATIONS TO ADDITIONAL CONDITIONS

SUPPLEMENTARY CONDITIONS
Section 00830

*If the Architect/Engineer must make any modifications to the Additional Conditions of this contract they must be included here.

FEDERAL LABOR STANDARDS PROVISIONS
U.S. Department of Housing and Urban Development

HUD4010 (2-84) (HB 1344.1)

Applicability

The Project or Program to which the construction work covered by this contract pertains is being assisted by the United States of America and the following Federal Labor Standards Provisions are included in this Contract pursuant to the Provisions applicable to such Federal assistance.

A. 1.(i)Minimum Wages. All laborers and mechanics employed or working upon the site of the work (or under the United State Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project), will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR Part 3), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics. Contributions made or costs reasonably anticipated for bona fide fringe benefits under Section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of 29 CFR 5.5(a)(1)iv); also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period.

Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR Part 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein; provided, that the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under 29 CFR Part 5.5(a)(1)(ii) and the Davis-Bacon poster (WH-1321) shall be posted at all time by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

(ii)(a)Any class of laborers or mechanics which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. HUD shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(2) The classification is utilized in the area by the construction industry; and

(3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(b) If the Contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and HUD or its designee agree on the classification and wage rate (including the amount designated for fringe benefits were appropriate), a report of the action taken shall be sent by HUD or its designee to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, D.C. 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise HUD or its designee or will notify HUD or its designee within the 30 day period that additional time is necessary. (Approved by the Office of Management and Budget under OMB control number 1215-0140.)

(c) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and HUD or its designee do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), HUD or its designee shall refer the questions, including the views of all interested parties and the recommendation of HUD or its designee, to the Administrator for determination. The

Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise HUD or its designee or will notify HUD or its designee within the 30 day period that additional time is necessary. (Approved by the Office of Management and Budget under OMB Control Number 1215-0140.)

(d) The wage rate (including fringe benefits where appropriate) determined pursuant to subparagraphs (1)(b) or (c) of this paragraph, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(iv) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages or any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program. Provided, that the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program. (Approved by the Office of Management and Budget under OMB Control Number 1215-0140.)

2. Withholding. HUD or its designee shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees and helpers required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee or helper, employed or working on the site of the work (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project), all or part of the wages required by the contract, HUD or its designee may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased. HUD or its designee may, after written notice to the contractor, disburse such amounts withheld for and on account of the contractor or subcontractor to the respective employees to whom they are due. The Comptroller General shall make such disbursements in the case of direct Davis-Bacon Act contracts.

3. (i) Payrolls and Basic Records. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work (or under the United States Housing Act of 1937, or under the Housing Act of 1949, in the construction or development of the project). Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in Section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5 (a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in Section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs. (Approved by the Office of Management and Budget under OMB Control Number 1215-0140 and 1215-0017).

(ii)(a) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to HUD or its designee if the agency is a party to the contract, but if the agency is not such a party, the contractor will submit the payrolls to the applicant, sponsor, or owner, as the case may be for transmission to HUD or its designee. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR Part 5.5(a)(3)(i). This information may be submitted in any form desired. Optional Form WH-347 is available for this purpose and may be purchased from the Superintendent of Documents (Federal Stock Number 029-005-00014-1). U.S. Government Printing Office, Washington, DC 20402. For all CDBG projects, the

mandatory form WH-347 (Exhibit 4-P Certified Payroll) located on the website link

http://nmdfa.state.nm.us/CDBG_Implementation_Manual.aspx. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. (Approved by the Office of Management and Budget under OMB Control Number 1215-0149).

(b) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agency who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) That the payroll for the payroll period contains the information required to be maintained under 29 CFR Part 5.5(a)(3)(i) and that such information is correct and complete;

(2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid in full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in 29 CFR Part 3;

(3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(c) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 (for all CDBG projects use the mandatory Exhibit 4-P Certified Payroll located on the website link http://nmdfa.state.nm.us/CDBG_Implementation_Manual.aspx) shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph A.3.(ii)(b) of this section.

(d) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under Section 1001 of Title 18 and Section 231 of Title 31 of the United States Code.

(iii) The contractor or subcontractor shall make the records required under paragraph A.3.(i) of this section available for inspection, copying, or transcription by authorized representatives of HUD or its designee or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, HUD or its designee may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR Part 5.12.

4. (i) Apprentices and Trainees. Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Bureau of Apprenticeship and Training, or with a State Apprenticeship Agency recognized by the Bureau, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Bureau of Apprenticeship and Training or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to any contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level or progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Bureau of Apprenticeship and Training, or a State Apprenticeship Agency recognized by the Bureau, withdraws approval of an apprenticeship program, the contractor will no longer be

permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) **Trainees.** Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermine rate for the work performed until an acceptable program is approved.

(iii) **Equal Employment Opportunity.** The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirement of Executive Order 11246, as amended and 29 CFR Part 30.

5. Compliance with Copeland Act Requirements. The contractor shall comply with the requirements 29 CFR Part 3 which are incorporated by reference in this contract.

6. Subcontracts. The contractor or subcontractor will insert in any subcontracts the clauses contained in 29 CFR 5.5(a)(1) through (10) and such other clauses as HUD of its designee may by appropriate instructions require, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR Part 5.5.

7. Contract Termination; Debarment. A breach of the contract clauses in 9 CFR 5.5 may be grounds for termination of the contract and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act Requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR Parts 1, 3, and 5 are herein incorporated by reference in this contract.

9. Disputes Concerning Labor Standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR Parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and HUD or its designee, the U.S. Department of Labor, or the employees or their representatives.

10. (i) Certification of Eligibility. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of Section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1) or to be awarded HUD contracts or participate in HUD programs pursuant to 24 CFR Part 24.

(ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of Section 3(a) of the Davis-Bacon Act of 29 CFR 5.12(a)(1) or to be awarded HUD contracts or participate in HUD programs pursuant to 24 CFR 24.

(iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

Additionally, U.S. Criminal Code, Section 1010, Title 18, U.S.C., "Federal Housing Administration transaction", provides in part "Whoever, for the purpose of...influencing in any way the action of such Administration...makes, utters or publishes any statement, knowing the same to be false...shall be fined not more than \$5,000 or imprisoned not more than two years, or both."

11. A. Complaints, Proceedings, or Testimony by Employees. No laborer or mechanic to whom the wage, salary, or other labor standards provisions of this contract are applicable shall be discharged or in any other manner discriminated against by the contractor or any subcontractor because such employee has filed any complaint or instituted or caused to be instituted any proceeding or has testified or is about to testify in any proceeding under or relating to the labor standards applicable under this contract to his employer.

B. Contract Work Hours and Safety Standards Act. As used in this paragraph, the terms "laborers" and "mechanics" include watchmen and guards.

(1) Overtime Requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

(2) Violation; Liability for Unpaid Wages; Liquidated Damages. In the event of any violation of the clause set forth in subparagraph (1) of this paragraph, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards employed in violation of the clause set forth in subparagraph (1) of the paragraph, in the sum of \$27 (or as otherwise specified by the Contract Work Hours and Safety Standards Act (CWHSSA) for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of fourth hours without payment of the overtime wages required by the clause set forth in subparagraph (1) of this paragraph.

(3) Withholding for Unpaid Wages and Liquidated Damages. HUD or its designee shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contract, or any other Federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in subparagraph (2) of this paragraph.

(4) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in subparagraph (1) through (4) of this paragraph and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in subparagraphs (1) through (4) of this paragraph.

C. Health and Safety

(1) No laborer or mechanic shall be required to work in surroundings or under working conditions which are unsanitary, hazardous, or dangerous to his health and safety as determined under construction safety and health standards promulgated by the Secretary of Labor by regulation.

(2) The contractor shall comply with all regulations issued by the Secretary of Labor pursuant to Title 29 Part 1926 (formerly part 1518) and failure to comply may result in imposition of sanctions pursuant to the Contract Work Hours and Safety Standards Act (Public Law 91-54, 83 Stat. 96).

(3) The Contractor shall include the provisions of this Article in every subcontract so that such provisions will be binding on each subcontractor. The contractor shall take such action with respect to any subcontract as the Secretary of Housing and Urban Development or the Secretary of Labor shall direct as a means of enforcing such provisions.

[HUD-1010.1 \(2-76\)](#)

ATTACHMENT TO FEDERAL LABOR STANDARDS PROVISIONS

SO-CALLED "ANTI-KICKBACK ACT" AND REGULATIONS PROMULGATED PURSUANT THERETO BY THE SECRETARY OF LABOR UNITED STATES DEPARTMENT OF LABOR

TITLE 18, U.S.C., section 874

(Replaces section 1 of the Act of June 13, 1934 (48 Stat. 948, 40 U.S.C.,
sec. 276b) pursuant to the Act of June 25, 1948, 62 Stat. 862)

KICKBACKS FROM PUBLIC WORKS EMPLOYEES

Whoever, by force, intimidation, or threat of procuring dismissal from employment, or by any other manner whatsoever induces any person employed in the construction, prosecution, completion or repair of any public building, public work, or building or work financed in whole or in part by loans or grants from the United States, to give up any part of the compensation to which he is entitled under his contract of employment, shall be fined not more than \$5,000 or imprisoned not more than five years, or both.

SECTION 2 OF THE ACT OF JUNE 13, 1934, AS AMENDED (48 Stat. 948, 62 Stat. 862, 63 Stat. 108, 72 Stat. 967, 40 U.S.C., sec 276c)

The Secretary of Labor shall make reasonable regulations for contractors and subcontractors engaged in the construction, prosecution, completion or repair of public buildings, public works or buildings or works financed in whole or in part by loans or grants from the United States, including a provision that each contractor and subcontractor shall furnish weekly a statement with respect to the wages paid each employee during the preceding week. Section 1001 of Title 18 (United State Code) shall apply to such statements.

---X X X---

Pursuant to the aforesaid Anti-Kickback Act, the Secretary of Labor, United States Department of Labor, has promulgated the regulations hereinafter set forth, which regulations are found in Title 29, Subtitle A, Code of Federal Regulations, Part 3. The term "this part," as used in the regulations hereinafter set forth, refers to Part 3 last above mentioned. Said regulations are as follows:

TITLE 29 - LABOR

Subtitle A - Office of the Secretary of Labor

PART 3- CONTRACTORS AND SUBCONTRACTORS ON PUBLIC BUILDING OR PUBLIC WORK FINANCED IN WHOLE OR IN PART BY LOANS OR GRANTS FROM THE UNITED STATES.

Section 3.1 Purpose and Scope.

This part prescribes "anti-kickback" regulations under section 2 of the Act of June 13, 1934, as amended (40 U.S.C. 276c), popularly known as the Copeland Act. This part applies to any contract which is subject to Federal wage standards and which is for the construction, prosecution, completion, or repair of public buildings, public works or

buildings or works financed in whole or in part by loans or grants from the United States. The part is intended to aid in the enforcement of the minimum wage provisions of the Davis-Bacon Act and the various statutes dealing with Federally assisted constructions that contain similar minimum wage provisions, including those provisions which are not subject to Reorganization Plan No. 14 (e.g., the College Housing Act of 1950, the Federal Water Pollution Control Act, and the Housing Act of 1959), and in the enforcement of the overtime provisions of the Contract Work Hours Standards Act whenever they are applicable to construction work. The part details the obligation of contractors and subcontractors relative to the weekly submission of statements regarding the wages paid on work covered thereby; sets forth the circumstances and procedures governing the making of payroll deductions from the wages of those employed on such work; and delineates the methods of payment permissible on such work.

Section 3.2 Definitions.

As used in the regulations in this part:

(a) The terms "building" or "work" generally include construction activity as distinguished from manufacturing, furnishing of materials, or servicing and maintenance work. The terms include, without limitation, buildings, structures, and improvements of all types, such as bridges, dams, plants, highways, parkways, streets, subways, tunnels, sewers, mains, power lines, pumping stations, railways, airports, terminals, docks, piers, wharves, ways, lighthouses, buoys, jetties, breakwaters, levees, and canals; dredging, shoring, scaffolding, drilling, blasting, excavating, clearing, and landscaping. Unless conducted in connection with and at the site of such building or work as is described in the foregoing sentence, the manufacture or furnishing of materials, articles, supplies, or equipment (whether or not a Federal or State agency acquires title to such materials, articles, supplies, or equipment during the course of the manufacture or furnishing, or owns the materials from which they are manufactured or furnished) is not a "building" or "work" within the meaning of the regulations in this part.

(b) The terms "construction," "prosecution," "completion," or "repair" means all types of work done on a particular building or work at the site thereof, including, without limitation, altering, remodeling, painting and decorating, the transporting of materials and supplies to or from the building or work by the employees of the construction contractor or construction subcontractor, and the manufacturing or furnishing of materials, articles, supplies, or equipment on the site of the building or work, by persons employed at the site by the contractor or subcontractor.

(c) The terms "public building" or "public work" include building or work for whose construction, prosecution, completion, or repair, as defined above, a Federal agency is a contracting party, regardless of whether title thereof is in a Federal agency.

(d) The term "building or work financed in whole or in part by loans or grants from the United States" includes building or work for whose construction, prosecution, completion, or repair, as defined above, payment or part payment is made directly or indirectly from funds provided by loans or grants by a Federal agency. The term does not include building or work for which Federal assistance is limited solely to loan guarantees or insurance.

(e) Every person paid by a contractor or subcontractor in any manner for his labor in the construction, prosecution, completion, or repair of a public building or public work or building or work financed in whole or in part by loans or grants from the United States is "employed" and receiving "wages," regardless of any contracted relationship alleged to exist between him and the real employer.

(f) The term "any affiliated person" includes a spouse, child, parent, or other close relative of the contractor or subcontractor; a partner or officer of the contractor or subcontractor; a corporation closely connected with the contractor or subcontractor as parent, subsidiary or otherwise, and an officer or agent of such corporation.

(g) The term "Federal agency" means the United States, the District of Columbia, and all executive departments, independent establishments, administrative agencies, and instrumentalities of the United States and of the District of Columbia, including corporations, all or substantially all of the stock of which is beneficially owned by the United States, by the District of Columbia, or any of the foregoing departments, establishments, agencies and instrumentalities.

Section 3.3 Weekly Statement with Respect to Payment of Wages

(a) As used in this section, the term "employees" shall not apply to persons in classifications higher than that of laborer or mechanic and those who are the immediate supervision of such employees.

(b) Each contractor or subcontractor engaged in the construction, prosecution, completion, or repair of any public building or public work, or building or work financed in whole or in part by loans or grants from the United States shall furnish each week a statement with respect to the wages paid each of its employees engaged on work covered by 29 CFR Parts 3 and 5 during the preceding weekly payroll period. This statement shall be executed by the contractor or subcontractor or by an authorized officer or employee of the contractor or subcontractor who supervises the payment of wages and shall be on form WH 348, "Statement of Compliance", or on an identical form on the back of WH 317, "Payroll (For Contractors Optional Use)" or on any form with identical wording. Sample copies of WH 347 and WH 348 may be obtained from the Government contracting or sponsoring agency, and copies of these forms may be purchased at the Government Printing Office.

(c) The requirements of this section shall not apply to any contract of \$2,000 or less.

(d) Upon a written finding by the head of a Federal agency, the Secretary of Labor may provide reasonable limitations, variations, tolerances, and exemptions from the requirements of this section subject to such conditions as the Secretary of Labor may specify.

[20 F.R. 93, Jan. 4, 1964, as amended at 33 F.R. 10186, July 17, 1968]

Section 3.4 Submission of Weekly Statements and the Preservation and Inspection of Weekly Payroll Records.

(a) Each weekly statement required under section 3.3 shall be delivered by the contractor or subcontractor, within seven days after the regular payment date of the payroll period, to a representative of a Federal or State agency in charge at the site of the building or work, or, if there is no representative of a Federal or State agency at the site of the building of work, the statement shall be mailed by the contractor or subcontractor, within such time, to a Federal or State agency contracting for or financing the building or work. After such examination and check as may be made, such statement, or a copy thereof, shall be kept available, or shall be transmitted together with a report of any violation, in accordance with applicable procedures prescribed by the United States Department of Labor.

(b) Each contractor or subcontractor shall preserve his weekly payroll records for a period of three years from date of completion of the contract. The payroll records shall set out accurately and completely the name and address of each laborer and mechanic, his correct classification, rate of pay, daily and weekly number of hours worked, deductions made, and actual wages paid. Such payroll records shall be made available at all times for inspection by the contracting officer or his authorized representative, and by authorized representatives of the Department of Labor.

Section 3.5 Payroll Deductions Permissible Without Application to or Approval of the Secretary of Labor.

Deductions made under the circumstances or in the situations described in the paragraphs of this section may be made without application and approval of the Secretary of Labor:

(a) Any deduction made in compliance with the requirements of Federal, State, or local law, such as Federal or State withholding income taxes and Federal social security taxes.

(b) Any deductions of sums previously paid to the employee as a bona fide prepayment of wages when such prepayment is made without discount or interest. A "bona fide prepayment of wages" is considered to have been made only when cash or its equivalent has been advanced to the person employed in such manner as to give him complete freedom of disposition of the advanced funds.

(c) Any deduction of amounts required by court process to be paid to another, unless the deduction is in favor of the

contractor, subcontractor or any affiliated person, or when collusion or collaboration exists.

(d) Any deduction constituting a contribution on behalf of the person employed to funds established by the employer or representatives of employees, or both, for the purpose of providing either from principal or income, or both, medical or hospital care, pensions or annuities on retirement, death benefits, compensation for injuries, illness, accidents, sickness, or disability, or for insurance to provide any of the foregoing, or unemployment benefits, vacation pay, savings accounts, or similar payments for the benefit of employee, their families and dependents; Provided, however, that the following standards are met: (1) The deduction is not otherwise prohibited by law; (2) it is either (i) voluntarily consented to by the employee in writing and in advance of the period in which the work is to be done and such consent is not a condition either for the obtaining of or for the continuation of employment, or (ii) provided for in a bona fide collective bargaining agreement between the contractor or subcontractor and representatives of its employees; (3) no profit or other benefit is otherwise obtained, directly or indirectly, by the contractor or subcontractor or any affiliated person in the form of commissions, dividend, or otherwise; and (4) the deductions shall serve the convenience and interest of the employee.

(e) Any deduction contributing toward the purchase of United States Defense Stamps and Bonds when voluntarily authorized by the employee.

(f) Any deduction requested by the employee to enable him to repay loans to or to purchase shares in credit unions organized and operated in accordance with Federal and State credit union statutes.

(g) Any deduction voluntarily authorized by the employee for the making of contributions to governmental or quasi-governmental agencies, such as the American Red Cross.

(h) Any deductions voluntarily authorized by the employee for the making of contributions to Community Chests, United Givers Funds, and similar charitable organizations.

(i) Any deductions to pay regular union initiation fees and membership dues, not including fines or special assessments; Provided however, that a collective bargaining agreement between the contractor or subcontractor and representatives of its employees provides for such deductions and the deductions are not otherwise prohibited by law.

(j) Any deduction not more than for the "reasonable cost" of board, lodging, or other facilities meeting the requirements of section 3(m) of the Fair Labor Standards Act of 1938, as amended, and Part 531 of this title. When such a deduction is made the additional records required under section 516.27(a) of this title shall be kept.

Section 3.6 Payroll Deductions Permissible with the Approval of the Secretary of Labor

Any contractor or subcontractor may apply to the Secretary of Labor for permission to make any deduction not permitted under Section 3.5. The Secretary may grant permission whenever he finds that:

(a) The contractor, subcontractor, or any affiliated person does not make a profit or benefit directly or indirectly the deduction either in the form of a commission, dividend, or otherwise;

(b) The deduction is not otherwise prohibited by law;

(c) The deduction is either (1) voluntarily consented to by the employee in writing and in advance of the period in which the work is to be done and such consent is not a condition either for the obtaining of employment or its continuance, or (2) provided for in a bona fide collective bargaining agreement between the contractor or subcontractor and representative of its employees; and

(d) The deduction serves the convenience and interest of the employee.

Section 3.7 Applications for the Approval of the Secretary of Labor

Any application for the making of payroll deductions under section 3.6 shall comply with the requirements prescribed in the following paragraphs of this section:

- (a) The application shall be in writing and shall be addressed to the Secretary of Labor.
- (b) The application shall identify the contract or contracts under which the work in question is to be performed. Permission will be given for deductions only on specific, identified contracts, except upon a showing of exceptional circumstances.
- (c) The application shall state affirmatively that there is compliance with the standards set forth in the provisions of section 3.6. The affirmation shall be accompanied by a full statement of the facts indicating such compliance.
- (d) The application shall include a description of the proposed deduction, the purpose to be served thereby, and the classes of laborers or mechanics from whose wages the proposed deduction would be made.
- (e) The application shall state the name and business of any third person to whom any funds obtained from the proposed deductions are to be transmitted and the affiliation of such person, if any, with the applicant.

Section 3.8 Action by the Secretary of Labor Upon Applications.

The Secretary of Labor shall decide whether or not the requested deduction is permissible under provisions of section 3.6; and shall notify the applicant in writing of his decision.

Section 3.9 Prohibited Payroll Deductions.

Deductions not elsewhere provided for by this part and which are not found to be permissible under Section 3.6 are prohibited.

Section 3.10 Methods of Payment of Wages.

The payment of wages shall be by cash, negotiable instruments payable on demand, or the additional forms of compensation for which deductions are permissible under this part. No other methods of payment shall be recognized on work subject to the Copeland Act.

Section 3.11 Regulations Part of Contract.

All contracts made with respect to the construction, prosecution, completion, or repair of any public building or public work or building or work financed in whole or in part by loans or grants from the United States covered by the regulations in this part shall expressly bind the contractor or subcontractor to comply with such of the regulations in this part as may be applicable. In this regard, see section 5.5(a) of the subtitle.

NEW MEXICO WAGE DECISION

SF-22-1772-H



LABOR RELATIONS DIVISION
401 Broadway NE
Albuquerque, NM 87102
Phone: 505-841-4400
Fax: 505-841-4424

WWW.DWS.STATE.NM.US

PUBLIC WORKS PROJECT REQUIREMENTS

As a participant in a Public Works project valued at more than \$60,000 in the state of New Mexico, the following list addresses many of the responsibilities that are defined by statute or regulation to each project stakeholder.

Contracting Agency

- Ensure that all contractors wishing to bid on a Public Works project when the project is \$60,000 or more are actively registered with the Public Works and Apprenticeship Application (PWAA) website: <http://www.dws.state.nm.us/pwaa> (Contractor Registration) prior to bidding.
- Please submit Notice of Award (NOA) and Subcontractor List(s) to the PWAA website promptly after the project is awarded.
- Please update the Subcontractor List(s) on the PWAA website whenever changes occur.
- All sub-contractors and tiers (excluding professional services) regardless of contract amount must be listed on the Subcontractor List and must adhere to the Public Works Minimum Wage Act.
- Ninety days after project completion please go into the PWAA system and close the project. Only contracting agencies are allowed to close the project. Agents or contractors are not allowed to close projects.

General Contractor

- Provide a complete Subcontractor List and Statements of Intent (SOI) to Pay Prevailing Wages for all contractors, regardless of amount of work, to the contracting agency within 3 (three) days of award.
- Ensure that all subcontractors wishing to bid on a Public Works project have an active Contractor Registration with the Public Works and Apprenticeship Application (PWAA) website: <http://www.dws.state.nm.us/pwaa> prior to bidding when their bid will exceed \$60,000.
- Make certain the Public Works Apprentice and Training Act contributions are paid either to an approved Apprenticeship Program or to the Public Works Apprentice and Training Fund.
- Confirm the Wage Rate poster, provided in PWAA, is displayed at the job site in an easily accessible place.
- When the project has been completed, make sure the Affidavits of Wages Paid (AWP) are sent to the contracting agency.
- All subcontractors and tiers (excluding professional services) regardless of contract amount must pay prevailing wages, be listed on the Subcontractor List, and adhere to the Public Works Minimum Wage Act.



LABOR RELATIONS DIVISION
401 Broadway NE
Albuquerque, NM 87102
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WWW.DWS.STATE.NM.US

Subcontractor

- Ensure that all subcontractors wishing to bid on a Public Works project have an active Contractor Registration with the Public Works and Apprenticeship Application (PWAA) website: <http://www.dws.state.nm.us/pwaa> prior to bidding when their bid will exceed \$60,000.
- Make certain the Public Works Apprentice and Training Act contributions are paid either to an approved Apprenticeship Program or to the Public Works Apprentice and Training Fund.
- All subcontractors and tiers (excluding professional services) regardless of contract amount must pay prevailing wages, be listed on the Subcontractor List, and adhere to the Public Works Minimum Wage Act.

Additional Information

Reference material and forms may be found in the New Mexico Department of Workforce Solutions Public Works web pages at: <https://www.dws.state.nm.us/Labor-Relations/Labor-Information/Public-Works>.

CONTACT INFORMATION

Contact the Labor Relations Division for any questions relating to Public Works projects by email at public.works@state.nm.us or call (505) 841-4400.



TYPE "H" – HEAVY ENGINEERING

Effective January 1, 2022

Trade Classification	Base Rate	Fringe Rate	Apprenticeship
Asbestos workers/Heat & Frost Insulators	34.51	12.06	0.60
Asbestos workers/Heat & Frost Insulators: Los Alamos County	36.94	12.06	0.60
Boilermaker/blacksmith	34.88	32.28	0.60
Boilermaker/blacksmith: San Juan County	35.83	31.88	0.60
Bricklayer/Block layer/Stonemason	25.54	8.81	0.60
Carpenter/Lather	26.48	12.14	0.60
Carpenter: Los Alamos County	29.24	13.94	0.60
Millwright/pile driver	35.08	27.57	0.60
Cement Mason	22.30	7.41	0.60
Electricians-Outside Classifications: Zone 1			
Ground man	24.57	11.74	0.60
Equipment Operator	35.25	16.06	0.60
Lineman/technician	44.32	18.08	0.60
Cable Splicer	48.75	19.19	0.60
Electricians-Outside Classifications: Zone 2			
Ground man	24.57	11.74	0.60
Equipment Operator	35.25	16.06	0.60
Lineman/technician	44.32	18.08	0.60
Cable Splicer	48.75	19.19	0.60
Electricians-Outside Classifications: Los Alamos			
Ground man	25.27	11.76	0.60
Equipment Operator	36.27	16.09	0.60
Lineman/technician	45.47	18.36	0.60
Cable Splicer	49.59	19.40	0.60

Electricians-Inside Classifications:			
Zone 1			
Wireman/low voltage technician	35.20	12.21	0.60
Cable Splicer	38.72	12.31	0.60
Electricians-Inside Classifications:			
Zone 2			
Wireman/low voltage technician	38.37	12.30	0.60
Cable Splicer	41.89	12.41	0.60
Electricians-Inside Classifications:			
Zone 3			
Wireman/low voltage technician	40.48	12.36	0.60
Cable Splicer	44.00	12.47	0.60
Electricians-Inside Classifications:			
Zone 4			
Wireman/low voltage technician	44.35	12.48	0.60
Cable Splicer	47.87	12.58	0.60
Electricians – Inside Classifications:			
Dona Ana, Hidalgo, Luna and Otero Counties			
Wireman/low voltage technician	31.42	8.87	0.60
Cable Splicer	30.77	8.64	0.60
Electricians-Inside Classifications: Los Alamos			
Wireman/low voltage technician	40.48	14.38	0.60
Cable Splicer	44.00	14.67	0.60
Glazier			
Glazier/Fabricator	21.00	6.45	0.60
Delivery Driver	11.50	6.45	0.60
Ironworker	27.70	17.89	0.60
Painter- Industrial	22.00	10.05	0.60
Paperhanger	19.50	10.05	0.60
Drywall Finisher/Taper - Industrial			
Ames tool Operator	27.06	8.00	0.60
Hand finisher/machine texture	26.06	8.00	0.60
Plumber/Pipefitter	36.40	14.25	0.60
Roofer	26.34	9.16	0.60
Sheet metal Worker	34.54	17.92	0.60
Operators			
Group I	21.81	6.74	0.60
Group II	22.01	6.74	0.60

Group III	22.22	6.74	0.60
Group IV	22.36	6.74	0.60
Group V	22.47	6.74	0.60
Group VI	22.67	6.74	0.60
Group VII	22.69	6.74	0.60
Group VIII	24.71	6.74	0.60
Group IX	30.72	6.74	0.60
Group X	34.15	6.74	0.60
Laborers			
Group I-Unskilled	19.18	6.93	0.60
Group II-Semi-Skilled	20.06	6.93	0.60
Group III-Skilled	21.93	6.93	0.60
Group IV-Specialty	22.30	6.93	0.60
Laborers-Underground			
Group I	21.43	6.93	0.60
Group II	21.85	6.93	0.60
Group III	22.26	6.93	0.60
Soft Floor Layer	20.75	8.45	0.60
Truck Drivers			
Group I	17.65	8.72	0.60
Group II	17.65	8.72	0.60
Group III	17.65	8.72	0.60
Group IV	17.65	8.72	0.60
Group V	17.65	8.72	0.60
Group VI	17.65	8.72	0.60
Group VII	17.65	8.72	0.60
Group VIII	17.71	8.72	0.60
Group IX	19.65	8.72	0.60
Maintenance Sub Group IX			
Rate I	20.90	9.00	0.60
Rate II	21.77	9.00	0.60
Rate III	22.24	9.00	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.

Federal Wage Rates

"General Decision Number: NM20220042 02/25/2022

Superseded General Decision Number: NM20210042

State: New Mexico

Construction Type: Heavy
HEAVY CONSTRUCTION PROJECTS

County: Santa Fe County in New Mexico.

HEAVY CONSTRUCTION PROJECTS

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	<ul style="list-style-type: none">. Executive Order 14026 generally applies to the contract.. The contractor must pay all covered workers at least \$15.00 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2022.
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	<ul style="list-style-type: none">. Executive Order 13658 generally applies to the contract.. The contractor must pay all covered workers at least \$11.25 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2022.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at <https://www.dol.gov/agencies/whd/government-contracts>.

Modification Number	Publication Date
0	01/07/2022
1	01/14/2022
2	02/25/2022

CARP1319-011 01/01/2022

	Rates	Fringes
CARPENTER (Form Work Only).....	\$ 26.48	12.09

ELEC0611-001 01/01/2017		

	Rates	Fringes
ELECTRICIAN.....	\$ 34.50	10.81

SUNM2016-011 09/26/2018		

	Rates	Fringes
CARPENTER, Excludes Form Work....	\$ 16.43	0.00
CEMENT MASON/CONCRETE FINISHER...	\$ 19.44	8.08
IRONWORKER, REINFORCING.....	\$ 27.80	0.00
LABORER: Common or General.....	\$ 15.34	3.63
LABORER: Pipelayer.....	\$ 16.67	3.04
OPERATOR:		
Backhoe/Excavator/Trackhoe.....	\$ 21.12	6.18
OPERATOR: Bobcat/Skid		

Steer/Skid Loader.....	\$ 21.06	0.00
OPERATOR: Bulldozer.....	\$ 21.00	0.00
OPERATOR: Grader/Blade.....	\$ 19.02	0.00
OPERATOR: Loader.....	\$ 18.30	0.00
OPERATOR: Oiler.....	\$ 18.23	0.00
OPERATOR: Roller.....	\$ 18.83	0.00
TRUCK DRIVER: Dump Truck.....	\$ 15.53	0.00

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at <https://www.dol.gov/agencies/whd/government-contracts>.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour National Office because National Office has responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.

Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION"

Technical Specifications

DIVISION 1 - GENERAL REQUIREMENTS

01010	SUMMARY OF WORK
01040	COORDINATION
01050	FIELD SURVEYING
01060	SPECIAL CONDITIONS
01150	MEASUREMENT AND PAYMENT
01340	SUBMITTALS
01400	QUALITY CONTROL
01500	TEMPORARY FACILITIES
01560	ENVIRONMENTAL PROTECTION AND SPECIAL CONTROLS
01600	PRODUCT DELIVERY, STORAGE, AND HANDLING
01640	PRODUCT SUBSTITUTIONS
01710	CLEANING
01720	PROJECT RECORD DOCUMENTS
01750	WARRANTIES AND GUARANTEES
01760	SPARE PARTS AND MAINTENANCE MATERIALS

DIVISION 2 - SITE WORK

02221	TRENCHING, BACKFILLING, AND COMPACTING FOR UTILITIES
02513	ASPHALTIC CONCRETE VEHICULAR PAVING
02660	WATER MAIN CONSTRUCTION

DIVISION 9 - FINISHES

09905	PAINTING AND PROTECTIVE COATINGS
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DIVISION 13 – SPECIAL CONSTRUCTION

13310	SUPPLY WELL CONSTRUCTION
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DIVISION 15 - MECHANICAL

15060	PIPE AND PIPE FITTINGS: BASIC REQUIREMENTS
15062	PIPE: DUCTILE
15064	PIPE: PLASTIC
15100	VALVES: BASIC REQUIREMENTS
15101	GATE VALVES
15114	MISCELLANEOUS VALVES
15510	FIRE HYDRANTS

SECTION 01010
SUMMARY OF WORK

PART 1 - GENERAL

- A. The work required described in these documents includes but is not limited to:
1. Installation of new 8" waterline, fittings, and appurtenances,
 2. Installation of new 6" waterline, fittings, and appurtenances,
 3. New service lines and meters and/or modification of existing service lines and relocation of water meters.
 4. Connection to existing waterlines, service lines, and meters,
 5. Installation of fire hydrants, valves, and appurtenances.
 6. Pavement removal and replacement,
 7. Water Supply Well including pilot testing, well development, pump testing, and water quality monitoring.
 8. Other items as specified and/or shown on the drawings.

1.1 WORK COVERED BY CONTRACT DOCUMENTS

- A. Work to be performed includes construction of water system improvements.
- B. Furnish all materials, equipment, supplies, appurtenances; provide all construction equipment and tools; provide Operation and Maintenance training, and perform all necessary labor and supervision.
- C. Coordinate the progress of the Work, including coordination between trades, subcontractors, suppliers, public utilities, and OWNER to ensure the progress of Work.
- D. It is the intent of this Contract that Work proceed in the most expeditious manner possible.

1.2 CONTRACTS

- A. Construct the Work under a Unit Price Contract.

1.3 WORK SEQUENCE

- A. Construct Work in stages as required to allow for OWNER's continuous occupancy and for uninterrupted service to water system customers. Coordinate construction schedule and operations with the OWNER.

1.4 CONTRACTOR'S USE OF PREMISES

- A. CONTRACTOR shall conduct all on-site Work during regular working hours, which are defined as weekdays, 8:30 a.m. to 4:30 p.m., holidays excluded, and 8:00 a.m. to 5:00 p.m. on weekends with special permission.
- B. Coordinate use of premises under direction of OWNER.
- C. Assume full responsibility for the protection and safekeeping of products furnished under this Contract, stored on-or off-site.
- D. Move any stored products under CONTRACTOR's control that interfere with operations of the OWNER.

- 1 E. Obtain and pay for the use of additional storage or work areas needed for operations.
- 2 F. CONTRACTOR shall coordinate all materials storage, equipment storage and employee and
- 3 subcontractor parking with OWNER.
- 4 G. CONTRACTOR shall restore any areas used for materials storage, equipment storage, or
- 5 employee and subcontractor parking to their original condition or better, unless specified
- 6 otherwise.
- 7 **1.5 EASEMENTS AND RIGHTS-OF-WAY**
- 8 A. Confine construction operations to the immediate vicinity of the location indicated on Drawings
- 9 and use due care in placing construction tools, equipment, excavated materials, and pipeline
- 10 materials and supplies, so as to cause the least possible damage to property and interference with
- 11 traffic.
- 12 **1.6 MAINTENANCE OF TRAFFIC**
- 13 A. Maintain entry for all residences and/or businesses located along the project.

14 **PART 2 - PRODUCTS (NOT USED)**

15 **PART 3 - EXECUTION (NOT USED)**

16
17
18

END OF SECTION

SECTION 01040
COORDINATION

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes:

1. Coordination with the Owner.
2. Coordination with other contractors.
3. Coordination with Public Utilities.

B. Related sections include but are not necessarily limited to:

1. Division 0 – Bidding Requirements.
2. Division 1 – Technical Specifications.

1.2 COORDINATION WITH OWNER

A. Coordinate work operations (including those of the Contractor's subcontractors and suppliers) with the Owner in order to:

1. Minimize disruption of activities of Owner's personnel.
2. Make certain that operations of the Contractor do not interfere with the Owner's successful operation of existing systems.

1.3 COORDINATION WITH OTHER CONTRACTORS

A. Cooperate with, coordinate with, and do not interfere with the operations of other contractors who may be working adjacent to or near the work sites of this project.

1.4 COORDINATION WITH VENDORS

A. Coordinate work operations (including those of the Contractor's subcontractors and suppliers) in order to:

1. Make certain that the equipment furnished is correctly unloaded, placed, and installed.
2. Successfully complete connection, testing, and startup.

1.5 COORDINATION WITH PUBLIC UTILITIES

A. The Contractor shall coordinate with all utilities to provide the Owner with a complete operating system.

1.6 COORDINATION REQUIREMENTS

A. The required Time of Completion of the Work of this Contract and provisions for assessment of liquidated damages are set forth in the Bid Proposal. This Section sets forth coordination requirements for the Work.

B. For existing facilities or systems or components thereof that will be temporarily taken out of service, dismantled, or disconnected, and then reconnected or assembled and placed back into service, the Contractor shall prior to proceeding with that work verify the operability and accuracy of all affected components. Contractor's verification shall be witnessed by the Engineer.

C. All pipe supports, anchors and restraints, all applicable electrical, instrumentation & controls, and all specified startup and field acceptance testing of equipment shall be satisfactorily completed by the Contractor and witnessed by the Owner and/or Engineer prior to system or facility re-starts.

- 1 D. The Contractor shall be solely responsible for furnishing, installing and removing when no
2 longer needed all facilities necessary to accomplish the coordination and construction
3 sequencing described in these Specifications, whether or not specifically called out herein.
- 4 E. Paving, landscaping and sidewalk construction in any given area shall not be commenced prior
5 to installation of all underground utilities shown under this Contract in the area. Areas subject to
6 heavy construction traffic shall not be paved until potentially destructive traffic loads induced by
7 large construction equipment will no longer be routed over said areas.
- 8 F. Request for Information (RFI) – Contractor shall allow a minimum period of ten (10) working
9 days for Engineer to respond after date of receipt of a written RFI from Contractor.

10
11 **END OF SECTION**

1 **SECTION 01050**
2 **FIELD SURVEYING**

3 **PART 1 - GENERAL**

4 **1.1 SUMMARY**

- 5 A. Section includes:
- 6 1. Provide and pay for field surveying services required for Project.
- 7 a. Survey work required in execution of Project.
- 8 b. Civil, structural or other professional engineering services specified or required to
- 9 execute Contractor's construction methods.
- 10 c. Trench Safety.
- 11 B. Related sections include but are not necessarily limited to:
- 12 1. Division 0 – Bidding Requirements.
- 13 2. Division 1 – Technical Specifications.
- 14 3. Sections in Division 1 identifying conditions requiring field engineer.

15 **1.2 QUALIFICATIONS**

- 16 A. All surveying shall be completed by a qualified registered engineer or registered land surveyor in
- 17 the state in which the construction is being done, acceptable to Contractor and Owner.

18 **1.3 PROJECT SURVEY REQUIREMENTS**

- 19 A. Establish lines and levels, locate and lay out, by instrumentation and similar appropriate means:
- 20 1. Pipeline and Appurtenance Installation.
- 21 a. Stakes for grading, fill and topsoil placement.
- 22 b. Utility slopes and invert elevations.
- 23 B. From time to time and when requested by the Engineer, verify layouts by same methods as
- 24 required for control of the Work.
- 25 C. The Contractor shall take reasonable efforts to protect all existing property corners, permanent
- 26 bench marks, right-of-way markers, government established monuments, and similar reference
- 27 points. If any must be disturbed, the monuments must be referenced before removal and replaced
- 28 as soon as work in the area is completed. Referencing and replacing shall be done by a licensed
- 29 surveyor, and in the case of U.S.F.S, U.S.G.S., and BNSF monuments, or State Highway
- 30 Department right-of-way markers, shall be a first order survey work.

31 **1.4 RECORDS**

- 32 A. Maintain a complete, accurate log of all control and survey work as it progresses.
- 33 B. On completion of improvements, prepare Record Drawings in accordance with Section 01720:
- 34 Project Record Documents.

35 **1.5 SUBMITTALS**

- 36 A. Name and address of surveyor and professional engineer to Engineer.
- 37 B. Survey data and computations for all Work.
- 38 C. Submit data on utility slopes and invert elevations for review by Engineer.
- 39 D. On request of Engineer, submit documentation to verify accuracy of field engineering work.

40 **END OF SECTION**

41

SECTION 01060
SPECIAL CONDITIONS

PART 1 - GENERAL

1.1 PRECONSTRUCTION CONFERENCE

- A. A preconstruction conference shall be held at the Project Site after award of Contract. Engineer will notify the Contractor as to the date and time of the conference one (1) week in advance of the proposed date. Contractor's Project Manager and Project Superintendent and Contractor's Subcontractor Representatives shall attend.

1.2 PROJECT SIGNS

- A. Regulatory Agency Sign(s):
1. Furnish and install 4 FT x 6 FT plywood backboard with support legs and bracing for each sign.
 2. Furnish and install commercially produced regulatory agency sign(s) conforming to 00830 Exhibit 4A-113 attached to this Specification Section.
 - a. Color sample of Exhibit(s) will be provided at Pre-Construction Conference.
- B. Coordinate sign locations with Owner.
- C. Signs not listed in this Specification Section permitted only upon approval of Owner.

1.3 DRAWINGS AND CONTRACT DOCUMENTS FOR CONTRACTOR USE

- A. Refer to General Conditions.
- B. Contractor shall pick up all "no-charge" documents within ten (10) days from date of Notice to Proceed.
- C. Additional documents after "no-charge" documents will be furnished to Contractor at cost.

1.4 PROJECT VIDEO AND PHOTOGRAPHS

- A. Prior to commencing with construction the Contractor shall videotape the entire project area, at no additional cost to the Owner, to document the condition of all existing structures, curb and gutter, sidewalk, and pavement on both sides of the street within the project area. Any curb and gutter, sidewalk, and/or pavement damaged and/or removed during construction shall be replaced by the Contractor to the same or better conditions and the existing elevations prior to construction unless otherwise indicated on the plans.
- B. At least once during construction of the Work, provide professional quality photographs of progress as directed by Engineer. Furnish glossy prints (approximately 8 x 10 in) and each negative, with all rights of reproduction, to Owner.
1. Provide ten (10) ground level color photos.
 2. Contractor shall schedule and coordinate photographer with Engineer's Field Representative.
 3. Include all photographs with dates and description.

1.5 TESTING

- A. Payment for Soil, Concrete and Other Testing:
1. Soils and concrete testing: The Owner will pay for "Passing" soils and "Passing" concrete tests on the Project. Costs of corrective action, costs of "Failing" soils and concrete tests, and cost of testing associated with establishment of mix design are the sole responsibility of the Contractor.

2. Other testing: Required testing, testing procedures, reports, certificates, and costs associated with all phases of securing required satisfactory test information which may be required by individual sections of Specifications or Drawings are the full responsibility of the Contractor.
3. Testing Frequency per the New Mexico Department of Transportation Minimum Testing Requirements Table A – 8 and 9 for water lines.

1.6 ORDER OF CONSTRUCTION AND CONSTRUCTION SCHEDULE

A. Order of Construction

1. All items of work shall be completed at the CONTRACTORS discretion within the Contract time. The suggested sequence of work is as follows:
 - a. Construct New 8" Waterlines.
 - b. Make Connections to Existing Waterlines.
 - c. Reconnect Existing Water Services to New 8" Waterlines.
 - d. Cut, Cap, and Abandon Existing Waterlines in Place.
 - e. Repair Road Surfacing.

B. Construction Schedule

1. Construction operations shall be scheduled to allow the Owner uninterrupted operation of existing adjacent facilities. Coordinate connections with existing work to ensure timely completion of interfaced items.
2. At no time shall Contractor or his employees modify operation of the existing facilities or start construction modifications without approval of the Owner except in emergency to prevent or minimize damage.
3. Within three (3) days after receiving notice to proceed, submit for approval a critical path type schedule. Account for schedule of Subcontracts. Include proper sequence of construction, various crafts, purchasing time, Shop Drawing approval, material delivery, equipment fabrication, startup, demonstration, and similar time consuming factors. Show on schedule as a minimum, earliest starting, earliest completion, latest starting, latest finish, and free and total float for each task or item.
4. Evaluate schedule no less than weekly. Update, correct, and rerun schedule and submit to Engineer in triplicate with pay application to show rescheduling necessary to reflect true job conditions. When shortening of various time intervals is necessary to correct for behind schedule conditions, indicate actions to implement to accomplish work in shorter duration. Information shall be submitted to Engineer in writing with revised schedule.
5. If Contractor does not take necessary action to accomplish work according to schedule, Contractor may be ordered by Owner in writing to take necessary and timely action to improve work progress. Owner may require increased work forces, extra equipment, extra shifts or other action as necessary. Should Contractor refuse or neglect to take such action authorized, under provisions of this contract, Owner may take necessary actions including, but not necessarily limited to, withholding of payment and termination of contract.
6. Upon receipt of approved "Work Schedule," within ten (10) days, submit to Engineer an estimated payment schedule by each month of project duration. Include a composite curve to show estimated value of work complete and stored materials less specified retainage. Establish key dates when work will be 50, 80, 90, and 100-percent complete. During the course of work, update with new composite curves at key months or whenever variation is expected to be more than plus or minus 10 percent. Retain original or previous composite curves as dashed curves on all updates. Include a heavy plotted curve to show actual payment curve on all updates.

1 **1.7 PROJECT MEETINGS**

2 A. Construction Meetings:

- 3 1. The Engineer will conduct construction meetings involving:
- 4 a. Contractor's project manager.
- 5 b. Contractor's project superintendent.
- 6 c. Owner's designated representative(s).
- 7 d. Engineer's designated representative(s).
- 8 e. Contractor's subcontractors as appropriate to the work in progress.
- 9 f. Owner's Construction Quality Control Consultant.
- 10 2. Meetings will be conducted every other week.
- 11 3. The Engineer will take meeting minutes and submit copies of meeting minutes to
- 12 participants and designated recipients identified at the Preconstruction Conference.
- 13 Corrections, additions or deletions to the minutes shall be noted and addressed at the
- 14 following meeting.
- 15 4. The Engineer will schedule meetings for most convenient time frame.
- 16 5. The Engineer will have available at each meeting full chronological files of all previous
- 17 meeting minutes.
- 18 6. The Contractor shall have available at each meeting up-to-date record drawings.

19 **1.8 SPECIAL CONSIDERATIONS**

- 20 A. Contractor shall be responsible for negotiations of any waivers or alternate arrangements
- 21 required to enable transportation of materials to the site.
- 22 B. Maintain conditions of access road to site such that access is not hindered as the result of
- 23 construction related deterioration.

24 **1.9 HISTORICAL AND ARCHAEOLOGICAL**

- 25 A. If during the course of construction, evidence of deposits of historical or archeological interest is
- 26 found, the Contractor shall cease operations affecting the find and shall notify Owner. No further
- 27 disturbance of the deposits shall ensue until the Contractor has been notified by the Owner that
- 28 the Contractor may proceed. The Owner will issue a notice to proceed after appropriate
- 29 authorities have surveyed the find and made a determination to Owner. Compensation to the
- 30 Contractor, if any, for lost time or changes in construction resulting from the find, shall be
- 31 determined in accordance with changed or extra work provisions of the Contract Documents.
- 32 B. The site has been previously investigated and has no known history of historical or
- 33 archaeological finds.

34 **PART 2 - PRODUCTS - (NOT APPLICABLE TO THIS SECTION)**

35 **PART 3 - EXECUTION - (NOT APPLICABLE TO THIS SECTION)**

36 **END OF SECTION**

SECTION 01060
SPECIAL CONDITIONS

PART 1 - GENERAL

1.1 PRECONSTRUCTION CONFERENCE

- A. A preconstruction conference shall be held at the Project Site after award of Contract. Engineer will notify the Contractor as to the date and time of the conference one (1) week in advance of the proposed date. Contractor's Project Manager and Project Superintendent and Contractor's Subcontractor Representatives shall attend.

1.2 PROJECT SIGNS

- A. Regulatory Agency Sign(s):
1. Furnish and install 4 FT x 6 FT plywood backboard with support legs and bracing for each sign.
 2. Furnish and install commercially produced regulatory agency sign(s) conforming to 00830 Exhibit 4A-113 attached to this Specification Section.
 - a. Color sample of Exhibit(s) will be provided at Pre-Construction Conference.
- B. Coordinate sign locations with Owner.
- C. Signs not listed in this Specification Section permitted only upon approval of Owner.

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- A. Refer to General Conditions.
- B. Contractor shall pick up all "no-charge" documents within ten (10) days from date of Notice to Proceed.
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- B. At least once during construction of the Work, provide professional quality photographs of progress as directed by Engineer. Furnish glossy prints (approximately 8 x 10 in) and each negative, with all rights of reproduction, to Owner.
1. Provide ten (10) ground level color photos.
 2. Contractor shall schedule and coordinate photographer with Engineer's Field Representative.
 3. Include all photographs with dates and description.

1.5 TESTING

- A. Payment for Soil, Concrete and Other Testing:
1. Soils and concrete testing: The Owner will pay for "Passing" soils and "Passing" concrete tests on the Project. Costs of corrective action, costs of "Failing" soils and concrete tests, and cost of testing associated with establishment of mix design are the sole responsibility of the Contractor.

2. Other testing: Required testing, testing procedures, reports, certificates, and costs associated with all phases of securing required satisfactory test information which may be required by individual sections of Specifications or Drawings are the full responsibility of the Contractor.
3. Testing Frequency per the New Mexico Department of Transportation Minimum Testing Requirements Table A – 8 and 9 for water lines.

1.6 ORDER OF CONSTRUCTION AND CONSTRUCTION SCHEDULE

A. Order of Construction

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 - a. Construct New 8" Waterlines.
 - b. Make Connections to Existing Waterlines.
 - c. Reconnect Existing Water Services to New 8" Waterlines.
 - d. Cut, Cap, and Abandon Existing Waterlines in Place.
 - e. Repair Road Surfacing.

B. Construction Schedule

1. Construction operations shall be scheduled to allow the Owner uninterrupted operation of existing adjacent facilities. Coordinate connections with existing work to ensure timely completion of interfaced items.
2. At no time shall Contractor or his employees modify operation of the existing facilities or start construction modifications without approval of the Owner except in emergency to prevent or minimize damage.
3. Within three (3) days after receiving notice to proceed, submit for approval a critical path type schedule. Account for schedule of Subcontracts. Include proper sequence of construction, various crafts, purchasing time, Shop Drawing approval, material delivery, equipment fabrication, startup, demonstration, and similar time consuming factors. Show on schedule as a minimum, earliest starting, earliest completion, latest starting, latest finish, and free and total float for each task or item.
4. Evaluate schedule no less than weekly. Update, correct, and rerun schedule and submit to Engineer in triplicate with pay application to show rescheduling necessary to reflect true job conditions. When shortening of various time intervals is necessary to correct for behind schedule conditions, indicate actions to implement to accomplish work in shorter duration. Information shall be submitted to Engineer in writing with revised schedule.
5. If Contractor does not take necessary action to accomplish work according to schedule, Contractor may be ordered by Owner in writing to take necessary and timely action to improve work progress. Owner may require increased work forces, extra equipment, extra shifts or other action as necessary. Should Contractor refuse or neglect to take such action authorized, under provisions of this contract, Owner may take necessary actions including, but not necessarily limited to, withholding of payment and termination of contract.
6. Upon receipt of approved "Work Schedule," within ten (10) days, submit to Engineer an estimated payment schedule by each month of project duration. Include a composite curve to show estimated value of work complete and stored materials less specified retainage. Establish key dates when work will be 50, 80, 90, and 100-percent complete. During the course of work, update with new composite curves at key months or whenever variation is expected to be more than plus or minus 10 percent. Retain original or previous composite curves as dashed curves on all updates. Include a heavy plotted curve to show actual payment curve on all updates.

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- 5 b. Contractor's project superintendent.
- 6 c. Owner's designated representative(s).
- 7 d. Engineer's designated representative(s).
- 8 e. Contractor's subcontractors as appropriate to the work in progress.
- 9 f. Owner's Construction Quality Control Consultant.
- 10 2. Meetings will be conducted every other week.
- 11 3. The Engineer will take meeting minutes and submit copies of meeting minutes to
- 12 participants and designated recipients identified at the Preconstruction Conference.
- 13 Corrections, additions or deletions to the minutes shall be noted and addressed at the
- 14 following meeting.
- 15 4. The Engineer will schedule meetings for most convenient time frame.
- 16 5. The Engineer will have available at each meeting full chronological files of all previous
- 17 meeting minutes.
- 18 6. The Contractor shall have available at each meeting up-to-date record drawings.

19 **1.8 SPECIAL CONSIDERATIONS**

- 20 A. Contractor shall be responsible for negotiations of any waivers or alternate arrangements
- 21 required to enable transportation of materials to the site.
- 22 B. Maintain conditions of access road to site such that access is not hindered as the result of
- 23 construction related deterioration.

24 **1.9 HISTORICAL AND ARCHAEOLOGICAL**

- 25 A. If during the course of construction, evidence of deposits of historical or archeological interest is
- 26 found, the Contractor shall cease operations affecting the find and shall notify Owner. No further
- 27 disturbance of the deposits shall ensue until the Contractor has been notified by the Owner that
- 28 the Contractor may proceed. The Owner will issue a notice to proceed after appropriate
- 29 authorities have surveyed the find and made a determination to Owner. Compensation to the
- 30 Contractor, if any, for lost time or changes in construction resulting from the find, shall be
- 31 determined in accordance with changed or extra work provisions of the Contract Documents.
- 32 B. The site has been previously investigated and has no known history of historical or
- 33 archaeological finds.

34 **PART 2 - PRODUCTS - (NOT APPLICABLE TO THIS SECTION)**

35 **PART 3 - EXECUTION - (NOT APPLICABLE TO THIS SECTION)**

36 **END OF SECTION**

SECTION 01150
MEASUREMENT AND PAYMENT

PART 1 - MEASUREMENT

1.1 GENERAL

A. Payment for materials furnished and work done under the contract will be made as hereinafter stipulated, for actual amount of materials furnished and work performed under authorization of the OWNER and in accordance with actual measurements.

B. BID ITEMS:

The following items, classifying the various kinds of work refer to the respective items listed in the bid proposal and cover all items required to provide the owner with a complete project considered to be incidental to the Base Bid. Any work elements not listed but are necessary for a complete project are considered incidental even though they are not specifically listed below.

All of the following items include construction staking; coordination; overtime; restoration; spare parts; start-up; training; overtime; field offices, field office equipment; utilities; project overhead; construction sign and all other materials, equipment and labor incidental thereto.

BASE BID ITEMS

1. **BID ITEM 1 – MOBILIZATION AND DEMOBILIZATION** – Payment will be made according to the respective price listed in the Bid Proposal. Price Bid shall include but not be limited to the following: project signs; setting up trailers; staging areas; bonds; insurance; permits; SWPPP; mobilization and demobilization of forces; preconstruction conference; and all other materials, equipment and labor incidental thereto. This amount will be amortized over a period of two months, at beginning and end of project.
2. **BID ITEM 2 – TRAFFIC CONTROL & BARRICADING** – Payment will be made according to the respective price listed in the Bid Proposal. Price Bid shall include all equipment and labor incidental thereto for providing construction traffic control and barricading as required for the project.
3. **BID ITEM 3 – SITE CLEARING AND GRUBBING INCL. TREE REMOVAL** - Payment will be made according to the respective price listed in the Bid Proposal. Price Bid shall include but not be limited to the following: clearing and grubbing; tree removal of 18"φ and smaller including all labor material and equipment incidental thereto
4. **BID ITEM 4 –8" PVC WATERLINE** – Payment will be made according to the respective price listed in the Bid Proposal. Payment shall be made for each lineal foot measured along the centerline of pipeline as shown on the construction drawings. Price shall include, but not be limited to the following: staking; potholing; unclassified excavation in open trench; pipe bedding and backfill; dewatering and compaction for all trench zones; hand digging; tunneling under or removing and replacing surface obstructions; discovery and protection of subsurface obstructions; shoring and bracing; hauling excavated material; restoration of disturbed areas not included in other pay items; marking tape; joint restraint; concrete blocking; preparation of pipe subgrade; temporary connections; jointing materials; furnishing and installing pipe, wire, fittings, bends, and tees in open trench; hydrostatic testing and disinfection; line flushing and all other testing required for Final Acceptance; and all labor material and equipment incidental thereto.
5. **BID ITEM 5 –6" PVC WATERLINE** – Payment will be made according to the respective price listed in the Bid Proposal. Payment shall be made for each lineal foot measured along the centerline of pipeline as shown on the construction drawings. Price shall include, but not be limited to the

following: staking; potholing; unclassified excavation in open trench; pipe bedding and backfill; dewatering and compaction for all trench zones; hand digging; tunneling under or removing and replacing surface obstructions; discovery and protection of subsurface obstructions; shoring and bracing; hauling excavated material; restoration of disturbed areas not included in other pay items; marking tape; joint restraint; concrete blocking; preparation of pipe subgrade; temporary connections; jointing materials; furnishing and installing pipe, wire, fittings, bends, and tees in open trench; hydrostatic testing and disinfection; line flushing and all other testing required for Final Acceptance; and all labor material and equipment incidental thereto.

6. **BID ITEM 6 - ¾"-1" WATER SERVICE LINE CONNECTION TO NEW WATERLINE -**

Payment will be made according to the respective price listed in the Bid Proposal. Payment shall be made on a per each basis for work accomplished as shown on the standard drawing and shall include, but not be limited to, the following: Connecting or Relocating Neptune T-10 water meter w/E-coder R900i register and radio transmitter including a 10-lf length of service line including all necessary fittings and appurtenances per Santa Fe County Utilities Department Water Construction Standards and Specifications; including trenching, backfilling, and compaction, dewatering, and all other labor, material, and equipment incidental thereto.

7. **BID ITEM 7 - FIRE HYDRANT -** Payment will be made according to the respective price listed in the Bid Proposal. Payment will be made for each fire hydrant and shall include, but not be limited to, the following: excavation; gravel drain pocket; pipe; fire hydrant; mechanical restraining system or blocking; backfilling; compaction; preparing and installing cast-in-place concrete pad on finished ground; and testing complete in place and all other labor, material, and equipment incidental thereto.

8. **BID ITEM 8 - COMBINATION AIR RELIEF VALVE AND VALVE BOX -** Payment will be made according to the respective price listed in the Bid Proposal. Payment shall be made on a per each basis for work accomplished as shown on the standard drawing and shall include, but not be limited to, the following: furnishing and installing combination air relief valve with all necessary fittings and appurtenances; valve vault; concrete blocking and/or joint restraint; preparing and installing cover and lid on finished ground including trenching, backfilling, and compaction, dewatering, furnishing and installing reinforcing steel; and all other labor, material, and equipment incidental thereto.

9. **BID ITEM 9 – BORE & JACK WATERLINES -** Payment will be made according to the respective price listed in the Bid Proposal. Payment will be made or work accomplished as shown on the standard drawing and shall include, but not be limited to, the following: bore and jack of 14" sch 30 steel Casing for 6" carrier pipe; bore and jack of 16" sch 30 steel casing for 8" carrier pipe; mechanical restraining system or blocking; restoration of disturbed areas not included in other pay items; marking tape; joint restraint; concrete blocking; preparation of casing subgrade; temporary connections; jointing materials; wire, skids, steel ties, grouting, jacking or drilling pits; boring pit bracing, casing boring head, removal of excavated material and all labor material and equipment incidental thereto.

10. **BID ITEM 10 – SUBGRADE PREP, 12-INCH AT 95% COMPACTION -** Payment for subgrade prep will be made according to the respective price listed in the Bid Proposal per square yard per each thickness required, complete in place. Price Bid shall include all material, labor, and equipment required in placing, grading, and compacting the subgrade.

11. **BID ITEM 11 – AGGREGATE BASE COURSE, CRUSHED, 6-INCH AT 95% COMPACTION -** Payment for Aggregate Base Course will be made according to the respective price listed in the Bid Proposal per square yard per each thickness required, complete in place. Price Bid shall include all material, labor, and equipment required in placing, grading, and compacting the aggregate base course.

12. **BID ITEM 12 – EXISTING PAVEMENT, REMOVE AND DISPOSE -** Payment will be made according to the respective price listed in the Bid Proposal for each square yard of pavement removed and disposed. Price Bid shall include hauling and disposal of asphalt offsite to a location as designated by the Owner; and all other labor, materials, and equipment incidental thereto.

13. **BID ITEM 13 – CHIP-SEAL DOUBLE BITUMINOUS PAVEMENT, EXISTING DEPTH** - Payment will be made according to the respective price listed in the Bid Proposal for double bituminous chip seal pavement per NMSSP for Public works specification 334 or Santa Fe County approved equal for each square yard of pavement placed. Price Bid shall include but not be limited to the following: hauling, compaction; sub grade preparation; asphalt; asphalt placement; and all other labor, materials, and equipment incidental thereto
14. **BID ITEM 14 - 8” GATE VALVE AND VALVE BOX** - Payment will be made according to the respective price listed in the Bid Proposal. Payment shall be made on a per each basis for work accomplished as shown on the standard drawing and shall include, but not be limited to, the following: furnishing and installing resilient seat gate valve with all necessary fittings and appurtenances; valve can; concrete blocking and/or joint restraint; preparing and installing cast-in-place concrete pad on finished ground including trenching, backfilling, and compaction, dewatering, furnishing and installing reinforcing steel; and all other labor, material, and equipment incidental thereto.
15. **BID ITEM 15 - 6” GATE VALVE AND VALVE BOX** - Payment will be made according to the respective price listed in the Bid Proposal. Payment shall be made on a per each basis for work accomplished as shown on the standard drawing and shall include, but not be limited to, the following: furnishing and installing resilient seat gate valve with all necessary fittings and appurtenances; valve can; concrete blocking and/or joint restraint; preparing and installing cast-in-place concrete pad on finished ground including trenching, backfilling, and compaction, dewatering, furnishing and installing reinforcing steel; and all other labor, material, and equipment incidental thereto.
16. **BID ITEM 16 –PILOT WELL AND GEOPHYSICAL INVESTIGATION** - Payment will be made according to the respective price listed in the Bid Proposal. Price Bid shall include but not be limited to the following: staging areas; permits; SWPPP; mobilization and demobilization of forces; drilling of 7-7/8” max pilot hole; installation of 16” surface casing; geophysical logging; zone testing; and water quality analysis; and all other materials, equipment and labor incidental thereto.
17. **BID ITEM 17 –REGIONAL WELL** - Payment will be made according to the respective price listed in the Bid Proposal. Price Bid shall include but not be limited to the following: site work; staging areas; permits; SWPPP; mobilization and demobilization of forces; reaming of pilot hole; installation of 8.625” dia. HSLA casing and HSLA louvered 0.05” screen; installation of sand filter packs; bentonite seals; cement bentonite grout; well development; well disinfection; test pumping; water quality analysis; video and alignment surveys; and submersible pump including controls drop pipe and sounding tubes; well vault; connection to existing water system; 4” well line; all necessary fittings and appurtenances; electrical connection/service; and all other materials, equipment and labor incidental thereto.

C. The following items, classifying the various kinds of work refer to the respective Allowance items listed in the bid proposal.

1. **AL-1 TESTING ALLOWANCE** – Payment will be made for engineer approved tests at the invoiced cost to the contractor plus applicable taxes. Payment shall be limited to testing of soils, concrete and asphalt. No payment will be made for tests, which fail. All other contractors’ costs for coordination, processing, are considered incidental to the contractors cost for the respective work being installed.
2. **AL-2 UTILITY RELOCATION ALLOWANCE** – Payment will be made for Engineer approved invoiced cost to the Contractor. Payment will be made for relocating utility line(s) whose locations conflict with these drawings and are approved by the Engineer. This item shall include, water, sewer, fiber optic, gas, cable TV, telephone, and electric. The Contractor’s expenses for coordination, scheduling, etc. are considered incidental to other unit costs listed in the Bid Proposal.

END OF SECTION

SECTION 01340
SUBMITTALS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
1. Mechanics and administration of the submittal process for:
 - a. Shop Drawings.
 - b. Samples.
 - c. Miscellaneous submittals.
 - d. Operation and maintenance manuals.
- B. Related Sections include but are not necessarily limited to:
1. Division 0 - Bidding Requirements, Contract Forms, and Conditions of the Contract.
 2. Division 1 - General Requirements.
 3. Sections in Divisions 2 through 16 identifying required submittals.

1.2 DEFINITIONS

- A. Shop Drawings:
1. See General Conditions.
 2. Product data and samples are Shop Drawing information.
- B. Miscellaneous Submittals:
1. Submittals other than Shop Drawings:
 2. Representative types of miscellaneous submittal items include but are not limited to:
 - a. Construction schedule.
 - b. Concrete, soil compaction, and pressure test reports.
 - c. Manufacturer's installation certification letters.
 - d. Warranties.
 - e. Service agreements.
 - f. Construction photographs.
 - g. Health and safety plans.

1.3 TRANSMITTAL OF SUBMITTALS

- A. Shop Drawings, Samples and Operation and Maintenance Manuals:
1. Transmit all submittals to:

HDR Engineering, Inc.
2155 Louisiana Blvd, NE, Suite 9500
Albuquerque, NM 87110-5483
Phone: (505) 830-5400
Fax: (505) 830-5454
Attn: Jerome A. Márez
 2. Utilize two (2) copies of attached Exhibit "A" to transmit all Shop Drawings and samples.
 3. All submittals must be from Contractor and bear his approval stamp.
 - a. Submittals will not be received from or returned to subcontractors.
 - b. Shop Drawing submittal stamp shall read "(Contractor's Name) has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review and approval as stipulated under General Conditions Paragraph 6.17D".

4. Provide submittal information defining specific equipment or materials utilized on the project.
 - a. Generalized product information, not clearly defining specific equipment or materials to be provided, will be rejected.
5. Calculations required in individual Specification Sections will be received for information purposes only, as evidence calculations have been performed by individuals meeting specified qualifications, and will be returned stamped "E. Engineer's Review Not Required" to acknowledge receipt.
6. Submittal schedule:
 - a. Schedule of Shop Drawings:
 - 1) Submitted and approved within five (5) days of receipt of Notice to Proceed.
 - 2) Account for multiple transmittals under any Specification Section where partial submittals will be transmitted.
 - b. Shop Drawings:
 - 1) Submittal and approval prior to 50 percent completion.
- B. Miscellaneous Submittals:
 1. Transmit under Contractor's standard letter of transmittal or letterhead.
 2. Submit in triplicate or as specified in individual Specification Section.
 3. Transmit to:

HDR Engineering, Inc.
 2155 Louisiana Blvd, NE, Suite 9500
 Albuquerque, NM 87110-5483
 Phone: (505) 830-5400
 Fax: (505) 830-5454
 Attn: Jerome A. Márez
4. Provide carbon copy of letter of transmittal to Owner's Resident Project Representative.
 - a. Exception for concrete, soils compaction and pressure test reports.
 - 1) Transmit one copy to Resident Project Engineer.
 - 2) Transmit one copy to location and individual indicated above for other miscellaneous submittals.

1.4 PREPARATION OF SUBMITTALS

- A. Shop Drawings:
 1. Scope of any submittal and letter of transmittal:
 - a. Limited to one Specification Section.
 - b. Do not submit under any Specification Section entitled (in part) "Basic Requirements".
 2. Numbering letter of transmittal:
 - a. Include as prefix the Specification Section number followed by a series number, "-xx", beginning with "01" and increasing sequentially with each additional transmittal.
 - b. If more than one submittal under any Specification Section, assign consecutive series numbers to subsequent transmittal letters.
 3. Describing transmittal contents:
 - a. Provide listing of each component or item in submittal capable of receiving an independent review action.
 - b. Identify for each item:
 - 1) Manufacturer and Manufacturer's drawing or data number.
 - 2) Contract Document tag number(s).
 - 3) Unique page numbers for each page of each separate item.
 4. Contractor stamping:
 - a. General:
 - 1) Contractor's review and approval stamp shall be applied either to the letter of transmittal or a separate sheet preceding each independent item in the submittal.

- a) Contractor's signature and date shall be original ink signature.
- 2) Letters of transmittal may be stamped only when the scope of the submittal is one item.
- 3) Submittals containing multiple independent items shall be prepared with an index sheet for each item listing the discrete page numbers for each page of that item, which shall be stamped with the Contractor's review and approval stamp.
 - a) Individual pages or sheets of independent items shall be numbered in a manner that permits Contractor's review and approval stamp to be associated with the entire contents of a particular item and vice-versa.
- 4) In the event submittals are transmitted as a single item and found to include multiple independent items, the Owner and Engineer reserve the right to limit review to the single item listed, remove the other items from the submittal and return them not reviewed to the Contractor for coordination, stamping and submittal under a new transmittal number that is not a re-submittal number.
 - a) The items not listed in the transmittal letter will not be logged as received, or in any other manner acknowledged as submitted.
- b. Electronic stamps:
 - 1) Contractor may electronically embed Contractor's review and approval stamp to either the letter of transmittal or a separate index sheet preceding each independent item in the submittal.
 - 2) Contractor's signature and date on electronically applied stamps shall be original ink signature.
5. Resubmittals:
 - a. Number with original root number and a suffix letter starting with "A" on a (new) duplicate transmittal form.
 - b. Do not increase the scope of any prior transmittal.
 - c. Account for all components of prior transmittal.
 - 1) If items in prior transmittal received "A" or "B" Action code, list them and indicate "A" or "B" as appropriate.
 - a) Do not include submittal information for items with prior "A" or "B" Action in transmittal.
 - 2) Indicate "Outstanding-To Be Resubmitted At a Later Date" for any prior "C" or "D" Action item not included in resubmittal.
 - a) Obtain Engineer's prior approval to exclude items.
6. For 8-1/2 x 11 IN size sheets, provide three (3) copies of each page for Engineer plus the number required by the Contractor.
 - a. The number of copies required by the Contractor will be defined at the Preconstruction Conference, but shall not exceed 5.
7. For items not covered in Paragraph 1.4A.6, submit one reproducible transparency or camera-ready quality print and one additional print of each drawing until approval is obtained.
 - a. Utilize mailing tube; do not fold.
 - b. The Engineer will mark and return the reproducible to the Contractor for his reproduction and distribution.
8. Provide clear space (3 IN x 3 IN) for Engineer stamping of each component defined in Paragraph 1.4-A.4.
9. Contractor shall not use red color for marks on transmittals.
 - a. Duplicate all marks on all copies transmitted, and ensure marks are photocopy reproducible.
 - b. Outline Contractor marks on reproducible transparencies with a rectangular box.
10. Transmittal contents:
 - a. Coordinate and identify Shop Drawing contents so that all items can be easily verified by the Engineer.
 - b. Identify equipment or material use, tag number, drawing detail reference, weight, and other project specific information.

- c. Provide sufficient information together with technical cuts and technical data to allow an evaluation to be made to determine that the item submitted is in compliance with the Contract Documents.
- d. Submit items like equipment brochures, cuts of fixtures, product data sheets or catalog sheets on 8-1/2 x 11 IN pages. Indicate exact item or model and all options proposed.
- e. Include legible scale details, sizes, dimensions, performance characteristics, capacities, test data, anchoring details, installation instructions, storage and handling instructions, color charts, layout drawings, parts catalogs, rough-in diagrams, wiring diagrams, controls, weights and other pertinent data.
 - 1) Arrange data and performance information in format similar to that provided in Contract Documents.
 - 2) Provide, at minimum, the detail provided in the Contract Documents.
- f. If proposed equipment or materials deviate from the Contract Drawings or Specifications in any way, clearly note the deviation and justify the said deviation in detail in a separate letter immediately following transmittal sheet.

1.5 ENGINEER'S REVIEW ACTION

A. Shop Drawings:

1. Items within transmittals will be reviewed for overall design intent and will receive one of the following actions:
 - a. A - FURNISH AS SUBMITTED.
 - b. B - FURNISH AS NOTED (BY ENGINEER).
 - c. C - REVISE AND RESUBMIT.
 - d. D - REJECTED.
 - e. E - ENGINEER'S REVIEW NOT REQUIRED.
2. Submittals received will be initially reviewed to ascertain inclusion of Contractor's approval stamp.
 - a. Drawings not stamped by the Contractor or stamped with a stamp containing language other than that specified in Paragraph 1.3A.4.a., will not be reviewed for technical content and will be returned without any action.
3. Submittals returned with Action "A" or "B" are considered ready for fabrication and installation.
 - a. If for any reason a submittal that has an "A" or "B" Action is resubmitted, it must be accompanied by a letter defining the changes that have been made and the reason for the resubmittal.
 - b. Destroy or conspicuously mark "SUPERSEDED" all documents having previously received "A" or "B" Action that are superseded by a resubmittal.
4. Submittals with Action "A" or "B" combined with Action "C" (Revise and Resubmit) or "D" (Rejected) will be individually analyzed giving consideration as follows:
 - a. The portion of the submittal given "C" or "D" will not be distributed (unless previously agreed to otherwise at the Preconstruction Conference).
 - 1) One copy or the one transparency of the "C" or "D" drawings will be marked up and returned to the Contractor.
 - a) Correct and resubmit items so marked.
 - b. Items marked "A" or "B" will be fully distributed.
 - c. If a portion of the items or system proposed are acceptable, however, the major part of the individual drawings or documents are incomplete or require revision, the entire submittal may be given "C" or "D" Action.
 - 1) This is at the sole discretion of the Engineer.
 - 2) In this case, some drawings may contain relatively few or no comments or the statement, "Resubmit to maintain a complete package."
 - 3) Distribution to the Owner and field will not be made (unless previously agreed to otherwise).

5. Failure to include any specific information specified under the submittal paragraphs of the Specifications will result in the submittal being returned to the Contractor with "C" or "D" Action.
6. Transmittals of submittals which the Engineer considers as "Not Required" submittal information, which is supplemental to but not essential to prior submitted information, or items of information in a transmittal which have been reviewed and received "A" or "B" Action in a prior submittal, will be returned with Action "E. Engineer's Review Not Required."

END OF SECTION

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EXHIBIT A
Shop Drawing Transmittal No. _____ - _____
(Spec Section) (Series)

Project Name: East Glorieta Distribution & Regional Well			Date Received:		
Project Owner: Greater Glorieta			Checked By:		
Contractor:		HDR Engineering, Inc.		Log Page:	
Address:		Address: 2155 Louisiana Blvd, NE, Suite 9500, Albuquerque, NM, 87110		HDR No.:	
				Spec Section:	
				Drawing/Detail No.:	
Attn:		Attn:		1st. Sub	ReSub.
Date Transmitted:		Previous Transmittal Date:			
Item No.	No. Copies	Description	Manufacturer	Mfr/Vendor Dwg or Data No.	Action Taken*
Remarks:					

- 6 * The Action Designated Above is in Accordance with the Following Legend:
- | | |
|---------------------------------------|--|
| A - Furnish as Submitted | D - Rejected |
| B - Furnish as Noted | E - Engineer's review not required |
| C - Revise and Submit | 1. Submittal not required. |
| 1. Not enough information for review. | 2. Supplemental Information. Submittal retained for informational purposes only. |
| 2. No reproducibles submitted. | 3. Information reviewed and approved on prior submittal. |
| 3. Copies illegible. | 4. See comments. |
| 4. Not enough copies submitted. | |
| 5. Wrong sequence number. | |
| 6. Wrong resubmittal number. | |
| 7. Wrong spec. section. | |
| 8. Wrong form used. | |
| 9. See comments. | |

7 Comments: _____

			By _____		Date _____	
Distribution:	Contractor <input type="checkbox"/>	File <input type="checkbox"/>	Field <input type="checkbox"/>	Owner <input type="checkbox"/>	Other <input type="checkbox"/>	

Santa Fe County
February 2022

Glorieta, NM
East Glorieta Distribution & Regional Well
Contract Documents

SECTION 01400
QUALITY CONTROL

PART 1 - LABORATORY TESTS

1.1 GENERAL

- A. Soil Testing. The Owner will pay for "Passing" soils test on the Project. Costs of corrective action and costs of "Failing" soils tests are the sole responsibility of the CONTRACTOR.
- B. Other testing: Required testing, testing procedures, reports, certificates, and costs associated with all phases of securing required satisfactory test information which may be required by individual sections of Specifications or Drawings are the full responsibility of the CONTRACTOR.

1.2 QUALIFICATION OF LABORATORY

- A. Meet "Recommended Requirements for Independent Laboratory Qualification," published by the American Council of Independent Laboratories.
- B. Meet basic requirements of ASTM E329, "Standards of Recommended Practice for Inspection and Testing Agencies for Concrete, Steel, and Bituminous Materials as Used in Construction" as applicable.
- C. Authorized to operate in the State of New Mexico.
- D. Submit copy of report of inspection of facilities made by Materials Reference Laboratory of National Bureau of Standards during the most recent tour of inspection, with memorandum of remedies of any deficiencies reported by the inspection.
- E. Testing Equipment:
 - 1. Calibrated at reasonable intervals by devices of accuracy traceable to either:
 - a. National Bureau of Standards.
 - b. Accepted values of natural physical constants.

1.3 LABORATORY DUTIES

- A. Cooperate with Engineer and Contractor; provide qualified personnel.
- B. Perform specified inspections, sampling, and testing of materials and methods of construction:
 - 1. Comply with specified standards.
 - 2. Ascertain compliance of materials with requirements of Contract Documents.
- C. Promptly notify Engineer and Contractor of observed irregularities or deficiencies of Work or products.
- D. Promptly submit five (5) copies of written report of each test and inspection to Engineer. Each report shall include:
 - 1. Date issued.
 - 2. Project title and number.
 - 3. Testing laboratory name, address, and telephone number.
 - 4. Name and signature of laboratory inspector.
 - 5. Date and time of sampling or inspection.
 - 6. Record of temperature and weather conditions.
 - 7. Date of test.
 - 8. Identification of product and Specification section.
 - 9. Location of sample or test in the Project.
 - 10. Type of inspection or test.

- 1 11. Results of tests and compliance with Contract Documents.
- 2 12. Interpretation of test results, when requested by Engineer.
- 3 E. Engineer will distribute copies of the tests to the Contractor and the Owner.

4 **1.4 LIMITATIONS OF AUTHORITY OF TESTING LABORATORY**

- 5 A. Laboratory is not authorized to:
 - 6 1. Release, revoke, alter, or enlarge upon requirements of Contract Documents.
 - 7 2. Approve or accept any portion of the Work.
 - 8 3. Owner employed laboratory shall not perform any duties of the Contractor.

9 **1.5 CONTRACTOR'S RESPONSIBILITIES**

- 10 A. Cooperate with laboratory personnel and provide access to work.
- 11 B. Secure and deliver to the laboratory adequate quantities of representative samples of materials
- 12 proposed to be used and that require testing.
- 13 C. Provide to the laboratory the preliminary design mix proposed to be used for concrete and other
- 14 material mixes that require control by the testing laboratory.
- 15 D. Furnish copies of product test reports as required.
- 16 E. Furnish incidental labor and facilities:
 - 17 1. To provide access to Work to be tested.
 - 18 2. To obtain and handle samples at the Project site or at the source of the product to be tested.
 - 19 3. To facilitate inspections and tests.
 - 20 4. For storage and curing of test samples.
- 21 F. Notify laboratory sufficiently in advance of operations to allow for laboratory assignment of
- 22 personnel and scheduling of tests.

23 **1.6 SUBMITTALS**

- 24 A. Copy of laboratory inspection report.
- 25 B. Calibration test report from laboratory.
- 26 C. Schedule of shop tests.
- 27 D. Schedule of Manufacturer's field services.

28 **PART 2 - SHOP TESTS**

29 **2.1 GENERAL**

- 30 A. Contractor shall pay all costs associated with specified shop tests of materials and equipment,
- 31 including retesting of items that fail original tests.
- 32 B. Related requirements specified elsewhere:
 - 33 1. Inspections and testing required by laws, ordinances, rules, regulations, orders, or approvals
 - 34 of public authorities: Conditions of the Contract.
 - 35 2. Certification of products: The respective sections of Specifications.
 - 36 3. Test, adjust, and balance of equipment: The respective sections of Specifications.
 - 37 4. Shop tests required and standards for testing: Each Specification section listed.
- 38 C. Observation of shop tests:
 - 39 1. Where the Specifications call for a shop test to be witnessed by a representative of the
 - 40 Engineer, notify Engineer not less than 14 days prior to the scheduled test date.
 - 41 2. Owner is to pay for all costs of Engineer's first visit.
 - 42 3. If subsequent visits by Engineer are required because of incomplete tests, retesting, or
 - 43 subsequent tests, Contractor shall reimburse Owner for all costs of the subsequent visits.

PART 3 - FIELD TESTING

3.1 GENERAL

- A. Contractor shall pay all costs associated with field-testing of materials and equipment
- B. Contractor shall schedule all field-testing to avoid conflicting with other manufacturer's field services and other field testing.
- C. Related requirements specified elsewhere:
 - 1. Inspection and testing required by laws, ordinances, rules, regulations, orders, or approvals of public authorities: Conditions of the Contract.
 - 2. Certification of products: The respective section of Specifications.
 - 3. Test, adjust, and balance equipment: The respective sections of Specifications.
 - 4. Field tests required and standards for testing: The respective Specification sections.
 - 5. Operating and Maintenance Data: Section 01340.

3.2 TESTING

- A. Provide all required materials, labor, equipment, water, and power required for testing.
- B. Perform all tests in presence of Engineer.
- C. Prepare and submit to Engineer five (5) copies of written reports detailing the results of the tests and identifying corrective action for materials and equipment that fail to pass field tests. For each pump tested, submit pump curve with operating point for installed design condition clearly marked.
- D. Prepare and submit to Engineer a pipe pressure test report for each pipe test specified and performed. Include as an attachment to the report a copy of the approved piping layout or schematic of the system being tested which indicates any deviations from the approval layout with dimensional information.
- E. Repair all materials and equipment that fail during testing with no additional compensation.

PART 4 - SCHEDULES

4.1 SHOP TESTING

- A. Shop testing shall be provided for the following: See Individual Specification Sections.

4.2 MANUFACTURER'S FIELD SERVICES

- A. Manufacturer's field services shall be provided for the following Contractor supplied equipment: See Individual Specification Sections.

- B. Manufacturer's O&M Training Durations

<u>Section</u>	<u>Type of Equipment or System</u>	<u>Training Durations for 1 group</u>
----------------	------------------------------------	---------------------------------------

For the above listed equipment, all training sessions shall be presented, in their entirety, to two groups, one group at a time. Durations listed above are for one group.

All training must be recorded by Contractor and given to Owner per Specification 01060-1.12.

- 2. Training for all electrical equipment listed shall be as set forth in their respective specification section.

END OF SECTION

SECTION 01500
TEMPORARY FACILITIES

1.1 DESCRIPTION

A. General:

1. Furnish all labor, materials, tools, equipment, and services for all temporary facilities and their subsequent removal as indicated, in accord with provisions of Contract Documents.
2. Completely coordinate with work of all other trades.
3. Although such work is not specifically indicated, furnish and install all supplementary or miscellaneous items, appurtenances and devices incidental to or necessary for a sound, secure and complete installation.
4. See Divisions 0 and 1 for additional requirements.

1.2 TEMPORARY ELECTRICITY

- A. CONTRACTOR shall make arrangements for and install all equipment, poles, meter, wiring, switches, outlets, etc., to provide power for all lighting and power requirements for construction purposes.
- B. Temporary electrical power used will be paid for by CONTRACTOR.
- C. At completion of work, remove all temporary power facilities and replace all parts of permanent system damaged.
- D. Extend warranty or guarantee period on any permanent systems used during construction period to commence with date of Substantial Completion. (Beneficial Use).
- E. CONTRACTOR shall provide extension cords and temporary lighting to suit his needs until permanent lighting is installed and operable.

1.3 TEMPORARY WATER

- A. CONTRACTOR make all arrangements, pay all costs and permit fees to install or have others install equipment, piping, and outlets for an adequate supply of clean water for construction purposes.
- B. CONTRACTOR shall furnish drinking water for all those connected with his work.

1.4 TEMPORARY TOILETS

- A. CONTRACTOR provide temporary toilet facilities for use of all workers.
1. Provide facilities complying with applicable local and State sanitary and Federal laws.

1.5 TEMPORARY ENCLOSURES

- A. CONTRACTOR furnish and install any temporary enclosures, doors and transparent plastic covered windows required to protect his work from damage due to vandalism, or the elements, or to maintain suitable temperature during installation or finishing work.

1.6 TEMPORARY STORAGE AND WORKING AREAS

- A. Owner will designate area the CONTRACTOR may use for storage and parking.
1. Except as specifically provided, working and storing outside these areas will not be permitted.

- 1 B. Within area designated for his use, CONTRACTOR shall provide sufficient enclosed and
2 covered spaces, with raised flooring, to protect materials and equipment from damage by
3 weather or construction work.
4 1. Maintain storage and working areas in a clean and orderly condition.
5 2. Upon completion of his work, or sooner if directed by ENGINEER, remove temporary
6 structures and leave area in clean and orderly condition.

7 **1.7 TEMPORARY FENCES AND BARRICADES**

- 8 A. CONTRACTOR furnish, install and maintain all necessary temporary fences, barricades, trench
9 and hole covers, warning lights and all other safety devices necessary to prevent injury to
10 persons and damage to property.

11 **1.8 ACCESS ROADS**

- 12 A. Provide access on building site as required to accomplish the work.
13 B. Maintenance of access on building site will be responsibility of CONTRACTOR and will be
14 accomplished per methods as approved by OWNER's Representative.
15 C. Maintenance of access shall include but not be limited to:
16 1. Dust control.
17 2. Provisions for new access ways to laydown/storage areas.
18 3. Grading and compacting.
19 4. Repair existing roadway as required for access to site.
20 5. Designated parking area maintenance.
21 D. CONTRACTOR is responsible for cleaning up all debris, materials, etc., that fall from
22 CONTRACTOR's vehicles en route to site.
23 E. When this access is no longer required, restore site to its original condition.

24 **1.9 PARKING**

- 25 A. Construction personnel shall park their vehicles in the area designated by the OWNER.
26 B. Any CONTRACTOR personnel violating this stipulation, do so at their own risk; be aware that
27 their vehicles may be towed at offender's expense.

28 **1.10 SECURITY**

- 29 A. Preservation of Property:
30 1. Preserve from damage, all property along the line of the work, in the vicinity of or in any
31 way affected by the work, the removal or destruction of which is not called for by the
32 Drawings. Preserve from damage, public utilities, trees, lawn areas, building monuments,
33 fences, pipe and underground structures, and public streets, etc. Note: Normal wear and tear
34 of streets resulting from legitimate use by the CONTRACTOR are not considered as
35 damage. Whenever damages occur to such property, immediately restore to its original
36 condition. Costs for such repairs are incidental to the Contract.
37 2. In case of failure on the part of the CONTRACTOR to restore property or make good on
38 damage or injury, the OWNER may, upon 24 hours written notice, proceed to repair,
39 rebuild, or otherwise restore such property as may be deemed necessary, and the cost
40 thereof will be deducted from any moneys due or which may become due the
41 CONTRACTOR under this Contract. If removal, repair or replacement of public or private
42 property is made necessary by alteration of grade or alignment authorized by the OWNER
43 and not contemplated by the Contract Documents, the CONTRACTOR will be
44 compensated, in accordance with the General Conditions, provided that such property has
45 not been damaged through fault of the CONTRACTOR or the CONTRACTOR's
46 employees.
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1 B. Public Utility Installations and Structures:

- 2 1. Comply with the requirements of the public utility companies regarding the preservation
3 and protection of utilities and services.

4 C. Work on Private Property: Where installations are to be placed on private property, rights-of-
5 way or easements will be secured by the OWNER without cost to the CONTRACTOR. Comply
6 with all easement requirements. Conduct operations along rights-of-way and easements through
7 private property to avoid damage to the property and to minimize interference with its ordinary
8 use. Upon completion of the work through such property, restore the surface and all fences or
9 other structures disturbed by the construction as nearly as possible to the preconstruction
10 conditions. Do not remove any material from private property without the consent of the
11 property owner or responsible party in charge of such property.

- 12 1. See Section 01060 1.4 for Video Documentation Prior to Construction to verify existing
13 conditions.

14 D. Miscellaneous Structures: Assume and accept responsibility for all injuries or damage to
15 culverts, building foundations and walls, retaining walls, or other structures of any kind
16 encountered during the execution of the work. Assume and accept liability for damages to
17 public or private property resulting from Contractor's actions.

18 E. Protection of Trees and Landscape Areas:

- 19 1. Protect with boxes, trees and shrubs, except those ordered to be removed. Do not place
20 excavated material so as to cause injury to such trees or shrubs. Replace trees or shrubs
21 destroyed by accident or negligence of the CONTRACTOR or CONTRACTOR's
22 employees with new stock of similar size and age, at the proper season, at no additional cost
23 to the OWNER.
24 2. Leave landscaped areas in as good condition as before the start of the work.

25 **1.11 REMOVAL**

26 A. Remove temporary materials, equipment, service and construction prior to Substantial
27 Completion inspection.

28 B. Clean and repair damage caused by installation or use of temporary facilities.

29 **PART 2 - PRODUCTS - NOT USED**

30 **PART 3 - EXECUTION - NOT USED**

31 **END OF SECTION**
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SECTION 01560
ENVIRONMENTAL PROTECTION AND SPECIAL CONTROLS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Addresses:
 - 1. Minimizing the pollution of air, water, or land; control of noise, the disposal of solid waste materials, and protection of deposits of historical or archaeological interest.
- B. Related Sections include but are not necessarily limited to:
 - 1. Division 0 - Bidding Requirements, Contract Forms, and Conditions of the Contract.
 - 2. Division 1 - General Requirements.

1.2 SUBMITTALS

- A. Shop Drawings:
 - 1. See Section 01340.
 - 2. Prior to the start of any construction activities submit:
 - a. A detailed proposal of all methods of control and preventive measures to be utilized for environmental protection.
 - b. A drawing of the work area, haul routes, storage areas, access routes and current land conditions including trees and vegetation.
 - c. A copy of the NPDES permit for storm water discharges from construction activities.
 - d. A copy of the approved pollution prevention plan.

PART 2 - PRODUCTS - (NOT APPLICABLE TO THIS SECTION)

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Employ and utilize environmental protection methods, obtain all necessary permits, and fully observe all local, state, and federal regulations.
- B. Land Protection:
 - 1. Except for any work or storage area and access routes specifically assigned for the use of the Contractor, the land areas outside the limits of construction shall be preserved in their present condition. Contractor shall confine his construction activities to areas defined for work within the Contract Documents.
 - 2. Manage and control all borrow areas, work or storage areas, access routes and embankments to prevent sediment from entering nearby water or land adjacent to the work site.
 - 3. Restore all disturbed areas including borrow and haul areas and establish permanent type of locally adaptable vegetative cover.
 - 4. Unless earthwork is immediately paved or surfaced, protect all side slopes and backslopes immediately upon completion of final grading.
 - 5. Plan and execute earthwork in a manner to minimize duration of exposure of unprotected soils.

- 1 6. Except for areas designated by the Contract Documents to be cleared and grubbed, the
2 Contractor shall not deface, injure or destroy trees and vegetation, nor remove, cut, or
3 disturb them without approval of the OWNER's Representative. Any damage caused by the
4 Contractor's equipment or operations shall be restored as nearly as possible to its original
5 condition at the Contractor's expense.
- 6 C. Surface Water Protection:
- 7 1. Utilize, as necessary, erosion control methods to protect side and backslopes, minimize and
8 the discharge of sediment to the surface water leaving the construction site as soon as rough
9 grading is complete. These controls shall be maintained until the site is ready for final
10 grading and landscaping or until they are no longer warranted and concurrence is received
11 from the OWNER's Representative. Physically retard the rate and volume of run-on and
12 runoff by:
- 13 a. Implementing structural practices such as diversion swales, terraces, straw bales, silt
14 fences, berms, storm drain inlet protection, rocked outlet protection, sediment traps and
15 temporary basins.
- 16 b. Implementing vegetative practices such as temporary seeding, permanent seeding,
17 mulching, sod stabilization, vegetative buffers, hydroseeding, anchored erosion control
18 blankets, sodding, vegetated swales or a combination of these methods.
- 19 c. Providing Construction sites with graveled or rocked access entrance and exit drives
20 and parking areas to reduce the tracking of sediment onto public or private roads.
- 21 2. Discharges from the construction site shall not contain pollutants at concentrations that
22 produce objectionable films, colors, turbidity, deposits or noxious odors in the receiving
23 stream or waterway.
- 24 D. Solid Waste Disposal:
- 25 1. Collect solid waste on a daily basis.
- 26 2. Provide disposal of degradable solid waste to an approved solid waste disposal site.
- 27 3. Provide disposal of nondegradable solid waste to an approved solid waste disposal site or in
28 an alternate manner approved by OWNER's Representative and regulatory agencies.
- 29 4. No building materials wastes or unused building materials shall be buried, dumped, or
30 disposed of on the site.
- 31 E. Fuel and Chemical Handling:
- 32 1. Store and dispose of chemical wastes in a manner approved by regulatory agencies.
- 33 2. Take special measures to prevent chemicals, fuels, oils, greases, herbicides, and insecticides
34 from entering drainage ways.
- 35 3. Do not allow water used in onsite material processing, concrete curing, cleanup, and other
36 waste waters to enter a drainage way(s) or stream.
- 37 4. The Contractor shall provide containment around fueling and chemical storage areas to
38 ensure that spills in these areas do not reach waters of the State.
- 39 F. Control of Dust:
- 40 1. The control of dust shall mean that no construction activity shall take place without
41 applying all such reasonable measures as may be required to prevent particulate matter from
42 becoming airborne so that it remains visible beyond the limits of construction. Reasonable
43 measures may include paving, frequent road cleaning, planting vegetative groundcover,
44 application of water or application of chemical dust suppressants. The use of chemical
45 agents such as calcium chloride must be approved by the State of New Mexico DOT.
- 46 2. Utilize methods and practices of construction to eliminate dust in full observance of agency
47 regulations.
- 48 3. The OWNER's Representative will determine the effectiveness of the dust control program
49 and may request the Contractor to provide additional measures, at no additional cost to
50 Owner.
- 51 G. Burning:

SECTION 01600
PRODUCT DELIVERY, STORAGE, AND HANDLING

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Scheduling of product delivery.
 - 2. Packaging of products for delivery.
 - 3. Protection of products against damage from:
 - a. Handling.
 - b. Exposure to elements or harsh environments.
- B. Related Sections include but are not necessarily limited to:
 - 1. Division 0 - Bidding Requirements, Contract Forms, and Conditions of the Contract.
 - 2. Division 1 - General Requirements.
- C. Payment:
 - 1. No payment will be made to Contractor for equipment or materials not properly stored and insured or without approved shop drawings.
 - a. Previous payments for items will be deducted from subsequent progress estimate(s) if proper storage procedures are not observed.

1.2 DELIVERY

- A. Scheduling:
 - 1. Schedule delivery of products or equipment as required to allow timely installation and to avoid prolonged storage.
- B. Packaging:
 - 1. Deliver products or equipment in manufacturer's original unbroken cartons or other containers designed and constructed to protect the contents from physical or environmental damage.
- C. Identification:
 - 1. Clearly and fully mark and identify as to manufacturer, item, and installation location.
- D. Protection and Handling:
 - 1. Provide manufacturer's instructions for storage and handling.

PART 2 - PRODUCTS - (NOT APPLICABLE TO THIS SECTION)

PART 3 - EXECUTION

3.1 PROTECTION, STORAGE AND HANDLING

- A. Manufacturer's Instruction:
 - 1. Protect all products or equipment in accordance with manufacturer's written directions.
 - a. Store products or equipment in location to avoid physical damage to items while in storage.
 - b. Handle products or equipment in accordance with manufacturer's recommendations and instructions.
 - 2. Protect equipment from exposure to elements and keep thoroughly dry.

- 1 3. When space heaters are provided in equipment, connect and operate heaters during storage
2 until equipment is placed in service.

3.2 FIELD QUALITY CONTROL

- 4 A. Inspect Deliveries:
- 5 1. Inspect all products or equipment delivered to the site prior to unloading. Reject all products
- 6 or equipment that are damaged, used, or in any other way unsatisfactory for use on Project.

7 **END OF SECTION**

SECTION 01640
PRODUCT SUBSTITUTIONS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
1. The procedure for requesting substitution approval for a product which is specified by descriptive or performance criteria or defined by reference to one or more of the following:
 - a. Name of manufacturer.
 - b. Name of vendor.
 - c. Trade name.
 - d. Catalog number.
 2. This Section does not address substitutions for major equipment. See "Instructions to Bidders."
- B. Related Sections include but are not necessarily limited to:
1. Division 0 - Bidding Requirements, Contract Forms, and Conditions of the Contract.
 2. Division 1 - General Requirements.
- C. Requests for Substitution - General:
1. Base all bids on materials, equipment, and procedures specified.
 2. Certain types of equipment and kinds of material are described in specifications by means of references to names of manufacturers and vendors, trade names, or catalog numbers. When this method of specifying is used, it is not intended to exclude from consideration other products bearing other manufacturer's or vendor's names, trade names, or catalog numbers, provided said products are capable of accomplishing the same tasks as the products specifically indicated.
 3. Other types of equipment and kinds of material may be acceptable.

1.2 QUALITY ASSURANCE

- A. In making request for substitution or in using an approved product, Contractor represents:
1. He has investigated proposed product, and has determined that it is adequate or superior in all respects to that specified, and that it will perform function for which it is intended.
 2. He will provide same guarantee for substitute item as for product specified.
 3. He will coordinate installation of accepted substitution into work, to include building modifications if necessary, making such changes as may be required for work to be complete in all respects.
 4. He waives all claims for additional costs related to substitution which subsequently arise.

1.3 DEFINITIONS

- A. Product: Manufactured material or equipment.

1.4 PROCEDURE FOR REQUESTING SUBSTITUTION

- A. Considered after award of Contract.
1. Considered only if:
 - a. Or-equals are unavailable due to strike, discontinued production of products meeting specified requirements, or other factors beyond control of Contractor; or,
 - b. Contractor proposes a cost reduction incentive to the Owner.
- B. Written requests through Contractor only.
- C. Transmittal Mechanics:

1. Follow the transmittal mechanics prescribed for Shop Drawings in Section 01340. Product substitution will be treated in a manner similar to "deviations," as described in Paragraph 1.4A.9.f. of Section 01340. List the letter describing the deviation and justifications on the transmittal form in the space provided under the column with the heading "DESCRIPTION." Include in the transmittal letter, either directly or as a clearly marked attachment, the items listed in Paragraph D below.

D. Transmittal Contents:

1. Product identification:
 - a. Manufacturer's name.
 - b. Telephone number and representative contact name.
 - c. Specification section or drawing reference of originally specified product, including discrete name or tag number assigned to original product in the Contract Documents.
2. Manufacturer's literature clearly marked to show compliance of proposed product with Contract Documents.
3. Itemized comparison of original and proposed product addressing product characteristics including but not necessarily limited to:
 - a. Size.
 - b. Composition or materials of construction.
 - c. Weight.
 - d. Electrical or mechanical requirements.
4. Product experience:
 - a. Location of past projects utilizing product.
 - b. Name and telephone number of persons associated with referenced projects knowledgeable concerning proposed product.
 - c. Available field data and reports associated with proposed product.
5. Data relating to changes in construction schedule.
6. Data relating to changes in cost.
7. Samples:
 - a. At request of Engineer.
 - b. Full size if requested by Engineer.
 - c. Held until substantial completion.
 - d. Engineer not responsible for loss or damage to samples.

1.5 APPROVAL OR REJECTION

- A. Written approval or rejection of substitution given by the Engineer.
- B. Engineer reserves the right to require proposed product to comply with color and pattern of specified product if necessary to secure design intent.
- C. In event substitution results in a change of Contract price or time, provisions in General Conditions will be applied for adjustment.
- D. Substitutions will be rejected if:
 1. Submittal is not through the Contractor with his stamp of approval.
 2. Requests are not made in accordance with this Section.
 3. In the Engineer's opinion, acceptance will require substantial revision of the original design.
 4. In the Engineer's opinion, substitution will not perform adequately the function consistent with the design intent.

END OF SECTION

SECTION 01710
CLEANING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Intermediate and final cleaning of Work not including special cleaning of closed systems specified elsewhere.

B. Related Sections include but are not necessarily limited to:

1. Division 0 - Bidding Requirements, Contract Forms, and Conditions of the Contract.
2. Division 1 - General Requirements.

1.2 STORAGE AND HANDLING

- A. Store cleaning products and cleaning wastes in containers specifically designed for those materials.

1.3 SCHEDULING

- A. Schedule cleaning operations so that dust and other contaminants disturbed by cleaning process will not fall on newly painted surfaces.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Cleaning Agents:

1. Compatible with surface being cleaned.
2. New and uncontaminated.
3. For Manufactured Surfaces: Material recommended by manufacturer.

PART 3 - EXECUTION

3.1 CLEANING - GENERAL

- A. Prevent accumulation of wastes that create hazardous conditions.
- B. Conduct cleaning and disposal operations to comply with laws and safety orders of governing authorities.
- C. Do not dispose of volatile wastes such as mineral spirits, oil, or paint thinner in storm or sanitary drains or sewers.
- D. Dispose of degradable debris at an approved solid waste disposal site.
- E. Dispose of nondegradable debris at an approved solid waste disposal site or in an alternate manner approved by Engineer and regulatory agencies.
- F. Handle materials in a controlled manner with as few handlings as possible.
- G. Do not drop or throw materials from heights greater than 4 FT (or less than 4 FT if conditions or materials warrant greater care).

1 H. On completion of work, leave area in a clean, natural looking condition that matches or exceeds
2 existing conditions. Remove all signs of temporary construction and activities incidental to
3 construction of required permanent Work.

4 I. Do not burn on-site.

5 **3.2 EXTERIOR (SITE) CLEANING**

6 A. Cleaning During Construction:

7 1. Construction debris:

8 a. Confine in strategically located container(s):

9 1) Cover to prevent blowing by wind.

10 2) Haul from site minimum once a week.

11 b. Remove from work area to container daily.

12 2. Vegetation:

13 a. Keep weeds and other vegetation trimmed to 3 IN maximum height.

14 3. Soils, sand, and gravel deposited on paved areas and walks:

15 a. Remove as required to prevent muddy or dusty conditions.

16 b. Do not flush into storm sewer system.

17 B. Final Cleaning:

18 1. Remove trash and debris containers from site:

19 a. Re-seed areas disturbed by location of trash and debris containers.

20 2. Clean paved roadways.

21 **3.3 FIELD QUALITY CONTROL**

22 A. Immediately prior to Demonstration Period, conduct an inspection with Engineer to verify
23 condition of all work areas.

24 **END OF SECTION**

SECTION 01720
PROJECT RECORD DOCUMENTS

PART 1 - GENERAL

1.1 DESCRIPTION

- A. General:
1. Furnish all labor, materials, tools, equipment, and services to provide project record documents as specified, in accord with provisions of Contract Documents.
 2. Completely coordinate with work of all other trades.
 3. See Divisions 0 and 1 for additional requirements.
- B. Definitions:
1. Documents required for construction: Complete set of all documents required by Contract Documents, including but not limited to:
 - a. Contract drawings.
 - b. Project manual/specifications.
 - c. Addenda.
 - d. Shop drawings.
 - e. Samples and mock-ups.
 - f. Change orders.
 - g. Modifications.
 - h. Submittals.
 - i. Field test records.
 - j. Certificates of inspection.
 - k. Manufacturers Certificates.
 - l. Construction photographs.
 2. Field documents: Complete set of all documents required for construction.
 - a. Used for construction of project.
 - b. Provide contract drawings in form of prints.
 3. Periodic Update Documents: Complete separate set of all documents required for construction with exception of samples and mock-ups.
 - a. Not used for construction of project.
 - b. Provide contract drawings in form of clean prints.
 4. Project Record Documents: Complete set of all documents required for construction with exception of samples and mock-ups.
 - a. Not used for construction of project.
 - b. Provide contract drawings in form of correctable, reproducible sepia mylars.

1.2 SUBMITTALS

- A. Section 01340: Shop Drawings, Project Data and Samples.
- B. Project record documents: To OWNER with letter of transmittal.
- C. Copy of letter of transmittal: To ENGINEER.

1.3 POSTING PRIOR TO CONSTRUCTION

- A. After contract is awarded, but prior to start of construction, obtain contract drawings and specifications which will be used for Field Documents and Periodic Update Documents.
- B. Obtain copies of all addenda and post above documents.

1.4 MAINTENANCE OF FIELD DOCUMENTS

- A. Maintain minimum of one copy at project site.

- B. Label each document "FIELD".
- C. These documents will be used for construction of project.
- D. Make documents available at all times for review by ENGINEER, OWNER and authorities having jurisdiction.

1.5 MAINTENANCE OF PERIODIC UPDATE DOCUMENTS

- A. Maintain one copy at project site.
- B. Label each document "PERIODIC UPDATE".
- C. Do not use these documents for construction purposes.
- D. Make documents available at all time for review by ENGINEER, OWNER and authorities having jurisdiction.
- E. Maintain in clean, dry, legible condition.
- F. Maintain contract drawings in stackable, enclosed cardboard file drawers designed to hold drawings horizontally. Provide index of contents of each file drawer on outside of drawer.
- G. Maintain all other Periodic Update Documents in stackable, enclosed file boxes designed to hold specific type of document. Provide index of contents of each box on outside of box.

1.6 POSTING AND UPDATING OF PERIODIC UPDATE DOCUMENTS

- A. Digital files of drawings and specifications will be provided to Contractor.
- B. Post and update on weekly basis.
- C. Contract drawings: Use redlining software to record actual construction including but not limited to:
 - 1. Depths of various elements of foundations in relation to first floor level.
 - 2. Horizontal and vertical location of underground utilities and appurtenances referenced to permanent surface improvements.
 - 3. Location of internal utilities and appurtenances concealed in construction referenced to visible and accessible features of structure.
 - 4. Field changes of dimension and detail.
 - 5. Changes made by change order or field order.
- D. Project Manual/Specifications: Type on each section to record all changes including but not limited to:
 - 1. Addenda.
 - 2. Changes made by change order or field order.
 - 3. Changes made by modifications to contract.
 - 4. Bind added sections into Project Manual/Specifications.
- E. No work for which information must be recorded, may be concealed until all required information is recorded on Periodic Update Documents.
- F. Any work concealed prior to recording of required information, will be exposed and once all required information is recorded on Periodic Update Documents, will be restored at CONTRACTOR's expense.

1.7 PRODUCTION OF PROJECT RECORD DOCUMENTS

- A. As work shown on each sheet is completed, provide digital "Redlined" copy on CD.
- B. At substantial completion, obtain complete set of correctable, reproducible mylars of contract drawings.
- C. Label each document "PROJECT RECORD".

- 1 D. Have skilled CADD Technician transfer all changes, corrections, entries, etc., from field notes
2 to digital files.

3 **1.8 PROJECT CLOSEOUT**

- 4 A. At completion of project, deliver Project Record Documents to OWNER with letter of
5 transmittal. Included: Two CD's and one hard copy.

- 6 B. Provide transmittal letter containing:

- 7 1. Date.
8 2. Project title.
9 3. CONTRACTOR's name and address.
10 4. Title and number of each Project Record Document.
11 5. Certification that Project Record Documents submitted are complete and accurate.

- 12 C. Submit Project Record Documents in containers used for Periodic Update Documents.

13 **PART 2 - PRODUCTS - NOT USED**

14 **PART 3 - EXECUTION - NOT USED**

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16

END OF SECTION

17

SECTION 01750
WARRANTIES AND GUARANTEES

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Provide written warranties for products and installations indicated.
- B. See General Conditions and Supplementary General Conditions.
- C. Provide warranty for work performed for a period of one (1) year. Start of warranty period will begin when substantial completion is issued.
- D. Provide manufacturer's guarantees for products.
 - 1. Provide one (1) year warranty or as specified elsewhere.
 - 2. Where manufacturer's standard warranties expire before expiration date required by Contract Documents, obtain and pay for warranty extensions, as part of Contract Price.

1.2 FORM OF SUBMITTALS

- A. Format:
 - 1. Size: 8-1/2 IN X 11 IN.
 - 2. Binder: Commercial quality, three-ring binders with durable and cleanable plastic covers.
 - 3. Cover and Spine: Label with typed or printed title "Warranties".
 - a. Title of Project.
 - b. Name, address and telephone number of CONTRACTOR and name of responsible principal.
- B. Table of Contents:
 - 1. Neatly typed, in the sequence of the Table of Contents of the Project Manual, with each item identified with a number and title of the specification section in which specified and the name of the product or work item.
- C. Separate each warranty with index tab sheets keyed to Table of Contents listing.
 - 1. List subcontractor, suppliers, and manufacturer, with name, address and telephone number of responsible principal.

1.3 PREPARATION OF SUBMITTAL

- A. Obtain warranties, executed in duplicate by responsible subcontractors, suppliers, and manufacturers.
- B. Verify that documents are in proper form, contain full information and are notarized.

1.4 TIME OF SUBMITTALS

- A. Provide all warranties prior to final acceptance.
- B. Submit warranties indicated to the OWNER with copy of transmittal form to ENGINEER. Submit in 3-ring binder.

1.5 WARRANTIES AND GUARANTEES

- A. All warranties and guarantees specifically called for by the specifications shall expressly run to the benefit of the OWNER.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION

SECTION 01760
SPARE PARTS AND MAINTENANCE MATERIALS

PART 1 - GENERAL

1.1 DESCRIPTION

A. General:

1. Furnish all labor, materials, tools, equipment, and services for all spare parts and maintenance materials as indicated, in accord with provisions of Contract Documents.
2. Completely coordinate with work of all other trades.
3. Although such work is not specifically indicated, furnish and install all supplementary or miscellaneous items, appurtenances and devices incidental to or necessary for a sound, secure and complete installation.
4. See Divisions 0 and 1 for additional requirements.
5. See specification sections for items required.

1.2 SUBMITTALS

- A. Section 01340: Shop Drawings, Project Data and Samples.
- B. Spare parts: To OWNER with letter of transmittal.
- C. Maintenance materials: To OWNER with letter of transmittal.
- D. Extra materials: To OWNER with letter of transmittal.
- E. Copies of all letters of transmittal: to ENGINEER.

1.3 PRODUCTS REQUIRED

- A. Provide quantities of products, spare parts, maintenance tools and maintenance materials specified in individual sections to be provided to OWNER, in addition to that required for completion of work.
1. Products: Identified to those installed in the work - include quantities in original purchase from manufacturer and/or suppliers to avoid variation in manufacturers.

1.4 STORAGE

A. Spare Parts and Tools:

1. Package in clearly identified boxes.
 - a. Indicate manufacturers name, part name and stock number.
 - b. Indicate piece of equipment part or tool is for.
 - c. Indicate name, address and phone number of closest supplier.

B. Maintenance Materials:

1. Package in clearly identified boxes.
 - a. Indicate trade name and stock number.
 - b. Indicate which item material is to be used with.
 - c. Indicate name, address and phone number of closest supplier.

C. Extra Materials:

1. Package in clearly identified containers, or install where indicated.
 - a. Indicate trade name, stock number, size, color, etc.
 - b. Indicate where product is to be used.
 - c. Indicate name, address and phone number of closest supplier.

1 **1.5 DELIVERY**

2 A. Deliver to OWNER at time of substantial completion, unless OWNER requests earlier delivery.

3 **PART 2 - PRODUCTS - NOT USED**

4 **PART 3 - EXECUTION - NOT USED**

5

6

7

END OF SECTION

SECTION 02221

TRENCHING, BACKFILLING, AND COMPACTING FOR UTILITIES

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Excavation, trenching, backfilling and compacting for all underground utilities.
2. Relocation of existing piping.
3. All related utility and process appurtenances.

B. Related Sections include but are not necessarily limited to:

1. Division 0 - Bidding Requirements, Contract Forms, and Conditions of the Contract.
2. Division 1 - General Requirements.

1.2 QUALITY ASSURANCE

A. Referenced Standards:

1. American Association of State Highway & Transportation Officials (AASHTO):
 - a. T99, The Moisture-Density Relations of Soils Using a 5.5 LB Rammer and a 12 IN Drop.
 - b. T180, Moisture-Density Relations of Soils Using a 10 LB Rammer and an 18 IN Drop.
2. ASTM International (ASTM):
 - a. C33, Standard Specification for Concrete Aggregates.
 - b. D698, Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft³).
 - c. D1557, Test Method for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft³ (2,700 kN-m/m)).
 - d. D2487, Standard Classification of Soils for Engineering Purposes (Unified Soil Classification System).
 - e. D4253, Standard Test Methods for Maximum Index Density of Soils Using a Vibratory Table.
 - f. D4254, Minimum Index Density of Soils and Calculation of Relative Density.

B. Qualifications:

1. Hire an independent soils laboratory to conduct in-place moisture-density tests for backfilling to assure that all work complies with this Specification.

1.3 DEFINITIONS

A. Excavation:

1. All excavation will be defined as unclassified.

1.4 SUBMITTALS

A. Shop Drawings:

1. See Section 01340.
2. Product technical data including:
 - a. Acknowledgement that products submitted meet requirements of standards referenced.
 - b. Manufacturer's installation instructions.
3. Trench Safety Plan and/or trench shoring drawings including current certification of trench shields (trench boxes) if employed.
4. Submit respective pipe or conduit manufacturer's data regarding bedding methods of installation and general recommendations.
5. Submit sieve analysis reports on all granular materials.

- B. Miscellaneous Submittals:
1. Submit test reports and fully document each with specific location or stationing information, date, and other pertinent information.

1.5 SITE CONDITIONS

- A. Avoid overloading or surcharge a sufficient distance back from edge of excavation to prevent slides or caving. Maintain and trim excavated materials in such manner to be as little inconvenience as possible to public and adjoining property owners.
- B. Provide full access to public and private premises and fire hydrants, at street crossings, sidewalks and other points as designated by Owner to prevent serious interruption of travel.
- C. Protect and maintain bench marks, monuments or other established points and reference points and if disturbed or destroyed, replace items to full satisfaction of Owner and controlling agency.
- D. Verify location of existing underground utilities.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Backfill Material:
 1. Class I, II, or III soils, or lean fill as specified in Section 700, Subsection 701.13 of the New Mexico Standard Specifications for Public Works Construction.
 2. As approved by the Soils Engineer.
 3. Free of rock cobbles, roots, sod or other organic matter, and frozen material.
 4. Moisture content at time of placement: 5 percent plus/minus of optimum moisture content as specified in accordance with ASTM D1557.
- B. Subgrade Stabilization Materials: Provide subgrade stabilization material consisting of Class I, II, or III soils in accordance with the requirements of the Section 700 of the New Mexico Standard Specifications for Public Works Construction.
- C. Bedding Materials:
 1. As approved by the Soils Engineer.
 2. Granular bedding materials:
 - a. ASTM C33, gradation 67 (3/4 IN to No. 4 sieve) defined below:

Sieve Size	1 IN	3/4 IN	3/8 IN	No. 4	No. 20
Percent Passing by Weight	100	90-100	20-55	0-10	0

- D. Lean Fill
 1. As specified in Section 207 of the New Mexico Standard Specifications for Public Works Construction

PART 3 - EXECUTION

3.1 GENERAL

- A. Remove and dispose of unsuitable materials as directed by Engineer to site approved by Owner.

3.2 EXCAVATION

- A. Unclassified Excavation:
 1. Remove rock excavation, clay, silt, gravel, hard pan, loose shale, and loose stone as directed by Soils Engineer.

- B. Excavation for Appurtenances:
1. 12 IN (minimum) clear distance between outer surface and embankment.
- C. Trench Excavation:
1. Excavate trenches by open cut method to depth shown on Drawings and necessary to accommodate work.
 - a. Support existing utility lines and yard piping where proposed work crosses at a lower elevation.
 - 1) Stabilize excavation to prevent undermining of existing utility and yard piping.
 2. Open trench outside buildings, units, and structures:
 - a. No more than the distance between two manholes, structures, units, or 300 LF, whichever is less.
 - b. Field adjust limitations as weather conditions dictate.
 - c. Contractor to backfill all open trenches at end of day following completion of work. Trenches may be reopened with commencement of work on following day.
 3. Trenching within buildings, units, or structures:
 - a. No more than 100 LF at any one time.
 4. Any trench or portion of trench, which is opened and remains idle for 7 calendar days, or longer, as determined by the Owner, may be directed to be immediately refilled, without completion of work, at no additional cost to Owner. Said trench may not be reopened until Owner is satisfied that work associated with trench will be prosecuted with dispatch.
 5. Observe following trenching criteria:
 - a. Trench size.
 - 1) Excavate width to accommodate free working space.
 - 2) Maximum trench width at top of pipe or conduit may not exceed outside diameter of utility service by more than the following dimensions:

OVERALL DIAMETER OF UTILITY SERVICE	EXCESS DIMENSION
33 IN and less	18 IN
more than 33 IN	24 IN

- 3) Cut trench walls vertically from bottom of trench to 1 FT above top of pipe, conduit, or utility service.
- 4) Keep trenches free of water. Include cost of dewatering in original proposal.

3.3 PREPARATION OF FOUNDATION FOR PIPE LAYING

- A. Over-Excavation:
1. Over-excavate the trench section in accordance with the requirements of Section 701.12.3 of the New Mexico Standard Specifications for Public Works Construction.
 2. Backfill and compact to 95 percent of maximum dry density per ASTM D1557.
 3. Backfill with granular bedding material as option.
- B. Rock Excavation:
1. Rock excavation shall be in accordance with the requirements of Section 701.11 of the New Mexico Standard Specifications for Public Works Construction.
 2. Excavate minimum of 6 IN below bottom exterior surface of the pipe or conduit.
 3. Form bell holes in trench bottom.
- C. Subgrade Stabilization:
1. Stabilize the subgrade when directed by the Owner in accordance with the requirements of Section 701.12 of the New Mexico Standard Specifications for Public Works Construction.
 2. Observe the following requirements when unstable trench bottom materials are encountered.
 - a. Notify Owner when unstable materials are encountered.
 - 1) Define by drawing station locations and limits.

- b. Remove unstable trench bottom caused by Contractor failure to dewater, rainfall, or Contractor operations.
- 1) Replace with subgrade stabilization with no additional compensation.

3.4 BACKFILLING METHODS

- A. Do not backfill until tests to be performed on system show system is in full compliance to specified requirements.
- B. Compacted Backfill:
 1. Furnish where indicated on Drawings, specified for trench embedment conditions and for compacted backfill conditions up to 12 IN above top of pipe or conduit.
 2. Comply with the following:
 - a. Place backfill in lifts not exceeding 8 IN (loose thickness).
 - b. Hand place, shovel slice, and pneumatically tamp all carefully compacted backfill.
 - c. Observe specific manufacturer's recommendations regarding backfilling and compaction.
 - d. Compact each lift to specified requirements.
- C. Water flushing for consolidation is not permitted.

3.5 COMPACTION

- A. General:
 1. Compaction shall be in accordance with the requirements of Section 701.13 of the New Mexico Standard Specifications for Public Works Construction.
 2. Place and assure bedding, backfill, and fill materials achieve an equal or "higher" degree of compaction than undisturbed materials adjacent to the work.
 3. In no case shall degree of compaction below "Minimum Compaction" specified be accepted.

FIELD QUALITY CONTROL

- B. Testing:
 1. Perform in-place moisture-density tests as directed by the Owner.
 2. Perform tests through recognized testing laboratory approved by Owner.
 3. Costs of "Passing" tests paid by Owner.
 4. Perform additional tests as directed until compaction meets or exceeds requirements.
 5. Cost associated with "Failing" tests shall be paid by Contractor.
 6. Reference to Engineer in this section will imply Soils Engineer when employed by Owner and directed by Engineer to undertake necessary inspections as approvals as necessary.
 7. Assure Owner has immediate access for testing of all soils related work.
 8. Ensure excavations are safe for testing personnel.
 9. See Specification 01060 1.5 for Testing Frequency.

END OF SECTION

SECTION 02513
ASPHALTIC CONCRETE VEHICULAR PAVING

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Asphaltic concrete vehicular paving.
- B. Related Sections include but are not necessarily limited to:
 - 1. Division 0 - Bidding Requirements, Contract Forms, and Conditions of the Contract.
 - 2. Division 1 - General Requirements.

1.2 QUALITY ASSURANCE

- A. Referenced Standards:
 - 1. Federal Specifications (FS):
 - a. TT-P-115F, Paint, Traffic (Highway, White and Yellow).
 - 2. Construction standards: State of New Mexico Standard Specifications for Public Works Construction, as amended to date.
- B. Miscellaneous:
 - 1. Should conflicts arise between standard specifications of government agencies mentioned herein and Contract Documents, Contract Documents shall govern.

1.3 SUBMITTALS

- A. Shop Drawings:
 - 1. Product technical data including:
 - a. Acknowledgement that products submitted meet requirements of standards referenced.
 - b. Manufacturer's installation instructions.
 - 2. Asphalt design mix.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Asphaltic Concrete: Per Sections 116 and 334 of the New Mexico Standards for Public Works Construction or Santa Fe County approved equal.
- B. Line Paint:
 - 1. Nonreflective.
 - 2. White.
 - 3. Fed Spec TT-P-115F.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Construct to line, grade and section as shown on Drawings and in accordance with New Mexico Standard Specifications for Public Works Construction.
- B. Paving shall be completed following trench backfilling operations.

- 1 C. Install a 4 IN compacted layer of base course in accordance with Section 336 of the New Mexico
- 2 Standard Specifications for Public Works Construction.
- 3 D. Spread a prime coat uniformly on compacted aggregate base course at rate of 0.10 to 0.30 GAL
- 4 per square yard in accordance with Section 336.3.2 New Mexico Standard Specifications for
- 5 Public Works Construction.
- 6 E. Install a 4 IN layer of asphalt concrete in accordance with Sections 116 and 336 of New Mexico
- 7 Standard Specifications for Public Works Construction.
- 8 F. Tolerance of Finished Grade: +0.10 FT from required elevations.
- 9 G. Line Painting:
- 10 1. Thoroughly clean surfaces which are to receive paint.
- 11 2. Make completely dry before paint is applied.
- 12 3. Do not paint until minimum of 5 days has elapsed from time surface is completed. A longer
- 13 period may be required if directed by Engineer.
- 14 4. Do not apply paint over wet surfaces, during wet or damp weather, or when temperature is
- 15 below 40 DegF.
- 16 5. Lay out markings and striping to match existing.

17 **END OF SECTION**

SECTION 02660
WATER MAIN CONSTRUCTION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Coordination and interface with existing facilities and utilities.
 - 2. Connections to existing watermains.
 - 3. Testing, flushing and disinfection.
- B. Related Sections include but are not necessarily limited to:
 - 1. Division 0 - Bidding Requirements, Contract Forms, and Conditions of the Contract.
 - 2. Division 1 - General Requirements.
 - 3. Section 15060 - Pipe and Pipe Fittings: Basic Requirements.
 - 4. Section 15062 - Pipe: Ductile.
 - 5. Section 15100 - Valves: Basic Requirements.
 - 6. Section 15101 - Gate Valves.
 - 7. Section 15114 - Miscellaneous Valves.
 - 8. Section 15510 - Fire Hydrants.

1.2 QUALITY ASSURANCE

- A. Referenced Standards:
 - 1. American Water Work Association (AWWA):
 - a. B300, Standard for Hypochlorites.
 - b. B301, Standard for Liquid Chlorine.
 - c. C600, Standard for Installation of Ductile-Iron Water Mains.
 - d. C651, Standard for Disinfecting Water Mains.
 - 2. National Sanitation Foundation International (NSF)
 - a. 61, Drinking Water System Components – Health Effects
 - b. 60, Drinking Water Treatment Chemicals – Health Effects

1.3 SUBMITTALS

- A. Submit results of the leakage tests, identifying the specific length of pipe tested, the test pressure, the duration of test and the amount of leakage.
- B. Submit satisfactory bacteriological test reports on disinfection requirements.
- C. Operation and Maintenance Manuals:
 - 1. See Section 01340.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Pipe: Refer to Sections 15060, 15062, and 15064.
- B. In-Line Valves:
 - 1. Refer to Sections 15100 and 15101.
 - 2. Provide adjustable valve boxes. Include price of valve boxes in price of valve installed complete.
- C. Fire Hydrants: Refer to Section 15510.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Install water main to the line and grade on the Drawings. Water mains to be staked at a minimum 100 FT interval with depth of cuts monitored.
- B. Field verify depth of utilities that will be crossed.
 - 1. Adjust water main elevation as required during construction.
 - 2. No separate payment will be made for field verification or adjustment of main depths as required.
- C. Contractor shall restore all existing structures or services damaged by Contractor's operations at no cost to Owner.

3.2 INTERRUPTION OF SERVICE

- A. Interruption of service to water users shall not exceed 4 HRS. Notify property owners of interruption a minimum of 24 HRS in advance.

3.3 UNDERGROUND SERVICES

- A. Notify utility representative prior to construction to obtain available information on location of existing utilities. The Contractor shall be responsible for locating all utilities.
- B. Existing water services are to be connected to the new watermain. Damage to existing water service to be repaired, using polyethylene pipe and union the same size as existing service.

3.4 DRIVEWAY REMOVAL AND REPLACEMENT

- A. All Portland cement concrete and asphalt noted for removal and replacement shall be cut prior to removal. Cut by sawing, vertical cut to be 1 IN minimum. The remaining depth of section may be broken out in a manner subject to Engineers approval. Width of section removed to be either a width not greater than the outside diameter of the water main plus 4 FT-0 IN or to the nearest joint.
- B. Replace Portland cement concrete and asphalt equal to or better than original paving plus 2 IN.
- C. Debris resulting from the above operations shall be removed and hauled as directed by the Engineer.
- D. Payment for driveway removal and replacement to be at bid unit price for this item.

3.5 GRAVEL SURFACED DRIVES AND ROADWAYS

- A. The Contractor shall restore all damaged gravel surfaced drives and roadways to a condition equal to or better than original. Payment to be at bid unit price for this item.
 - 1. Replacement gravel gradation to match existing.

3.6 PROTECTION OF EXISTING UTILITIES

- A. Contractor to verify the location of all underground utilities. Omission from, or the inclusion of utility locations on the plans is not to be considered as the nonexistence of or a definite location of existing underground utilities.
- B. A representative of the underground utilities shall be notified 24 HRS in advance of crossings.

3.7 CONNECTIONS TO EXISTING WATER MAINS

- A. Make connections to existing water mains as shown on Drawings, by attaching to existing or changed fitting. Cost for making connections shall include cost of all fittings including flexible couplings, and shall be included in the bid unit price of the water main.

- 1 B. Where the connection is made to an existing water main which can be adequately isolated from
2 the distribution system, it shall be termed a "dry connection."
3 C. Contractor is responsible for controlling and disposing of water in the trench at no additional
4 cost to the Owner.

5 **3.8 SEWER CROSSINGS**

- 6 A. Water mains crossing house sewers, storm sewers or sanitary sewers shall be laid to provide a
7 vertical separation of at least 18 IN between the bottom of the water main and the top of the
8 sewer, whenever possible. A water main may be laid closer than 10 FT horizontally if the crown
9 of the sewer is at least 18 IN below the water main invert. In the event 18 IN of vertical
10 separation cannot be provided at a sewer crossing, the sewer shall be removed for a distance of
11 10 FT on each side of the water main and replaced with one 20 FT length of pipe of the same
12 size.
13 B. Concrete collars or a connection approved by the Engineer shall be provided at each end of the
14 new sewer to connect to the existing sewer pipe.
15 C. Payment for crossings shall be included in the bid unit price of the water main.

16 **3.9 TREES**

- 17 A. Do not remove trees without written instructions from the Engineer unless tree removal is shown
18 on drawings. No separate payment will be made for tree removal and the cost shall be included
19 in the bid unit price for water main.

20 **3.10 FENCES, SIGNS, MAILBOXES, ETC.**

- 21 A. Restore all damaged fences, signs, mailboxes, etc., to their original conditions. No separate
22 payment will be made for these items.

23 **3.11 FIELD QUALITY CONTROL**

- 24 A. Sealing, Flushing, and Disinfection of Potable Water Systems:
25 1. Maintain interior of all pipes, fittings and other accessories free from dirt and foreign
26 material at all times. If, in the opinion of the Engineer, the pipe contains dirt that will not be
27 removed by flushing, the pipe interior shall be cleaned and swabbed with bactericidal
28 solution. At close of day's work or whenever workmen are absent from jobsite, plug, cap or
29 otherwise provide watertight seal from open ends of pipe to prevent ingress of foreign
30 material. If water is present in the trench, seal shall remain in place until trench is pumped
31 dry.
32 2. After favorable performance of pressure test and prior to final acceptance, thoroughly flush
33 the entire potable water piping system and perform disinfection as prescribed. Perform all
34 work including preventative measures during construction in full compliance to AWWA
35 C651.
36 3. Flush each segment of the system to provide a flushing velocity of not less than 2.5 FT per
37 second.
38 4. Drain flushing water to location approved by the Owner.
39 5. Perform disinfection using one of the following forms:
40 a. Application of chlorine gas-water mixture by means of solution-feed chlorinating
41 device. Liquid chlorine shall comply with AWWA B301.
42 b. Application of calcium hypochlorite, or sodium hypochlorite. Chlorine compounds
43 shall comply with AWWA B300.
44 6. Disinfect pipe with chlorinated water as per AWWA C651. Method of application of
45 chlorine shall be by continuous feed method or slug method. During disinfection procedure,
46 ensure that initial and residual chlorine concentrations meet AWWA C651 requirements by
47 testing by an approved method as directed by the Owner. Cost of testing shall be included in
48 the Bid Unit Price for water mains and no separate payment will be made for this item.

7. Tag the system during the disinfection procedure.
8. Following disinfection for required contact period, neutralize chlorine residual in water by treating with reducing agent. (Refer to AWWA C651) Flush all treated water from pipeline at its extremities until replacement water throughout pipe, upon test is proved comparable in quality to water in existing system. Take two samples to test for bacteriological quality as directed by Engineer. Repeat disinfection procedure until two satisfactory results are obtained. Quality of water delivered by the new water main to remain satisfactory for a minimum period of two (2) days.
9. Secure satisfactory bacteriological reports on samples from the system. Ensure all sampling and testing procedures are in full compliance to AWWA C651, and applicable requirements of the State of New Mexico. No separate payment will be made for this item.
10. The Owner will provide the water required to fill the main initially and will pay for the water required to flush the main once. Filling and flushing shall be performed during periods of low usage, between the hours of midnight and 4:00 AM. Flushing water will be based on a maximum of 8 HRS total. Any additional refilling or reflushing to be at the Contractor's expense at the Owner's commercial water rates.

END OF SECTION

SECTION 09905
PAINTING AND PROTECTIVE COATINGS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Painting and protective coatings.
2. Minimum surface preparation requirements.

B. Related Sections include but are not necessarily limited to:

1. Division 0 - Bidding Requirements, Contract Forms, and Conditions of the Contract.
2. Division 1 - General Requirements.
3. Section 15060 - Pipe and Pipe Fittings: Basic Requirements.
4. Section 15062 - Pipe: Ductile.
5. Section 15100 - Valves: Basic Requirements.
6. Section 15510 - Fire Hydrants.

1.2 QUALITY ASSURANCE

A. Referenced Standards:

1. American National Standards Institute (ANSI):
 - a. A250.10, Test Procedure and Acceptance Criteria For Prime Painted Steel Surfaces for Steel Doors.
 - b. Z535.1, Safety Color Code.
2. ASTM International (ASTM):
 - a. D4258, Practice for Surface Cleaning Concrete for Coating.
 - b. D4259, Practice for Abrading Concrete.
 - c. D4261, Practice for Surface Cleaning Concrete Unit Masonry for Coating.
 - d. D4262, Test Method for pH of Chemically Cleaned or Etched Concrete Surfaces.
 - e. D4263, Test Method for Indicating Moisture in Concrete by the Plastic Sheet Method.
 - f. E84, Test Method for Surface Burning Characteristics of Building Materials.
3. American Water Works Association (AWWA).
4. National Bureau of Standards (NBS):
 - a. Certified Coating Thickness Calibration Standards.
5. National Fire Protection Association (NFPA):
 - a. 101, Life Safety Code.
6. National Sanitation Foundation International (NSF):
 - a. 61, Drinking Water System Components - Health Effects.
 - b. 60, Drinking Water Treatment Chemicals - Health Effects
7. Steel Structures Painting Council (SSPC) Joint Surface Preparation Standard:
 - a. PA-2, Measurement of Dry Paint Thickness with Magnetic Gages.
 - b. SP-1, Solvent Cleaning.
 - c. SP-2, Hand Tool Cleaning.
 - d. SP-3, Power Tool Cleaning.
 - e. SP-5/NACE No. 1, White Metal Blast Cleaning.
 - f. SP-6/NACE No. 3, Commercial Blast Cleaning.
 - g. SP-7/NACE No. 4, Brush-off Blast Cleaning.
 - h. SP-10/NACE No. 2, Near-White Blast Cleaning.
 - i. SP-13/NACE No. 6, Surface Preparation of Concrete.

B. Qualifications:

1. Coating manufacturer's authorized representative shall provide written statement attesting that Applicator has been instructed on proper preparation, mixing and application procedures for coatings specified.
 2. Contractor and applicators shall have minimum of 10 years experience in application of similar products on similar project. Provide references for minimum of three different projects completed in last 5 years with similar scope of work. Include name and address of project, size of project in value (painting) and contact person.
- C. Miscellaneous:
1. Furnish paint through one manufacturer unless noted otherwise.
- D. Deviation from specified mil thickness or product type is not allowed without written authorization of Engineer.
- E. Material may not be thinned unless approved, in writing, by paint manufacturer's authorized representative.

1.3 DEFINITIONS

- A. Installer or Applicator:
1. Installer or applicator is the person actually installing or applying the product in the field at the Project site.
 2. Installer and applicator are synonymous.
- B. Approved Factory Finish: Finish on a product in compliance with the finish specified in the section where the product is specified.
- C. Corrosive Environment: Immersion in, or not more than 6 IN above, or subject to frequent condensation, spillage or splash of a corrosive material such as water, wastewater, or chemical solution; or chronic exposure to corrosive, caustic or acidic agent, chemicals, chemical fumes, chemical mixture, or solutions with pH range of 5 - 9.
- D. Highly Corrosive Environment: Immersion in, or not more than 6 IN above, or subject to frequent condensation, spillage or splash of a corrosive material such as water, wastewater, or chemical solution; or chronic exposure to corrosive, caustic or acidic agent, chemicals, chemical fumes, chemical mixture, or solutions with pH range below 5 or above 9.
- E. Exposed Exterior Surface: Surface which is exposed to weather but not necessarily exposed to view as well as surface exposed to view. Exterior surfaces are considered corrosive environment.
- F. Finished Area: One that has finish called for on Room Finish Schedule or is indicated, on Drawings, to be painted.
- G. Paint includes fillers, primers, sealers, emulsions, oils, alkyds, latex, enamels, thinners, stains, epoxies, vinyls, chlorinated rubbers, urethanes, shellacs, varnishes, and any other applied coating specified within this Section.
- H. Surface Hidden from View: Surfaces such as those within pipe chases, and between top side of ceilings (including drop-in tile ceilings) and underside of floor or roof structure above.
- I. VOC: Volatile Organic Compounds.

1.4 SUBMITTALS

- A. Shop Drawings:
1. See Section 01340.
 2. Product technical data including:
 - a. Acknowledgement that products submitted meet requirements of standards referenced.
 - b. Manufacturer's application instructions.
 - c. Manufacturer's surface preparation instructions.

- d. If products being used are manufactured by Company other than listed in Article 2.1, provide complete individual data sheet comparison of proposed products with specified products including application procedure, coverage rates and verification that product is designed for intended use.
 - e. Contractor's written plan of action for containing airborne particles created by blasting operation and location of disposal of spent contaminated blasting media.
 - f. Coating manufacturer's recommendation on abrasive blasting.
 - g. Manufacturer's recommendation for universal barrier coat.
 3. Manufacturer's statement regarding Applicator instruction on product use.
 4. Contractor and applicator experience qualifications.
 - a. No submittal information will be reviewed until Engineer has received and approved Contractor and Applicator qualifications.
 5. Certification that coating systems proposed for use have been reviewed and approved by Senior Corrosion Specification Specialist employed by the coating manufacturer.
- B. Miscellaneous Submittals:
1. See Section 01340.
 2. Approval of application equipment.
 3. Applicator's daily record:
 - a. Submit daily record at end of each week in which painting work is performed.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Deliver in original containers, labeled as follows:
1. Name or type number of material.
 2. Manufacturer's name and item stock number.
 3. Contents, by volume, of major constituents.
 4. Warning labels.
 5. VOC content.

PART 2 - PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS

- A. Subject to compliance with the Contract Documents, only the following manufacturers are acceptable:
1. Tnemec.
 2. Ameron Protective Coatings Div.
 3. ICI Devco.
 4. Carbolite Protective Coatings.
 5. Sherwin Williams.
 6. Dampney Company, Inc.
- B. Submit request for substitution in accordance with Specification Section 01640.

2.2 MATERIALS

- A. All materials used must contain not more than 2.8 LBS/GAL VOC.
- B. For unspecified materials such as thinner, provide manufacturer's recommended products.
- C. Paint Systems - General:
1. P=prime coat. F1, F2 . . . Fn = first finish coat, second finish coat nth finish coat, color as selected by Engineer.
 2. If two finish coats of same material are required, Contractor may, at his option and by written approval from paint manufacturer, apply one coat equal to mil thickness of two coats specified.

- D. Products specified are manufactured by Tnemec.
- E. Paint Systems (Systems not shown are not used):
1. **SYSTEM #1** - Polyamidoamine Epoxy Primer with Polyamidoamine Epoxy or Aliphatic Acrylic Polyurethane Enamel Finish Coat(s).
 - a. Prime coat:
 - 1) P1=1 coat, 3 mils, Series N69 Epoxoline (Polyamidoamine Epoxy), VOC=2.11
 - b. Finish coat(s):
 - 1) Interior:
 - a) F1=1 coat, 3 mils, Series N69 Epoxoline (Polyamidoamine Epoxy)
 - b) F2=1 coat, 3 mils, Series N69 Epoxoline (Polyamidoamine Epoxy)
 - 2) Exterior:
 - a) F1=1 coat, 3 mils, Series N69 Epoxoline (Polyamidoamine Epoxy)
 - b) F2=1 coat, 2.5 mils, Series 1074 Endura-Shield (Aliphatic Acrylic Polyurethane Enamel), VOC=1.81
 2. **SYSTEM #2** - Polyamidoamine Epoxy Primer with Polyamidoamine Epoxy or Aliphatic Acrylic Polyurethane Enamel Finish Coat(s).
 - a. Prime coat:
 - 1) P1=1 coat, 5 mils, Series N69 Epoxoline (Polyamidoamine Epoxy), VOC=2.11
 - b. Finish coat(s):
 - 1) Interior:
 - a) F1=1 coat, 5 mils, Series N69 Epoxoline (Polyamidoamine Epoxy), VOC=2.11
 - 2) Exterior:
 - a) F1=1 coat, 5 mils, Series N69 Epoxoline (Polyamidoamine Epoxy)
 - b) F2=1 coat, 2.5 mils, Series 1074 Endura-Shield (Aliphatic Acrylic Polyurethane Enamel), VOC=2.45
 3. **SYSTEM #3** - Polyamidoamine Epoxy Primer with Polyamidoamine Epoxy or Aliphatic Acrylic Polyurethane Enamel Top Coat(s).
 - a. Prime coat:
 - 1) P1=1 coat, 5 mils, Series N69 Epoxoline (Polyamidoamine Epoxy), VOC=2.11
 - b. Finish coat(s):
 - 1) Interior:
 - a) F1=1 coat, 5 mils, Series N69 Epoxoline (Polyamidoamine Epoxy)
 - 2) Exterior:
 - a) F1=1 coat, 2.5 mils, Series 1074 Endura-Shield (Aliphatic Acrylic Polyurethane Enamel), VOC=2.80

PART 3 - EXECUTION

3.1 ITEMS TO BE PAINTED

- A. Exposed Exterior Surfaces including:
1. Piping, valves, fittings, and hydrants.
 2. Steel pipe bollards.
 3. Galvanized metal surfaces.
 4. Copper and brass surfaces.

3.2 ITEMS NOT TO BE PAINTED

- A. General: Do not paint items listed in Article 3.2 unless specifically noted in the Contract Documents to be painted.
- B. Items with Approved Factory Finish.
- C. Other Items:
1. Stainless steel surfaces except:
 - a. Piping.

- b. Banding as required to identify piping.
2. Aluminum surfaces except:
 - a. Where specifically shown in the Contract Documents.
 - b. Where in contact with concrete.
 - c. Where in contact with dissimilar metals.
3. Fiberglass surfaces except:
 - a. Fiberglass piping.
 - b. Piping supports.
4. Interior of pipe, ductwork, and conduits.
5. Moving parts of mechanical and electrical units where painting would interfere with the operation of the unit.
6. Code labels and equipment identification and rating plates.
7. Contact surfaces of friction-type connections.
8. Galvanized steel items.

3.3 SCHEDULE OF ITEMS TO BE PAINTED AND PAINTING SYSTEMS

- A. Pipe, Valves, and Fittings:
 1. Pipe bollards: SYSTEM #2.
 2. Steel, cast-iron, and uncoated ductile iron: SYSTEM #1.
 3. Stainless: SYSTEM #1.
 4. Brass and bronze: SYSTEM #3.
 5. PVC, FRP, and CPVC: SYSTEM #3.

3.4 PREPARATION

- A. General:
 1. Prepare surfaces to be painted in accordance with coating manufacturer's instructions and this Section unless noted otherwise in the Specification.
 2. Remove all dust, grease, oil, compounds, dirt and other foreign matter which would prevent bonding of coating to surface.
- B. Protection:
 1. Protect surrounding surfaces not to be coated.
 2. Remove and protect hardware, accessories, plates, fixtures, finished work, and similar items; or provide ample in-place protection.
- C. Prepare and Paint Before Assembly: Where component is subject to corrosive or highly corrosive environment, prepare and paint, before assembly, all surfaces which may be subject to environment which are inaccessible after assembly.
- D. Ferrous Metal:
 1. Prepare ductile iron pipe in accordance with pipe manufacturer's recommendations and AWWA.
 2. Complete fabrication, welding or burning before beginning surface preparation.
 - a. Chip or grind off flux, spatter, slag or other laminations left from welding.
 - b. Remove mill scale.
 - c. Grind smooth rough welds and other sharp projections.
 3. Solvent clean in accordance with SSPC SP-1 all surfaces scheduled to receive additional SSPC surface preparation.
 4. Surfaces subject to corrosive or highly corrosive environment and all surfaces subject to immersion service:
 - a. Near-white blast clean in accordance with SSPC SP-10/NACE No. 2.
 5. All interior and exterior surfaces:
 - a. Minimum commercial blast clean in accordance with SSPC SP-6/NACE No. 3.
 6. Surfaces subject to high temperatures.
 - a. Heat in excess of 600 DegF: SSPC SP-10/NACE No. 2.
 - b. Heat in excess of 200 DegF but less than 600 DegF: SSPC SP-6/NACE No. 3.

7. Surfaces of steel joists and steel trusses:
 - a. Commercial blast clean the major portion of the truss in accordance with SSPC SP-6/NACE No. 3.
 - b. Power tool or hand clean tight connection areas and other difficult to access areas in accordance with SSPC SP-2 or SP-3.
 8. Steel surfaces scheduled to receive paint system No. 24:
 - a. White metal blast in accordance with SSPC SP-5/NACE No. 1.
 9. Restore surface of field welds and adjacent areas to original surface preparation.
 10. All surfaces of steel lintels and steel components of concrete lintels used in wall construction shall be completely painted with both prime and finish coats prior to placing in wall.
- E. Galvanized Metal:
1. Solvent clean in accordance with SSPC SP-1 followed by abrasive brush blast in accordance with SSPC SP-7/NACE No. 4 to provide 1 mil profile.
- F. Preparation by Abrasive Blasting:
1. All abrasive-blasted ferrous metal surfaces shall be inspected immediately prior to application of paint coatings.
 - a. Inspection shall be performed to determine cleanliness and profile depth of blasted surfaces and to certify that surface has been prepared in accordance with these Specifications.
 2. Schedule the abrasive blasting operation so blasted surfaces will not be wet after blasting and before painting.
 3. Perform additional blasting and cleaning as required to achieve surface preparation required. Prior to painting, reblast surfaces allowed to set overnight and surfaces that show rust bloom.
 - a. Surfaces that are allowed to set overnight or surfaces which show rust bloom prior to painting shall be reinspected prior to paint application.
 4. Profile depth of blasted surface: Not less than 1 mil or greater than 2 mils unless required otherwise by coating manufacturer.
 5. Provide compressed air for blasting that is free of water and oil. Provide accessible separators and traps.
 6. Confine blast abrasives to area being blasted.
 - a. Provide shields of polyethylene sheeting or other such barriers to confine blast material.
 - b. Plug pipes, holes, or openings before blasting and keep plugged until blast operation is complete and residue is removed.
 7. Protect nameplates, valve stems, rotating equipment, motors and other items that may be damaged from blasting.
 8. Reblast surfaces not meeting requirements of these Specifications.
 9. Abrasive blasting media may be recovered, cleaned and reused providing Contractor submits, for Engineer's review, a comprehensive recovery plan outlining all procedures and equipment proposed in reclamation process.
 10. Properly dispose of blasting material contaminated with debris from blasting operation not scheduled to be reused.
- G. All Plastic Surfaces and Non-Ferrous Surfaces Except Galvanized Steel:
1. Sand using 80-100 grit sandpaper to scarify surfaces.

3.5 APPLICATION

- A. General:
1. Thin, mix and apply coatings by brush, roller, or spray in accordance with manufacturer's installation instructions.
 - a. Application equipment must be inspected and approved in writing by coating manufacturer.
 2. Temperature and weather conditions:

- 1 a. Do not paint surfaces when surface temperature is below 50 DegF unless product has
- 2 been formulated specifically for low temperature application and application is approved
- 3 in writing by Engineer and paint manufacturer's authorized representative.
- 4 b. Avoid painting surfaces exposed to hot sun.
- 5 c. Do not paint on damp surfaces.
- 6 3. Provide complete coverage to mil thickness specified.
- 7 a. Thickness specified is dry mil thickness.
- 8 b. All paint systems are "to cover." In situations of discrepancy between manufacturer's
- 9 square footage coverage rates and mil thickness, mil thickness requirements govern.
- 10 c. When color or undercoats show through, apply additional coats until paint film is of
- 11 uniform finish and color.
- 12 4. If so directed by Engineer, do not apply consecutive coats until Engineer has had an
- 13 opportunity to observe and approve previous coats.
- 14 5. Apply materials under adequate illumination.
- 15 6. Evenly spread to provide full, smooth coverage.
- 16 7. Work each application of material into corners, crevices, joints, and other difficult to work
- 17 areas.
- 18 8. Avoid degradation and contamination of blasted surfaces and avoid intercoat contamination.
- 19 a. Clean contaminated surfaces before applying next coat.
- 20 9. Smooth out runs or sags immediately, or remove and recoat entire surface.
- 21 10. Allow preceding coats to dry before recoating.
- 22 a. Recoat within time limits specified by coating manufacturer.
- 23 b. If recoat time limits have expired reprepare surface in accordance with coating
- 24 manufacturer's printed recommendations.
- 25 11. Allow coated surfaces to cure prior to allowing traffic or other work to proceed.
- 26 12. Coat all aluminum in contact with dissimilar materials.
- 27 13. When coating rough surfaces which cannot be backrolled sufficiently, hand brush coating to
- 28 work into all recesses.
- 29 B. Prime Coat Application:
- 30 1. Prime all surfaces indicated to be painted. Apply prime coat in accordance with coating
- 31 manufacturer's written instructions and as written in this Section.
- 32 2. Ensure field-applied coatings are compatible with factory-applied coatings. Ensure new
- 33 coatings applied over existing coatings are compatible.
- 34 a. Employ services of coating manufacturer's qualified technical representative.
- 35 1) Certify through material data sheets.
- 36 2) Perform test patch.
- 37 b. If field-applied coating is found to be not compatible, require the coating manufacturer's
- 38 technical representative to recommend, in writing, product to be used as barrier coat,
- 39 thickness to be applied, surface preparation and method of application.
- 40 c. At Contractor's option, coatings may be removed, surface repaired, and new coating
- 41 applied using appropriate paint system listed in paragraph 2.2 E.
- 42 1) All damage to surface as result of coating removal shall be repaired to original
- 43 condition or better by Contractor at no additional cost to Owner.
- 44 3. Prime ferrous metals embedded in concrete to minimum of 1 IN below exposed surfaces.
- 45 4. Back prime all wood scheduled to be painted, prior to installation.
- 46 5. After application of primer to gypsum board surfaces, inspect surface and repair in
- 47 accordance with Article 3.4.
- 48 a. Re-prime repaired surfaces to uniform finish before application of finish coat(s).
- 49 6. Apply zinc-rich primers while under continuous agitation.
- 50 7. Ensure abrasive blasting operation does not result in embedment of abrasive particles in paint
- 51 film.
- 52 8. Brush or spray bolts, welds, edges and difficult access areas with primer prior to primer
- 53 application over entire surface.

1 9. Touch up damaged primer coats prior to applying finish coats. Restore primed surface equal
2 to surface before damage.

3 C. Finish Coat Application:

- 4 1. Apply finish coats in accordance with coating manufacturer's written instructions and in
5 accordance with this Section.
6 2. Touch up damaged finish coats using same application method and same material specified
7 for finish coat. Prepare damaged area in accordance with Article 3.4.

8 **3.6 FIELD QUALITY CONTROL**

9 A. Maintain Daily Record:

- 10 1. Provide the following information for each coat of paint applied:
11 a. Date, starting time, end time, and all breaks taken by painters.
12 b. For exterior painting:
13 1) Sky condition.
14 2) Wind speed and direction.
15 c. Air temperature.
16 d. Relative humidity.
17 e. Moisture content of substrate prior to each coat.
18 f. Provisions utilized to maintain work area within manufacturer's recommended
19 application parameters.
20 g. Surface temperature of substrate to which paint is being applied.
21 2. Format for daily record to be computer generated.

22 B. Measure wet coating with wet film thickness gages.

- 23 C. Measure coating dry film thickness in accordance with SSPC PA-2 using Mikrotest gage
24 calibrated against NBS "Certified Coating Thickness Calibration Standards."
25 1. Engineer may measure coating thickness at any time during project to assure conformance
26 with Specifications.

27 D. Measure surface temperature of items to be painted with surface temperature gage specifically
28 designed for such.

29 E. Measure substrate humidity with humidity gage specifically designed for such.

30 F. Provide wet paint signs.

31 **3.7 CLEANING**

32 A. Clean paint spattered surfaces. Use care not to damage finished surfaces.

33 B. Upon completion of painting, replace hardware, accessories, plates, fixtures, and similar items.

34 C. Remove surplus materials, scaffolding, and debris. Leave areas broom clean.

35 **END OF SECTION**

36

SECTION 13310
SUPPLY WELL CONSTRUCTION

PART 1 - GENERAL

1.1 SCOPE OF WORK

- A. The Greater Glorieta Community Mutual Domestic Water Consumers Association (Glorieta MDWCA; Owner), is soliciting bids for 1) drilling of an 8-inch (minimum) pilot hole for geophysical logging and zone testing, 2) reaming of pilot hole to production diameter (17.75-inch minimum), and 3) construction of a nominal 10-inch water supply well. The selected Contractor shall furnish the labor, materials, supplies, and equipment required to complete the project described in these technical specifications. The well site is located in Glorieta, New Mexico. To be considered for this work, bidders must have current New Mexico Well Driller and Business licenses, and must also have the appropriate General Contractor license required by the State. All work shall be performed in accordance with New Mexico Office of the State Engineer (OSE), including 19.27.4 NMAC and New Mexico Environment Department (NMED) requirements for water supply wells and associated infrastructure..
- B. The CONTRACTOR shall familiarize himself with local conditions at the project site. Failure to do so shall in no way relieve CONTRACTOR of the responsibility for performing any of the work or operations required as a part of this contract.
- C. The subsurface geology is composed of sandstone and shale with interbedded limestones, typical of the Sangre de Cristo Formation and limestones of the Madera Formation. The estimated depth to water is 300 feet below ground surface (bgs). This information is provided for Contractor use in preparing for anticipated drilling conditions and possible equipment needed for successfully completing the project. Neither the Owner nor the Engineer (Daniel B. Stephens & Associates, Inc. [DBS&A]) makes any representation as to the accuracy of conditions at the project location.
- D. The work scope includes two phases:
1. Phase 1
 - a. Construction of one pilot boring: Mobilization/demobilization, site preparation, installation of an 20-inch surface casing, drilling an 8-inch (minimum) pilot hole to an approximate depth of 1,200 feet bgs, borehole geophysics, and zone testing with packer assembly.
 - b. Collection and analysis of water quality samples during zone testing from one or two zones.
 - c. If water quality is acceptable, final well design will be completed and Phase two implemented.
 2. Phase 2
 - a. Construction of supply well: Mobilization/demobilization, ream of pilot hole to 17.75 inches, well material installation to an approximate depth of 1,200 feet bgs, surface completion for wellhead.
 - b. Development and testing: Development by flushing, swabbing, airlift, and development pumping, step- and constant-rate pumping tests, followed by video and alignment surveys.
 - c. Equipping - Installation of submersible pump, drop pipe, electrical wire; and pitless adaptor and well cap
 - d. Restoration of site
 - e. Plugging and abandonment of two out of service wells.
- E. All work shall be completed in strict accordance with American Water Works Association Standard for Water Wells (ANSI/AWWA A100), and the project specific specifications and drawings. The approximate well completion is detailed within the attached drawings. The exact depths and lengths will be determined by the Engineer from the analysis of drill cuttings and geophysical logs collected during

the course of the project. Interpretation of the Phase 1 geophysics and zone testing results by the Engineer will dictate the scope of the construction activities in Phase 2. If the borehole is not suitable for the project objectives, the Engineer may direct the Contractor to abandon the borehole per OSE requirements.

- F. These technical specifications are intended to inform prospective bidders about the equipment, materials, and work required to complete the installation of production well. Compensation for all work will be based on unit prices as negotiated with the CONTRACTOR.

1.2 CONTRACTOR'S LICENSE

- A. The CONTRACTOR shall have a valid license for drilling water wells in the State of New Mexico. The CONTRACTOR shall submit record completion forms to the OSE and provide the ENGINEER with a copy of the final well records no later twenty (20) days after completion of each well or bore hole.
- B. Qualifications: The Contractor shall have prior experience in the construction of at least three (3) wells valued at no less than five hundred thousand dollars (\$500,000) each within the past three (3) years. The Contractor shall have engaged in the construction of wells in similar geologic materials and similar to the dimensions of the well specified herein. Prospective bidders shall provide evidence of the above requirements in the form of reference projects at the time of receipt of bids. A reference form has been provided in the Bid Documents and shall be submitted by prospective bidders at the time of bidding. Failure to provided references may result in bidders being deemed non-responsive. The Owner may contact references to verify experience and quality of work, and may make other such investigations as necessary to determine the qualifications of prospective bidders.

1.3 GENERAL PROVISIONS

- A. Warranties: CONTRACTOR shall warrant against defects, all materials provided and work performed under this contract for a period of 1 year from the date of Final Completion, as determined by the ENGINEER in accordance with the EJCDC C-700, and amendments thereto. The CONTRACTOR shall replace promptly, at the CONTRACTOR's own expense, any materials and workmanship that fail during this warranty period as determined by the OWNER or ENGINEER.
- B. Protection of Site: The premises, materials, tools, and drilling equipment shall be maintained so as to minimize the potential for subsurface contamination during drilling operations. Except as otherwise provided herein, the CONTRACTOR shall protect all existing fences, structures, walks, utilities, trees, shrubbery, etc. During the progress of the work the CONTRACTOR shall remove all debris and unused materials and shall, upon completion of the work, restore the site as nearly as possible to its original condition to the satisfaction of the OWNER. The restoration shall include the replacement, at the CONTRACTOR's sole expense, of any facility or landscaping that has been destroyed or damaged beyond restoration.
- C. Site Access: The CONTRACTOR shall not enter on or occupy with personnel, tools, equipment, or material, any ground outside the construction area without approval of the OWNER. Other CONTRACTORS, employees, or agents of the OWNER may, for business purposes, enter the work site and premises used by the CONTRACTOR. The CONTRACTOR shall not impede any work being done by others on or adjacent to the well sites unless necessary as determined by the ENGINEER. The CONTRACTOR shall be responsible for the construction of suitable access, temporary site fencing, and drill pads for construction of the project described herein.
- D. Utilities: Unless otherwise indicated in these Specifications, the CONTRACTOR shall arrange for and provide any required utilities at his sole cost and expense. This includes, but is not limited to, water for drilling, power for operating the drill rig or equipment (including testing equipment), and personnel sanitation facilities. Water for drilling operations will be available from a fire hydrant located within 200 ft of the site; however, cost associated with purchase of the water from the OWNER and getting water to the drill site shall be considered incidental to this project. Power is not available at the drill site. It shall be the CONTRACTOR's responsibility to notify all utility companies involved whenever activities are to

1 occur that have the potential to cut, tap, move, or in any way disturb a utility line from its original
2 placement. Sufficient notice shall be provided to the utility company so that its users can be informed of
3 any disruption of service. Such notice shall be given no less than 24 hours in advance, excluding
4 weekends.

5 E. Disposal of Wastewater and Drilling Fluids: The CONTRACTOR shall be responsible for disposing of
6 all debris, including but not limited to drilling fluid and water produced during well development or other
7 operations, by such methods and to such locations that will not cause damage to, or interference with,
8 structures, roads, or utilities, or with other construction projects. All costs incurred in connection with
9 the disposal of drilling fluid, cuttings, and water shall be incidental to the Contract and shall be included
10 in the contract price. Test water shall be discharged away from the construction area by way of
11 conveyance supplied by the CONTRACTOR to the location indicated on the project drawings.

12 F. Safety Requirements: The CONTRACTOR shall comply with all pertinent provisions of the Department
13 of Labor "Safety and Health Regulations for Construction (Title 29 Code of Federal Regulations Part
14 1926 [29 CFR Part 1926])," with additions and modifications thereto, in effect during construction of this
15 project. The following measures or provisions shall be adhered to at all times during the construction of
16 this project:

- 17 1. All heavy construction machinery, such as trenching machines, bulldozers, and backhoes must be
18 equipped with a roll bar meeting the requirements of the above regulation.
- 19 2. Safety helmets, eye protection, and hearing protection shall be worn by all personnel working at the
20 site.
- 21 3. Safety shoes or boots shall be worn by all personnel working at the site.

22
23 CONTRACTOR shall inspect the site for the presence of overhead and underground utilities and shall
24 satisfy himself in regard to their existence and locations prior to submitting his bid. CONTRACTOR
25 shall have utilities spotted prior to beginning any subsurface work. A safe distance shall be maintained
26 between equipment and materials and power lines. The CONTRACTOR shall provide temporary
27 fencing, caution signs, or barricades as necessary to ensure the safety of personnel at the site and people
28 adjacent to, or passing by, the site. The CONTRACTOR shall develop a site specific health and safety
29 plan that is subject to the ENGINEERs approval.

30 G. Permitting: Wells will be drilled under approved OSE exploratory permits obtained by the OWNER.
31 The OWNER will provide a copy of the well permit to the CONTRACTOR upon issuing Notice to
32 Proceed. The CONTRACTOR shall file a Storm Water Pollution Prevention Plan (SWPPP) or notice of
33 intent (NOI) to discharge, as may be appropriate, with the NMED prior to beginning work. The
34 CONTRACTOR must comply with Santa Fe County grading and traffic control requirements, as
35 applicable.

36 H. Security: The CONTRACTOR shall be responsible for site security of materials, equipment, and
37 protection of the boreholes and wells. The OWNER and ENGINEER cannot be held responsible for
38 security.

39 I. The CONTRACTOR must protect boreholes and wells from the entry of undesirable fluids and materials
40 at all times. Any time the site is unoccupied by the CONTRACTOR, the boreholes or wells shall be
41 covered and secured against tampering.

42 J. Sanitary Facilities: The CONTRACTOR shall provide and maintain portable sanitary toilet facilities for
43 the duration of the project. Facilities shall be maintained at regular intervals. CONTRACTOR's costs
44 associated with providing and maintaining sanitary toilet facilities are considered incidental to the
45 project, and no separate payment will be made.

46 K. Standard Specifications: When any of the following standards or specifications are referred to in these
47 specifications, the latest edition, publication, standard, or specification should be used:

48	API	American Petroleum Institute
49	ASTM	American Society for Testing and Materials
50	AWWA	American Waterworks Association

1	EPA	Environmental Protection Agency
2	NSF	National Sanitation Foundation
3	OSHA	Occupational Safety and Health Administration

1.4 SUBMITTALS

The CONTRACTOR shall submit to the OWNER and ENGINEER (or other as noted) with his bid or during the course of the project the following items:

- A. At the Time of Receipt of Bids:
 1. Complete list of equipment and methods that are proposed for the work.
 2. List of relevant projects and reference information.
 3. Bid Form
 4. List of SubCONTRACTORs for Subcontracts Valued at or Above \$5,000
 5. List of SubCONTRACTORs for Subcontracts Valued at or Above \$50,000
 6. EEOC Form
 7. Bid Bond
- B. Prior to Commencing Construction Activities:
 1. Storm Water Pollution Prevention Plan (SWPPP) in accordance with NMED and EPA regulations including National Pollution Discharge Elimination System (NPDES)
 2. Progress Schedule, including the CONTRACTOR's earliest available start date, estimated time to drill borehole(s), install, and equip the injection well.
 3. Schedule of Submittals
 4. Schedule of Values
- C. During Construction
 1. Daily Drilling Report upon request of the ENGINEER.
 2. Cutting samples, alignment surveys, and geophysical logs to ENGINEER.
 3. Quality certificates for well and materials.
 4. Well development and pump test data
 5. Video survey
 6. Permanent pump specifications and setting depth

PART 2 - PRODUCTS

2.1 CONTRACTOR'S EQUIPMENT AND METHODS

- A. General Requirements: The pilot borehole and production well shall be constructed using air rotary methods. The CONTRACTOR shall supply capable and experienced personnel and suitable equipment to perform the work, as specified herein. The CONTRACTOR shall employ only competent workers for the execution of the work, which shall be directly supervised by an experienced drilling superintendent who shall be deemed satisfactory by the OWNER/ENGINEER.
- B. The Contractor shall submit to the Engineer the proposed drilling program and schedule. Due to proximity to residences, continuous operations (24 hours per day) are not required during all phases, but are necessary during drilling, well completion, and testing. No unnecessary delays or work stoppages will be tolerated.
- C. The CONTRACTOR shall be held responsible, and payment will be withheld for damages to the wells due to any act of omission, error, or faulty operation by the CONTRACTOR or his employees or agents. Resulting repairs shall be completed by the CONTRACTOR to the satisfaction of the OWNER/ENGINEER, or a replacement well shall be drilled by the CONTRACTOR at no additional cost to the OWNER and without claim against the OWNER, ENGINEER, or agents.

2.2 CIRCULATING MEDIA:

- A. The pilot borehole and production well shall be constructed using air rotary methods. If the air rotary method is unsuccessful in advancing the boreholes to the desired depth, the OWNER and/or ENGINEER may direct the CONTRACTOR to employ mud rotary methods with the following conditions.
- B. Drilling fluid characteristics shall be measured every 50 feet of drilling or every four hours of circulation per AWWA standards and shall meet the requirements specified below.
 1. Weight: Drilling fluid weights of < 9.3 lbs/gal to speed drilling, minimize lost circulation, and prevent tight hole.
 2. Funnel Viscosity: Mud viscosity should be kept as thin as practical while still retaining formation stability and adequate hole cleaning. Normal viscosities of 30 to 40 seconds per quart shall be maintained to adequately clean the hole.
 3. Thirty-Minute Water Loss: Filtrate values below 10 cc should be maintained.
 4. Filter Cake: Filter cake thickness shall be maintained at 3/32-in maximum.
 5. Sand content of fluid entering the hole should not exceed 2 percent by volume.
 6. pH: 8.5 - 9.5
 7. A mud ENGINEER shall be made available at the CONTRACTORs expense on an on-call basis to measure drilling fluid properties periodically during all drilling operations. The mud ENGINEER and frequency of measurement shall be approved by the ENGINEER.
- C. Acceptable drilling fluid constituents must be NSF approved for use in water-supply wells and may include bentonite, synthetic polymers, inorganic-phosphate thinning agents, drilling detergents and foaming agents, and weighting materials, as pre-approved by the ENGINEER. It is expressly understood that toxic and/or dangerous substances will not be added to the drilling fluid. Potable water only will be used for mixing the drilling fluid.
- D. The Contractor shall provide two above ground mud circulation pits with a volume of not less than two times the borehole volume constructed and maintained so as to minimize contamination of the drilling fluid. The drilling fluid shall discharge into the first pit for settling of drill cuttings, then flow into the second pit before recirculating into the hole. Pits shall be cleaned on a schedule acceptable to the Engineer.
- E. The CONTRACTOR shall maintain current records on the site at all times to show: 1) time, depth and results of all mud tests, 2) all materials added to the drilling system including kind, amount, time, and depth, and 3) variances or modifications from agreed to drilling fluid program including time, depth, reason and authorization.

2.3 CEMENT GROUT AND BENTONITE SEALS

- A. Annular seals for the well casing will consist of a neat cement grout mixture that meets the requirements of the ASTM C150 Type I. Grout density shall be 15.6 lbs/gal (116.7 lbs/ft³). A maximum of 3 percent bentonite and 2 percent calcium chloride by weight may be added to the grout.
- B. Bentonite seals, in pellet or granular form, will be placed immediately above the filter pack to prevent cement invasion into the underlying filter pack as directed by the ENGINEER utilizing a tremie pipe.
- C. The cement water mixture shall be placed by pumping through the tremie tubing placed near the top of the bentonite seal where it will raise in a uniform body up the sides of the steel casing forming a dependable seal. The cement will be allowed to set for a period of at least 24 hours before any down-hole operations are performed.

2.4 CASING AND SCREEN

- A. The ENGINEER will determine final well construction depths after reviewing drill cuttings, geophysical logs and test well results and after consulting with the OWNER. If the quantity of the boreholes drilled, or quantity of materials actually incorporated in well construction change, unit bid prices shall prevail. For bidding purposes, the length of the casing string shall be as shown on the drawings and bid schedule. The actual length of the casing will be subject to change as determined by the ENGINEER.

- 1 B. All blank and screen casing shall be new and free of oils, grease, paint, dirt, scratches, or other defects.
2 Well casing shall be kept as clean as possible and shall not come in contact with the ground surface
3 during installation.
- 4 C. Well casing shall be supplied in minimum lengths of 20 ft, and joined by welding by a certified welder in
5 accordance with applicable ANSI/AWS standards. Each joint shall be measured to the nearest 0.01' and
6 marked by the CONTRACTOR. All welds shall be fully penetrating and the entire beveled or collared
7 and flat area filled with weld bead. The join shall be watertight, straight, and as strong as the casing or
8 screen.
- 9 D. Surface casing shall be minimum 16-in outside diameter (OD) blank, low carbon steel casing, ASTM A-
10 53 Grade B having a minimum wall thickness of 0.375-in and a minimum weight of 62.64 pounds per
11 foot (lbs/ft).
- 12 E. High strength low alloy (HSLA) steel casing shall be 8.625-in OD blank, ASTM 606 Type 4 having a
13 minimum wall thickness of 0.25-in and a minimum weight of 22.36 lbs/ft.
- 14 F. High strength low alloy (HSLA) steel louvered casing shall be 8.625-in OD having a minimum wall
15 thickness of 0.25-in. The louvered screen shall consist of 0.050-in slots of the Full Flo design pattern
16 manufactured by Roscoe Moss Company.

17 **2.5 CENTERING GUIDES AND LANDING CLAMP**

- 18 A. Spring bow latch-on or weld-on type centralizers of the same type and grade of steel as the screen or
19 blank casing shall be installed at 40 foot intervals throughout the screened interval and to a point 120 feet
20 above the uppermost screen. If centralizers are welded, at no point shall the weld encroach on the
21 louvered portion of the screen; centralizers shall only be welded to the blank sections at the end of the
22 screened joints. Centering guides shall be aligned vertically with respect to each other and approved by
23 the ENGINEER.
- 24 B. A steel landing clamp shall be used to hang the well casing string. The clamp shall be bolted to the 8-in
25 well casing in such a manner that the clamp ears rests on the 16-in surface casing. The clamp shall then
26 be welded to the casing around the circumference, top and bottom. The clamp shall be set into notches
27 cut in the top of the 16-in surface casing and welded, sides and bottom, with the casing string kept
28 suspended at all times. The landing clamp shall be capable of holding in place the well casing and screen
29 having an estimated weight of 9 tons.

30 **2.6 FILTER PACK MATERIAL**

- 31 A. Filter material will consist of #8-12 and #20-40 gradations of silica sand for the approximate intervals
32 specified on the project drawings. The actual locations will be subject to change as determined by the
33 ENGINEER.
- 34 B. The grains shall be both round and spherical with a cumulative composition of no less than 97 percent
35 silica (SiO₂). The material shall be composed of sound, durable, well-rounded particles, free from
36 organic matter, silt, clay, or other deleterious materials. The material shall be washed, dried, and
37 packaged at the production facility.
- 38 C. The CONTRACTOR shall submit a certificate of filter material quality and gradation to the ENGINEER.
39 Under no circumstances shall crushed rock or any material with an excess of 5 percent flat faces be
40 installed in the well.

41 **2.7 PUMP AND WELLHEAD COMPLETION**

- 42 A. A pitless adaptor capable of supporting the pumping equipment in the well (3,700 pounds) shall be
43 installed in the casing with an electrical conduit and a well cap as shown in the drawings. The cap shall
44 be vented with a protected screen of 24 mesh, corrosion resistant material.
- 45 B. A submersible pump shall be selected by the ENGINEER based on the pumping test results. It is
46 expected to be capable of producing 100 gpm with a total dynamic head (TDH) of 300 ft.

- C. A concrete pad shall be provided at the land surface around the well casing. The concrete pad will measure a minimum of 5 feet by 5 feet, and be a minimum of 6 inches thick. The concrete pad will slope away from the well casing to allow for surface drainage.

2.8 SUBMERSIBLE PUMP AND CONTROLLER

- A. The CONTRACTOR shall provide and install a submersible pump with motor as described in these specifications. The pump shall be selected for best efficiency while pumping 100 gpm at a TDH of 300 feet. The anticipated pump shall be GRUNDFOS Model #150S150-6 (15 HP), or equivalent. Final pump selection shall be determined following analysis of the pump test data by the ENGINEER. The pump shall be a variable frequency drive (VFD) model.
- B. The pump bowls shall be stainless steel or close-grained cast iron. The impellers shall be bronze enclosed type or stainless steel fastened to the stainless steel shaft by stainless steel collets or stainless steel keys. Carbon or mild steel will not be permitted in the pump.
- C. The motor shall be sized so that its nameplate horsepower is not exceeded throughout the entire range of the pump. The motor shall be designed for continuous underwater operation on 460-volt, 3-phase, and 60-Hz current. The motor must be compatible with the GRUNDFOS CU3 pump control panel. A description of the pump equipment and instruments shall include the following:
1. Column, shaft, and tubing sizes
 2. Bowl capacity and revolutions per minute at maximum lift
 3. Number of bowl stages required at maximum lift
 4. Type and horsepower of drive unit

2.9 SUBMERSIBLE PUMP CABLE

- A. The submersible pump cable shall have rubber insulation bonded to the conductors and a neoprene jacket. Unless otherwise indicated, the conductors shall be sized based upon the motor nameplate full load amps, the capacity of the conductor, and the allowable voltage drop. In general, the allowable voltage drop shall be less than the difference between the service voltage and the nameplate voltage. The electrical service will be within 30 feet of the wellhead. In no case shall the voltage drop exceed 5 percent. For bidding purposes, assume three-wire #12 AWG pump cable shall be provided. The CONTRACTOR shall submit calculations or charts used for wire selection.
- B. The meter used to measure resistances shall be suitable for the ranges involved and shall be accurate to within 2%. Resistances shall be measured and recorded to three places. Resistances to ground shall be measured with a meter capable of measuring resistances greater than 1 megohm (1 million ohms).

2.10 GROUNDING OF SUBMERSIBLE PUMP MOTOR

- A. In accordance with National Electrical Code (NEC) Section 250-43, a separate ground wire will be run down the well to the installed submersible pump motor. The ground wire is to be based on circuit amp rating (not motor amp rating) according to NEC 250-95. Ground wire may be insulated or bare and does not have to be larger than the supply cable. If the wire is insulated, it must be green, with or without yellow stripe(s) (NEC 310-11). All external metal parts of the pump and motor must be bonded together (metal to metal). Wire may be connected to the pump using an Underwriters Laboratories, Inc. (UL) approved compression (crimp or set screw) type with terminal attached to the pump frame or motor bolt.

2.11 CABLE SPLICES

- A. The submersible pump cable shall be spliced to the conductors from the motor starter in the pitless unit cap or in a National Electrical Manufacturer's Association (NEMA) 3R junction box attached to the pitless unit cap. No. 10 AWG and smaller conductors may be spliced with wire nuts.
- B. The submersible pump cable shall be spliced to the motor pigtails with splice kits manufactured for that purpose. If crimp type connectors are used, the crimps shall be made with the tool recommended by the sleeve manufacturer. If solder is used, it shall be resin core or pure solder with non-acid flux. It will not be possible to pull the joint apart by hand. If the CONTRACTOR wants to make another kind of splice, he shall submit the details for approval to the ENGINEER.

2.12 DROP PIPE

- A. The drop pipe shall be 3-inch Schedule 80 galvanized steel, the same size as the pump discharge. The pipe shall conform to ASTM A-120 (pipe, steel, black and hot-dipped, zinc-coated [galvanized] welded and seamless) or ASTM A-53 (pipe, steel, black and hot-dipped, zinc-coated welded and seamless). Couplings shall be 43-inch length as used for XS and XXS weight pipe.

2.13 IN-LINE CHECK VALVE

- A. An inline check valve shall be installed at the first full pipe joint above the pump. The valve shall be equal to SIMMONS 3-inch drop check valve with a knockout plug.

2.14 SOUNDER TUBE

- A. A 1.5-inch-diameter, polyvinyl chloride (PVC) pipe will be continuously placed into the well and strapped to the pump drop pipe at 20-foot intervals during pump installation. The pipe will be glued and coupled. The sounder tube will provide access for future water level measurement. The pipe will be terminated approximately 10 feet above the submersible pump, capped on the bottom, and perforated in the lower 20 feet to allow water to flow into the tube.

2.15 WELL IDENTIFICATION TAG

- A. A well identification tag shall be affixed to the exterior portion of the well cap or casing in plain view using a stainless steel or aluminum band.

2.16 PUMP INSTALLATION REPORT AND O&M MANUALS

- A. The CONTRACTOR shall prepare a well pump installation report. All applicable information shall be included, and "NA" will be shown for those items that are not applicable.
- B. Upon completion of the project, the CONTRACTOR shall furnish five (5) sets of operations and maintenance (O&M) manuals to the ENGINEER. The manuals shall include:
1. Operations manuals for all pumps, valves, and controls installed
 2. Piping diagrams of all installed plumbing, valves, and controls
 3. Material safety data sheets for all chemical substances and solvents used in drilling, installation, and construction
 4. Electrical circuit diagrams of all controls, power supplies, transformers, and any other electrical equipment installed

2.17 WELLHEAD PROTECTION

- A. A concrete pad shall be provided at the land surface around the well casing. The concrete pad will measure a minimum of 5 feet by 5 feet, and be a minimum of 6 inches thick. The concrete pad will slope away from the well casing to allow for surface drainage.
- B. Protective stanchions will be constructed of 4-inch-diameter steel placed at the outer corners of the pad. The stanchions will be extended a minimum of 3 feet above the surface of the ground and will be set in the ground to a depth of at least 24 inches.

PART 3 - EXECUTION

3.1 DRILLING METHODS

- A. Drilling shall be completed using foam assisted air rotary methods from beneath the surface casing to the total well depth. If the air rotary method is unsuccessful in advancing the boreholes to the desired depth, the OWNER and/or ENGINEER may direct the CONTRACTOR to employ mud rotary methods. Methods shall be consistent with standard practices for construction of water supply wells.
- B. Control of drilling fluid properties shall be maintained throughout all drilling operations. If applicable, mud based systems will consist of pre-approved additives for ease of drilling, filtrate control, flow

control, and protection of the drilling operation. Adequate facilities for the collection of representative drill cutting samples shall be maintained at all times for drilling operations.

- C. To obtain accurate depth determination, representative cuttings samples, and a straight and plumb hole, the CONTRACTOR shall comply with the following guidelines:
1. Maintain an operating geograph, and a reasonably constant bit weight and rotary speed at all times.
 2. Use drill collars of appropriate diameter, weight, and length. Drill collar diameter should be of the maximum size allowable without interference with circulation.
 3. Run a mechanical drift indicator at intervals of 120 feet of depth to the total depth.

3.2 CONTRACTOR'S LOG AND RECORDS

- A. The CONTRACTOR shall keep an accurate, current log of operations at all times in the form of a daily drilling report. The report shall include, at minimum, the following information:
1. Bit number, size, type, and depth-in
 2. Length and diameter of in-hole drilling assembly, including bit, subs, collars and drill pipe
 3. Rotary speed
 4. Time devoted to each activity
 5. Description of soil/rock type and notation of depth at each change
 6. Water volume used for drilling
 7. Lengths, diameters, and types of casing and perforated casing run
 8. Volumes of filter pack material placed
 9. Grout volume, thickness, and location
 10. Time devoted to development and characteristics of fluid produced
- B. The reference of each depth given shall be properly denoted and the distance from ground level to the reference point shall be measured and included in the report. One copy of each Daily Drilling Report shall be made available to the ENGINEER on the following day. Upon completion of the drilling, a complete set of the Daily Drilling Reports shall be provided to the ENGINEER. Any signatures made on the daily field reports or other field documentation provided by the CONTRACTOR shall be considered only to acknowledge that the form or report was accepted, not an acceptance of the hours worked, footage drilled, materials provided, placed, or the like.

3.3 PIPE TALLIES

- A. An accurate record of all drill-pipe, tubing, and casing on the location shall be maintained at all times. A current pipe tally shall be maintained for all drill bits, subs, cross-overs, drill-pipe, tubing, and casing run into the borehole.

3.4 WELL CONSTRUCTION

- A. Surface Protection: The open annulus shall be protected from entry of unwanted material at all times by preventing surface runoff from reaching and entering the boring during construction activities. Whenever work ceases on the boreholes and well, the top of the casing shall be capped to cover and protect the hole until the permanent well head assembly is installed.
- B. Phase 1 Drilling
1. A 22-inch-diameter (minimum) borehole shall be drilled from ground surface to an approximate depth as shown on the drawings to accommodate the surface casing, as directed by the Engineer.
 2. An 18-inch diameter surface casing of low carbon steel (ASTM A53 Grade B) shall be set plumb and cemented in place from approximately 3 feet above ground surface to 50 feet below ground surface.
 3. Surface casing shall be cemented in place from the bottom up using a tremmie pipe. The cement shall be allowed to set and cure for 24 hours before additional work is undertaken in the well.
 4. An 8-inch-diameter (minimum) pilot borehole shall be advanced from the bottom of the surface casing to the approximate depth as shown on the drawings or as directed by the Engineer.
 5. The Contractor shall contain all drilling fluids in accordance with applicable town, county, state, and federal requirements and the project approved SWPPP

C. Phase 2 Drilling

1. A borehole of 17.75-inch diameter (minimum) shall be advanced within the pilot hole from the bottom of the surface casing to the approximate depth as shown on the drawings or as directed by the ENGINEER.
2. The Contractor shall contain all drilling fluids in accordance with applicable local, State, and Federal requirements and the project approved SWPPP.

D. Formation Sampling: The CONTRACTOR shall collect a set of cutting samples at 10-foot intervals from the pilot borehole; additional samples shall be taken at each formation change or as directed by the ENGINEER. Samples shall be collected from the borehole discharge with an appropriate sample screen or at the shale shaker and immediately placed in cloth sample bags approved by the ENGINEER. The CONTRACTOR shall permanently identify each sample bag with the well name, the depth interval represented by the sample, and the date.

E. Geophysical Logging:

1. Once the total drilled depth of the pilot hole is reached, the drill string will be removed and a suite of geophysical logs will be run in the borehole. The logs shall have appended to them such information as the well name, date, time, and well location; type, weight, resistivity, and temperature of drilling fluid; and any other information necessary for proper interpretation of the logs by the ENGINEER prior to well construction. Four paper copies of each log, in addition to digital files, shall be furnished to the ENGINEER. The geophysical logs shall include:
 - a. Caliper (three-arm)
 - b. Mud temperature and resistivity (if applicable)
 - c. Natural Gamma
 - d. Electric logs-16", 64"
 - e. Sonic
 - f. Neutron
 - g. Spontaneous Potential (SP curve)
2. On the reamed borehole, a three-arm caliper and deviation log shall be run.
3. All logs shall have appended to them such information as:
 - a. Well name, date, time, and well location
 - b. Type, weight, resistivity, and temperature of drilling fluid
 - c. Any other information necessary for proper interpretation of the logs by the Engineer prior to well construction.
4. Four paper copies of each log, in addition to digital files, shall be furnished to the Engineer.

F. Plumbness and Alignment

1. Deviation measurements shall be taken with a mechanical drift indicator at intervals of no less than 120 feet to the total depth during pilot hole drilling and reaming. The CONTRACTOR shall label survey targets by depth and provide to the ENGINEER upon request.
2. The alignment must be satisfactory for the successful installation of the specified pumping equipment; and shall meet AWWA A100, Section 8 specifications for plumbness and alignment from the ground surface to a minimum of 400 ft bgs.
3. The OWNER may modify these requirements if in his judgment (a) the CONTRACTOR has exercised all possible care in constructing the well and the defect is due to circumstances beyond his control; (b) the utility of the completed well will not be materially affected; or (c) the cost of necessary remedial measures will be excessive.

G. Blank Casing and Screen Installation

1. If applicable, the drilling fluid shall be circulated and thinned immediately before casing and screen installation. The placement of casing, screen, filter pack material, and annular seals shall be staged to allow continuous construction. Prior to installation, all casing materials shall be measured to the nearest 0.01' and marked by the CONTRACTOR to determine the amount and location of screen and blank sections to be placed in the borehole.

2. All required materials shall be on-site and inspected by the ENGINEER prior to initiating installation activities. The casing shall be suspended above the bottom of the borehole a sufficient distance to ensure that none of the casing is supported from the bottom; at no time shall the casing string be placed in compression.
3. Casing shall be fitted with approved centering guides installed at points as approved by the ENGINEER. The casing string will be hung from the surface casing through the use of an ENGINEER approved landing clamp.
4. Casing and screen joints shall be welded by a certified welder in accordance with applicable ANSI/AWS standards. Welder's certification shall be approved by the ENGINEER. All welds shall be fully penetrating; the entire beveled or collared and flat area shall be filled with weld bead. The joint shall be watertight, straight, and as strong as the casing or screen.
5. Extreme care shall be taken to insure that the casing and screen are properly aligned before welding occurs.

H. Filter Pack Installation

1. The annular space between the borehole and the casing string shall be filled with select filter pack material as directed by the ENGINEER. The approximate placement of the filter pack is shown on the project drawings.
2. The CONTRACTOR shall ensure that circulation will be continuous from the time that watering-back of the drilling fluid begins until the time the filter pack is completely in place. The well shall be gently swabbed to alternate thinning flow inside the casing as well as in the annulus during filter pack placement. The drilling fluid characteristics shall be approved by the ENGINEER prior to introduction of the filter pack material.
3. The filter pack shall be placed using a tremie pipe until the annulus is filled to the approved level. The CONTRACTOR shall provide means of measuring the volume of filter pack as it is installed, and continual checks must be made to insure against voids or bridging of the filter material. The amount of filter pack introduced in the hole shall not be less than the amount as calculated by the ENGINEER. Any amount placed that is substantially different than the computed amount shall be deemed a sign of voids or bridging, and the CONTRACTOR shall undertake appropriate corrective measures at no cost to the OWNER.
4. The tremie pipe shall be gradually withdrawn as the filter pack is deposited. A minimum of one-half gallon of 12.5 percent sodium hypochlorite solution shall be added to every 6 cubic yards of filter pack as it is being placed
5. The casing string shall be flushed, baled, and swabbed as needed to fully settle the filter pack. At no time during any flushing or development procedure, shall the filter material be allowed to drop to within 50 feet of the top of the screen. The volume of all filter material added shall be calculated and recorded.

I. Bentonite and Sand Plugs

1. Annular bentonite and 20-40 sand plugs will be installed above the filter packing to prevent cement intrusion into the underlying filter pack after airlift development, as directed by the ENGINEER. The approximate placement of the seal is shown on the project drawings.
2. The amount of bentonite and sand introduced in the hole shall not be less than the computed amount of borehole volume as calculated by the ENGINEER.

J. Cement Grouting

1. A continuous cement grout annular seal will be placed above the appropriate bentonite plug interval as directed by the ENGINEER. The annular seal shall be a continuous cement plug. When completed, the annular seal shall completely fill the space between the casing string and the borehole, between the bentonite plug to ground level.
2. After the cement grout is in place, a minimum of 36 hours setup time shall be observed prior to any additional work being performed in the well.

1 **3.5 TEMPORARY DISCHARGE CONVEYANCE**

- 2 A. Water discharged from the water supply well during the drilling process shall be routed to aboveground
3 mud pits in the location shown on the project drawings or as determined by the Engineer. Once mud
4 water is no longer produced and drilling has ceased the area shall be cleaned, and removed material shall
5 be disposed of appropriately at the Contractor's expense.
- 6 B. Development water shall be discharged by a method approved by the Engineer and Owner.

7 **3.6 WELL DEVELOPMENT**

- 8 A. The CONTRACTOR shall furnish all plant, materials, and labor required to accomplish the development.
9 All hours counted toward development of the well will be actual time spent developing with appropriate
10 equipment as specified. No time will be considered for downtime due to improper, inadequate, or
11 malfunctioning equipment, test procedures or techniques. If applicable, circulation of fluids after the
12 well is completed shall be included in the development time; circulation of fluids prior to or during well
13 completion shall not be considered part of well development.
- 14 B. Upon well completion, the CONTRACTOR shall develop the well through a step by step procedure
15 consisting of fresh water circulation while swabbing and airlift development, followed by the
16 introduction of a phosphate free dispersant if applicable , removal of the dispersant by swabbing and
17 airlifting, and pump development.
- 18 C. During initial development, when produced water contains a high percentage of drilling fluid and
19 sediment, water shall be impounded on-site. After the development water is returning to clear it may be
20 discharged to the ground surface as directed by the ENGINEER. Discharge will be in accordance with
21 the approved SWPPP.
- 22 D. The CONTRACTOR shall run a tremie line to within 20 feet of the well bottom and circulate clean water
23 until fluids return clear. Thereupon, the well shall be swabbed from top to the bottom and back to the top
24 of the screen interval. Pipe joints shall be added as each intervals clears. The CONTRACTOR shall add
25 and subsequently remove phosphate free dispersant during this development process.
- 26 E. Zoned airlift pumping and swabbing, will be completed in continuous 20-foot sections, from the bottom
27 of the well to the top of the perforated casing. The air-lift pumping device shall consist of a 20-foot
28 length pipe with appropriate diameter double disc rubber washers, which fit tightly to the inside of the
29 perforated casing as shown on the project drawings. The compressor equipment shall be capable of
30 producing adequate air flow to lift water and sediment from the lower section of the well with an airline
31 placement depth estimated at 300 feet bgs within the development tool.
- 32 F. Air lifting shall proceed until the produced water is free of suspended sediment, as approved by the
33 ENGINEER. The well development program outlined above shall be refined by the ENGINEER in
34 consultation with the CONTRACTOR.
- 35 G. Once airlift development is complete, the CONTRACTOR shall tag the bottom of the well using a
36 weighted wire line graduate in no less than one-foot increments. Any accumulated sediment shall be
37 removed from the well to within 5 feet of the bottom of the casing.
- 38

3.7 DISINFECTION

- A. The Contractor shall disinfect the well immediately after well development. Granular calcium hypochlorite shall be distributed evenly throughout the water column with a chlorine basket. The chlorine basket shall have a fine mesh exterior and be of such design so that it can be lowered on a wire line to the full depth of the well. The basket shall be run for approximately 4 hours
- B. The quantity of chlorine shall be sufficient to initially produce a residual chlorine concentration of no less than 50 mg/L throughout the entire water column in accordance with ANSI/AWWA C654. Based on a static water level of 300 feet bgs, the anticipated amount of calcium hypochlorite $[Ca(OCl)_2]$ with 65% available chlorine by weight is 2.4 pounds.
- C. The test pump may be installed after running the chlorine basket, when the test pump is set, the chlorinated water shall be circulated within the well casing and pump column by surging three times. The solution shall be allowed to rest for at least 12 hours.
- D. Discharge water from disinfection shall be dechlorinated to local, county, and state standards prior to discharge or disposal.

3.8 DEVELOPMENT AND TEST PUMPING

- A. The CONTRACTOR shall furnish all necessary equipment, materials, and labor to begin development and test pumping within four days of the airlift development work. The test pump shall be set to a depth of approximately 300 feet and be capable of producing a minimum rate of 20 gpm and a maximum rate of 210 with a pumping level of approximately 300 feet at maximum discharge.
- B. The pump shall be suspended on column pipe of sufficient diameter to maintain the maximum flow rate. Two in-line flow meters, a circular orifice or v-notch weir, a sampling port, a gate valve, and a sand separator shall be installed at the surface. Discharge water shall be routed to the ground surface as directed by the ENGINEER.
- C. The well shall be development pumped until the specific capacity does not increase by more than 10% in a 24-hour period and the sand content stabilize to an acceptable level as determined by the ENGINEER.
- D. Test pumping shall consist of an 400-minute step-drawdown test (four, 100-minute steps), a 24 hour constant-rate test, and associated recovery periods to pre-pumping conditions. Water-level data will be collected using manual and automated methods. A CONTRACTOR supplied pressure transducer and data logger will be provided for the tests. Pumping rates shall be maintained to within 5 percent of the desired rate specified by the ENGINEER. The CONTRACTOR will have representative on site to maintain pumping rates and collect manual water level data during all pumping periods.
- E. The pumping rate for the constant rate test shall be near the maximum capacity, as determined by the previous step test, approved by the ENGINEER. The pumping rate shall be held constant for the entire period.
- F. Water produced during test pumping will be discharged, as directed by the ENGINEER
- G. Any time incurred for restarts or delays caused by mechanical or other failures will not be considered part of the test time and will be at no additional cost to the OWNER. If the pump is shut off for any reason during the pumping portion of the test, it shall remain shut off until 95-percent water level recovery has been achieved and the complete test rerun at no additional expense to the OWNER.
- H. The test pump shall remain in the well for a minimum of four days or as directed by the ENGINEER after the end of pumping to prevent recovery water levels from being influenced by pump removal
- I. Upon completion of the test the results shall be turned over to the ENGINEER for analysis.

3.9 WATER QUALITY ANALYSIS

A. Phase 1:

1. The Contractor shall assist the Engineer and Owner with the collect samples of samples from the zone testing activity. The Contractor, supervised by the ENGINEER, shall collect and properly preserve, in containers provided by the laboratory, one suite of water samples at the end of the zone testing. The Contractor will collect water quality for general water quality characterization and combined radium isotopes. Analytes shall include calcium, magnesium, sodium, potassium, total alkalinity, sulfate, chloride, fluoride, nitrate, pH, arsenic, uranium, and combined radium isotopes. The expense for laboratory analysis of these samples shall be borne by the Contractor.
2. Samples shall be submitted to an Owner approved analytical laboratory, preferably Hall Environmental Analysis Laboratory in Albuquerque, NM. All samples shall be collected in properly preserved bottles provided by the laboratory. The Engineer must be present during sample collection. Samples shall be stored immediately on ice or blue ice after collection and remain so stored until received by the laboratory. All laboratory holding times for sample preservation shall be followed.

B. Phase 2:

1. The Contractor, supervised by the ENGINEER, shall collect and properly preserve, in containers provided by the laboratory, one suite of water samples at the end of the constant-rate test. The Contractor will collect water quality samples based on the requirements of the EPA's Safe Water Drinking Act as it pertains to public drinking water systems, as directed by the ENGINEER. The expense for laboratory analysis of these samples shall be borne by the Contractor.
2. Samples shall be submitted to an Owner approved analytical laboratory, preferably Hall Environmental Analysis Laboratory in Albuquerque, NM. All samples shall be collected in properly preserved bottles provided by the laboratory. The Engineer must be present during sample collection. Samples shall be stored immediately on ice or blue ice after collection and remain so stored until received by the laboratory. All laboratory holding times for sample preservation shall be followed.
3. Bacteriological testing shall be performed and approved results received prior to the completion of pumping. Bacteriological tests shall include total coliform and E. Coli.
4. The water shall be deemed unacceptable if coliform bacteria are present. It is the Contractor's responsibility to see that the well is so tested and, if unacceptable, disinfect the well again. Disinfection and subsequent testing shall continue at the Contractor's expense until test results are approved, indicating acceptable conditions. The pump shall not be removed from the well until results are approved.

3.10 VIDEO INSPECTION

- A. The CONTRACTOR shall make a closed-circuit color video inspection of the entire depth of the well following removal of the test pumping equipment. The camera equipment shall have a wide-angle (fish-eye) lens directed downward, and shall also include right-angle (side-scan) capability. The camera depth, in feet below ground surface, shall be displayed on the tape at all times. The ENGINEER must be present for observation of video monitoring and to determine where side scanning will be required.
- B. A flocculent shall be added to the well in sufficient quantity before logging to allow removal of suspended material from the water column. The well water shall be sufficiently clear to allow examination of the entire hole and well casing during the video taping. If not, the CONTRACTOR shall be required to clear the water at his own expense to allow examination of the entire hole in subsequent video tapings.
- C. If the video show that the well completion does not meet specifications or that the casing or screen are deformed beyond the manufactures ellipticity tolerances, the CONTRACTOR shall remedy deficiencies.
- D. Four electronic copies of the video shall be furnished to the ENGINEER for delivery to the OWNER.

3.11 WELLHEAD COMPLETION INSTALLATION

- A. The Contractor shall install the pitless adaptor and well cap shown on the project drawings.
- B. The well site shall be graded so that the site is free from depressions, reverse grades, or areas too rough for proper ground maintenance so as to ensure that surface water will drain away from the well.

3.12 WELL ABANDONMENT

- A. In the event that the well is not accepted for completion because of insufficient capacity or unsatisfactory water quality, or if it is abandoned because of poor alignment, loss of tools, or for any other cause, the CONTRACTOR shall, as directed by the OWNER, fill the abandoned hole with expansive clay or a clay and concrete mixture in accordance with OSE requirements.

3.13 DISPOSAL OF WASTEWATER AND DRILLING MUD

- A. Produced fluids shall be disposed of in a manner and at the location in accordance with the CONTRACTOR's SWPPP and the requirements of the OWNER. Water produced during development shall be routed as shown on the project drawings. The CONTRACTOR shall be responsible for supplying all discharge plumbing and additional pumps necessary for discharging the water. Discharge shall be such that erosion is minimized. Disposal of wastewater will be by such methods that damage will be prevented to structures, roads or utilities or interference with same or interference with construction projects. In the event that mud pits are required, they must be thoroughly cleaned and back filled with granular material upon completion of work.
- B. Waste drilling mud and cuttings shall be removed from the site and properly disposed of upon completion of drilling operations, unless otherwise indicated by the OWNER. All cost incurred in connection with the disposal of wastewater, drilling mud, cuttings, and cleaning and back filling of mud pits will be incidental to well drilling and be borne by the CONTRACTOR.

3.14 CLEAN UP

- A. After the work is completed, the CONTRACTOR shall remove all debris, tools, equipment, supplies, and excess material from the site and shall restore the site to its original condition, as approved by the OWNER/ENGINEER.

3.15 ADDITIONAL INFORMATION

- A. The CONTRACTOR is responsible for the structural integrity of the well. If bidder's professional opinion is that any of these specifications are inadequate to ensure the long-term structural integrity of the well, the bidder shall notify OWNER in writing prior to the bid date.

3.16 PLUGGING AND ABANDONING OF OUT OF SERVICE WELLS

- A. Existing wells UP-1288 and UP-1643 require plugging and abandonment according to methods and the plans approved by the New Mexico Office of the State Engineer. Plans are attached for each well.
- B. Pumping equipment shall be removed and disposed of by the contractor.
- C. Access to UP-1643 will require removal and replacement of a corrugated metal roof.
- D. Both wells shall be abandoned using a neat cement grout pumped by means of a tremie pipe from the bottom of the well to ground surface for UP-1288 and into the cement block for UP-1643. Grout shall be mixed at 6 gallons of water per 94 pound sack of cement.
- E. Contractor shall prepare and submit a record of the plugging and abandonment for each well.

END OF SECTION

SECTION 15060
PIPE AND PIPE FITTINGS: BASIC REQUIREMENTS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
1. Piping systems.
- B. Related Sections include but are not necessarily limited to:
1. Division 0 - Bidding Requirements, Contract Forms, and Conditions of the Contract.
 2. Division 1 - General Requirements.
 3. Section 02221 - Trenching, Backfilling, and Compacting for Utilities.
 4. Section 02660- Water Main Construction.
 5. Section 15062 – Pipe: Ductile.
 6. Section 15064 – Pipe: Plastic.
 7. Section 15100 - Valves: Basic Requirements.

1.2 QUALITY ASSURANCE

- A. Referenced Standards:
1. American National Standards Institute (ANSI):
 - a. B16.3, Malleable Iron Threaded Fittings.
 - b. B16.5, Pipe Flanges and Flanged Fittings.
 - c. B16.9, Factory-Made Wrought Steel Butt-Welding Fittings.
 - d. B36.19, Stainless Steel Pipe.
 - e. B40.1, Gauges - Pressure Indicating Dial Type - Elastic Element.
 2. American National Standards Institute (ANSI)/American Water Works Association (AWWA):
 - a. ANSI/AWWA C110/A21.10, Ductile Iron and Gray Iron Fittings, 3 IN through 48 IN for Water and Other Liquids.
 - b. ANSI/AWWA C115/A21.15, Flanged Ductile Iron Pipe with Threaded Flanges.
 - c. C151, Ductile-Iron Pipe, Centrifugally Cast In Metal Molds or Sand-Lined Molds for Water or Other Liquids.
 - d. ANSI/AWWA C153/A21.53, Ductile-Iron Compact Fittings, 3 IN Through 16 IN, for Water and Other Liquids.
 - e. C207, Standard for Steel Pipe Flanges for Waterworks Service - Sizes 4 IN through 144 IN.
 3. American Society for Testing and Materials (ASTM):
 - a. A53, Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated Welded and Seamless.
 - b. A74, Cast-Iron Soil Pipe and Fittings.
 - c. A126, Standard Specification for Gray Iron Castings for Valves, Flanges and Pipe Fittings.
 - d. A234, Standard Specification for Pipe Fittings of Wrought Carbon Steel and Alloy Steel for Moderate and Elevated Temperatures.
 - e. A269, Specification for Seamless and Welded Austenitic Stainless Steel Tubing for General Service.
 - f. A536, Standard Specification for Ductile Iron Castings.
 - g. B88, Seamless Copper Water Tube (ANSI H23.1).
 - h. C14, Standard Specification for Concrete Sewer, Storm Drain, and Culvert Pipe.
 - i. C425, Compression Joints for Vitrified Clay Bell and Spigot Pipe.
 - j. C443, Joints for Circular Concrete Sewer and Culvert Pipe Using Flexible, Watertight, Rubber Gaskets.
 - k. C564, Rubber Gaskets for Cast-Iron Soil Pipe and Fittings.
 - l. C700, Extra Strength and Standard Strength Clay Pipe and Perforated Clay Pipe.

- m. D1785, Specification for Rigid Poly Vinyl Chloride (PVC) Compounds and Chlorinated Poly Vinyl Chloride (CPVC) Compounds.
 - n. D2467, Socket Type (PVC) Plastic Pipe Fittings, Schedule 80.
 - o. F439, Standard Specification for Socket-Type Chlorinated Poly(Vinyl Chloride) (CPVC) Plastic Pipe Fittings, Schedule 40.
 - p. F441, Standard Specification for Chlorinated Poly(Vinyl Chloride) (CPVC) Plastic Pipe, Schedules 40 and 80.
 - 4. American Water Works Association (AWWA):
 - a. C111, Rubber-Gasket Joints for Ductile Iron and Gray Iron Pressure Pipe and Fittings.
 - b. C200, Steel Water Pipe 6 IN and Larger.
 - c. C207, Steel Pipe Flanges for Waterworks Service - Sizes 4 IN through 144 IN.
 - d. C208, Dimensions for Fabricated Steel Water Pipe Fittings.
 - e. C900, Polyvinyl Chloride (PVC) Pressure Pipe and Fabricated Fittings, 4 IN through 12 IN, for Water Distribution
 - f. C901, Polyethylene (PE) Pressure Pipe and Tubing, ½ IN through 3 IN, for Water Service
 - g. C606, Grooved and Shouldered Joints.
 - h. C651, Standard for Disinfecting Water Mains.
 - 5. National Fire Protection Association (NFPA).
 - 6. Underwriters Laboratory, Inc (UL).
- B. Coordinate flange dimensions and drillings between piping, valves, and equipment.

1.3 SUBMITTALS

- A. Shop Drawings:
 - 1. See Section 01340.
 - 2. Fabrication and/or layout drawings:
 - a. Exterior yard piping drawings (minimum scale 1 IN equals 10 FT) with information including:
 - 1) Dimensions of piping lengths.
 - 2) Invert or centerline elevations of piping crossings.
 - 3) Acknowledgement of bury depth requirements.
 - 4) Details of fittings, tapping locations, thrust blocks, restrained joint segments, harnessed joint segments, hydrants, and related appurtenances.
 - 5) Acknowledge designated valve or gate tag numbers, manhole numbers, instrument tag numbers, pipe and line numbers.
 - 6) Line slopes and vents.
 - b. Schedule of interconnections to existing piping and method of connection.
 - 3. Product technical data including:
 - a. Acknowledgement that products submitted meet requirements of standards referenced.
 - b. Copies of manufacturer's written directions regarding material handling, delivery, storage and installation.
 - c. Separate schedule sheet for each piping system scheduled in this Section showing compliance of all system components. Attach technical product data on gaskets, pipe, fittings, and other components.
 - 4. Qualifications:
 - a. Qualifications of lab performing disinfection analysis on water systems.
 - 5. Test reports:
 - a. Copies of pressure test results on all piping systems.
 - b. Disinfection test report.
 - c. Notification of time and date of piping pressure tests.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Protect pipe coating during handling using methods recommended by manufacturer. Use of bare cables, chains, hooks, metal bars or narrow skids in contact with coated pipe is not permitted.

- B. Prevent damage to pipe during transit. Repair abrasions, scars, and blemishes. If repair of satisfactory quality cannot be achieved, replace damaged material immediately.

PART 2 - PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS

- A. Subject to compliance with the Contract Documents, the following manufacturers are acceptable:

1. Pipe Saddles:
 - a. Dresser Style 291.
 - b. Dresser Style 194.
 - c. Or Approved Equal.

- B. Submit requests for substitution in accordance with Specification Section 01640.

2.2 COMPONENTS AND ACCESSORIES

- A. Reducers:

1. Furnish appropriate size reducers and reducing fittings to mate pipe to equipment connections. Connection size requirements may change from those shown on Drawings depending on equipment furnished.

- B. Protective Coating and Lining:

1. Include pipe, fittings, and appurtenances where coatings, linings, paint, tests and other items are specified.

- C. Valves:

1. See Section 15100.

PART 3 - EXECUTION

3.1 EXTERIOR BURIED PIPING INSTALLATION

- A. Unless otherwise shown on the Drawings, provide a minimum of 4 FT earth cover over buried piping systems and appurtenances conveying water, fluids, or solutions subject to freezing.
- B. Install expansion devices as necessary to allow for expansion and contraction movement.
- C. Install insulating components where dissimilar metals are joined together.
- D. Laying Pipe in Trench:
 1. Excavate and backfill trench in accordance with Section 02221.
 2. Clean each pipe length thoroughly and inspect for compliance to Specifications.
 3. Grade trench bottom and excavate for pipe bell and lay pipe on trench bottom.
 4. Install gasket or joint material according to manufacturer's directions after joints have been thoroughly cleaned and examined.
 5. Except for first two joints, before making final connections of joints, install two full sections of pipe with earth tamped along side of pipe or final with bedding material placed.
 6. Lay pipe in only suitable weather with good trench conditions. Never lay pipe in water except where approved by owner.
 7. Seal open end of line with watertight plug if pipe laying is stopped.
 8. Remove water in trench before removal of plug.
- E. Lining Up Push-On Joint Piping:
 1. Lay piping on route lines shown on Drawings.
 2. Deflect from straight alignments or grades by vertical or horizontal curves or offsets.
 3. Observe maximum deflection values stated in manufacturer's written literature.

4. Provide special bends when specified or where required alignment exceeds allowable deflections stipulated.
 5. Install shorter lengths of pipe in such length and number that angular deflection of any joint, as represented by specified maximum deflection, is not exceeded.
- F. Anchorage and Blocking:
1. Provide thrust blocks, anchors, joint harnesses, or other acceptable means for preventing movement of piping caused by forces in or on buried piping tees, wye branches, plugs, or bends. For all buried piping systems, the length of pipe required to have restrained joint shall be determined by the pipe supplier.
- G. Install underground hazard warning tape as specified.

3.2 CONNECTIONS WITH EXISTING PIPING

- A. Where connection between new work and existing work is made, use suitable and proper fittings to suit conditions encountered.
- B. Perform connections with existing piping at time and under conditions which will least interfere with service to facilities affected by such operation.
- C. Undertake connections in fashion which will disturb system as little as possible.
- D. Provide suitable equipment and facilities to dewater, drain, and dispose of liquid removed without damage to adjacent property.
- E. Where connections to existing systems necessitate employment of past installation methods not currently part of trade practice, utilize necessary special piping components.
- F. Where connection involves potable water systems, provide disinfection methods as prescribed in these Specifications.
- G. Once tie-in to each existing system is initiated, continue work continuously until tie-in is made and tested.

3.3 FIELD QUALITY CONTROL

- A. Pipe Testing - General:
1. Test piping systems as follows:
 - a. Test buried piping prior to backfilling.
 2. Utilize pressures, media and pressure test durations as specified herein.
 3. Perform pressure test using calibrated pressure gages and calibrated volumetric measuring equipment to determine leakage rates.
 - a. Select each gage so that the specified test pressure falls within the upper half of the gage's range.
 - b. Notify the Engineer 24 HRS prior to each test.
 4. Completely assemble and test new piping systems prior to connection to existing pipe systems.
 5. Acknowledge satisfactory performance of tests and inspections in writing to Engineer prior to final acceptance.
 6. Bear the cost of all testing and inspecting, locating and remedying of leaks and any necessary retesting and re-examination.

B. Pressure Testing:

1. Testing medium: Utilize the following test media unless otherwise specified.
 - a. Liquid systems:

PIPE LINE SIZE (DIA)	GRAVITY OR PRESSURE	SPECIFIED TEST PRESSURE	TESTING MEDIUM
Up to and including 48 IN	Gravity	25 psig or less	Air or water
Above 48 IN	Gravity	25 psig or less	Water
All sizes	PRESSURE	250 psig or less	Water

2. Allowable leakage rates:
 - a. All pressure piping systems which are hydrostatically pressure tested shall have an allowable leakage rate as determined by the formulas contained in AWWA C600 and C605. Piping shall be subject to the specified test pressure throughout the duration of the test.
3. Hydrostatic pressure testing methodology:
 - a. General:
 - 1) All joints, including welds, are to be left exposed for examination during the test.
 - 2) Provide temporary restraints for expansion joints for additional pressure load under test.
 - 3) Do not paint or insulate exposed piping until successful performance of pressure test.

3.4 CLEANING, DISINFECTION AND PURGING

A. Cleaning:

1. Clean interior of piping systems thoroughly before installing.
2. Maintain pipe in clean condition during installation.
3. Before jointing piping, thoroughly clean and wipe joint contact surfaces and then properly dress and make joint.
4. Immediately prior to pressure testing, clean and remove grease, metal cuttings, dirt, or other foreign materials which may have entered the system.
5. At completion of work and prior to Final Acceptance, thoroughly clean work installed under these Specifications. Clean equipment, fixtures, pipe, valves, and fittings of grease, metal cuttings, and sludge which may have accumulated by operation of system, from testing, or from other causes. Repair any stoppage or discoloration or other damage to parts of building, its finish, or furnishings, due to failure to properly clean piping system, without cost to OWNER.

B. Disinfection of Potable Water Systems:

1. After favorable performance of pressure test and prior to Final Acceptance, thoroughly flush entire potable water piping system including supply, source and any appurtenant devices and perform disinfection as prescribed.
2. Perform work, including preventative measures during construction, in full compliance with AWWA C651.
3. Flush each segment of system to provide flushing velocity of not less than 2.5 FT per second.
4. Drain flushing water to sanitary sewer. Do not drain flushing water to receiving stream.
5. Use continuous feed method of application. Tag system during disinfection procedure to prevent use.
6. After required contact period, flush system to remove traces of heavily chlorinated water.
7. After final flushing and before placing water in service, obtain an independent laboratory approved by the OWNER to collect samples and test for bacteriological quality. Repeat entire disinfection procedures until satisfactory results are obtained.
8. Secure and deliver to OWNER, satisfactory bacteriological reports on samples taken from system.
9. Ensure sampling and testing procedures are in full compliance with the requirements of AWWA C651, local water purveyor and all applicable requirements of the State of New Mexico.

3.5 LOCATION OF BURIED OBSTACLES

- A. Furnish exact location and description of buried utilities encountered.
- B. Reference items to definitive reference point locations such as found property corners, entrances to buildings, existing structure lines, fire hydrants and related fixed structures.
- C. Include such information as location, elevation, coverage, supports and additional pertinent information.
- D. Incorporate information on "As-Recorded" Drawings on a daily basis.

END OF SECTION

2002/01/14

SECTION 15062

PIPE: DUCTILE

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Ductile iron piping, fittings, and appurtenances.

B. Related Sections include but are not necessarily limited to:

1. Division 0 - Bidding Requirements, Contract Forms, and Conditions of the Contract.
2. Division 1 - General Requirements.
3. Section 15060 - Pipe and Pipe Fittings: Basic Requirements.

1.2 QUALITY ASSURANCE

A. Referenced Standards:

1. American Society of Mechanical Engineers (ASME):
 - a. B1.1, Unified Inch Screw Threads (UN and UNR Thread Form).
 - b. B16.1, Gray Iron Pipe Flanges and Flanged Fittings (Classes 25, 125, and 250).
2. ASTM International (ASTM):
 - a. B695, Standard Specification for Coatings of Zinc Mechanically Deposited on Iron and Steel.
3. American Water Works Association (AWWA):
 - a. C203, Standard for Coal-Tar Protective Coatings and Linings for Steel Water Pipelines - Enamel and Tape - Hot Applied.
 - b. C606, Standard for Grooved and Shouldered Joints.
4. American Water Works Association/American National Standards Institute (AWWA/ANSI):
 - a. C105/A21.5, Standard for Polyethylene Encasement for Ductile-Iron Pipe Systems.
 - b. C110/A21.10, Standard for Ductile-Iron and Gray-Iron Fittings.
 - c. C111/A21.11, Standard for Rubber-Gasket Joints for Ductile-Iron Pressure Pipe and Fittings.
 - d. C115/A21.15, Standard for Flanged Ductile-Iron Pipe with Ductile-Iron or Gray-Iron Threaded Flanges.
 - e. C150/A21.50, Standard for Thickness Design of Ductile-Iron Pipe.
 - f. C151/A21.51, Standard for Ductile-Iron Pipe, Centrifugally Cast, for Water.
5. Society of Automotive Engineers (SAE):
 - a. AMS-QQ-P-416, Cadmium Plating - Electro-deposited.

1.3 SUBMITTALS

A. Shop Drawings:

1. See Section 01340 for requirements for the mechanics and administration of the submittal process.
2. See Section 15060.
3. Certification of factory hydrostatic testing.
4. If mechanical coupling system is used, submit piping, fittings, and appurtenant items which will be utilized to meet system requirements.

PART 2 - PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS

A. Subject to compliance with the Contract Documents, the following manufacturers are acceptable:

1. Flanged adaptors:
 - a. Rockwell (Style 913 (steel).
 - b. Dresser (Style 128 (steel).
2. Compression sleeve coupling:
 - a. Rockwell (Style 411 (steel).
 - b. Dresser (Style 38 (steel).
3. Mechanical coupling:
 - a. Victaulic (Style 31).
 - b. Tyler.
4. Glass lining:
 - a. Ceramic Coating (Non-Stick Glass Lining).
 - b. Permutit (SG-14 Glass Lining).
5. Insulating couplings:
 - a. Rockwell (Style 416).
 - b. Dresser (Style 39).
6. Reducing couplings:
 - a. Rockwell (Style 415).
 - b. Dresser (Style 62).
7. Transition coupling:
 - a. Rockwell (Style 413).
 - b. Dresser (Style 62).
8. Polyethylene encasement tape:
 - a. Chase (Chasekote 750).
 - b. Kendall (Polyken 900).
 - c. 3 M (Scotchrap 50).
9. Restrained joints:
 - a. American (Lock Fast) - 12 IN and below.
 - b. U.S. Pipe (TR-Flex) - 4 IN to 54 IN.
 - c. American (Lock Fast) - Above 12 IN.

B. Submit request for substitution in accordance with Specification Section 01640.

2.2 MATERIALS

A. Ductile Iron Pipe:

1. AWWA/ANSI C115/A21.15.
2. AWWA/ANSI C150/A21.50.
3. AWWA/ANSI C151/A21.51.

B. Fittings and Flanges:

1. AWWA/ANSI C110/A21.10.
2. AWWA/ANSI C115/A21.15.
3. Flanges drilled and faced per ASME B16.1 for both 125 and 250 psi applications.

C. Nuts and Bolts:

1. Buried: Cadmium-plated meeting SAE AMS-QQ-P-416, Type 1, Class 2 (Cor-Ten) for buried application.
2. Exposed: Mechanical galvanized ASTM B695, Class 40.
3. Heads and dimensions per ASME B1.1.
4. Threaded per ASME B1.1.
5. Project ends 1/4 to 1/2 IN beyond nuts.

- D. Gaskets: See individual piping system requirements in Section 15060.
- E. If mechanical coupling system is used, utilize pipe thickness and grade in accordance with AWWA C606.
- F. Polyethylene Encasement: See AWWA/ANSI C105/A21.5.
- G. See Piping Schedules in Section 15060.

2.3 MANUFACTURED UNITS

- A. Couplings:
 - 1. Flanged adaptors:
 - a. Unit consisting of steel or carbon steel body sleeve, flange, followers, Grade 30 rubber gaskets.
 - b. Provide units specified in Article 2.1.
 - c. Supply flanges meeting standards of adjoining flanges.
 - d. Rate entire assembly for test pressure specified on piping schedule for each respective application.
 - 2. Compression sleeve coupling:
 - a. Unit consisting of steel sleeve, followers, Grade 30 rubber gaskets.
 - b. Provide units specified in Article 2.1.
 - c. Supply flanges meeting standards of adjoining flanges.
 - d. Entire assembly to be rated for test pressure specified on piping schedule for each respective application.
 - e. Provide field coating for buried couplings per AWWA C203.
 - 3. Mechanical couplings:
 - a. Use of mechanical couplings and fittings in lieu of flanged joints is acceptable where specifically specified in Section 15060.
 - b. Utilize units defined in Article 2.1.

2.4 FABRICATION

- A. Furnish and install without outside coatings of bituminous material any exposed pipe scheduled to be painted.
- B. Furnish cast parts with lacquer finish compatible with finish coat.
- C. Glass Lining:
 - 1. Minimum two-coat process.
 - a. Base coat heated to solidly fuse glass to pipe surface.
 - b. Subsequent coat(s) heated to form integral bond with preceding coat.
 - 2. Final finish parameters:
 - a. Thickness: 8-12 mils.
 - b. Hardness: Above 5 on MOHS scale.
 - c. Density: 2.5-3.0 grams per cubic centimeter.
 - d. Metal to lining bonding: Capable of withstanding strain of 0.0001 IN/IN without damage to lining.
 - 3. Complete compatibility between fittings and piping.

2.5 LININGS AND COATINGS

- A. Where specified in piping schedule, provide linings to a minimum thickness of 40 mils.
 - 1. Polyethylene, "Polybond" by American Pipe.
 - 2. Polyurethane, "Polythane" by U.S. Pipe.
 - 3. Ceramic epoxy, "Protecto 401" by U.S. Pipe.
 - 4. Calcium aluminate, "Sewper Coat" by Griffin Pipe.

2.6 SOURCE QUALITY CONTROL

A. Factory Test:

1. Subject pipe to hydrostatic test of not less than 500 psi with the pipe under the full test pressure for at least 10 seconds.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Joining Method - Push-On Mechanical (Gland-Type) Joints:

1. Install in accordance with AWWA/ANSI C111/A21.11.
2. Assemble mechanical joints carefully according to manufacturer's recommendations.
3. If effective sealing is not obtained, disassemble, thoroughly clean, and reassemble the joint.
4. Do not overstress bolts.
5. Where piping utilizes mechanical joints with tie rods, align joint holes to permit installation of harness bolts.

B. Joining Method - Push-On Joints:

1. Install in accordance with AWWA/ANSI C151/A21.51.
2. Assemble push-on joints in accordance with manufacturer's directions.
3. Bevel and lubricate spigot end of pipe to facilitate assembly without damage to gasket.
 - a. Use lubricant that is non-toxic, does not support the growth of bacteria, has no deteriorating effects on the gasket material, and imparts no taste or odor to water in pipe.
4. Assure the gasket groove is thoroughly clean.
5. For cold weather installation, warm gasket prior to placement in bell.
6. Taper of bevel shall be approximately 30 degrees with centerline of pipe and approximately 1/4 IN back.

C. Joining Method - Flanged Joints:

1. Install in accordance with AWWA/ANSI C115/A21.15.
2. Extend pipe completely through screwed-on flanged and machine flange face and pipe in single operation.
3. Make flange faces flat and perpendicular to pipe centerline.
4. When bolting flange joints, exercise extreme care to ensure that there is no restraint on opposite end of pipe or fitting which would prevent uniform gasket compression or would cause unnecessary stress, bending or torsional strains to be applied to cast flanges or flanged fittings.
5. Allow one (1) flange free movement in any direction while bolts are being tightened.
6. Do not assemble adjoining flexible joints until flanged joints in piping system have been tightened.
7. Gradually tighten flange bolts uniformly to permit even gasket compression.

D. Joining Method - Mechanical Coupling Joint:

1. Arrange piping so that pipe ends are in full contact.
2. Groove and shoulder ends of piping in accordance with manufacturer's recommendations.
3. Provide coupling and grooving technique assuring a connection which passes pressure testing requirements.

E. Flange Adaptors 12 IN and Less:

1. Locate and drill holes for anchor studs after pipe is in place and bolted tight.
2. Drill holes not more than 1/8 IN larger than diameter of stud projection.

F. Cutting:

1. Do not damage interior lining material during cutting.
2. Use abrasive wheel cutters or saws.

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3.2 FIELD QUALITY CONTROL

- A. Test piping systems in accordance with Section 15060.

END OF SECTION

SECTION 15064

PIPE: PLASTIC

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Plastic pipe.

B. Related Sections include but are not necessarily limited to:

1. Division 0 - Bidding Requirements, Contract Forms, and Conditions of the Contract.
2. Division 1 - General Requirements.
3. Section 15060 - Pipe and Pipe Fittings: Basic Requirements.

1.2 QUALITY ASSURANCE

A. See Section 15060.

B. Referenced Standards:

1. American Society for Testing and Materials (ASTM):

- a. PVC (Polyvinyl Chloride) materials:

- 1) D1784, Standard Specification for Rigid Poly(Vinyl Chloride) (PVC) Compounds and Chlorinated Poly(Vinyl Chloride) (CPVC) Compounds.
- 2) D1785, Standard Specification for Poly(Vinyl Chloride) (PVC) Plastic Pipe, Schedules 40, 80, and 120.
- 3) D2241, (PVC) Plastic Pipe (SDR-PR and Class T).
- 4) D2564, Solvent Cements for (PVC) Plastic Pipe, Tubing, and Fittings.
- 5) D2740, (PVC) Plastic Tubing.
- 6) D3139, Standard Specification for Joints for Plastic Pressure Pipes Using Flexible Elastomeric Seals.

- b. Installation:

- 1) D2855, Making Solvent Cemented Joints with PVC Pipe and Fittings.

2. American Water Works Association (AWWA):

- a. PVC (polyvinyl chloride) materials:

- 1) C900, Polyvinyl Chloride (PVC) pressure pipe 4 through 12 IN for Water.

- b. Polyethylene (PE) materials:

- 1) C901, Polyethylene (PE) Pressure Pipe Tubing and Fittings, 1/2 through 3 IN for Water.

1.3 SUBMITTALS

A. See Section 01340.

PART 2 - PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS

A. Subject to compliance with the Contract Documents, the following manufacturers are acceptable:

1. Restrained joints:

- a. EBAA Iron Megalug.
- b. Uni-Flange.
- c. Or Approved Equal.

2.2 MATERIALS

A. Pipe

1. Furnish materials in full compliance with following requirements:
 - a. 4-12 IN: AWWA C900 PVC with Pressure Class of 150 psi per Table 2, AWWA C900.
 - b. 1/2-3 IN: AWWA C901 PE with Pressure Class of 150 psi per Table A3, AWWA C901.
2. Joints for polyethylene pipe shall be fusion type in accordance with AWWA C901.
3. Joints for PVC pipe shall be the elastomeric-gasket type with a pressure rating not less than the pipe pressure rating and meeting the performance requirements of ASTM D3139.
4. Fittings for C-900 PVC pipe shall be ductile iron in accordance with AWWA C110 or C153.
5. Uniformity: Ensure that all piping and fittings are integrated into components of the finished system. Utilize products of a single manufacturer.

PART 3 - EXECUTION

3.1 IDENTIFICATION

- A. Identify each length of pipe clearly at intervals of 5 FT or less. Include manufacturer's name and trademark, nominal size of pipe, appurtenant information regarding polymer cell classification, critical identifications regarding performance specifications, and "NSF" approvals when applicable.

3.2 INSTALLATION

- A. Field threading of PVC pipe will not be permitted. Perform installation procedures, handling, thrust blocking, connections, and other appurtenant operations in full compliance to the manufacturer's printed recommendations and in full observance to plan details.
- B. Tracer Wire:
 1. Tracer wire shall be installed on all buried PVC pipe and all buried copper pipe installations.
 2. Tracer wire shall be a minimum ten (10) gage wire size for all installations and shall be coated wire.
 - a. The installed ten (10) gage coated tracer wire shall be attached to the top of the pipe with duct tape.
 - b. Wire connections shall be made by either soldering or using a split bolt, wire connections shall be wrapped with electrical tape to protect the connections.
 - c. The tracer wire shall be electrically connected to a surface appurtenance of the water line or sewer using jumper wires and cadwelding.
 - d. Surface appurtenances shall include hydrants and blowoffs, etc.
 3. The cost of tracer wire and installation including all labor, equipment as necessary to install said wire shall be included in the bid unit price of the water main. No separate payment shall be made for the tracer wire.
- C. Install buried piping in accordance with Section 15060.
- D. Install restrained joint systems where specified.

3.3 FIELD QUALITY CONTROL

1. Test piping systems in accordance with Section 15060.

END OF SECTION

SECTION 15100
VALVES: BASIC REQUIREMENTS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Valving, actuators, and valving appurtenances.
- B. Related Sections include but are not necessarily limited to:
 - 1. Division 0 - Bidding Requirements, Contract Forms, and Conditions of the Contract.
 - 2. Division 1 - General Requirements.
 - 3. Section 15060 - Pipe and Pipe Fittings: Basic Requirements.
 - 4. Section 15062 - Pipe: Ductile.
 - 5. Section 15101 - Gate Valves.
 - 6. Section 15114 - Miscellaneous Valves.

1.2 QUALITY ASSURANCE

- A. Referenced Standards:
 - 1. American National Standards Institute (ANSI):
 - a. B1.20.1, Pipe Threads, General Purpose.
 - b. B16.1, Cast Iron Pipe Flanges and Flanged Fittings.
 - c. B16.18, Cast Copper Alloy Solder Joint Pressure Fittings.
 - d. B16.34, Valves-Flanged, Threaded and Welding End.
 - 2. American Water Works Association (AWWA):
 - a. C111, Rubber-Gasket Joints for Ductile Iron and Gray Iron Pressure Pipe and Fittings.
 - b. C207, Steel Pipe Flanges for Waterworks Service - Sizes 4 IN through 144 IN.
 - c. C500, Gate Valves for Water and Sewerage Systems.
 - d. C504, Rubber-Seated Butterfly Valves.
 - e. C507, Ball Valves, 6 IN through 48 IN (150 MM through 1200 MM).
 - f. C509, Resilient-Seated Gate Valves 3 through 12 NPS, for Water and Sewage Systems.
 - g. C540, Power-Actuating Devices for Valves and Sluice Gates.
 - h. C550, Protective Epoxy Interior Coatings for Valves and Hydrants.
 - i. C606, Grooved and Shouldered Joints.
 - j. D648, Standard Test Method for Deflection Temperature of Plastics Under Flexural Load.
 - 3. Manufacturers Standardization Society of the Valve and Fittings Industry, Inc.(MSS).
 - 4. City of Farmington Technical Specifications and Technical Standards for water valves.

1.3 DEFINITIONS

- A. The following are definitions of abbreviations used in this section or one of the individual valve sections.
 - 1. CWP: Cold water working pressure.
 - 2. WOG: Water, oil, gas working pressure.
 - 3. WWP: Water working pressure.

1.4 SUBMITTALS

- A. Shop Drawings:
 - 1. See Section 01340.
 - 2. Product technical data including:
 - a. Acknowledgement that products submitted meet requirements of standards referenced.
 - b. Manufacturer's installation instructions.

- 1 c. Valve pressure and temperature rating.
- 2 d. Valve material of construction.
- 3 e. Special linings.
- 4 f. Valve dimensions and weight.
- 5 g. Valve flow coefficient.
- 6 h. Wiring and control diagrams for electric or cylinder actuators.
- 7 3. Test reports.
- 8 B. Operation and Maintenance Manuals:
- 9 1. See Section 01340.

PART 2 - PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS

- A. Refer to individual valve specification sections.

2.2 MATERIALS

- A. Refer to individual valve specification sections.

2.3 VALVE ACTUATORS

- A. Valve Actuators - General:
 1. Provide actuators as shown on Drawings or specified.
 2. Counter clockwise opening as viewed from the top.
 3. Direction of opening and the word OPEN to be cast in handwheel or valve bonnet.
 4. Size actuator to produce required torque with a maximum pull of 80 LB at the maximum pressure rating of the valve provided and withstand without damage a pull of 200 LB on handwheel or chainwheel or 300 foot-pounds torque on the operating nut.
 5. Unless otherwise specified, actuators for valves to be buried, submerged or installed in vaults or manholes shall be sealed to withstand at least 20 FT of submergence.
 6. Extension Stem:
 - a. Install where shown or specified.
 - b. Solid steel with actuator key and nut, diameter not less than stem of valve actuator shaft.
 - c. Pin all stem connections.
 - d. Center in valve box or grating opening band with guide bushing.
- B. Buried Valve Actuators:
 1. Provide screw or slide type adjustable cast iron valve box, 5 IN minimum diameter, 3/16 IN minimum thickness, and identifying cast iron cover.
 2. Box base to enclose buried valve gear box or bonnet.
 3. Provide 2 IN standard actuator nuts complying with Section 3.16 of AWWA C500.
 4. Provide extension stem to grade with guide bearings to center extension.
 5. Provide cast iron floor stands where shown on drawings. Stands shall be furnished by valve manufacturer with actuator.
 - a. Stand or actuator to include thrust bearings for valve operation and weight of accessories.

2.4 FABRICATION

- A. End Connections:
 1. Provide the type of end connections for valves as required in the Piping Schedules presented in Section 15060 and 15062 or as shown on the Drawings.
 2. Comply with the following standards:
 - a. Threaded: ANSI B1.20.1.
 - b. Flanged: ANSI B16.1 Class 125 unless otherwise noted or AWWA C207.

- 1 c. Bell and spigot or mechanical (gland) type: AWWA C111.
- 2 d. Soldered: ANSI B16.18.
- 3 e. Grooved: Rigid joints per Table 5 of AWWA C606.
- 4 B. Refer to individual valve sections for specifications of each type of valve on Project.
- 5 C. Nuts, Bolts, and Washers:
- 6 1. Wetted or internal to be bronze or stainless steel. Exposed to be zinc or cadmium plated.
- 7 D. On Insulated Piping: Provide valves with extended stems to permit proper insulation application
- 8 without interference from handle.
- 9 E. Epoxy Interior Coating:
- 10 1. Provide epoxy interior coating for all ferrous surfaces in accordance with AWWA C550.

11 **PART 3 - EXECUTION**

12 **3.1 INSTALLATION**

- 13 A. Install products in accordance with manufacturer's instructions.
- 14 B. Setting Buried Valves:
- 15 1. Locate valves installed in pipe trenches where buried pipe indicated on Drawings.
- 16 2. Set valves and valve boxes plumb.
- 17 3. Place valve boxes directly over valves with top of box being brought to surface of finished
- 18 grade.
- 19 4. Install in closed position.
- 20 5. Place valve on firm footing in trench to prevent settling and excessive strain on connection
- 21 to pipe.
- 22 6. After installation, backfill up to top of box for a minimum distance of 4 FT on each side of
- 23 box.
- 24 C. For threaded valves, provide union on one side within 2 FT of valve to allow valve removal.
- 25 D. Install valves accessible for operation, inspection, and maintenance.
- 26

28 **END OF SECTION**

29

SECTION 15101
GATE VALVES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Gate valves.
- B. Related Sections include but are not necessarily limited to:
 - 1. Division 0 - Bidding Requirements, Contract Forms, and Conditions of the Contract.
 - 2. Division 1 - General Requirements.
 - 3. Section 15100 - Valves: Basic Requirements.

1.2 QUALITY ASSURANCE

- A. Referenced Standards:
 - 1. American Water Works Association (AWWA):
 - a. C500, Metal-Seated Gate Valves for Water Supply Service.
 - b. C509, Resilient-Seated Gate Valves for Water and Sewerage Systems.
 - c. C550, Protective Epoxy Interior Castings for Valves and Hydrants.
 - 2. Manufacturer's Standardization Society of the Valve and Fittings Industry, Inc (MSS):
 - a. SP-9, Spot Facing for Bronze, Iron and Steel Flanges.
 - b. SP-70, Cast Iron Gate Valves, Flanged and Threaded Ends.
 - c. SP-80, Bronze Gate, Globe, Angle and Check Valves.

1.3 DEFINITIONS

- A. OS&Y: Outside Screw and Yoke.
- B. NRS: Non-rising Stem.
- C. RS: Rising Stem.

1.4 SUBMITTALS

- A. Shop Drawings:
 - 1. See Section 01340 and 15100.
- B. Operation and Maintenance Manuals:
 - 1. See Section 01340.

PART 2 - PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS

- A. Subject to compliance with the Contract Documents, the manufacturers listed under the specific valve types are acceptable.

2.2 VALVES: WATER (HOT, COLD, HEATING, COOLING, SERVICE, NON-POTABLE, PROCESS, WASTEWATER); 3 TO 12 IN DIA

- A. Resilient Seat Gate Valves (Wastewater - Water), 3 to 12 IN DIA:
 - 1. Comply with AWWA C509.
 - 2. Materials:
 - a. Stem and stem nut - bronze.
 - 1) Wetted bronze parts in low zinc bronze.

SECTION 15114
MISCELLANEOUS VALVES

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Corporation stops.
2. Curb stops.

B. Related Sections include but are not necessarily limited to:

1. Division 0 - Bidding Requirements, Contract Forms, and Conditions of the Contract.
2. Division 1 - General Requirements.
3. Section 02660 – Water Main Construction
4. Section 15100 - Valves: Basic Requirements.

1.2 QUALITY ASSURANCE

A. Referenced Standards:

1. American Gas Association (AGA).
2. American National Standards Institute (ANSI):
 - a. B16.1, Cast-Iron Pipe Flanges and Flanged Fittings, Class 25, 125, 250, and 800.
3. American Water Works Association (AWWA):
 - a. C512, Air-Release, Air/Vacuum, and Combination Air Valves for Waterworks Service.
 - b. C550, Protective Epoxy Interior Coatings for Valves and Hydrants.

1.3 SUBMITTALS

A. Shop Drawings:

1. See Section 01340 and 15100.

B. Operation and Maintenance Manuals:

1. See Section 01340.

PART 2 - PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS

A. Subject to compliance with the Contract Documents, the manufacturers listed under the specific valve types are acceptable.

B. Submit requests for substitution in accordance with Specification Section 01640.

2.2 COMBINATION AIR RELEASE AND VACUUM VALVES

A. Application:

1. Provide where indicated on drawings.

B. Acceptable manufacturers:

1. GA Industries, Figure 945 or 960,
2. APCO Series S-140C (1 IN-4 IN).

C. Materials:

1. Body and cover: Cast iron.
2. Float, linkage and hardware: Stainless steel.
3. Seat: Buna-N.

D. Design requirements:

1. Size: As shown.
2. Working pressure: 130 psi.
3. Release 10 cfm at 10 psi differential at 150 psi line pressure.
4. Air vacuum capacity: 5 scfm at 5 psi differential from atmospheric.
5. Provide isolation valve, type as shown.

2.3 CORPORATION STOPS

- A. AWWA Standard C800-89.
- B. Bronze construction.
- C. Ford meter box:
 1. Key/Plug.
 2. Ballcorp.
 3. Or equal.

2.4 CURB STOP

- A. Tee head type.
- B. Bronze construction.
- C. Provide 3 keys.
- D. Ford Meter Box:
 1. Ball Valve.
 2. Hays – Huseal Plug valve.
 3. Mueller – Mark II Oriseal.
 4. Or equal.
- E. Curb Box:
 1. Extension type, Minneapolis pattern base.
 2. Provided with curb box sleeve for use in concrete.

2.5 ACCESSORIES

- A. Furnish any accessories required to provide a completely operable valve.

2.6 FABRICATION

- A. Completely shop assemble unit including any interconnecting piping, speed control valves, control isolation valves and electrical components.
- B. Provide internal epoxy coating suitable for potable water for all iron body valves in accordance with AWWA C550.

2.7 SOURCE QUALITY CONTROL

- A. Shop test hydrostatically to unit test pressure.

2.8 MAINTENANCE MATERIALS

- A. Provide one set of any special tools or wrenches required for operation or maintenance for each type valve.

1 **PART 3 - EXECUTION**

2 **3.1 INSTALLATION**

- 3 A. General:
- 4 1. See Section 15100.

5 **3.2 FIELD QUALITY CONTROL**

- 6 A. Clean, inspect, and operate valve to ensure all parts are operable and valve seats properly.
- 7 B. Check and adjust valves and accessories in accordance with manufacturer's instructions and
- 8 place into operation.

9 **END OF SECTION**

SECTION 15510
FIRE HYDRANTS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Dry-barrel fire hydrant.
- B. Related Sections include but are not necessarily limited to:
 - 1. Division 0 - Bidding Requirements, Contract Forms, and Conditions of the Contract.
 - 2. Division 1 - General Requirements.
 - 3. Section 09905 - Painting and Protective Coatings.
 - 4. Section 15060 - Pipe and Pipe Fittings: Basic Requirements.
 - 5. Section 15060 - Pipe: Ductile.

1.2 QUALITY ASSURANCE

- A. Referenced Standards:
 - 1. American Waterworks Association (AWWA):
 - a. C502, Dry-Barrel Fire Hydrant.
 - b. M17, Installation, Operation and Maintenance of Fire Hydrants.

1.3 SUBMITTALS

- A. Shop Drawings:
 - 1. See Section 01340.
 - 2. Product technical data:
 - a. Acknowledgement that products submitted meet the requirements of the standards referenced.
 - b. Manufacturer's installation instructions.
 - c. Acknowledge and verify dimensions and provide list of integral parts and materials.
- B. Operation and Maintenance Manuals:
 - 1. See Section 01340.

PART 2 - PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS

- A. Subject to compliance with the Contract Documents, the following manufacturers are acceptable:
 - 1. Mueller.
 - 2. American Flow Control.
 - 3. Waterous.
- B. Submit request for substitutions in accordance with Specification Section 01640.

2.2 FIRE HYDRANT

- A. Design and Fabrication:
 - 1. Conform to AWWA C502.
 - 2. Provide with either compression or gate design.
 - 3. Provide with a 5 IN valve opening, nozzle section consisting of two 2-1/2 IN hose nozzles and one 4-1/2 IN steamer.
 - 4. Provide with water passages to permit full flow of water to minimize friction loss.

5. Furnish with multiple weep holes for positive draining to allow water to escape readily from standpipe when hydrant valve is closed.
6. Designed to throttle flow when partially opened.
7. Designed to allow removal of valve and valve stem without digging up hydrant.
8. Suitable for 5 FT of bury.
9. Furnish with mechanical (gland type) joint inlet connections.
10. Design to break off at ground line when struck by a vehicle.
11. Furnish with O-ring packing only.
12. Furnish hose and steamer nozzles with threads conforming to standard threads used by local Fire Department.
13. Furnish with direction of opening as required by local Fire Department with direction of opening cast on dome.

PART 3 - EXECUTION

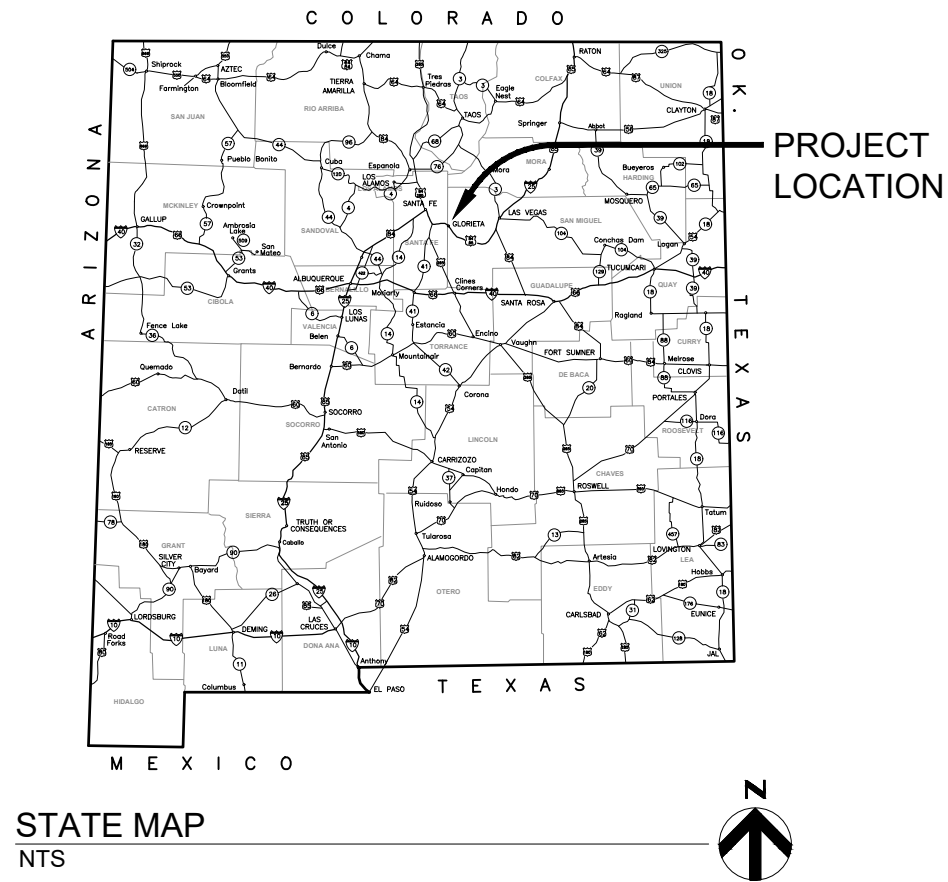
3.1 INSTALLATION

- A. Install hydrants at locations indicated in accordance with AWWA M17 and the following:
 1. Remove foreign material from barrel of hydrant before placement.
 2. Install plumb and at same elevation as connecting pipe and main.
 3. Place each hydrant on a slab of concrete as shown on Drawings.
 4. Block backside of hydrant, opposite pipe connection, with concrete firmly wedged between hydrant and vertical face of undisturbed trench.
 5. Place granular bedding material around base of hydrant to the dimensions shown in the Drawings.
 6. Firmly tamp carefully compacted backfill around hydrant to surface of ground and to a distance of 5 FT in front of hydrant.

3.2 COATINGS AND FINISHES

- A. Provide hydrant with below grade and above grade coatings as per Section 09905.
 1. Paint above grade with color conforming to the requirements of the local Fire Department or as directed by the Owner.

END OF SECTION



Contract Drawings For

Glorieta, New Mexico

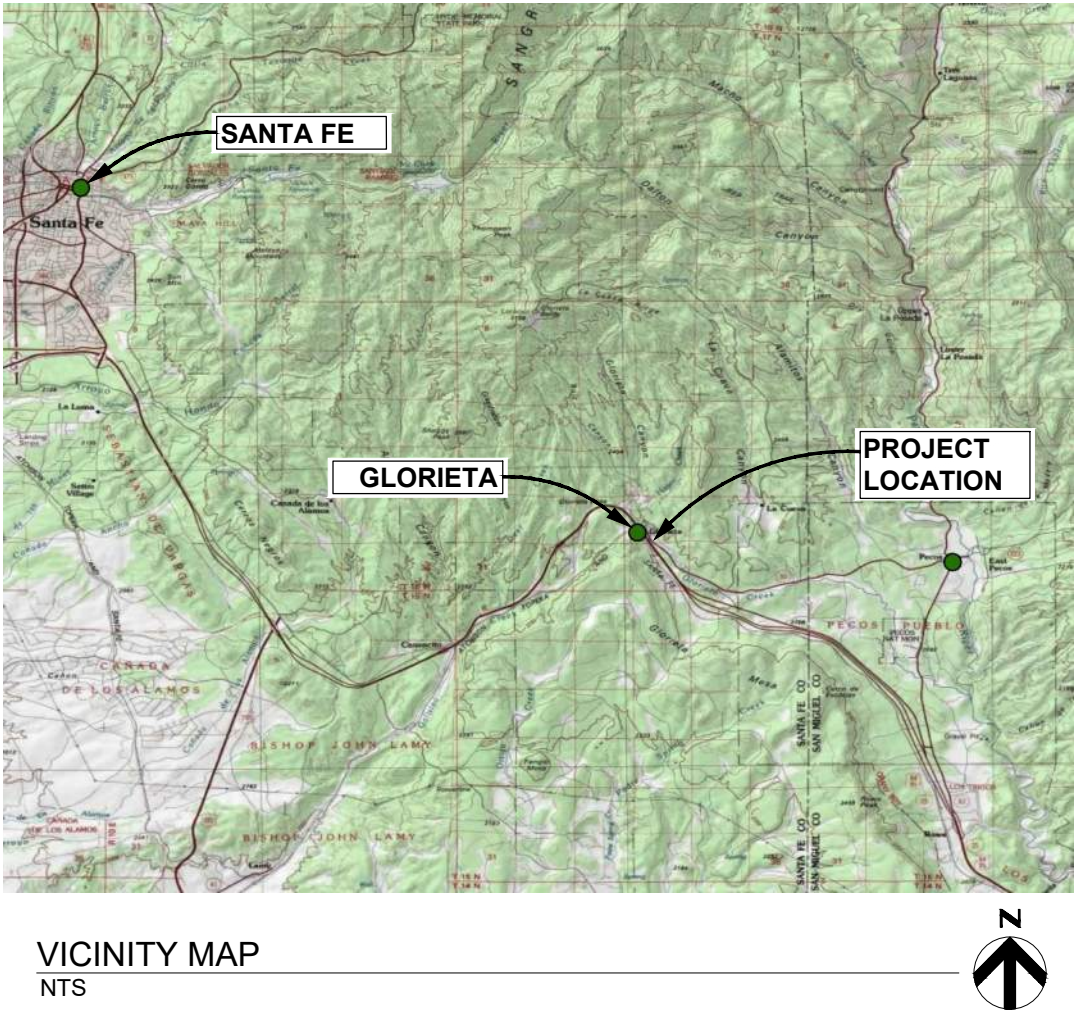
GLORIETA PHASE III - REGIONAL WATER QUALITY AND INFRASTRUCTURE IMPROVEMENTS

EAST GLORIETA DISTRIBUTION AND REGIONAL WELL

CDBG No. XXXX
WTB No. XXXX

Project No.:

OCTOBER 2021



8/5/22

NOTICE OF EXTENDED PAYMENT PROVISION THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENT WITHIN 45 DAYS AFTER SUBMISSION OF AN UNDISPUTED REQUEST FOR PAYMENT

1	2	3	4	5	6	7	8		
GENERAL ABBREVIATIONS						PIPING FLUID ABBREVIATIONS		EQUIPMENT ABBREVIATIONS	
<p>A</p> <p>AB ANCHOR BOLT, AERATION BASIN, AUGER BORING</p> <p>ABM AERATION BASIN MIXER</p> <p>ABN ABANDON IN PLACE</p> <p>ABND ABANDONED</p> <p>AC ASPHALT CONCRETE</p> <p>ACT ACOUSTICAL CEILING TILE</p> <p>AD AREA DRAIN</p> <p>ADDN ADDITION, ADDITIONAL</p> <p>ADMIN ADMINISTRATION</p> <p>AFF ABOVE FINISH FLOOR</p> <p>AHU AIR HANDLING UNIT</p> <p>AL ALUMINUM</p> <p>AL ALUMINUM</p> <p>AK ALUM ALUMINUM</p> <p>APPROX APPROXIMATE</p> <p>ARCH ARCHITECTURAL</p> <p>ARV AIR RELEASE VALVE</p> <p>ASSY ASSEMBLY</p> <p>AVG AVERAGE</p> <p>B</p> <p>B, BOT BOTTOM</p> <p>BCV BALL CHECK VALVE</p> <p>BD BOARD</p> <p>BDD BACKDRAFT DAMPER</p> <p>BF BLIND FLANGE</p> <p>BFV BUTTERFLY VALVE</p> <p>BLDG BUILDING</p> <p>BM BENCHMARK, BEAM, BERM</p> <p>BOD BOTTOM OF DUCT, BIOCHEMICAL OXYGEN DEMAND</p> <p>BOG BOTTOM OF GRILL</p> <p>BOP BOTTOM OF PIPE</p> <p>BPV BACK PRESSURE VALVE</p> <p>BRK BRICK</p> <p>BTW BETWEEN</p> <p>BSP BLACK STEEL PIPE</p> <p>BU BELL UP</p> <p>BV BALL VALVE</p> <p>BYF BYPASS</p> <p>C</p> <p>C CURB, CONDUIT</p> <p>C&G CURB & GUTTER</p> <p>CB CATCH BASIN</p> <p>CC CONTROL COORDINATE, CENTER TO CENTER</p> <p>CD CONTROL DAMPER</p> <p>CEM CEMENT</p> <p>CF CUBIC FEET</p> <p>CFM CUBIC FEET PER MINUTE</p> <p>CHKD CHECKERED</p> <p>CI CAST IRON</p> <p>CIP CAST IRON PIPE</p> <p>CJ CONSTRUCTION JOINT, CONTROL JOINT</p> <p>CL, Ȣ CENTERLINE, CHAIN LINK</p> <p>CLG CEILING</p> <p>CLR CLEAR, CLEARANCE</p> <p>CMP CORRUGATED METAL PIPE</p> <p>CMU CONCRETE MASONRY UNIT</p> <p>CND, C CONDUIT</p> <p>CNDS CONDENSATE</p> <p>CO CLEAN OUT</p> <p>COL COLUMN</p> <p>COMM COMMUNICATION</p> <p>CON CONCENTRIC</p> <p>CONN CONNECTION</p> <p>CONC CONCRETE</p> <p>CONST CONSTRUCTION</p> <p>CONT CONTINUOUS, CONTINUATION</p> <p>CP CONTROL POINT</p> <p>CPLG COUPLING</p> <p>CS CONCRETE SEALER/SURFACE</p> <p>CSP CAST IRON SOIL PIPE</p> <p>CT CERAMIC TILE</p> <p>CTR CENTER</p> <p>CU CONDENSING UNIT, COPPER</p> <p>CV CHECK VALVE</p> <p>CW COLD WATER</p> <p>CY CUBIC YARD</p> <p>D</p> <p>D DOOR</p> <p>DB DECK BEAM</p> <p>DBA DEFORMED BAR ANCHOR</p> <p>DECID DECIDUOUS</p> <p>DEG DEGREE</p> <p>DET DETAIL</p> <p>DF DRINKING FOUNTAIN</p> <p>DIA DIAMETER</p> <p>DIM DIMENSION</p> <p>DI DUCTILE IRON</p> <p>DIP DUCTILE IRON PIPE</p> <p>DISCH DISCHARGE</p> <p>DIST DISTANCE</p> <p>DL DEAD LOAD</p> <p>DMJ DOUBLE MECHANICAL JOINT</p> <p>DN DOWN</p> <p>DS DUPLEX MANUAL STRAINER, DUCT SUPPORT</p> <p>DT DOUBLE TEE</p> <p>DV DIAPHRAGM VALVE</p> <p>DW DOMESTIC WATER</p> <p>DWC DRAWING</p> <p>DWLS DOWELS</p> <p>DP DEPTH</p>		<p>E</p> <p>E EAST</p> <p>EA EACH, EXHAUST AIR</p> <p>ECC ECCENTRIC</p> <p>ED EQUIPMENT DRAIN</p> <p>EE EACH END</p> <p>EF EACH FACE</p> <p>EFFL EFFLUENT</p> <p>EJ EXPANSION JOINT</p> <p>EJM EXPANSION JOINT MATERIAL</p> <p>EL ELEVATION</p> <p>ELB ELBOW</p> <p>ELEC ELECTRICAL</p> <p>ENGR ENGINEER</p> <p>EOR EDGE OF ROAD</p> <p>EQUIP EQUIPMENT</p> <p>EQ EQUAL</p> <p>ESEW EMERGENCY SHOWER AND EYEWASH</p> <p>ET EXPANSION TANK</p> <p>EW EACH WAY</p> <p>EXH EXHAUST</p> <p>EXIST EXISTING</p> <p>EXP EXPANSION, EXPOSED</p> <p>EXP JT EXPANSION JOINT</p> <p>EXT EXTERIOR, EXTERNAL</p> <p>F</p> <p>FAB SILT FENCE</p> <p>FB FABRICATION</p> <p>FC FLOOR BEAM</p> <p>FC FLUSHING CONNECTION</p> <p>FCA FLANGED COUPLING ADAPTER</p> <p>FCV FLOW CONTROL VALVE</p> <p>FD FIRE DAMPER, FLOOR DRAIN, FILE DRAWER</p> <p>FDC FLEXIBLE DUCT CONNECTION</p> <p>FDN FOUNDATION</p> <p>FEXT FIRE EXTINGUISHER</p> <p>FEC FIRE EXTINGUISHER CABINET</p> <p>FF FINISH FLOOR</p> <p>FFE FINISH FLOOR ELEVATION</p> <p>FG FLAP GATE</p> <p>FH FIRE HYDRANT</p> <p>FIG FIGURE</p> <p>FILT FILTER</p> <p>FIN FINISHED</p> <p>FJ FELT JOINT</p> <p>FL FLOOR, FLASHING, FLOW LINE</p> <p>FLG FLANGE</p> <p>FLR FLOOR</p> <p>FM FORCE MAIN, FLOW METER</p> <p>FOB FLAT ON BOTTOM</p> <p>FOT FLAT ON TOP</p> <p>FP FULL PENETRATION</p> <p>FPT FEMALE PIPE THREAD</p> <p>FR FRAME</p> <p>FRP FIBERGLASS REINFORCED PLASTIC</p> <p>FT FEET, FOOT</p> <p>FTG FOOTING</p> <p>FXTR FIXTURE</p> <p>G</p> <p>G GAS, GASLINE, GROUND, GRAM</p> <p>GA GAGE</p> <p>GAL GALLON</p> <p>GALV GALVANIZED</p> <p>GI GRAVITY INLET</p> <p>GC GC GROOVED COUPLING</p> <p>GLV GLOBE VALVE</p> <p>GPM GALLONS PER MINUTE</p> <p>GND GROUND</p> <p>GR GRATING</p> <p>GRTG GRAVITY ROOF VENTILATOR</p> <p>GRV GRIT SCREW CONVEYOR</p> <p>GSC GALVANIZED STEEL PIPE</p> <p>GSP GLAZED STRUCTURAL UNIT</p> <p>GSU GATE VALVE</p> <p>GTV GRAVITY VENT, GATE VALVE</p> <p>GV GYPSUM WALLBOARD</p> <p>GWB GYPSUM</p> <p>GYP GYPSUM</p> <p>H</p> <p>H HATCH, HIGH, HYDRANT"</p> <p>HB HOSE BIB</p> <p>HD HARD DRAIN</p> <p>HDW HARDWARE</p> <p>HH HEX HEAD</p> <p>HM HOLLOW METAL</p> <p>HMC HARNESSED MECHANICAL COUPLING</p> <p>HORIZ HORIZONTAL</p> <p>HP HIGH POINT</p> <p>HR HANDRAIL</p> <p>HS HEADED STUD</p> <p>HT HEIGHT</p> <p>HV HOSE VALVE</p> <p>HVAC HEATING, VENTILATION & AIR CONDITIONING</p> <p>HW HOT WATER, HEADWALL</p>		<p>I</p> <p>ID INSIDE DIAMETER, INSIDE DIMENSION</p> <p>IE INVERT ELEVATION</p> <p>IF INSIDE FACE</p> <p>IH INTAKE HOOD</p> <p>IN INCH</p> <p>INC INCREASER</p> <p>INSUL INSULATION, INSULATED</p> <p>INT INTERIOR</p> <p>INV INVERT</p> <p>J</p> <p>JB JUNCTION BOX</p> <p>JT JOINT</p> <p>K</p> <p>KB KNEE BRACE</p> <p>KGV KNIFE GATE VALVE</p> <p>KS KNEE SPACE</p> <p>L</p> <p>L LONG, LOUVER, LENGTH, LENGTH OF CURVE</p> <p>LAM LAMINATE</p> <p>LAV LAVATORY VERTICAL</p> <p>LB POUND</p> <p>LCP LOCAL CONTROL PANEL</p> <p>LF LONG FACE</p> <p>LL LIVE LOAD</p> <p>LLO LONG LEG OUTSTANDING</p> <p>LLV LONG LEG VERTICAL</p> <p>LAB LABORATORY</p> <p>LAV LAVATORY</p> <p>LP LOW PRESSURE\LOW POINT</p> <p>LS LIFT STATION</p> <p>LW LIGHT WEIGHT</p> <p>LWL LOW WATER LEVEL</p> <p>M</p> <p>MAINT MAINTENANCE</p> <p>MAN MANUFACTURER</p> <p>MAS MASONRY</p> <p>MATL MATERIAL</p> <p>MAX MAXIMUM</p> <p>MB MACHINE BOLT, MEZZANINE BEAM</p> <p>MC MECHANICAL COUPLING</p> <p>MCJ MASONRY CONTROL JOINT</p> <p>MDMJ MODIFIED DOUBLE MECHANICAL JOINT</p> <p>MECH MECHANICAL</p> <p>MED MEDIUM</p> <p>MEZZ MEZZANINE</p> <p>MFR MANUFACTURER</p> <p>MH MANHOLE</p> <p>MIN MINIMUM, MINUTE</p> <p>MISC MISCELLANEOUS</p> <p>MJ MECHANICAL JOINT</p> <p>MO MASONRY OPENING</p> <p>MOD MODIFIED, MODIFICATION</p> <p>MOV MOTOR OPERATED VALVE</p> <p>MGRWB MOUNTURE RESISTANT GYPSUM WALLBOARD</p> <p>MTD MOUNTED</p> <p>MTG MOUNTING</p> <p>MTL METAL</p> <p>N</p> <p>N NORTH</p> <p>NA NOT APPLICABLE</p> <p>NC NON CORROSIVE</p> <p>NEC NATIONAL ELECTRIC CODE</p> <p>NIC NOT IN CONTRACT</p> <p>NO NUMBER</p> <p>NOM NOMINAL</p> <p>NPT NATIONAL PIPE THREADS</p> <p>NPW NON-POTABLE WATER</p> <p>NRS NONRISING STEM</p> <p>NTS NOT TO SCALE</p> <p>NW NORTHWEST</p> <p>O</p> <p>OA OUTSIDE AIR</p> <p>OBVD OPPOSED BLADE VOLUME DAMPER</p> <p>OC ON CENTER(S)</p> <p>OD OUTSIDE DIAMETER</p> <p>OE OVERHEAD ELECTRICAL</p> <p>OED OPEN END DUCT</p> <p>OF OUTSIDE FACE</p> <p>OH,OVHD OVERHEAD, OPPOSITE HAND</p> <p>OPNG OPENING</p> <p>OPP OPPOSITE</p> <p>ORD OVERFLOW ROOF DRAIN</p> <p>ORIG ORIGINAL</p> <p>ORL OVERFLOW ROOF LEADER</p> <p>OS & Y OUTSIDE STEM AND YOKE</p>		<p>P</p> <p>PC PRIMARY CLARIFIER</p> <p>PD PRIMARY DIGESTER</p> <p>PE PLAIN END, PRESSURE ELEMENT"</p> <p>PED PEDESTAL</p> <p>PG PRESSURE GAGE</p> <p>PI POINT OF INTERSECTION, PRESSURE INDICATOR</p> <p>PJF PREMOLDED JOINT FILLER</p> <p>PL PLATE, PLACE, PLASTIC</p> <p>PLCS PLACES</p> <p>P/L PROPERTY LINE</p> <p>PLYWD PLYWOOD</p> <p>PNL PANEL</p> <p>PNT PAINT</p> <p>POC POINT OF CURVE</p> <p>POT POINT OF TANGENCY</p> <p>PP POWER POLE</p> <p>PRELIM PRELIMINARY</p> <p>PRI PRIMARY</p> <p>PROJ PROJECTION</p> <p>PRS PRESSURE REDUCING STATION</p> <p>PRV PRESSURE REDUCING VALVE</p> <p>PS PIPE SUPPORT</p> <p>PSF POUNDS PER SQUARE FOOT</p> <p>PSL PIPE SLEEVE</p> <p>PT PRESSURE TREATED, POINT, POINT OF TANGENT</p> <p>PTD PAPER TOWEL DISPENSER</p> <p>PTN PARTITION</p> <p>PV PLUG VALVE</p> <p>PVC POLYVINYL CHLORIDE</p> <p>PVMT PAVEMENT</p> <p>R</p> <p>R&R RADIUS, RIGHT, RISER, RUBBER SHEATH</p> <p>R REMOVE AND REPLACE PER ORIGINAL OR BETTER</p> <p>RA RETURN AIR</p> <p>RAD RADIUS</p> <p>RB ROOF BEAM, RUBBER BASE</p> <p>RBC ROTATING BIOLOGICAL CONTRACTORS</p> <p>RCCP REINFORCED CONIC PIPE</p> <p>RCP REINFORCED CONCRETE PIPE</p> <p>RD ROOF DRAIN, ROAD</p> <p>RDL ROOF DRAIN LEADER</p> <p>RECIRC RECIRCULATION</p> <p>RECP RECEPTACLE</p> <p>RECT RECTANGULAR</p> <p>RED REDUCER</p> <p>REF REFERENCE</p> <p>REINF REINFORCE(ING)</p> <p>REG REGULATOR, REGISTER</p> <p>REQ REQUIRE(ED)</p> <p>REV REVISION</p> <p>RF ROOF, RETURN FAN</p> <p>RH RELIEF HOOD</p> <p>RI RUBBER INSULATED</p> <p>RM ROOM(S)</p> <p>R&R REMOVE & REPLACE PER ORIGINAL</p> <p>R&S REMOVE & SALVAGE TO OWNER TO ONSITE</p> <p>RSV LOCATION AS DIRECTED</p> <p>RVT RESILIENT SHEET VINYL</p> <p>R/W RESILIENT VINYL TILE</p> <p>RIGHT OF WAY</p> <p>S</p> <p>S SOUTH, STRAINER, SECOND, SANITARY, SEWER, STRUCTURE</p> <p>SAN SANITARY SEWER</p> <p>SB SPLITTER BOX</p> <p>SC SECONDARY CLARIFIER</p> <p>SCH SCHEDULE</p> <p>SD SECONDARY DIGESTER, STORM DRAIN, SPLITTER DAMPER</p> <p>SOUTHEAST</p> <p>SE SECTION</p> <p>SERV SERVICE</p> <p>SF SHORT FACE</p> <p>SG SUPPLY GRILL</p> <p>SHT,SH SHEET</p> <p>SIM SIMILAR</p> <p>SL SLOPE</p> <p>SLG SLIDE GATE</p> <p>SLO SHORT LEG OUTSTANDING</p> <p>SLV SHORT LEG VERTICAL</p> <p>SP STOP PLATE</p> <p>SPA SPACING</p> <p>SPEC SPECIFICATION</p> <p>SQ SQUARE</p> <p>SR SUPPLY REGISTER</p> <p>SS SERVICE SINK, SANITARY SEWER</p> <p>SST STAINLESS STEEL</p> <p>STA STATION</p> <p>STD STANDARD</p> <p>STIR STIRRUP</p> <p>STL STEEL</p> <p>STR STRAINER</p> <p>SUG SLUICE GATE</p> <p>SUP SUPPORT</p> <p>SUSP SUSPENDED</p> <p>SW SIDEWALK</p> <p>SWBD SWITCHBOARD</p> <p>SWGR SWITCH GEAR</p> <p>SYM SYMMETRICAL</p>		<p>T</p> <p>T TREADS, THICK, TILE, TOP, TANGENT</p> <p>T&B TOP AND BOTTOM</p> <p>TBM TEMPORARY BENCHMARK</p> <p>TC TOP OF CURB</p> <p>TF TEMPORARY</p> <p>TF TRICKLING FILTER</p> <p>THD THREADED</p> <p>THSLD THRESHOLD</p> <p>TI TEMPERATURE INDICATOR (THERMOMETER)</p> <p>TO TOP OF</p> <p>TOC TOP OF CONCRETE</p> <p>TOD TOP OF DUCT</p> <p>TOF TOP OF FOOTING</p> <p>TOG TOP OF GRATING</p> <p>TOS TOP OF SUPPORT OR TOP OF STEEL</p> <p>TOW TOP OF WALL</p> <p>TP TOP OF PIPE</p> <p>TRANS TRANSITION</p> <p>TS TUBULAR STEEL, TOP OF STEEL, TOP OF STONE, TOP OF SLAB</p> <p>TW TOP OF WALL</p> <p>TYP TYPICAL</p> <p>U</p> <p>UG UNDERGROUND</p> <p>UGE UNDERGROUND ELECTRIC</p> <p>UNK UNKNOWN</p> <p>UNO UNLESS NOTED OTHERWISE</p> <p>UR URINAL</p> <p>UV ULTRAVIOLET</p> <p>V</p> <p>V VALVE</p> <p>VAC VACUUM</p> <p>VAR VARNISH</p> <p>VD VOLUME DAMPER</p> <p>VENT VENTILATING</p> <p>VERT VERTICAL</p> <p>VIF VERIFY IN FIELD</p> <p>VTR VENT THRU ROOF</p> <p>W</p> <p>W WATER, WINDOW, WIDE, WEST, WEIR</p> <p>WC WATER CLOSET</p> <p>WD WOOD</p> <p>WFM WATER FLOW METER</p> <p>WH WATER HEATER</p> <p>WP WATERPROOF(ED),(ING),WEIR PLATE</p> <p>WS WATERSTOP</p> <p>WT WEIGHT</p> <p>WWF WELDED WIRE FABRIC</p> <p>W/ WITH</p> <p>W/O WITHOUT</p> <p>X</p> <p>XFMR TRANSFORMER</p> <p>Y</p> <p>YH YARD HYDRANT</p>	
				MISCELLANEOUS ABBREVIATIONS					
				2:1, SL 1 ON 2 ø Δ		2 HORIZONTAL TO 1 VERTICAL SLOPE 1 VERTICAL ON 2 HORIZONTAL SLOPE DIAMETER, PHASE DEFLECTION ANGLE			

GENERAL NOTES:

1.

THESE ABBREVIATIONS APPLY TO THE ENTIRE SET OF CONTRACT DRAWINGS.

2.

LISTING OF ABBREVIATIONS DOES NOT IMPLY THAT ALL ABBREVIATIONS ARE USED IN THE CONTRACT DRAWINGS.

3.

ABBREVIATIONS SHOWN ON THIS SHEET INCLUDE VARIATIONS OF A WORD. FOR EXAMPLE, "MOD" MAY MEAN MODIFY OR MODIFICATION; "INC" MAY MEAN INCLUDED OR INCLUDING AND "REINF" MAY MEAN EITHER REINFORCE OR REINFORCING.

NOTICE OF EXTENDED PAYMENT PROVISION THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENT WITHIN 45 DAYS AFTER SUBMISSION OF AN UNDISPUTED REQUEST FOR PAYMENT



			PROJECT MANAGER		C. RODRIGUEZ
			DESIGNER		B. FLORES
			DESIGNER		
			DESIGNER		
			CHECKER		W. CHACON
			DRAWN BY		B. FLORES
OCT 2021			FINAL 100% PROGRESS SUBMITTAL		
ISSUE	DATE	DESCRIPTION	PROJECT NUMBER		210565



8/5/22

**GREATER GLORIETA MDWCA
NEW MEXICO**

**EAST GLORIETA
DISTRIBUTION & REGIONAL WELL**

GENERAL ABBREVIATIONS



FILENAME	00G-03.dwg
SCALE	NONE

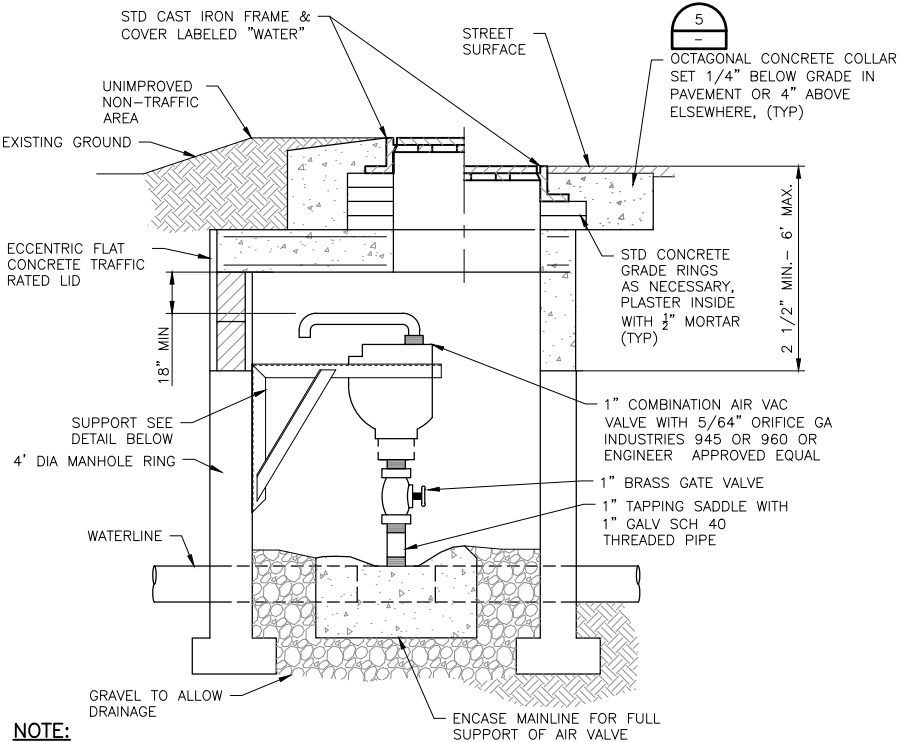
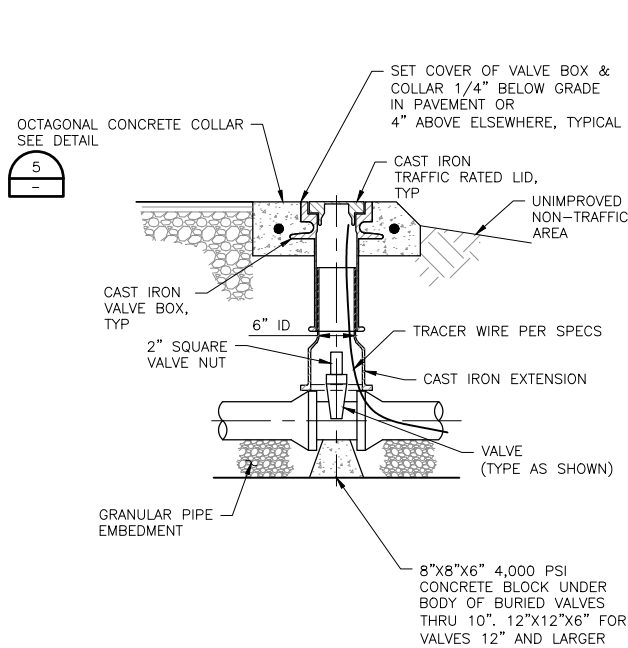
SHEET
G-03

NOTICE OF EXTENDED PAYMENT PROVISION THIS
CONTRACT ALLOWS THE OWNER TO MAKE
PAYMENT WITHIN 45 DAYS AFTER SUBMISSION OF
AN UNDISPUTED REQUEST FOR PAYMENT

Date: Oct 25, 2021 — 5:19pm BLORES Layout: Plot
Drawing Name: 000000000201565/13.00_CAD/13.02_Sheet_Files_East_Glorieta_Distribution phase III/00G-05.dwg

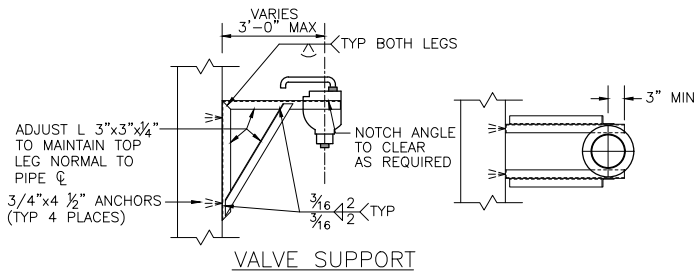
VALVE BOX

NTS



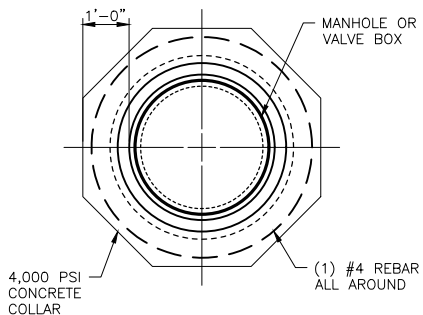
NOTE:

1. ENSURE INSTALLATION OF VALVE AT TRUE HIGH POINT OF PIPE FOR PROPER AIR RELEASE.
2. INSTALL SUPPORTS & CASING SUCH THAT PIPE PROVIDES NO SUPPORT FOR AIR VALVE



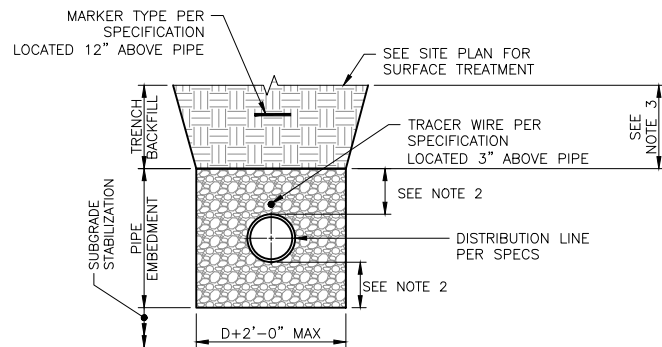
AIR VACUUM VALVE AND SUPPORT

NTS



CONCRETE COLLAR

NTS

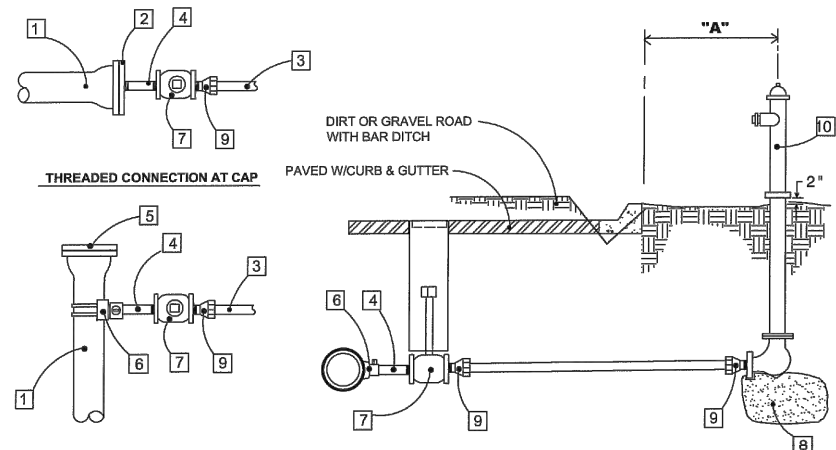


NOTES:

1. D = OUTSIDE DIAMETER OF PIPE.
2. DEPTH PER PIPE MANUFACTURER'S RECOMMENDATIONS. MIN DEPTH OF EMBEDMENT: 8".
3. MIN COVER = 4' FROM FROST DEPTH

TYPICAL TRENCH DETAIL

NTS



CONNECTION WITH TAP/SERVICE SADDLE

CONNECTION AT MAIN

KEYED NOTES

- 1 RESTRAINED DEAD END MAIN
- 2 MJ CAP/PLUG W / 2" TAP
- 3 2" TYPE-K COPPER
- 4 2" BRASS NIPPLE
- 5 MJ CAP/PLUG
- 6 2" SERVICE SADDLE W / IPS THREADS
- 7 2" HEAVY DUTY THREADED GATE VALVE W / BOX
- 8 1/4 YARD OF GRAVEL AT DRAIN
- 9 ADAPTER: 2" COMPRESSION x 2" MIP
- 10 2-1/4" POST TYPE HYDRANT WITH SANTA FE THREADS

CONSTRUCTION NOTES

1. DIMENSION "A" IS TYPICAL 18" BACK OF CURB TO VALVE IN PAVED AREAS AND IS MINIMUM OF 18" BEHIND BAR DITCH IN UNPAVED AREAS BUT CAN BE EXTENDED UP TO 72" TO FIT FIELD CONDITIONS.

FLUSH HYDRANT

NTS

LENGTH OF RESTRAINT FOR TEES (FT)		
BRANCH SIZE	10"x10"xBRANCH*	
3"	AT FITTING	
4"	AT FITTING	
6"	AT FITTING	
8"	AT FITTING	

* EACH RUN PIPE SHALL HAVE MINIMUM 10' W/O JOINTS ON EACH SIDE OF BRANCH.

LENGTH OF RESTRAINT FOR TEES (FT)		
BRANCH SIZE	6"x6"xBRANCH*	
3"	AT FITTING	
4"	AT FITTING	
6"	AT FITTING	
8"	AT FITTING	

* EACH RUN PIPE SHALL HAVE MINIMUM 10' W/O JOINTS ON EACH SIDE OF BRANCH.

LENGTH OF RESTRAINED PIPE (FEET) FOR REDUCERS			
PIPE SIZE	PIPE SIZE	SMALL SIDE	LARGE SIDE
8"	6"	40'	40'

LENGTH OF RESTRAINT FOR TEES (FT)		
BRANCH SIZE	8"x8"xBRANCH*	
3"	AT FITTING	
4"	AT FITTING	
6"	AT FITTING	
8"	AT FITTING	

* EACH RUN PIPE SHALL HAVE MINIMUM 10' W/O JOINTS ON EACH SIDE OF BRANCH.

LENGTH OF RESTRAINED PIPE (FEET) FOR HORIZONTAL BENDS						
PIPE SIZE	90°	45°	22 1/2°	11 1/4°	VALVE	DEAD END
3"	20'	20'	20'	20'	60'	60'
4"	20'	20'	20'	20'	60'	60'
6"	20'	20'	20'	20'	60'	60'
8"	40'	20'	20'	20'	80'	80'
10"	40'	20'	20'	20'	80'	100'

NOTE: RESTRAINING GLANDS SHALL BE USED AT ALL FITTINGS AND CONNECTIONS SHALL BE RESTRAINED WITH HARNESSSES PER TABLE.

BURIED PIPE RESTRAINT TABLE



PROJECT MANAGER C. RODRIGUEZ		
DESIGNER	B. FLORES	
DESIGNER		
DESIGNER		
CHECKER	W. CHACON	
DRAWN BY	B. FLORES	
OCT 2021 FINAL 100% PROGRESS SUBMITTAL		
ISSUE	DATE	DESCRIPTION

PROJECT MANAGER C. RODRIGUEZ	
DESIGNER	B. FLORES
DESIGNER	
DESIGNER	
CHECKER	W. CHACON
DRAWN BY	B. FLORES
PROJECT NUMBER 210565	



8/5/22

GREATER GLORIETA MDWCA
NEW MEXICO

EAST GLORIETA
DISTRIBUTION & REGIONAL WELL

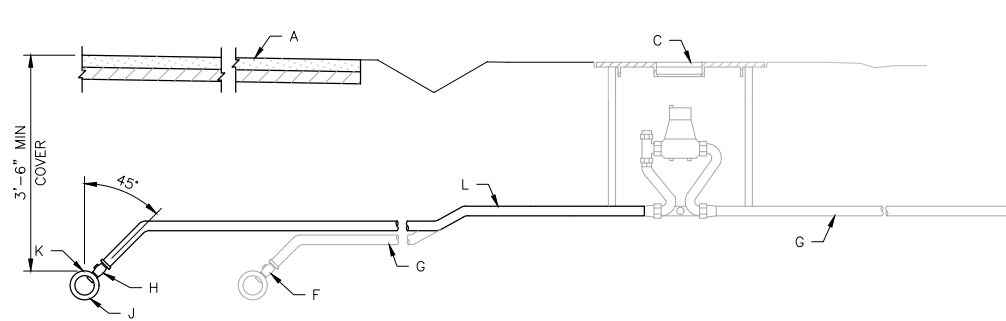
GENERAL
CIVIL DETAILS



FILENAME 00G-05.dwg
SCALE NONE

SHEET
G-05

NOTICE OF EXTENDED PAYMENT PROVISION THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENT WITHIN 45 DAYS AFTER SUBMISSION OF AN UNDISPUTED REQUEST FOR PAYMENT

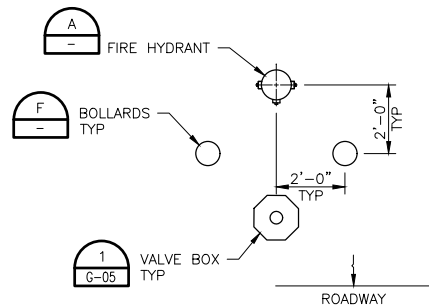


- A. STREET SURFACE—REMOVE & REPLACE
- B. NOT USED
- C. EXISTING METER BOX & COLLAR LID
- D. NOT USED
- E. NOT USED
- F. EXISTING WATER MAIN AND SERVICE CONNECTION
- G. EXISTING SERVICE LINE TUBING
- H. CORP STOP FOR NEW CONNECTION
- J. NEW MAIN WATER LINE.
- K. TAPPING SADDLE FOR NEW CONNECTION
- L. NEW HDPE TUBING PER SPECIFICATIONS WITH NO MORE THAN ONE (1) SPLICE. IF MORE THAN ONE CUT NECESSARY, REPLACE FROM METER TO MAIN AT NO ADDITIONAL COST TO OWNER.

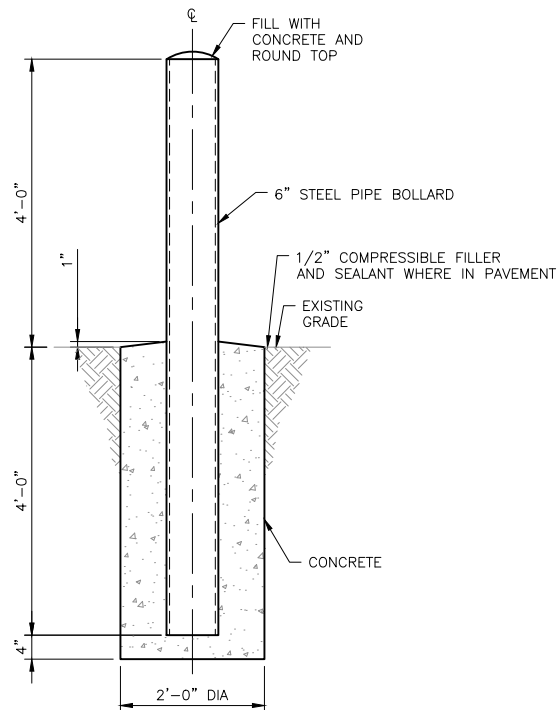
NTS

1. ALL PIPING SHALL BE FULLY RESTRAINED.
2. INSTALL FIRE HYDRANT PER SPECIFICATIONS.
3. NO OBSTRUCTIONS WILL BE PERMITTED WITHIN 3 FT. OF FIRE HYDRANT.
4. HYDRANT LEG SHALL BE VALVED ON ALL MAIN LINES.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR SETTING TOP FLANGE OF FIRE HYDRANT TO THE CONTROLLED ELEVATION LINE.
6. FIRE HYDRANT SHALL BE LOCATED AT THE BEGINNING OF CURB RETURN OR AT THE PROPERTY LINE COMMON TO ADJOINING LOTS, OR AS DIRECTED BY THE OWNER.
7. PUMPER NOZZLE TO BE SET FACING THE TRAVELED WAY, UNLESS OTHERWISE NOTED ON PLANS..
8. FLANGE TO BE LOCATED 1" MAX ABOVE PAVEMENT OR 4" MAX ABOVE GRADE IN UNIMPROVED AREAS.
9. CLEARANCE AROUND FIT SHALL BE GRADED TO DRAIN.

NTS



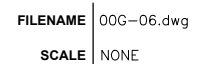
NTS



NTS

GENERAL

CIVIL DETAILS



SHEET
G-06

Date: Oct 25, 2021 — 5:18pm BFLORES Layout: Plot
Drawing Name: 00000000201565\13.00_CAD\13.02_Sheet_Files_East_Glorieta_Distribution_phase III\00G-06.dwg



NOTICE OF EXTENDED PAYMENT PROVISION THIS
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—	OCT 2021	FINAL 100% PROGRESS SUBMITTAL
ISSUE	DATE	DESCRIPTION



8/5/22

**GREATER GLORIETA MDWCA
NEW MEXICO**

**EAST GLORIETA
DISTRIBUTION & REGIONAL WELL**

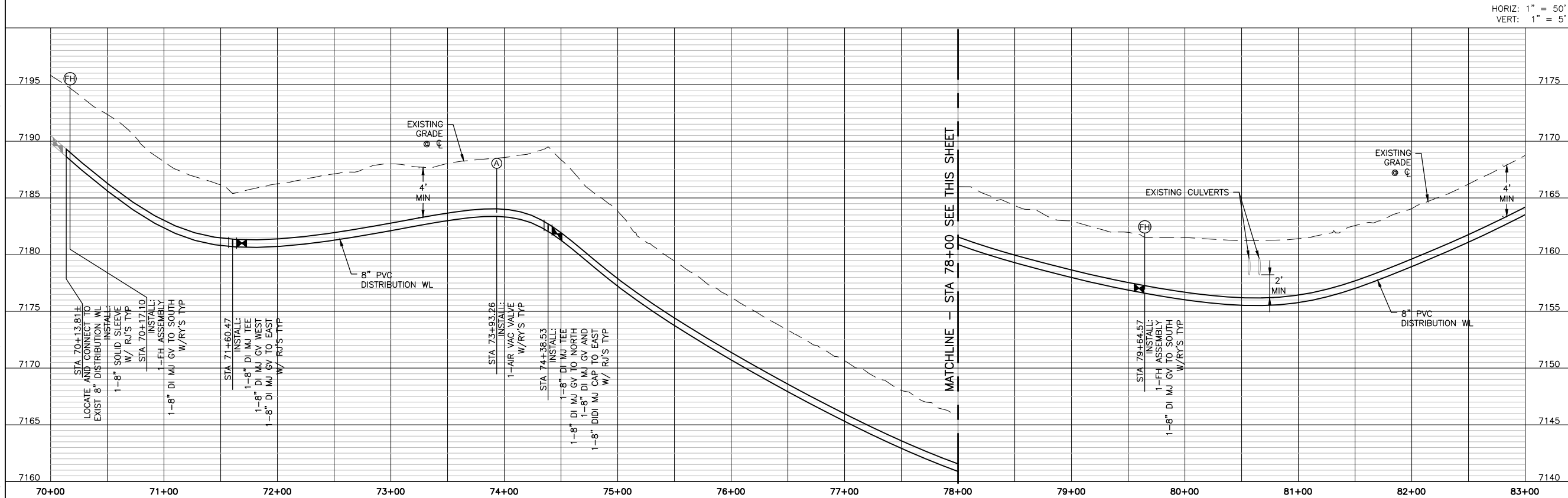
GENERAL PLAN AND PROFILE SHEET INDEX



FILENAME	00G-08.dwg
SCALE	1" = 100'

SHEET
G-08

Date: Oct 25, 2021 — 5:10pm B.FLORES Layout: Plot
Drawing Name: 000000000201565/13.00_CAD/13.02_Sheet_Files_East_Glorieta_Distribution phase III/00C-01.dwg



NOTES:

1. CONTRACTOR TO MAINTAIN MINIMUM COVER OF 4 FEET OVER TOP OF PIPE.
2. DEFLECT PIPE JOINTS HORIZONTALLY AND/OR VERTICALLY AS NECESSARY IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS TO MAINTAIN ALIGNMENT. THE ADDITION, DELETION, AND/OR ADJUSTMENT OF FITTINGS HORIZONTALLY AND/OR VERTICALLY MAY BE COMPLETED BY THE CONTRACTOR, WITH APPROVAL FROM THE ENGINEER, TO MODIFY THE ALIGNMENT OF THE PIPELINE AS NECESSARY TO ACCOMMODATE UNFORESEEN CONDITIONS IN THE FIELD AND MINIMIZE HIGH POINTS.
3. ALL EXISTING SERVICES TO BE RECONNECTED. SERVICE CONNECTION LENGTH AND LOCATION ARE APPROXIMATE. CONTRACTOR TO COORDINATE WITH PROPERTY OWNER/GREATER GLORIETA STAFF TO COMPLETE RECONNECTION.
4. CONTRACTOR SHALL VERIFY FINAL LOCATION OF HYDRANTS, VALVES AND METERS IN FIELD WITH OWNER AT NO ADDITIONAL COST.
5. ABANDONMENT OF EXISTING WATERLINES TO BE COMPLETED BY CONTRACTOR AT NO ADDITIONAL COST TO OWNER. CONTRACTOR SHALL COORDINATE ABANDONMENT OF EXISTING WATERLINES WITH OWNER FOLLOWING INSTALLATION OF NEW WATERLINES.

KEY NOTES:

1. CONTRACTOR SHALL PROVIDE REQUIRED CONNECTION COMPONENTS AS PART OF THE CONNECTION. ALL COSTS ASSOCIATED WITH FIELD VERIFICATION AND ALL REQUIRED CONNECTION FITTINGS SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE WATER LINE CONNECTION BID ITEM.
2. INSTALL NEW 3/4" WATER SERVICE, AND METER BOX PER SPECIFICATIONS AND DETAIL B ON SHEET G-07. RELOCATE EXISTING WATER METER TO NEW METER BOX AND ABANDON EXISTING WATER SERVICE. CONTRACTOR TO COORDINATE FINAL LOCATION WITH LOCAL WATER UTILITY.
3. RELOCATE EXISTING WATER SERVICE WITHIN HOMEOWNERS PROPERTY FROM LOCATION OF EXISTING WATER METER TO NEW LOCATION OF WATER METER. SEE SHEET C-05 FOR APPROXIMATE EXISTING WATER METER LOCATIONS AND ADDRESSES.

NOTICE OF EXTENDED PAYMENT PROVISION THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENT WITHIN 45 DAYS AFTER SUBMISSION OF AN UNDISPUTED REQUEST FOR PAYMENT

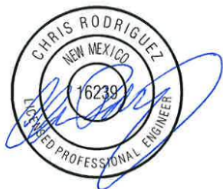


—	OCT 2021	FINAL 100% PROGRESS SUBMITTAL
ISSUE	DATE	DESCRIPTION

PROJECT MANAGER C. RODRIGUEZ

DESIGNER	B. FLORES
DESIGNER	
DESIGNER	
CHECKER	W. CHACON
DRAWN BY	B. FLORES

PROJECT NUMBER 210565



8/5/22

GREATER GLORIETA MDWCA
NEW MEXICO

EAST GLORIETA
DISTRIBUTION & REGIONAL WELL

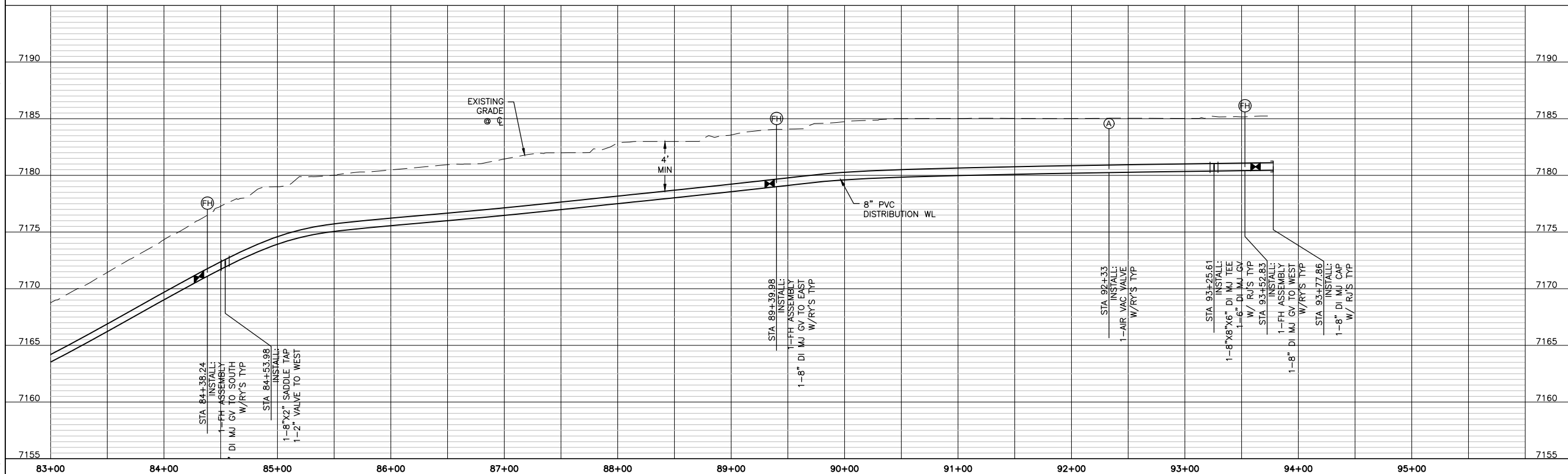
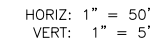
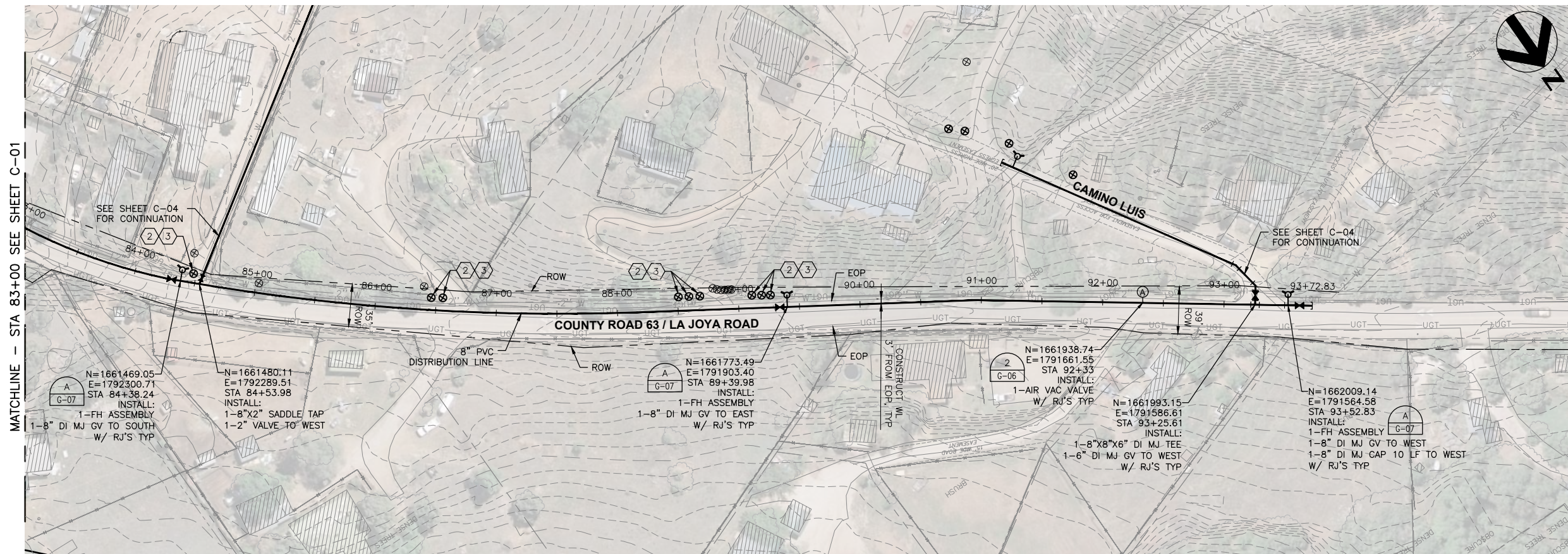
CIVIL

PLAN AND PROFILE
STA 70+00 TO STA 83+00

0 1" 2"
FULL SIZE GRAPHIC SCALE

FILENAME 00C-01.dwg
SCALE AS SHOWN

SHEET
C-01



NOTES:

1. CONTRACTOR TO MAINTAIN MINIMUM COVER OF 4 FEET OVER TOP OF PIPE.
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NOTICE OF EXTENDED PAYMENT PROVISION THIS
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			PROJECT MANAGER C. RODRIGUEZ	
			DESIGNER	B. FLORES
			DESIGNER	
			DESIGNER	
			CHECKER	W. CHACON
			DRAWN BY	B. FLORES
–	–OCT 2021	FINAL 100% PROGRESS SUBMITTAL		
ISSUE	DATE	DESCRIPTION	PROJECT NUMBER	210565



8/5/22

**GREATER GLORIETA MDWCA
NEW MEXICO**

EAST GLORIETA DISTRIBUTION & REGIONAL WELL

| **CIVIL**

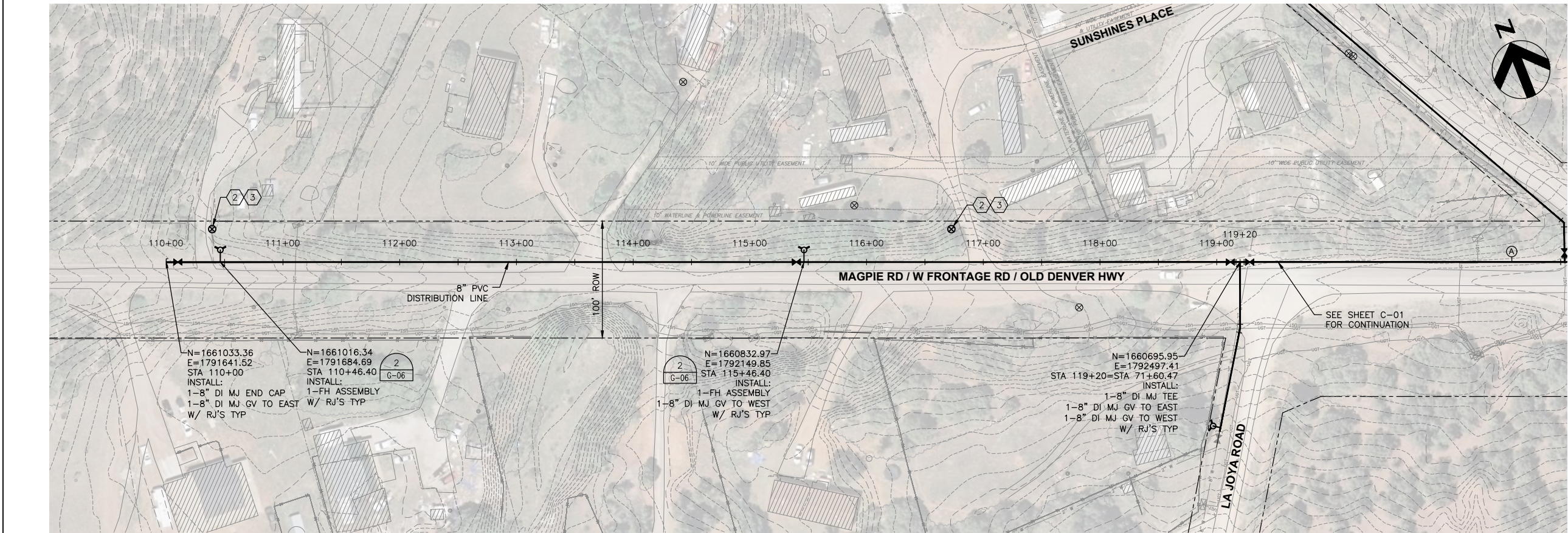
**PLAN AND PROFILE
STA 83+00 TO STA 93+72.83**



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SCALE	AS SHOWN

SHEET
C-02

Date: Oct 25, 2021 -- 5:07pm BLORES Layout: Plot
Drawing Name: 000000000201965/13.00_CAD/13.02_Sheet_East_Glorieta_Distribution phase III/00C-03.dwg



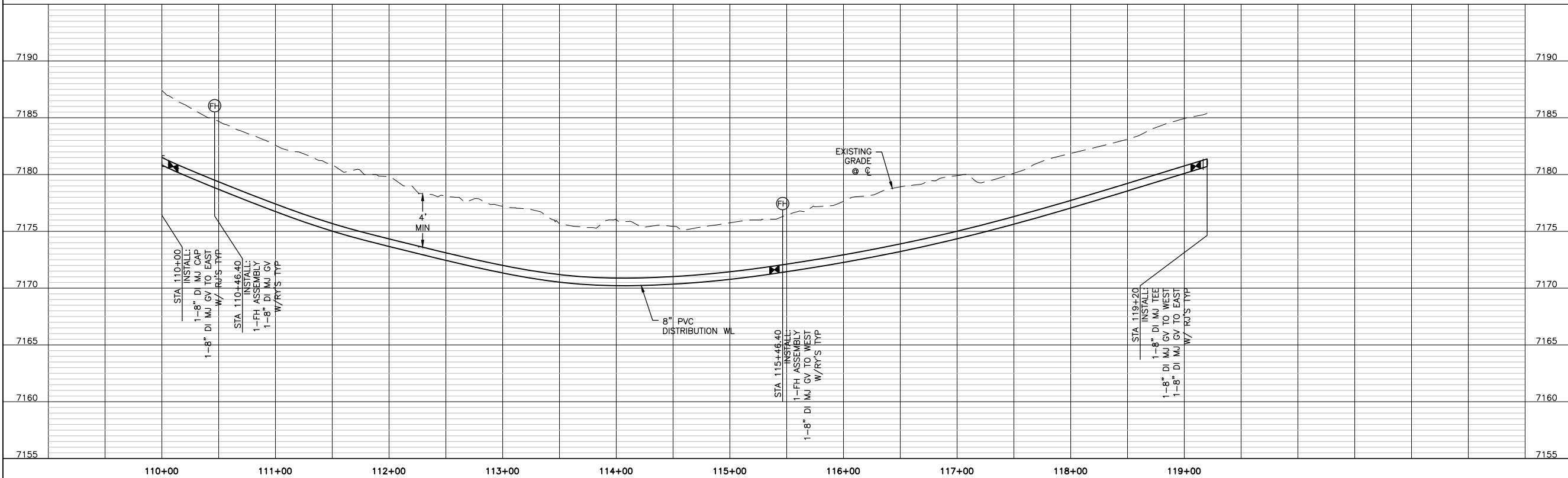
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HORIZ: 1" = 50'
VERT: 1" = 5'



NOTICE OF EXTENDED PAYMENT PROVISION THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENT WITHIN 45 DAYS AFTER SUBMISSION OF AN UNDISPUTED REQUEST FOR PAYMENT



PROJECT MANAGER C. RODRIGUEZ		
DESIGNER B. FLORES		
DESIGNER		
DESIGNER		
CHECKER W. CHACON		
DRAWN BY B. FLORES		
PROJECT NUMBER 210565		
ISSUE	DATE	DESCRIPTION
—	—OCT 2021	FINAL 100% PROGRESS SUBMITTAL

PROJECT MANAGER C. RODRIGUEZ	
DESIGNER B. FLORES	
DESIGNER	
DESIGNER	
CHECKER W. CHACON	
DRAWN BY B. FLORES	
PROJECT NUMBER 210565	



8/5/22

GREATER GLORIETA MDWCA
NEW MEXICO

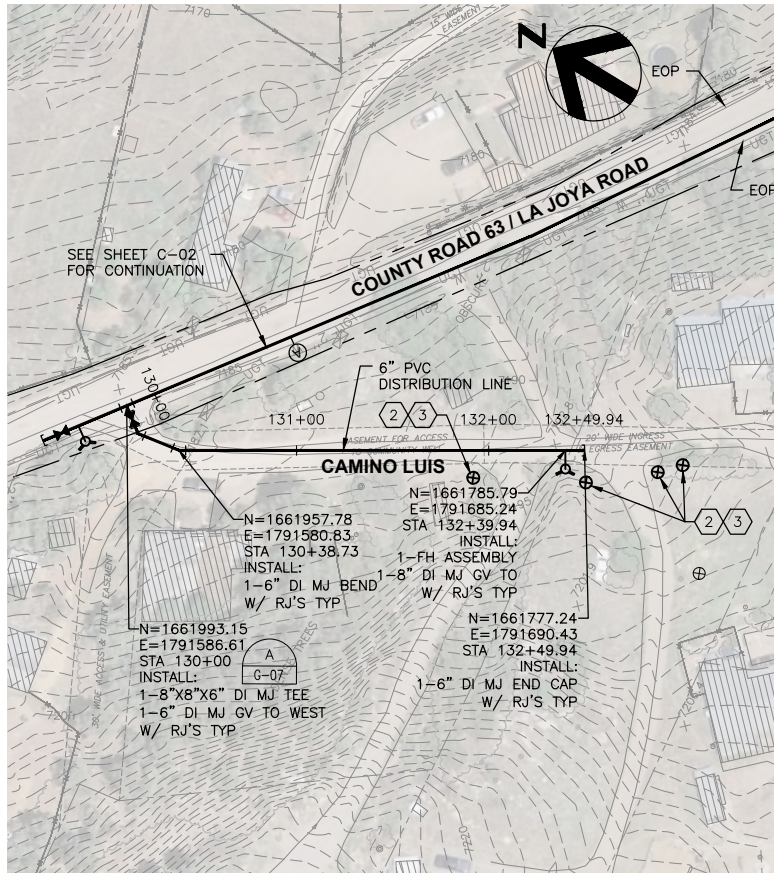
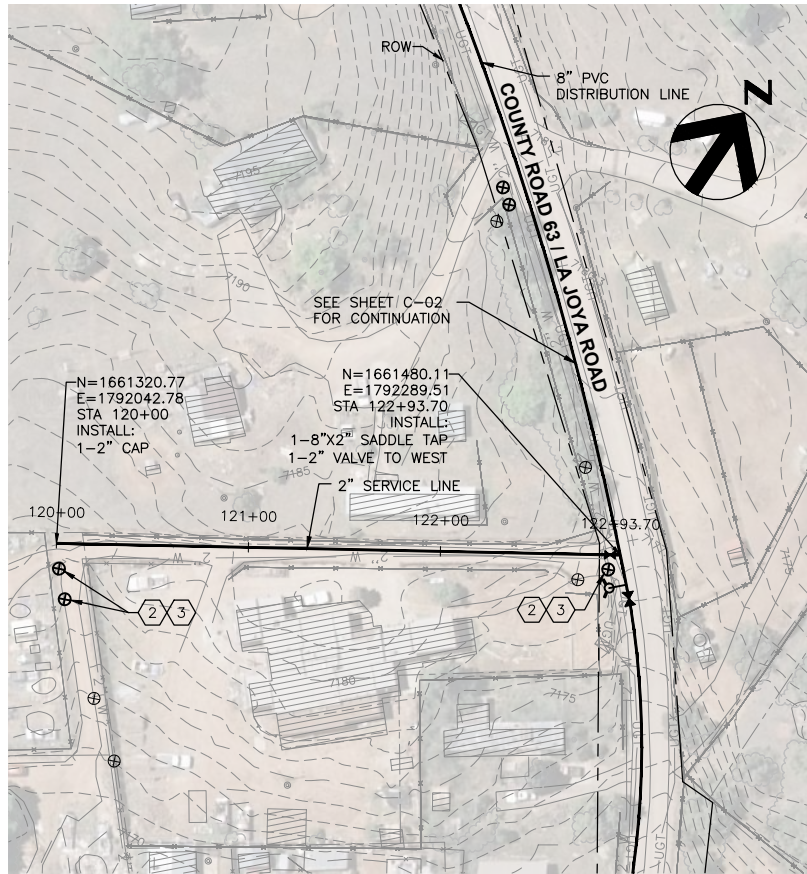
EAST GLORIETA
DISTRIBUTION & REGIONAL WELL

CIVIL
PLAN AND PROFILE STA 110+00 TO STA 119+00

0 1" 2"
FULL SIZE GRAPHIC SCALE
FILENAME 00C-03.dwg
SCALE AS SHOWN

SHEET
C-03

Date: Oct 25, 2021 -- 5:05pm BLORES Layout: Plot
Drawing Name: 000000000201565/13.00_CAD/13.02_Sheet_Files_East_Glorieta_Distribution phase III/00C-04.dwg



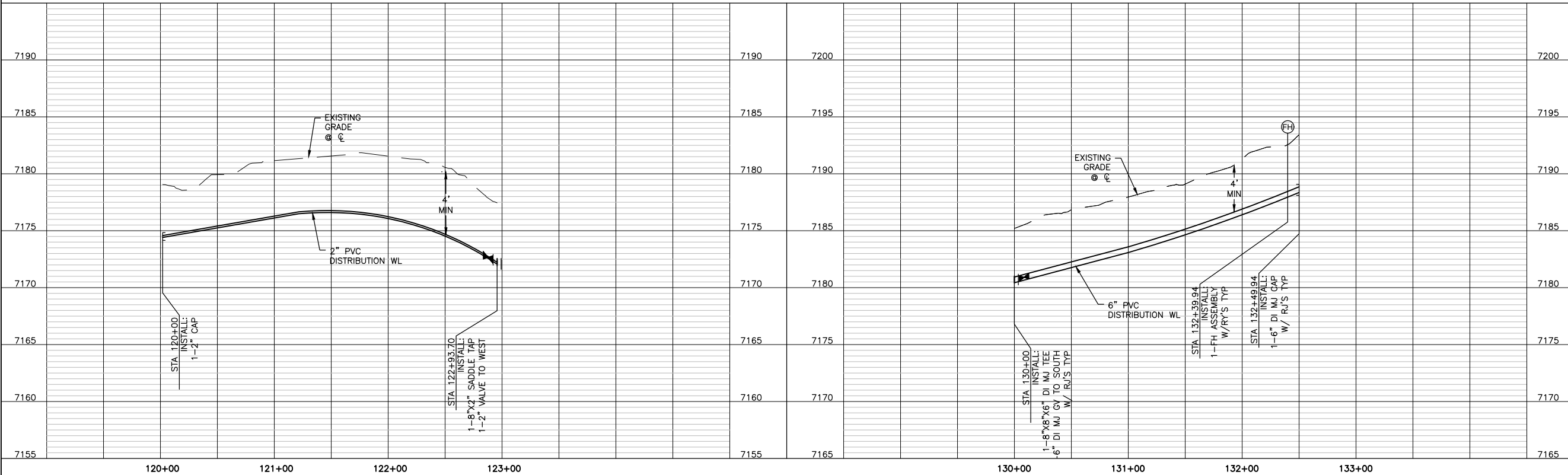
NOTES:

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NOTICE OF EXTENDED PAYMENT PROVISION THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENT WITHIN 45 DAYS AFTER SUBMISSION OF AN UNDISPUTED REQUEST FOR PAYMENT



— OCT 2021 FINAL 100% PROGRESS SUBMITTAL		
ISSUE	DATE	DESCRIPTION

PROJECT MANAGER C. RODRIGUEZ	
DESIGNER	B. FLORES
DESIGNER	
DESIGNER	
CHECKER	W. CHACON
DRAWN BY	B. FLORES
PROJECT NUMBER 210565	



8/5/22

GREATER GLORIETA MDWCA
NEW MEXICO

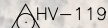
EAST GLORIETA
DISTRIBUTION & REGIONAL WELL

CIVIL
PLAN AND PROFILE
STA 120+00 TO STA 122+93.70
STA 130+00 TO STA 132+49.94





FILENAME 00C-04.dwg
SCALE AS SHOWN

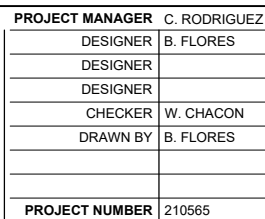
SHEET
C-04



LEGEND:

	EXISTING WATER METER LOCATION
	NEW WATER METER LOCATION

NOTICE OF EXTENDED PAYMENT PROVISION THIS
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8/5/22

**GREATER GLORIETA MDWCA
NEW MEXICO**

**EAST GLORIETA
DISTRIBUTION & REGIONAL WELL**

CIVIL

WATER METER CONNECTION PLAN



FILENAME	00C-05.dwg
SCALE	1" = 80'

SHEET
C-05

SHEET
C-08

Date: Oct 25, 2021 — 5:02pm B.FLORES Layout: Plot
Drawing Name: 000000000201565/13.00_CAD/13.02_Sheet_Files_East_Glorieta_Distribution phase III/00C-09.dwg

NOTES:

1. CONTRACTOR SHALL BARRICADE OPEN EXCAVATION DURING NON-WORKING HOURS. BARRICADES SHALL BE EQUIPPED WITH WARNING LIGHTS.
2. ACCESS TO DRIVEWAYS SHALL BE MAINTAINED AT ALL TIMES; EXCEPT WHEN PIPE IS BEING PLACED ACROSS THE DRIVEWAY. CONTRACTOR SHALL COORDINATE WITH PROPERTY OWNERS PRIOR TO TRENCHING ACROSS AND BLOCKING OF DRIVEWAY.
3. CONTRACTOR SHALL COORDINATE WITH SANTA FE COUNTY PUBLIC WORKS FOR INTERSECTION CLOSURES DURING THIS PHASE PRIOR TO COMMENCING WORK.
4. CONTRACTOR SHALL BACKFILL PIPE TRENCH TO A LEVEL NOT MORE THAN 3" FROM THE TOP OF THE EXISTING PAVEMENT EVERYDAY TO ALLOW TWO-WAY TRAFFIC DURING NON-WORKING HOURS.



ISSUE		
DATE	DESCRIPTION	
-OCT 2021	FINAL 100% PROGRESS SUBMITTAL	

PROJECT MANAGER C. RODRIGUEZ	
DESIGNER	B. FLORES
DESIGNER	
DESIGNER	
CHECKER	W. CHACON
DRAWN BY	B. FLORES
PROJECT NUMBER 210565	



8/5/22

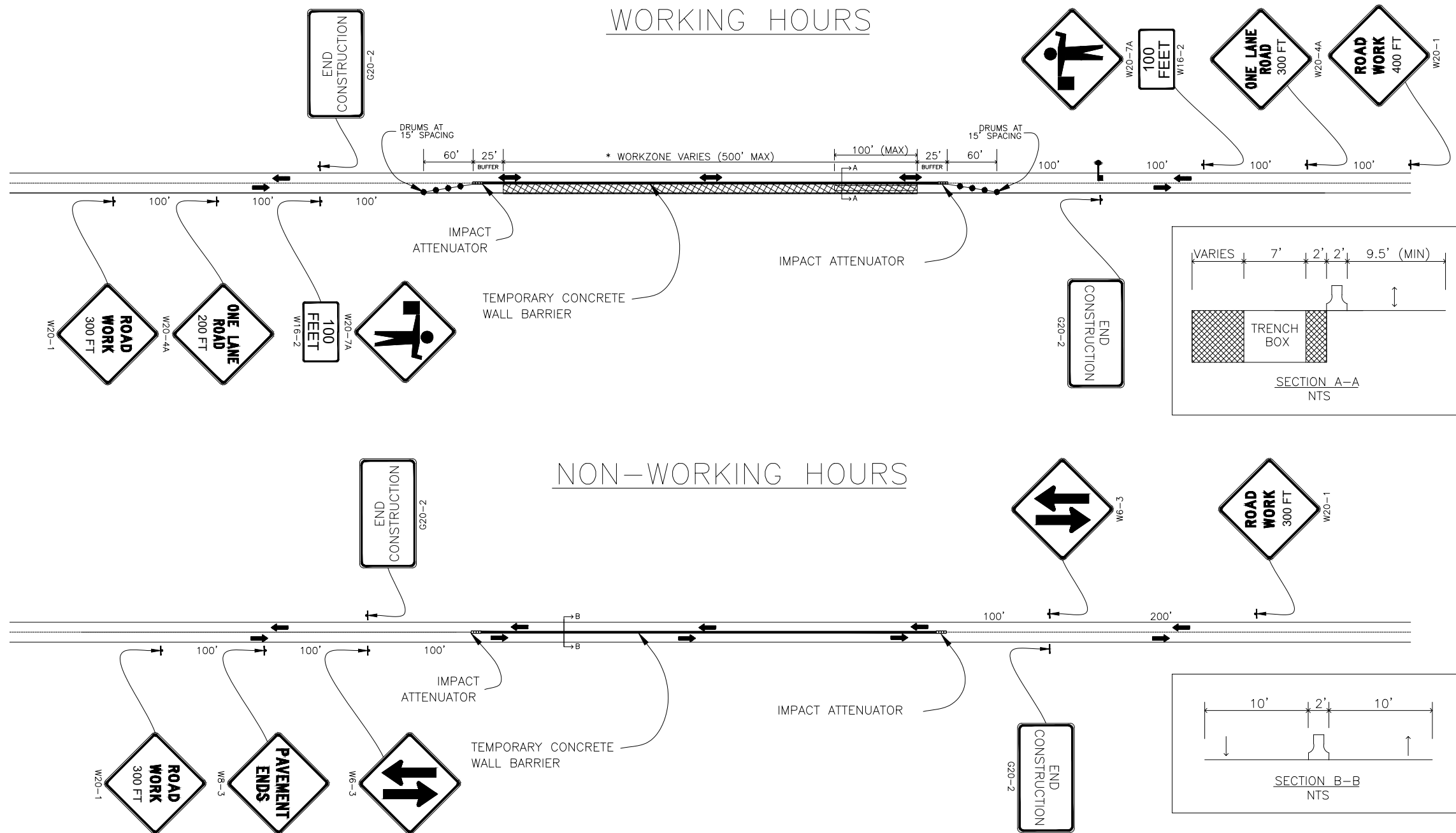
GREATER GLORIETA MDWCA NEW MEXICO EAST GLORIETA DISTRIBUTION & REGIONAL WELL

CIVIL TEMPORARY TRAFFIC CONTROL STANDARD DETAILS - III



FILENAME 00C-09.dwg
SCALE NONE

SHEET
C-09

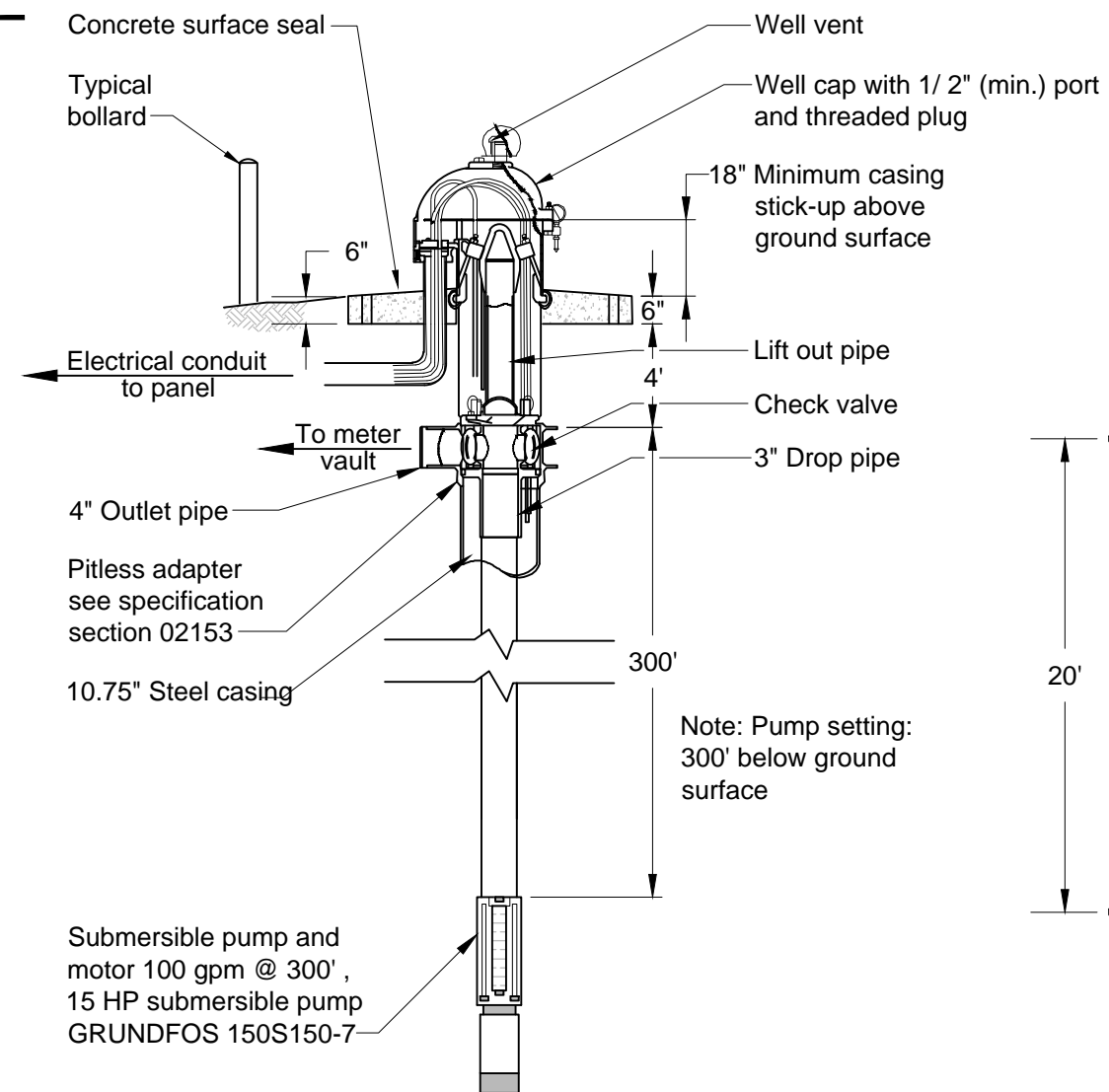
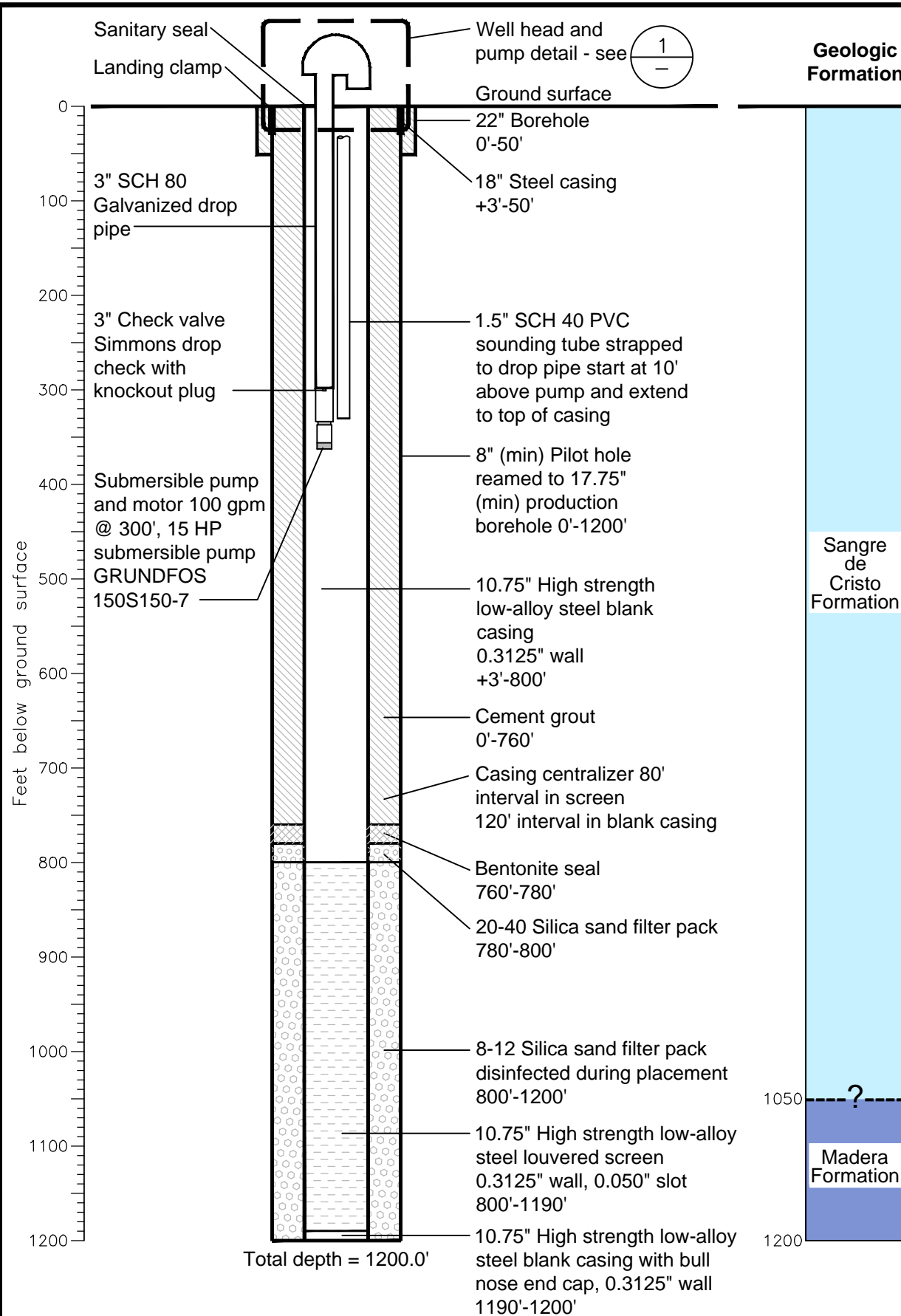


LEGEND

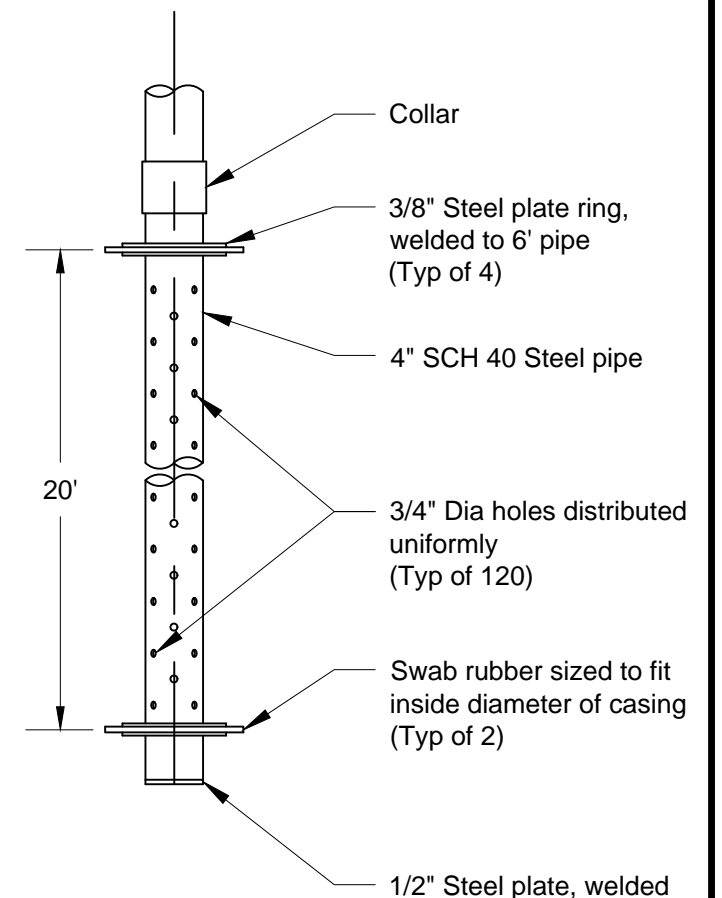
- ▲ TRAFFIC CONTROL DEVICE — TUBULAR MARKER
- TRAFFIC CONTROL DEVICE — DRUM
- ⬮ TRAFFIC CONTROL SIGN
- ⬮ TYPE III BARRICADE
- ➡ DIRECTIONAL ARROW
- ▨ WORK ZONE
- VMB VARIABLE MESSAGE BOARD

NOTICE OF EXTENDED PAYMENT PROVISION THIS CONTRACT ALLOWS THE OWNER TO MAKE PAYMENT WITHIN 45 DAYS AFTER SUBMISSION OF AN UNDISPUTED REQUEST FOR PAYMENT

S:\Projects\WR11.0083_Glorieta_PER\VR Drawings\WR11_0083_03B_boring_log.dwg



Note:
1. Dimensions on this detail are estimated.



WELL HEAD AND PUMP DETAIL

NTS

1

AIRLIFT DEVELOPMENT TOOL DETAIL

NTS

2

Not to scale



Daniel B. Stephens & Associates, Inc.
1-18-22 JN Wr11.0083

GLORIETA MDWCA
Well Design