

REQUEST FOR BID

FOR

PUMP STATION

**MIDDLE RIO GRANDE CONSERVANCY DISTRICT
1931 SECOND STREET, S.W.
ALBUQUERQUE, NEW MEXICO 87102
(505) 247-0234**



**DEADLINE FOR RESPONSE
WEDNESDAY SEPTEMBER 9, 2026
10:00 A.M.**

NOTICE

**THE NEW MEXICO PROCUREMENT CODE,
SECTIONS 13-1-28 THROUGH 13-1-199 NMSA 1978
IMPOSES CIVIL AND CRIMINAL PENALTIES FOR ITS VIOLATION.
IN ADDITION, THE NEW MEXICO CRIMINAL STATUTES
IMPOSE FELONY PENALTIES FOR ILLEGAL BRIBES,
GRATUITIES AND KICK-BACKS**

I. INTRODUCTION

The Middle Rio Grande Conservancy District (hereafter referred to as District) will be accepting Sealed Bids for a Pump Station.

One (1) original and (1) copy of the bid and supporting documentation must be submitted with your bid. Bids must be in the format specified. Bids must be signed, and the authority of the individual signing must be stated on the bid.

II. TIME – PLACE - AWARD

Bids must be submitted on the official bid form, if space is not adequate on the cost response form please attach a separate sheet with additional information.

All bids shall be clearly marked in the lower left-hand corner of the sealed envelope “**PUMP STATION BID**”. The filing date and time marked or stamped on the envelope by MRGCD shall be conclusive evidence of the date and time the bids were filed.

1. The deadline for receipt of bids shall be Wednesday, September 9, 2026, no later than 10:00 a.m.
2. Acknowledgement of Receipt forms deadline by C.O.B. September 4, 2026.

Middle Rio Grande Conservancy District
Mr. Richard DeLoia, Chief Procurement Officer
1931 Second Street, S.W.
Albuquerque, New Mexico 87102

Bids can be accepted by electronic transmission through the MRGCD website Bid Portal. Bids must be received by mail, dropped off or through the MRGCD web portal before the deadline listed. To submit electronically visit **www.mrgcd.com/purchasing**.

Bid Modifications: Only modifications received prior to the time specified for the closing will be accepted. No modifications will be accepted following the opening. Technical clarifications of the offer may be requested by the district following the opening.

Withdrawal of Bids: Bids may be withdrawn by written notice of in person by a bidder or an authorized representative any time prior to the award.

Late Submission: Late submissions of bids will not be considered unless it is determined by the district that the late receipt was due

solely to mishandling by the district or if the bid is the only one received. **All other late submissions will be returned unopened.** All bids received will remain sealed and unopened until the opening time specified.

Campaign Contributions: Bidders must complete and submit the NMSA Campaign Contribution Disclosure Form.

Debarment/Suspension: In performing services and/or furnishing the goods specified in this invitation, the vendor/contractor certifies that it is not suspended, debarred or declared ineligible from entering into contract with the Executive Branch of the Federal Government, and State agencies or local public boding, nor is in receipt of a notice of proposed debarment or suspension from the Executive Branch of the Federal Government and "Contracting Officer: shall mean "District" respectively.

III. RFB MANDATORY REQUIREMENTS:

1. Bidder must provide documentation as an established business for a minimum of 5 years.
2. Bidder will accept that MRGCD reserves the right to order the quantity that is bid, MRGCD may go over or under the amount bid with no price increase or penalty.
3. Documentation, paperwork, and brochures of product(s) being offered must be presented with bid.

IV. EVALUATION OF BIDS:

Bids will be evaluated by the district office using the criteria as listed in this Request for Bid. During the evaluation process, the district may seek additional clarification from offerors.

All bids received by the deadline will be evaluated by the district. Evaluations made by District staff will not be made public until after the selection process is complete.

Evaluation criteria as follows:

- | | | |
|----|---|------------|
| 1. | Bid Amount | 40% |
| 2. | Compliance to Bid Specifications and "ALL" Mandatory Requirements in RFB | 50% |
| 3. | Mandatory Forms | 10% |

V. SELECTION OF OFFEROR

The offeror selected to provide the materials in Bid will be notified

along with those not selected in writing.

VI. SUPPLEMENTAL TERMS AND CONDITIONS:

1. Brand Names:

Where a brand name or equal specification is used in a solicitation, the use of a brand name is for the purpose of describing the standard of quality, performance, and characteristics desired, and is not intended to limit or restrict competition. If a Bidder proposes an “equal” to scope of work/specifications, MRGCD is the sole interpreter of the scope of work/specifications and sole judge as to whether the “equal” proposed complies with the scope of work/specifications.

Brand name(s) and/or catalog number(s) are given for purposes of identification and to denote the standard of quality desired, and do not, in any way, restrict Bidders to a specific make and manufacturer. If there is any deviation in the pack, source, quality, etc., of an item Bid from that prescribed in the specification, the appropriate line in the specifications is to be ruled out and the substitution clearly indicated. All substitutions must be functionally equivalent to the item specified.

2. Intent of Specifications:

The following specifications are intended to describe the requirements of MRGCD. The MRGCD reserves the right to accept some minor variances in the approved goods and/or services offered by Bidders if such acceptance is determined to be in the best interest of MRGCD.

3. Interpretation of Bid Specifications:

The Awarded Bidder shall be responsible for ensuring that goods and/or services offered meet or exceed the stated criteria.

MRGCD reserves the right to add additional products directly related to these Specifications after award of Contract. Any such addition shall be accomplished via an amendment to the Contract awarded under this RFB.

4. Federal Requirements:

This project or goods are subject to Federal procurement requirements, and no preferences shall be applied. The Federally-Required Contract Provisions set forth in 2 CFR Section 200.327 will be incorporated in the Contract awarded under this RFB by this reference.

VII SPECIFICATIONS

SPECIFICATIONS

for the

**Feeder 3 Transmission Line & Booster Station (Phase 2) – Owner
Furnished Equipment Package**

August 2026

Prepared for

MIDDLE RIO GRANDE CONSERVANCY DISTRICT

1931 2nd St. SW

Albuquerque, NM 87102

Phone: (505) 247-0234

BOHANNAN HUSTON, INC. PROJECT NO. 20240269

7500 JEFFERSON STREET NE

ALBUQUERQUE, NM 87109

(505) 823-1000



ENGINEER OF RECORD:

Bohannon Huston, Inc
7500 Jefferson Street NE
Albuquerque, NM 87109
(505) 823-1000 or Fax (505) 798-7988

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.



Karl Deissinger

Karl Deissinger, P.E.
Engineer of Record

License No. 29976

All questions about the meaning or intent of these documents shall be submitted only to the Engineer of Record, stated above, IN WRITING or EMAIL at kdeissinger@bhinc.com for interpretations.

Approved by Owner:

J.M. C.

Middle Rio Grande Conservancy District

The work contained in the bidding documents have been reviewed and meet the Owner's project requirements.

**CONTRACT DOCUMENTS
FEEDER 3 TRANSMISSION LINE
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BID FORM**Feeder 3 Transmission Line & Booster Station – Phase 2**

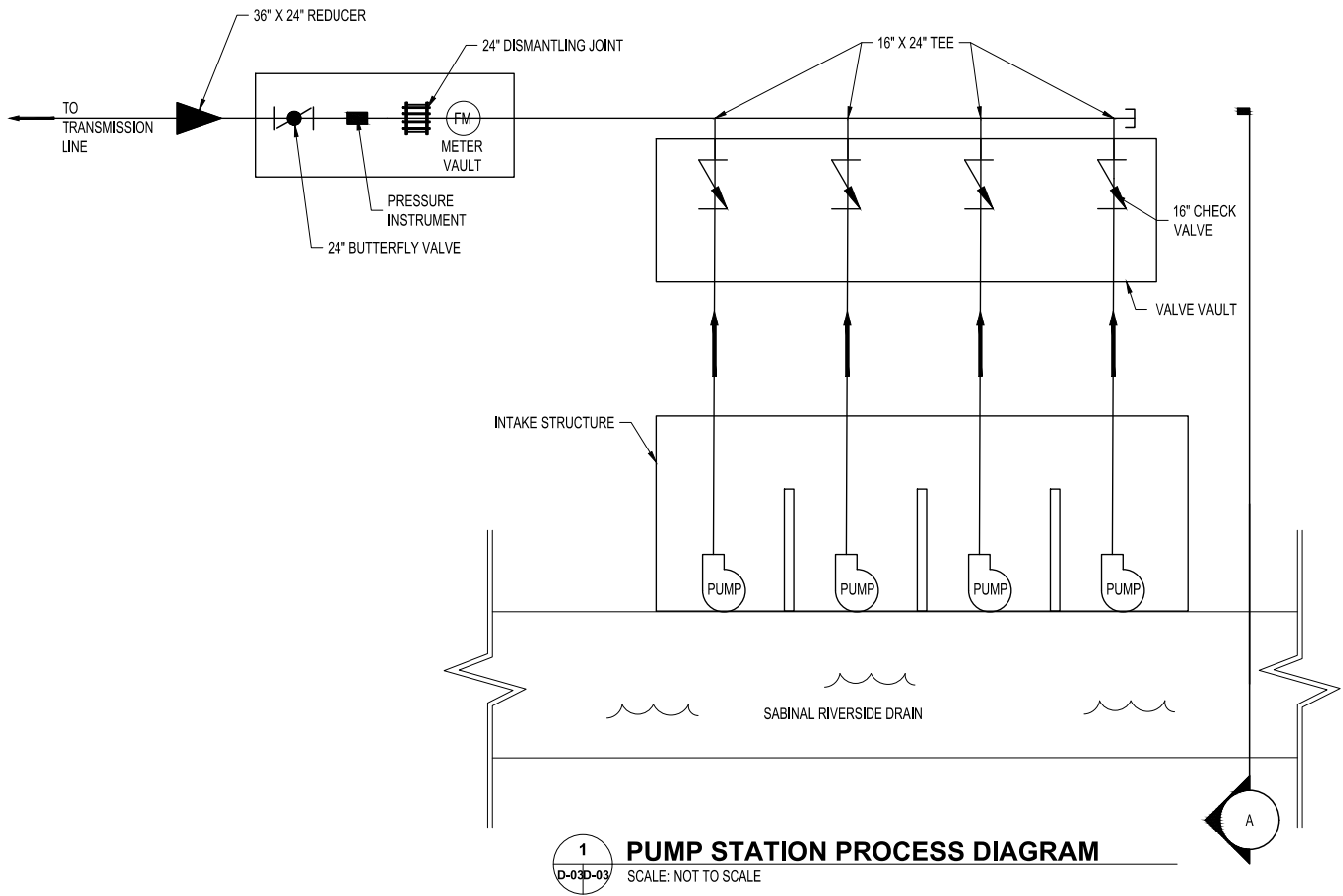
Middle Rio Grande Conservancy District

Unit Price Bid Proposal**BASE BID**

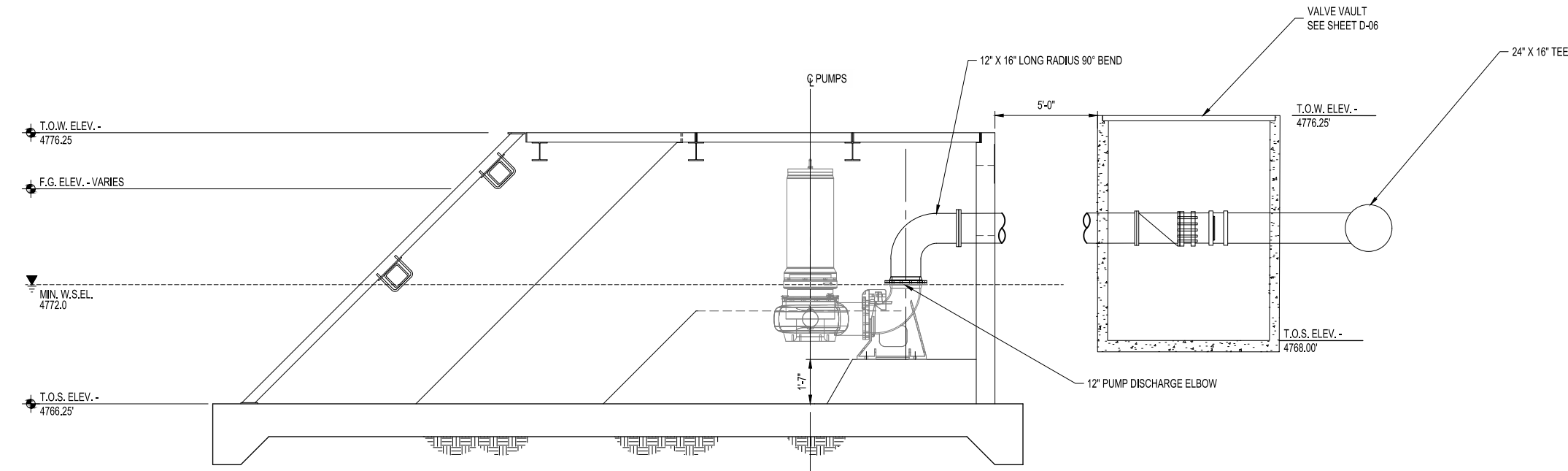
Bid Item	Description	Unit	Quantity	Unit Cost (\$)	Total (\$)
1	Submersible Non-Clog Pumps, KSB KRT-K 300-505/1406 UNG-K, incl. shipping, handling, storage, delivery, and start up assistance.	EA	4		
2	16-in. Dia. Val-Matic Surge Buster Check Valve (FL x FL), incl. shipping, handling, storage, and delivery. Valves must be BABA compliant.	EA	4		
3	24-in. Dia. Val-Matic Butterfly Valve (FL x FL), incl. shipping, handling, storage, and delivery. Valves must be BABA compliant.	EA	1		
4	Motor Control Center: including [4] 200 HP VFD's, [1] PLC, [1] Distribution Board, Level Switches, [1] 24" Mag Meter, [1] Discharge Pressure Transmitter, and all enclosures, cabinets, panelboards, cabling and wires necessary for a functioning system. Includes all shipping, handling, storage, delivery, and start-up assistance. All components must be BABA compliant.	LS	1		
a) Subtotal (Bid Items 1-4)					
b) New Mexico Gross Receipts Tax (NMGRT) @ 7.625%					
c) Total of Base Bid					

Dollars

(Base Bid Total Cost written in words)



1
PUMP STATION PROCESS DIAGRAM
SCALE: NOT TO SCALE



A
PUMP STATION AND VALVE VAULT
SCALE: NOT TO SCALE

GENERAL NOTES:

- MANUALLY OPERATED FLOW CONTROL VALVES SHALL BE VALMATIC OR APPROVED EQUAL
- BOOSTER STATION SITE SCHEMATIC AND PROFILE IS SHOWN FOR INFORMATION PURPOSES ONLY. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND DESIGN. REFER TO SPECIFICATION SECTIONS 01 3300 AND 33 1136.
- CONTRACTOR'S DESIGN SHALL INCLUDE VFD'S FOR EACH PUMP.

DESIGN CRITERIA:

POWER SERVICE: 460 VAC, 3 PHASE, 60HZ, 214 A

KSB SUBMERSIBLE PUMP
KRT K 300-505/1406UNG-K
DESIGN POINT: 28,000 GPM @ 74.0' TDH *
MOTOR: 188 HP, 1186 RPM

* DOES NOT INCLUDE PUMP STATION LOSSES

BENCH MARKS

BHI 24-289-04
2" ALUMINUM CAP
GEOGRAPHIC POSITION NAD 1983
NORTHING = 1300359.378
EASTING = 1483219.926
PROJECT COMBINED FACTOR = 0.99970377
ELEVATION - 4777.692
HORIZONTAL DATUM: NAD83
VERTICAL DATUM: NAVD83

ENGINEER'S SEAL

AS-BUILT INFORMATION

CONTRACTOR	DATE
WORK STARTED BY	DATE
INSPECTORS ACCEPTANCE BY	DATE
FIELD VERIFICATION BY	DATE
DRAWINGS CORRECTED BY	DATE

REVISIONS

NO.	DATE	BY

DESIGN

DESIGNED BY	KDD
CHECKED BY	NDR
DRAWN BY	SLC



MIDDLE RIO GRANDE CONSERVANCY DISTRICT
FEEDER 3 TRANSMISSION LINE PHASE 2
PROCESS DIAGRAM

BHI PROJECT NO.	20240269	DWG NO.	SHEET	OF
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SECTION 01 1000

SUMMARY OF WORK

PART 1 GENERAL

1.01 GENERAL

The Work to be performed under this Contract shall consist of furnishing all equipment, materials, supplies, and manufactured articles and services, including: delivery, handling, storage, and start up, and performing all Work, or other operations required for the fulfillment of the Contract in strict accordance with the Contract Documents. Note: By submitting a bid for this project, the VENDOR hereby acknowledges and assures the OWNER that it has sufficient experience in supporting the installation of this type of equipment.

1.02 SCOPE OF WORK COVERED BY SPECIFICATIONS & CONTRACTS

- A. The scope of work associated with this Bid Contract comprises of furnishing, shipping, handling, storage, delivery, and start up assistance for the following owner furnished items:
 - 1. KSB Submersible non-clog pumps. (Basis of Design Model # KRT K 300-505/1406 UNG-K) capable of 7,000 gpm at 74 ft head. **[4 pumps total]**
 - 2. Valving to include: **[4]** 16" Val-Matic Surge buster Check Valves, and **[1]** 24" Val-Matic Butterfly Valve. Refer to specification section 40 3300 for valving requirements.
 - 3. Motor Control Center, including **[4]** 200 HP VFD's, **[1]** PLC, **[1]** Distribution Board, Level Switches, **[1]** 24" Mag Meter, **[1]** Discharge Pressure Transmitter, and all enclosures, cabinets, panelboards, cabling, and wires necessary for a functioning system.
- B. The Delivery location and project site is located between the Towns of Belen, and Jarales, in the County of Valencia, New Mexico.

1.03 WORK BY OTHERS

The VENDOR'S attention is directed to the fact that work may be conducted at or adjacent to the Site by other contractors during the performance of the Work under this Contract. The VENDOR is to conduct its operations in a manner that will minimize any interference with the Work of other contractors under separate contract with the OWNER or other entities, and shall coordinate its operations and cooperate fully, with such contractors to provide continued safe access to their respective portions of the Site, as required to perform Work under their respective contracts. The VENDOR shall include in the bid price all costs associated with the successful coordination of its operations with other contractors.

1.04 WORK SEQUENCE AND SCHEDULING CONSTRAINTS

- A. The CONTRACTOR shall schedule and perform the Work in such a manner as to result in the least possible disruption to the public's use of roadways, driveways, and utilities. Utilities shall include but not be limited to water, sewerage, drainage structures, ditches and canals, gas, electric, cable television, and telephone. Refer to all available plan and profile sheets for approximate location of utilities. It is the CONTRACTOR'S responsibility to locate each utility and incorporate as-built locations on the reproducible record plans, in red ink, showing proper

location on each sheet where these utilities are located including depths, widths, and lengths of each utility. There is no guarantee as to exact location of each utility and no additional compensation will be made for utilities that are within a reasonable proximity of the area shown on the record plans.

1.05 CONTRACTOR ACCESS AND USE OF PROJECT SITE

The CONTRACTOR'S use of the Project Site shall be limited to its construction operations, including on-site storage of materials, on-site fabrication facilities, and field offices.

1.06 STORAGE

Storage conditions shall be in accordance with the manufacturer's requirements and shall be acceptable to OWNER for all materials and equipment. Such storage arrangements and conditions shall be presented in writing for OWNER review and acceptance and shall afford adequate and satisfactory security and protection. Off-site storage facilities shall be accessible to OWNER. The stored materials shall be insured for full value.

PART 2 - PRODUCTS

2.01 PRODUCT REQUIREMENTS

A. Refer to specifications included in bid proposal for product requirements

PART 3 – EXECUTION

3.01 SEQUENCE OF WORK

Sequence of Work shall be determined by the CONTRACTOR and specific sequences of work are not required for this Contract.

3.02 COMMISSIONING / START-UP ASSISTANCE

The Vendor shall provide start-up assistance to the CONTRACTOR in accordance with specification section 33 0810.

PART 4 – PAYMENT

4.01 GENERAL

Costs for the work in this Section shall not be paid for separately but shall be considered incidental to the contract work to be accomplished.

Bids for this work shall comprise of all efforts, labor, shipping, handling, delivery, and start-up assistance of the materials and equipment prescribed in Section 1.02. Payment will be a lump sum equivalent to the awarded bid amount.

END OF SECTION

SECTION 01 3300
CONTRACTOR SUBMITTALS

PART 1 - GENERAL

1.01 SUMMARY

- A. Section includes requirements for the submittal schedule and administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples, and other submittals.
- B. Related Requirements:
 - 1. Section 01 7823 "Operation and Maintenance Data" for submitting operation and maintenance manuals.

1.02 DEFINITIONS

- A. Action Submittals: Written and graphic information and physical samples that require Engineer's responsive action.
- B. Informational Submittals: Written and graphic information and physical samples that do not require Engineer's responsive action. Submittals may be rejected for not complying with requirements.

1.03 ACTION SUBMITTALS

- A. Submittal Schedule: Submit a schedule of submittals, arranged in chronological order by dates required by construction schedule. Include time required for review, ordering, manufacturing, fabrication, and delivery when establishing dates. Include additional time required for making corrections or revisions to submittals noted by Engineer and additional time for handling and reviewing submittals required by those corrections.

1.04 SUBMITTAL ADMINISTRATIVE REQUIREMENTS

- A. Engineer's Digital Data Files: Electronic copies of digital data files of the Contract Drawings will be provided by Engineer for Contractor's use in preparing submittals.
 - 1. Engineer will furnish Contractor with one set of digital data drawing files of the Contract Drawings for use in preparing Shop Drawings.
 - a. Engineer makes no representations as to the accuracy or completeness of digital data drawing files as they relate to the Contract Drawings.
 - b. Contractor shall execute a data licensing agreement in the form of Agreement form acceptable to Owner and Engineer.

- B. Coordination: Coordinate preparation and processing of submittals with performance of construction activities, as applicable.
1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
 2. Coordinate transmittal of different types of submittals for related parts of the Work so processing will not be delayed because of need to review submittals concurrently for coordination.
 - a. The Engineer reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.
- C. Processing Time: Allow time for submittal review, including time for resubmittals, as follows. Time for review shall commence on Engineer's receipt of submittal. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including resubmittals.
1. Initial Review: Allow fifteen (15) days for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required. Engineer will advise Contractor when a submittal being processed must be delayed for coordination.
 2. Intermediate Review: If intermediate submittal is necessary, process it in same manner as initial submittal.
 3. Resubmittal Review: Allow fifteen (15) days for review of each resubmittal.
- D. Retain "Electronic Submittals" Paragraph below if requiring electronic submittals instead of paper submittals.
- E. Electronic Submittals: Identify and incorporate information in each electronic submittal file as follows:
1. Assemble complete submittal package into a single indexed file incorporating submittal requirements of a single Specification Section and transmittal form with links enabling navigation to each item.
 2. Name file with submittal number or other unique identifier, including revision identifier.
 - a. File name shall use project identifier and Specification Section number followed by a decimal point and then a sequential number (e.g., LNHS-061000.01). Resubmittals shall include an alphabetic suffix after another decimal point (e.g., LNHS-061000.01.A).
 3. Provide means for insertion to permanently record Contractor's review and approval markings and action taken by Engineer.
 4. Transmittal Form for Electronic Submittals: Use electronic form acceptable to Owner, containing the following information:
 - a. Project name.
 - b. Date.
 - c. Name and address of Engineer.
 - d. Name of Construction Manager.
 - e. Name of Contractor.

- f. Name of firm or entity that prepared submittal.
 - g. Names of subcontractor, manufacturer, and supplier.
 - h. Category and type of submittal.
 - i. Submittal purpose and description.
 - j. Specification Section number and title.
 - k. Specification paragraph number or drawing designation and generic name for each of multiple items.
 - l. Drawing number and detail references, as appropriate.
 - m. Location(s) where product is to be installed, as appropriate.
 - n. Related physical samples submitted directly.
 - o. Indication of full or partial submittal.
 - p. Transmittal number.
 - q. Submittal and transmittal distribution record.
 - r. Other necessary identification.
 - s. Remarks.
5. Metadata: Include the following information as keywords in the electronic submittal file metadata:
- a. Project name.
 - b. Number and title of appropriate Specification Section.
 - c. Manufacturer name.
 - d. Product name.
- F. Options: Identify options requiring selection by Engineer.
- G. Deviations: Identify deviations from the Contract Documents on submittals.
- H. Resubmittals: Make resubmittals in same form and number of copies as initial submittal.
- 1. Note date and content of previous submittal.
 - 2. Note date and content of revision in label or title block and clearly indicate extent of revision.
 - 3. Resubmit submittals until they are marked with approval notation from Engineer's action stamp.
- I. Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, installers, authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms.
- J. Use for Construction: Retain complete copies of submittals on Project site. Use only final action submittals that are marked with approval notation from Engineer's action stamp.

PART 2 - PRODUCTS

2.01 SUBMITTAL PROCEDURES

A. General Submittal Procedure Requirements:

1. Action Submittals: Submit one (1) electronic copy and/or one (1) hard copy (if requested by the Authority) of each submittal unless otherwise indicated.
2. Informational Submittals: Submit one (1) electronic copy and/or one (1) hard copy (if requested by the Authority) of each submittal unless otherwise indicated. Engineer will not return copies.
3. Certificates and Certifications Submittals: Provide a statement that includes signature of entity responsible for preparing certification. Certificates and certifications shall be signed by an officer or other individual authorized to sign documents on behalf of that entity.
 - a. Provide a digital signature with digital certificate on electronically submitted certificates and certifications where indicated.
 - b. Provide a notarized statement on original paper copy certificates and certifications where indicated.

B. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.

1. If information must be specially prepared for submittal because standard published data are not suitable for use, submit as Shop Drawings, not as Product Data.
2. Mark each copy of each submittal to show which products and options are applicable.
3. Include the following information, as applicable:
 - a. Manufacturer's catalog cuts.
 - b. Manufacturer's product specifications.
 - c. Standard color charts.
 - d. Statement of compliance with specified referenced standards.
 - e. Testing by recognized testing agency.
 - f. Application of testing agency labels and seals.
 - g. Notation of coordination requirements.
 - h. Availability and delivery time information.
4. For equipment, include the following in addition to the above, as applicable:
 - a. Wiring diagrams showing factory-installed wiring.
 - b. Printed performance curves.
 - c. Operational range diagrams.
 - d. Clearances required for other construction, if not indicated on accompanying Shop Drawings.
5. Submit Product Data before or concurrent with Samples.

- C. Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data.
1. Preparation: Fully illustrate requirements in the Contract Documents. Include the following information, as applicable:
 - a. Identification of products.
 - b. Schedules.
 - c. Compliance with specified standards.
 - d. Notation of coordination requirements.
 - e. Notation of dimensions established by field measurement.
 - f. Relationships and attachment to adjoining construction clearly indicated.
 - g. Seal and signature of professional engineer if specified.
 2. Sheet Size: Except for templates, patterns, and similar full-size drawings, submit Shop Drawings on sheets at least 8-1/2 by 11 inches, but no larger than 30 by 42 inches.
- D. Samples: Submit Samples for review of kind, color, pattern, and texture for a check of these characteristics with other elements and for a comparison of these characteristics between submittal and actual component as delivered and installed.
1. Transmit Samples that contain multiple, related components such as accessories together in one submittal package.
 2. Identification: Attach label on unexposed side of Samples that includes the following:
 - a. Generic description of Sample.
 - b. Product name and name of manufacturer.
 - c. Sample source.
 - d. Number and title of applicable Specification Section.
 3. For projects where electronic submittals are required, provide corresponding electronic submittal of Sample transmittal, digital image file illustrating Sample characteristics, and identification information for record.
 4. Disposition: Maintain sets of approved Samples at Project site, available for quality-control comparisons throughout the course of construction activity. Sample sets may be used to determine final acceptance of construction associated with each set.
 - a. Samples that may be incorporated into the Work are indicated in individual Specification Sections. Such Samples must be in an undamaged condition at time of use.
 - b. Samples not incorporated into the Work, or otherwise designated as Owner's property, are the property of Contractor.
 5. Samples for Initial Selection: Submit manufacturer's color charts consisting of units or sections of units showing the full range of colors, textures, and patterns available.

- a. Number of Samples: Submit two (2) full set(s) of available choices where color, pattern, texture, or similar characteristics are required to be selected from manufacturer's product line. Engineer will return submittal with options selected.
- 6. Samples for Verification: Submit full-size units or Samples of size indicated, prepared from same material to be used for the Work, cured and finished in manner specified, and physically identical with material or product proposed for use, and that show full range of color and texture variations expected. Samples include, but are not limited to, the following: partial sections of manufactured or fabricated components; small cuts or containers of materials; complete units of repetitively used materials; swatches showing color, texture, and pattern; color range sets; and components used for independent testing and inspection.
 - a. Number of Samples: Submit two (2) sets of Samples. Engineer will retain one (1) Sample sets; remainder will be returned. Mark up and retain one returned Sample set as a project record sample.
 - 1) If variation in color, pattern, texture, or other characteristic is inherent in material or product represented by a Sample, submit at least three sets of paired units that show approximate limits of variations.
- E. Product Schedule: As required in individual Specification Sections, prepare a written summary indicating types of products required for the Work and their intended location. Include the following information in tabular form:
 - 1. Submit product schedule in the following format:
 - a. Four (4) paper copies of product schedule or list unless otherwise indicated. Engineer will return three (3) copies.
- F. Closeout Submittals and Maintenance Material Submittals: Comply with requirements specified in Section 01 7800 "Contract Closeout."
- G. Maintenance Data: Comply with requirements specified in Section 01 7823 "Operation and Maintenance Data."
- H. Qualification Data: Prepare written information that demonstrates capabilities and experience of firm or person. Include lists of completed projects with project names and addresses, contact information of engineers and owners, and other information specified.
- I. Welding Certificates: Prepare written certification that welding procedures and personnel comply with requirements in the Contract Documents. Submit record of Welding Procedure Specification and Procedure Qualification Record on AWS forms. Include names of firms and personnel certified.
- J. Installer Certificates: Submit written statements on manufacturer's letterhead certifying that Installer complies with requirements in the Contract Documents and, where required, is authorized by manufacturer for this specific Project.
- K. Manufacturer Certificates: Submit written statements on manufacturer's letterhead certifying that manufacturer complies with requirements in the Contract Documents. Include evidence of manufacturing experience where required.
- L. Product Certificates: Submit written statements on manufacturer's letterhead certifying that product complies with requirements in the Contract Documents.

- M. Material Certificates: Submit written statements on manufacturer's letterhead certifying that material complies with requirements in the Contract Documents.
- N. Material Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements in the Contract Documents.
- O. Product Test Reports: Submit written reports indicating that current product produced by manufacturer complies with requirements in the Contract Documents. Base reports on evaluation of tests performed by manufacturer and witnessed by a qualified testing agency, or on comprehensive tests performed by a qualified testing agency.
- P. Research Reports: Submit written evidence, from a model code organization acceptable to authorities having jurisdiction, that product complies with building code in effect for Project.
- Q. Schedule of Tests and Inspections: Comply with requirements specified in Section 01 6000 "Product Requirements."
- R. Preconstruction Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of tests performed before installation of product, for compliance with performance requirements in the Contract Documents.
- S. Compatibility Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of compatibility tests performed before installation of product. Include written recommendations for primers and substrate preparation needed for adhesion.
- T. Field Test Reports: Submit written reports indicating and interpreting results of field tests performed either during installation of product or after product is installed in its final location, for compliance with requirements in the Contract Documents.
- U. Design Data: Prepare and submit written and graphic information, including, but not limited to, performance and design criteria, list of applicable codes and regulations, and calculations. Include list of assumptions and other performance and design criteria and a summary of loads. Include load diagrams if applicable. Provide name and version of software, if any, used for calculations. Include page numbers.

PART 3 - EXECUTION

3.01 CONTRACTOR'S REVIEW

- A. Action and Informational Submittals: Review each submittal and check for coordination with other Work of the Contract and for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to Engineer.
- B. Approval Stamp: Stamp each submittal with a uniform, approval stamp. Include Project name and location, submittal number, Specification Section title and number, name of reviewer, date of Contractor's approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents. In the case of shop drawings, each sheet shall be so dated, signed and certified.

3.02

ENGINEER'S ACTION

- A. General: Engineer will not review submittals that do not bear Contractor's approval stamp and will return them without action.
- B. Action Submittals: Engineer will review each submittal, make marks to indicate corrections or revisions required, and return it. Engineers will stamp each submittal with an action stamp and will mark stamp appropriately to indicate action, as follows:
 - 1. "NO EXCEPTIONS TAKEN" or "EXCEPTIONS AS NOTED" will require no formal revision and resubmission.
 - 2. "REVISE AND RESUBMIT" or "REJECTED" will require the Contractor to revise said submittal and shall resubmit the required number of copies of said revised submittal to the Engineer.
- C. Informational Submittals: Engineer will review each submittal and will not return it, or will return it if it does not comply with requirements. Engineers will forward each submittal to appropriate party.
- D. Incomplete submittals are unacceptable, will be considered nonresponsive, and will be returned for resubmittal without review.
- E. Submittals not required by the Contract Documents may not be reviewed and may be discarded.
- F. Fabrication of an item shall commence only after the Engineer has reviewed the submittal and returned copies to the Contractor marked either "NO EXCEPTIONS TAKEN" or "EXCEPTIONS AS NOTED". Corrections indicated on submittals shall be considered as changes necessary to meet the requirements of the Contract Documents and shall not be taken as the basis of claims for extra work.

END OF SECTION

SECTION 01 7823

OPERATION AND MAINTENANCE DATA

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. Compile product data and related information appropriate to Contractor's installation and for Owner's maintenance and operation of products furnished under the Contract.
- B. Prepare operating and maintenance data, as specified in this Section and as referenced in other pertinent sections of Specifications.
- C. Coordinate with manufacturer's representatives as necessary to organize training to Owner's personnel in the operations and maintenance of installed products.
- D. Video tape all training sessions and provide to Owner.

1.02 RELATED WORK

- A. Section 01 3300: Contractor Submittals

1.03 SUBMITTALS

- A. Prepare data in the form of an instructional manual for use by Owner's personnel.
- B. Final Hard Copy Manual Format:
 - 1. Size: 8½" x 11".
 - 2. Paper: 20 lb minimum, white, for typed pages.
 - 3. Text: Manufacturer's printed data.
 - 4. Drawings:
 - a. Provide reinforced, punched binder tab; bind in with text.
 - b. Reduced to 8½" x 11", or 11" x 17" folded to 8½" x 11".
 - c. Where reduction is impractical, folded and placed in 8½" x 11" envelopes bound in text.
 - d. Suitably identified on Drawings and envelopes.

5. Provide fly leaves for each separate product or each piece of operating equipment.
 - a. Provide typed description of product and major component parts of equipment.
 - b. Provide indexed tabs.
 6. Cover: Fill out the Cover Sheet provided in this Section.
 7. Assembly:
 - a. Assemble and bind material in the order specified in Paragraph 2.01.
 - b. Material grouped in the same manner as the applicable portions of the Contract Documents.
 - c. Binders: Final manuals shall be bound using commercial-quality, substantial, permanent, 3 ring or 3 post binders with durable, cleanable plastic covers of adequate size to easily contain required information.
- C. Digital Files of Manuals
1. Preliminary and Final manuals to be digitally uploaded to ProjectTracker®.
 2. Electronic copy of the entire Final Manuals on USB Drive in PDF format.
 3. USB Drive permanently labeled to identify contents specific to this project.
- D. Digital Files of Training
1. Video files in MOV, AVI or MP4 format.
- E. Digital Files of All programs for software

1.04 QUALITY ASSURANCE

- A. Manuals for equipment and systems shall be prepared by the equipment manufacturer or system supplier, with following qualifications:
1. Trained and experienced in maintenance and operation of the described products.
 2. Completely familiar with requirements of this Section.
 3. Skilled as technical writers to the extent required to communicate essential data.
 4. Skilled as draftsmen competent to prepare required Drawings.

PART 2 PRODUCTS

2.01 CONTENT OF MANUALS

- A. The manuals shall be custom-made for all of the equipment specified for the job conditions at the project site.
- B. Neatly typed table of contents for each volume, arranged in a systematic order.

1. Contractor, name of responsible principal, address and telephone number.
 2. A list of each product required to be included, indexed to the content of the volume.
 3. List, with each product, the name, address and telephone number of:
 - a. Subcontractor or installer.
 - b. Maintenance Contractor, as appropriate.
 - c. Identify the area of responsibility of each.
 - d. Local source of supply for parts and replacement.
 - e. Manufacturer.
 4. Identify each product by product name and other identifying symbols as set forth in Contract Documents.
- C. Product Data:
1. Include only those sheets which are pertinent to the specific product.
 2. Annotate each sheet to:
 - a. Clearly identify the specific product or part installed.
 - b. Clearly identify the data applicable to the installation.
 - c. Delete references to inapplicable information.
 3. Preventive maintenance information shall be given for each major component of every piece of equipment as indicated in Schedule.
- D. Drawings:
1. Supplement product data with Drawings as necessary to clearly illustrate:
 - a. Relations of component parts of equipment and systems.
 - b. Control and flow diagrams.
 2. Coordinate drawings with information in Project Record Documents to assure correct illustration of completed installation.
 3. Do not use Project Record Documents as maintenance drawings.
- E. Written text as required to supplement product data for the particular installation:
1. Organize in a consistent format under separate headings for different procedures.
 2. Provide a logical sequence of instructions for each procedure.
- F. Copy of each warranty, bond and service contract issued: Provide information sheet for Owner's personnel:
1. Proper procedures in the event of failure.
 2. Instances which might affect the validity of warranties or bonds.

- G. Provide an installation and Operations and Maintenance Manual for each item of equipment or system specified in the Schedule, in the quantity listed in the submittal schedule.
- H. Content for each unit of equipment and system, as appropriate.
 - 1. Description of unit and component parts:
 - a. Function, normal operating characteristics and limiting conditions
 - b. Performance curves, engineering data and tests
 - c. Complete nomenclature and commercial number of all replaceable parts
 - 2. Manufacturer's complete installation instructions and recommendations.
 - 3. Operating procedure:
 - a. Startup, break in, routine and normal operating instructions
 - b. Regulation, control, stopping, shutdown and emergency instructions
 - c. Summer and winter operating instructions, as applicable
 - d. Special operating instructions
 - 4. Maintenance procedures:
 - a. Routine operations
 - b. Guide to troubleshooting
 - c. Disassembly, repair and reassembly
 - d. Alignment, adjusting and checking
 - e. Provide preventive maintenance information for each major component of every piece of equipment
 - 5. Servicing and lubrication schedule:
 - a. List of lubricants required
 - b. Provide lubrication information for each major component of every piece of equipment.
 - 6. Manufacturer's printed operating and maintenance instructions.
 - 7. Description of sequence of operation.
 - 8. Original manufacturer's parts list, illustrations, assembly drawings and diagrams required for maintenance.
 - a. Predicted life of parts subject to wear
 - b. List of original manufacturer's spare parts, manufacturer's current prices and recommended quantities to be maintained in storage.
 - 9. As installed control diagrams.
 - 10. Other data as required under pertinent sections of Specifications.
- I. Content, for each electric and electronic item or system, as appropriate:
 - 1. Description of system and component parts:

- a. Function, normal operating characteristics and limiting conditions
 - b. Performance curves, engineering data and tests
 - c. Complete nomenclature and commercial number of replaceable parts
- 2. Circuit directories of panelboards:
 - a. Electrical service
 - b. Controls
 - c. Communications
- 3. As installed color-coded wiring diagrams.
- 4. Operating procedures:
 - a. Routine and normal operating instructions
 - b. Sequences required
 - c. Special operating instructions
- 5. Maintenance procedures:
 - a. Routine operations
 - b. Guide to troubleshooting
 - c. Adjustment and checking
- 6. Manufacturer's printed operating and maintenance instructions.
- 7. List of original manufacturer's spare parts, manufacturer's current prices and recommended quantities to be maintained in storage.
- 8. Other data as required under pertinent sections of Specifications.
- J. Prepare and include additional data when the need for such data becomes apparent during instruction of Owner's personnel, or as necessary to provide complete operations and maintenance instructions.
- K. Include any additional requirements for operating and maintenance data for all installed equipment as necessary.

2.02 SUBMITTAL SCHEDULE

- A. Submit Preliminary O&M Manuals prior to the date of shipment of the equipment or system for review and approval purposes.
 - 1. Digital upload of the Preliminary Manual file complete with all cover sheets, titles, text, and drawings to ProjectTracker®.
 - 2. Once the Engineer has determined that a manual is not acceptable, the remainder of the manual shall not be reviewed in detail.
- B. If the Preliminary Manual is found unacceptable, submit a revised Preliminary Manual as follows:
 - 1. Digital upload of the Revised Preliminary Manual file complete with all cover sheets, titles, text, and drawings to ProjectTracker®.

2. Once the Engineer has determined that a manual is not acceptable, the remainder of the manual shall not be reviewed in detail.
- C. When the Preliminary Manual is found acceptable, submit Final O&M Manuals as follows:
 1. Digital upload of the Final Manual file complete with all cover sheets, titles, text, and drawings to ProjectTracker®
 2. Two paper copies printed and bound in a binder complete with all text, drawings, and separated with index tabs.
 3. Two CDs with all files.
- D. No partial payments shall be made for equipment and systems, either on hand or installed, until preliminary manuals are submitted and acceptable to the Engineer.
- E. Funding:
 1. Agency funds may be withheld from Owner if Owner's acceptable operations and maintenance manual is not submitted as required by the agencies.
 2. If funds are withheld and such is partially attributable to a delay by the Contractor in submitting the required operations and maintenance materials:
 - a. Owner may withhold payments from Contractor.
 - b. Contractor shall not terminate or suspend work.
 - c. No additional costs or contract time shall be claimed by Contractor if Owner withholds payments.

2.03 REIMBURSEMENT FOR ENGINEER'S REVIEW COSTS

- A. For all manual reviews beyond one review of the Preliminary Manual and one review of Final Manual:
 1. Contractor shall submit purchase order to pay Engineer at Engineer's standard billing rates for all costs associated with review.
 2. Engineer shall perform these unscheduled reviews in the same manner as other unscheduled work.

2.04 TRAINING OF OPERATIONS AND MAINTENANCE PERSONNEL

- A. Hard copies of all manuals shall be available for the Owner's personnel during the training.
- B. If training is given before equipment is completely operational, representative shall have to repeat training after equipment is fully operational.
- C. If the Engineer judges the instruction to be incomplete, inadequate or inaccurate, additional instruction shall be scheduled and provided at no additional cost to the Owner.

2.05 VIDEOTAPING OF TRAINING

- A. The SUS shall coordinate videotaping the manufacturers' onsite training and start-up instructions to the Owner's personnel in accordance with Section 01 6500.

- B. As scheduled, the Contractor shall video record the equipment manufacturer's instruction to the Owner's personnel.
- C. For instruction to be video recorded, persons providing the instruction shall:
 - 1. Provide to Engineer the following:
 - a. When instruction is to be scheduled.
 - b. Detailed outline of topics, materials, procedures, information, etc. to be covered during instruction.
 - 2. Provide high definition 1080p minimum video file with high definition audio and stable picture. Coordinate with Owner for acceptable format.
 - 3. Ensure audio is clear and comprehensible; background noise is minimal. Ensure lighting is sufficient to reduce glare and light presentation satisfactorily.

2.06 SCHEDULE

- A. Submit O&M Manuals for the following equipment and systems:
 - 1. Section 33 1136: Submersible Sewage Pump System
 - 2. Section 26 2923.10: Adjustable Frequency Drive Package
 - 3. Section 40 3300: Miscellaneous Valves
- B. Submit the Project Title sheet with each O&M Manual. See sample page included after this Section.

END OF SECTION

OPERATIONS AND MAINTENANCE MANUAL
FOR
MIDDLE RIO GRANDE CONSERVANCY DISTRICT
FEEDER 3 TRANSMISSION LINE & BOOSTER STATION

< TYPE EQUIPMENT NAME >

< TYPE DATE ISSUED >

< TYPE JOB NUMBER >

< TYPE MODEL / SERIAL NUMBER IF APPLICABLE >

Manufacturer:	Company Name Company Address Company Phone Numbers Contact Person Name Contact Person's email Contact Person's Phone Number
Manufacturer's Local Rep:	Company Name Company Address Company Phone Numbers Contact Person Name Contact Person's email Contact Person's Phone Number
Equipment Supplier:	Company Name Company Address Company Phone Numbers Contact Person Name Contact Person's email Contact Person's Phone Number
Sub-Contractor (if applicable):	Company Name Company Address Company Phone Numbers Contact Person Name Contact Person's email Contact Person's Phone Number

SECTION 26 2923.10

ADJUSTABLE FREQUENCY DRIVE PACKAGE

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. This section provides specification requirements for adjustable frequency, variable speed drives packaged for AC drive controller units for use with NEMA B design AC motors.
- B. The AC drive controller unit manufacturer shall furnish, field test, adjust and certify all installed AC drive controller units for satisfactory operation.
- C. Any exceptions or deviations to this specification shall be indicated in writing and submitted with the quotation.

1.02 SUBMITTALS

- A. Six (6) copies of approval drawings shall be furnished for ENGINEER'S approval prior to factory assembly of the AC drive controller units. These drawings shall consist of elementary power and control wiring diagrams, drive package electrical one line diagram, drive package unit schedule and drive package front elevation drawings.
- B. Front elevation drawings shall include dimensions for all control units needed for the front view, top and bottom conduit entry locations, estimated weight and anchoring points.
- C. Elementary wiring diagrams shall include all power and control components packaged within the AC drive controller unit and documentation of any non-default settings programmed by the provider.
- D. Unit schedule shall indicate drive output horsepower, duty/torque type, pilot devices, disconnect ratings, and nameplate legends for each AC drive controller unit.
- E. Submit with the delivery of the control units Installation and Maintenance Manual and one (1) copy of the manufacturer's drawings per shipping block.
- F. Provide a completed Factory Acceptance Test (FAT) Checklist prior to shipment of equipment. Equipment shall not be shipped until Engineer review and approval of the FAT checklist.

REGULATORY REQUIREMENTS

- A. ANSI/NFPA 70 - National Electrical Code.
- B. CSA C22.2 No. 14-05 - Industrial Control Equipment.
- C. NEMA 250 - Enclosures for Electrical Equipment (1000 Volts Maximum).
- D. UL 508 - UL Standard for Safety for Industrial Control Equipment.
- E. UL 508C - UL Standard for Safety for Power Conversion Equipment.
- F. UL 50 - UL Standard for Safety for Enclosures for Electrical Equipment.

1.04 WARRANTY

- A. The AC drive controller unit shall be warranted to be free from defects in materials and workmanship for a period of eighteen (18) months from date of shipment by the manufacturer.

1.05 QUALITY ASSURANCE

- A. The AC Drives and control panels shall be designed, assembled, programmed, and started up by the same company.
- B. The AC drive controller unit and all associated optional equipment shall be UL-listed components.
- C. The AC drive controller unit shall be designed, constructed, and tested in accordance with UL, CSA, NEMA & NEC standards and shall be third-party certified by UL, CSA and NOM when possible.
- D. Every AC Drive shall be tested with an AC induction motor under load conditions. The final AC Drive controller unit shall be hi-pot tested with all power and control components before shipment.
- E. The manufacturer of the AC drive controller unit shall have been specialized in the design and production of control panels with drive units for a period of at least 10 years.
- F. All factory supplied options shall be completely tested for successful operation before shipment.

PART 2 PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

- A. The AC drive controller unit shall be provided by ABB and shall be and ACQ580-34 type or prior approved equal. Substitutions must be submitted in writing five (5) days prior to original bid date with supporting documentation demonstrating that the alternative manufacturer meets all aspects of the specifications herein.
- B. Additions to existing controls panels shall be the same as the original manufacturer.
- C. The entire pump, field device and drive control package shall be provided by the same supplier to ensure project compatibility and responsibility.
- D. Alternate control techniques other than variable speed drives shall not be acceptable.

2.02 GENERAL DESCRIPTION

- A. The AC Drive shall convert the input AC mains power to an adjustable frequency and voltage as defined in the following sections.
- B. The input power section shall utilize an active front end supply unit. The drive needs to be a ULH variant that is capable of producing below 3% THDi and must be IEEE519 compliant.
- C. The output power section shall change fixed DC voltage to adjustable frequency AC voltage. The drive will be sized to match the needs of the motors of the project.

CONSTRUCTION

- A. The AC drive controller unit shall be a custom-built unit to fit the specification and needs of this specific project. The input circuit breaker shall provide NEC-required branch circuit protection.
- B. Units should be of modular construction so that it is possible to readily interchange units on the project site with replacement units and/or parts.
- C. 480V 3Phase 60Hz 65kAIC Rated.
- D. Free standing modular UL Listed - Nema 4/3R painted white steel enclosure line up.
- E. Three point lockable latches for each enclosure section, include weather resistant pad locks keyed alike for all latches.
- F. Controller unit shall be UL 508 Listed as a complete assembly.

1. Section 1
 - a. 48” wide double door section
 - b. 1200 Amp Panelboard Section, four wire, bottom feed main circuit breaker with distribution breakers rated 65kAIC
 - c. The 1200 Amp main circuit breaker shall have adjustable trip settings for long time (L), short time (S), instantaneous (I), and ground fault (GF) trip.
 - d. The distribution circuit breakers above 100 Amps shall have adjustable trip settings for long time (L), short time (S), instantaneous (I) trip.
 - e. Surge Protection Unit, TPS Service Track ST160
 - f. See Power One Line Diagram appended to the end of this Section for information on equipment sizes and ratings.
2. Sections 2, 3, 4, 5
 - a. 36” wide single door sections, each panel section shall be fully enclosed with rigid foam insulation installed.
 - b. Drive Sections 4 each 200HP – 302A AFE VFDs.
 - c. ABB ACQ580-34-302A-4 ULH Modular VFD 200/250 Open R11 Frame.
 - d. Keypad Kit, Field Bus Adapter for Ethernet/IP (PLC connection).
 - e. Motor Termination Block.
 - f. nVent T62 6886Watt/23500Btu Rear Mounted AC Unit w/Heat 480V.
3. Section 6
 - a. 48” wide double door section.
 - b. 100 Amp, 208 Volt three phase panel board with circuit breakers to feed 120 and 240 Volt loads within enclosure and at the pump station.
 - c. 15 kVA transformer mounted externally to rear of section.
 - d. Circuit breaker style Surge Protection Device installed within panel.
 - e. 15 Amp rated convenience receptacle.
 - f. 12 Volt power supply.
 - g. Install owner supplied level measurement controller and connect to 12 Volt power supply.
 - h. Install owner supplied Remote Telemetry Unit (RTU) and connect to 12 Volt power supply.
 - i. Ensure space in control panel section 6 to route air line from level measurement controller to field device in water channel.
 - j. Ensure space in control panel section 6 to route antenna cable to external antenna. Antenna to be provided and installed by others.
4. PLC Section 6
 - a. Rockwell CompactLogix 5380 PLC, IO Modules as required.
 - b. 24VDC Power System w/UPS and Battery Backup.
 - c. 10” Color Touchscreen PanelView Plus 7.

- d. Cellular Router for support.
- e. E&H W400 Remote Flow Transmitter mounted within.
- f. Backup Float Shutdown Circuit and Timing Relay.
- 5. Field Devices
 - a. 1 each Pressure Transmitter - Discharge Pressure - E&H Cerebar
 - b. 1 each Backup Float Switch with 10M Cable
 - c. 1 each E&H W400 Mag-meter w/Remote Display and Ethernet/IP DN600 24",
 - d. 2 each Flowmeter SS Grounding Rings

2.04 THERMAL MANAGEMENT

- A. The AC drive controller unit shall incorporate a self contained air-based cooling system. Any air exhaust vents shall be louvered to help direct air flow away from personnel operating the AC drive controller unit. Any fans, ductwork or filters shall be easily accessible for maintenance.
- B. The AC drive controller unit cooling system shall be sized to cool the drive regardless of mounting location within the control panel.

2.05 MOTOR DATA

- A. The AC drive controller unit shall be sized to operate the following AC motor:
 - 1. Motor horsepower:
 - 2. As identified on the Drawings
 - 3. Motor Full Load Ampere ratings coordinated to NEC2005 Table 430-250.
 - 4. Motor rpm: To be verified with motor manufacturer.
 - 5. Motor voltage: As identified on the Drawings
 - 6. Motor service factor: 1.25

2.06 APPLICATION DATA

- A. The AC drive controller unit shall be sized to operate a Variable Torque load.
- B. The speed range shall be from a minimum speed of 6 Hz to a maximum speed of 60 Hz. Minimum and maximum speed to be verified and field set based on application.

2.07 ENVIRONMENTAL RATINGS

- A. The AC drive controller unit shall be capable of being installed into an enclosure as outlined in plans and specs to form a complete control unit.

- B. The AC drive controller unit shall be designed to operate while mounted in an enclosure with an ambient temperature from 32F to 115F.
- C. The storage temperature range shall be -13F to 149F.
- D. The maximum relative humidity shall be 95% at 104F, non-condensing or no dripping water.
- E. The AC drive controller unit shall be rated to operate at altitudes less than or equal to 5000 Ft.

2.08 ELECTRICAL RATINGS

- A. The AC drive controller unit shall be designed to operate from an input voltage as specified elsewhere + or -10%.
- B. The displacement power factor shall not be less than 0.95 lagging under any speed or load condition.
- C. The efficiency of the AC Drive at 100% speed and load shall not be less than 96%.
- D. The output carrier frequency of the AC Drive shall be selectable between 1 kHz and 16 kHz depending on inverter rating for low noise operation. The output carrier frequency of the AC Drive shall be randomly modulated to avoid resonance.
- E. All AC drive controller unit feeder equipment including conductors, lugs, disconnects, contactors, etc. shall be sized per NEC Article 430 for the AC drive input current rating. An impedance range corresponding to a 22,000 to 100,000 Amp fault availability level shall be assumed for the input current rating.

2.09 PROTECTION

- A. The AC drive controller unit shall be protected against fault currents.
- B. Upon power-up the AC Drive shall automatically test for valid operation of signals coming into the drive and send faults for things not responding.
- C. The AC drive controller unit shall be protected against short circuits between output phases, between output phases and ground, on the internal power supplies, and on the logic and analog outputs.
- D. The AC drive controller unit shall have AC undervoltage power loss ride-through of up to 1 second.

- E. The deceleration mode of the AC Drive shall be programmable. The stop modes shall include free-wheel stop, ramp stop, fast stop and DC injection braking.
- F. Upon loss of the analog process follower reference signal, the AC Drive shall be programmable stop option.
- G. The AC Drive shall have solid-state I²t protection that is UL Listed and meets UL 508C as a Class 10 overload protection and meets IEC 60947.

2.10 ADJUSTMENTS & CONFIGURATIONS

- A. The AC Drive motor and control parameters will be factory preset to operate most common applications. Necessary adjustments for factory-supplied unit operator controls and sequencing shall be pre-programmed and tested by the manufacturer.
- B. The drive will have different acceleration and deceleration ramps.
- C. The acceleration and deceleration ramp times shall be adjustable.
- D. The volts per frequency ratios shall be user selectable to meet variable torque loads, normal and high torque machine applications.
- E. The memory shall retain and record run status and fault type of the past eight faults for operator review.
- F. Slip compensations shall be an available function.
- G. The AC Drive shall offer programmable DC injection braking. The use of this feature may or may not be required.

2.11 GRAPHIC DISPLAY TERMINAL INTERFACE

- A. The graphic display terminal shall provide high-resolution graphical display in plain English to control, adjust and configure the AC Drive, including all electrical values, bar charts, configuration parameters, I/O assignment, application and activity function access, faults, local control, adjustment storage, self-test and diagnostics. There will be a standard selection of 14 additional languages built-in to the operating software as standard.
- B. The AC Drive model number, torque type, software revision number, horsepower, output current, motor frequency and motor voltage shall all be listed on the drive identification display as viewed on the graphic display terminal.
- C. As a minimum the selectable display values shall consist of speed reference, output frequency, output current, motor torque, output power, output voltage, line

voltage, DC voltage, motor thermal state, drive thermal state, elapsed time, motor speed, machine speed reference and machine speed.

- D. The graphic display terminal will consist of programmable function keys. The functions will allow both operating commands and programming options to be preset by the operator.
- E. The graphic display terminal shall offer levels of settings from simple start-up to advanced user menus consisting of parameter setting, I/O map, fault history, and drive configuration. Password protection shall be available to limit unauthorized access to various levels of the menus.
- F. The navigation wheel shall provide the ability to scroll through menus and screens, select or activate functions or increase the value of a selected parameter.
- G. An escape key shall allow a parameter to return the existing value if adjustment is not required and the value is displayed. The escape function will also return to a previous menu display.

PART 3 EXECUTION

3.01 INSPECTION

- A. Verify that the location is ready to receive work and the dimensions are as indicated.

3.02 PROTECTION

- A. Before and during the installation, the AC drive controller unit shall be protected from site contaminants.

3.03 FACTORY ACCEPTANCE TESTINMG (FAT)

- A. The control system, as a an entire functional unit, shall be tested at the manufacturer's facility to ensure that all equipment is functional prior to shipment.
 - 1. Ensure the PLC and touchscreen HMI unit are properly programmed and configured to communicate with and monitor and control the pumps, field instruments, and Owner supplied equipment.
 - 2. Ensure the control system is configured and programmed per the Owner's direction.
 - 3. Ensure that alarms are properly communicated to the Owner supplied RTU.

3.04 INSTALLATION

- A. Installation shall be in compliance with manufacturer's instructions, drawings and recommendations.

3.05 STARTUP AND COMMISSIONING

- A. The AC drive controller unit manufacturer shall provide a factory certified technical representative to supervise the CONTRACTOR'S installation, testing and start-up of the AC drive controller units and all other appurtenances and equipment provided . See Section 33 0810 – Water Utility Equipment Testing and Startup for a complete description of the manufacturer's duties during Startup and Commissioning.

END OF SECTION

SECTION 33 0810

WATER UTILITY EQUIPMENT TESTING AND STARTUP

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. Provide personnel, equipment, supplies, and services for verification and startup of the new equipment and instrumentation, herein referred as System.
- B. System testing and startup operations shall consist of the following steps:
 - 1. Operational Readiness Testing (ORT)
 - 2. Functional Demonstration Testing (FDT)
 - 3. Performance Testing (PT)
- C. The CONTRACTOR shall work with the OWNER to operate the system throughout startup, until Certificate of Substantial Completion is issued.
- D. Portions of this specification may not apply or may not be completed consecutively. See plan set for sequencing information.

1.02 RELATED WORK

- A. Section 01 1000: Summary of Work
- B. Section 01 3300: Contractor Submittals
- C. Section 33 1136: Submersible Pump System
- D. Section 26 2923.10: Adjustable Frequency Drive Package

1.03 STARTUP COORDINATION

- A. General CONTRACTOR shall designate a Startup Supervisor (SUS) who is responsible for coordinating all system startup activities required for preparing and conditioning the treatment facilities for proper operation prior to issuing the Certificate of Substantial Completion.
- B. The SUS shall overlook and keep records of general methods and procedures in prosecuting, handling, erecting and placing in service wastewater treatment facility equipment.
- C. The SUS shall coordinate with all equipment suppliers, mechanical subcontractor, electrical subcontractor, Process Control System Integrator, ENGINEER and OWNER. The SUS shall be responsible for coordinating the start-up of the equipment listed below, but not limited to:
 - 1. Control system
 - 2. All pumps
 - 3. Instruments (probes, meters, transducers, floats, etc.)
 - 4. General operation and maintenance of every equipment

- D. The SUS shall coordinate and schedule all required testing with the ENGINEER.
- E. The SUS shall coordinate and schedule all required OWNER training.

1.04 QUALITY ASSURANCE

- A. The SUS shall be an individual who:
 - 1. Has been regularly engaged in the installation of mechanical and electrical systems, and their associated subsystems as they are applied to the water and wastewater industry.
 - 2. Has performed work of similar or greater complexity on at least three (3) facilities within the last five (5) years.
 - 3. Has been in the water/wastewater industry performing the type of work specified in this specification section for the past five (5) continuous years.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.01 GENERAL REQUIREMENTS

- A. The SUS shall be responsible for providing a detailed start-up schedule for all tasks associated with the startup and commissioning of the equipment in accordance with Section 01 3300. The schedule shall be submitted a minimum of 30 days prior to commencing Operational Readiness Testing and shall be updated as often as necessary or requested to ensure appropriate coordination with the OWNER and ENGINEER.
- B. The CONTRACTOR shall be fully responsible for the proper operation of equipment during tests and instruction periods and shall neither have nor make any claim for damage which may occur to equipment prior to the time when OWNER assumes full operational responsibility thereof.
- C. All tests shall be conducted in accordance with prior ENGINEER-approved procedures, forms and checklists. Each specific test to be performed shall be described and a space provided after it for sign off by the appropriate party after its satisfactory completion. Copies of these sign off test procedures, forms and checklists will constitute the required test documentation to be included in the test reports.
- D. Provide all special testing materials and equipment. Wherever possible, perform tests using actual process variables, equipment, and data. Where it is not practical to test with real process variables, equipment and data, provide suitable means of simulation. Define these simulations techniques in the test procedures.
- E. The SUS shall coordinate all testing with all affected subcontractors, Manufacturers, PCSI, ENGINEER, and the OWNER.
- F. All tests for field performance and acceptance shall be coordinated and performed in the

presence of the ENGINEER.

- G. The ENGINEER reserves the right to test or retest all specified functions whether or not explicitly stated in these Specifications.
- H. The ENGINEER'S decision shall be final regarding the acceptability and completeness of all testing.

3.02 PRE-STARTUP TESTING

- A. All process systems and pipelines shall be filled and flushed with water and hydraulically checked for leaks, cracks, and defects, as specified. All sumps, tanks, and basins, which under normal operating conditions will contain water or process liquids shall also be hydraulically checked using water for leaks, cracks, and defects, as specified. Unless otherwise approved by the OWNER, all sumps, tanks, basins, and pipelines which are hydraulically checked shall be drained and returned to their original condition once the pressure and leakage testing is complete.
- B. All mechanical and electrical equipment shall be checked to ensure that it is properly installed and properly connected. Pre-operational testing of the various pumps and other equipment shall be made as specified in their respective equipment specifications. All systems shall be cleaned and purged as specified and required.
- C. No testing or operation of equipment shall take place until all equipment manufacturers have certified that equipment has been installed to their satisfaction and submit a certification form for all equipment furnished.
- D. All instruments and controls shall be calibrated through their full range. Any other adjustments required for proper of all instrumentation and control equipment shall be made.
- E. The CONTRACTOR shall perform all other tasks needed for preparing and conditioning the system for start-up testing.
- F. No testing or equipment operation shall take place until it has been verified by the CONTRACTOR that all specified safety equipment has been installed and is in good working order.
- G. No start-up testing shall take place until it has been verified by the CONTRACTOR that all lubricants, tools, maintenance equipment, spare parts, and approved equipment operation and maintenance manuals have been furnished as specified.

3.03 OPERATIONAL READINESS TESTING (ORT)

- A. General Requirements
 - 1. The ORT shall be conducted during the work week of Monday through Friday, unless otherwise specified.
 - 2. The SUS, PCSI and ENGINEER shall jointly perform the ORT and inspect the systems.
- B. ORT Activities
 - 1. Control System shall be checked for the following items:

- a. Installation as indicated on Drawings
 - b. PLC communications system and computer local area network.
 - c. PLC system components including processors, communications modules, and I/O modules.
 - d. Control panels.
 - e. Field located switches, transducers, meters and analytical instruments.
2. Pump(s), shall be checked to ensure that the equipment is:
- a. Installed correctly as indicated on Drawings.
 - b. Filled with oil.
 - c. Rotation is proper.
 - d. Aligned properly (mechanical seal has been set).
 - e. Pump rotation is proper.
 - f. Receives and responds to process control command signals (discrete and/or analog).
 - g. Mechanical seals are installed properly.
3. Instruments (such as probes, pressure transducers etc) shall be checked to ensure that:
- a. Electrical supply is connected.
 - b. Instrument is software configured.
 - c. Instrument responds to position and sends discrete and analog signals.
 - d. Control alarm set point has been established.
 - e. Instrument is calibrated.
4. Switches (flow, pressure, level and temperature) shall be checked to ensure that:
- a. Electrical supply is connected.
 - b. Switch sends signal upon transition of state.
 - c. Switches are calibrated.
 - d. Control alarm set point has been established (if applicable).
5. All other mechanical equipment shall be checked to ensure that:
- a. Equipment is in good working condition.
 - b. Equipment is properly connected.
6. The ORT shall also include the following check items:
- a. All piping and valve tags are as specified and in accordance with the Drawings and these Specifications.
 - b. Wiring shall be checked at each termination point for correct wire size, type, color, termination and wire number.
 - c. Instruments and devices shall be checked to verify compliance with the Specifications and approved shop drawings. The calibration of analog devices shall be verified including the zero and span.
 - d. Analog wiring shall be checked for correct polarity and ground continuity at each termination point in the loop.
 - e. Analog loops shall be verified at each termination point.

- C. Post ORT Procedures
1. The SUS shall provide a list identifying all equipment that has not been properly installed, detailing the outstanding installation issues on an "ORT punch list" and noting the party who shall be responsible for each correction.
 2. A report summarizing the results and observations of the ORT procedures shall be prepared by the SUS within one week and submitted to the ENGINEER and OWNER.
 3. The SUS shall be responsible for coordination the completion of any adjustments and / or modifications to all equipment and processes that are identified in the ORT punch list.
 4. After making adjustments and modifications, systems will be retested to verify readiness.
 5. All systems shall be cleaned and purged as required.
 6. A Letter of ORT Certification that certifies successful completion of the ORT and satisfactory operation of each mechanical, electrical, and instrumentation system shall be provided by the SUS.

3.04 FUNCTIONAL DEMONSTRATION TESTING (FDT)

- A. General Requirements
1. The FDT shall be conducted during the work week of Monday through Friday, unless otherwise specified.
 2. The SUS, PCSI, OWNER, and ENGINEER shall jointly perform the FDT and inspect the systems.
 3. FDT can immediately follow the ORT as long as the system can be certified to be ready for FDT.
- B. Preliminary Requirements
1. FDT can begin only after the Letter of ORT Certification has been provided.
 2. The SUS shall be responsible for providing the following documentation to participating parties before and during the FDT:
 - a. Updated versions of the documentation specified to be provided for during the ORT shall be distributed to participating parties before the FDT.
 - b. One (1) copy of all O&M Manuals shall be made available to the participating parties at the job-site both before and during testing.
- C. FDT Activities
1. FDT shall be performed on the complete system to demonstrate that it is operating and in compliance with these Specifications. Each specified function shall be demonstrated on a paragraph-by-paragraph, loop-by-loop, and site-by-site basis. This testing will require active participation by the CONTRACTOR, PCSI, OWNER, and ENGINEER.
 2. The FDT shall include but will not be limited to the following:
 - a. Test and verify all system components for conformance with design requirements under normal operating conditions
 - b. Test and verify all system components for conformance with design requirements under emergency (alarm, storm mode etc) conditions
 - c. Test and verify start-up and shut down sequence in normal and emergency conditions
 3. Each test shall be in the cause and effect format. The person conducting the test

- shall initiate an input (cause) and upon the system's or subsystem's producing the correct result (effect), the specific test requirement will have been satisfied.
4. The FDT shall be witnessed by the SUS, PCSI, ENGINEER and CONTRACTOR.

D. Post FDT Procedures

1. The SUS shall provide a "FDT punch list" identifying all equipment that did not function properly during the FDT, detailing the outstanding issues on the FDT punch list and noting the party who shall be responsible for each correction.
2. A report summarizing the results and observations of the FDT procedures shall be prepared by the SUS within one week and submitted to the ENGINEER and OWNER.
3. The SUS shall be responsible for coordination the completion of any adjustments and / or modifications to all equipment and processes that are identified in the FDT punch list. All non-functioning processes and equipment shall be remediated.
4. A Letter of FDT Certification that certifies successful completion of the FDT and satisfactory operation of the entire treatment facility and all of its mechanical, electrical, and instrumentation systems for seventy two (72) continuous hours shall be provided by the SUS.

3.05 PERFORMANCE TESTING (PT)

A. General Requirements

1. The SUS and ENGINEER shall jointly perform the PT and inspect the systems. The PCSI shall be available via teleconference or shall be available to be at the site within one day, if deemed necessary by the SUS, CONTRACTOR, or the ENGINEER.
2. PT can immediately follow the FDT as long as the system can be certified to be ready for PT.

B. Preliminary Requirements

1. PT can begin only after the Letter of FDT Certification has been provided.
2. The SUS shall be responsible for providing the following documentation to participating parties before and during the PT:
 - a. Updated versions of the documentation specified to be provided for during the FDT shall be distributed to participating parties before the PT.
 - b. One (1) copy of all O&M Manuals (including any mark-ups from FDT) shall be made available to the participating parties at the job-site both before and during testing.

C. PT Activities

1. PT activities will be performed after the completion of ORT and FDT activities for all equipment.
2. The CONTRACTOR shall be responsible for operation of the entire system for a period of 14 consecutive days, under conditions of full system operation, without a single non-field repairable malfunction.
3. During this 14 consecutive day PT period, any malfunction which cannot be corrected within 24 hours of occurrence, or more than two similar failures of any duration, will be considered as a non-field-repairable malfunction.
4. Throughout the PT period, a designated representative of the SUS shall be present on site during normal working hours.
5. The OWNER will furnish operating personnel and be available to respond to malfunctions within 4 hours after-hours, weekends and holidays (other than

CONTRACTOR'S vendor's or subcontractor's service personnel) needed to operate equipment during the test period: however, said personnel will perform their duties under SUS direct supervision.

6. The OWNER or an authorized representative of the OWNER will be present to witness the PT.
7. While this test is proceeding, the OWNER shall have full use of the system. Only facility operating personnel shall be allowed to operate equipment.
8. Any malfunction during the tests shall be analyzed and corrections made by the SUS. The ENGINEER and/or OWNER shall determine whether any such malfunctions are sufficiently serious to warrant a restart of this test.
9. Upon completion of repairs, by the SUS, the test shall be repeated as specified herein.
10. In the event of rejection of any part or function, the CONTRACTOR shall perform repairs or replacement within 90 days.
11. The total availability of the system shall be greater than 99.5 percent (99.5%) during this test period. Availability shall be defined as:
$$\text{Availability} = (\text{Total Testing Time} - \text{Down Time}) \div \text{Total Testing Time}$$
12. Down times due to power outages or other factors outside the normal protection devices or backup power supplies provided, shall not contribute to the availability test times above.

D. Post PT Procedures

1. A report summarizing the results and observations of the PT procedures shall be prepared by the SUS within one week and submitted to the ENGINEER and OWNER.
2. A Letter of PT Certification that certifies successful completion of the PT and satisfactory operation of the entire treatment facility and all of its mechanical, electrical, and instrumentation systems for 30 consecutive days shall be provided by the SUS.

3.06 SUBSTANTIAL COMPLETION

- A. The ENGINEER shall review the operation of the equipment to verify that the start-up is complete. The ENGINEER shall perform random tests to determine if the equipment is operating properly and witness various operational sequences. The ENGINEER may initiate alarm conditions to determine if the control system is functioning properly.
- B. Upon satisfactory completion of the review, the ENGINEER shall issue to the CONTRACTOR a written "Notice of Substantial Completion".
- C. Substantial Completion of the project, with the OWNER assuming operation and maintenance of the facilities and equipment shall occur when:
 1. All required startup testing procedures have been completed.
 2. Utilities, alarms, electrical, area lighting, monitoring, controls, drains, piping, paving, and related components are in place and completed.
 3. A Letter of PT Certification has been issued.
 4. All systems are complete and functional.
- D. CONTRACTOR's warranty start date for equipment systems will be the date of Final Acceptance by the OWNER.

- E. For substantial completion of the project, CONTRACTOR will follow Contract Closeout requirements detailed in Section 01 7000.

3.07 TRAINING OF OPERATIONS AND MAINTENANCE PERSONNEL

A. General

1. The cost of training programs for the OWNER'S personnel shall be included in the Contract price. Where practical the training and instruction shall be directly related to the system being supplied. The training program shall represent a comprehensive program covering all aspects of the operation and maintenance of the system.
2. Training shall be conducted at the OWNER'S facilities.
3. All technicians and operators of the facility shall require training on the instrumentation system. The training courses shall address operation, maintenance, and troubleshooting of the facility provided. The courses shall be designed specifically for the type of personnel attending.

B. Scheduling

1. The SUS shall coordinate and schedule all required training.
2. All training schedules shall be coordinated with, and at the convenience of the OWNER. Shift training may be required to correspond to the OWNER'S working schedule.

C. Responsibilities of the SUS

1. The SUS shall coordinate with the equipment manufacturers to provide the services of factory-trained specialists to instruct the OWNER'S personnel in the recommended operation and the preventive maintenance procedures for all system equipment provided.
2. The SUS shall coordinate the scheduling efforts to commence training of the OWNER's personnel within five days after the startup period has been initiated, preliminary operation and maintenance manuals have been turned over to the OWNER, and PT period has started.
3. The SUS shall coordinate with the equipment manufacturers to provide these services at times acceptable to the ENGINEER and OWNER personnel, with a minimum of seven (7) days prior notice.

D. Responsibilities of the Trainer

1. Provide detailed training manuals to supplement the training courses. The manuals shall include specific details of equipment supplied and operations specific to the project.
2. The trainer shall make use of teaching aids, manuals, slide/video presentations, etc. After the training services, all training materials shall be delivered to OWNER.
3. The trainer shall fill out and sign a training form for each operator attending the training sessions to be used by the operator to fulfill Professional Development Hours required for Operator Licensing in the State of New Mexico.
4. The trainer shall allow any and all training sessions to be videotaped by the OWNER. All training material shall be provided to the OWNER in electronic format.
5. The trainer may retain the services of component equipment suppliers' representative(s) for training on their own equipment, as necessary.

E. Training Content: The training shall include the following as a minimum:

1. Equipment Operation:

- a. Describe equipment's operating (process) function.
 - b. Describe equipment's fundamental operating principals and dynamics.
 - c. Identify equipment's mechanical, electrical, and electronic components and features.
 - d. Identify all support equipment associated with the operation of subject equipment (e.g., compressed air intake filters, valve actuators, motors).
 - e. Recommend standard operating procedures to address start-up, routine monitoring, and shutdown of the equipment.
2. Detailed Component Description:
 - a. Identify and describe in detail each component's function.
 - b. Group related components into subsystems, where applicable. Describe subsystem functions and their interaction with other subsystems.
 - c. Identify and describe in detail equipment safeties and control interlocks.
3. Equipment Preventive Maintenance (PM):
 - a. Describe PM inspection procedures required to:
 - i. Perform an inspection of the equipment in operation.
 - ii. Spot potential trouble symptoms and anticipate breakdowns.
 - iii. Forecast maintenance requirements (predictive maintenance).
 - b. Define the recommended PM intervals for each component.
 - c. Provide lubricant and replacement part recommendations and limitations.
 - d. Describe appropriate cleaning practices and recommend intervals.
 - e. Identify and describe the use of special tools required for maintenance of the equipment.
 - f. Describe component removal / installation and disassembly / assembly procedures.
 - g. Perform at least two "hands-on" demonstrations of preventive maintenance procedures.
 - h. Define recommended torque, mounting, calibration, alignment procedures and settings, as appropriate.
 - i. Describe recommended procedures to check/test equipment following a corrective repair.
4. Equipment Troubleshooting:
 - a. Define recommended systematic troubleshooting procedures.
 - b. Provide component specific troubleshooting checklists.
 - c. Describe applicable equipment testing and diagnostic procedures to facilitate troubleshooting.

END OF SECTION

SECTION 33 1136
SUBMERSIBLE PUMP SYSTEM

PART 1 GENERAL

1.1. SCOPE OF WORK

- A. The work in this section shall include furnishing and operational start up assistance for Wet Pit pumps with submersible motors, as specified herein.

1.2. RELATED WORK

- A. Specification Section 01 1000: Summary of Work
- B. Specification Section 01 3300: Contractor Submittals
- C. Specification Section 01 7823: Operation and Maintenance Data

1.3. REFERENCE STANDARDS

- A. American Iron & Steel Institute (AISI)
- B. American Society for Testing and Material (ASTM)
- C. Hydraulic Institute Standards for Centrifugal, Rotary, and Reciprocating Pumps (HI)
 - 1. HI 14.6: Hydrodynamic Pumps for Hydraulic Performance Acceptance Tests
 - 2. HI 11.6: Submersible Pump Tests
- D. National Electric Code (NEC)
- E. National Electrical Manufacturers Association (NEMA)
- F. Anti-Friction Bearing Manufacturers Association (AFBMA)
- G. International Standards Organization (ISO)-ISO9001

1.4. SUBMITTALS

- A. Submittal data shall be provided to show compliance with these specifications, plans or other specifications that will influence the proper operation of the pump(s).
- B. Standard submittal data for approval must consist of:
 - 1. Pump Performance Curves.
 - 2. Pump Outline Drawing.
 - 3. Station Drawing for Accessories.
 - 4. Electrical Motor Data.
 - 5. Typical Installation Guides.
 - 6. Technical Manuals and Parts List.
 - 8. Printed Warranty.
 - 9. Management system certificate ISO 9001.
 - 10. Manufacturer's Equipment Storage Recommendations.
 - 11. Manufacturer's Standard Recommended Start-Up Report Form.

1.5. QUALIFICATION REQUIREMENTS

- A. All products, whether named as "acceptable" or proposed as "equal" must fully comply with these specifications. Standard product must be modified, if required, for compliance.
- B. Alternate proposals must include a statement of each point of difference between the product proposed and these specifications. The owner and engineer reserve the right to reject any bid not complying with these specifications.

- C. After installation, a pump station start-up shall be performed by the manufacture's authorized representative. 7 Days of field service shall be provided by an authorized, factory trained representative of the pump manufacturer. Services shall include, but not be limited to, inspection of the completed pump station installation to ensure that it has been performed in accordance with the manufacturer's instructions and recommendations, supervision of all field-testing and activation of the Pump Manufacturer's Warranty. The test shall demonstrate to the satisfaction of the Owner that the equipment meets all specified performance criteria, is properly installed and anchored, and operates smoothly without exceeding the full load amperage rating of the motor. The Contractor shall be responsible for coordinating the required field services with the Pump Manufacturer.

1.6. DELIVERY, STORAGE AND HANDLING

- A. Deliver, store and handle products to site to prevent any undue damage, or otherwise mishandling or preventable wear or tear.

1.7. OPERATIONAL REQUIREMENTS AND WARRANTY

- A. The station shall be equipped with 4 each KSB – KRTK 300-505/1406UNG-K submersible pumps.
- B. Each pump shall be received, handled, and or stored by the Vendor as needed until delivery to the site for installation is requested by the Owner.
- C. Each pump shall be capable of pumping 7,000 GPM at a total dynamic head of 74.0 feet according to HI 14.6: 2022 Grade 1U, with a maximum motor horsepower of 188. At design point, the required shaft power (P2) shall be no greater than 188HP. The motor speed shall be a maximum of 1184 RPM.
- D. At design point, the NPSHr shall be below 19 feet
- E. The hydraulic efficiency in this duty point shall be not less than 85.3% and approved according to HI 14.6:2022 Grade 1U. Provide non-witnessed certified test for verification
- F. Pump manufacturer to provide certified test reports showing 7 points, verifying the pump meets all the above specifications.
- G. The pumps shall be provided with a 7-year prorated warranty against defects in materials and or workmanship. The warranty shall be a standard offering of the manufacturer and in previously published form.

PART 2 PRODUCTS / PUMPS

2.1. SUBMERSIBLE PUMPS

- A. Provide pumps capable of handling raw unscreened water. Design pumps to allow for removal and reinstallation without the need to enter the wet well and without removal of bolts, nuts or other fasteners. Provide a guide system consisting of two 3-inch Sch 40 Stainless steel guide pipes. Final connection shall insure zero leakage between pump and discharge connection flange. Provide a discharge connection so that no part of the pump bears directly on the floor of the wet well.
- B. Provide non-clog type impeller, capable of passing a minimum 5 inch spherical solid. Impeller shall be of gray cast iron, class 35 B, well finished, free from blowholes and imperfections and dynamically balanced. On enclosed impeller designs, provide hard metal wear rings of

material and Brinell hardness specified, to ensure maximum pump/impeller life and continuing high efficiencies. Impellers must incorporate back vanes which reduce axial loads and propel solids away from the seal area. Do not use soft metals (i.e. bronze, 304 or 316 stainless) or elastomers as wear ring material as these are incompatible with the grit contaminate expected in the pumpage. Back vanes shall be provided to minimize axial loads and propel solids away from the mechanical seal area.

- C. Provide a volute casing with centerline discharge. It should be made of suitable thickness to allow for long pump life and to safely withstand the pressure at shut off pressure. Critical mating surfaces where watertight sealing is required shall be machined and fitted with o-rings. Fittings will be the result of controlled compression of rubber o-rings in two planes and o-ring contact of four sides without the requirement of a specific torque limit. Rectangular cross-sectioned gaskets requiring specific torque limits to achieve compression shall not be considered as adequate or equal. No secondary sealing compounds, elliptical o-rings, grease or other devices shall be used.
- D. The discharge flange of the pump shall be ASME/ANSI B16.1 to accept the ANSI B16.1 guide claw.
- E. The pump shall be capable of operating continuously at an ambient temperature up to 104°F
- F. Provide common pump/motor shaft of sufficient size to transmit full driver output with a maximum deflection of 0.002 inches measured at the lower mechanical seal. Machine the shaft of ASTM A276 Type 420 stainless steel.
- G. Provide 33 ft of power/control cable with each pump, suitable for submersible wastewater application, sized in accordance with NEC requirements. Provide cable entry sealed to ensure that no entry of moisture is possible into the high-voltage motor/terminal area even if the cable is damaged or severed below water level. Cable seal shall include a compressed rubber grommet to seal the cable exterior and epoxy fill to seal the interior passages. A monolithic dam formed by either soldering on bare stripped cable leads or by inserting cooper bushing over each individual cable lead shall be provided. A strain relief device, in direct contact with both the cable and the cast iron entry housing, shall be provided. The cable entry shall be rated by Factory Mutual (or UL) for submerged operating depths to 100 feet. Cable entries providing only simple grommet seals (external cable jacket) shall not be accepted.
- H. Furnish upper and lower bearings, single row or double row as needed to provide a B10 life of, at minimum, 100,000 hours at anticipated axial and radial loadings. The pump side (lower) bearing shall include a PT-100 temperature sensor for connection to a monitoring device.
- I. Sealing shall be accomplished by means of independent mechanical shaft seals, installed in tandem, each with its own independent single spring system acting in a common direction. The driver-side seal shall operate in an integral oil-filled chamber with drain and inspection plug for easy access from external to the pump. The impeller-side seal shall operate in a large, flooded chamber formed by cast recesses in the impeller and backplate. Both seal interfaces shall be lubricated by the non-toxic mineral or paraffin base oil, allowing for extended periods of dry-running operation without the need for external seal lubrication or cooling systems. Conventional double mechanical seals with single or multiple springs acting in opposed direction are not acceptable. Seals with face materials other than silicon-carbide, will not be considered as acceptable for this application. Shaft seals that rely on external flush systems, pumped media or external cooling shall not be considered equal. Shaft sealing shall result in no leakage, bacteria or odorous content in the pump station

- J. Provide a humidity sensitive sensor in the motor's stator cavity which allows a control panel mounted relay to indicate leakage into the motor. Additionally, provide a stainless-steel float switch in a separate leakage collection chamber to indicate leakage past the inner mechanical seal prior to its entrance into either the motor stator cavity or the lower bearing. Electronic probes which depend on sensing resistance value changes in seal oil will not be acceptable as seal leak indicators.
- K. The pump supplier shall furnish all relays required for monitoring all motor sensors. The relays shall be installed by others in the motor control panel and properly wired in accordance with pump manufacturer's instructions. Relays shall mount in standard 12-pin socket bases (provided) and shall operate on available control voltage of 24-240 VAC. If relays require an input voltage that is not available in the motor control panel an adequate transformer (with fused input) shall be provided by the pump supplier. Relays shall have a power consumption of no more than 2.8 watt and shall be UL approved. Relays shall be modular in design, with each relay monitoring no more than two motor sensor functions. Each relay module shall include a dual color (red/green) LED to indicate the status of each monitored sensor. Green will indicate "status OK"; red will indicate a failure or alarm condition. A self-corrected fault will allow the relay output contacts to reset and cause the LED to change from a steady alarm indication to a flashing signal. The LED shall continue to flash until locally cleared, providing the operator with an indication of a potential intermittent fault. Each relay shall also include a power-on LED and both "test" and "reset" pushbuttons. An independent fail-safe (switch on power loss) form-C output contact shall be included for each monitored sensor to provide a normally open / normally closed dry contact to initiate a remote alarm device or shut down the motor. Contacts shall be rated for 5 amps at 120 volts.
- L. Provide a motor which is squirrel cage, induction in design, housed in a completely watertight and air-filled chamber, with a min 1.15 service factor. Insulate the motor stator with, at minimum, Class H insulation rated for 180 Degrees C. Windings shall be impregnated using Current-UV impregnation to ensure uniformity with a winding fill factor of at least 95%. The use of a single dip and bake impregnation shall not be considered equal. The rotor bars and short circuit rings shall be made of cast aluminum. The motor and pump shall be designed and manufactured by the same company. Provide temperature protection and seal leak detection as described above. The motor shall incorporate a closed-loop cooling circuit with an integrated cooling pump rated for continuous duty in a completely dry mode; as well as; in a fully submerged condition without damage. On motors over 74 HP the coolant impeller shall be mounted directly on the motor shaft between the tandem mechanical seals. On motors 74 HP and below the coolant impeller shall be an integral part of the cartridge mechanical seal. The impeller shall circulate coolant fluid into the top inter-space between the cooling jacket and motor housing, over the surface of the motor, through ducts in the bearing housing and into a volute-casing heat exchanger. Heat losses from the motor shall be transferred to the fluid pumped in the volute-casing heat exchanger, which forms a structural unit together with the discharge cover of the actual wastewater pump. After passing through the volute-casing heat exchanger, the medium returns to the suction side of the internal coolant pump. Coolant shall be an environmentally safe antifreeze down to temperatures of minus 20 degrees C (minus 4 degrees F). Motors containing di-electric oils used for motor cooling and/or bearing lubrication are not acceptable. Submergence (cooling) jackets which circulate pumped media for motor cooling may not be used. Provide motors which are FM listed for use in Class I Division 1 Groups C&D hazardous locations as defined by the National Electric Code.
- M. Furnish temperature monitoring devices in motor windings for use in conjunction with and supplemental to external motor overload protection. Arrange controls to shut down the pump should any of the sensors detect high temperature and automatically reset once motor temperature returns to normal. Set temperature monitors at levels recommended by pump manufacturer.

N. The Materials of construction shall be as follows:

Pump housing: Cast iron ASTM A-48, Class 35B

Impeller: Cast Iron, ASTM A-48, Class 35 B

Stator housing: Cast iron ASTM A-48, Class 35B

Shaft: ASTM A276 Type 420 stainless steel quenched and tempered

Shaft seal: Pump side: - Silicon Carbide/Silicon Carbide

Shaft seal Motor side: - Silicon Carbide/Silicon Carbide

- O. All exterior metal surfaces of the pump and installation parts except name plates, bright parts and stainless-steel parts shall be cleaned and sand blasted. Primer when using zinc dust or zinc phosphate base shall have a dry film thickness of not less than 35 microns. As the final coating, an abrasion and shock resistant, non-porous, 2 component epoxy resin base painting shall be used. It shall be resistant against many diluted acids and brines as well as grease, oil, solvents and seawater and especially suited for use in hydrous media. The solids content shall not be less than 82%. The shop applied top coating shall have a dry film thickness of not less than 150 microns. The color should be preferably Ultramarine Blue
- P. Each pump is to be factory tested according to ANSI/HI 14.6 Grade 1U at the specified design condition and at a minimum of 7 points, for sufficient time to accurately determine discharge head, flow, power input, and efficiency. Any pump failing to meet the minimum efficiency and specified design point will be rejected without further consideration.

SECTION 40 3300

MISCELLANEOUS VALVES

PART 1 GENERAL

1.01 WORK INCLUDED

- A. Provide all equipment and incidentals to install swing check valves, ball valves, or other process valves indicated in the valve schedule, for metal pipe installations.

1.02 RELATED WORK

- A. Specification Section 01 3300: Contractor Submittals
- B. Specification Section 01 7823: Operation and Maintenance Data

1.03 REFERENCES

- A. AWWA Standards as referenced in Part 2 of these specifications.
- B. ANSI Standards as referenced in Part 2 of these specifications.
- C. ASTM Standards as referenced in Part 2 of these specifications.

1.04 SUBMITTALS

- A. Section 01 3300: Shop Drawings, Product Data, Samples: not required for sink stops, hose bibbs, plug cocks and similar valves.
- B. Section 01 7823: Operating and Maintenance Manuals: not required for sink stops, hose bibbs, plug cocks, slide gates and similar simple valves.

PART 2 PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

- A. Butterfly Valve:
 - 1. Val-Matic.
 - 2. Engineered approved equivalent.
- B. Swing Check Valve:
 - 1. Val-Matic.
 - 2. Engineered approved equivalent.

- C. All other valves: where practical, same manufacturer for each type of valve throughout.
- D. Manufacturer's name or initials and working pressure ratings cast on valve body.

2.02 DESIGN REQUIREMENTS

- A. Swing Check Valves:
 - 1. 4" and larger:
 - a. ASTM A536 ductile iron body
 - b. Buna-N swing disc,
 - c. Bronze Bushing
 - d. Mechanical disc position indicator
 - e. ANSI B16.1 Flanged Ends
 - i. Surgebuster valves shall be Series #7200 as manufactured by Val-Matic, or approved equal.
- B. Butterfly Valves:
 - 1. Water Service:
 - a. Operating pressure: 150 psi minimum.
 - b. ASTM A536 ductile iron body.
 - c. Through type valve shafts, locked to the valve disc.
 - d. ASTM A536 ductile iron disc, without ribs or vanes.
 - e. ASTM A276 Type 304 Shafts
 - f. Resilient Seat: Buna-N. All seat retaining hardware shall be 316 Stainless Steel.
 - g. 4" and larger: Flanged or Mechanical Joint connections
 - i. Flange pattern shall fully conform with ANSI B16.1
 - ii. Mechanical Joint connections shall fully conform with ANSI / AWWA C111/A21.11.
- C. Pressure ratings and valve connections: unless otherwise indicated, use valves suitable for 150 minimum psi.
- D. Valve Operators:
 - 1. Provide suitable hand wheels for exposed gate, globe or angle, drain valves and inside hose bibbs.
 - 2. Buried brass valves to have cross-type operators.
 - 3. Buried gate valves to have AWWA 2" operating nut.
 - 4. Overhead valves 6½' high or above to have chain wheel operators.
- E. Solenoid valves:
 - 1. Suited for severe outside exposure.
 - 2. 115 V, 1 phase unless otherwise indicated on Drawings or scheduled.
- F. Ball Valves for Above Ground Plastic Pipe Installations:
 - 1. True union ends.
 - 2. PVC construction.
 - 3. 150 psi at 120°F.
 - 4. ½" to 3".
 - 5. T handle operator.
 - 6. "O" ring seals: Viton.
 - 7. Ball seat: Teflon.

- G. S. Ball Valves for Above Ground Metal Pipe Installations:
 - 1. Body: hot forged brass or stainless steel as identified on Drawings.
 - 2. End: hot forged brass or stainless steel as identified on Drawings.
 - 3. Ball: extremely hard C.P. brass or stainless steel as identified on Drawings.
 - 4. Seat: virgin P.T.F.E.
 - 5. Stem: extruded brass or stainless steel as identified on Drawings.
 - 6. Packing: virgin P.T.F.E.
 - 7. "O" Ring: Viton.
 - 8. Gland: extruded brass or stainless steel as identified on Drawings.
 - 9. Hexagonal nut: steel dichromate chrome plated or stainless steel as identified on Drawings.
 - 10. Lever handle: dichromate rugged steel.
 - 11. Pressure rating: 400 psi W.O.G. non shock.
- H. Ball Valve for Underground Installations:
 - 1. Constructed of AWWA C 800 84 brass: ASTM B 62, 85 5 5 5.
 - 2. Body: heavy, one-piece cast bronze.
 - 3. End: heavy, one-piece cast bronze.
 - 4. Ball: spherical, fluorocarbon-coated brass ball.
 - 5. Seat: molded Buna N rubber to support ball and give a watertight seal in both directions.
 - 6. Stem: tee head: one-piece, cast bronze cast with stops for 90° rotation.
 - 7. Packing: two Buna N "O" rings in stem to form a watertight seal.
 - 8. Lock ring bronze pin or nut, pressure rating: 200 psi WOG, non shock.

2.03 PROTECTION COATING

- A. Manufactures standard shop coating.

PART 3 EXECUTION

3.01 INSTALLATION

- A. Per manufacturer's recommendations.
- B. Per code or best trade or industry practice.
- C. As indicated on Drawings.

3.02 SCHEDULE

- A. (4) EA. 16" Diameter Swing Check Valves
(1) EA. 24" Diameter Manual Operated Butterfly Valve.

END OF SECTION

In compliance with foregoing invitation for bids, and subject to all conditions on page 2 hereof, the undersigned offers and agrees, that pricing for this bid shall be good for **120** days minimum from date of the opening, to furnish any or all of the items, at the price set opposite each item, and, unless otherwise specified, delivery shall be _____ days after receipt of order. Delivery shall be F.O.B. destination (1930 Second Street SW, Albuquerque, New Mexico 87102).

BIDDER _____

DATE _____

ADDRESS: _____ CITY _____ STATE _____

ZIP CODE: _____ PHONE _____

E-MAIL _____

BID CONDITIONS

1. The District reserves the right to reject any and all bids, to waive any informality in bids and, unless otherwise specified by the bidder, to accept any item in the bid. In case of error in the extension of prices in the bid, the unit prices will govern. Bids will only be considered on each item separately unless otherwise specified by the district.
2. Time, in connection with discount offered, will be computed from date of the delivery of the supplies to carrier when final inspection and acceptance are at point of origin, or from date of delivery at destination or port of embarkation when final inspection and acceptance are at those points, or from date correct bill or voucher properly certified by the contractor is received in the latter date is later than the date of delivery. Discounts will be based on invoice price unless otherwise specified on bid.
3. In case of default on the contractor, the District may procure the articles or services from other sources and hold the contractor responsible for any excess cost occasioned thereby.
4. No director, officer or employee of the District shall be admitted to any share or part of this contract or to any benefit that may arise therefore, directly or indirectly, unless it is made with a corporation for its general benefit.
5. Time is an important factor in the placing of this order and the District reserves the right to cancel all items not shipped within period agreed by bidder.

INSTRUCTION TO BIDDERS

1. Samples of items, when required, must be furnished free of expense, prior to the opening of bids, and, if not destroyed will upon receipt, be returned at the bidder's expense.
2. Prices should be stated in units of quantity specified with packing included.
3. Time of proposed delivery must be stated in definite terms. If time varies for different items, the bidder shall so state. If the items' bid has a trade name or brand, such trade name or brand must be stated in the bid.
4. To ensure prompt payment, bills should be certified as follows: "I certify that the above bill is correct and just, and that payment therefore has not been received."

NOTE: In general, this form is adaptable for use whether a formal contract is required or not

REQUEST FOR BID COMPLIANCE

IN THE INTEREST OF FAIRNESS AND SOUND BUSINESS PRACTICES, IT IS MANDATORY THAT YOU STATE ANY EXCEPTIONS.

IF BID DOES NOT MEET OR EXCEED THE REQUIREMENTS OF THE RFB OR ANY DEVIATIONS EXIST, OFFEROR MUST DETAIL EXCEPTIONS BELOW. (USE A SEPARATE SHEET IF NECESSARY):

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

I MEET REQUIREMENTS _____ DON'T MEET REQUIREMENTS _____
(Must Check One)

NAME

TITLE

FILE

N O T I C E
TO ALL OFFERORS

THIS IS A REMINDER THAT THE MIDDLE RIO GRANDE CONSERVANCY DISTRICT IS NOT RESPONSIBLE FOR RECEIPT OF UNTIMELY BIDS OR PROPOSALS WHETHER THE DELAYS ARE DUE TO UNTIMELY DELIVERY BY PUBLIC OR PRIVATE (POSTAL OR PERSONAL) DELIVERY SERVICE. THEREFORE, WE ASK YOU TO PLEASE MAKE APPROPRIATE ARRANGEMENTS TO HAVE YOUR BIDS OR PROPOSALS IN BY THE DEADLINE DATE AND TIME AS DESIGNATED ON THE BID OR PROPOSAL.

CAMPAIGN CONTRIBUTION DISCLOSURE FORM

Pursuant to NMSA 1978, § 13-1-191.1 (2006), any person 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 shall void an executed contract or cancel a solicitation or proposed award for a proposed contract 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.

THIS FORM 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, which 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 either 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.

“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.

“Person” means any corporation, partnership, individual, joint venture, association or any other private legal entity.

“Prospective contractor” means a person who 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 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 MRGCD Public Official(s)”

(John Kelly, Colin T. Baugh, Stephanie Russo Baca, Karen Dunning, Brian Jiron, J. Chris Lopez and Michael T. Sandoval)

DISCLOSURE OF CONTRIBUTIONS:

Contribution Made By:

Relation to Prospective Contractor:

Name of Applicable MRGCD Public Official:

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)

**FEDERALLY-REQUIRED CONTRACT PROVISIONS
IN COMPLIANCE WITH 2 CFR PART 200, APPENDIX II**

All Contractors with Agreements funded in whole or in part with federal funds shall be required to comply with 2 CFR Part 200, Appendix II, as follows:

1.	Equal Employment Opportunity 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, sexual orientation, gender identity, 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, sexual orientation, gender identity, 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 agrees 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 for employment without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin. (3) The Contractor will not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal	All contracts that meet the definition of "federally assisted construction contract" in 41 CFR Part 60-1.3; construction work.
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	complaint or charge, in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or is consistent with the contractor's legal duty to furnish information. (4) The Contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the Contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment. (5) The Contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor. (6) 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 administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders. (7) 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 or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided 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. (8) The Contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (8) 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	
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	order as the administering agency 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 administering agency, the Contractor may request the United States to enter into such litigation to protect the interests of the United States. The applicant further agrees that it will be bound by the above equal opportunity clause with respect to its own employment practices when it participates in federally assisted construction work: Provided, that if the applicant so participating is a State or local government, the above equal opportunity clause is not applicable to any agency, instrumentality or subdivision of such government which does not participate in work on or under the contract. The applicant agrees that it will assist and cooperate actively with the administering agency and the Secretary of Labor in obtaining the compliance of contractors and subcontractors with the equal opportunity clause and the rules, regulations, and relevant orders of the Secretary of Labor such information as they may require for the supervision of such compliance, and that it will otherwise assist the administering agency in the discharge of the agency's primary responsibility for securing compliance. The applicant further agrees that it will refrain from entering into any contract or contract modification subject to Executive Order 11246 of September 24, 1965, with a contractor debarred from, or who has not demonstrated eligibility for, Government contracts and federally assisted construction contracts pursuant to the Executive Order and will carry out such sanctions and penalties for violation of the equal opportunity clause as may be imposed upon contractors and subcontractors by the administering agency or the Secretary of Labor pursuant to Part II, Subpart D of the Executive Order. In addition, the applicant agrees that if it fails or refuses to comply with these undertakings, the administering agency may take any or all of the following actions: cancel, terminate, or suspend in whole or in part this grant (contract, loan, insurance, guarantee); refrain from extending any further assistance to the applicant under the program with respect to which the failure or refund occurred until satisfactory assurance of future compliance has been received from such	
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	applicant; and refer the case to the Department of Justice for appropriate legal proceedings.	
2.	Davis Bacon Act The Contractor agrees to place a copy of the current prevailing wage determination issued by the Department of Labor in each solicitation. The decision to award a contract or sub-contract must be conditioned upon the acceptance of the wage determination. The Contractor must report all suspected or reported violations to the City, who will report the same to the federal awarding agency. All transactions regarding this contract shall be done in compliance with the Davis-Bacon Act (40 U.S.C. 3141-3144, and 3146-3148) and the requirements of 29 CFR Part 5, as applicable. Contractor is required to pay wages to laborers and mechanics at a rate not less than the prevailing wages specified in wage determination made by the Secretary of Labor. Additionally, Contractor is required to pay wages not less than once a week.	All prime construction contracts in excess of \$2,000 awarded by non-Federal entities; construction work
3.	Copeland Anti-Kickback Act Contractor shall comply with 18 U.S.C. §874, 40 U.S.C. §3145, and the requirements of 29 CFR Part 3 as may be applicable, which are incorporated by reference into this contract. The Contractor or Subcontractor shall insert in any subcontracts the clause above and such other clauses as FEMA or other applicable federal agency 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 with all of these contract clauses. A breach of the contract clauses above may be grounds for termination of the contract, and for debarment as a contractor or subcontractor as provided in 29 CFR §5.12.	For construction work over \$2,000
4.	Contract Work Hours and Safety Standards Act Overtime requirements: No Contractor or subcontractor contracting for any part of the contract work which may require or	For contracts over \$100,000 or that involve

	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. Violation; liability for unpaid wages; liquidated damages: In the event of any violation of the clause set forth in paragraph (b)(1) of this section, the Contractor or any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States, 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 paragraph (b)(1) of this section. Withholding for unpaid wages and liquidated damages: The City 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 contractor, 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 paragraph (b)(2) of this section. Subcontracts: The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (b)(1) through (4) of 29 CFR §5.5, 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 paragraphs (b)(1) through (4) of 29 CFR §5.5.	mechanics or laborers
5.	Rights to Inventions Made under a Contract or Agreement If the award meets the definition of “funding agreement” under 37 CFR §401.2(a) and the City wishes to enter into a contract with a small business firm or nonprofit organization regarding the substitution of parties, assignment or performance of	For funding agreements under 37 CFR 401.2(a)

	experimental, developmental, or research work under that “funding agreement,” the City must comply with the requirements of 37 CFR Part 401 (Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements), and any implementing regulations issued by FEMA or other applicable federal agency.	
6.	Clean Air Act and Federal Water Pollution Control Act The Contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.C. §7401 <i>et seq.</i> The Contractor agrees to report each violation to the City and understands and agrees that the City will, in turn, report each violation as required to assure notification to FEMA or other applicable federal agency, and the appropriate Environmental Protection Agency Regional Office. The Contractor agrees to include these requirements in each subcontract exceeding \$150,000 financed in whole or in part with federal assistance provided by FEMA or other applicable federal agency.	For contracts over \$150,000
7.	Debarment and Suspension This Agreement is a covered transaction for purposes of 2 CFR Part 180 and 2 CFR Part 3000. As such, the Contractor is required to verify that none of the Contractor’s principals (defined at 2 CFR §180.995) or its affiliates (defined at 2 CFR §180.905) are excluded (defined at 2 CFR §180.940) or disqualified (defined at 2 CFR §180.935). Contractor must comply with 2 CFR Part 180, subpart C and 2 CFR Part 3000, subpart C, and must include a requirement to comply with these regulations in any lower tier covered transaction it enters into. This certification is a material representation of fact relied upon by the City. If it is later determined that the Contractor did not comply with 2 CFR Part 180, subpart C and 2 CFR Part 3000, subpart C, in addition to remedies available to the City, the federal government may pursue available remedies, including but not limited to, suspension and/or debarment.	For all contracts: 1) over \$25,000, 2) requiring federal agency approval, 3) for federally required audit services, or 4) a subcontract meeting requirement 1 or 2

	The Bidder or proposer agrees to comply with the requirements of 2 CFR Part 180, subpart C and 2 CFR Part 3000, subpart C, while this offer is valid and throughout the period of any contract that may arise from this offer. This Bidder or proposer further agrees to include a provision requiring such compliance in its lower tier covered transactions.	
8.	Byrd Anti-Lobbying Amendment Contractors who apply or Bid for an award of \$100,000 or more shall file the required certification. Each tier certifies to the tier above that it will not and has not used federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any federal contract, grant, or any other award covered by 31 U.S.C. §1352. Each tier shall also disclose any lobbying with non-federal funds that takes place in connection with obtaining any federal award. Such disclosures are forwarded from tier to tier up to the recipient who in turn will forward the certifications to the awarding agency. If the Agreement exceeds \$100,000, the Contractor must certify compliance with the Byrd Anti-Lobbying Amendment.	For all contracts; contracts over \$100,000 must certify compliance
9.	Procurement of Recovered Materials In the performance of this Agreement, the Contractor shall make maximum use of products containing recovered materials that are EPA-designated items unless the product cannot be acquired: 1. Competitively within a time frame providing for compliance with the Agreement performance schedule; 2. Meeting Agreement performance requirements; or 3. At a reasonable price. Information about this requirement, along with the list of EPA-designated items, is available at EPA's Comprehensive Procurement Guidelines web site, https://www.epa.gov/smm/comprehensive-procurement-guideline-cpg-program. The Contractor also agrees to comply with all other applicable	For state or political subdivision of the state, if the purchase price of an item exceeds \$10,000 (including value of item acquired over the year)

	requirements of Section 6002 of the Solid Waste Disposal Act.	
10.	§ 200.216 Prohibition on certain telecommunications and video surveillance services or equipment. (a) Recipients and sub recipients are prohibited from obligating or expending loan or grant funds to: (1) Procure or obtain; (2) Extend or renew a contract to procure or obtain; or (3) Enter into a contract (or extend or renew a contract) to procure or obtain equipment, services, or systems that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system. As described in Public Law 115-232, section 889, covered telecommunications equipment is telecommunications equipment produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities). (i) For the purpose of public safety, security of government facilities, physical security surveillance of critical infrastructure, and other national security purposes, video surveillance and telecommunications equipment produced by Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities). (ii) Telecommunications or video surveillance services provided by such entities or using such equipment. (iii) Telecommunications or video surveillance equipment or services produced or provided by an entity that the Secretary of Defense, in consultation with the Director of the National Intelligence or the Director of the Federal Bureau of Investigation, reasonably believes to be an entity owned or controlled by, or otherwise connected to, the government of a covered foreign country. (b) In implementing the prohibition under Public Law 115-232, section 889, subsection (f), paragraph (1), heads of executive agencies administering loan, grant, or subsidy programs shall prioritize available funding and technical support to assist	For all contracts

	affected businesses, institutions and organizations as is reasonably necessary for those affected entities to transition from covered communications equipment and services, to procure replacement equipment and services, and to ensure that communications service to users and customers is sustained. (c) See Public Law 115-232, section 889 for additional information. (d) See also § 200.471.	
11.	§ 200.322 Domestic preferences for procurements. (a) As appropriate and to the extent consistent with law, the non-Federal entity should, to the greatest extent practicable under a Federal award, provide a preference for the purchase, acquisition, or use of goods, products, or materials produced in the United States (including but not limited to iron, aluminum, steel, cement, and other manufactured products). The requirements of this section must be included in all subawards including all contracts and purchase orders for work or products under this award. (b) For purposes of this section: (1) “Produced in the United States” means, for iron and steel products, that all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States. (2) “Manufactured products” means items and construction materials composed in whole or in part of non-ferrous metals such as aluminum; plastics and polymer-based products such as polyvinyl chloride pipe; aggregates such as concrete; glass, including optical fiber; and lumber.	
12.	Build America, Buy America Act, Pub. L. No. 117-58, §§ 70901–70952 Contractors and subcontractors who apply or bid for an award for an infrastructure project subject to the domestic preference requirements of the Build America, Buy America Act (BABAA) shall file the required certification with the non-Federal entity with each bid or offer for an infrastructure project, unless a	

domestic preference requirement is waived by the Federal awarding agency.

Contractors and subcontractors certify that no Federal financial assistance funding for infrastructure projects will be provided unless all iron, steel, manufactured products, and construction materials used in the project are produced in the United States, unless a waiver of the domestic preference requirement applies.

The Contractor shall comply with all applicable requirements of BABAA and **2 CFR Part 184**, including applicable requirements concerning iron and steel products, manufactured products, and construction materials.

The Contractor and its subcontractors shall provide sufficient documentation, upon request, demonstrating compliance with the applicable BABAA domestic preference requirements.

The Contractor and its subcontractors shall also disclose any use of Federal financial assistance for infrastructure projects that does not comply with the applicable BABAA domestic preference requirements. Such disclosures shall be provided to the Non-Federal Entity, which shall forward the disclosure to the Federal awarding agency as required.

BABAA Compliance Certification

By submitting a bid or offer, the Bidder certifies that it will comply with all applicable requirements of the Build America, Buy America Act and 2 CFR Part 184 and that all applicable iron, steel, manufactured products, and construction materials furnished under this procurement will comply with the applicable domestic preference requirements, **unless a Federal waiver applies. SEE NEXT SECTION.**

Bidder: _____

Company Name: _____

Authorized Representative: _____

Title: _____

Signature: _____

Date: _____

Build America, Buy America Act (BABAA) – WAIVER PENDING
On Bid Item #1 Submersible Non-Clog Pumps

MRGCD is currently in the process of requesting a waiver from the applicable domestic preference requirements of the **Build America, Buy America Act (BABAA), Pub. L. No. 117-58**, for the pump station equipment specified under this solicitation.

A BABAA waiver request has been submitted to the appropriate Federal agency and is currently **pending Federal review and determination**. The requested waiver is intended to address the applicability of the BABAA domestic preference requirements to the pump equipment being procured under this solicitation.

The Bidder is hereby notified that the requested waiver has not yet been approved. Until such time as MRGCD is provided with written approval of the requested waiver, all applicable BABAA requirements remain in effect.

MRGCD reserves the right to proceed with the procurement, modify the procurement requirements, delay award, reject bids, or take other appropriate action based upon the determination issued regarding the requested waiver.

If the appropriate Federal agency approves the requested waiver, the successful Bidder shall comply with the terms and conditions of the waiver as applicable to the pump equipment furnished under this solicitation.

If the appropriate Federal agency does not approve the requested waiver, MRGCD reserves the right to determine the appropriate course of action, including requiring compliance with applicable BABAA requirements, revising the solicitation, canceling the solicitation, or taking any other action permitted under applicable Federal, State, and local law.

Bidder Acknowledgment

By submitting a bid, the Bidder acknowledges that:

- ☐ It has read and understands the BABAA requirements applicable to this procurement.
- ☐ It understands that MRGCD has a BABAA waiver request pending concerning the pump station equipment.
- ☐ It understands that the waiver has **not yet been approved** and that submission of a bid does not constitute approval of, or reliance upon, a BABAA waiver.

Bidder: _____

Company Name: _____

Authorized Representative: _____

**CERTIFICATION REGARDING DEBARMENT, SUSPENSION, AND OTHER
RESPONSIBILITY MATTERS – PRIMARY COVERED TRANSACTIONS**

The _____, certifies to the best of its
knowledge and

(Company/Contractor)

belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;

(2) Have not within a three-year period preceding this Agreement been convicted or

had a civil judgment against them for commission or fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or Local) transaction or Agreement under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements or receiving stolen property;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or Local) with commission of any of the offenses enumerated in paragraph (2) of this certification; and

(4) Have not within a three-year period preceding this agreement had one or more public transactions (Federal, State or Local) terminated for cause or default.

Where the Contractor is unable to certify to any of the statements in this certification, such Contractor shall attach an explanation to this certification.

THE COMPANY/CONTRACTOR, _____
CERTIFIES OR AFFIRMS THE TRUTHFULNESS AND ACCURACY OF THE
CONTENTS OF THE STATEMENTS SUBMITTED ON OR WITH THIS
CERTIFICATION.

Executed on this date: _____.

By

(Signature of authorized official)

(Title of authorized official)

INSTRUCTIONS FOR SUSPENSION DEBARMENT CERTIFICATION

1. By signing and submitting this form, the prospective lower-tier participant is providing the certification set out on the previous page in accordance with these instructions.
2. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower-tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.
3. The prospective lower-tier participant shall provide immediate written notice to the person to whom this proposal is submitted if at any time the prospective lower-tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
4. The terms “transaction”, “debarred”, “suspended”, “ineligible”, “lower-tier covered transaction”, “participant”, “person”, “primary covered transaction”, “principal”, “proposal”, and “voluntarily excluded”, as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations.
5. The prospective lower-tier participant agrees by submitting this form that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower-tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.
6. The prospective lower-tier participant further agrees by submitting this form that he or she will include this clause titled Certification Regarding Debarment, Suspension, Ineligibility, and Voluntary Exclusion – Lower-Tier Covered Transactions, without modification, in all lower-tier covered transactions and in all solicitations for lower-tier covered transactions.
7. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower-tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Nonprocurement List.
8. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause.

The knowledge and information of a participant are not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

9. Except for transactions authorized under paragraph 5 of these instructions, if a participant in a covered transaction knowingly enters into a lower-tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment

CERTIFICATION OF RESTRICTIONS ON LOBBYING

I, _____, hereby
certify on behalf of _____
(Name and title of Official)

_____ that;
(Name of Company)

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee or Member of Congress in connection with the awarding of any Federal Agreement, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal Agreement, grant, loan or cooperative agreement.

(2) If any funds other the Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal Agreement, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form LLL, "Disclosure Form to Report Lobbying", in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in the award documents for all sub-awards at all tiers (including sub-agreements, sub-grants, and Agreements under grants, loans and cooperative agreements) and that all sub-recipients shall certify and disclose accordingly.

For purposes of this Certification, the Agreement shall be considered a federal Agreement. This certification is a material representation of fact upon which reliance is placed when this transaction was made or entered into. Submission of this certification is prerequisite for making or entering into this transaction imposed by Section 1352, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

Executed on this date: _____.

By

(Signature of authorized official)

(Title of authorized official)

CERTIFICATION OF BIDDER REGARDING EQUAL EMPLOYMENT OPPORTUNITY

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:

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 _____ 2026.

NOTARY PUBLIC
My Commission Expires _____

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 _____, 2026.

NOTARY PUBLIC My Commission

Expires: _____

SUBCONTRACTOR LISTING

1. Shall be fully executed and included with Bid as a condition of the Bid
2. For the purposes of this Project the threshold shall be \$5,000.00.
3. The Bidder shall list the Subcontractor's Name, the City or County of the Place of Business and the Category of Work that will be done by each Subcontractor

Trade:			Name of Subcontractor:		
Address:		License No:		NM Dept of Workplace Solutions Registration No.	
Trade:		Name of Subcontractor:			
Address:		License No:		NM Dept of Workplace Solutions Registration No.	
Trade:		Name of Subcontractor:			
Address:		License No:		NM Dept of Workplace Solutions Registration No.	