



P.O. BOX 850  
COWETA, OK 74429  
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[www.cityofcoweta-ok.gov](http://www.cityofcoweta-ok.gov)

**AGENDA - REGULAR MEETING  
COWETA PUBLIC WORKS AUTHORITY  
COWETA CITY HALL, 310 S. BROADWAY  
MONDAY, AUGUST 3, 2026 6:00 PM**

**MEETING PROCEDURE:** Comments on all scheduled agenda items will be heard immediately following the presentation by staff or the petitioner. Please wait until you are recognized by the Chair and keep your comments as brief as possible. Individuals addressing the Trustees must identify themselves by name prior to making any comments. The Trust Authority will consider, discuss, and may take action on, approve, adopt, amend, reject, deny, table, or not take action on any item listed on this agenda after comments from staff and the Trust Authority have been heard.

**I. CALL TO ORDER**

**II. ROLL CALL**

Naomi Hogue \_\_\_\_ Daniel Beatie \_\_\_\_ Donald Vieth \_\_\_\_

**III. CONSENT**

(All matters under the "Consent Calendar" are considered by the Trustees to be routine and will be enacted by one motion. Any Trustee may, however, remove an item from consent by request.)

**1. MINUTES OF SPECIAL MEETING**

Approval of the minutes of the Coweta Public Works Authority Special Meeting held on July 13, 2026. *Marcy Kilgore, City Clerk/Treasurer*

**IV. CONSIDER, DISCUSS AND TAKE ACTION ON ITEMS REMOVED FROM CONSENT**

**V. ADMINISTRATION**

**1. BID AWARD - SCADA UPGRADES AND FILTER CONTROLS PROJECT AT THE COWETA WATER TREATMENT PLANT TO DIGITAL 6 LABORATORIES, INC. IN THE AMOUNT OF \$466,500.00**

Discuss and consider action to award a bid to Digital 6 Laboratories, Inc., the lowest responsible bidder, in the amount of \$466,500.00 for the SCADA Upgrades and Filter Controls project at the Coweta Water Treatment Plant, budgeted in the Public Works Authority Utility Fund, account 04-5404.033, and direction to the Trust Manager to execute all necessary documents related to the project.

*Julie A. Casteen, Trust Manager*

**2. RESOLUTION 2026-37 REGARDING BUDGET AMENDMENTS**

Discuss and consider approval of Resolution 2026-37, a Resolution of the Board of Trustees of the Coweta Public Works Authority, Coweta, Oklahoma, adopting amendments to the annual appropriations for the budget of the Coweta Public Works Authority for Fiscal Year Ending June 30, 2027; appropriating \$16,500 in account 04-5324.033 of the Utility Services

Fund from unencumbered fund balance for a maintenance agreement for the SCADA system at the Coweta Water Treatment Plant.

*Julie A. Casteen, Trust Manager*

VI. NEW BUSINESS

(Business which was not foreseen prior to the posting of the agenda.)

VII. ADJOURNMENT

*If you wish to speak during this meeting, please sign in before the meeting begins using the sign-up sheet located on the table near the podium. Speakers may address only those items listed on the posted agenda. All cell phones and electronic devices must be turned **off** or **set to silent** for the duration of the meeting.*

*Persons who require a special accommodation to participate in this meeting should contact the Coweta City Clerk, 310 South Broadway, P.O. Box 850, Coweta, Oklahoma, 74429, 918-486-2189 or via Email: [cityclerk@cityofcoweta-ok.gov](mailto:cityclerk@cityofcoweta-ok.gov), as far in advance as possible and preferably at least 48 hours before the date of the meeting. Persons using a TDD may contact OKLAHOMA RELAY at 1-800-722-0353; voice calls should be made to 1-800-522-8506 to communicate via telephone with hearing telephone users and vice versa.*

**MINUTES OF THE COWETA PUBLIC WORKS AUTHORITY SPECIAL MEETING  
JULY 13, 2026 8:11 P.M.**

The agenda for this meeting was posted at least 48 hours prior to the start of this meeting at the entrance of City Hall, 310 S Broadway, Coweta, OK.

The Trustees of the Coweta Public Works Authority met in special session on Monday, July 13, 2026, at 8:11 p.m. following the meeting of the Coweta City Council at the Coweta City Hall, 310 S Broadway, Coweta, Oklahoma.

**TRUSTEES PRESENT:** Naomi Hogue, Daniel Beatie, Donald Vieth

**TRUSTEES ABSENT:** None.

**I. CALL TO ORDER**

The meeting was called to order by Chairman Hogue.

**II. ROLL CALL**

Roll call taken. Trustees were present as shown above.

**III. CONSENT**

Motion by Naomi Hogue, second by Daneil to approve the consent calendar items:

1. Minutes of the Coweta City Council/Coweta Public Authority/Coweta Industrial Development Authority Joint Special Meeting held on June 1, 2026.
2. Minutes of the Coweta Public Works Authority Regular meeting held on June 1, 2026.
3. Approval of the adoption of Resolution 2026-28, a resolution of the Board of Trustees of the Coweta Public Works Authority, Coweta Oklahoma, accepting the completion of the 111th Street South Drainage Improvements Project.
4. Approval of the purchase of an equipment trailer from Nationwide Trailers, LLC for \$17,349.00, budgeted in account 04-5404.033 in the Public Works Utility Services Fund.

Aye: Naomi Hogue  
Daniel Beatie  
Donald Vieth

**IV. CONSIDER ITEMS REMOVED FROM CONSENT**

No items removed.

**MINUTES OF THE COWETA PUBLIC WORKS AUTHORITY SPECIAL MEETING  
JULY 13, 2026 8:11 P.M.**

**V. ADMINISTRATION**

**1. SELECTION OF VICE-CHAIRMAN**

Discuss and consider action on the selection of a Vice-Chairman for the Coweta Public Works Authority.

Motion by Naomi Hogue, second by Daniel Beatie to approve Daniel Beatie as the selection for Vice-Chairman for the Coweta Public Works Authority.

Aye: Naomi Hogue  
Daniel Beatie  
Donald Vieth

**2. BID AWARD - FILTER MEDIA REPLACEMENT PROJECT AT THE COWETA WATER TREATMENT PLANT TO IMC CONSULTING, LLC IN THE AMOUNT OF \$307,000.00**

Trust Manager Julie Casteen led discussion and requested possible action related to the approval to award a bid to IMC Consulting LLC., the lowest responsible bidder, in the amount of \$307,000.00 for the Filter Media Replacement project at the Coweta Water Treatment Plant, budgeted in the Public Works Authority Utility Fund Account 04-5240.033, and direction to the Trust Manager to execute all necessary documents related to the project.

Motion by Naomi Hogue, second by Daniel Beatie to award a bid to IMC Consulting, LLC., the lowest responsible bidder, in the amount of \$307,000.00 for the Filter Media Replacement project at the Coweta Water Treatment Plant, budgeted in the Public Works Authority Utility Fund Account 04-5240.033, and direction to the Trust Manager to execute all necessary documents related to the project.

Aye: Naomi Hogue  
Daniel Beatie  
Donald Vieth

**3. RESOLUTION 2026-29 REGARDING BUDGET AMENDMENTS**

Julie Casteen led discussion and requested possible action related to the adoption of Resolution 2026-29, a resolution of the Board of Trustees of the Coweta Public Works Authority, Coweta Oklahoma, adopting amendments to the annual appropriations for the budget of the Coweta Public Works Authority for Fiscal Year ending June 30, 2027; appropriating \$307,000 in account 04-5404.033 of the Utility Services Fund from unencumbered fund balance for the rehabilitation of the filter media at the Coweta Water Treatment Plant.

Motion by Naomi Houge, seconded by Daniel Beatie to approve the adoption of Resolution 2026-29, a resolution of the Board of Trustees of the Coweta Public Works

**MINUTES OF THE COWETA PUBLIC WORKS AUTHORITY SPECIAL MEETING  
JULY 13, 2026 8:11 P.M.**

Authority, Coweta Oklahoma, adopting amendments to the annual appropriations for the budget of the Coweta Public Works Authority for Fiscal Year ending June 30, 2027; appropriating \$307,000 in account 04-5404.033 of the Utility Services Fund from unencumbered fund balance for the rehabilitation of the filter media at the Coweta Water Treatment Plant.

Aye: Naomi Hogue  
Daniel Beatie  
Donald Vieth

**4. APPROVAL OF CHANGE ORDER NO 2, WASTEWATER IMPROVEMENTS PROJECT IN THE AMOUNT OF \$357,060.02, FUNDED IN THE SEWER IMPROVEMENTS FUND, ACCOUNT 35-5411.034**

Julie Casteen led discussion and requested possible action related to the approval of Change Order No. 2 in favor of Daris Construction Contractors, LLC related to the Wastewater Treatment Plant Improvements project, increasing the cost of the contract from \$16,290,900 to \$16,647,960.02, an increase of \$357,060.02.

Motion by Naomi Hogue, second by Daniel Beatie to approve Change Order No. 2 in favor of Daris Construction Contractors, LLC, related to the Wastewater Treatment Plant Improvements project, increasing the cost of the contract from \$16,290,900 to \$16,647,960.02, an increase of \$357,060.02.

Aye: Naomi Hogue  
Daniel Beatie  
Donald Vieth

**5. RESOLUTION 2026-33 REGARDING BUDGET AMENDMENTS**

Julie Casteen led discussion and requested possible action related to the approval of Resolution 2026-33, a resolution of the Board of Trustees of the Coweta Public Works Authority, Coweta Oklahoma, adopting amendments to the annual appropriations for the budget of the Coweta public Works Authority for Fiscal Year ending June 30, 2027; appropriating \$375,000 in account 04-5535.037 of Public Works Authority Utility Services Fund from unencumbered fund balance for a transfer to the Sewer Improvements Fund, revenue account 35-04.03.37, to fund sludge removal at the Coweta Wastewater Treatment Plant, account 35-5411.034.

Aye: Naomi Hogue  
Daniel Beatie  
Donald Vieth

**6. AWARD AND ASSIGNMENT OF ADDITIONAL BID CONTRACTS FOR AUDIO/VISUAL SYSTEMS, LOW VOLTAGE SYSTEMS, AND SECURITY SYSTEMS FOR FIRE STATION NO. 1 AND THE POLICE STATION TO**

**MINUTES OF THE COWETA PUBLIC WORKS AUTHORITY SPECIAL MEETING  
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**FLINTCO, LLC, INCLUDED IN THE GUARANTEED MAXIMUM PRICE OF \$17,112,334, TO BE PAID FROM THE 1% SALES TAX FUND**

Julie Casteen led discussion and requested possible action related to the assignment of additional bid contracts for the construction of Fire Station No. 1 and the Police Station to Flintco, LLC, included in the guaranteed maximum price of \$17,112,334, to be paid from the 1% Sales Tax Fund, and direction to the Trust Manager to execute all necessary documents related thereto.

Motion by Naomi Hogue, second by Daniel Beatie to approve the assignment of additional bid contracts for the construction of Fire Station No. 1 and the Police Station to Flintco, LLC, included in the guaranteed maximum price of \$17,112,334, to be paid from the 1% Sales Tax Fund, and direction to the Trust Manager to execute all necessary documents related thereto.

Aye: Naomi Hogue  
Daniel Beatie  
Donald Vieth

**7. PURCHASE OF A 2026 CAT 306 CR MINI HYDRAULIC EXCAVATOR FOR THE WATER DEPARTMENT FROM WARREN CAT FOR \$89,876.00 UNDER STATE OF OKLAHOMA CONTRACT NUMBER SW0192**

Julie Casteen led discussion and requested possible action to the purchase of a 2026 CAT 306 CR Mini Hydraulic Excavator for \$89,876.00 under State of Oklahoma contract number SW0192, budgeted in account 04-5404.033 in Public Works Utility Fund.

Motion by Naomi Hogue, second by Daniel Beatie to approve the purchase of a 2026 CAT 306 CR Mini Hydraulic Excavator for \$89,876.00 under State of Oklahoma contract number SW0192, budgeted in account 04-5404.033 in Public Works Utility Fund.

Aye: Naomi Hogue  
Daniel Beatie  
Donald Vieth

**8. TRUST MANAGER EMPLOYMENT AGREEMENT**

Discuss and consider action to approve the Amended and Restated Trust Manager Employment Agreement.

Motion by Naomi Hogue, second by Daniel Beatie to affirm the decision made by the Coweta City Council to amend the City Manager's Employment Agreement to provide for it to expire on October 16, 2026, with a reduced severance to only include payment

**MINUTES OF THE COWETA PUBLIC WORKS AUTHORITY SPECIAL MEETING  
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in the amounts equivalent to the expense of COBRA health benefits for seventeen months effective October 16, 2026.

Aye: Naomi Hogue  
Daniel Beatie  
Donald Vieth

**VI. ADJOURNMENT**

Chairman Hogue adjourned the meeting at 8:26 p.m.

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Naomi Hogue, Chairman

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Marcy Kilgore, Trust Secretary



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## Memorandum

To: Honorable PWA Chairman and Trustees

From: Julie A. Casteen, Trust Manager

Re: **BID AWARD - SCADA UPGRADES AND FILTER CONTROLS PROJECT AT THE COWETA WATER TREATMENT PLANT TO DIGITAL 6 LABORATORIES, INC. IN THE AMOUNT OF \$466,500.00**

Date: August 3, 2026

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### BACKGROUND

On June 18th, 2026, the City of Coweta/Coweta Public Works Authority solicited bids for the SCADA System Upgrades and Filter Controls project. This project will replace and modernize the Supervisory Control and Data Acquisition (SCADA) system at the Coweta Water Treatment Plant. The current system has evolved through years of piecemeal modifications, combining newer components with portions of the legacy system that existed before construction of the current water treatment facility. Although a partial upgrade was completed five years ago at a cost of \$90,000, the system continues to experience frequent operational issues that result in significant maintenance costs and ongoing repairs.

In addition, replacement parts are becoming increasingly difficult to source, creating concerns about long-term reliability and supportability. Given the age, condition, and limitations of the existing infrastructure, it is recommended that the City invest in a completely new SCADA system that will improve reliability, reduce maintenance expenses, and provide a modern, supportable platform for future operations and expansion. This will also allow operators to run the plant without constant monitoring, allowing their time to be better spent on routine maintenance in the plant.

Bids from four vendors were received and opened on July 9, 2026. The lowest responsible bidder was Digital 6 Laboratories in the amount of \$466,500.

A budget amendment will be presented as a separate item to fund the \$16,500 maintenance agreement included in the contract in account 04-5325.033. The maintenance agreement was not considered during the budget process and will not be needed until FY28, so the funding will

be carried over then. The SCADA system was approved in the current budget, funded in account 04-5404.033.

#### **STAFF RECOMMENDATION**

Staff recommends awarding the bid for the SCADA upgrades and Filter Controls project to Digital 6 Laboratories, Inc. in the amount of \$466,500 and authorizing the Trust Manager to execute any necessary documents related to the project.

#### **ATTACHMENTS**

1. Recommendation of Award
2. Bid Packet
3. Affidavit of Publication



## WDB ENGINEERING P.L.L.C.

6330 S.E. 74th Street  
Oklahoma City, OK 73135  
PHONE (405) 741-7090  
FAX (405) 741-7094  
[wdbengineering.net](http://wdbengineering.net)

July 10, 2026

Julie Casteen  
City Manager  
City of Coweta

Re: SCADA Upgrades and Filter Controls

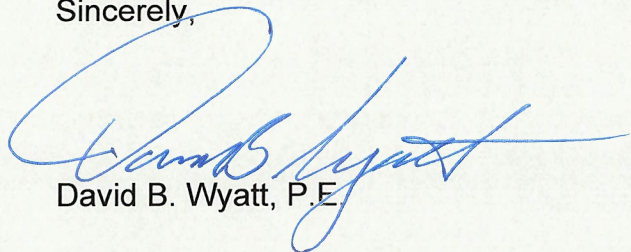
Dear Julie,

We have reviewed the bids submitted on July 9<sup>th</sup>, 2026 for the SCADA Upgrades and Filter Controls project. The bid tabulation is attached.

I recommend the project be awarded to **Digital 6 Laboratories, Inc** in the amount of **\$466,500.00** based on the unit price bid for the Base Bid.

If you should have any questions please call.

Sincerely,



David B. Wyatt, P.E.



## Water Customer and Reference List

### 1. Town of Goldsby

- a. Water plant, 7 wells, 2 towers, 2 booster stations
- b. Sean – Water Plant Manager
  - i. 1-405-772-8791

### 2. Okmulgee RWD #2

- a. 2 towers, 4 pump stations
- b. Valerie Rice – Water System Manager
  - i. (918) 759-7069
  - ii. [office@prestonwater.com](mailto:office@prestonwater.com)

### 3. Town of Wayne

- a. Water plant, 2 wells, 2 towers
- b. Darrin Hanner- Operator
  - i. 405-268-7086
- c. Audrey Worley – Water Manager
  - i. 405-449-3451 ext 2

### 4. Grady RWD #7

- a. 4 towers, 1 well, 1 pumping station, 2 leak sensors, 1 master meter.
- b. Kyle Foster – Operator
  - i. 1-405-320-8620

### 5. Town of Talihina

- a. Total water plant rehab, 1 tower, raw h2o pump station
- b. Jack – Public Works Director
  - i. 1-817-368-1673

### 6. West Davis RWC

- a. Tower + booster pump station
- b. David Sinclair - Operator
  - i. 1-580-775-2373

## **7. Cherokee RWD #3**

- a. Two booster stations, 2 towers, master-meter
  - i. Phil – Water Operator
    - 1. 1-918-316-1894

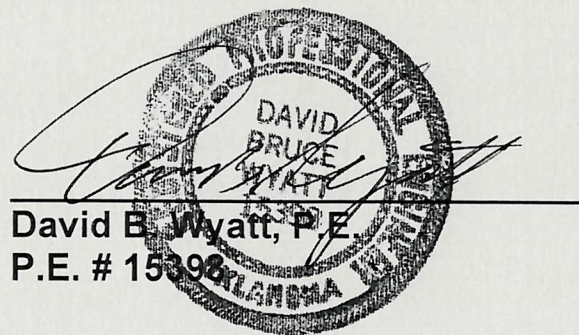
## **8. Mears Engineers**

- a. Engineer for Talihina project
- b. Aaron Mears
  - i. 1-405-289-8223

*Other references are available upon request.*

**BID PACKET**  
**FOR**  
**CITY OF COWETA**  
**SCADA UPGRADES AND**  
**FILTER CONTROLS**

**JUNE 2026**



**WDB ENGINEERING P.L.L.C.**

6330 S.E. 74th Street  
Oklahoma City, OK 73135  
PHONE (405) 741-7090  
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# CITY OF COWETA SCADA UPGRADES AND FILTER CONTROLS

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## ADVERTISEMENT FOR BID

Sealed bids for construction of **SCADA Upgrades and Filter Controls** will be received by the **City of Coweta** at **310 S. Broadway, Coweta, OK 74429** or by certified mail at **P.O. Box 850, Coweta, OK 74429-0850** until **2:00 p.m. local time, July 9<sup>th</sup>, 2026**, and then publicly opened and read aloud.

The information for Bidders, Form of Bid, Form of Contract, Specifications, and Form of Bid Bond, Performance and Payment Bond, and other contract documents may be examined at the following:

WDB Engineering PLLC  
6330 S.E. 74TH Street  
Oklahoma City, OK 73135

A complete set of Plans and Specifications may be obtained in an electronic downloadable format for **\$75.00** from QuestCDN. The link to download the electronic bid packet can be found at **wdbengineering.net** under Bid Documents. A hard copy set may be obtained at the office of WDB Engineering, PLLC located at 6330 SE 74<sup>th</sup> Street, Oklahoma City, OK 73135 upon payment of **\$150.00** per set. If obtaining a hard copy set, please notify WDB Engineering, PLLC at least 24 hours prior to picking up the hard copy set. Hard copy sets may be mailed to the bidder **ONLY** if the bidder provides a FedEx or UPS account number to the sender, WDB Engineering, PLLC. **Refunds will not be made. PRIME BIDDER MUST BE LISTED ON THE QUESTCDN PLAN HOLDER LIST, OTHERWISE THE BID PROPOSAL WILL BE REJECTED.**

Each bidder **MUST** purchase plans from Quest CDN or WDB Engineering, PLLC and appear on the official plan holder's list. **ANY BID RECEIVED BY A BIDDER NOT APPEARING ON THE OFFICIAL PLANHOLDER'S LIST WILL BE REJECTED WITHOUT BEING READ.**

The Owner reserves the right to waive any informalities or to reject any or all bids.

Each bid must be submitted in a sealed envelope bearing on the outside the name of the bidder, his address, and the name of the project for which the bid is submitted. No bid will be accepted more than 72 hours prior to the scheduled bid opening. If forwarded by mail, the sealed envelope containing the bid must be enclosed in another envelope addressed as specified in the bid form.

Each bidder must deposit with his bid, security in the amount, form and subject to the conditions provided in the Information for Bidders. Attention of bidders is particularly called to the requirements as to conditions of employment to be observed and minimum wage rates to be paid under the contract.

No bidder may withdraw his bid within 60 days after the actual date of the opening thereof.

## INFORMATION FOR BIDDERS

### 1. Receipt and Opening of Bids

**City of Coweta** (herein called the "Owner") invites bids on the form attached hereto, all blanks of which must be appropriately filled in. Bids will be received by **City of Coweta** at **310 S. Broadway, Coweta, OK 74429**, or by certified mail at **P.O. Box 850, Coweta, OK 74429-0850** on **July 9<sup>th</sup>, 2026 until 2:00 p.m. local time**, and then publicly opened and read aloud. The envelope(s) containing the bid(s) must be sealed, addressed to the **City of Coweta** and designated as **Bid for SCADA Upgrades and Filter Controls**.

The Owner may consider informal any bid not prepared and submitted in accordance with the provisions hereof and may waive any informalities or reject any and all bids. Any bid may be withdrawn prior to the above scheduled time for the opening of bids or authorized postponement thereof. No bidder may withdraw a bid within 60 days after the actual date of the opening thereof. Bids will not be accepted by the owner more than 72 hours prior to the scheduled bid opening.

### 2. Preparation of Bid

THE FOLLOWING FORMS SHALL BE INCLUDED WITH THE BID: BID PROPOSAL, BUSINESS RELATIONSHIP AFFIDAVIT, BID BOND, NON-COLLUSION AFFIDAVIT, PAYROLL AFFIDAVIT AND CERTIFICATE AS TO CORPORATE PRINCIPAL. ANY BID SUBMITTED WITHOUT ALL FORMS COMPLETED WILL BE REJECTED.

Each bid must be submitted in a sealed envelope, bearing on the outside, the name of the bidder, his address, and the name of the project for which the bid is submitted. If forwarded by mail, the sealed envelope containing the bid must be enclosed in another envelope addressed as specified in the bid form.

A Conditional or qualified Bid will not be accepted.

### 3. Subcontracts

The bidder is specifically advised that any person, firm, or other party to whom it is proposed to award a subcontract under this contract shall be subject to acceptance by the Owner.

Approval of the proposed subcontract award will not be given by the Owner unless and until the proposed subcontractor has submitted certifications and/or other evidence required by the Owner attesting to the subcontractor's qualifications.

#### 4. Telegraphic Modification

Any bidder may modify his bid by telegraphic communication at any time prior to the scheduled closing time for receipt of bids, provided such telegraphic communication is received by the Owner prior to the closing time, and provided further the Owner is satisfied that a written confirmation of the telegraphic modification over the signature of the bidder was mailed prior to the closing time. The telegraphic communication should not reveal the bid price but should provide the addition or subtraction or other modification so that the final prices or terms will not be known by the Owner until the sealed bid is opened. If written confirmation is not received within two days from the closing time, no consideration will be given to the telegraphic modification.

#### 5. Method Bidding

The Owner invites the following bid(s) for the **SCADA Upgrades and Filter Controls**.

#### 6. Qualification of Bidder

The Owner may make such investigations as he deems necessary to determine the ability of the bidder to perform the work, and the bidder shall furnish to the Owner all such information and data for this purpose as the Owner may request. The Owner reserves the right to reject any bid if the evidence submitted by, or investigation of such bidder fails to satisfy the Owner that such bidder is properly qualified to carry out the obligations of the contract and to complete the work contemplated therein. Conditional bids will not be accepted.

#### 7. Bid Security

Each bid must be accompanied by cash, certified check of the bidder, or a bond prepared on the form of bid bond attached hereto, duly executed by the bidder as principal and having as surety thereon a surety company approved by the Owner, in the amount not less than **5% of the bid**. Such cash, check or bid bond will be returned, if requested, to all except the three lowest bidders within three days after the opening of bids, and the remaining cash, check or bid bond will be returned, if requested, promptly after the Owner and the accepted bidder have executed the contract, or if no award has been made within 30 days after the date of the opening of bids, upon demand of the bidder at any time thereafter, as long as he has not been notified of the acceptance of his bid.

#### 8. Liquidated Damages for Failure to Enter into Contract

The successful bidder, upon his failure or refusal to execute and deliver the contract and bonds required within 10 days after he has received notice of the acceptance of his bid, shall forfeit to the Owner, as liquidated damages for such failure or refusal, the security deposit with his bid.

#### 9. Time of Completion and Liquidation Damages

Bidder must agree to commence work on or before a date to be specified in a written "Notice to Proceed" of the Owner and to fully complete the work within 150 consecutive calendar days thereafter. Bidder must agree also to pay as liquidated damages, the sum of \$600.00 for each calendar day thereafter as hereinafter provided in the General Conditions.

#### 10. Condition of Work

Each bidder must inform himself fully of the conditions relating to the construction of the project and the employment of labor thereon. Failure to do so will not relieve a successful bidder of this obligation to furnish all material and labor necessary to carry out the provisions of his contract. Insofar as possible the contractor, in carrying out his work, must employ such methods or means as will not cause any interruption of or interference with the work of any other contractor. Any item required to complete the project to have a complete functional facility or required by the specifications for which bid items are not set up shall be included in other bid items.

All applicable laws, ordinances, and the rules and regulations of all authorities having jurisdiction over construction of the project shall apply to the contract throughout.

#### 11. Addenda and Interpretations

No interpretations of the meaning of the plans, specifications or other pre-bid documents will be made to any bidder orally.

Every request for such interpretation should be in writing and addressed to:

**WDB ENGINEERING P.L.L.C.  
6330 S.E. 74<sup>TH</sup> Street, Oklahoma City, OK 73135**

and to be given consideration must be received at least five days prior to the date fixed for the opening of bids. Any and all such interpretations and any supplemental instruction will be in the form of written addenda to the specifications which, if issued, will be mailed by certified mail with return receipt requested to all prospective bidders (at the respective address furnished for such purposes), not later than three days prior to the date fixed for the opening of bids. Failure of any bidder to receive any such addendum or interpretation shall not relieve such bidder from any obligation under his bid as submitted. All addenda so issued shall become part of the contract documents.

## 12. Security for Faithful Performance

Simultaneously with his delivery of the executed contract, the Contractor shall furnish a Performance Bond, Statutory Bond and Maintenance Bond or Bonds, each in the amount of 100% of the contract price, as security for faithful performance of this contract and for the payment of all persons performing labor on the project under this contract and furnishing materials in connection with this contract, as specified in the General Conditions included herein. The surety on such bond or bonds shall be a duly authorized surety company satisfactory to the Owner.

## 13. Power of Attorney

Attorneys-in-fact who sign bid bonds or contract bonds must file with each bond a certified and effectively dated copy of their power of attorney.

## 14. Notice of Special Conditions

Attention is particularly called to those parts of the contract documents and specifications which deal with the following:

- a. Inspection and testing of materials
- b. Insurance requirements
- c. Stated allowances
- d. Time of completion

## 15. Laws and Regulations

The bidder's attention is directed to the fact that all applicable Federal or State laws, municipal ordinances, and the rules and regulations of all authorities having jurisdiction over construction of the project shall apply to the contract throughout, and they will be deemed to be included in the contract the same as though herein written out in full.

## 16. Method of Award - Lowest Qualified Bidder

If at the time this contract is to be awarded, the lowest base bid submitted by a responsible bidder does not exceed the amount of funds, then estimated by the Owner as available to finance the contract, the contract will be awarded on the base bid only. If such bid exceeds such amount, the Owner may reject all bids or may award the contract on the base bid combined with such deductible alternates applied in numerical order in which they are listed in the Form of Bid, as produces a net amount which is within the available funds.

17. Obligation of Bidder

At the time of the opening of bids, each bidder will be presumed to have inspected the site and to have read and to be thoroughly familiar with the plans and contract documents (including all addenda). The failure or omission of any bidder to examine any form, instrument or document shall in no way relieve any bidder from any obligation in respect of his bid.

18. INSPECTION TRIPS

**If requested by any of the bidders** an inspection trip may be coordinated with the City Manager of the **City of Coweta**.

The ENGINEER is WDB ENGINEERING P.L.L.C.. and whose ADDRESS is 6330 S.E. 74<sup>Th</sup> Street, Oklahoma City, OK 73135.

19. SCOPE OF CONTRACT:

The contract consists of furnishing and constructing all material and equipment for a **SCADA Upgrades and Filter Controls** as shown in the plans and described in the specifications.

## BID PROPOSAL

Proposal of \_\_\_\_\_ (hereinafter Called "BIDDER"). Organized and existing under the laws of the State of \_\_\_\_\_ doing business as \_\_\_\_\_. To the **City of Coweta** (hereinafter called "OWNER"). In compliance with your Advertisement for Bids, BIDDER hereby proposes to perform all WORK for the **SCADA Upgrades and Filter Controls** in strict accordance with the CONTRACT DOCUMENTS, within the time set forth therein, and at the prices stated below.

By submission of this BID, each BIDDER certifies and in the case of a joint BID each party thereto certifies as to its own organization, that this BID has been arrived at independently, without consultation, communication, or agreement as to any matter relating to this BID with any other BIDDER or with any competitor.

BIDDER hereby agrees to commence WORK under this contract within ten (10) days of the date to be specified in the NOTICE TO PROCEED and to fully complete the project with in **150** consecutive calendar days thereafter. BIDDER further agrees to pay as liquidated damages, the sum of \$600.00 for each calendar day thereafter as provided in these specifications.

No BIDDER may withdraw a BID within 60 days after the actual opening thereof. Each BID must be accompanied by a BID BOND payable to OWNER for 5% of the amount bid.

Bidder acknowledges receipt of the following addenda:

No. \_\_\_\_\_ Date \_\_\_\_\_ No. \_\_\_\_\_ Date \_\_\_\_\_ No. \_\_\_\_\_ Date \_\_\_\_\_

No. \_\_\_\_\_ Date \_\_\_\_\_ No. \_\_\_\_\_ Date \_\_\_\_\_ No. \_\_\_\_\_ Date \_\_\_\_\_

No. \_\_\_\_\_ Date \_\_\_\_\_ No. \_\_\_\_\_ Date \_\_\_\_\_ No. \_\_\_\_\_ Date \_\_\_\_\_

BIDDER agrees to perform all the work described in the CONTRACT DOCUMENT for the following unit prices or lump sum.

\*Insert a "a corporation", "a partnership", or "an individual" as applicable.

NOTE: BIDS shall include all applicable taxes and fees.

# **BID PROPOSAL** **BASE BID**

| Item No. | Qty. | Unit | Description                                                                                                                                            | Unit Price    | Total Amount |
|----------|------|------|--------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|--------------|
| 1        | 4    | EA.  | Furnish And Install All Materials And Appurtenances For Filter Controls and Consoles As Described In The Specifications For A Fully Functioning System | \$_____ \EA.  |              |
|          |      |      |                                                                                                                                                        | DOLLARS       | \$_____      |
| 2        | 1    | L.S. | Furnish And Install All Materials And Appurtenances For SCADA Upgrades As Described In The Specifications For A Fully Functioning System               | \$_____ \L.S. |              |
|          |      |      |                                                                                                                                                        | DOLLARS       | \$_____      |
| 3        | 1    | L.S. | Annual Subscription Charges (all inclusive, after 1 <sup>st</sup> year)                                                                                | \$_____ \L.S. |              |
|          |      |      |                                                                                                                                                        | DOLLARS       | \$_____      |
| 4        | 1    | L.S. | Annual Maintenance Contract Charges (after 1 <sup>st</sup> year)                                                                                       | \$_____ \L.S. |              |
|          |      |      |                                                                                                                                                        | DOLLARS       | \$_____      |

**TOTAL BASE BID**

\_\_\_\_\_ DOLLARS \$\_\_\_\_\_

Written

Item No. 3 and Item No. 4 regard long term annual service agreement charges for subscription and maintenance with the service provider after the 1<sup>st</sup> year of use. Any subscription or maintenance contract charges within the 1<sup>st</sup> year shall be included in the lump sum Item No. 2.

The extension of the total of all unit prices shall equal the amount shown for the Total Bid.

The Owner is permitted to accept or reject formalities.

Amounts are to be shown in both words and figures. In case of a discrepancy, the amount shown in words will govern.

The above unit prices shall include all labor, materials, bailing, shoring, removal, overhead, profit, insurance etc. to cover finished work of the several kinds called for.

Bidder understands that the Owner reserves the right to reject any or bids and to waive any informalities in the bidding.

Upon receipt of written notice of the acceptance of this bid, bidder will execute the formal contract attached within ten days and deliver a surety bond or bonds as required by the General Conditions.

The bid security of \$\_\_\_\_\_ Dollars (5% of Bid) is to become the property of the Owner in the event the contract and bond are not executed within the time above the set forth, as liquidated damages for the delay and additional expense to the Owner caused thereby.

Respectfully submitted,

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Firm Name

\_\_\_\_\_  
Title

\_\_\_\_\_  
Address

\_\_\_\_\_  
Employer I.D. No.

\_\_\_\_\_  
Address

(SEAL) - if BID is by a  
Corporation

\_\_\_\_\_  
Telephone No.

ATTEST:

\_\_\_\_\_  
Secretary/Witness

\_\_\_\_\_  
Date

**BID BOND**

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned,  
\_\_\_\_\_ as Principal, and \_\_\_\_\_ as  
Surety, are hereby held and firmly bound unto **City of Coweta** as OWNER in the penal  
sum of \_\_\_\_\_ Dollars,  
(\$\_\_\_\_\_) or the payment of which, well and truly to be made, we hereby  
jointly and severally bind ourselves, successors and assigns.  
Signed, this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.  
The Condition of the above obligation is such that whereas the Principal has submitted  
to the **City of Coweta** a certain BID, attached hereto and hereby made a part hereof to  
enter into a contract in writing for the

**SCADA Upgrades and Filter Controls**

NOW, THEREFORE,

- (a) If said BID shall be rejected, or
- (b) If said BID shall be accepted and the Principal shall execute and deliver a  
contract in the Form of Contract attached hereto (properly completed in  
accordance with said BID) and shall furnish a BOND for his faithful performance  
of said contract, and for the payment of all persons performing labor or furnishing  
materials in connection therewith, and shall in all respects perform the  
agreement created by the acceptance of said BID, then this obligation shall be  
void, otherwise the same shall remain in force and effect; it being expressly  
understood and agreed that the liability of the Surety for any and all claims  
hereunder shall, in no event, exceed the penal amount of this obligation as  
herein stated.

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

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

\_\_\_\_\_  
Principal

ATTEST: (if by Corporation)

\_\_\_\_\_  
Surety

By:\_\_\_\_\_

## BUSINESS RELATIONSHIPS AFFIDAVIT

STATE OF \_\_\_\_\_ )  
 )SS:  
COUNTY OF \_\_\_\_\_ )

\_\_\_\_\_, of lawful age, being first duly sworn on oath says that (s)he is the agent authorized by the bidder to submit the attached bid. Affiant further states that the nature of any partnership, joint venture, or other business relationship presently in effect or which existed within one (1) year prior to the date of this statement with the architect, engineer, or other party to the project is as follows:

\_\_\_\_\_  
Affiant further states that any such business relationship presently in effect or which existed within one (1) year prior to the date of this statement between any officer or director of the bidding company and any officer or director of the architectural or engineering firm or other party to the project is as follows:

\_\_\_\_\_  
Affiant further states that the names of all persons having any such business relationships and the positions they hold with their respective companies or firms is as follows

\_\_\_\_\_  
(If none of the business relationships hereinabove mentioned exist, affiant shall so state.)

\_\_\_\_\_  
Contractor

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

Seal of Notary

\_\_\_\_\_  
Notary Public

My Commission Expires:

\_\_\_\_\_

# NON-COLLUSION AFFIDAVIT

STATE OF \_\_\_\_\_ )  
 ) ss  
COUNTY OF \_\_\_\_\_ )

\_\_\_\_\_, of lawful age, being first duly sworn,  
deposes and says that he is \_\_\_\_\_  
(sole owner, a partner, president, secretary, etc.)

of \_\_\_\_\_ the party making the foregoing bid; that such bid is not made in the interest of or on behalf of any undisclosed person, partnership, company association, organization, or corporation; that such bid is genuine and not collusive or sham; that said bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, nor that anyone shall refrain from bidding; that said bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of said bidder, or of any other bidder, nor to fix any overhead, profit, or cost element of such bid price nor of that of any other bidder, nor to secure any advantage against the public body awarding the contract or anyone interested in the proposed contract; that all statements contained in such bid are true; and further, that said bidder has not directly or indirectly, submitted his bid price or any breakdown thereof, nor the contents thereof, nor divulged information or data relative thereto, nor paid and will not pay a fee in connection therewith to any corporation, partnership, company, association, organization, bid depository, nor to any member or agent thereof, nor to any other individual except to such person or persons as have a partnership or other financial interest with said bidder in his general business.

Signed: \_\_\_\_\_

Title: \_\_\_\_\_

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

Seal of Notary

Notary Public

My Commission Expires:\_\_\_\_\_

**PAYROLL AFFIDAVIT**

\_\_\_\_\_, of lawful age, being first duly sworn, on oath says that (s)he is the agent authorized by the bidder to submit the attached bid. Affiant further states that he has submitted the required payroll information to the Wage and Hour Division of the Employment Standards Administration of the United States Department of Labor. Affiant further states that (s)he is in compliance with requirements of Title 40 o.s. 1981, § 196.9a(B), as amended.

\_\_\_\_\_

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_  
Notary Public

My Commission Expires \_\_\_\_\_.

NOTE: This form is to be submitted with the bid.

**Certificate as to Corporate Principal**

I, \_\_\_\_\_ (*Corporate Officer (Not Contract Signer)*) certify that I am the \_\_\_\_\_ (*Corporate Title*) of the corporation named as Contractor in the Agreement attached hereto; that \_\_\_\_\_, (*Contract Signer*) who signed said Agreement on behalf of the Contractor, was then \_\_\_\_\_ (*Corporate Title*) of said corporation; that said Agreement was duly signed for and in behalf of said corporation by authority of its governing body, and is within the scope of its corporate powers.

*Corporate Seal*

\_\_\_\_\_  
*Corp. officer signature (not contract signer)*

\_\_\_\_\_  
*Printed*

\_\_\_\_\_  
*Title*

State of \_\_\_\_\_

County of \_\_\_\_\_

\_\_\_\_\_, (*corporate officer (not contract signer)*) being duly sworn, deposes and says that he/she is \_\_\_\_\_ (*Corporate Title*) of \_\_\_\_\_ (*Name of Corporation*)

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_

\_\_\_\_\_  
*Notary Public (Signature)*

\_\_\_\_\_  
*Notary Public (Print)*

My commission expires \_\_\_\_\_, 20\_\_

## NOTICE OF AWARD

TO: \_\_\_\_\_

### PROJECT: SCADA Upgrades and Filter Controls

The **City of Coweta** has considered the bid submitted by you for the above described work in response to its Notice Inviting Bids dated \_\_\_\_\_, 20\_\_ and Information for Bidders.

You are hereby notified that your bid has been accepted according to the unit prices bid.

You are required under the terms of the Notice Inviting Bids and the Information for Bidders to execute the Agreement and furnish the required bonds and certificates of insurance within 10 calendar days from the date of this Notice to you.

If you fail to execute said Agreement and furnish said bonds and certificates of insurance within 10 days from the date of this Notice, said **City of Coweta** will be entitled to consider all your rights arising out of the **City of Coweta** acceptance of your bid to be abandoned and as a forfeiture of your Bid Bond. The Owner will be entitled to such other rights as may be granted by law.

You are required to return an acknowledged copy of this Notice of Award to the **City of Coweta**.

Dated this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

By \_\_\_\_\_  
**CITY OF COWETA**

## ACCEPTANCE OF NOTICE

Receipt of the foregoing Notice of Award is hereby acknowledged

By \_\_\_\_\_ this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

By \_\_\_\_\_

Title \_\_\_\_\_

**CONTRACT**  
**for**  
**SCADA Upgrades and Filter Controls**

THIS AGREEMENT made this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_ by and between **City of Coweta**, hereinafter called "OWNER" and \_\_\_\_\_, doing business as (a partnership, and individual or a corporation\*), located in the City of \_\_\_\_\_, County of \_\_\_\_\_, and State of \_\_\_\_\_, hereinafter called "CONTRACTOR".

(\*Strike out any inapplicable terms.)

WITNESSETH: That for and in consideration of the payments and agreements hereinafter mentioned, to be made and performed by the Owner, the Contractor hereby agrees with the Owner to commence and complete the construction described as follows:

**SCADA Upgrades and Filter Controls**

hereinafter called the PROJECT, for the total bid price as accepted of:

\_\_\_\_\_ Dollars, (\$\_\_\_\_\_) and includes (his, its or their) own proper cost and expense to furnish all the materials, supplies, machinery, equipment, tools, superintendence, labor insurance and other incidentals and services necessary to complete the said PROJECT documents including all standards, plans, and related specifications, all of which are made a part hereof and collectively evidence and constitute the CONTRACT.

The Contractor agrees, for the consideration above expressed, to begin work on the date designated by the Engineer, and to complete the work within **150** consecutive calendar days thereafter. If the Contractor shall fail to complete the work in time herein specified, he shall pay to the Owner, as liquidated damages, ascertained and agreed, and not in the nature of a penalty, the sum of \$600.00 for each day delayed which shall be deducted from the final amount of the estimate made the Contractor. Time is of the essence on this Contract.

The Notice to Bidders, the Instructions to Bidders, the Special and General Conditions of specifications and the Contractor's bid proposal, each of said instruments on file in the office of the Owner and are hereby referred to and by reference thereto are made a part of this contract as if fully written in detail herein or attached hereto.

IN WITNESS WHEREOF, the parties to these presents have executed this CONTRACT in four (4) counterparts, each of which shall be deemed an original, in the year and day first written above.

(Seal)  
ATTEST:

\_\_\_\_\_  
Secretary

\_\_\_\_\_  
Witness

\_\_\_\_\_  
Contractor

By:\_\_\_\_\_

Title:\_\_\_\_\_

**CITY OF COWETA**

(Seal)

\_\_\_\_\_  
Secretary

Approved as to Form:

\_\_\_\_\_  
Attorney

By:\_\_\_\_\_  
City Manager

Date\_\_\_\_\_

## PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS: that

\_\_\_\_\_(Name of Contractor)

\_\_\_\_\_(Address of Contractor)

\_\_\_\_\_(Corporation, Partnership, or Individual)

hereinafter called Principal and \_\_\_\_\_  
(Name of Surety)

hereinafter call Surety, are held and firmly bound unto **City of Coweta**, hereinafter called OWNER, in the penal sum of

\_\_\_\_\_ Dollars, (\$\_\_\_\_\_)

in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that whereas, the Principal entered into a certain contract with the OWNER, dated the \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, a copy of which is hereto attached and made a part hereof for the construction of:

### **SCADA Upgrades and Filter Controls**

NOW, THEREFORE, if the Principal shall well, truly and faithfully perform its duties all the undertakings, covenants, terms, conditions, and agreements of said contract during the original term thereof, and any extensions thereof which may be granted by the OWNER, with or without notice to the Surety and during the one year guaranty period, and if he shall satisfy all claims and demands incurred under such contract, and shall fully indemnify and save harmless the OWNER from all costs and damages which it may suffer by reason of failure to do so, and shall reimburse and repay the OWNER all outlay and expense which the OWNER may incur in making good any default, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the said surety, for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to WORK to be performed thereunder or the SPECIFICATIONS accompanying the same shall in any way affect its obligation on this BOND, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the WORK or to the SPECIFICATIONS.

PROVIDED, FURTHER, that no final settlement between the OWNER and the CONTRACTOR shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

IN WITNESS WHEREOF, this instrument is executed in four (4) counterparts, each one of which shall be deemed an original, this the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

ATTEST:

\_\_\_\_\_

\_\_\_\_\_  
By \_\_\_\_\_ (s)

(SEAL)

\_\_\_\_\_

ATTEST:

\_\_\_\_\_

(SEAL)

\_\_\_\_\_

By \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

NOTE: Date of BOND must not be prior to date of Contract.  
If CONTRACTOR is Partnership, all partners should execute BOND.

## STATUTORY BOND

KNOW ALL MEN BY THESE PRESENTS: that we, the undersigned Principal, and the undersigned SURETY, are bound unto the **City of Coweta** in the sum of \_\_\_\_\_ Dollars, (\$\_\_\_\_\_) for the payment of which we bind ourselves, jointly and severally by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that whereas, on or about the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, the said Principal entered into a contract in writing with the **City of Coweta**, described as **SCADA Upgrades and Filter Controls** consisting of:

Furnishing and constructing all material and equipment for a **SCADA Upgrades and Filter Controls** as shown in the plans and described in the specifications.

NOW, THEREFORE, if the Principal shall well and truly pay all indebtedness incurred by himself or itself, or his or its sub-contractors, as provided for in Title 61 Oklahoma Statutes, Section 1, as amended as of the date of this bond, in the performance of the above described contract, or modifications, thereof, notice of which is expressly waived,

THEN this obligation shall be null and void, otherwise to remain in full force and effect.

SIGNED, SEALED AND DELIVERED at \_\_\_\_\_, Oklahoma, on this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_  
(Name of Principal)

ATTEST (Corporation)  
(SEAL)

By \_\_\_\_\_  
(An Individual)(Member of the Firm)  
(Vice-President) (State if corporation, partnership or individual)

\_\_\_\_\_  
Secretary of the Corporation

\_\_\_\_\_  
(Name of Surety)

Date Approved \_\_\_\_\_

By \_\_\_\_\_  
Its Attorney-in-Fact, Vice-President  
State of Incorporation of Surety

By \_\_\_\_\_  
City Manager

\_\_\_\_\_  
Address of Surety

## MAINTENANCE BOND

KNOW ALL MEN BY THESE PRESENT:

That \_\_\_\_\_, as Principal, and \_\_\_\_\_, a corporation organized under the laws of the State of \_\_\_\_\_ and authorized to transact business in the State of Oklahoma, as Surety, are held and firmly bound unto **City of Coweta** in the penal sum of \_\_\_\_\_ Dollars, (\$\_\_\_\_\_) in lawful money of the United States of America, said sum being equal to one hundred percent (100%) of the contract price, for the payment of which, well and truly to be made, we bind ourselves and each of us, our heirs, executors, administrators, trustees, successors, and assigns, jointly and severally, firmly by these presents.

DATE this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

The condition of this obligation is such that:

WHEREAS, said Principal entered into a written Contract with **City of Coweta** dated \_\_\_\_\_, 20\_\_\_\_, for

### **SCADA Upgrades and Filter Controls**

all in compliance with the plans and specifications therefore, made a part of said Contract and on file in the office of **City of Coweta**.

NOW, THEREFORE, if said Principal shall pay or cause to be paid to **City of Coweta** all damage, loss, and expense which may result by reason of defective materials and/or workmanship in connection with said work, occurring within one (1) year for all projects from and after acceptance of said project by **City of Coweta** and if Principal shall pay or cause to be paid all labor and materials, including the prime contractor and all subcontractors; and if principal shall save and hold **City of Coweta** harmless from all damages, loss and expense occasioned by or resulting from any failure whatsoever of said Principal, then this obligation shall be null and void, otherwise to be and remain in full force and effect.

It is further expressly agreed and understood by the parties hereto that no changes or alterations in said Contract and no deviations from the plan or mode of procedure herein fixed shall have the effect or releasing the sureties, or any of them, from the obligations of this Bond.

IN WITNESS WHEREOF, the said Principal has caused these presents to be executed in its name and its corporate seal to be hereunto affixed by its duly authorized officers, and the said Surety has caused these presents to be executed in its name and its corporate seal to be hereunto affixed by its attorney-in-fact, duly authorized so to do, the day and year first above written.

Principal:

---

By

---

Title

---

Witness:

---

Surety:

---

By

---

Attorney-in-fact

# AFFIDAVIT CONTRACT FORM

STATE OF OKLAHOMA )  
 ) SS  
COUNTY OF \_\_\_\_\_ )

\_\_\_\_\_, of lawful age, being first duly sworn on oath says that he or she is the agent authorized by the Contractor to submit the attached contract to the **City of Coweta**.

Affiant further states that the Contractor has not paid, given, or donated or agreed to pay, give or donate to any officer or employee of the **City of Coweta** any money or other thing of value either directly or indirectly in the procuring of the contract.

(Signature of Affiant)

Subscribed and sworn to me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

Notary Public

My Commission Expires:

---

**NOTICE TO PROCEED**

DATE: \_\_\_\_\_

TO: \_\_\_\_\_

Re: **SCADA Upgrades and Filter Controls**

You are hereby notified to commence **WORK** in accordance with the

Agreement dated \_\_\_\_\_, 20\_\_\_\_, on or before \_\_\_\_\_, 20\_\_\_\_,

and you are to complete the **WORK** within **150** consecutive calendar days thereafter. The date of completion of all **WORK** is therefore \_\_\_\_\_, 20\_\_\_\_.

**CITY OF COWETA**  
OWNER

By \_\_\_\_\_

\_\_\_\_\_  
City Manager  
Title

**ACCEPTANCE OF NOTICE**

Receipt of the above **NOTICE TO PROCEED** is hereby acknowledged

by \_\_\_\_\_,

dated \_\_\_\_\_, 20\_\_\_\_.

BY \_\_\_\_\_

TITLE \_\_\_\_\_

**CLAIM OR INVOICE AFFIDAVIT**

STATE OF \_\_\_\_\_ )  
 ) ss.  
COUNTY OF \_\_\_\_\_ )

The undersigned (engineer, contractor or supervisory official), of lawful age, being first duly sworn, on oath says that this (invoice, claim, or contract) is true and correct. Affiant further states that the (work, services or materials) as shown by this invoice or claim have been (completed or supplied) in accordance with the plans, specifications, orders, or requests furnished to the affiant. Affiant further states that (s)he has made no payment, given, or donated or agreed to pay, give, or donate, either directly or indirectly, to any elected official, officer, or employee of the State of Oklahoma, of money or any other thing of value to obtain payment or the award of this contract.

\_\_\_\_\_  
Engineer, Contractor or Other Supervisory Official

Subscribed and sworn to before me this \_\_\_\_\_  
day of \_\_\_\_\_, 20\_\_\_\_.

My Commission Expires:

\_\_\_\_\_  
Notary Public

\_\_\_\_\_

## CHANGE ORDER

Order No. \_\_\_\_\_

Date: \_\_\_\_\_

Agreement Date: \_\_\_\_\_

NAME OF PROJECT: \_\_\_\_\_

OWNER: \_\_\_\_\_

CONTRACTOR: \_\_\_\_\_

The following changes are hereby made to the CONTRACT DOCUMENTS:

Justification: \_\_\_\_\_

Change to CONTRACT: \_\_\_\_\_

Original CONTRACT PRICE: \$ \_\_\_\_\_

Current CONTRACT PRICE adjusted by previous CHANGE ORDER \$ \_\_\_\_\_

The CONTRACT PRICE adjusted by previous CHANGE ORDER will be

(increased) (decreased) by \$ \_\_\_\_\_

The new CONTRACT PRICE including this CHANGE ORDER will be \$ \_\_\_\_\_

Change to CONTRACT TIME: \_\_\_\_\_

The CONTRACT TIME will be (increased) (decreased) by \_\_\_\_\_ calendar days.

The date for completion of all work will be \_\_\_\_\_ (Date).

Approvals Required:

To be effective this Order must be approved by the Federal agency if it changes the scope or objective of the PROJECT, or as may otherwise be required by the SUPPLEMENTAL GENERAL CONDITIONS.

Requested by: \_\_\_\_\_

Recommended by: \_\_\_\_\_

Ordered by: \_\_\_\_\_

Accepted by: \_\_\_\_\_

Federal Agency Approval (where applicable) \_\_\_\_\_

## INSURANCE REQUIREMENTS

Name of Insured \_\_\_\_\_

Description of Work \_\_\_\_\_

Location of Work \_\_\_\_\_

| <u>Kind of Insurance</u>                                                 | <u>Minimum Coverage</u> | <u>Expected Dates Coverage Needed</u> |           |
|--------------------------------------------------------------------------|-------------------------|---------------------------------------|-----------|
|                                                                          |                         | <u>From</u>                           | <u>To</u> |
| Workmen's Compensation                                                   | Legal Amount            | _____                                 | _____     |
| General Public Liability and Property Damage, Including Vehicle Coverage |                         |                                       |           |
| Bodily Injury - Each Person                                              | 1,000,000               | _____                                 | _____     |
| Bodily Injury - Each Accident                                            | 1,000,000               | _____                                 | _____     |
| Property Damage - Each Person                                            | 500,000                 | _____                                 | _____     |
| Property Damage - Aggregate Limit                                        | 500,000                 | _____                                 | _____     |
| Builder's Risk (if required)                                             | Full Coverage           | _____                                 | _____     |

Note: This covers all motor driven vehicles such as cars, trucks, graders, etc.

In the event of any material change or cancellation of said policies, the company will give fifteen (15) day written notice to **City of Coweta**, Owner.

Statements such as "will endeavor" and "but failure to notify owner shall impose no obligation or liability of any kind upon the company" shall not be allowed.

Coverage shall be indicated by checking all boxes applicable. Insurance shall cover any hazards involved with the planned construction. Special coverage for blasting operations shall be listed separately on the certificates.

The owner shall be listed as the certificate holder.

## RELEASE OF CLAIMANTS

Date\_\_\_\_\_

Project\_\_\_\_\_

Dear Sir:

I hereby acknowledge receipt of \_\_\_\_\_dollars  
(\$ \_\_\_\_\_) in full payment of my contract dated  
\_\_\_\_\_ for improvement work which I did  
for you and which is described in my contract.

I certify that I have paid in full for materials purchased and all labor employed in the performance of this contract and that there are no claims against me as an employer under this contract on account of injuries sustained by workmen employed by me thereunder. I hereby release you from any claims arising by virtue of this contract.

## WARNING

The making of any false statement or misrepresentation herein may be a crime punishable under Title 18 U.S.C. §1001 which provides in part: "Whoever, in any matter within the jurisdiction of any department or agency of the United States knowingly and willfully...makes any false, fictitious or fraudulent statements or representation, or makes or uses any false writing or document knowing the same to contain any false, fictitious or fraudulent statement or entry, shall be fined not more than \$10,000 or imprisoned not more than five years, or both".

Sincerely,

\_\_\_\_\_  
Contractor

**CERTIFICATE OF APPROVAL  
OF CONTRACT AND BONDS**

I, the undersigned \_\_\_\_\_ the duly authorized and acting legal representative of **City of Coweta** do hereby certify as follows:

I have examined the construction contract between the contractor, \_\_\_\_\_ and the above named entity, and the surety bonds given by the contractor in connection with the performance of said contract, and the manner of execution of the contract and surety bonds; and I am of the opinion that each of the aforesaid agreements has been duly executed by the proper parties thereto, acting through their duly authorized representatives; that said representatives have full power and authority to execute said agreements on be half of the respective parties named therein; and that the foregoing contract and surety bonds constitute valid and legally binding obligations upon the parties executing the same in accordance with the terms, conditions, and provisions thereof.

Dated this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_  
Attorney  
**City of Coweta**

## **GENERAL CONDITIONS**

- |                                              |                                                |
|----------------------------------------------|------------------------------------------------|
| 1. Definitions                               | 17. Surface Conditions                         |
| 2. Additional Instruction & Detail Drawings  | 18. Suspension of Work,<br>Termination & Delay |
| 3. Schedules, Reports, and Records           | 19. Payments to Contractor                     |
| 4. Drawings and Specifications               | 20. Acceptance of Final<br>Payment as Release  |
| 5. Shop Drawings                             | 21. Insurance                                  |
| 6. Materials, Services, and Facilities       | 22. Contract Security                          |
| 7. Inspection and Testing                    | 23. Assignments                                |
| 8. Substitutions                             | 24. Indemnification                            |
| 9. Patents                                   | 25. Separate Contracts                         |
| 10. Surveys, Permits, Regulations            | 26. Subcontracting                             |
| 11. Protection of Work, Property, Persons    | 27. Engineer's Authority                       |
| 12. Supervision by Contractor                | 28. Land and Right-of-Way                      |
| 13. Changes in the Work                      | 29. Guaranty                                   |
| 14. Changes in Contract Price                | 30. Arbitration                                |
| 15. Time for Completion & Liquidated Damages | 31. Taxes                                      |
| 16. Correction of Work                       |                                                |

**1. DEFINITIONS** See Section 201 for definitions.

### **2. ADDITIONAL INSTRUCTIONS AND DETAIL DRAWINGS**

**2.1** The CONTRACTOR may be furnished additional instructions and detail drawings, by the ENGINEER, as necessary to carry out the WORK required by the CONTRACT DOCUMENTS.

**2.2** The additional drawings and instructions thus supplied will become a part of the CONTRACT DOCUMENTS. The CONTRACTOR shall carry out the WORK in accordance with the additional detail drawings and instructions.

### **3. SCHEDULES, REPORTS AND RECORDS**

**3.1** The CONTRACTOR shall submit to the OWNER such schedule of quantities and costs, progress schedules, payrolls, reports, estimates, records and other data where applicable as are required by the CONTRACTOR DOCUMENTS for the WORK to be performed.

**3.2** Prior to the first partial payment estimate the CONTRACTOR shall submit construction progress schedules showing the order in which the CONTRACTOR proposes to carry on the WORK, including dates at which the various parts of the WORK will be started, estimated date of completion of each part and, as applicable:

**3.2.1** The dates at which special detail drawings will be required: and

**3.2.2** Respective dates for submission of SHOP DRAWINGS, the beginning of manufacture, the testing and the installation of materials, supplies and equipment.

**3.3** The CONTRACTOR shall also submit a schedule of payments that the CONTRACTOR anticipates will be earned during the course of the WORK.

## **4. DRAWINGS AND SPECIFICATIONS**

**4.1** The intent of the DRAWINGS and SPECIFICATIONS is that the CONTRACTOR shall furnish all labor, materials, tools, equipment, and transportation necessary for the proper execution of the WORK in accordance with the CONTRACT DOCUMENTS and all incidental work necessary to complete the 2PROJECT in an acceptable manner, ready for use, occupancy or operation by the OWNER.

**4.2** In case of conflict between the DRAWINGS and SPECIFICATIONS, the SPECIFICATIONS shall govern. Figure dimensions and DRAWINGS shall govern over general DRAWINGS.

**4.3** Any discrepancies found between the DRAWINGS and SPECIFICATIONS and site conditions or any inconsistencies or ambiguities in the DRAWINGS or SPECIFICATIONS shall be immediately reported to the ENGINEER, in writing, who shall promptly correct such inconsistencies or ambiguities in writing. WORK done by the CONTRACTOR after discovery of such discrepancies, inconsistencies or ambiguities shall be done at the CONTRACTOR'S risk.

## **5. SHOP DRAWINGS**

**5.1** The CONTRACTOR shall provide 5 copies of SHOP DRAWINGS as may be necessary for the prosecution of the WORK as required by the CONTRACT DOCUMENTS. The ENGINEER shall promptly review all SHOP DRAWINGS. The ENGINEER'S approval of any SHOP DRAWING shall not release the CONTRACTOR from responsibility for deviations from the CONTRACT DOCUMENTS. The approval of any SHOP DRAWING which substantially deviates from the requirement of the CONTRACT DOCUMENTS shall be evidenced by a CHANGE ORDER.

**5.2** When submitted for the ENGINEER'S review, SHOP DRAWING shall bear the CONTRACTOR'S certification that he has reviewed, checked and approved the SHOP DRAWINGS and that they are in conformance with the requirements of the CONTRACT DOCUMENTS.

**5.3** Portions of the WORK requiring a SHOP DRAWING or sample submission shall not begin until the SHOP DRAWING or submission has been approved by the ENGINEER. A copy of each approved SHOP DRAWING and each approve sample shall be kept in good order by the CONTRACTOR at the site and shall be available to the ENGINEER.

## **6. MATERIALS, SERVICES AND FACILITIES**

**6.1** It is understood that, except as otherwise specifically stated in the CONTRACT DOCUMENTS, the CONTRACTOR shall provide and pay for all materials, labor, tools, equipment, water, light, power, transportation, supervision, temporary construction of any nature, and all other services and facilities of any nature whatsoever necessary to execute, complete, and deliver the WORK within the specified time.

**6.2** Materials, supplies, and equipment shall be so stored as to insure the preservation of their quality and fitness for the WORK. Stored materials and equipment to be incorporated in the WORK shall be located so as to facilitate prompt inspection.

**6.3** Manufactured articles, materials, and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned as directed by the manufacturer.

**6.4** Materials, supplies, and equipment shall be in accordance with samples submitted by the CONTRACTOR and approved by the ENGINEER.

**6.5** Materials, supplies or equipment to be incorporated into the WORK shall not be purchased by the

CONTRACTOR or the SUBCONTRACTOR subject to a chattel mortgage or under a conditional sale contract or other agreement by which an interest is retained by the seller.

## **7. INSPECTION AND TESTING**

**7.1** All materials and equipment used in the construction of the PROJECT shall be subject to adequate inspection and testing in accordance with generally accepted standards, as required and defined in the CONTRACT DOCUMENTS.

**7.2** The OWNER shall provide all inspection and testing services not required by the CONTRACT DOCUMENTS.

**7.3** The CONTRACTOR shall provide at the CONTRACTOR'S expense the testing and inspection services required by the CONTRACT DOCUMENTS.

**7.4** If the CONTRACTOR DOCUMENTS, laws, ordinances, rules, regulations or orders of any public authority having jurisdiction require any WORK to specifically be inspected, tested, or approved by someone other than the CONTRACTOR, the CONTRACTOR will give the ENGINEER timely notice of readiness. The CONTRACTOR will then furnish the ENGINEER the required certificates of inspection, testing or approval.

**7.5** Inspections, tests, or approvals by the Engineer or others shall not relieve the CONTRACTOR from the obligation to perform the WORK in accordance with the requirements of the CONTRACT DOCUMENTS.

**7.6** The ENGINEER and the ENGINEER'S representatives will at all times have access to the WORK. In addition, authorized representatives and agents of any participating Federal or State agency shall be permitted to inspect all work, materials, payrolls, records or personnel, invoices of materials, and other relevant data and records. The CONTRACTOR will provide proper facilities for such access and observation of the WORK and also for any inspection or testing thereof.

**7.7** If any WORK is covered contrary to the written instructions of the ENGINEER it must, if requested by the ENGINEER, be uncovered for the ENGINEER'S observation and replaced at the CONTRACTOR'S expense.

**7.8** If the ENGINEER considers it necessary or advisable that covered WORK be inspected or tested by others, the CONTRACTOR, at the ENGINEER'S request, will uncover, expose or otherwise make available for observation, inspection or testing as the ENGINEER may require, that portion of the WORK in question, furnishing all necessary labor, materials, tools, and equipment. If it is found that such WORK is defective, the CONTRACTOR will bear all the expenses of such uncovering, exposure, observation, inspection and testing and of satisfactory reconstruction; if, however, such WORK is not found to be defective, the CONTRACTOR will be allowed an increase in the CONTRACT PRICE or an extension of the CONTRACT TIME, or both, directly attributable to such uncovering, exposure, observation, inspection, testing and reconstruction and an appropriate CHANGE ORDER shall be issued.

## **8. SUBSTITUTIONS**

**8.1** Whenever a material, article, or piece of equipment is identified on the DRAWINGS or SPECIFICATIONS by reference to brand name or catalogue numbers, it shall be understood that this is referenced for the purpose of defining the performance or other salient requirements and that other products of equal capacities, quality and function shall be considered. The CONTRACTOR may recommend the substitution of a material, article, or piece of equipment of equal substance and function

for those referred to in the CONTRACT DOCUMENTS by reference to brand name or catalogue number, and if, in the opinion of the ENGINEER, such material, article, or piece of equipment is of equal substance and function to that specified, the ENGINEER may approve its substitution and use by the CONTRACTOR. Any cost differential shall be deductible from the CONTRACT PRICE and the CONTRACT DOCUMENTS shall be appropriately modified by CHANGE ORDER. The CONTRACTOR warrants that if substitutes are approved, no major changes in the function or general design of the PROJECT will result. Incidental changes or extra component parts required to accommodate the substitute will be made by the CONTRACTOR without a change in the CONTRACT PRICE or CONTRACT TIME.

## **9. PATENTS**

**9.1** The CONTRACTOR shall pay all applicable royalties and license fees, and shall defend all suits or claims for infringement of any patent rights and save the OWNER harmless from loss on account thereof, except that the OWNER shall be responsible for any such loss when a particular process, design, or product of a particular manufacturer or manufacturers is specified, however, if the CONTRACTOR has reason to believe that the design, process or product specified is an infringement of a patent, the CONTRACTOR shall be responsible for such loss unless the CONTRACTOR promptly gives such information to the ENGINEER.

## **10. SURVEYS, PERMITS, REGULATIONS**

**10.1** The OWNER shall furnish all boundary surveys and establish all base lines for locating the principal component parts of the WORK together with a suitable number of bench marks adjacent to the WORK as shown in the CONTRACT DOCUMENTS. From the information provided by the OWNER, unless otherwise specified in the CONTRACT DOCUMENTS, the CONTRACTOR shall develop and make all detail surveys needed for construction such as slope stakes, batter boards, stakes for pipe locations and other working points, lines, elevations and cut sheets.

**10.2** The CONTRACTOR shall carefully preserve bench marks, reference points and stakes and, in case of willful or careless destruction, shall be charged with the resulting expense and shall be responsible for any mistake that any be caused by their unnecessary loss or disturbance.

**10.3** Permits and licenses of a temporary nature necessary for the prosecution of the WORK shall be secured and paid for by the CONTRACTOR unless otherwise stated in the SUPPLEMENTAL GENERAL CONDITIONS. Permits, licenses and easements for permanent structures or permanent changes in existing facilities shall be secured and paid for by the OWNER, unless otherwise specified. The CONTRACTOR shall give all notices and comply with all laws, ordinances, rules and regulations bearing on the conduct of the WORK as drawn and specified. If the CONTRACTOR observes that the

CONTRACT DOCUMENTS are at variance therewith, the CONTRACTOR shall promptly notify the ENGINEER in writing, and any necessary changes shall be adjusted as provided in Section 13, CHANGES IN THE WORK.

## **11. PROTECTION OF WORK, PROPERTY, AND PERSONS**

**11.1** The CONTRACTOR will be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the WORK. The CONTRACTOR will take all necessary precautions for the safety of, will provide the necessary protection to prevent damage, injury or loss to all employees on the WORK and other persons who may be affected thereby, all the WORK and all materials or equipment to be incorporated therein, whether in storage on or off the site, and other

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property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation or replacement in the course of construction.

**11.2** The CONTRACTOR will comply with all applicable laws, ordinances, rules, regulations and orders of any public body having jurisdiction. The CONTRACTOR will erect and maintain, as required by the conditions and progress of the WORK all necessary safeguards for safety and protection. The CONTRACTOR will notify owners of adjacent utilities when prosecution of the WORK may effect them. The CONTRACTOR will remedy all damage, injury or loss to any property caused, directly or indirectly, in whole or part, by the CONTRACTOR, and SUBCONTRACTOR or anyone directly or indirectly employed by any of them or anyone of whose acts any of them be liable, except damage or loss attributable to the fault of the CONTRACT DOCUMENTS or to the acts or omissions of the OWNER, of the ENGINEER or anyone employed by either of them or anyone for whose acts either of them may be liable, and attributable, directly or indirectly, in whole or in part, to the fault or negligence of the CONTRACTOR.

**11.3** In emergencies affecting the safety of persons or the WORK or property at the site or adjacent thereto, the CONTRACTOR, without special instructions or authorization from the ENGINEER or OWNER, shall act to prevent threatened damage, injury or loss. The CONTRACTOR will give the ENGINEER prompt WRITTEN NOTICE of any significant changes in the WORK or deviations from the CONTRACT DOCUMENTS caused thereby, and a CHANGE ORDER shall thereupon be issued covering the changes and deviations involved.

## **12. SUPERVISION BY CONTRACTOR**

**12.1** The CONTRACTOR will supervise and direct the WORK. He will be solely responsible for the means, methods, techniques, sequences and procedures of construction. The CONTRACTOR will employ and maintain on the WORK a qualified supervisor or superintendent who shall have been designated in writing by the CONTRACTOR as the CONTRACTOR'S representative at the site. The supervisor shall have full authority to act on behalf of the CONTRACTOR and all communications given to the supervisor shall be as binding as if given to the CONTRACTOR. The supervisor shall be present on the site at all times as required to perform adequate supervisor and coordination of the WORK.

## **13. CHANGES IN THE WORK**

**13.1** The OWNER may at any time, as the need arises, order changes within the scope of the WORK without invalidating the Agreement. If such changes increase or decrease the amount under the CONTRACT DOCUMENTS, or in the time required for performance of the WORK, an equitable adjustment shall be authorized by CHANGE ORDER.

**13.2** The ENGINEER, also, may at any time, by issuing a FIELD ORDER, make changes in the details of the WORK. The CONTRACTOR shall proceed with the performance of any changes in the WORK so ordered by the ENGINEER unless the CONTRACTOR believes that such FIELD ORDER entitles the CONTRACTOR to a change in CONTRACT PRICE or TIME, or both, in which event the CONTRACTOR shall give the ENGINEER WRITTEN NOTICE thereof within seven (7) days after the receipt of the ordered change. Thereafter the CONTRACTOR shall document the basis for the change in CONTRACT PRICE or TIME within thirty (30) days. The CONTRACTOR shall not execute such changes pending the receipt of an executed CHANGE ORDER or further instruction from the OWNER.

## **14. CHANGES IN CONTRACT PRICE**

**14.1** The CONTRACT PRICE may be changed only by a CHANGE ORDER. The value of any WORK covered by a CHANGE ORDER or of any claim for increase or decrease in the CONTRACT PRICE shall

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be determined by one or more of the following methods in the order of precedence listed below:

- a. Unit prices previously approved.
- b. An agreed lump sum.

## **15. TIME FOR COMPLETION AND LIQUIDATED DAMAGES**

**15.1** The date of beginning and the time for completion of the WORK are essential conditions of the CONTRACT DOCUMENTS and the WORK embraced shall be commenced on a date specified in the NOTICE TO PROCEED.

**15.2** The CONTRACTOR will proceed with the WORK at such rate of progress to insure full completion within the CONTRACT TIME. It is expressly understood and agreed, by and between the CONTRACTOR and the OWNER, that the CONTRACT TIME for the completion of the WORK described herein is a reasonable time, taking into consideration the average climatic and economic conditions and other factors prevailing in the locality of the WORK.

**15.3** If the CONTRACTOR shall fail to complete the WORK within the CONTRACT TIME, or extension of time granted by the OWNER, then the CONTRACTOR will pay to the OWNER the amount for liquidated damages as specified in the BID for each calendar day that the CONTRACTOR shall be in default after the time stipulated in the CONTRACT DOCUMENTS.

**15.4** The CONTRACTOR shall not be charged with liquidated damages or any excess cost when the delay in completion of the WORK is due to the following and the CONTRACTOR has promptly given WRITTEN NOTICE of such delay to the OWNER or ENGINEER.

**15.4.1** To any preference, priority or allocation order duly issued by the OWNER.

**15.4.2** To unforeseeable causes beyond the control and without the fault or negligence of the CONTRACTOR, including but not restricted to, acts of God, or of the public enemy, acts of the OWNER, acts of another CONTRACTOR in the performance of a contract with the OWNER, fires, floods, epidemics, quarantine restriction, strikes, freight embargoes, and abnormal and unforeseeable weather; and

**15.4.3** To any delays of SUBCONTRACTORS occasioned by any of the causes specified in paragraphs 15.4.1 and 15.4.2 of this article.

## **16. CORRECTION TO WORK**

**16.1** The CONTRACTOR shall promptly remove from the premises all WORK rejected by the ENGINEER for failure to comply with the CONTRACT DOCUMENTS, whether incorporated in the construction or not, and the CONTRACTOR shall promptly replace and re-execute the WORK in accordance with the CONTRACT DOCUMENTS and without expense to the OWNER and shall bear the expense of making good all WORK of other CONTRACTORS destroyed or damaged by such removal or replacement.

**16.2** All removal and replacement WORK shall be done at the CONTRACTOR'S expense. If the CONTRACTOR does not take action to remove such rejected WORK within ten (10) days after receipt or WRITTEN NOTICE, the OWNER may remove such WORK and store the materials at the expense of the CONTRACTOR.

## **17. SUBSURFACE CONDITIONS**

**17.1** The CONTRACTOR shall promptly, are before such conditions are disturbed except in the event of an emergency, notify the OWNER by WRITTEN NOTICE OF:

**17.1.1** Subsurface or latent physical condition at the site differing materially form those indicated in the CONTRACT DOCUMENTS.

**17.1.2** Unknown physical conditions at the site of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in WORK of the character provided for in the CONTRACT DOCUMENTS.

**17.2** The OWNER shall promptly investigate the conditions, and if it is found that such conditions do so materially differ and cause an increase or decrease an adjustment shall be made and the CONTRACT DOCUMENTS shall be modified by a CHANGE ORDER. Any claim of the CONTRACTOR for adjustment hereunder shall not be allowed unless the required WRITTEN NOTICE has been given; provided that the OWNER may, if the OWNER determines the facts to justify, consider and adjust any such claims asserted before the date of final payment.

## **18. SUSPENSION OF WORK, TERMINATION, AND DELAY**

**18.1** The OWNER may suspend the WORK or nay portion thereof for a period of not more than ninety days or such further time as agreed upon by the CONTRACTOR by WRITTEN NOTICE to the CONTRACTOR and the ENGINEER which shall fix the date on which WORK shall be resumed. The CONTRACTOR will resume that WORK on the date so fixed. The CONTRACTOR will be allowed an increase in the CONTRACT PRICE or an extension of the CONTRACT TIME, or both, directly attributable to any suspension.

**18.2** If the CONTRACTOR is adjudged a bankrupt or insolvent, or makes a general assignment for the benefit of its creditors, if a trustee or receiver is appointed for the CONTRACTOR or for any of its property, or if CONTRACTOR files a petition to take advantage of any debtor's act, or to reorganize under the bankruptcy or applicable laws, or repeatedly fails to supply sufficient skilled workmen or suitable materials able laws, or repeatedly fails to supply sufficient skilled workmen or suitable materials or equipment, or repeatedly fails to make prompt payments to SUBCONTRACTORS or for labor, materials or equipment or disregards laws, ordinances, rules, regulations or orders of any public body having jurisdiction of the WORK or disregards the authority of the ENGINEER, or otherwise violates any provision of the CONTRACTOR and take possession of the PROJECT and of all materials, equipment, tools, construction equipment and machinery thereon owned by the CONTRACTOR, and finish the WORK by whatever method the OWNER may deem expedient. In such case the CONTRACTOR shall not be entitled to receive any further payment until the WORK is finished. If the unpaid balance of the CONTRACT PRICE exceeds the direct and indirect costs of completing the PROJECT, including compensation for additional professional services, such excess SHALL BE PAID TO THE CONTRACTOR. If such costs exceed such unpaid balance, the CONTRACTOR will pay the difference to the OWNER. Such costs incurred by the OWNER will be determined by the ENGINEER and incorporated in a CHANGE ORDER.

**18.3** Where the CONTRACTOR'S services have been so terminated by the OWNER, said termination shall not affect any right of the OWNER against the CONTRACTOR then existing or which may there after accrue. Any retention or payment of monies by the OWNER due the CONTRACTOR will not release the CONTRACTOR from compliance with the CONTRACT DOCUMENTS.

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**18.4** After ten (10) days from the delivery of a WRITTEN NOTICE to the CONTRACTOR and the ENGINEER, the OWNER may, without cause and without prejudice to any other right or remedy, elect to abandon the PROJECT and terminate the CONTRACT. In such case the CONTRACTOR shall be paid for all WORK executed and any expense sustained plus reasonable profit.

**18.5** If, through no act or fault of the CONTRACTOR, the WORK is suspended for a period of more than ninety (90) days by the OWNER or under an order of court or other public authority, or the ENGINEER fails to act on any request for payment within thirty (30) days of its approval and presentation, then the CONTRACTOR substantially the sum approved by the ENGINEER or awarded by arbitrators within thirty (30) days of its approval and presentation, then the CONTRACTOR may, after ten (10) days from delivery of a WRITTEN NOTICE to the OWNER and the ENGINEER terminate the CONTRACT, if the ENGINEER has failed to act on a request for payment for all WORK executed and all expenses sustained. In addition and in lieu of terminating the CONTRACT, if the ENGINEER has failed to act on a request for payment or if the OWNER has failed to make any payment as aforesaid, the CONTRACTOR may upon ten (10) days written notice to the OWNER and the ENGINEER stop the WORK until paid all amounts then due, in which event and upon resumption of the WORK, CHANGE ORDERS shall be issued for adjusting the CONTRACT PRICE or extending the CONTRACT TIME or both to compensate for the costs and delays attributable to the stoppage of the WORK.

**18.6** If the performance of all or any portion of the WORK is suspended, delayed, or interrupted as a result of a failure of the OWNER or ENGINEER to act within the time specified in the CONTRACT DOCUMENTS, or if no time is specified, within a reasonable time, an adjustment in the CONTRACT PRICE OR AN EXTENSION of the CONTRACT TIME, or both, shall be made by CHANGE ORDER to compensate the CONTRACTOR for the costs and delays unnecessarily caused by the failure of the OWNER or ENGINEER.

## **19. PAYMENT TO CONTRACTOR**

**19.1** At least ten (10) days before each progress payment falls due (but not more often than once a month), the CONTRACTOR will submit to the ENGINEER a partial payment estimate filled out and signed by the CONTRACTOR covering the WORK performed during the period covered by the partial payment estimate and supported by such data as the ENGINEER may reasonably require. If payment is requested on the basis of materials and equipment not incorporated in the WORK but delivered and suitably stored at or near the site, the partial payment estimate shall also be accompanied by such supporting data, satisfactory to the OWNER'S title to the material and equipment and protect the OWNER'S interest therein, including applicable insurance. The ENGINEER will, within ten (10) days after receipt of each partial payment estimate, either indicate in writing approval of payment, and present the partial payment estimate to the OWNER, or return the partial payment estimate to the CONTRACTOR indicating in writing the reasons for refusing to approve payment. In the latter case, the CONTRACTOR may make the necessary corrections and resubmit the partial payment estimate. The OWNER will, within ten (10) days of presentation of an approved partial payment estimate, pay the CONTRACTOR a progress payment on the basis of the approved partial payment estimate less the retainage. The retainage shall be an amount equal to 10% of said estimate until 50% of the work has been completed. At 50% completion, further partial payments shall be made in full to the CONTRACTOR and no additional amounts may be retained unless the ENGINEER certifies that the job is not proceeding satisfactorily, but amounts previously retained shall not be paid to the CONTRACTOR. At 50% completion or any time thereafter when the progress of the WORK is not satisfactory, additional amounts may be retained but in no event shall the total retainage be more than 10% of the value of the work completed. Upon substantial completion of the work, any amount retained may be paid to the CONTRACTOR. When the WORK has been substantially completed except for WORK which cannot be completed because of weather

conditions, lack of materials or other reasons which in the judgement of the OWNER are valid reasons for non-completion, the OWNER may make additional payments, retaining at all times an amount sufficient to cover the estimated cost of the work still to be completed.

**19.2** The request for payment may also include an allowance for the cost of such major materials and equipment which are suitably stored either at or near the site.

**19.3** Prior to SUBSTANTIAL COMPLETION, THE OWNER with the approval of the ENGINEER and with the concurrence of the CONTRACTOR, may use any completed or substantially completed portions of the WORK. Such use shall not constitute an acceptance of such portions of the WORK.

**19.4** The OWNER shall have the right to enter the premises for the purpose of doing work not covered by the CONTRACT DOCUMENTS. This provision shall not be construed as relieving the CONTRACTOR of the sole responsibility for the care and protection of the WORK, or the restoration of any damaged WORK, or the restoration of any damaged WORK except such as may be caused by agents or employees of the OWNER.

**19.5** Upon completion and acceptance of the WORK, the ENGINEER shall issue a certificate attached to the final payment request that the WORK has been accepted under the conditions of the CONTRACT DOCUMENTS. The entire balance found to be due to the CONTRACTOR, including the retained percentages, but except such sums as may be lawfully retained by the OWNER, shall be paid to the CONTRACTOR within (30) days of completion and acceptance of the WORK.

**19.6** The CONTRACTOR will indemnify and save the OWNER or the OWNER'S agents harmless from all claims growing out of the lawful demand of SUBCONTRACTORS, laborers, workmen, mechanics, material men, and furnishers of machinery and parts thereof, equipment, tools, and all supplies, incurred in the furtherance of the performance of the WORK. The CONTRACTOR shall, at the OWNER'S request, furnish satisfactory evidence that all obligations of the nature designated above have been paid, discharged, or waived. If the CONTRACTOR, fails to do so the OWNER may, after having notified the CONTRACTOR, either pay unpaid bills or withhold from the CONTRACTOR'S unpaid compensation a sum of money deemed reasonably sufficient to pay any and all such lawful claims until satisfactory evidence is furnished that all liabilities have been fully discharged whereupon payment to the CONTRACTOR shall be resumed in accordance with the terms of the CONTRACT DOCUMENTS, but in no event shall the provisions of this sentence be construed to impose any obligations upon the OWNER to either the CONTRACTOR, the CONTRACTOR'S Surety, or any third party. In paying any unpaid bills of the CONTRACTOR, any payment so made by the OWNER shall be considered as a payment made under the CONTRACT DOCUMENTS by the OWNER to the CONTRACTOR and the OWNER shall not be liable to the CONTRACTOR for any such payments made in good faith.

**19.7** If the OWNER fails to make payment thirty (30) days after approval by the ENGINEER, in addition to other remedies available to the CONTRACTOR, there shall be added to each such payment interest at the maximum legal rate commencing on the first day after said payment is due and continuing until the payment is received by the CONTRACTOR.

## **20. ACCEPTANCE OF FINAL PAYMENT AS RELEASE**

**20.1** The acceptance by the CONTRACTOR of final payment shall be and shall operate as a release to the OWNER of all claims and all liability to the CONTRACTOR other than claims in stated amounts as may be specifically excepted by the CONTRACTOR for all things done or furnished in connection with this WORK and for every act and neglect of the OWNER and others relating to or arising out of this WORK. Any payment, however, final or otherwise, shall not release the CONTRACTOR or its sureties from any obligations under the CONTRACT DOCUMENTS or the Performance and payment BONDS.

## **21. INSURANCE**

**21.1** The CONTRACTOR shall purchase and maintain such insurance as will protect it from claims set forth below which may arise out of, or result from, the CONTRACTOR'S execution of the WORK, whether such execution be by the CONTRACTOR, any SUBCONTRACTOR, or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable:

**21.1.1** Claims under workmen's compensation, disability benefit and other similar employee benefit acts;

**21.1.2** Claims for damages because for bodily injury, occupational sickness or disease, or death of employees;

**21.1.3** Claims for damages because of bodily injury, sickness or disease, or death of any person other than employees;

**21.1.4** Claims for damages insured by usual personal injury liability coverage which are sustained (1) by any person as a result of an offense directly or indirectly related to the employment of such person by the CONTRACTOR, or (2) by any other person; and

**21.1.5** Claims for damages because of injury to or destruction of tangible property, including loss of use resulting therefrom.

**21.2** Certificates of Insurance acceptable to the OWNER shall be filed with the OWNER prior to commencement of the WORK. These Certificates shall contain a provision that coverages afforded under the policies will not be canceled unless at least fifteen (15) days prior WRITTEN NOTICE has been give to the OWNER.

**21.3** The CONTRACTOR shall procure and maintain, at the CONTRACTOR'S own expense, during the CONTRACT TIME, liability insurance as hereinafter specified:

**21.3.1** CONTRACTOR'S General Public Liability and Property Damage Insurance including vehicle coverage issued to the CONTRACTOR and protecting the CONTRACTOR from all claims for personal injury, including death, and all claims for destruction of or damage to property, arising out of or in connection with any operations under the CONTRACT DOCUMENTS, whether such operations be by the CONTRACTOR or by any SUBCONTRACTOR employed by the CONTRACTOR. Insurance shall be written with a limit of liability of not less than \$1,000,000 for all damages arising out of bodily injury, including death, at any time resulting therefrom, sustained by any one person in any one accident; and a limit of liability of not less than \$500,000.00 for all property damage sustained by any one person in any one accident; and a limit of liability of not less than \$500,000.00 aggregate for any such damage sustained by two or more persons in any one accident.

**21.3.2** The CONTRACTOR shall acquire and maintain, if applicable, Fire and Extended Coverage insurance upon the PROJECT to the full insurable value thereof for the benefit of the OWNER, the CONTRACTOR, and SUBCONTRACTORS as their interest may appear. This provision shall in no way release the CONTRACTOR or CONTRACTOR'S surety from obligations under the CONTRACTOR DOCUMENTS to fully complete the PROJECT.

**21.4** The CONTRACTOR shall procure and maintain, at the CONTRACTOR'S own expense, during the CONTRACT TIME, in accordance with the provisions of the laws of the state in which the WORK is performed, Workmen's Compensation Insurance, including occupational disease provisions, for all of the

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CONTRACTOR'S employees at the site of the PROJECT and in case any WORK is sublet, the CONTRACTOR shall require such SUBCONTRACTOR similar to provide Workmen's Compensation Insurance, including occupation disease provisions for all the latter's employees unless such employees are covered by the protection afforded by the CONTRACTOR shall provide, and shall cause each SUBCONTRACTOR to provide, adequate and suitable insurance for the protection of its employees not otherwise protected.

**21.5** The CONTRACTOR shall secure, if applicable, "All Risk" type Builder's Risk Insurance for WORK to be performed. Unless specifically authorized by the OWNER, the amount of such insurance shall not be less than the losses due to fire, explosion, hail, lightning, vandalism, malicious mischief, wind, collapse, riot, aircraft, and smoke during the CONTRACT TIME, and the OWNER. The policy shall name as the insured the CONTRACTOR and the OWNER.

## **22. CONTRACT SECURITY**

**22.1** The CONTRACTOR shall within ten (10) days after the receipt of the NOTICE OF AWARD furnish the OWNER with a Performance Bond and a Payment (Statutory) Bond in penal sums equal to the amount of the CONTRACT PRICE, conditioned upon the performance by the CONTRACTOR of all undertakings, covenants, terms, conditions and agreements of the CONTRACT DOCUMENTS, and upon the prompt payment by the CONTRACTOR to all persons supplying labor and materials in the prosecution of the WORK provided by the CONTRACT DOCUMENTS. Such BONDS shall be executed by the CONTRACTOR and a corporate bonding company licensed to transact such business in the state in which the WORK is to be performed and named on the current list of "SURETY Companies Acceptable on Federal Bonds" as published in the Treasury Department Circular Number 570. The expense of these BONDS shall be borne by the CONTRACTOR. If at any time a surety on any such BOND is declared a bankrupt or loses its right to do business in the state in which the WORK is to be performed or is removed from the list of Surety Companies accepted on Federal Bonds, CONTRACTOR shall within ten (10) days after notice from the OWNER, substitute another Bond and Surety, both of which must be acceptable to OWNER. The premiums on such BOND shall be paid by the CONTRACTOR. No further payment shall be deemed due nor shall be made until the new surety or sureties shall have furnished an acceptable BOND to the OWNER.

## **23. ASSIGNMENTS**

**23.1** Neither the CONTRACTOR nor the OWNER shall sell, transfer, assign, or otherwise dispose of the CONTRACT or any portion thereof, or of any right, title or interest therein, or any obligations thereunder, without written consent of the other party.

## **24. INDEMNIFICATION**

**24.1** The CONTRACTOR will indemnify and hold harmless the OWNER and the ENGINEER and their agents and employees from and against all claims, damages, losses and expenses including attorney's fees arising out of or resulting from the performance of the WORK, provided that any such claims, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property including the loss of use resulting therefrom; and is caused in whole or in part by any negligent or willful act or omission of the CONTRACTOR, and SUBCONTRACTOR, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable.

**24.2** In any and all claims against the OWNER or the ENGINEER, or any of their agents or employees, by any employee of the CONTRACTOR, any SUBCONTRACTOR, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, the indemnification obligation shall

not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for the CONTRACTOR or any SUBCONTRACTOR under workmen's compensation acts; disability benefit acts; disability benefit acts or other employee benefits acts.

**24.3** The obligation of the CONTRACTOR under this paragraph shall not extend to the liability of the ENGINEER, its agents or employees arising out of the preparation or approval of maps, DRAWINGS, opinions, reports, surveys, CHANGE ORDERS, designs or SPECIFICATIONS.

## **25. SEPARATE CONTRACTS**

**25.1** The Owner reserves the right to let other contracts in connection with this PROJECT. The CONTRACTOR shall afford other CONTRACTORS reasonable opportunity for the introduction and storage of their materials and the execution of their WORK, and shall properly connect and coordinate the WORK with theirs. If the proper execution or results of any part of the CONTRACTOR'S WORK depends upon the WORK of any other CONTRACTOR, the CONTRACTOR shall inspect and promptly report to the ENGINEER any defects in such WORK that render it unsuitable for such proper execution and results.

**25.2** The OWNER may perform additional WORK related to the PROJECT or the OWNER may let other contracts containing provisions similar to these. The CONTRACTOR will afford the other CONTRACTORS who are parties to such Contracts (or the OWNER, if the OWNER is performing the additional WORK) reasonable opportunity for the introduction and storage of materials and equipment and the execution of WORK and shall properly connect and coordinate the WORK with theirs.

**25.3** If the performance of additional WORK by other CONTRACTORS or the OWNER is not noted in the CONTRACT DOCUMENTS prior to the execution of the CONTRACT, written notice thereof shall be given to the CONTRACTOR prior to starting any such additional WORK by the OWNER or others involves it in additional expense or entitles it to an extension of the CONTRACT TIME, the CONTRACTOR may make a claim thereof as provided in Sections 14 and 15.

## **26. SUBCONTRACTING**

**26.1** The CONTRACTOR may utilize the services of specialty SUBCONTRACTS on those parts of the WORK which, under normal contracting practices, are performed by specialty SUBCONTRACTOR.

**26.2** The contractor shall not award WORK to SUBCONTRACTOR(S) in excess of fifty (50) percent of contract price, or in excess of fifty (50) percent of the labor and equipment required to install the project, without prior written approval of the OWNER.

**26.3** The CONTRACTOR shall be fully responsible to the OWNER for the acts and omissions of its SUBCONTRACTORS, and of persons either directly or indirectly employed by them, as the CONTRACTOR is for the acts and omissions of persons directly employed by the CONTRACTOR.

**26.4** The CONTRACTOR shall cause appropriate provisions to be inserted in all subcontracts relative to the WORK to bind SUBCONTRACTORS to the CONTRACTOR by the terms of the CONTRACT DOCUMENTS insofar as applicable to the WORK of SUBCONTRACTORS and to give the CONTRACTOR the same power as regards terminating any subcontract that the OWNER may exercise over the CONTRACTOR under any provision of the CONTRACT DOCUMENTS.

**26.5** Nothing contained in this CONTRACT shall create any contractual relationship between the SUBCONTRACTOR and the OWNER. (Revised 2-16-83, PN 869.)

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## **27. ENGINEER'S AUTHORITY**

**27.1** The ENGINEER shall act as the OWNER'S representative during the construction period, shall decide questions which may arise as to quality and acceptability and acceptability of materials furnished and WORK performed, and shall interpret the intent of the CONTRACT DOCUMENTS in a fair and unbiased manner. The ENGINEER will make visits to the site and determine if the WORK is proceeding in accordance with the CONTRACT DOCUMENTS.

**27.2** The CONTRACTOR will be held strictly to the intent of the CONTRACT DOCUMENTS in regard to the quality of materials, workmanship, and execution of the WORK. Inspections may be made at the factory or fabrication plant of the source of material supply.

**27.3** The ENGINEER will not be responsible for the construction means, controls, techniques, sequences, procedure, or construction safety.

**27.4** The ENGINEER shall promptly make decision relative to interpretation of the CONTRACT DOCUMENTS/

## **28. LAND AND RIGHTS-OF-WAY**

**28.1** Prior to issuance of NOTICE TO PROCEED, the OWNER shall obtain all land and rights-of-way necessary for carrying out and for the completion of the WORK to be performed pursuant to the CONTRACT DOCUMENTS, unless otherwise mutually agreed.

**28.2** The OWNER shall provide to the CONTRACTOR information which delineates and describes the lands owned and rights-of-way acquired.

**28.3** The CONTRACTOR shall provide at its own expense and without liability to the OWNER any additional land and access thereto that the CONTRACTOR may desire for temporary construction facilities, or for storage of materials.

## **29. GUARANTEE**

**29.1** The CONTRACTOR shall guarantee all materials and equipment furnished and WORK performed for a period of one (1) year from the date of SUBSTANTIAL COMPLETION. The CONTRACTOR warrants and guarantees for a period of one (1) year from the date of SUBSTANTIAL COMPLETION of the system that the completed system is free from all defects due to faulty materials or workmanship and the CONTRACTOR shall promptly make such corrections as may be necessary by reason of such defects including the repairs of any damages to other parts of the system resulting from such defects. The OWNER will give notice of observed defects with reasonable promptness. In the event that the CONTRACTOR should fail to make such corrections, the OWNER may do so and charge the CONTRACTOR the cost thereby incurred. The PERFORMANCE BOND shall remain in full force and effect through the guarantee period.

## **30. ARBITRATION BY MUTUAL AGREEMENT (Revised 2-16-83, PN 869.)**

**30.1** All claims, disputes, and other matters in question arising out of, or relating to the CONTRACT DOCUMENTS or the breach thereof, except for claims which have been waived by making an acceptance of final payment as provided by Section 20, may be decided by arbitration if the parties mutually agree. Any agreement to arbitrate shall be specifically enforceable under the prevailing

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arbitration law. The award rendered by the arbitrators shall be final and judgment may be rendered upon it in any court having jurisdiction thereof. (Revised 2-16-83, PN 869.)

**30.2** Notice of the request for arbitration shall be filed in writing with the other party to the CONTRACT DOCUMENTS and a copy shall be filed with the ENGINEER. Request for arbitration shall in no event be made on any claim, dispute, or other matter in question which would be barred by the applicable statute of limitations. (Revised 2-16-83, PN 869.)

**30.3** The CONTRACTOR will carry on the WORK and maintain the progress schedule during any arbitration proceedings, unless otherwise mutually agreed in writing.

## **31. TAXES**

**31.1** The CONTRACTOR will pay all sales, consumer, use, and other similar taxes required by the laws of the place where the WORK is performed.

## **SUPPLEMENTAL GENERAL CONDITIONS**

The provisions of the Supplemental General Conditions as described herein change, amend, or supplement the General Conditions and shall supersede any conflicting provisions of the this contract. All provisions supplemented, remain in force.

### **1. CONTRACT APPROVAL**

**1.1** The OWNER and CONTRACTOR will furnish the Owner's Attorney such evidence as required so that the Owner's Attorney can complete and execute "Certificate of Owner's Attorney".

### **2. CONTRACT CHANGE ORDERS**

**2.1** All changes affecting the projects construction cost or modifications of the terms or conditions of the CONTRACT must be authorized by means of a written CONTRACT CHANGE ORDER which is mutually agreed to by the OWNER and CONTRACTOR. The CONTRACT CHANGE ORDER will include extra work, for which quantities have been altered from those shown in the bidding schedule, as well as decreases or increases in the quantities of installed units which are different than those shown in the bidding schedule because of final measurements. All changes must be recorded on a CONTRACT CHANGE ORDER before they can be included in a partial payment estimate.

**2.2** "CONTRACT CHANGE ORDER" shall be used to record CONTRACT changes.

**2.3** When the CONTRACT SUM is in whole or in part based on unit prices, the OWNER reserves the right to increase or decrease a unit price quantity as may be deemed reasonable or necessary in order to complete the WORK contemplated by the CONTRACT.

**2.4** The Specifications for this contract are supplemented by adding thereto Section 121, Title 61, Oklahoma Statutes, to the extend the same is applicable, as follows:

"Section 121. CHANGE ORDERS OR ADDENDUMS. Change orders or addendums to public construction contracts of One Million dollars (\$1,000,000.00) or less shall not exceed fifteen percent (15%) cumulative total of the original contract amount. Change orders or addendums to public construction contracts of over One Million Dollars (\$1,000,000.00) shall not exceed ten percent (10%) cumulative total of the original contract amount. Any change orders or cumulative change orders which exceed these limits shall require a re-advertising for bids on that part of the contract. Change orders in any amount shall be formally approved by the board, agency or entity involved and the reasons therefor recorded in the permanent records. All change orders shall contain a unit price and total for each of the following items:

1. Itemization of all material with cost per item;
2. Itemization of all labor with number of hours per operation and cost per hour.
3. Itemization of insurance cost, bond cost, social security, taxes, workmen's compensation and overhead cost; and

4. Profit for the contractor.

If the construction contract was bid on a unit basis, and the change order is based exactly on the unit price or basis, such a change order will not be subject to this section. Alternates or add items bid with the original bid and contained in the awarded contract as options of the awarding agency shall not be construed as change orders under the provisions of this act."

**3. PARTIAL PAYMENT ESTIMATES**

**3.1** "Partial Payment Estimates" shall be used when estimating periodic payments due the CONTRACTOR.

**3.2** The OWNER may after consultation with the ARCHITECT/ENGINEER withhold or, on account of subsequently discovered evidence, nullify the whole or part of any approved partial payment estimate to such extent as may be necessary to protect the OWNER from loss on account of:

**3.2.1** Defective Work not remedied.

**3.2.2** Claims filed.

**3.2.3** Failure of CONTRACTOR to make payments properly to SUBCONTRACTORS or SUPPLIERS.

**3.2.4** A reasonable doubt that the WORK can be completed for the balance then unpaid.

**3.2.5** Damage to another CONTRACTOR.

**3.2.6** Performance of WORK in violation of the terms of the CONTRACT DOCUMENTS.

**3.3** Where WORK on unit price items is substantially complete, but lacks testing, clean-up and/or corrections, amounts shall be deducted from unit prices in partial payment estimates to amply cover such testing, clean-up and/or corrections.

**3.4** When the items in 3.2 and 3.3 are cured, payment shall be made for amounts withheld because of them.

**3.5** Payments will not be made that would deplete the retainage nor place in escrow any funds that are required for retainage nor invest the retainage for the benefit of the CONTRACTOR.

**3.6** REQUEST FOR PAYMENTS: All request for payment shall be submitted to the Engineer no later than the 25th of each month.

**4. CONFLICT OF INTEREST**

**4.1** Unacceptable bidders. An ENGINEER or ARCHITECT (Individual or firm including person they employ) who has prepared PLANS and SPECIFICATIONS will not be considered an acceptable bidder. Any firm or corporation in which

such ENGINEER or ARCHITECT (including persons they employ) is an officer, employee, or holds or controls a substantial interest will not be considered an acceptable bidder. CONTRACTS or purchases by the CONTRACTOR shall not be awarded or made to a supplier or manufacturer if the ENGINEER or ARCHITECT (firm or individual) who prepared the PLANS and SPECIFICATIONS has a corporate or financial affiliation with the supplier or manufacturer. Bids will not be awarded to firms or corporations which are owned or controlled wholly or in part by a member of the governing body of the OWNER or to an individual who is such a member.

**4.2** The OWNER'S officers, employees, or agents shall not engage in the award of administration of this CONTRACT if a conflict of interest, real or apparent, would be involved. Such a conflict would arise when: (a) the employee, officer or agent: (b) any member of their immediate family; (c) their partner or (d) an organization which employs, or is about to employ, or any of the above which has financial or other interest in the contractor. The OWNER'S officers, employees, or agents shall neither solicit nor accept gratuities, favors or anything of monetary value from the CONTRACTOR or SUBCONTRACTOR.

## **5. PROTECTION OF LIVES AND PROPERTY**

**5.1** In order to protect the lives and health of its employees under the CONTRACT, the CONTRACTOR shall comply with all pertinent provisions of the Occupational Safety and Health Administration (OSHA) and any state safety and health agency requirements.

**5.2** The CONTRACTOR alone shall be responsible for the safety, efficiency, and adequacy of its plant, appurtenants, and methods, and for any damage which may result from their failure or their improper construction, maintenance or operation.

## **6. REMEDIES**

**6.1** The arbitration provisions of this section may be initiated by either party to this CONTRACT by filing with the other party and the ENGINEER/ARCHITECT a written request for arbitration.

**6.2** Each party to this CONTRACT will appoint one arbitrator; the two arbitrators will select third arbitrator.

**6.3** The arbitrators will select a hearing location as close to the OWNER'S locale as possible.

**6.4** The purpose for conducting the hearing will follow the Construction Industry Arbitration Rules of the American Arbitration Association.

## **7. GRATUITIES**

**7.1** If the OWNER finds after a notice and hearing that the CONTRACTOR, or any of the CONTRACTOR'S agents or representatives, offered or gave gratuities (in the form of entertainment, gifts, or otherwise) to any official, employee, or agent of the OWNER, in an attempt to secure this CONTRACT or favorable treatment in awarding, amending, or making any determinations related to the performance of this CONTRACT or favorable treatment in performance of this

CONTRACT, the OWNER may, by written notice to the CONTRACTOR, terminate this CONTRACT. The OWNER may also pursue other rights and remedies that the law or this CONTRACT provides. However, the existence of the facts on which the OWNER bases such findings shall be an issue and may reviewed in proceedings under the remedies clause of this CONTRACT.

**7.2** In the event this CONTRACT is terminated as provided in paragraph 7.1 the OWNER may pursue the same remedies against the contractor as it could pursue in the event of a breach of the CONTRACT by the CONTRACTOR. As a penalty, in addition to any other damages to which it may be entitled by law, the OWNER may pursue exemplary damages in an amount (as determined by the OWNER) which CONTRACTOR incurs in providing any such gratuities to any such officer or employee.

## **8. AUDIT AND ACCESS TO RECORDS**

**8.1** For all negotiated contracts (except those of \$10,000 or less), HUD, the Comptroller General, the OWNER or any of their duly authorized representatives, shall have access to any books documents, papers, and records of the CONTRACTOR, which are pertinent to the CONTRACTOR, for the purpose of making audits, examinations, excerpts and transcriptions. The CONTRACTOR shall maintain all required records for three years after final payment is made and all other pending matters are closed.

## **9. SMALL, MINORITY AND WOMEN'S BUSINESSES**

**9.1** If the CONTRACTOR intends to let any SUBCONTRACTS for a portion of the WORK, the CONTRACTOR should take affirmative steps to assure that small, minority and women's businesses are used when possible as sources of supplies, equipment, construction, and services. Affirmative steps shall consist of: (1) including qualified small, minority, and women's businesses are solicited whenever they are potential sources; (3) dividing total requirements, when economically feasible, into small tasks or quantities to permit maximum participation of small, minority and women's businesses; (4) establishing delivery schedules, where the requirements of the WORK permit, which will encourage participation by small, minority and women's businesses; (5) using the services and assistance of the Small Business Administration, and the Minority Business Development Agency of the U.S. Department of Commerce; (6) requiring each party to a subcontract to take the affirmative steps of this section; and (7) CONTRACTORS encouraged to procure goods and services from labor surplus area firms.

## **10. ANTI-KICKBACK**

**10.1** The CONTRACTOR shall comply with s Anti-Kickback Act (18 USC 874) as supplemented in Department of Labor regulations (29 CFR, Part 3). This act provides that each CONTRACTOR shall be prohibited from inducing, by any means, any person employed in the construction, completion, or repair of public facilities, to give up any part of the compensation to which they are otherwise entitled. The owner shall report all suspected or reported violations to FmHA.

## **11. VIOLATING FACILITIES**

**11.1** Where this CONTRACT exceeds \$100,000 the CONTRACTOR shall comply with all applicable standards, orders, or requirement issued under the Clean Water Act (33 U.S.C. 1368), Executive Order 11738, and Environmental Protection Agency regulations (40 CRF Part 15) which prohibit the awarding of non-exempt federal contracts, grants, or loans to facilities included on EPA's list of violating facilities. The CONTRACTOR will report violations to the EPA.

## **12. STATE ENERGY POLICY**

**12.1** The CONTRACTOR shall comply with the Energy Policy and Conservation Act (P.L. 94-163). Mandatory standards and policies relating to energy efficiency, contained in the State Energy Conservation Plan, shall be utilized.

## **13. EQUAL OPPORTUNITY REQUIREMENTS**

**13.1** The CONTRACTOR shall not discriminate in the hiring of personnel for this project.

**14.** Any non-resident contractor, doing business in the State of Oklahoma, shall register with the Oklahoma Tax Commission, the Oklahoma Employment Security Commission, the State Industrial Court and the County Assessor of each county in which contract work will be performed. This must be done prior to commencing work under contract.

**15.** Payment for material stored on the site: The following items will be required if the contractor request payment for material stored on the site: (See Paragraph 19.2 of the General Conditions.)

- (a) Invoices showing the quantity, size, cost, etc. of the material.
  - (b) The invoices must be approved and initialed by the consulting engineer and the owner.
  - (c) Payment will be made only for material stored in a location approved by the owner. The storage area must provide adequate protection form the elements; and the material must be stored so that it can be promptly inspected. Material strung throughout the job site will not be considered properly stored.
  - (d) The ten-percent retainer that applies to material installed will also apply to materials stored on the site.
  - (e) When payment for material stored on the site is received, a paid invoice for that payment form the supplier must be submitted to the owner prior to the payment of the next partial pay estimate.
- 16.** A final inspection will be made by the owner before final payment is made. Final payment will not be made until the owner certifies in writing that the construction has been completed as planned. If the Oklahoma State Department of Health has issued a permit, they must concur in the final inspection.

## **17. PARTIAL OCCUPANCY AND USE**

The owner, upon advance written notification to the contractor, shall have the right to occupy and use any completed or partially completed portions of the project when such occupancy and use is to the owner's best interest, notwithstanding completion of the entire project.

Such partial occupancy and use shall be upon the following terms:

- (a) The engineer shall make an inspection of the portion or portions of the project concerned, and report to the owner his findings as to the acceptability and completeness of the work. The engineer's report shall include a list of items to be completed or corrected before final payment.
- (b) The owner, upon acceptance of the engineer's report, shall give written notice to the contractor of the owner's intention to occupy and use said portions of the project. The owner's notice shall include a copy of the engineer's report, shall clearly identify the portions of the project to be occupied and used, and shall establish the date of said occupancy and use.
- (c) From the date thus established, the owner shall assume all responsibilities for operation, maintenance, and the furnishing of water, gas and electrical power for the portions of the project thus occupied and used. The owner shall have the right to exclude the contractor from those portions of the project, but shall provide the contractor reasonable access to complete or correct necessary items of work.
- (d) The guarantee required by the General Conditions shall not begin until completion and final acceptance of the entire project, except as to items of equipment specified such as instrumentation, electrical, and mechanical equipment which are thus used by the owner. For said equipment, the warranty shall start from the date established in the written notice from the owner.
- (e) Occupancy or use of any space in the project shall not constitute acceptance of work not performed in accordance with the contract, nor relieve the contractor of liability to perform any work required by the contract but not completed at the time of said occupancy and use.
- (f) The contractor shall not be held responsible for fair wear and tear or damage resulting from said occupancy, except to the extent that such damage is covered by the guarantee.
- (g) The partial occupancy and use of any portion or portions of the project by the owner shall not constitute grounds for claims by the contractor for release of any amounts retained from payments under the provisions of the contract. The retained amounts will not be due until completion of the entire project for final acceptance and final payment, as set forth in the General Conditions.

18. The contractor shall be responsible for contacting all federal, state, county or railroad personnel required to be contacted and as set forth in any permits with respect to time schedule before commencing any work for which a permit is required.
19. The contractor shall secure a cleanup release satisfactory to the owner from any federal, state, county or railroad agency after the work for which a permit has been obtained has been completed.
20. Enumeration of plans, specifications and addenda: Following are the plans, specifications and addenda which form a part of this project.
21. The following is the table of contents for this specification book.

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**22. RAILROAD INSURANCE:** The Contractor and His Subcontractor shall provide the insurance required by the Railroad for construction on railroad property at no cost to the Owner.

## **23. OMISSIONS**

- (a) In the event that the specifications inadvertently omit some of the usual and customary work, auxiliary equipment or materials required for satisfactory installation and operation of all equipment, the contractor shall provide these items as directed by the architect/engineer at his own expense. The contractor will be assumed to be experienced and qualified contractor in this type of work, and to have studied the purpose and operations of the equipment suitable for the work to be done.

- (b) In the event that the specifications inadvertently fail to contain a specification for work to be done and material to be furnished, then the standard current specification or requirements of the AWWA, ASTM, ASME, NBFU or NEC shall apply. Should the above specification not apply, then the work done, equipment or material furnished, shall be as directed by the architect/engineer.
24. A maintenance bond, a statutory bond and a performance equal to 100% of bid shall be furnished, along with the contract, for approval of the Owner.
25. Engineer: Where architect/engineer is used, it shall mean WDB Engineering PLLC in Oklahoma City, Oklahoma.
26. The attached Non-Collusion Affidavit and Business Relationships Affidavit shall be completed and submitted with the bid.
27. The attached Claim or Invoice Affidavit shall be completed and submitted with each claim or invoice submitted for payment.
28. Bidder understands that the Owner reserves the right to reject any or all bids.

**29. TELEGRAPHIC MODIFICATION**

Any bidder may modify his bid by telegraphic communication at any time prior to the scheduled closing time for receipt of bids, provided such telegraphic communication is received by the Owner prior to the closing time, and provided further the Owner is satisfied that a written confirmation of the telegraphic modification over the signature of the bidder was mailed prior to the closing time. The telegraphic communication should not reveal the bid price but should provide the addition or subtraction or other modification so that the final prices or terms will not be known by the Owner until the sealed bid is opened. If written confirmation is not received within two days from the closing time, no consideration will be given to the telegraphic modification.

**30. QUALIFICATION OF BIDDER**

The Owner may make such investigation as he deems necessary to determine the ability of the bidder to perform the work, and the bidder shall furnish to the Owner all such information and data for this purpose as the Owner may request. The Owner reserves the right to reject any bid if the evidence submitted by, or investigation of such bidder fails to satisfy the Owner that such bidder is properly qualified to carry out the obligations of the contract and to complete the work contemplated therein. Conditional bids will not be accepted.

**31. BID SECURITY**

Each bid must be accompanied by cash, cashier check, certified check of the bidder, or a bid bond prepared on the form of bid bond attached hereto, duly executed by the bidder as principal and having as surety

thereon a surety company approved by the Owner, in the amount of 5% of the Bid. Such cash, checks or bid bonds will be returned to all except the three lowest within three days after the opening of bids, and the remaining caps, checks or bid bonds will be returned promptly after the Owner and the accepted bidder have executed the contract, or if no award has been made within 60 days after the date of the opening of bids, upon demand of the bidder at any time thereafter, so long as he has not been notified of the acceptance of his bid.

### **32. NOTICE OF SPECIAL CONDITIONS**

Attention is particularly called to those parts of the contract documents and specifications which deal with the following:

- (a) Inspection and testing of materials
- (b) Insurance requirements
- (c) Wage rates

### **33. LAWS AND REGULATIONS**

The bidder's attention is directed to the fact that all applicable Federal or State laws, municipal ordinances, and the rules and regulations of all authorities having jurisdiction over construction of the project shall apply to the contract throughout, and they will be deemed to be included in the contract the same as though written out in full.

### **34. METHOD OF AWARD - LOWEST QUALIFIED BIDDER**

If at the time this contract is to be awarded, the lowest base bid submitted by a responsible bidder does not exceed the amount of funds, then estimated by the Owner as available to finance the contract, the contract will be awarded on the base bid only. If such bid exceeds such amount, the Owner may reject all bids or may award the contract on the base bid combined with such deductible alternates applied in numerical order in which they are listed in the Form of Bid, as produces a net amount which is within the available funds.

### **35. OBLIGATION OF BIDDER**

At the time of the opening of bids, each bidder will be presumed to have inspected the site and to have read and to be thoroughly familiar with the plans and contract documents (including all addenda). The failure or omission of any bidder to examine any form, instrument or document shall in no way relieve any bidder from any obligation in respect of his bid.

If at the time this contract is to be awarded, the lowest bid submitted by a responsible bidder does not exceed the amount of funds then estimated by the Owner as available to finance the contract, the contract will be awarded on the bid.

If the bids, exceeds the funds available the Owner may reject all bids.

### **36. SAFETY STANDARDS AND ACCIDENT PREVENTION**

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

- (a) Comply with the safety standards provisions of applicable laws, building and construction codes and the "Manual of Accident Prevention in Construction" published by the Associated General Contractors of America, the requirements of the Occupational Safety and Health Act of 1970 (Public Law 91-596), and the requirements of Title 29 of the Code of Federal Regulations, Section 1513 as published in the "Federal Register", Volume 36, No. 75, Saturday, April 17, 1971.
- (b) Exercise every precaution at all times for the prevention of accidents and the protection of persons (including employees) and property.
- (c) Maintain at his office or other well known place at the job site, all articles, necessary for giving first aid to the injured, and shall make standing arrangements for the immediate removal to a hospital or a doctor's care of persons (including employees), who may be injured on the job site before the employer has made a standing arrangement for removal of injured persons to a hospital or a doctor's care.

### **37. CERTIFICATION OF COMPLIANCE WITH AIR AND WATER ACTS**

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

#### **37.1 COMPLIANCE WITH AIR AND WATER ACTS**

During the performance of this contract, the Contractor and all subcontractor's shall comply with the requirements of the Clean Air Act, as amended, 42 USC 1757 et seq., the Federal Water Pollution Control Act, as amended, 33 USC 1251 et seq., and the regulations of the Environmental Protection Agency with respect thereto, at 40 CFR Part 15, as amended.

In addition to the foregoing requirements, all nonexempt contractors and subcontractors shall furnish to the owner, the following:

- (a) A stipulation by the Contractor or Subcontractors, that any facility to be utilized in the performance of any nonexempt contract or subcontract, is not listed on the List of Violating Facilities issued by the Environmental Protection Agency (EPA) pursuant to 40 CFR 15.20.
- (b) Agreement by the Contractor to comply with all the requirements of Section 114 of the Clean Air Act, as amended, (42 USC 1857c-8) and Section 308 of the Federal Water Pollution control Act, as amended, (33 USC 1318) relating to inspection, monitoring, entry, reports and information, as well as all other requirements specified in said Section 114 and Section 308, and all regulations and guidelines issued thereunder.
- (c) A stipulation that as a condition of the award of the contract,

prompt notice will be given of any notification received from the Direction, Office of Federal Activities, EPA, indication that a facility utilized, or to be utilized for the contract, is under consideration to be listed on the EPA List of Violating Facilities.

- (d) Agreement by the Contractor that he will include, or cause to be included, the criteria and requirements in paragraph (1) through (4) of this section every nonexempt subcontract and requiring that the Contractor will take such action as the Government may direct as a means of enforcing such provisions.

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

**(a) LEAD-BASED PAINT HAZARDS**

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

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

**(b) USE OF EXPLOSIVES**

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

Should the contractor elect to use explosives to loosen rock or for any other purpose in the prosecution of the work, he shall obtain the required permits and the written permission of the owner before any blasting is done, but neither the issuance of said permits, the granting of said permission, or any other act, requirement, or condition contained that these specifications, any other official or employee of the Owner shall be construed as requiring or directing the use of any explosives or as accepting any liability for any injury of damages to persons or property resulting form such usage.

No blasting shall be done unless an inspector is present, and the contractor shall notify the Fire Warden and Building

Department when he is ready to begin any blasting work. All necessary precautions shall be taken by the contractor as required by the ordinances of the Owner or the laws of the State of Oklahoma relative to blasting, and the necessary provisions shall be conducted as not to endanger persons or property. Only a sufficient quantity of explosives necessary for the immediate day's work shall be kept on hand by the contractor. Storage of caps, exploders and explosives shall be done strictly in compliance with the orders of the engineer and the ordinance of the owner. The contractor shall be responsible for and shall make good any damage caused by blasting or accidental explosions.

The Contractor shall notify all owners of public utility property of intention to use explosives at least 8 hours before blasting is done, close to such property. Any supervision or direction of use of explosives by any of the utility owners shall not in any way reduce the responsibility of the Contractor or his Surety for damages that may be caused by such use.

(c) **DANGER SIGNALS AND SAFETY DEVICES**

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

**39. OBLIGATION OF BIDDER**

At the time of the opening of bids each bidder will be presumed to have inspected the site and to have read and to be thoroughly familiar with the plans and CONTRACT DOCUMENTS (including all addenda). The failure or omission of any bidder to do so will not relieve him from any obligations in respect of his bid.

- 40.** The Contractor shall be named as a purchasing agent of the Owner and as such State and Local sales tax will not be paid on materials and equipment used on this project.

## SECTION 01010

### SUMMARY OF WORK

#### Part . GENERAL

- A. SECTION INCLUDES
  - 1. Scope of Work by the Contractor
  - 2. Work by Owner.
  - 3. Contractor use of site and premises.
  - 4. Future work.
  - 5. Work Sequence.
  - 6. Owner occupancy.
- B. SCOPE OF WORK BY THE CONTRACTOR
  - 1. SCADA Upgrades and Filter Controls shall consist of the following:
    - a. The contract consists of furnishing and installing all materials for the SCADA Upgrades and Filter Controls and any appurtenances as shown in the specifications for a fully operational facility.
- C. WORK BY OWNER
  - 1. NONE
- D. CONTRACTOR USE OF SITE AND PREMISES
  - 1. Limit use of site and premises to allow:
    - a. Owner occupancy.
    - b. Work by Others.
    - c. Use of site and premises by the public will be discouraged.
- E. FUTURE WORK
  - 1. NONE
- F. WORK SEQUENCE

1. NONE

G. OWNER OCCUPANCY

1. The Owner intends to occupy a portion of the Project as soon as it is acceptable.
2. Cooperate with Owner to minimize conflict, and to facilitate Owner's operations.

## SECTION 01012

### LEGAL RELATIONS AND RESPONSIBILITY TO THE OWNER AND PUBLIC

#### PART I. GENERAL

##### A. SECTION INCLUDES

1. Laws to be observed.
2. Permits and licenses.
3. Patented devices, materials and processes.
4. Sanitary provisions.
5. Public convenience and safety.
6. Privileges of contractor in streets, alleys, or right-of-way.
7. Railway crossings.
8. Barricades and warning signs.
9. Use of explosives.
10. Protection and restoration of property.
11. Protection and preservation of land monuments and property line marks.
12. Protection of work, property and persons.
13. Supervision by contractor.
14. Responsibility for damage claims.
15. Temporary sewer and drain connections.
16. Use of a section or portion of the work.
17. Contractors responsibility for the work.
18. Personal responsibility of public officials.
19. Waiver of legal rights.
20. Contractors insurance.
21. Compensation and death liability insurance.
22. Proof and carriage of insurance.
23. Accidental breakage of publicly owned utility lines.
24. Indemnification
25. Time of Completion and Liquidated Damages
26. Suspension of Work
27. Assignments

- B. LAWS TO BE OBSERVED: The contractor shall, at all times, observe and comply with all Federal and State laws and City ordinances and regulations which in any manner affect the conduct of the work and shall observe and comply with all orders and decrees which exist at the present or which may be enacted later, of bodies or tribunals having jurisdiction or authority over the work, and no plea of misunderstanding or ignorance thereof will be considered. The contractor and his surety shall defend, indemnify and save harmless the Owner and all its officers, agents, employees and servants

against any claims or liability arising from or based on the violation of any such law, ordinance, regulation, order or decree whether by himself or his employees.

- C. **PERMITS AND LICENSES:** The contractor shall procure all permits and licenses, pay all charges or fees, and give all notices necessary and incidental to the due and lawful prosecution of the work including those established by ordinances in connection with paving removal and replacement.
- D. **PATENTED DEVICES, MATERIALS AND PROCESSES:** If the contractor is required or desires to use any design, device, material or process covered by letters, patent or copyright, he shall provide for such use by suitable legal agreement with the patentee or owner. It is mutually understood and agreed that without exception the contract prices shall include all royalties or costs arising from patents, trademarks, and copyrights in any way involved in the work. The contractor and the surety shall defend, indemnify and save harmless the Owner and all its officer, agents, and description brought for or on account of infringement or alleged infringement by reason of the use of any such patented design, device, material or process or any trademark or copyright used in connection with the work agreed to be performed under this contract, and shall indemnify the Owner for any cost, expense, or damage which it may be obliged to pay by reason of any action or infringement or alleged infringement at any time during the prosecution or after the completion of the work contracted for herein. It is mutually agreed that the Owner may give written notice of any such suit to the Contractor, and thereafter the contractor shall attend to the defense of the same and save and keep harmless the Owner from all expense, counsel fees, cost liabilities, disbursements, recoveries, judgements and executions in any manner growing out of, pertaining to, or connected therewith.
- E. **SANITARY PROVISIONS:** The Contractor shall establish and enforce among his employees such regulations in regard to cleanliness and the disposal of garbage and waste as will tend to prevent the inception and spread of contagious or infectious diseases and to effectively prevent the creation of a nuisance about the work or any property, either public or private and such regulations as are required by the Engineer shall be put into effect immediately by the contractor. The necessary sanitary conveniences for the use of laborers on the work properly secluded from public observation shall be constructed and maintained by the Contractor and their use shall be strictly enforced by the contractor. All sanitary laws and regulations of the City and the State of Oklahoma shall be strictly complied with.

- F. **PUBLIC CONVENIENCE AND SAFETY:** Materials stored about the work shall be so placed and the work shall, at all times, be so conducted as to cause no greater obstruction of the traveling public than is considered necessary by the Engineer. The contractor shall make provisions by bridges or otherwise, at all cross streets, highways, sidewalks and private driveways for the free passage of vehicles and pedestrians, provided that, where bridging is impractical or unnecessary in the opinion of the Engineer, the contractor may make arrangements satisfactory to the Engineer for the diversion of traffic and shall, at his own expense, provide all materials and perform all work necessary for the construction and maintenance of roadways and bridges for the diversion of traffic. Sidewalks must not be obstructed unless by special permission of the Engineer. Neither the materials excavated nor the construction materials or plant used in the construction of the work shall be placed so as to endanger the work or prevent free access to all fire hydrants, water valves, gas valves, manholes for electric, telephone, telegraph or traffic signs conduits, sewers or fire alarm or police call boxes in the vicinity. The Owner reserves the right to remedy any neglect on the part of the contractor as regards the public convenience and safety which may come to its attention, after twenty-four (24) hours' notice in writing to the contractor, save in cases of emergency when it shall have the right to remedy any neglect without notice and, in either case, the cost of such work done by the Owner shall be paid prior to acceptance of the project. The contractor shall notify the Traffic Control Office, the Fire Department headquarters, and Police Headquarters when any street is closed or obstructed, and when directed by the Engineer shall keep any street or streets in condition for unobstructed use by fire apparatus.

Where the contractor is required to construct temporary culverts or bridges or make other arrangements for crossings over ditches or streams, his responsibility for accidents shall include the roadway approaches as well as the structures of such crossings.

- G. **PRIVILEGES OF CONTRACTOR IN STREETS, ALLEYS, OR RIGHT-OF-WAY:** For the performance of the contract, the contractor will be permitted to occupy such portions of streets or alleys, other public places or other rights-of-way as provided for in the ordinances of the City, as shown on the plans or as permitted by the Engineer. A reasonable amount of tools, materials and equipment for construction may be stored in such space but not more than is necessary to avoid delays in the construction. Excavated and waste materials shall be piled or stacked in such a way as not to interfere with spaces that may be designated to be left free and unobstructed, nor inconvenience occupant of adjoining property.

Other contractors of the Owner may, for all purposes required by their contracts, enter upon the work and premises used by the contractors, and the contractor shall give to other contractors of the Owner, all reasonable facilities and assistance for the completion of the adjoining work. Any additional grounds desired by the contractor for his use shall be provided by him at his own expense.

- H. **RAILWAY CROSSINGS:** When the work encroaches upon the right-of-way of any railroad, the Owner will secure for the contractor all the necessary contracts, easements or authority to enter upon such right-of-way for the prosecution and completion of the work. Where railroad tracks are to be crossed, the railway company, if it elects to do so, will construct the necessary bridges, trestles, cribs or other excavation during the time of construction of the work, and the cost of construction of such bridges, trestles, cribs or other structures shall be paid to the railway company by the contractor together with the necessary cost of any supervision or other incidental expense which may required by the railway company, and all such costs shall be taken into consideration by the contractor in submitting proposals. The contractor shall take such special precautions for the safety of the work and the traveling public as may be necessary by sheeting, bracing and thoroughly supporting the sides of any excavation and supporting and protecting any adjacent structures.
- I. **BARRICADES AND WARNING SIGNS:** Where work is carried on in or adjacent to any street, alley, or public place, the contractor shall, at his own expense, furnish and erect such barricades, fences, lights, and danger signals, shall provide such watchmen and shall take such other precautionary measures for the protection of persons or property and of the work as are necessary. Barricades shall be painted white or yellow, so as to be visible at night. The paint shall be renewed as often as necessary to keep the barricades substantially covered. From sunset to sunrise the contractor shall furnish and maintain at least one (1) light at each barricade. A sufficient number of barricades shall be erected to keep vehicles from being driven on or into any work under construction. The contractor shall furnish watchmen in sufficient numbers to protect any new work. Failure to comply with this requirement will result in the Engineer shutting down the work until the contractor shall have provided the necessary protection.

The contractor will be held responsible for all damage to the work due to failure of barricades, signs, lights and watchmen to protect it, and whenever evidence of such damage is found prior to acceptance, the Engineer may order the damaged portion immediately removed and

replaced by the contractor at his expense, if, in the opinion of the Engineer such action is justified. The contractor's responsibility for the maintenance of barricades, signs and lights and for providing watchmen shall not cease until the project shall have been accepted by the Owner.

- J. USE OF EXPLOSIVES: Should the contractor elect to use explosives to loosen rock or concrete that cannot be ripped he shall obtain a permit from the Owner, City, State, any other governing body that has jurisdiction over the project site. Prior to the use of explosives the contractor shall provide insurance certification showing coverage of accidents from use of explosives and the contractor shall provide written evidence that the bonding company has been notified just prior to use of explosives. Neither the issuing of permits nor granting permission shall be construed as requiring the use of explosives or as accepting any liability for injury or damage resulting from the use of explosives. All procedures and precautions shall be in compliance with all applicable laws and regulations. Only a sufficient quantity of explosives for the immediate day's work shall be brought to the site. No blasting shall be done unless an inspector is present.
- K. PROTECTION AND RESTORATION OF PROPERTY: The contractor shall not enter upon private property for any purpose without first obtaining permission and he shall be responsible for the preservation of and shall sue every precaution necessary to prevent damage to all trees, fences, culverts, bridges, pavements, driveways, sidewalks, etc., to all water, sewer gas or electric lines or appurtenances thereof and to all other public or private property along or adjacent to the work. The contractor shall notify the proper representatives of any public service corporation, any company or any individual not less than twenty-four (24) hours in advance of any work which might damage or interfere with the operation of their or his property, along or adjacent to the work. He shall be responsible for all damage or injury to property of any character method of executing the work or materials, and said responsibility shall not be released until the work shall have been completed and accepted. When and where any direct or indirect damage or injury is done to public or private property on account of any act, omission, neglect or misconduct in the execution of the work or in consequence of the non-execution thereof on the part of the contractor, he shall restore at his expense such property to a condition similar or equal to that existing before such damage or interacted, or he shall make good such damage for injury in an acceptable manner.

In case of the failure on the part of the contractor to restore such

property or make good such damage or injury, the Engineer may, upon forty-eight (48) hours written notice, under ordinary circumstances, and without notice when a nuisance or hazardous condition results, proceed to repair, rebuild or otherwise restore such property as may be determined necessary and the cost thereof will be paid by the contractor prior to final acceptance.

- L. PROTECTION AND PRESERVATION OF LAND MONUMENTS AND PROPERTY LINE MARKS: The contractor shall protect carefully from disturbance or damage all land monuments and iron pins or other markers which establish property or street lines, provided that where such monuments or markers must, of necessity, be disturbed or removed in the performance of the contract, the contractor shall first give ample notice to the Engineer, so that he may witness or reference in such monuments or markers.
- M. PROTECTION OF WORK, PROPERTY, AND PERSONS: The CONTRACTOR will be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the WORK. The CONTRACTOR will take all necessary precautions for the safety of, will provide the necessary protection to prevent damage, injury or loss to all employees on the WORK and other persons who may be affected thereby, all the WORK and all materials or equipment to be incorporated therein, whether in storage on or off the site, and other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation or replacement in the course of construction.

The CONTRACTOR will comply with all applicable laws, ordinances, rules, regulations and orders of any public body having jurisdiction. The CONTRACTOR will erect and maintain, as required by the conditions and progress of the WORK all necessary safeguards for safety and protection. The CONTRACTOR will notify owners of adjacent utilities when prosecution of the WORK may effect them. The CONTRACTOR will remedy all damage, injury or loss to any property caused, directly or indirectly, in whole or part, by the CONTRACTOR, and SUBCONTRACTOR or anyone directly or indirectly employed by any of them or anyone of whose acts any of them be liable, except damage or loss attributable to the fault of the CONTRACT DOCUMENTS or to the acts or omissions of the OWNER, of the ENGINEER or anyone employed by either of them or anyone for whose acts either of them may be liable, and attributable, directly or indirectly, in whole or in part, to the fault or negligence of the CONTRACTOR.

In emergencies affecting the safety of persons or the WORK or property at the site or adjacent thereto, the CONTRACTOR, without special instructions or authorization from the ENGINEER or OWNER, shall act to prevent threatened damage, injury or loss. The CONTRACTOR will give the ENGINEER prompt WRITTEN NOTICE of any significant changes in the WORK or deviations from the CONTRACT DOCUMENTS caused thereby, and a CHANGE ORDER shall thereupon be issued covering the changes and deviations involved.

- N. SUPERVISION BY CONTRACTOR: The CONTRACTOR will supervise and direct the WORK. He will be solely responsible for the means, methods, techniques, sequences and procedures of construction. The CONTRACTOR will employ and maintain on the WORK a qualified supervisor or superintendent who shall have been designated in writing by the CONTRACTOR as the CONTRACTOR'S representative at the site. The supervisor shall have full authority to act on behalf of the CONTRACTOR and all communications given to the supervisor shall be as binding as if given to the CONTRACTOR. The supervisor shall be present on the site at all times as required to perform adequate supervision and coordination of the WORK.
- O. RESPONSIBILITY FOR DAMAGE CLAIMS: During the duration of the construction, the contractor and his surety shall defend, indemnify and save harmless the Owner and all its officers, agents and employees from all suits, actions or claims of any character, name and description brought for or on account of any injuries or damages received or description brought for or on account of any injuries or damages received or sustained by any person or persons or property by or from the said contractor or his employees or by or in consequence of any negligence in safeguarding the work or through the use of unacceptable materials in constructing the work or through the use of unacceptable materials in constructing the work or by or on through the use of unacceptable materials in constructing the work or by or on account of any act or omission, neglect or misconduct of the said contractor or by or on account of any claim or amounts recovered by any infringement of patent, trademark or copyright, or from any claims or amounts arising or recovered under the Workman's Compensation Law or any other law, ordinance, order or decree.

- P. TEMPORARY SEWER AND DRAIN CONNECTIONS: When existing sewers have to be taken up or removed the contractor at his own expense shall provide and maintain temporary outlets and connections for all private or public drains, sewers or sewer inlets. He shall also take care of all sewage and drainage which will be received from these drains, sewers and sewer inlets; and for this purpose he shall provide and maintain at his own expense adequate pumping facilities and temporary outlets or diversions.

He shall construct such troughs, pipes or other structures necessary and be prepared at all times to dispose of drainage and sewage received from these temporary connections until such time as the permanent connections are built and maintained under the contract, save where specified or ordered to be abandoned by the Engineer. All water or sewage shall be disposed of in a satisfactory manner so that no nuisance is created and that the work under construction will be adequately protected.

- Q. USE OF A SECTION OR PORTION OF THE WORK: Whenever in the opinion of the Engineer any portion of the work or any structure is in suitable condition, it may be put into use by the written order of the Engineer, and an acceptable letter of credit or Performance Bond has been furnished the Owner and approved by the Owner, and such usage will not be held to be in any way an acceptance of said work or structure or any part thereof or as a waiver of any of the provisions of these specifications or contract. Pending final completion and acceptance of the work, all necessary repairs or renewals on any section of the work so put into use, due to defective material or workmanship, to natural causes other than ordinary wear and tear or to the operations of the Contractor shall be performed by and at the expense of the contractor.

- R. CONTRACTOR'S RESPONSIBILITY FOR THE WORK: Until written acceptance by the Owner as provided for in these specifications, the work shall be under the charge and care of the contractor, and he shall take every necessary precaution to prevent injury or damage to the work or any part thereof by the action of the elements or from any other cause whatsoever, whether arising from the execution or from the non-execution of the work. The contractor shall rebuild, repair, restore, and make good, at his own expense, all injuries or damage to any portion of the work occasioned by any of the above caused before acceptance.

- S. PERSONAL RESPONSIBILITY OF PUBLIC OFFICIALS: In carrying out any of the provisions contained herein or in exercising any power or authority granted to him by the contract, there shall be no liability upon the Engineer or his authorized assistants, either personal or as officials of the Owner, it being understood that in such matters he acts as the agent and representative of the Owner.
- T. WAIVER OR LEGAL RIGHTS: Inspection by the Engineer or by any of his duly authorized representatives, any order, measurement, or certificate by the Engineer, any acceptance of any work or any possession taken by the Owner, shall not operate as a waiver of any provision of the contract or any power therein reserved to the Owner of any right of damages therein provided. Any waiver of any breach of contract shall not be held to be a waiver of any other or subsequent breach.
- U. CONTRACTOR'S INSURANCE: The contractor shall not commence work under this contract until he has obtained all insurance required under this specification and such insurance has been approved by the Owner, no shall the contractor allow any subcontractor to commence work on his subcontract until all similar insurance required of the subcontractor has been so obtained and approved.
- V. COMPENSATION AND DEATH LIABILITY INSURANCE: The contractor shall maintain during the life of this contract Workmen's Compensation Insurance as prescribed by the laws of the State of Oklahoma and Employer's Liability Insurance in an amount not less than that required by law for all his employees employed at the site of the project, and in case any work is sublet the contractor shall require the subcontractor similarly to provide Workmen's Compensation and Employer's Liability Insurance for all the latter's employees unless such employees are covered by the protection afforded by the contractor. In the event any class of employees engaged in hazardous work performed under this insurance heretofore mentioned, the contractor shall provide, and shall cause each subcontractor to provide adequate insurance for the protection of his employees not otherwise protected.
- W. PROOF AND CARRIAGE OF INSURANCE: The contractor shall furnish the Owner with satisfactory proof of carriage of insurance required.

- X. ACCIDENTAL BREAKAGE OF PUBLICLY-OWNED UTILITY LINES: Should the contractor accidentally or otherwise break a publicly-owned utility line, the contractor shall repair such a line as soon as possible after the break; however, under no circumstances shall the contractor leave the job site until the repairs have been made to restore service to the utility users. Should the contractor not be able to find the necessary repair fittings, materials, pipe etc., from retail supplies for the repair. The contractor will then either replace those items furnished (same brand, class, etc.) by the Owner, or pay the Owner its cost for the same. Payment for any supplies shall be made prior to final acceptance of the project by the Owner.
- Y. INDEMNIFICATION: The CONTRACTOR will indemnify and save the OWNER or the OWNER'S agents and the owner's Engineer, harmless from all claims growing out of the lawful demand of SUBCONTRACTORS, laborers, workmen, mechanics, materialmen, and furnisher of machinery and parts thereof, equipment, tools, and all supplies, incurred in the furtherance of the performance of the WORK. The CONTRACTOR shall, at the OWNER'S request, furnish satisfactory evidence that all obligations of the nature designated above have been paid, discharged, or waived. If the CONTRACTOR, fails to do so the OWNER may, after having notified the CONTRACTOR, either pay unpaid bills or withhold from the CONTRACTOR'S unpaid compensation a sum of money deemed reasonably sufficient to pay any and all such lawful claims until satisfactory evidence is furnished that all liabilities have been fully discharged whereupon payment to the CONTRACTOR shall be resumed in accordance with the terms of the CONTRACT DOCUMENTS, but in no event shall the provisions of this sentence be construed to impose any obligations upon the OWNER to either the CONTRACTOR, the CONTRACTOR'S Surety, or any third party. In paying any unpaid bills of the CONTRACTOR, any payment so made by the OWNER shall be considered as a payment made under the CONTRACT DOCUMENTS by the OWNER to the CONTRACTOR and the OWNER shall not be liable to the CONTRACTOR for any such payments made in good faith.
- Z. TIME OF COMPLETION:
1. The date of beginning and the time for completion of the WORK are essential conditions of the CONTRACT DOCUMENTS and the WORK embraced shall be commenced on a date specified in the NOTICE TO PROCEED.

2. The CONTRACTOR will proceed with the WORK at such rate of progress to insure full completion within the CONTRACT TIME. It is expressly understood and agreed, by and between the CONTRACTOR and the OWNER, that the CONTRACT TIME for the completion of the WORK described herein is a reasonable time, taking into consideration the average climatic and economic conditions and other factors prevailing in the locality of the WORK.
3. If the CONTRACTOR shall fail to complete the WORK within the CONTRACT TIME, or extension of time granted by the OWNER, then the CONTRACTOR will pay to the OWNER the amount for liquidated damages as specified in the BID for each calendar day that the CONTRACTOR shall be in default after the time stipulated in the CONTRACT DOCUMENTS.
4. The CONTRACTOR shall not be charged with liquidated damages or any excess cost when the delay in completion of the WORK is due to the following and the CONTRACTOR has promptly given WRITTEN NOTICE of such delay to the OWNER or ENGINEER:
  - a. To any preference, priority or allocation order duly issued by the OWNER.
  - b. To unforeseeable causes beyond the control and without the fault or negligence of the CONTRACTOR, including but not restricted to, acts of God, or of the public enemy, acts of the OWNER, acts of another CONTRACTOR in the performance of a contract with the OWNER, fires, floods, epidemics, quarantine restriction, strikes, freight embargoes, and abnormal and unforeseeable weather; and
  - c. To any delays of SUBCONTRACTORS occasioned by any of the causes specified in paragraphs "1" and "2" of this article.

AA. SUSPENSION OF WORK, TERMINATION, AND DELAY

1. The OWNER may suspend the WORK or any portion thereof for a period of not more than ninety days or such further time as agreed upon by the CONTRACTOR by WRITTEN NOTICE to the CONTRACTOR and the ENGINEER which shall fix the date on which WORK shall be resumed. The CONTRACTOR

will resume that WORK on the date so fixed. The CONTRACTOR will be allowed an increase in the CONTRACT PRICE or an extension of the CONTRACT TIME, or both, directly attributable to any suspension.

2. If the CONTRACTOR is adjudged a bankrupt or insolvent, or makes a general assignment for the benefit of its creditors, if a trustee or receiver is appointed for the CONTRACTOR or for any of its property, or if CONTRACTOR files a petition to take advantage of any debtor's act, or to reorganize under the bankruptcy or applicable laws, or repeatedly fails to supply sufficient skilled workmen or suitable materials able laws, or repeatedly fails to supply sufficient skilled workmen or suitable materials or equipment, or repeatedly fails to make prompt payments to SUBCONTRACTORS or for labor, materials or equipment or disregards laws, ordinances, rules, regulations or orders of any public body having jurisdiction of the WORK or disregards the authority of the ENGINEER, or otherwise violates any provision of the CONTRACTOR and take possession of the PROJECT and of all materials, equipment, tools, construction equipment and machinery thereon owned by the CONTRACTOR, and finish the WORK by whatever method the OWNER may deem expedient. In such case the CONTRACTOR shall not be entitled to receive any further payment until the WORK is finished. If the unpaid balance of the CONTRACT PRICE exceeds the direct and indirect costs of completing the PROJECT, including compensation for additional professional services, such excess SHALL BE PAID TO THE CONTRACTOR. If such costs exceed such unpaid balance, the CONTRACTOR will pay the difference to the OWNER. Such costs incurred by the OWNER will be determined by the ENGINEER and incorporated in a CHANGE ORDER.
3. Where the CONTRACTOR'S services have been so terminated by the OWNER, said termination shall not affect any right of the OWNER against the CONTRACTOR then existing or which may there after accrue. Any retention or payment of monies by the OWNER due the CONTRACTOR will not release the CONTRACTOR from compliance with the CONTRACT DOCUMENTS.
4. After ten (10) days from the delivery of a WRITTEN NOTICE to the CONTRACTOR and the ENGINEER, the OWNER may, without cause and without prejudice to any other right or remedy, elect to abandon the PROJECT and terminate the

CONTRACT. In such case the CONTRACTOR shall be paid for all WORK executed and any expense sustained plus reasonable profit.

5. If, through no act or fault of the CONTRACTOR, the WORK is suspended for a period of more than ninety (90) days by the OWNER or under an order of court or other public authority, or the ENGINEER fails to act on any request for payment within thirty (30) days of its approval and presentation, then the CONTRACTOR substantially the sum approved by the ENGINEER or awarded by arbitrators within thirty (30) days of its approval and presentation, then the CONTRACTOR may, after ten (10) days from delivery of a WRITTEN NOTICE to the OWNER and the ENGINEER terminate the CONTRACT, if the ENGINEER has failed to act on a request for payment for all WORK executed and all expenses sustained. In addition and in lieu of terminating the CONTRACT, if the ENGINEER has failed to act on a request for payment or if the OWNER has failed to make any payment as aforesaid, the CONTRACTOR may upon ten (10) days written notice to the OWNER and the ENGINEER stop the WORK until paid all amounts then due, in which event and upon resumption of the WORK, CHANGE ORDERS shall be issued for adjusting the CONTRACT PRICE or extending the CONTRACT TIME or both to compensate for the costs and delays attributable to the stoppage of the WORK.

6. If the performance of all or any portion of the WORK is suspended, delayed, or interrupted as a result of a failure of the OWNER or ENGINEER to act within the time specified in the CONTRACT DOCUMENTS, or if no time is specified, within a reasonable time, an adjustment in the CONTRACT PRICE OR AN EXTENSION of the CONTRACT TIME, or both, shall be made by CHANGE ORDER to compensate the CONTRACTOR for the costs and delays unnecessarily caused by the failure of the OWNER or ENGINEER.

- BB. ASSIGNMENTS: Neither the CONTRACTOR nor the OWNER shall sell, transfer, assign, or otherwise dispose of the CONTRACT or any portion thereof, or of any right, title or interest therein, or any obligations thereunder, without written consent of the other party.

## SECTION 01013

### INSURANCE AND INDEMNIFICATION

#### PART I. GENERAL

##### A. SECTION INCLUDES

1. Indemnification of subcontractors and personnel
2. Insurance
3. Certificate of insurance
4. Liability insurance
5. Workman's Compensation
6. Builders risk insurance
7. Indemnification of owner and engineer

B. The CONTRACTOR will indemnify and save the OWNER or the OWNER'S agents and the owner's Engineer harmless from all claims growing out of the lawful demand of SUBCONTRACTORS, laborers, workmen, mechanics, materialmen, and furnishers of machinery and parts thereof, equipment, tools, and all supplies, incurred in the furtherance of the performance of the WORK. The CONTRACTOR shall, at the OWNER'S request, furnish satisfactory evidence that all obligations of the nature designated above have been paid, discharged, or waived. If the CONTRACTOR, fails to do so the OWNER may, after having notified the CONTRACTOR, either pay unpaid bills or withhold from the CONTRACTOR'S unpaid compensation a sum of money deemed reasonably sufficient to pay any and all such lawful claims until satisfactory evidence is furnished that all liabilities have been fully discharged whereupon payment to the CONTRACTOR shall be resumed in accordance with the terms of the CONTRACT DOCUMENTS, but in no event shall the provisions of this sentence be construed to impose any obligations upon the OWNER to either the CONTRACTOR, the CONTRACTOR'S Surety, or any third party. In paying any unpaid bills of the CONTRACTOR, any payment so made by the OWNER shall be considered as a payment made under the CONTRACT DOCUMENTS by the OWNER to the CONTRACTOR and the OWNER shall not be liable to the CONTRACTOR for any such payments made in good faith.

C. The CONTRACTOR shall purchase and maintain such insurance as

will protect it from claims set forth below which may arise out of, or result from, the CONTRACTOR'S execution of the WORK, whether such execution be by the CONTRACTOR, any SUBCONTRACTOR, or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable:

1. Claims under workmen's compensation, disability benefit and other similar employee benefit acts.
2. Claims for damages because for bodily injury, occupational sickness or disease, or death of employees;
3. Claims for damages because of bodily injury, sickness or disease, or death of any person other than employees;
4. Claims for damages insured by usual personal injury liability coverage which are sustained (a) by any person as a result of an offense directly or indirectly related to the employment of such person by the CONTRACTOR, or (b) by any other person; and
5. Claims for damages because of injury to or destruction of tangible property, including loss of use resulting therefrom.

D. Certificates of Insurance acceptable to the OWNER shall be filed with the OWNER prior to commencement of the WORK. These Certificates shall contain a provision that coverages afforded under the policies will not be canceled unless at least fifteen (15) days prior WRITTEN NOTICE has been give to the OWNER.

E. The CONTRACTOR shall procure and maintain, at the CONTRACTOR'S own expense, during the CONTRACT TIME, liability insurance as hereinafter specified:

1. CONTRACTOR'S General Public Liability and Property Damage Insurance including vehicle coverage issued to the CONTRACTOR and protecting the CONTRACTOR from all claims for personal injury, including death, and all claims for destruction of or damage to property, arising out of or in connection with any operations under the CONTRACT DOCUMENTS, whether such operations be by the CONTRACTOR or by any SUBCONTRACTOR employed by the CONTRACTOR. Insurance shall be written with a limit of liability of not less than \$LLL for all damages arising out of bodily injury, including death, at any time resulting therefrom, sustained by any one person in any one accident; and a limit of liability of not less than \$PPP for all property damage sustained by any one person in any one accident; and a limit of liability of not less than \$PPP aggregate for any such damage sustained by two or more persons in any one accident.

2. The CONTRACTOR shall acquire and maintain, if applicable, Fire and Extended Coverage insurance upon the PROJECT to the full insurable value thereof for the benefit of the OWNER, the CONTRACTOR, and SUBCONTRACTORS as their interest may appear. This provision shall in no way release the CONTRACTOR or CONTRACTOR'S surety from obligations under the CONTRACTOR DOCUMENTS to fully complete the PROJECT.

F. The CONTRACTOR shall procure and maintain, at the CONTRACTOR'S own expense, during the CONTRACT TIME, in accordance with the provisions of the laws of the state in which the WORK is performed, Workmen's Compensation Insurance, including occupational disease provisions, for all of the CONTRACTOR'S employees at the site of the PROJECT and in case any WORK is sublet, the CONTRACTOR shall require such SUBCONTRACTOR similar to provide Workmen's Compensation Insurance, including occupation disease provisions for all the latter's employees unless such employees are covered by the protection afforded by the CONTRACTOR shall provide, and shall cause each SUBCONTRACTOR to provide, adequate and suitable insurance for the protection of its employees not otherwise protected.

G. The CONTRACTOR shall secure, if applicable, "All Risk" type Builder's Risk Insurance for WORK to be performed. Unless specifically authorized by the OWNER, the amount of such insurance shall not be less than the losses due to fire, explosion, hail, lightning, vandalism, malicious mischief, wind, collapse, riot, aircraft, and smoke during the CONTRACT TIME. The policy shall name as the insured the CONTRACTOR and the OWNER.

## II. INDEMNIFICATION

A. The CONTRACTOR will indemnify and hold harmless the OWNER and the OWNERS ENGINEER and their agents and employees from and against all claims, damages, losses and expenses including attorney's fees arising out of or resulting from the performance of the WORK, provided that any such claims, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or injury to or destruction of tangible property including the loss of use resulting therefrom; and is caused in whole or in part by any negligent or willful act or omission of the CONTRACTOR, and SUBCONTRACTOR, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable.

B. The CONTRACTOR will indemnify and hold harmless the OWNER

and the OWNERS ENGINEER and their agents and employees from and against any and all claims against the OWNER or the ENGINEER, or any of their agents or employees, by any employee of the CONTRACTOR, any SUBCONTRACTOR, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, the indemnification obligation shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for the CONTRACTOR or any SUBCONTRACTOR under workmen's compensation acts; disability benefit acts; disability benefit acts or other employee benefits acts.

- C. The obligation of the CONTRACTOR under this section shall not extend to the liability of the ENGINEER, its agents or employees arising out of the preparation or approval of maps, DRAWINGS, opinions, reports, surveys, CHANGE ORDERS, designs or SPECIFICATIONS.

End of Section

## SECTION 01014

### PLANS AND SPECIFICATIONS

#### PART I. GENERAL

##### A. SECTION INCLUDES

1. Drawings and specifications
2. Coordination of Plans, Specifications, and Special General Conditions.

##### B. DRAWINGS AND SPECIFICATIONS

1. The intent of the DRAWINGS and SPECIFICATIONS is that the CONTRACTOR shall furnish all labor, materials, tools, equipment, and transportation necessary for the proper execution of the WORK in accordance with the CONTRACT DOCUMENTS and all incidental work necessary to complete the PROJECT in an acceptable manner, ready for use, occupancy or operation by the OWNER.
2. In case of conflict between the DRAWINGS and SPECIFICATIONS, the SPECIFICATIONS shall govern. Figure dimensions and DRAWINGS shall govern over general DRAWINGS.
3. Any discrepancies found between the DRAWINGS and SPECIFICATIONS and site conditions or any inconsistencies or ambiguities in the DRAWINGS or SPECIFICATIONS shall be immediately reported to the ENGINEER, in writing, who shall promptly correct such inconsistencies or ambiguities in writing. WORK done by the CONTRACTOR after discovery of such discrepancies, inconsistencies or ambiguities shall be done at the CONTRACTOR'S risk.

##### C. COORDINATION OF PLANS, SPECIFICATIONS, AND SPECIAL GENERAL CONDITIONS: The plans, these specifications, Special General Conditions and all supplementary documents are intended to describe a complete work and are essential parts of the contract. A requirement occurring in any of them is binding. In case of discrepancies, figured dimensions shall govern over scaled dimensions; plans shall govern over specifications. Special General Conditions shall govern over both General and Standard Specifications, and the plans and quantities shown on the plans shall

govern over those shown on the proposal. The Contractor shall take no advance of any apparent error or omission in the plans and specifications, and the Engineer shall be permitted to make such corrections or interpretations as may be deemed necessary for the fulfillment of the intent of the plans and specifications.

In the event the contractor discovers any apparent error or discrepancy, he shall immediately call such error or discrepancy to the attention of the Engineer, and request in writing an interpretation thereof by the Engineer.

End of Section

## SECTION 01019

### CONTRACT CONSIDERATIONS

#### PART I. GENERAL

##### A. SECTION INCLUDES

1. Cash allowances.
2. Contingency allowance.
3. Inspecting and testing allowances.
4. Schedule of values.
5. Application for payment.
6. Change procedures.
7. Improper coverage of buried construction.
8. Defect assessment
9. Measurement and payment - unit prices
10. Alternatives.
11. Time of Completion and Liquidated Damages.
12. Prosecution of construction
13. Suspension of Work
14. Assignments

##### B. RELATED SECTIONS

1. Section 01600 - Material and Equipment: Product substitutions.

##### C. CASH ALLOWANCES

1. None included.

##### D. CONTINGENCY ALLOWANCE

1. None included.

E. INSPECTING AND TESTING ALLOWANCES

1. None included.

F. SCHEDULE OF VALUES

1. Submit Schedule of Values shall be provided to the engineer, in duplicate, within 20 days after date established in Notice to Proceed.
2. Include in each line item, the quantities taken from Contract plans multiplied by the unit cost to achieve the total for the item.
3. Revise schedule to list approved Change Orders, with each Application For Payment.

G. APPLICATIONS FOR PAYMENT

1. Submit one copies of the total work to date or work completed this month to WDB ENGINEERING PLLC no later than the 20th of each month and WDB ENGINEERING PLLC will prepare the claims for the contractors signature and processing.
2. The OWNER may after consultation with the ARCHITECT/ENGINEER withhold or, on account of subsequently discovered evidence, nullify the whole or part of any approved partial payment estimate to such extent as may be necessary to protect the OWNER from loss on account of:
  - a. Defective Work not remedied.
  - b. Claims filed.
  - c. Failure of CONTRACTOR to make payments properly to SUBCONTRACTORS or SUPPLIERS.
  - d. A reasonable doubt that the WORK can be completed for the balance then unpaid.
  - e. Damage to another CONTRACTOR.

f. Performance of WORK in violation of the terms of the CONTRACT DOCUMENTS.

3. Payment Period: Once each month.

4. Waiver of lien may be required.

5. Must provide a Contractors claim or invoice Affidavit which must be signed.

6. Must include an updated construction progress schedule.

#### H. CHANGE PROCEDURES

1. The Owner reserves the right to make such changes in the plans and in the character of the work and approved by the Engineer as may be necessary or desirable to insure completion of the work in the most satisfactory manner, provided such changes do not materially alter the original plans and specifications or change the general nature of the work as a whole. Such changes shall not be considered as waiving or invalidating any condition or provision of the contract.

2. The Architect/Engineer will advise of minor changes in the Work not involving an adjustment to Contract Sum/Price or Contract Time as authorized required.

3. The Architect/Engineer may issue a Proposal Request which includes a detailed description of a proposed change with supplementary or revised Drawings and specifications, a change in Contract Time for executing the change with a stipulation of any overtime work required and the period of time during which the requested price will be considered valid. Contractor will prepare and submit an estimate within 10 days.

4. The Contractor may propose changes by submitting a request for change to the Architect/Engineer, describing the proposed change and its full effect on the Work. Include a statement describing the reason for the change, and the effect on the Contract Sum/Price and Contract Time with full documentation and a statement describing the effect on Work by separate or other Contractors.

5. Unit Price Change Order: The Owner reserves the right to alter the quantities of the work to be performed or to extend or shorten the improvement at any time when and as found necessary, and the Contractor shall perform the work as altered, increased or decreased, at the contract unit prices.

For contract unit prices and quantities, the Change Order will be executed on a fixed unit price basis. For unit costs or quantities of units of work which are not pre-determined, execute Work under a negotiated Construction Change Order. Changes in Contract Sum/Price or Contract Time will be computed as specified below:

This contract is subject to Section 121, Title 61, Oklahoma Statutes, and it reads as follows:

"Section 121. CHANGE ORDERS OR ADDENDUMS. Change orders or addendums to public construction contracts of One Million dollars (\$1,000,000.00) or less shall not exceed fifteen percent (15%) cumulative total of the original contract amount. Change orders or addendums to public construction contracts of over One Million Dollars (\$1,000,000.00) shall not exceed ten percent (10%) cumulative total of the original contract amount. Any change orders or cumulative change orders which exceed these limits shall require a readvertising for bids on that part of the contract. Change orders in any amount shall be formally approved by the board, agency or entity involved and the reasons therefor recorded in the permanent records. All change orders shall contain a unit price and total for each of the following items:

- a. Itemization of all material with cost per item;
- b. Itemization of all labor with number of hours per operation and cost per hour.
- c. Itemization of insurance cost, bond cost, social security, taxes, workmen's compensation and overhead cost; and
- d. Profit for the contractor.

- e. If the construction contract was bid on a unit basis, and the change order is based exactly on the unit price or basis, such a change order will not be subject to this section. Alternates or add items bid with the original bid and contained in the awarded contract as options of the awarding agency shall not be construed as change orders under the provisions of this act."
- f. Construction Change Directive: Architect/Engineer may issue a directive, on Construction Change Directive approved and signed by the Owner, instructing the Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order. Document will describe changes in the Work, and designate method of determining any change in Contract Sum/Price or Contract Time. Promptly execute the change.
- g. Time and Material or Force Account Change Order: Submit itemized account and supporting data after completion of change, within time limits indicated in the Conditions of the Contract. Architect/Engineer will determine the change allowable in Contract Sum/Price and Contract Time as provided in the Contract Documents.
- h. Maintain detailed records of work done on Time and Material or Force Account basis. Provide full information required for evaluation of proposed changes, and to substantiate costs for changes in the Work.
- i. Change Order Forms: Shall be on a form provided by the Owner.
- j. Execution of Change Orders: Architect/Engineer will issue Change Orders for signatures of parties as provided in the Conditions of the Contract.

I. ALTERNATIVES

- 1. Accepted Alternatives will be identified in Owner-Contractor Agreement.
- 2. Coordinate related work and modify surrounding work as required.

3. Schedule of Alternatives: AAA  
J. TIME FOR COMPLETION AND LIQUIDATED DAMAGES

1. The date of beginning and the time for completion of the WORK are essential conditions of the CONTRACT DOCUMENTS and the WORK embraced shall be commenced on a date specified in the NOTICE TO PROCEED.
2. The CONTRACTOR will proceed with the WORK at such rate of progress to insure full completion within the CONTRACT TIME. It is expressly understood and agreed, by and between the CONTRACTOR and the OWNER, that the CONTRACT TIME for the completion of the WORK described herein is a reasonable time, taking into consideration the average climatic and economic conditions and other factors prevailing in the locality of the WORK. It is further understood that the proposed time may require more than one set of equipment , crew or more than the normal 8 hours per day or 5 days per week.
3. If the CONTRACTOR shall fail to complete the WORK within the CONTRACT TIME, or extension of time granted by the OWNER, then the CONTRACTOR will pay to the OWNER the amount for liquidated damages as specified in the BID for each calendar day that the CONTRACTOR shall be in default after the time stipulated in the CONTRACT DOCUMENTS.
4. The CONTRACTOR shall not be charged with liquidated damages or any excess cost when the delay in completion of the WORK is due to the following and the CONTRACTOR has promptly given WRITTEN NOTICE of such delay to the OWNER or ENGINEER:
  - a. To any preference, priority or allocation order duly issued by the OWNER.
  - b. To unforeseeable causes beyond the control and without the fault or negligence of the CONTRACTOR, including but not restricted to, acts of God, or of the public enemy, acts of the OWNER, acts of another CONTRACTOR in the performance of a contract with the OWNER, fires, floods, epidemics, quarantine restriction, strikes, freight embargoes, and abnormal and unforeseeable weather; and
  - c. To any delays of SUBCONTRACTORS occasioned by

any of the causes specified in paragraphs "a" and "b" of this article.

K. PROSECUTION

1. PROSECUTION OF WORK: The sequence of all construction operations shall at all times be as approved by the Engineer. Should the prosecution of the work for any reason be discontinued by the contractor, he shall notify the Engineer at least twenty-four (24) hours in advance of resuming operations.
2. LIMITATIONS OF OPERATIONS: The contractor shall conduct his work so as to create a minimum amount of inconvenience to the public. At any time when in the judgement of the Engineer, the contractor has obstructed, closed or is carrying on operations on a greater portion of the street or public way than is necessary for the proper execution of the work, the Engineer may require the contractor to finish the sections on which work is in progress before work is started on any additional section.
3. CHARACTER OF WORKMEN AND EQUIPMENT: The contractor shall employ such superintendents, foremen and workmen as are careful and competent and the Engineer may demand the dismissal of any person or person employed by the contractor, in, about or in the work who shall misconduct himself or be incompetent or negligent in the proper performance of his or their duties or neglect or refuse to comply with the directions of the Engineer, and such person or persons shall not be employed again thereon without the written consent of the Engineer. Should the contractor continue to employ or again employ such person or persons without the written consent of the Engineer then the Engineer may withhold all estimates which are or may become due or may suspend the work until such orders are complied with.

All workmen shall have sufficient skill and experience to properly perform the work assigned them. All workmen engaged on special work or skilled work or in any trade shall have sufficient experience in such work to properly and satisfactorily perform it and operate the equipment involved, and shall make due and proper effort to execute the work in the manner prescribed in these specifications. Otherwise, the Engineer may take action as above prescribed.

The contractor shall furnish such equipment as is considered necessary for the prosecution of the work in an acceptable manner. All equipment, tools and machinery used for handling materials and executing any part of the work shall be subject to the approval for the Engineer and shall be maintained in a satisfactory working condition. Equipment on any portion of the work shall be such that no injury to the work or adjacent property will result from its use.

4. DAY'S WORK: WORKING HOURS: Work shall be done only during the regular and commonly accepted and prescribed working hours. No work shall be done nights, Saturdays, Sundays, or regular holidays unless a notification is given to the Engineer in writing.
5. TEMPORARY SUSPENSIONS: The Engineer shall have the authority to suspend the work wholly or in part for such period or periods as he may deem necessary, due to unsuitable weather or when such conditions as are considered unfavorable for the suitable prosecution of the work.

It should become necessary to stop work for an indefinite period, the contractor shall store all materials in such manner that they will not obstruct or impede the traveling public unnecessarily nor become damaged in any way, and he shall take every precaution to prevent damage or deterioration of the work performed, and shall provide suitable drainage about the work and erect temporary structures where necessary.

The contractor shall not suspend work without written authority from the Engineer and shall proceed with the work promptly when notified by the Engineer to resume operations.

- L. SUSPENSION OF WORK, TERMINATION, AND DELAY:  
The OWNER may suspend the WORK or any portion thereof for a period of not more than ninety days or such further time as agreed upon by the CONTRACTOR by WRITTEN NOTICE to the CONTRACTOR and the ENGINEER which shall fix the date on which WORK shall be resumed. The CONTRACTOR will resume that WORK on the date so fixed. The CONTRACTOR will be allowed an increase in the CONTRACT PRICE or an extension of the CONTRACT TIME, or both, directly attributable to any suspension.

1. If the CONTRACTOR is adjudged a bankrupt or insolvent, or makes a general assignment for the benefit of its creditors, if a trustee or receiver is appointed for the CONTRACTOR or for any of its property, or if CONTRACTOR files a petition to take advantage of any debtor's act, or to reorganize under the bankruptcy or applicable laws, or repeatedly fails to supply sufficient skilled workmen or suitable materials or equipment, or repeatedly fails to make prompt payments to SUBCONTRACTORS or for labor, materials or equipment or disregards laws, ordinances, rules, regulations or orders of any public body having jurisdiction of the WORK or disregards the authority of the ENGINEER, or otherwise violates any provision of the CONTRACT the Owner may take possession of the PROJECT and of all materials, equipment, tools, construction equipment and machinery thereon owned by the CONTRACTOR, and finish the WORK by whatever method the OWNER may deem expedient. In such case the CONTRACTOR shall not be entitled to receive any further payment until the WORK is finished. If the unpaid balance of the CONTRACT PRICE exceeds the direct and indirect costs of completing the PROJECT, including compensation for additional professional services, such excess SHALL BE PAID TO THE CONTRACTOR. If such costs exceed such unpaid balance, the CONTRACTOR will pay the difference to the OWNER. Such costs incurred by the OWNER will be determined by the ENGINEER and incorporated in a CHANGE ORDER.
2. Where the CONTRACTOR'S services have been so terminated by the OWNER, said termination shall not affect any right of the OWNER against the CONTRACTOR then existing or which may there after accrue. Any retention or payment of monies by the OWNER due the CONTRACTOR will not release the CONTRACTOR from compliance with the CONTRACT DOCUMENTS.
3. After ten (10) days from the delivery of a WRITTEN NOTICE to the CONTRACTOR and the ENGINEER, the OWNER may, without cause and without prejudice to any other right or remedy, elect to abandon the PROJECT and terminate the CONTRACT. In such case the CONTRACTOR shall be paid for all WORK executed and any expense sustained plus reasonable profit.

4. If, through no act or fault of the CONTRACTOR, the WORK is suspended for a period of more than ninety (90) days by the OWNER or under an order of court or other public authority, or the ENGINEER fails to act on any request for payment within thirty (30) days of its presentation, or the OWNER fails to pay the CONTRACTOR substantially the sum approved by the ENGINEER or awarded by arbitrators within 30 days of its approval and presentation, then the CONTRACTOR may after ten (10) days from delivery of a WRITTEN NOTICE to the OWNER and the ENGINEER terminate the CONTRACT, and recover from the OWNER payment for all WORK executed and all expenses sustained. In addition and in lieu of terminating the CONTRACT, if the ENGINEER has failed to act on a request for payment or if the OWNER has failed to make any payment as aforesaid, the CONTRACTOR may upon ten (10) days written notice to the OWNER and the ENGINEER stop the WORK until paid all amounts then due, in which event and upon resumption of the WORK, CHANGE ORDERS shall be issued for adjusting the CONTRACT PRICE or extending the CONTRACT TIME or both to compensate for the costs and delays attributable to the stoppage of the WORK.
5. If the performance of all or any portion of the WORK is suspended, delayed, or interrupted as a result of a failure of the OWNER or ENGINEER to act within the time specified in the CONTRACT DOCUMENTS, or if no time is specified, within a reasonable time, an adjustment in the CONTRACT PRICE OR AN EXTENSION of the CONTRACT TIME, or both, shall be made by CHANGE ORDER to compensate the CONTRACTOR for the costs and delays unnecessarily caused by the failure of the OWNER or ENGINEER.

M. ASSIGNMENTS:

Neither the CONTRACTOR nor the OWNER shall sell, transfer, assign, or otherwise dispose of the CONTRACT or any portion thereof, or of any right, title or interest therein, or any obligations thereunder, without written consent of the other party.

PART II. PRODUCTS

Not Used.

PART III. EXECUTION

Not Used.

END OF SECTION

## SECTION 01025

### MEASUREMENT AND PAYMENT

#### PART I. GENERAL

##### A. SECTION INCLUDES

1. Measurement and payment criteria applicable to portions of the Work performed under a unit price payment method.
2. Defect assessment and non-payment for rejected work.

##### B. AUTHORITY

1. Measurement methods delineated in the individual specification sections complement the criteria of this section. In the event of conflict, the requirements of the individual specification section govern.
2. The Contractor shall take all measurements and compute quantities. The Resident Inspector or the Owner will verify measurements and quantities.

##### C. UNIT QUANTITIES SPECIFIED

1. Quantities indicated in the Bid Form are for bidding and contract purposes only. Quantities and measurements supplied or placed in the Work and verified by the Owner or the Architect/Engineer determine payment.
2. If the actual Work requires more or fewer quantities than those quantities indicated, provide the required quantities at the unit sum/prices contracted.
3. If the actual Work requires a 25 percent or greater change in quantity than those quantities indicated, the Owner or Contractor may claim for a Contract Price adjustment.

##### D. MEASUREMENT OF QUANTITIES

1. Authority: Measurement methods are delineated in the individual specification sections.
2. Take measurements and compute quantities. The resident inspector will verify measurements and quantities.

3. Unit Quantities: Quantities and measurements indicated in the Bid Form are for contract purposes only. Quantities and measurements supplied or placed in the Work shall determine payment.
4. Measurement Devices:
  - a. Weigh Scales: Shall be inspected, tested and certified by the applicable state Weights and Measures department within the past year.
  - b. Platform Scales: Of sufficient size and capacity to accommodate the conveying vehicle.
  - c. Metering Devices: Shall be inspected, tested and certified by the applicable State Department within the past year or be approved by the owner..
5. Measurement by Weight: Concrete reinforcing steel, rolled or formed steel or other metal shapes will be measured by handbook weights. Welded assemblies will be measured by handbook or scale weight.
6. Measurement by Volume: Measured by cubic dimension using mean length, width and height or thickness.
7. Measurement by Area: Measured by square dimension using mean length and width or radius.
8. Linear Measurement: Measured by linear dimension, at the item centerline or mean chord and be horizontal measurements.
9. Stipulated Sum/Price Measurement: Items measured by weight, volume, area, or linear means or combination, as appropriate, as a completed item or unit of the Work.

E. PAYMENT

1. Payment Includes: Full compensation for required labor, products, tools, equipment, plant and facilities, transportation, services and incidentals; erection, application or installation of an item of the Work; overhead and profit.

2. Final payment for Work governed by unit prices will be made on the basis of the actual measurements and quantities accepted by the Architect/Engineer multiplied by the unit sum/price for Work which is incorporated in or made necessary by the Work.

F. DEFECT ASSESSMENT

1. Replace the Work, or portions of the Work, not conforming to specified requirements.
2. If, in the opinion of the Architect/Engineer or Owner, it is not practical to remove and replace the Work, the Architect/Engineer or Owner will direct one of the following remedies:
3.
  - a. The defective Work may remain, but the unit sum/price will be adjusted to a new reduced sum/price at the discretion of the Architect/Engineer or Owner.
  - b. The defective Work will be partially repaired to the instructions of the Architect/Engineer, and the unit sum/price will be adjusted to a new sum/price at the discretion of the Owner.
4. The individual specification sections may modify these options or may identify a specific formula or percentage sum/price reduction.
5. The authority of the Architect/Engineer or Owner to assess the defect and identify payment adjustment, is final.

G. NON-PAYMENT FOR REJECTED PRODUCTS

1. Payment will not be made for any of the following:
  - a. Products wasted or disposed of in a manner that is not acceptable.
  - b. Products determined as unacceptable before or after placement.
  - c. Products not completely unloaded from the transporting vehicle.
  - d. Products placed beyond the lines and levels of the required Work.
  - e. Products remaining on hand after completion of the Work.
  - f. Loading, hauling, and disposing of rejected Products.

H. SCHEDULE OF UNIT PRICES

1. See the Bid proposal.

PART II. PRODUCTS

Not Used.

PART III. EXECUTION

Not Used.

END OF SECTION

## SECTION 01039

### COORDINATION AND MEETINGS

#### PART I. GENERAL

##### A. SECTION INCLUDES

1. Coordination and project conditions.
2. Field engineering.
3. Preconstruction meeting.
4. Site mobilization meeting.
5. Progress meetings.
6. Pre-installation meetings.
7. Cooperation of Contractor

##### B. COORDINATION AND PROJECT CONDITIONS: The Contractor shall be responsible for the following:

1. Coordinate scheduling, submittals, and Work of the various sections of the Project Manual to ensure efficient and orderly sequence of installation of interdependent construction elements, with provisions for accommodating items installed later.
2. Verify utility requirements and characteristics of operating equipment are compatible with building utilities. Coordinate work of various sections having interdependent responsibilities for installing, connecting to, and placing in service, such equipment.
3. Coordinate space requirements, supports, and installation of mechanical and electrical Work which are indicated diagrammatically on Drawings. Follow routing shown for pipes, ducts, and conduit, as closely as practicable; place runs parallel with lines of building. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance, and for repairs.

4. In finished areas except as otherwise indicated, conceal pipes, ducts, and wiring within the construction. Coordinate locations of fixtures and outlets with finish elements.
5. Coordinate completion and clean-up of Work of separate sections in preparation for Substantial Completion and for portions of Work designated for Owner's partial occupancy.
6. After Owner occupancy of premises, coordinate access to site for correction of defective Work and Work not in accordance with Contract Documents, to minimize disruption of Owner's activities.

C. FIELD ENGINEERING:

1. The Contractor shall employ a Land Surveyor registered in the State of Oklahoma and acceptable to Architect/Engineer for layout of all construction.
2. The Contractor shall locate and protect survey control and reference points.
3. Control datum for the surveys will be established by the Owner.
4. The Contractor shall verify set-backs and easements; confirm drawing dimensions and elevations.
5. The Contractor shall provide field engineering services. Establish elevations, lines, and levels, utilizing recognized engineering survey practices.

D. PRECONSTRUCTION MEETING

1. Architect/Engineer will schedule a meeting after Notice of Award.
2. Attendance Required: Owner, Architect/Engineer, Construction Manager and Contractor.
3. Agenda:
  - a. Execution of Owner-Contractor Agreement.
  - b. Submission of executed bonds and insurance certificates.
  - c. Distribution of Contract Documents.
  - d. Submission of [list of Subcontractors, list of Products,

- schedule of values, and progress schedule.
  - e. Designation of personnel representing the parties in Contract, and the Architect/Engineer.
  - f. Procedures and processing of field decisions, submittals, substitutions, applications for payments, proposal request, Change Orders, and Contract closeout procedures.
  - g. Scheduling.
  - h. Scheduling activities of a Geotechnical Engineer.
- 4. The Contractor shall record minutes and distribute copies within three days after meeting to participants, with copies to Architect/Engineer, Owner, participants, and those affected by decisions made.

#### E. SITE MOBILIZATION MEETING

- 1. Architect/Engineer Owner will schedule a meeting at the Project site prior to Contractor occupancy. This meeting will be held right after the Preconstruction Meeting.
- 2. Attendance Required: Owner, Architect/Engineer, Special Consultants, Contractor, Contractor's Superintendent, and major Subcontractors.
- 3. Agenda:
  - a. Use of premises by Owner and Contractor.
  - b. Owner's requirements and partial occupancy.
  - c. Construction facilities and controls provided by Owner.
  - d. Temporary utilities as required in SECTION 01500..
  - e. Survey and building layout.
  - f. Security and housekeeping procedures.
  - g. Schedules.
  - h. Application for payment procedures.
  - i. Procedures for testing.
  - j. Procedures for maintaining record documents.
  - k. Requirements for start-up of equipment.
  - l. Inspection and acceptance of equipment put into service during construction period.
- 4. The Contractor shall record minutes and distribute copies within three days after meeting to participants, with copies to all participants, and those affected by decisions made.

F.        PROGRESS MEETINGS

1.        The Architect/Engineer shall schedule, when he deems necessary or when the Contractor requests a meeting, and administer meetings throughout progress of the Work.
2.        Architect/Engineer will make arrangements for meetings, prepare agenda with copies for participants, preside at meetings.
3.        Attendance Required: Job superintendent, major Subcontractors and suppliers, Owner, Architect/Engineer, as appropriate to agenda topics for each meeting.
4.        Agenda:
  - a.        Review minutes of previous meetings.
  - b.        Review of Work progress.
  - c.        Field observations, problems, and decisions.
  - d.        Identification of problems which impede planned progress.
  - e.        Review of submittals schedule and status of submittals.
  - f.        Review of off-site fabrication and delivery schedules.
  - g.        Maintenance of progress schedule.
  - h.        Corrective measures to regain projected schedules.
  - i.        Planned progress during succeeding work period.
  - j.        Coordination of projected progress.
  - k.        Maintenance of quality and work standards.
  - l.        Effect of proposed changes on progress schedule and coordination.
  - m.        Other business relating to Work.
5.        The Contractor shall record minutes and distribute copies within three days after meeting to all participants, and those affected by decisions made.

G.        PRE-INSTALLATION MEETING

1.        When required, in individual specification sections, convene a pre-installation meeting at the site prior to commencing work of the section.
2.        Require attendance of parties directly affecting, or affected by, work of the specific section.
3.        Notify Architect/Engineer four days in advance of meeting date.

4. Prepare agenda and preside at meeting:
  - a. Review conditions of installation, preparation and installation procedures.
  - b. Review coordination with related work.
5. The Contractor shall record minutes and distribute copies within three days after meeting to all participants and those affected by decisions made.

#### H. COOPERATION OF CONTRACTOR:

The contractor shall give to the work the consistent attention necessary to facilitate the progress thereof, and he shall cooperate with the Engineer and his inspectors and with other contractors in every way possible. The contractor shall provide a competent superintendent on the work at all times who is fully authorized as his agent on the work. Such superintendent shall be capable of reading and thoroughly understanding the plans and specifications and shall receive and fulfill instructions from the Engineer or his authorized representative.

The contractor and his superintendent shall provide all reasonable facilities to enable the Engineer and his inspectors to inspect the workmanship and materials entering into the project.

#### PART II. PRODUCTS

None required

#### PART III. EXECUTION

##### A. CUTTING AND PATCHING

1. Employ skilled and experienced installer to perform cutting and patching.
2. Submit written request in advance of cutting or altering elements which affect:
  - a. Structural integrity of element.
  - b. Integrity of weather-exposed or moisture-resistant elements.
  - c. Efficiency, maintenance, or safety of element.
  - d. Visual qualities of sight exposed elements.
  - e. Work of Owner or separate contractor.

3. Execute cutting, fitting, and patching including excavation and fill, to complete Work, and to:
  - a. Fit the several parts together, to integrate with other Work.
  - b. Uncover Work to install or correct ill-timed Work.
  - c. Remove and replace defective and non-conforming Work.
  - d. Remove samples of installed Work for testing.
  - e. Provide openings in elements of Work for penetrations of mechanical and electrical Work.
4. Execute work by methods to avoid damage to other Work, and which will provide proper surfaces to receive patching and finishing.
5. Cut masonry and concrete materials using masonry saw or core drill.
6. Restore Work with new Products in accordance with requirements of Contract Documents.
7. Fit Work tight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.
8. Maintain integrity of wall, ceiling, or floor construction; completely seal voids.
9. Refinish surfaces to match adjacent finishes. For continuous surfaces, refinish to nearest intersection; for an assembly, refinish entire unit.
10. Identify hazardous substances or conditions exposed during the Work to the Architect/Engineer for decision or remedy.

END OF SECTION

## SECTION 01090

### REFERENCE STANDARDS AND DEFINITIONS

#### PART I. GENERAL

##### A. SECTION INCLUDES

1. Quality assurance.
2. Definitions

##### B. RELATED SECTIONS

Document General Conditions

##### C. QUALITY ASSURANCE

1. For Products or workmanship specified by association, trade, or other consensus standards, the Contractor shall comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable codes.
2. The Contractor shall conform to reference standard by date of issue current on date for receiving bids.
3. The Contractor shall obtain copies of standards when required by the Contract Documents.
4. The Contractor shall maintain a copy at project site during submittals, planning, and progress of the specific work, until Substantial Completion.
5. Should specified reference standards conflict with Contract Documents, the Contractor shall request clarification from the Architect/Engineer before proceeding.
6. Neither the contractual relationship, duties, and responsibilities of the parties in Contract nor those of the Architect/Engineer shall be altered by the Contract Documents by mention or inference otherwise in any reference document.

## D. DEFINITIONS

Wherever the words, forms or phrases herein defined, or pronouns used in their stead, occur in these specifications, in the contract or in the advertisement or any document or instruments herein contemplated or to which these specifications apply, the intent and meaning shall be interpreted as follows:

|               |                                                                                                                                                                                                                                                                               |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| A.A.S.H.O.    | The American Association of State Highway Officials.                                                                                                                                                                                                                          |
| Addenda       | Written or graphic instruments issued prior to the execution of the Agreement which modify or interpret the CONTRACT DOCUMENTS, DRAWINGS and SPECIFICATIONS, by additions, deletions, clarifications, or corrections.                                                         |
| Advertisement | All of the legal publications pertaining to the work contemplated or under contract.                                                                                                                                                                                          |
| A.N.S.I.      | American National Standards Institute                                                                                                                                                                                                                                         |
| A.S.T.M.      | The American Society for Testing and Materials                                                                                                                                                                                                                                |
| Award         | The decision of the Owner to accept the proposal of the lowest and best bidder for the work, subject to the execution and approval of a satisfactory contract and the required bonds therefor, and to such other conditions as may be specified or otherwise required by law. |
| A.W.W.A.      | American Water Works Association                                                                                                                                                                                                                                              |
| Bid           | The offer or proposal of the BIDDER submitted on the prescribed form setting forth the prices for the WORK to be performed.                                                                                                                                                   |
| Bidder        | Any person or persons, partnership, company, firm or corporation acting directly or through a duly authorized representative submitting a proposal for the work contemplated.                                                                                                 |
| Bonds         | Bid, Performance, and Payment (Statutory) Bonds and other instruments of security furnished by the CONTRACTOR and the CONTRACTOR'S surety in accordance with the CONTRACT DOCUMENTS.                                                                                          |
| City          | The City or Town in which the construction work is                                                                                                                                                                                                                            |

being preformed.

|                           |                                                                                                                                                                                                                                                                                                               |
|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Change Order              | A written order to the CONTRACTOR authorizing an addition, deletion, or revision in the WORK within the general scope of the CONTRACT DOCUMENTS, or authorizing an adjustment in the CONTRACT PRICE or CONTRACT TIME.                                                                                         |
| Contract                  | The written agreement covering the performance of the work. The contract includes the Advertisement and Notice to Contractors, Proposal, Bonds, Specifications, including Special Conditions, Addenda, Plans or working drawings and any supplemental agreement pertaining to the work or materials therefor. |
| Contract Documents        | The contract, including ADVERTISEMENT for BIDS, INFORMATION for BIDDERS, BID, BID BOND, AGREEMENT, PAYMENT (STATUTORY) BOND, PERFORMANCE BOND, NOTICE OF AWARD, NOTICE TO PROCEED, CHANGE ORDER, DRAWINGS, SPECIFICATIONS, and ADDENDA.                                                                       |
| Contract Price            | The total monies payable to the CONTRACTOR under the terms and conditions of the CONTRACT DOCUMENTS.                                                                                                                                                                                                          |
| Contractor                | The person or persons, partnership, company, firm, or corporation entering into contract for the execution of the work, acting directly or through a duly authorized representative.                                                                                                                          |
| Contract Time             | The number of calendar days stated in the CONTRACT DOCUMENTS for the completion of the WORK.                                                                                                                                                                                                                  |
| Construction Bond         | The approved form of security furnished by the Contractor and his Surety as a guarantee of good faith on the part of the Contractor to execute the work in accordance with the plans, specifications, and terms of the contract.                                                                              |
| Council                   | The Council for the City or Town in which the Construction work is being preformed.                                                                                                                                                                                                                           |
| Direct of Water Utilities | Acting within the scope of duly delegated authority.                                                                                                                                                                                                                                                          |

|                     |                                                                                                                                                                                                                                                    |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Director            | The Director of Water Utilities or his delegated authority.                                                                                                                                                                                        |
| Drawings            | The parts of the CONTRACT DOCUMENTS which show the characteristics and scope of the WORK to be performed and which have been prepared or approved by the ENGINEER.                                                                                 |
| Engineer            | Representative of WDB ENGINEERING PLLC.                                                                                                                                                                                                            |
| Field Order         | A written order effecting a change in the WORK not involving an adjustment in the CONTRACT PRICE or an extension of the CONTRACT TIME, issued by the ENGINEER to the CONTRACTOR during construction.                                               |
| Furnish             | To supply.                                                                                                                                                                                                                                         |
| Maintenance Bond    | The approved form of security furnished by the Contractor and his surety as a guarantee that he will maintain the work constructed by him in good condition for the period of time required.                                                       |
| Chairman            | The Chairman of the City or Town in which the construction is being preformed.                                                                                                                                                                     |
| Municipal Counselor | The Municipal Counselor of the City or Town in which the construction is being preformed, or his duly authorized assistants or agents.                                                                                                             |
| Notice to Proceed   | Written communication issued by the OWNER to the CONTRACTOR authorizing him/her to proceed with the WORK and establishing the date for commencement of the WORK.                                                                                   |
| Notice of Award     | The written notice by OWNER to the apparent successful bidder stating that upon compliance by the apparent successful bidder with the conditions precedent enumerated therein, with the time specified, OWNER will sign and deliver the Agreement. |
| Owner               | A public or quasi-public body or authority, corporation, association, partnership, or an individual for whom the                                                                                                                                   |

WORK is to be performed.

|                                 |                                                                                                                                                                                                                                                                                                                                                       |
|---------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Plan or Plans                   | All of the drawings pertaining to the contract and made a part thereof, including such supplementary drawings as the Engineer may issue from time to time, in order to lucidate other drawings or for the purpose of showing changes in the work as authorized under the Section, "Changes and Alteration", or for showing details not shown thereon. |
| Project                         | The undertaking to be performed as provided in the CONTRACT DOCUMENTS.                                                                                                                                                                                                                                                                                |
| Provide                         | To furnish and erect or install.                                                                                                                                                                                                                                                                                                                      |
| Resident Project Representative | The authorized representative of the OWNER who is assigned to the PROJECT site or any part thereof.                                                                                                                                                                                                                                                   |
| Shop Drawings                   | All drawings, diagrams, illustrations, brochures, schedules and other data which are prepared by the CONTRACTOR, a SUBCONTRACTOR, manufacturer SUPPLIER or distributor, which illustrate how specific portions of the WORK shall be fabricated or installed.                                                                                          |
| Special General Conditions      | The special clauses setting forth conditions or requirements peculiar to the specific project involved, supplementing the <u>General Conditions</u> and taking precedence over any conditions or requirements of the <u>General Conditions</u> with which they are in conflict.                                                                       |
| Specifications                  | The directions, provisions and requirements contained herein, together with the "Special Conditions" supplemental hereto, pertaining to the method and manner of performing the work or to the quantities or qualities of materials to be furnished under the contract.                                                                               |
| Statutory Bond                  | The approved form of Surety set up and furnished by the contractor and his surety as a guarantee that he will pay, in full, all bills and accounts for materials and labor used in the construction of the work, as provided by law.                                                                                                                  |
| Subcontractor                   | An individual, firm or corporation having a direct contract with CONTRACTOR or with any other                                                                                                                                                                                                                                                         |

SUBCONTRACTOR for the performance of a part of the WORK at the site.

Substantial  
Completion

That date certified by the ENGINEER when the construction of the PROJECT or a specified part thereof is sufficiently completed, in accordance with the CONTRACT DOCUMENTS, so that the PROJECT or specified part can be utilized for the purposes for which it is intended.

Supplemental  
General Conditions

Modifications to General Conditions required by a FEDERAL AGENCY for participation in the PROJECT and approved by the agency in writing prior to including in the CONTRACT DOCUMENTS, or such requirements that may be imposed by applicable state laws.

Supplier

Any person or organization who supplies materials or equipment for the WORK, including that fabricated to a special design, but who does not perform labor at the site.

Surety of  
Sureties

The corporate body which is bound by such bonds as are required with and for the contractor, and engages to be responsible for the entire and satisfactory fulfillment of the contract and for any and all requirements as set out in the specifications, contract or plans.

Work

All labor necessary to produce the construction required by the CONTRACT DOCUMENTS, and all materials and equipment incorporated or to be incorporated in the PROJECT.

Working Day

Any day, other than a legal holiday, Saturday or Sunday, on which the approximate normal working forces of the Contractor may proceed with regular work in a manner satisfactory to the Engineer, for at least six (6) hours, toward completion of the work, unless work be suspended for causes beyond the contractor's forces do engage in regular work will be considered as working days.

Written  
Notice

Any Notice to any party of the Agreement relative to

any part of this Agreement in writing and considered delivered and the service thereof completed, when posted by certified or registered mail to the said party at their last given address, or delivered in person to said party or their authorized representative on the WORK.

Resolution

Establishing a contractor's pre-qualification Board; adopting standards and procedures therefor; and requiring board examinations and approval of bidders or public improvement work.

Owner

The person(s), organization, authority, city, town, developer or anyone paying for this contract.

PART II. PRODUCTS

Not Used.

PART III. EXECUTION

Not Used.

END OF SECTION

## SECTION 01300

### SUBMITTALS

#### PART I. GENERAL

##### A. SECTION INCLUDES

1. Submittal procedures.
2. Construction progress schedules.
3. Proposed Products list.
4. Product Data.
5. Shop Drawings.
6. Samples.
7. Design data.
8. Test reports.
9. Certificates.
10. Manufacturer's instructions.
11. Manufacturer's field reports.
12. Erection drawings.

##### B. RELATED SECTIONS

1. Section 01400 - Quality Control: Manufacturers' field services and reports.
2. Section 01700 - Contract Closeout: Contract warranties, bonds, manufacturers' certificates, and required closeout submittals.

##### C. REFERENCES

1. AGC (Associated General Contractors of America) publication "The Use of CPM in Construction - A Manual for General Contractors and the Construction Industry".

- D. SUBMITTAL PROCEDURES: The Contractor shall:
1. Transmit each submittal to the Architect/Engineer.
  2. Sequentially number the transmittal forms. Revise submittals with original number and a sequential alphabetic suffix.
  3. Identify Project, Contractor, Subcontractor or supplier; pertinent drawing and detail number, and specification section number, as appropriate.
  4. Apply Contractor's stamp, signed or initialed certifying that review, approval, verification of Products required, field dimensions, adjacent construction Work, and coordination of information is in accordance with the requirements of the Work and Contract Documents.
  5. Schedule submittals to expedite the Project, and deliver to Architect/Engineer at WDB ENGINEERING PLLC ==. Coordinate submission of related items.
  6. For each submittal for review, allow 15 days excluding delivery time to and from the contractor.
  7. Identify variations from Contract Documents and Product or system limitations which may be detrimental to successful performance of the completed Work.
  8. Provide space for Contractor and Architect/Engineer review stamps.
  9. When revised for resubmission, identify all changes made since previous submission.
  10. Distribute copies of reviewed submittals as appropriate. Instruct parties to promptly report any inability to comply with requirements.
  11. Submittals not requested will not be recognized or processed.

E. CONSTRUCTION PROGRESS SCHEDULES

1. Submit initial schedule in duplicate within 15 days after date established in Notice to Proceed.
2. Revise and resubmit as required.

3. Submit revised schedules with each Application for Payment, identifying changes since previous version.
4. Submit a computer generated or horizontal bar chart with separate line for each major portion of Work or operation, identifying first work day of each week.

F. PROPOSED PRODUCTS LIST

1. Within 15 days after date of the Notice to Proceed, submit list of major products proposed for use, with name of manufacturer, trade name, and model number of each product.
2. For products specified only by reference standards, give manufacturer, trade name, model or catalog designation, and reference standards.

G. PRODUCT DATA

1. Product Data For Review:
  - a. The Contractor shall submit information in "f" above to the Architect/Engineer for review for the limited purpose of checking for conformance with information given and the design concept expressed in the contract documents.
  - b. After review, provide copies and distribute in accordance with SUBMITTAL PROCEDURES article above and for record documents purposes described in Section 01700 - CONTRACT CLOSEOUT.
2. Product Data For Information:
  - a. Is submitted for the Architect/Engineer's knowledge as contract administrator or for the Owner.
3. Product Data For Project Close-out:
  - a. Is submitted for the Owner's benefit during and after project completion.
4. The Contractor shall submit the number of copies which the Contractor requires, plus five copies which will be retained by the Architect/Engineer.

5. The Contractor shall mark each copy to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information specific to this Project.
6. The Contractor shall indicate Product utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.
7. After review the Engineer will distribute in accordance with the Submittal Procedures article above and provide copies for record documents described in Section 01700 - CONTRACT CLOSEOUT.

#### H. SHOP DRAWINGS

1. Shop Drawings For Review:
  - a. The Contractor shall submit to the Architect/Engineer for review for the limited purpose of checking for conformance with information given and the design concept expressed in the contract documents.
  - b. After review, the Engineer will distribute in accordance with SUBMITTAL PROCEDURES article above and for record documents purposes described in Section 01700 - CONTRACT CLOSEOUT.
2. Shop Drawings For Information:
  - a. The Contractor shall submit for the Architect/Engineer's knowledge as contract administrator or for the Owner.
3. Shop Drawings For Project Close-out:
  - a. The Contractor shall submit shop drawings for the Owner's benefit during and after project completion.
4. The Contractor shall indicate special utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.

5. The Contractor shall submit the number of opaque reproductions which Contractor requires, plus five copies which will be retained by Architect/Engineer.

I. SAMPLES

1. Samples For Review:
  - a. The Contractor shall submit samples to the Architect/Engineer for review for the limited purpose of checking for conformance with information given and the design concept expressed in the contract documents.
  - b. After review, produce duplicates and distribute in accordance with SUBMITTAL PROCEDURES article above and for record documents purposes described in Section 01700 - CONTRACT CLOSEOUT.
2. Samples For Information:
  - a. Submitted for the Architect/Engineer's knowledge as contract administrator or for the Owner.
3. Samples For Selection:
  - a. Submitted to Architect/Engineer for aesthetic, color, or finish selection.
  - b. Submit samples of finishes from the full range of manufacturers standard colors or in custom colors shown on the drawings and selected, textures, and patterns for Architect/Engineer selection.
  - c. After review, produce duplicates and distribute in accordance with SUBMITTAL PROCEDURES article above and for record documents purposes described in Section 01700 - CONTRACT CLOSEOUT.
4. The Contractor shall submit samples to illustrate functional and aesthetic characteristics of the Product, with integral parts and attachment devices. Coordinate sample submittals for interfacing work.
5. The Contractor shall include identification on each sample, with full Project information.

6. The Contractor shall submit the number of samples specified in individual specification sections; one of which will be retained by Architect/Engineer.
7. Reviewed samples which may be used in the Work are indicated in individual specification sections.
8. The Contractor shall samples will not be used for testing purposes unless specifically stated in the specification section.

J. DESIGN DATA

1. The Contractor shall submit for the Architect/Engineer's knowledge as contract administrator or for the Owner.
2. The Contractor shall submit for information for the limited purpose of assessing conformance with information given and the design concept expressed in the contract documents.

K. TEST REPORTS

1. The Contractor shall submit for the Architect/Engineer's knowledge as contract administrator or for the Owner.
2. The Contractor shall submit test reports for information for the limited purpose of assessing conformance with information given and the design concept expressed in the contract documents.

L. CERTIFICATES

1. When specified in individual specification sections, submit certification by the manufacturer, installation/application subcontractor, or the Contractor to Architect/Engineer, in quantities specified for Product Data.
2. Indicate material or Product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.
3. Certificates may be recent or previous test results on material or Product, but must be acceptable to Architect/Engineer.

M. MANUFACTURER'S INSTRUCTIONS

1. When specified in individual specification sections, submit printed instructions for delivery, storage, assembly, installation, start-up, adjusting, and finishing, to Architect/Engineer for delivery to owner in quantities specified for Product Data.
2. Indicate special procedures, perimeter conditions requiring special attention, and special environmental criteria required for application or installation.
3. Refer to Section 01400 - Quality Control, Manufacturers' Field Services article.

N. MANUFACTURER'S FIELD REPORTS

1. The Contractor shall submit reports for the Architect/Engineer's benefit as contract administrator or for the Owner.
2. The Contractor shall submit report in duplicate within 30 days of observation to Architect/Engineer for information.
3. The Contractor shall submit for information for the limited purpose of assessing conformance with information given and the design concept expressed in the contract documents.

O. ERECTION DRAWINGS

1. The Contractor shall submit drawings for the Architect/Engineer's benefit as contract administrator or for the Owner.
2. The Contractor shall submit for information for the limited purpose of assessing conformance with information given and the design concept expressed in the contract documents.
3. Data indicating inappropriate or unacceptable Work may be subject to action by the Architect/Engineer or Owner.

PART I. PRODUCTS

Not Used.

PART II. EXECUTION

Not Used.

END OF SECTION

SECTION 01400  
QUALITY CONTROL

PART I. GENERAL

A. SECTION INCLUDES

1. Quality assurance - control of installation.
2. Tolerances
3. References and standards.
4. Mock-up.
5. Testing laboratory services.
6. Inspection services.
7. Manufacturers' field services.
8. Subcontracting.

B. RELATED SECTIONS

1. Section 01090 - Reference Standards.
2. Section 01300 - Submittals: Submission of manufacturers' instructions and certificates.
3. Section 01600 - Material and Equipment: Requirements for material and product quality.
4. Section 01650 - Starting of Systems.

C. QUALITY ASSURANCE - CONTROL OF INSTALLATION

1. The CONTRACTOR will be held strictly to the intent of the CONTRACT DOCUMENTS in regard to the quality of materials, workmanship, and execution of the WORK. Inspections may be made at the factory or fabrication plant of the source of material supply.
2. The ENGINEER will not be responsible for the construction means, controls, techniques, sequences, procedure, or construction safety.

3. The Contractor shall monitor quality control over suppliers, manufacturers, Products, services, site conditions, and workmanship, to produce Work of specified quality.
4. The CONTRACTOR will supervise and direct the WORK. He will be solely responsible for the means, methods, techniques, sequences and procedures of construction. The CONTRACTOR will employ and maintain on the WORK a qualified supervisor or superintendent who shall have been designated in writing by the CONTRACTOR as the CONTRACTOR'S representative at the site. The supervisor shall have full authority to act on behalf of the CONTRACTOR and all communications given to the supervisor shall be as binding as if given to the CONTRACTOR. The supervisor shall be present on the site at all times as required to perform adequate supervisor and coordination of the WORK.
5. The Contractor shall comply with manufacturers' instructions, including each step in sequence.
6. Should the manufacturers' instructions conflict with Contract Documents, the Contractor shall request clarification from Architect/Engineer before proceeding.
7. The Contractor shall comply with specified standards as minimum quality for the Work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
8. The Contractor shall perform Work by persons qualified to produce required and specified quality.
9. The Contractor shall verify that field measurements are as indicated on shop drawings or as instructed by the manufacturer.
10. The Contractor shall secure Products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, or disfigurement.

D. IMPROPER COVERAGE OF BURIED CONSTRUCTION

1. If any WORK is covered contrary to the written instructions of the ENGINEER it must, if requested by the ENGINEER, be uncovered for the ENGINEER'S observation and replaced at the CONTRACTOR'S expense.
2. If the ENGINEER considers it necessary or advisable that covered WORK be inspected or tested by others, the CONTRACTOR, at the ENGINEER'S request, will uncover, expose or otherwise make available for observation, inspection or testing as the ENGINEER may require, that portion of the WORK in question, furnishing all necessary labor, materials, tools, and equipment. If it is found that such WORK is defective, the CONTRACTOR will bear all the expenses of such uncovering, exposure, observation, inspection and testing and of satisfactory reconstruction; if, however, such WORK is not found to be defective, the CONTRACTOR will be allowed an increase in the CONTRACT PRICE or an extension of the CONTRACT TIME, or both, directly attributable to such uncovering, exposure, observation, inspection, testing and reconstruction and an appropriate CHANGE ORDER shall be issued.

E. DEFECT ASSESSMENT

1. Replace the Work, or portions of the Work, not conforming to specified requirements.
2. If, in the opinion of the Architect/Engineer it is not practical to remove and replace the Work, the Architect/Engineer will direct an appropriate remedy or adjust payment.

F. TOLERANCES

1. The Contractor shall monitor fabrication and installation tolerance control of Products to produce acceptable Work. Do not permit tolerances to accumulate.
2. The Contractor shall comply with manufacturers' tolerances. Should manufacturers' tolerances conflict with Contract Documents, request clarification from Architect/Engineer before proceeding.
3. The Contractor shall adjust Products to appropriate dimensions; position before securing Products in place.

G. REFERENCES AND STANDARDS

1. For Products or workmanship specified by association, trade, or other consensus standards, the Contractor shall comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable codes.
2. The Contractor shall conform to reference standard by date of issue current date for receiving bids, except where a specific date is established by code.
3. The Contractor shall obtain copies of standards where required by product specification sections.
4. Neither the contractual relationships, duties, or responsibilities of the parties in Contract nor those of the Architect/Engineer shall be altered from the Contract Documents by mention or inference otherwise in any reference document.

H. MOCK-UP

1. Tests will be performed under provisions identified in this section and identified in the respective product specification sections.
2. The Contractor shall assemble and erect specified items with specified attachment and anchorage devices, flashings, seals, and finishes.
3. Accepted mock-ups shall be a comparison standard for the remaining Work.
4. Where mock-up has been accepted by Architect/Engineer and is specified in product specification sections to be removed; remove mock-up and clear area when directed to do so.

I. TESTING SERVICES

Owner will appoint and employ services of an independent firm to perform testing. Owner shall pay for services

1. The independent firm will perform tests and other services specified in individual specification sections and as required by the Architect/Engineer.

2. Testing and source quality control may occur on or off the project site. Perform off-site testing as required by the Architect/Engineer or the Owner.
3. Reports will be submitted by the independent firm to the Architect/Engineer and Contractor, in duplicate indicating observations and results of tests and indicating compliance or non-compliance with Contract Documents.
4. The Contractor shall cooperate with the independent firm; furnish samples of materials, design mix, equipment, tools, storage, safe access, and assistance by incidental labor as requested.
  - a. Notify Architect/Engineer and independent firm 24 hours prior to expected time for operations requiring services.
  - b. Make arrangements with independent firm and pay for additional samples and tests required for Contractor's use.
5. Testing does not relieve Contractor to perform Work to contract requirements.
6. Re-testing required because of non-conformance to specified requirements shall be performed by the same independent firm on instructions by the Architect/Engineer. Payment for re-testing will be charged to the Contractor or by deducting testing charges from the Contract Sum/Price.

- J. **REMOVAL OF DEFECTIVE AND UNAUTHORIZED WORK:** All work which has been rejected or condemned shall be repaired, or, if it cannot be satisfactorily repaired it shall be removed and replaced at the contractor's expense. Defective materials shall be removed immediately from the site of the work.

Work done without lines and grades having been given, work done beyond the lines or not in conformity with the grades shown on the plans or as given, save as herein provided, work done without proper inspection will be done at the contractor's risk and will be considered unauthorized and at the option of the Engineer may not be accepted and may be ordered removed at the Contractor's expense.

- K. If any WORK is covered contrary to the written instructions of the ENGINEER it must, if requested by the ENGINEER, be uncovered for the ENGINEER'S observation and replaced at the CONTRACTOR'S expense.
- L. If the ENGINEER considers it necessary or advisable that covered WORK be inspected or tested by others, the CONTRACTOR, at the ENGINEER'S request, will uncover, expose or otherwise make available for observation, inspection or testing as the ENGINEER may require, that portion of the WORK in question, furnishing all necessary labor, materials, tools, and equipment. If it is found that such WORK is defective, the CONTRACTOR will bear all the expenses of such uncovering, exposure, observation, inspection and testing and of satisfactory reconstruction; if, however, such WORK is not found to be defective, the CONTRACTOR will be allowed an increase in the CONTRACT PRICE or an extension of the CONTRACT TIME, or both, directly attributable to such uncovering, exposure, observation, inspection, testing and reconstruction and an appropriate CHANGE ORDER shall be issued.
- M. INSPECTION SERVICES
1. Owner will appoint, employ, and pay for specified services of an independent firm to perform inspection.
- N. MANUFACTURERS' FIELD SERVICES
1. When specified in individual specification sections, require material or Product suppliers or manufacturers to provide qualified staff personnel to observe site conditions, conditions of surfaces and installation, quality of workmanship, start-up of equipment, test, adjust and balance of equipment as applicable, and to initiate instructions when necessary.
2. Report observations and site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturers' written instructions.
3. Refer to Section 01300 - SUBMITTALS, MANUFACTURERS' FIELD REPORTS article.

4. COORDINATION OF PLANS, SPECIFICATIONS, AND SPECIAL GENERAL CONDITIONS: The plans, these specifications, Special General Conditions and all supplementary documents are intended to describe a complete work and are essential parts of the contract. A requirement occurring in any of them is binding. In case of discrepancies, figured dimensions shall govern over scaled dimensions; plans shall govern over specifications. Special General Conditions shall govern over both General and Standard Specifications, and the plans and quantities shown on the plans shall govern over those shown on the proposal. The Contractor shall take no advance of any apparent error or omission in the plans and specifications, and the Engineer shall be permitted to make such corrections or interpretations as may be deemed necessary for the fulfillment of the intent of the plans and specifications.

In the event the contractor discovers any apparent error or discrepancy, he shall immediately call such error or discrepancy to the attention of the Engineer, and request in writing an interpretation thereof by the Engineer.

#### O. SUBCONTRACTING

The CONTRACTOR may utilize the services of specialty SUBCONTRACTS on those parts of the WORK which, under normal contracting practices, are performed by specialty SUBCONTRACTORS.

1. The contractor shall not award WORK to SUBCONTRACTOR(S) in excess of fifty (50) percent of contract price, or in excess of fifty (50) percent of the labor and equipment required to install the project, without prior written approval of the OWNER.
2. The CONTRACTOR shall be fully responsible to the OWNER for the acts and omissions of its SUBCONTRACTORS, and of persons either directly or indirectly employed by them, as the CONTRACTOR is for the acts and omissions of persons directly employed by the CONTRACTOR.
3. The CONTRACTOR shall cause appropriate provisions to be inserted in all subcontracts relative to the WORK to bind SUBCONTRACTORS to the CONTRACTOR by the terms of the CONTRACT DOCUMENTS insofar as applicable to the WORK of SUBCONTRACTORS and to give the CONTRACTOR the same power as regards terminating any subcontract that the OWNER may exercise over the

CONTRACTOR under any provision of the CONTRACT DOCUMENTS.

4. Nothing contained in this CONTRACT shall create any contractual relationship between the SUBCONTRACTOR and the OWNER.

## PART II. PRODUCTS

Not Used.

## PART III. EXECUTION

### A. EXAMINATION

1. Verify that existing site conditions and substrate surfaces are acceptable for subsequent Work. Beginning new Work means acceptance of existing conditions.
2. Verify that existing substrate is capable of structural support or attachment of new Work being applied or attached.
3. Examine and verify specific conditions described in individual specification sections.
4. Verify that utility services are available, of the correct characteristics, and in the correct locations.

### B. PREPARATION

1. Clean substrate surfaces prior to applying next material or substance.
2. Seal cracks or openings of substrate prior to applying next material or substance.
3. Apply manufacturer required or recommended substrate primer, sealer, or conditioner prior to applying any new material or substance in contact or bond.

END OF SECTION

## SECTION 01500

### CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS

#### PART I. GENERAL

##### A. SECTION INCLUDES

1. Temporary Electricity.
2. Temporary lighting.
3. Heating.
4. Cooling.
5. Ventilation.
6. Telephone service.
7. Facsimile service.
8. Water.
9. Sanitary facilities.
10. Temporary Barriers.
11. Exterior enclosures
12. Interior enclosures.
13. Protection of the Work installed.
14. Security.
15. Access roads.
16. Water control.
17. Parking.
18. Progress cleaning and waste removal.
19. Project Identification.
20. Field office and sheds.

21. Removal of utilities, facilities and controls.

B. RELATED SECTIONS

1. Section 01700 - Contract Closeout: Final cleaning.

C. TEMPORARY ELECTRICITY

1. Cost: The Contractor shall provide and pay for power service required from utility source.

D. TEMPORARY LIGHTING FOR CONSTRUCTION PURPOSES: The Contractor shall:

1. Provide and maintain lighting for construction operations.
2. Provide and maintain lighting to exterior staging and storage areas after dark for security purposes.
3. Provide and maintain lighting to interior work areas after dark for security purposes.
4. Provide branch wiring from power source to distribution boxes with lighting conductors, pigtails, and lamps as required.
5. Maintain lighting and provide routine repairs.
6. Permanent building lighting may not be utilized during construction unless otherwise approved in writing.

E. TEMPORARY HEATING: The Contractor shall:

1. Provide and pay for heating devices and heat as needed to maintain specified conditions for construction operations.
2. Prior to operation of permanent equipment for temporary heating purposes, verify that installation is approved for operation, equipment is lubricated and filters are in place. Provide and pay for operation, maintenance, and regular replacement of filters and worn or consumed parts.

F. TEMPORARY COOLING: The Contractor shall:

Provide and pay for cooling devices and cooling as needed to maintain specified conditions for construction operations.

- G. TEMPORARY VENTILATION: The Contractor shall:
1. Ventilate enclosed areas to achieve curing of materials, to dissipate humidity, and to prevent accumulation of dust, fumes, vapors, or gases.
  2. Utilize existing ventilation equipment. Extend and supplement equipment with temporary fan units as required to maintain clean air for construction operations.
- H. TELEPHONE SERVICE:
1. The Contractor shall provide, maintain, and pay for telephone service to field office at time of project mobilization.
  2. Architect/Engineer will pay for own service.
- I. FACSIMILE SERVICE
1. None will be required.
- J. TEMPORARY WATER SERVICE:
1. The Contractor shall provide, maintain and pay for suitable quality water service required for construction operations.
- K. TEMPORARY SANITARY FACILITIES
1. The Contractor shall provide and maintain required facilities and enclosures. Existing facility use is not permitted. Provide at time of project mobilization.
- L. BARRIERS: The Contractor shall:
1. Provide barriers to prevent unauthorized entry to construction areas and to protect existing facilities and adjacent properties from damage from construction operations.
  2. Provide barricades and covered walkways required by governing authorities for public rights-of-way.
  3. Provide protection for plants designated to remain. Replace damaged plants.
  4. Protect non-owned vehicular traffic, stored materials, site, and structures from damage.

M. FENCING

1. Construction: Contractor's option unless specified otherwise..

N. WATER CONTROL: The Contractor shall:

1. Grade site to drain. Maintain excavations free of water. Provide, operate, and maintain pumping equipment.
2. Protect site from puddling or running water. Provide water barriers as required to protect site from soil erosion.

O. EXTERIOR ENCLOSURES

1. The Contractor shall provide temporary weather tight closure of exterior openings to accommodate acceptable working conditions and protection for Products, to allow for temporary heating and maintenance of required ambient temperatures identified in individual specification sections, and to prevent entry of unauthorized persons. Provide access doors with self-closing hardware and locks.

P. INTERIOR ENCLOSURES

1. The Contractor shall provide temporary partitions and ceilings as indicated to separate work areas from Owner occupied areas, to prevent penetration of dust and moisture into Owner occupied areas, and to prevent damage to existing materials and equipment.
2. The Contractor shall provide framing and reinforced polyethylene, plywood, gypsum board or other sheet materials with closed joints and sealed edges at intersections with existing surfaces where necessary for a finished project.

Q. PROTECTION OF INSTALLED WORK: The Contractor shall:

1. Protect installed Work and provide special protection where specified in individual specification sections.
2. Provide temporary and removable protection for installed Products. Control activity in immediate work area to prevent damage.
3. Provide protective coverings at walls, projections, jambs, sills, and soffits of openings.

4. Protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.
5. Prohibit traffic or storage upon waterproofed or roofed surfaces. If traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer.
6. Prohibit traffic from landscaped areas.

R. SECURITY: The Contractor shall:

1. Provide security and facilities to protect Work, and existing facilities, from unauthorized entry, vandalism, or theft.
2. Coordinate with Owner's security program.

S. ACCESS ROADS: The Contractor shall:

1. Construct and maintain temporary roads accessing public thoroughfares to serve construction area.
2. Extend and relocate as Work progress requires. Provide detours necessary for unimpeded traffic flow.
3. Provide and maintain access to fire hydrants, free of obstructions.
4. Provide means of removing mud from vehicle wheels before entering streets.
5. Designated existing on-site roads shall not be used for construction traffic.

T. PARKING

1. The Contractor shall not allow vehicle parking on existing pavement.

U. PROGRESS CLEANING AND WASTE REMOVAL: The Contractor shall:

1. Maintain areas free of waste materials, debris, and rubbish. Maintain site in a clean and orderly condition.
2. Remove debris and rubbish from pipe chases, plenums, attics,

crawl spaces, and other closed or remote spaces, prior to enclosing the space.

3. Broom and vacuum clean interior areas prior to start of surface finishing, and continue cleaning to eliminate dust.
4. Collect and remove waste materials, debris, and rubbish from site periodically and dispose off-site.
5. Open free-fall chutes are not permitted. Terminate closed chutes into appropriate containers with lids.

V. PROJECT IDENTIFICATION

1. Not required.

W. FIELD OFFICES AND SHEDS

1. Field Office is not required on this project however a means of contacting the contractor during the day is required, ie. answering machine or pager.

X. REMOVAL OF UTILITIES, FACILITIES, AND CONTROLS: The Contractor shall:

1. Remove temporary utilities, equipment, facilities, materials, prior to Final Application for Payment inspection.
2. Remove underground installations to a minimum depth of 2 feet. Grade site as indicated.
3. Clean and repair damage caused by installation or use of temporary work.
4. Restore existing and permanent facilities used during construction to original condition. Restore permanent facilities used during construction to specified condition.

PART II. PRODUCTS  
Not Used.

PART III. EXECUTION  
Not Used.

END OF SECTION

## SECTION 01600

### MATERIAL AND EQUIPMENT

#### PART I. GENERAL

##### A. SECTION INCLUDES

1. Products.
2. Transportation and handling.
3. Storage and protection.
4. Product options.
5. Substitutions.

##### B. RELATED SECTIONS

1. Section 01400 - Quality Control: Product quality monitoring.

##### C. PRODUCTS

1. The Contractor shall not use materials and equipment removed from existing premises, except as specifically permitted by the Contract Documents.
2. The Contractor shall provide interchangeable components of the same manufacture for components being replaced.

##### D. TRANSPORTATION AND HANDLING: The Contractor shall:

1. Transport and handle Products in accordance with manufacturer's instructions.
2. Promptly inspect shipments to ensure that Products comply with requirements, quantities are correct, and Products are undamaged.
3. Provide equipment and personnel to handle Products by methods to prevent soiling, disfigurement, or damage.

E. STORAGE AND PROTECTION: The Contractor shall:

1. Store and protect Products in accordance with manufacturers' instructions.
2. Store with seals and labels intact and legible.
3. Store sensitive Products in weather tight, climate controlled, enclosures in an environment favorable to Product.
4. Provide for exterior storage of fabricated Products, which shall be placed on sloped supports above ground.
5. Provide bonded off-site storage and protection when site does not permit on-site storage or protection.
6. Cover Products subject to deterioration with impervious sheet covering. Provide ventilation to prevent condensation and degradation of Products.
7. Store loose granular materials on solid flat surfaces in a well-drained area. Prevent mixing with foreign matter.
8. Provide equipment and personnel to store Products by methods to prevent soiling, disfigurement, or damage.
9. Arrange storage of Products to permit access for inspection. Periodically inspect to verify Products are undamaged and are maintained in acceptable condition.

F. PRODUCT OPTIONS

1. The Contractor shall provide products Specified by Reference Standards or by Description Only: Any Product meeting those standards or description.
2. The Contractor shall provide products Specified by Naming One or More Manufacturers with a Provision for Substitutions: Submit a request for substitution for any manufacturer not named in accordance with the following article.

G. SUBSTITUTIONS

1. Architect/Engineer will consider requests for Substitutions only within 15 days after date established in Notice to Proceed.
2. Substitutions may be considered when a Product becomes unavailable through no fault of the Contractor.
3. Document each request with complete data substantiating compliance of proposed Substitution with Contract Documents.

A request constitutes a representation that the Bidder or Contractor:

- a. Has investigated proposed Product and determined that it meets or exceeds the quality level of the specified Product.
  - b. Will provide the same warranty for the Substitution as for the specified Product.
  - c. Will coordinate installation and make changes to other Work which may be required for the Work to be complete with no additional cost to Owner.
  - d. Waives claims for additional costs or time extension which may subsequently become apparent.
  - e. Will reimburse Owner and Architect/Engineer for review or redesign services associated with re-approval by authorities.
4. Substitutions will not be considered when they are indicated or implied on shop drawing or product data submittals, without separate written request, or when acceptance will require revision to the Contract Documents.
  5. Substitution Submittal Procedure:
    - a. Submit three copies of request for Substitution for consideration. Limit each request to one proposed Substitution.
    - b. Submit shop drawings, product data, and certified test results attesting to the proposed Product equivalence.

Burden of proof is on proposer.

- c. The Architect/Engineer will notify Contractor in writing of decision to accept or reject request.

PART II. PRODUCTS

Not Used.

PART III. EXECUTION

Not Used.

END OF SECTION

## SECTION 01650

### STARTING OF SYSTEMS

#### PART I. GENERAL

##### A. SECTION INCLUDES

1. Starting systems.
2. Demonstration and instructions.
3. Testing, adjusting, and balancing.
4. Partial Occupancy and use.

##### B. RELATED SECTIONS

1. Section 01400 - Quality Control: Manufacturers field reports.
2. Section 01700 - Contract Closeout: System operation and maintenance data and extra materials.

##### C. STARTING SYSTEMS: The Contractor shall:

1. Coordinate schedule for start-up of various equipment and systems.
2. Notify Architect/Engineer seven days prior to start-up of each item.
3. Verify that each piece of equipment or system has been checked for proper lubrication, drive rotation, belt tension, control sequence, and for conditions which may cause damage.
4. Verify tests, meter readings, and specified electrical characteristics agree with those required by the equipment or system manufacturer.
5. Verify that wiring and support components for equipment are complete and tested.
6. Execute start-up under supervision of applicable manufacturer's representative or Contractors' personnel in accordance with manufacturers' instructions and per specific item specification.

7. When specified in individual specification Sections, require manufacturer to provide authorized representative to be present at site to inspect, check, and approve equipment or system installation prior to start-up, and to supervise placing equipment or system in operation.
8. Submit a written report in accordance with Section 01300 that equipment or system has been properly installed and is functioning correctly.

D. DEMONSTRATION AND INSTRUCTIONS: The Contractor shall:

1. Demonstrate operation and maintenance of Products to Owner's personnel two weeks prior to date of Substantial Completion.
2. For equipment or systems requiring seasonal operation, perform demonstration for other season within six months.
3. Utilize operation and maintenance manuals as basis for instruction. Review contents of manual with Owners' personnel in detail to explain all aspects of operation and maintenance.
4. Demonstrate start-up, operation, control, adjustment, troubleshooting, servicing, maintenance, and shutdown of each item of equipment at an agreed time , at a designated location.
5. Prepare and insert additional data in operations and maintenance manuals when need for additional data becomes apparent during instruction.
6. Provide the amount of time required for instruction on each item of equipment and system is that specified in individual sections.

E. TESTING, ADJUSTING, AND BALANCING

1. If desired the Owner will appoint and employ services of an independent firm to perform testing, adjusting, and balancing. The owner shall pay for services.
2. Reports will be submitted by the independent firm to the Architect/Engineer indicating observations and results of tests and indicating compliance or non-compliance with the requirements of the Contract Documents.

3. PARTIAL OCCUPANCY AND USE: The owner, upon advance written notification to the contractor, shall have the right to occupy and use any completed or partially completed portions of the project when such occupancy and use is to the owner's best interest, notwithstanding completion of the entire project.

Such partial occupancy and use shall be upon the following terms:

- a. The engineer shall make an inspection of the portion or portions of the project concerned, and report to the owner his findings as to the acceptability and completeness of the work. The engineer's report shall include a list of items to be completed or corrected before final payment.
- b. The owner, upon acceptance of the engineer's report, shall give written notice to the contractor of the owner's intention to occupy and use said portions of the project. The owner's notice shall include a copy of the engineer's report, shall clearly identify the portions of the project to be occupied and used, and shall establish the date of said occupancy and use.
- c. From the date thus established, the owner shall assume all responsibilities for operation, maintenance, and the furnishing of water, gas and electrical power for the portions of the project thus occupied and used. The owner shall have the right to exclude the contractor from those portions of the project, but shall provide the contractor reasonable access to complete or correct necessary items of work.
- d. The guarantee required by the General Conditions shall not begin until completion and final acceptance of the entire project, except as to items of equipment specified such as instrumentation, electrical, and mechanical equipment which are thus used by the owner. For said equipment, the warranty shall start from the date established in the written notice from the owner.
- e. Occupancy or use of any space in the project shall not constitute acceptance of work not performed in accordance with the contract, nor relieve the contractor of liability to perform any work required by the contract but not completed at the time of said occupancy and

use.

- f. The contractor shall not be held responsible for fair wear and tear or damage resulting from said occupancy, except to the extent that such damage is covered by the guarantee.
- g. The partial occupancy and use of any portion or portions of the project by the owner shall not constitute grounds for claims by the contractor for release of any amounts retained from payments under the provisions of the contract. The retained amounts will not be due until completion of the entire project for final acceptance and final payment, as set forth in the General Conditions.
- h. The contractor shall be responsible for contacting all federal, state, county or railroad personnel required to be contacted and as set forth in any permits with respect to time schedule before commencing any work for which a permit is required.
- i. The contractor shall secure a cleanup release satisfactory to the owner from any federal, state, county or railroad agency after the work for which a permit has been obtained has been completed.

PART II. PRODUCTS

Not Used.

PART III. EXECUTION

Not Used.

END OF SECTION

SECTION 01700  
CONTRACT CLOSEOUT

PART I. GENERAL

A. SECTION INCLUDES

1. Closeout procedures.
2. Final cleaning.
3. Adjusting.
4. Project record documents.
5. Operation and maintenance data.
6. Spare parts and maintenance Products.
7. Maintenance service.

B. RELATED SECTIONS

1. Section 01500 - Construction Facilities and Temporary Controls: Progress cleaning.
2. Section 01650 - Starting of Systems: System start-up, testing, adjusting, and balancing.

C. CLOSEOUT PROCEDURES: The Contractor shall:

1. Submit written certification that Contract Documents have been reviewed, Work has been inspected, and that Work is complete in accordance with Contract Documents and ready for Architect/Engineer's review.
2. Provide submittals to Architect/Engineer that are required by governing or other authorities.
3. Submit final Application for Payment identifying total adjusted Contract Sum, previous payments, and sum remaining due.

D. FINAL CLEANING: The Contractor shall:

1. Execute final cleaning prior to final project assessment.
2. Clean interior and exterior glass, surfaces exposed to view; remove temporary labels, stains and foreign substances, polish transparent and glossy surfaces, vacuum carpeted and soft surfaces.
3. Clean equipment and fixtures to a sanitary condition with cleaning materials appropriate to the surface and material being cleaned.
4. Replace filters of operating equipment.
5. Clean debris from roofs, gutters, downspouts, and drainage systems.
6. Clean site; sweep paved areas, rake clean landscaped surfaces.
7. Remove waste and surplus materials, rubbish, and construction facilities from the site.

E. ADJUSTING

The Contractor shall adjust operating Products and equipment to ensure smooth and unhindered operation.

F. PROJECT RECORD DOCUMENTS

1. The Contractor shall maintain on site one set of the following record documents; record actual revisions to the Work:
  - a. Drawings.
  - b. Specifications.
  - c. Addenda.
  - d. Change Orders and other modifications to the Contract.
  - e. Reviewed Shop Drawings, Product Data, and Samples.
  - f. Manufacturer's instruction for assembly, installation, and adjusting.
2. The Contractor shall ensure entries are complete and accurate, enabling future reference by Owner.
3. The Contractor shall store record documents separate from

documents used for construction.

4. The Contractor shall record information concurrent with construction progress.
5. Specifications: The Contractor shall legibly mark and record at each Product section description of actual Products installed, including the following:

- a. Manufacturer's name and product model and number.
- b. Product substitutions or alternates utilized.
- c. Changes made by Addenda and modifications.

6. Record Drawings and Shop Drawings: The Contractor shall legibly mark each item to record actual construction including:

- a. Measured depths of foundations in relation to finish floor datum.
- b. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
- c. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the Work.
- d. Field changes of dimension and detail.
- e. Details not on original Contract drawings.

- G. OPERATION AND MAINTENANCE DATA: The Contractor shall:

1. Submit data bound in 8-1/2 x 11 inch text pages, three D side ring binders with durable plastic or cloth covers.
2. Prepare binder cover with printed title "OPERATION AND MAINTENANCE INSTRUCTIONS", title of project , and subject matter of binder when multiple binders are required.
3. Internally subdivide the binder contents with permanent page dividers, logically organized as described below; with tab titling clearly printed under reinforced laminated plastic tabs.

4. Contents: Prepare a Table of Contents for each volume, with each Product or system description identified, typed on 20 pound white paper, in three parts as follows:
  - a. Part 1: Directory, listing names, addresses, and telephone numbers of Architect/Engineer, Contractor, Subcontractors, and major equipment suppliers.
  - b. Part 2: Operation and maintenance instructions, arranged by system. For each category, identify names, addresses, and telephone numbers of Subcontractors and suppliers. Identify the following:
    - (1) Significant design criteria.
    - (2) List of equipment.
    - (3) Parts list for each component.
    - (4) Operating instructions.
    - (5) Maintenance instructions for equipment and systems.
    - (6) Maintenance instructions for special finishes, including recommended cleaning methods and materials, and special precautions identifying detrimental agents.
  - c. Part 3: Project documents and certificates, including the following:
    - (1) Shop drawings and product data.
    - (2) Air and water balance reports.
    - (3) Certificates.
    - (4) Photocopies of warranties and bonds.
5. Submit 1 draft copy of completed volumes 15 days prior to final inspection. This copy will be reviewed and returned after final inspection, with Architect/Engineer comments. Revise content of all document sets as required prior to final submission.
6. Submit five sets of revised final volumes, prior to final payment.

H. **SPARE PARTS AND MAINTENANCE PRODUCTS:** The Contractor shall:

1. Provide spare parts, maintenance, and extra Products in quantities specified in individual specification sections.

2. Deliver to Project site and place in location as directed and obtain a receipt prior to final payment.

I. MAINTENANCE SERVICE: The Contractor shall:

1. Furnish service and maintenance of components indicated in specification sections during the warranty period.
2. Repair or replace parts whenever required. Use parts produced by the manufacturer of the original component.
3. Maintenance service shall not be assigned or transferred to any agent or Subcontractor without prior written consent of the Owner.

PART II. PRODUCTS  
Not Used.

PART III. EXECUTION  
Not Used.

END OF SECTION

## SECTION 01741

### BONDS

#### PART I. GENERAL

##### A. SECTION INCLUDES

1. Preparation and submittal of bonds.
2. Time and schedule of submittals.

##### B. RELATED SECTIONS

1. Document Invitation to Bid: Instruction to Bidders: Bid bonds.
2. Document General Conditions Performance bond and labor and material payment bonds.
3. Section 01700 - Contract Closeout: Contract closeout procedures.
4. Individual Specifications Sections: Bonds required for specific Products or Work.

##### C. PREPARATION OF SUBMITTALS

1. The contractor shall provide five (5) executed copies of the Performance Bond, Statutory Bond, and Maintenance Bond on forms provided or other approved forms.
2. No surety will be accepted who is now in default or delinquent on any bond or who is interested in any litigation against the Owner. All bonds shall be made on forms furnished by the Owner and shall be executed by surety companies licensed to do business in the State of Oklahoma and acceptable to the Owners council. Each bond shall be executed by the contractor and surety.
3. MAINTENANCE BOND: A good and sufficient Maintenance Bond in an amount equal to one hundred (100%) percent of the total amount of the contract, guaranteeing the maintenance in good condition of such improvements for a period of one (1) year from and after the time of the completion and acceptance by the Owner of said improvements.
4. PERFORMANCE BOND: A good and sufficient Performance

Bond shall be required in an amount equal to one hundred (100%) percent of the total contract amount guaranteeing execution and completion of the work in accordance with the plans and specifications.

5. STATUTORY BOND: A good and sufficient Statutory Bond shall be required in amount equal to one hundred (100%) percent of the total contract amount guaranteeing payment in full for all materials and labor used in the construction of the work.

D. TIME OF SUBMITTALS

1. The Performance Bond, Statutory Bond, and Maintenance Bonds will be submitted along with the executed contract within ten (10) days of the Notice of Award to WDB ENGINEERING PLLC.

PART II. PRODUCTS

Not Used.

PART III. EXECUTION

Not Used.

END OF SECTION

**DIVISION II**  
**SECTION 201**  
**DEFINITION OF TERMS**

**201.01 DEFINITIONS**

Wherever the words, forms or phrases herein defined, or pronouns used in their stead, occur in these specifications, in the contract or in the advertisement or any document or instruments herein contemplated or to which these specifications apply, the intent and meaning shall be interpreted as follows:

|               |                                                                                                                                                                                                                                                                               |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| A.A.S.H.O.    | The American Association of State Highway Officials.                                                                                                                                                                                                                          |
| Addenda       | Written or graphic instruments issued prior to the execution of the Agreement which modify or interpret the CONTRACT DOCUMENTS, DRAWINGS and SPECIFICATIONS, by additions, deletions, clarifications, or corrections.                                                         |
| Advertisement | All of the legal publications pertaining to the work contemplated or under contract.                                                                                                                                                                                          |
| A.N.S.I.      | American National Standards Institute                                                                                                                                                                                                                                         |
| A.S.T.M.      | The American Society for Testing and Materials                                                                                                                                                                                                                                |
| Award         | The decision of the Owner to accept the proposal of the lowest and best bidder for the work, subject to the execution and approval of a satisfactory contract and the required bonds therefor, and to such other conditions as may be specified or otherwise required by law. |
| A.W.W.A.      | American Water Works Association                                                                                                                                                                                                                                              |
| Bid           | The offer or proposal of the BIDDER submitted on the prescribed form setting forth the prices for the WORK to be performed.                                                                                                                                                   |
| Bidder        | Any person or persons, partnership, company, firm or corporation acting directly or through a duly authorized representative submitting a proposal for the work contemplated.                                                                                                 |
| Bonds         | Bid, Performance, and Payment (Statutory) Bonds and other instruments of security furnished by the CONTRACTOR and the CONTRACTOR'S surety in accordance with the CONTRACT DOCUMENTS.                                                                                          |
| City          | The City or Town in which the construction work is being                                                                                                                                                                                                                      |

|                             |                                                                                                                                                                                                                                                                                                               |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                             | performed.                                                                                                                                                                                                                                                                                                    |
| Change Order                | A written order to the CONTRACTOR authorizing an addition, deletion, or revision in the WORK within the general scope of the CONTRACT DOCUMENTS, or authorizing an adjustment in the CONTRACT PRICE or CONTRACT TIME.                                                                                         |
| Contract                    | The written agreement covering the performance of the work. The contract includes the Advertisement and Notice to Contractors, Proposal, Bonds, Specifications, including Special Conditions, Addenda, Plans or working drawings and any supplemental agreement pertaining to the work or materials therefor. |
| Contract Documents          | The contract, including ADVERTISEMENT for BIDS, INFORMATION for BIDDERS, BID, BID BOND, AGREEMENT, PAYMENT (STATUTORY) BOND, PERFORMANCE BOND, NOTICE OF AWARD, NOTICE TO PROCEED, CHANGE ORDER, DRAWINGS, SPECIFICATIONS, and ADDENDA.                                                                       |
| Contract Price              | The total monies payable to the CONTRACTOR under the terms and conditions of the CONTRACT DOCUMENTS.                                                                                                                                                                                                          |
| Contractor                  | The person or persons, partnership, company, firm, or corporation entering into contract for the execution of the work, acting directly or through a duly authorized representative.                                                                                                                          |
| Contract Time               | The number of calendar days stated in the CONTRACT DOCUMENTS for the completion of the WORK.                                                                                                                                                                                                                  |
| Construction Bond           | The approved form of security furnished by the Contractor and his Surety as a guarantee of good faith on the part of the Contractor to execute the work in accordance with the plans, specifications, and terms of the contract.                                                                              |
| Council                     | The Council for the City or Town in which the construction work is being performed.                                                                                                                                                                                                                           |
| Director of Water Utilities | Acting within the scope of duly delegated authority.                                                                                                                                                                                                                                                          |
| Director                    | The Director of Water Utilities or his delegated authority.                                                                                                                                                                                                                                                   |
| Drawings                    | The parts of the CONTRACT DOCUMENTS which show the characteristics and scope of the WORK to be performed and which have been prepared or approved by the ENGINEER.                                                                                                                                            |
| Engineer                    | Representative of WDB ENGINEERING P.L.L.C.                                                                                                                                                                                                                                                                    |
| Field Order                 | A written order effecting a change in the WORK not involving an adjustment in the CONTRACT PRICE or an extension of the CONTRACT TIME, issued by the ENGINEER to the CONTRACTOR during construction.                                                                                                          |

|                                 |                                                                                                                                                                                                                                                                                                                                                       |
|---------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Furnish                         | To supply.                                                                                                                                                                                                                                                                                                                                            |
| Maintenance Bond                | The approved form of security furnished by the Contractor and his surety as a guarantee that he will maintain the work constructed by him in good condition for the period of time required.                                                                                                                                                          |
| Mayor                           | The Mayor of the City or Town in which the construction is being performed.                                                                                                                                                                                                                                                                           |
| Municipal Counselor             | The Municipal Counselor of the City or Town in which the construction is being performed, or his duly authorized assistants or agents.                                                                                                                                                                                                                |
| Notice to Proceed               | Written communication issued by the OWNER to the CONTRACTOR authorizing him/her to proceed with the WORK and establishing the date for commencement of the WORK.                                                                                                                                                                                      |
| Notice of Award                 | The written notice by OWNER to the apparent successful bidder stating that upon compliance by the apparent successful bidder with the conditions precedent enumerated therein, with the time specified, OWNER will sign and deliver the Agreement.                                                                                                    |
| Owner                           | A public or quasi-public body or authority, corporation, association, partnership, or an individual for whom the WORK is to be performed.                                                                                                                                                                                                             |
| Plan or Plans                   | All of the drawings pertaining to the contract and made a part thereof, including such supplementary drawings as the Engineer may issue from time to time, in order to lucidate other drawings or for the purpose of showing changes in the work as authorized under the Section, "Changes and Alteration", or for showing details not shown thereon. |
| Project                         | The undertaking to be performed as provided in the CONTRACT DOCUMENTS.                                                                                                                                                                                                                                                                                |
| Provide                         | To furnish and erect or install.                                                                                                                                                                                                                                                                                                                      |
| Resident Project Representative | The authorized representative of the OWNER who is assigned to the PROJECT site or any part thereof.                                                                                                                                                                                                                                                   |
| Shop Drawings                   | All drawings, diagrams, illustrations, brochures, schedules and other data which are prepared by the CONTRACTOR, a SUBCONTRACTOR, manufacturer SUPPLIER or distributor, which illustrate how specific portions of the WORK shall be fabricated or installed.                                                                                          |

|                                 |                                                                                                                                                                                                                                                                                 |
|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Special General Conditions      | The special clauses setting forth conditions or requirements peculiar to the specific project involved, supplementing the <u>General Conditions</u> and taking precedence over any conditions or requirements of the <u>General Conditions</u> with which they are in conflict. |
| Specifications                  | The directions, provisions and requirements contained herein, together with the "Special Conditions" supplemental hereto, pertaining to the method and manner of performing the work or to the quantities or qualities of materials to be furnished under the contract.         |
| Statutory Bond                  | The approved form of Surety set up and furnished by the contractor and his surety as a guarantee that he will pay, in full, all bills and accounts for materials and labor used in the construction of the work, as provided by law.                                            |
| Subcontractor                   | An individual, firm or corporation having a direct contract with CONTRACTOR or with any other SUBCONTRACTOR for the performance of a part of the WORK at the site.                                                                                                              |
| Substantial Completion          | That date certified by the ENGINEER when the construction of the PROJECT or a specified part thereof is sufficiently completed, in accordance with the CONTRACT DOCUMENTS, so that the PROJECT or specified part can be utilized for the purposes for which it is intended.     |
| Supplemental General Conditions | Modifications to General Conditions required by a FEDERAL AGENCY for participation in the PROJECT and approved by the agency in writing prior to including in the CONTRACT DOCUMENTS, or such requirements that may be imposed by applicable state laws.                        |
| Supplier                        | Any person or organization who supplies materials or equipment for the WORK, including that fabricated to a special design, but who does not perform labor at the site.                                                                                                         |
| Surety of Sureties              | The corporate body which is bound by such bonds as are required with and for the contractor, and engages to be responsible for the entire and satisfactory fulfillment of the contract and for any and all requirements as set out in the specifications, contract or plans.    |
| Work                            | All labor necessary to produce the construction required by the CONTRACT DOCUMENTS, and all materials and equipment incorporated or to be incorporated in the PROJECT.                                                                                                          |
| Working Day                     | Any day, other than a legal holiday, Saturday or Sunday, on which the approximate normal working forces of the Contractor                                                                                                                                                       |

may proceed with regular work in a manner satisfactory to the Engineer, for at least six (6) hours, toward completion of the work, unless work be suspended for causes beyond the contractor's forces do engage in regular work will be considered as working days.

Written Notice

Any Notice to any party of the Agreement relative to any part of this Agreement in writing and considered delivered and the service thereof completed, when posted by certified or registered mail to the said party at their last given address, or delivered in person to said party or their authorized representative on the WORK.

Resolution

Establishing a contractor's pre-qualification Board; adopting standards and procedures therefor; and requiring board examinations and approval of bidders or public improvement work.

Owner

The person(s), organization, authority, city, town, developer or anyone paying for this contract.

## **SECTION 202**

### **SCOPE OF WORK**

#### **202.01 INTENT OF PLANS AND SPECIFICATIONS**

The intent of the plans and specifications is to prescribe a complete work or improvement which the Contractor undertakes to do, in full compliance with the plans, specifications, special provisions, proposal and contract. The contractor shall do all work as provided in the plans, special provisions, specifications, proposal and contract and shall do such additional extra and incidental work as may be considered necessary to complete the work in a satisfactory and acceptable manner. He shall furnish all labor, materials, tools, equipment and incidentals necessary to the prosecution of the work, unless otherwise specified.

#### **202.02 SPECIAL GENERAL CONDITIONS**

Should any work or any conditions which are not thoroughly or satisfactorily stipulated or covered by the general or standard specifications be anticipated on any proposed work, "Special General Conditions" for such work as may be prepared and shall be considered as a part of the specifications and contract.

#### **202.03 INCREASED OR DECREASED QUANTITIES OF WORK**

The Owner reserves the right to alter the quantities of the work to be performed or to extend or shorten the improvement at any time when and as found necessary, and the Contractor shall perform the work as altered, increased or decreased, at the contract unit prices.

#### **202.04 ALTERATIONS OF PLANS AND SPECIFICATIONS**

The Owner reserves the right to make such changes in the plans and in the character of the work and approved by the Engineer as may be necessary or desirable to insure completion of the work in the most satisfactory manner, provided such changes do not materially alter the original plans and specifications or change the general nature of the work as a whole. Such changes shall not be considered as waiving or invalidating any condition or provision of the contract.

#### **202.05 EXTRA WORK**

When any work is necessary to the proper completion of the project for which no prices are provided in the proposal or contract, the Contractor shall do such work, prior to acceptance by the Owner.

#### **202.06 FINAL CLEANING UP**

Upon completion of the work and before acceptance the contractor shall clean and remove from the site of the work surplus and discarded materials, temporary structures, stumps or portions of trees and debris of any kind. He shall leave the site of the work in a neat and orderly condition. Waste

materials removed from the site of the work shall be disposed of at locations satisfactory to the Engineer.

## **SECTION 203**

### **CONTROL OF THE WORK AND MATERIALS**

#### **203.01 AUTHORITY OF ENGINEER**

All work shall be done to the satisfaction of the Engineer. He shall decide all questions which arise as to the quality and acceptability of materials furnished, work performed, interpretation of the plans and specifications, and acceptable fulfillment of the contract.

The authority of the Engineer shall not be construed to include the authority to waive, revise or modify specifications as herein set forth either as to kind, type or quality of materials or manner of quality of construction. Nor shall the Engineer have the authority to order changes in the work requiring additional expense to the Owner prior to Owner approval.

#### **203.02 DETAIL SHOP AND WORKING DRAWINGS FURNISHED BY CONTRACTORS**

The contractor shall submit five (5) copies of shop drawings to the Engineer for approval. Any work performed or any materials ordered prior to the approval of such drawings by the Engineer shall be at the Contractor's risk.

#### **203.03 OPERATION AND MAINTENANCE MANUALS**

Contractor shall submit to the Engineer for approval six (6) copies of the manufacturers operation and maintenance manual for all equipment used in construction of the project. The manuals shall include as a minimum: lubrication requirements and schedules, operation adjustment, trouble-shooting guides, safety requirements, operational procedures, routine maintenance schedules.

#### **203.04 EXISTING STRUCTURES NOT SHOWN ON PLANS**

The plans show the location of certain existing surface and subsurface structures. The Owner assumes no responsibility for failure to show any or all structures on the plans or to show them in their exact locations.

#### **203.05 COORDINATION OF PLANS, SPECIFICATIONS, AND SPECIAL GENERAL CONDITIONS**

The plans, these specifications, Special General Conditions and all supplementary documents are intended to describe a complete work and are essential parts of the contract. A requirement occurring in any of them is binding. In case of discrepancies, figured dimensions shall govern over scaled dimensions; plans shall govern over specifications. Special General Conditions shall govern over both General and Standard Specifications, and the plans and quantities shown on the plans shall govern over those shown on the proposal. The Contractor shall take no advance of any apparent error or omission in the plans and specifications, and the Engineer shall be permitted to make such corrections or interpretations as may be deemed

necessary for the fulfillment of the intent of the plans and specifications.

In the event the contractor discovers any apparent error or discrepancy, he shall immediately call such error or discrepancy to the attention of the Engineer, and request in writing an interpretation thereof by the Engineer.

#### **203.06 COOPERATION OF CONTRACTOR**

The contractor shall give to the work the consistent attention necessary to facilitate the progress thereof, and he shall cooperate with the Engineer and his inspectors and with other contractors in every way possible. The contractor shall provide a competent superintendent on the work at all times who is fully authorized as his agent on the work. Such superintendent shall be capable of reading and thoroughly understanding the plans and specifications and shall receive and fulfill instructions from the Engineer or his authorized representative.

The contractor and his superintendent shall provide all reasonable facilities to enable the Engineer and his inspectors to inspect the workmanship and materials entering into the work.

#### **203.07 SOURCE OF SUPPLY AND QUALITY OF MATERIALS**

The contractor shall not start delivery of materials until the Engineer has approved the source of supply. Only materials conforming to the requirements of these specifications shall be used in the work and such materials shall be used only after written approval has been given by the Engineer and only, so long as the quality of said material remains equal to the requirements of the specifications. The contractor shall furnish approved materials from other sources if, for any reason, the product from any source at any time before commencing or during the prosecution of the works proves unacceptable. After approval, any material which has become mixed with or coated by dirt or any other foreign substances during its delivery and handling shall be corrected to the satisfaction of the Engineer or shall not be used in the work.

#### **203.08 MATERIALS AND WORKMANSHIP**

The contractor shall submit samples of materials, finish, appliances, etc., when required by the Engineer, and all such samples must be approved by the Engineer in writing before the work is executed and all work shall conform in all respects to the approved samples. Any work which does not conform to the approved samples will be rejected, and shall be removed and replaced by work that does so conform.

#### **203.09 SAMPLES AND TESTS OF MATERIALS**

Where in the opinion of the Engineer or called for in the specifications, tests of materials are necessary, such tests shall be made by and at the expense of the Owner, unless otherwise provided in these specifications or in the Special Conditions. Tests, unless otherwise provided in these specifications or in the Special General Conditions. Tests, unless otherwise specified, are

to made in accordance with the latest standard methods of the American Society of Testing Materials. The contractor shall provide such facilities as the Engineer may require for collecting and forwarding samples and shall not use the materials represented by the samples until tests have been made and approved by the designated Engineer or testing laboratory.

The contractor in all cases, shall furnish the required samples without charge. All tests shall be made by a laboratory designated by the Owner.

Testing shall be done only on written order of the Engineer on test order forms provided by the Owner, unless otherwise provided in the Special General Conditions or in the material details; nothing in these specifications shall be construed as requiring a specific number of tests to be made.

### **203.10 STORAGE OF MATERIALS**

Materials shall be stored so as to insure the preservation of their quality and fitness for the work. when directed by the Engineer they shall be placed on wooden platforms or other hard, clean surface and not on the ground, and shall be placed under cover when directed. Stored materials shall be located so as to facilitate prompt inspection.

### **203.11 INSPECTION**

The contractor shall furnish the engineer with every reasonable facility for ascertaining whether or not the work as performed is in accordance with the requirements and intent of the plans and specifications. If the Engineer requires, the Contractor shall at any time before acceptance of the work, remove or uncover such portions of the finished work as may be directed, for inspection. After inspection, the Contractor shall restore said portions of the work to the condition required by the specifications.

### **203.12 REMOVAL OF DEFECTIVE AND UNAUTHORIZED WORK**

All work which has been rejected or condemned shall be repaired, or, if it cannot be satisfactorily repaired it shall be removed and replaced at the contractor's expense. Defective materials shall be removed immediately from the site of the work.

Work done without lines and grades having been given, work done beyond the lines or not in conformity with the grades shown on the plans or as given, save as herein provided, work done without proper inspection will be done at the contractor's risk and will be considered unauthorized and at the option of the Engineer may not be accepted and may be ordered removed at the Contractor's expense.

### **203.13 CORRECTION OF WORK AFTER FINAL ACCEPTANCE**

Neither the final certificate nor acceptance nor any provision in the Contract Documents shall relieve the contractor of responsibility for faulty materials of workmanship and, unless otherwise specified, he shall remedy any defects due thereto and pay for any damage to other work resulting therefrom, which

shall appear within a period of one (three years for Buildings) from the date of substantial completion. The Owner will give notice of observed defects with reasonable promptness.

#### **203.14 FINAL INSPECTION**

The Engineer shall make final inspection of all work included in the contract or any portion thereof as soon as practical after the work is completed and ready for acceptance. If the work is not acceptable to the Engineer at the time of such inspection, he shall inform the contractor as to the particular defects to be remedied before final acceptance can be made.

## **SECTION 204**

### **LEGAL RELATIONS AND RESPONSIBILITY TO THE PUBLIC**

#### **204.01 LAWS TO BE OBSERVED**

The contractor shall, at all times, observe and comply with all Federal and State laws and City ordinances and regulations which in any manner affect the conduct of the work and shall observe and comply with all orders and decrees which exist at the present or which may be enacted later, of bodies or tribunals having jurisdiction or authority over the work, and no plea of misunderstanding or ignorance thereof will be considered. The contractor and his surety shall defend, indemnify and save harmless the Owner and all its officers, agents, employees and servants against any claims or liability arising from or based on the violation of any such law, ordinance, regulation, order or decree whether by himself or his employees.

#### **204.02 PERMITS AND LICENSES**

The contractor shall procure all permits and licenses, pay all charges or fees, and give all notices necessary and incidental to the due and lawful prosecution of the work including those established by ordinances in connection with paving removal and replacement.

#### **204.03 PATENTED DEVICES, MATERIALS AND PROCESSES**

If the contractor is required or desires to use any design, device, material or process covered by letters, patent or copyright, he shall provide for such use by suitable legal agreement with the patentee or owner. It is mutually understood and agreed that without exception the contract prices shall include all royalties or costs arising from patents, trademarks, and copyrights in any way involved in the work. The contractor and the surety shall defend, indemnify and save harmless the Owner and all its officer, agents, and description brought for or on account of infringement or alleged infringement by reason of the use of any such patented design, device, material or process or any trademark of copyright used in connection with the work agreed to be performed under this contract, and shall indemnify the Owner for any cost, expense, or damage which it may be obliged to pay by reason of any action or infringement or alleged infringement at any time during the prosecution or after the completion of the work contracted for herein. It is mutually agreed that the Owner may give written notice of any such suit to the Contractor, and thereafter the contractor shall attend to the defense of the same and save and keep harmless the Owner from all expense, counsel fees, cost liabilities, disbursements, recoveries, judgements and executions in any manner growing out of, pertaining to, or connected therewith.

#### **204.04 SANITARY PROVISIONS**

The Contractor shall establish and enforce among his employees such regulations in regard to cleanliness and the disposal of garbage and waste as will tend to prevent the inception and spread of contagious or infectious diseases and to effectively prevent the creation of a nuisance about the work

or any property, either public or private and such regulations as are required by the Engineer shall be put into effect immediately by the contractor. The necessary sanitary conveniences for the use of laborers on the work properly secluded from public observation shall be constructed and maintained by the Contractor and their use shall be strictly enforced by the contractor. All sanitary laws and regulations of the City and the State of Oklahoma shall be strictly complied with.

#### **204.05 PUBLIC CONVENIENCE AND SAFETY**

Materials stored about the work shall be so placed and the work shall, at all times, be so conducted as to cause no greater obstruction of the traveling public than is considered necessary by the Engineer. The contractor shall make provisions by bridges or otherwise, at all cross streets, highways, sidewalks and private driveways for the free passage of vehicles and pedestrians, provided that, where bridging is impractical or unnecessary in the opinion of the Engineer, the contractor may make arrangements satisfactory to the Engineer for the diversion of traffic and shall, at his own expense, provide all materials and perform all work necessary for the construction and maintenance of roadways and bridges for the diversion of traffic. Sidewalks must not be obstructed unless by special permission of the Engineer. Neither the materials excavated nor the construction materials or plant used in the construction of the work shall be placed so as to endanger the work or prevent free access to all fire hydrants, water valves, gas valves, manholes for electric, telephone, telegraph or traffic signs conduits, sewers or fire alarm or police call boxes in the vicinity. The Owner reserves the right to remedy any neglect on the part of the contractor as regards the public convenience and safety which may come to its attention, after twenty-four (24) hours' notice in writing to the contractor, save in cases of emergency when it shall have the right to remedy any neglect without notice and, in either case, the cost of such work done by the Owner shall be paid prior to acceptance of the project. The contractor shall notify the Traffic Control Office, the Fire Department headquarters, and Policy Headquarters when any street is closed or obstructed, and when directed by the Engineer shall keep any street or streets in condition for unobstructed use by fire apparatus.

Where the contractor is required to construct temporary culverts or bridges or make other arrangements for crossings over ditches or streams, his responsibility for accidents shall include the roadway approaches as well as the structures of such crossings.

#### **204.06 PRIVILEGES OF CONTRACTOR IN STREETS, ALLEYS, OR RIGHT-OF-WAY**

For the performance of the contract, the contractor will be permitted to occupy such portions of streets or alleys, other public places or other rights-of-way as provided for in the ordinances of the City, as shown on the plans or as permitted by the Engineer. A reasonable amount of tools, materials and equipment for construction may be stored in such space but not more than is necessary to avoid delays in the construction. Excavated and waste materials shall be piled or stacked in such a way as not to interfere with spaces that may be designated to be left free and unobstructed, nor

inconvenience occupant of adjoining property.

Other contractors of the Owner may, for all purposes required by their contracts, enter upon the work and premises used by the contractors, and the contractor shall give to other contractors of the Owner, all reasonable facilities and assistance for the completion of the adjoining work. Any additional grounds desired by the contractor for his use shall be provided by him at his own expense.

#### **204.07 RAILWAY CROSSINGS**

When the work encroaches upon the right-of-way of any railroad, the Owner will secure for the contractor all the necessary contracts, easements or authority to enter upon such right-of-way for the prosecution and completion of the work. Where railroad tracks are to be crossed, the railway company, if it elects to do so, will construct the necessary bridges, trestles, cribs or other excavation during the time of construction of the work, and the cost of construction of such bridges, trestles, cribs or other structures shall be paid to the railway company by the contractor together with the necessary cost of any supervision or other incidental expense which may be required by the railway company, and all such costs shall be taken into consideration by the contractor in submitting proposals. The contractor shall take such special precautions for the safety of the work and the traveling public as may be necessary by sheeting, bracing and thoroughly supporting the sides of any excavation and supporting and protecting any adjacent structures.

#### **204.08 BARRICADES AND WARNING SIGNS**

Where work is carried on in or adjacent to any street, alley, or public place, the contractor shall, at his own expense, furnish and erect such barricades, fences, lights, and danger signals, shall provide such watchmen and shall take such other precautionary measures for the protection of persons or property and of the work as are necessary. Barricades shall be painted white or yellow, so as to be visible at night. The paint shall be renewed as often as necessary to keep the barricades substantially covered. From sunset to sunrise the contractor shall furnish and maintain at least one (1) light at each barricade. A sufficient number of barricades shall be erected to keep vehicles from being driven on or into any work under construction. The contractor shall furnish watchmen in sufficient numbers to protect any new work. Failure to comply with this requirement will result in the Engineer shutting down the work until the contractor shall have provided the necessary protection.

The contractor will be held responsible for all damage to the work due to failure of barricades, signs, lights and watchmen to protect it, and whenever evidence of such damage is found prior to acceptance, the Engineer may order the damaged portion immediately removed and replaced by the contractor at his expense, if, in the opinion of the Engineer such action is justified. The contractor's responsibility for the maintenance of barricades, signs and lights and for providing watchmen shall not cease until the project shall have been accepted by the Owner.

## **204.09 USE OF EXPLOSIVES**

Should the contractor elect to use explosives to loosen rock or concrete that cannot be ripped he shall obtain a permit from the Owner, City, State, any other governing body that has jurisdiction over the project site. Prior to the use of explosives the contractor shall provide insurance certification showing coverage of accidents from use of explosives and the contractor shall provide written evidence that the bonding company has been notified just prior to use of explosives. Neither the issuing of permits nor granting permission shall be construed as requiring the use of explosives or as accepting any liability for injury or damage resulting from the use of explosives. All procedures and precautions shall be in compliance with all applicable laws and regulations. Only a sufficient quantity of explosives for the immediate day's work shall be brought to the site. No blasting shall be done unless an inspector is present.

## **204.10 PROTECTION AND RESTORATION OF PROPERTY**

The contractor shall not enter upon private property for any purpose without first obtaining permission and he shall be responsible for the preservation of and shall sue every precaution necessary to prevent damage to all trees, fences, culverts, bridges, pavements, driveways, sidewalks, etc., to all water, sewer gas or electric lines or appurtenances thereof and to all other public or private property along or adjacent to the work. The contractor shall notify the proper representatives of any public service corporation, any company or any individual not less than twenty-four (24) hours in advance of any work which might damage or interfere with the operation of their or his property, along or adjacent to the work. He shall be responsible for all damage or injury to property of any character method of executing the work or materials, and said responsibility shall not be released until the work shall have been completed and accepted. When and where any direct or indirect damage or injury is done to public or private property on account of any act, omission, neglect or misconduct in the execution of the work or in consequence of the non-execution thereof on the part of the contractor, he shall restore at his expense such property to a condition similar or equal to that existing before such damage or interacted, or he shall make good such damage for injury in an acceptable manner.

In case of the failure on the part of the contractor to restore such property or make good such damage or injury, the Engineer may, upon forty-eight (48) hours written notice, under ordinary circumstances, and without notice when a nuisance or hazardous condition results, proceed to repair, rebuild or otherwise restore such property as may be determined necessary and the cost thereof will be paid by the contractor prior to final acceptance.

## **204.11 PROTECTION AND PRESERVATION OF LAND MONUMENTS AND PROPERTY LINE MARKS**

The contractor shall protect carefully from disturbance or damage all land monuments and iron pins or other markers which establish property or street lines, provided that where such monuments or markers must, of necessity, be disturbed or removed in the performance of the contract, the contractor shall first give ample notice to the Engineer, so that he may witness or

reference in such monuments or markers.

#### **204.12 RESPONSIBILITY FOR DAMAGE CLAIMS**

During the duration of the construction, the contractor and his surety shall defend, indemnify and save harmless the Owner and all its officers, agents and employees from all suits, actions or claims of any character, name and description brought for or on account of any injuries or damages received or description brought for or on account of any injuries or damages received or sustained by any person or persons or property by or from the said contractor or his employees or by or in consequence of any negligence in safeguarding the work or through the use of unacceptable materials in constructing the work or by or on through the use of unacceptable materials in constructing the work or by or on account of any act or omission, neglect or misconduct of the said contractor or by or on account of any claim or amounts recovered by any infringement of patent, trademark or copyright, or from any claims or amounts arising or recovered under the Workman's Compensation Law or any other law, ordinance, order or decree.

#### **204.13 TEMPORARY SEWER AND DRAIN CONNECTIONS**

When existing sewers have to be taken up or removed the contractor at his own expense shall provide and maintain temporary outlets and connections for all private or public drains, sewers or sewer inlets. He shall also take care of all sewage and drainage which will be received from these drains, sewers and sewer inlets; and for this purpose he shall provide and maintain at his own expense adequate pumping facilities and temporary outlets or diversions.

He shall construct such troughs, pipes or other structures necessary and be prepared at all times to dispose of drainage and sewage received from these temporary connections until such time as the permanent connections are built and maintained under the contract, save where specified or ordered to be abandoned by the Engineer. All water or sewage shall be disposed of in a satisfactory manner so that no nuisance is created and that the work under construction will be adequately protected.

#### **204.14 ARRANGEMENT AND CHARGE FOR WATER**

If the contractor desires to use public water, except for water used in flushing the water lines being installed for the same public entity that produces the water, he shall pay the rate established by that Entity for such services and he shall make complete and satisfactory arrangements with the producing Water Department for so doing. Meters will be used and the contractor shall deposit the cost of the water meter with the Water Department and will pay for all repairs and maintenance of the meter for the period which he has the meter in use of in his possession.

#### **204.15 USE OF FIRE HYDRANTS**

The contractor or his employees shall not open, turn off, interfere with, attach pipe or hose to or connect anything with any fire hydrant, stop valve or stop cock or tap any water main belonging to the Owner, unless duly authorized to do so by the Water Department.

#### **204.16 USE OF A SECTION OR PORTION OF THE WORK**

Whenever in the opinion of the Engineer any portion of the work or any structure is in suitable condition, it may be put into use by the written order of the Engineer, and an acceptable letter of credit or Performance Bond has been furnished the Owner and approved by the Owner, and such usage will not be held to be in any way an acceptance of said work or structure or any part thereof or as a waiver of any of the provisions of these specifications or contract. Pending final completion and acceptance of the work, all necessary repairs or renewals on any section of the work so put into use, due to defective material or workmanship, to natural causes other than ordinary wear and tear or to the operations of the Contractor shall be performed by and at the expense of the contractor.

#### **204.17 CONTRACTOR'S RESPONSIBILITY FOR THE WORK**

Until written acceptance by the Owner as provided for in these specifications, the work shall be under the charge and care of the contractor, and he shall take every necessary precaution to prevent injury or damage to the work or any part thereof by the action of the elements or from any other cause whatsoever, whether arising from the execution or from the non-execution of the work. The contractor shall rebuild, repair, restore, and make good, at his own expense, all injuries or damage to any portion of the work occasioned by any of the above caused before acceptance.

#### **204.18 PERSONAL RESPONSIBILITY OF PUBLIC OFFICIALS**

In carrying out any of the provisions contained herein or in exercising any power or authority granted to him by the contract, there shall be no liability upon the Engineer or his authorized assistants, either personal or as officials of the Owner, it being understood that in such matters he acts as the agent and representative of the Owner.

#### **204.19 WAIVER OR LEGAL RIGHTS**

Inspection by the Engineer or by any of his duly authorized representatives, any order, measurement, or certificate by the Engineer, any acceptance of any work or any possession taken by the Owner, shall not operate as a waiver of any provision of the contract or any power therein reserved to the Owner of any right of damages therein provided. Any waiver of any breach of contract shall not be held to be a waiver of any other or subsequent breach.

#### **204.20 CONTRACTOR'S INSURANCE**

The contractor shall not commence work under this contract until he has obtained all insurance required under this specification and such insurance has been approved by the Owner, no shall the contractor allow any subcontractor to commence work on his subcontract until all similar insurance required of the subcontractor has been so obtained and approved.

#### **204.21 COMPENSATION AND DEATH LIABILITY INSURANCE**

The contractor shall maintain during the life of this contract Workmen's Compensation Insurance as prescribed by the laws of the State of Oklahoma and Employer's Liability Insurance in an amount not less than that required by law for all his employees employed at the site of the project, and in case any work is sublet the contractor shall require the subcontractor similarly to provide Workmen's Compensation and Employer's Liability Insurance for all the latter's employees unless such employees are covered by the protection afforded by the contractor. In the event any class of employees engaged in hazardous work performed under this insurance heretofore mentioned, the contractor shall provide, and shall cause each subcontractor to provide adequate insurance for the protection of his employees not otherwise protected.

#### **204.22 PROOF AND CARRIAGE OF INSURANCE**

The contractor shall furnish the Owner with satisfactory proof of carriage of insurance required.

#### **204.23 ACCIDENTAL BREAKAGE OF PUBLICLY-OWNED UTILITY LINES**

Should the contractor accidentally or otherwise break a publicly-owned utility line, the contractor shall repair such a line as soon as possible after the break; however, under no circumstances shall the contractor leave the job site until the repairs have been made to restore service to the utility users. Should the contractor not be able to find the necessary repair fittings, materials, pipe etc., form retail supplies for the repair. The contractor will then either replace those items furnished (same brand, class, etc.) by the Owner, or pay the Owner its cost for the same. Payment for any supplies shall be made prior to final acceptance of the project by the Owner.

## **SECTION 205**

### **PROSECUTION AND PROGRESS**

#### **205.01 PROSECUTION OF WORK**

The sequence of all construction operations shall at all times be as approved by the Engineer. Should the prosecution of the work for any reason be discontinued by the contractor, he shall notify the Engineer at least twenty-four (24) hours in advance of resuming operations.

#### **205.02 LIMITATIONS OF OPERATIONS**

The contractor shall conduct his work so as to create a minimum amount of inconvenience to the public. At any time when in the judgement of the Engineer, the contractor has obstructed or closed or is carrying on operations on a greater portion of the street or public way than is necessary for the proper execution of the work, the Engineer may require the contractor to finish the sections on which work is in progress before work is started on any additional section.

#### **205.03 CHARACTER OF WORKMEN AND EQUIPMENT**

The contractor shall employ such superintendents, foremen and workmen as are careful and competent and the Engineer may demand the dismissal of any person or person employed by the contractor, in, about or in the work who shall misconduct himself or be incompetent or negligent in the proper performance of his or their duties or neglect or refuse to comply with the directions of the Engineer, and such person or persons shall not be employed again thereon without the written consent of the Engineer. Should the contractor continue to employ or again employ such person or persons without the written consent of the Engineer then the Engineer may withhold all estimates which are or may become due or may suspend the work until such orders are complied with.

All workmen shall have sufficient skill and experience to properly perform the work assigned them. All workmen engaged on special work or skilled work or in any trade shall have sufficient experience in such work to properly and satisfactorily perform it and operate the equipment involved, and shall make due and proper effort to execute the work in the manner prescribed in these specifications. Otherwise, the Engineer may take action as above prescribed.

The contractor shall furnish such equipment as is considered necessary for the prosecution of the work in an acceptable manner. All equipment, tools and machinery used for handling materials and executing any part of the work shall be subject to the approval for the Engineer and shall be maintained in a satisfactory working condition. Equipment on any portion of the work shall be such that no injury to the work or adjacent property will result from its use.

#### **205.04 DAY'S WORK: WORKING HOURS**

Work shall be done only during the regular and commonly accepted and prescribed working hours. No work shall be done nights, Saturdays, Sundays, or regular holidays unless a notification is given to the Engineer in writing.

#### **205.05 TEMPORARY SUSPENSIONS**

The Engineer shall have the authority to suspend the work wholly or in part for such period or periods as he may deem necessary, due to unsuitable weather or such other conditions as are considered unfavorable for the suitable prosecution of the work.

It should become necessary to stop work for an indefinite period, the contractor shall store all materials in such manner that they will not obstruct or impede the traveling public unnecessarily nor become damaged in any way, and he shall take every precaution to prevent damage or deterioration of the work performed, and shall provide suitable drainage about the work and erect temporary structures where necessary.

The contractor shall not suspend work without written authority from the Engineer and shall proceed with the work promptly when notified by the Engineer to resume operations.

## **SECTION 206**

### **BONDS**

#### **206.01 GENERAL**

No surety will be accepted who is now in default or delinquent on any bond or who is interested in any litigation against the Owner. All bonds shall be made on forms furnished by the Owner and shall be executed by surety companies licensed to do business in the State of Oklahoma and acceptable to the Owners council. Each bond shall be executed by the contractor and surety.

#### **206.02 MAINTENANCE BOND**

A good and sufficient Maintenance Bond in an amount equal to one hundred (100%) percent of the total amount of the contract, guaranteeing the maintenance in good condition of such improvements for a period of one (1) year from and after the time of the completion and acceptance by the Owner of said improvements.

#### **206.03 PERFORMANCE BOND**

A good and sufficient Performance Bond shall be required in an amount equal to one hundred (100%) percent of the total contract amount guaranteeing execution and completion of the work in accordance with the plans and specifications.

#### **206.04 STATUTORY BOND**

A good and sufficient Statutory Bond shall be required in amount equal to one hundred (100%) percent of the total contract amount guaranteeing payment in full for all materials and labor used in the construction of the work.

# DIVISION X

## SCADA UPGRADES

### 1 PROPOSED IMPROVEMENTS

#### 1.1 Supplemental Provisions to the Proposed Water Plant SCADA Upgrade – Coweta Public Works Authority

##### 1.1.1 SCADA Upgrade

This item shall be paid for on a lump sum price bid. This item will include all work necessary to furnish and install the SCADA system for the water treatment plant, booster station, water towers, and storage tanks. This item shall include all materials, labor, and equipment incidental thereto in accordance with the Plans and Technical Provisions to ensure operation and compatibility of the system. The system shall consist of the following controls:

###### 1.1.1.1 *Skyview Tower (1)*

- Monitor tower level
- Connected via CatM1 MC 4G Cellular Modem – double AES encryption with revocable per-device security keys/credentials
- Solar Power with Battery Backup – sized for 7 days operation with no sun
- Local/Remote ability to change start/stop setpoints for tower
- User configurable alarms/alerts:
  - Low tower level
  - High tower level
  - Low battery
  - Solar failure

###### 1.1.1.2 *Tiger Tower (1)*

- Monitor Tower Level
- Connected via CatM1 MC 4G Cellular Modem – double AES encryption with revocable per-device security keys/credentials
- Solar Power with Battery Backup – sized for 7 days operation with no sun
- Local/Remote ability to change start/stop setpoints for tower
- User configurable alarms/alerts:
  - Low tower level
  - High tower level
  - Low battery
  - Solar failure

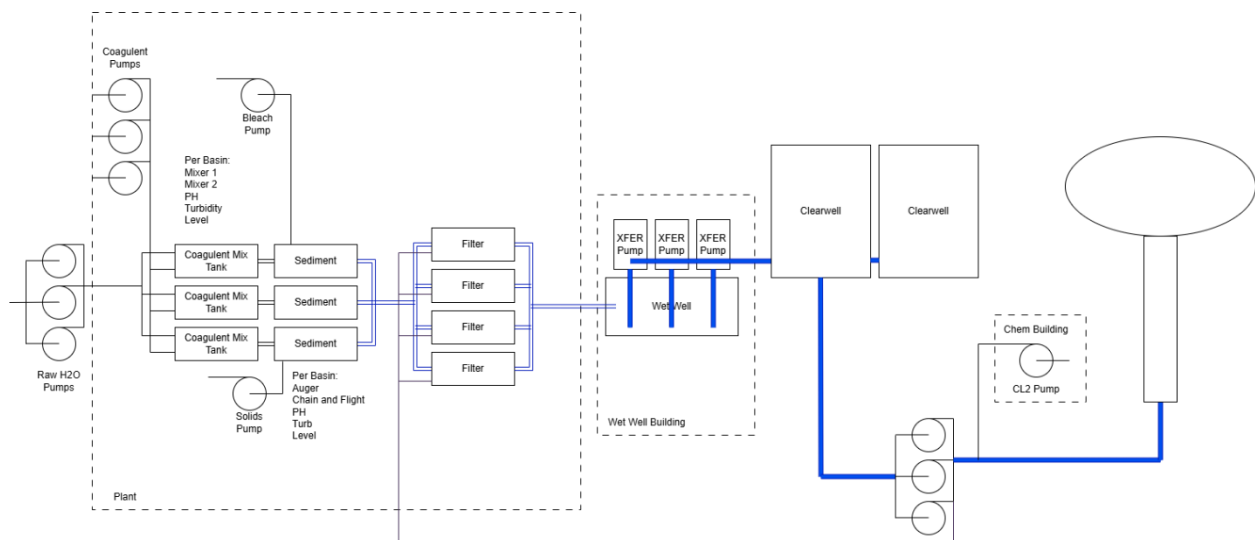
- Ability to control an electronic valve automatically or remotely based on tower level.

#### 1.1.1.3 Skyview Pump Station (1)

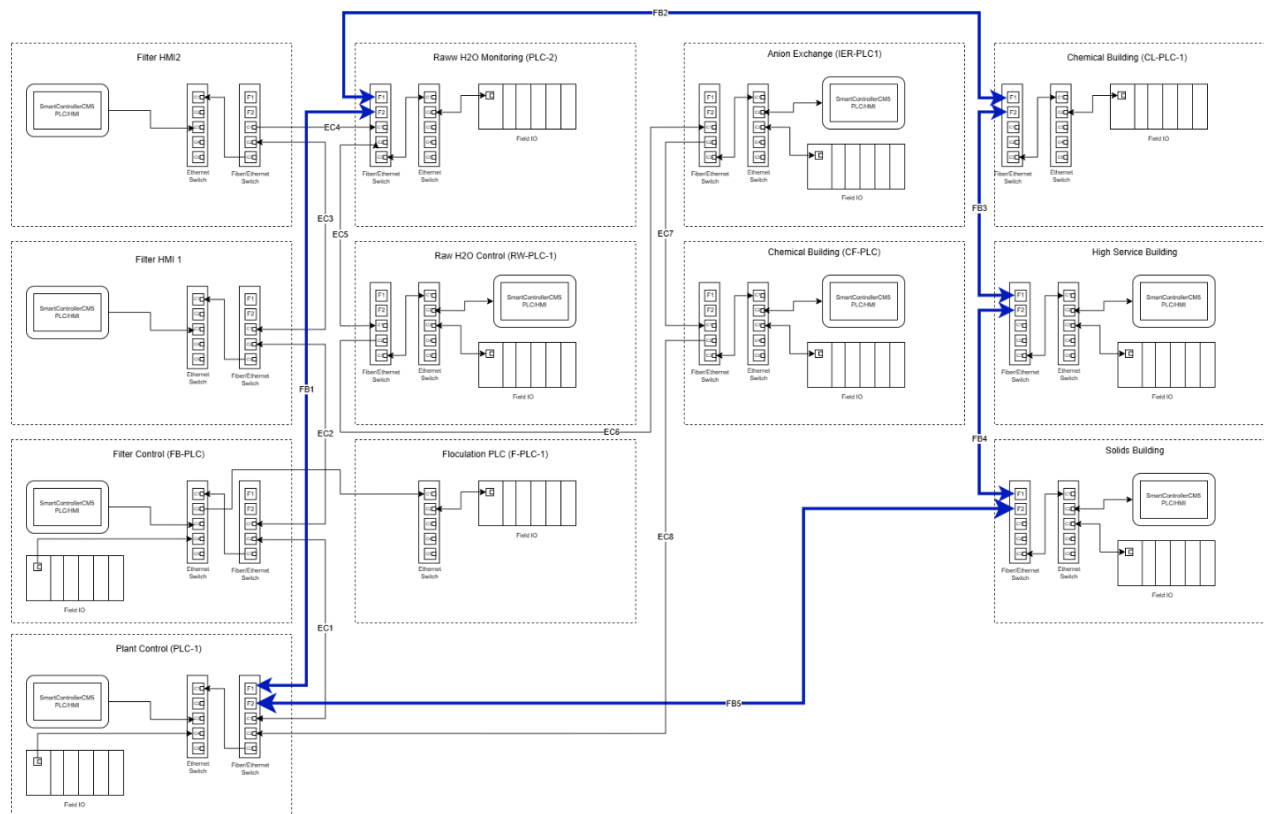
- VFD control (5 Pumps)
  - Run feedback, fault and fail to start monitoring
- Automated via SmartController™
- Local/remote AHO
  - Local on SmartController™ using keypad and LCD
- Remote via mobile device or PC using whisker.io cloud app
- Station Mode
  - Flow rate – pump is controlled with pressure and flow rate combination start/stop setpoints
  - Pressure – pump speed is controlled to maintain target pressure
  - Pumps are set up to alternate when in normal operating conditions and set to turn multiple simultaneously on as needed due to usage.
- Monitor suction and discharge pressure using existing pressure transducers
- Monitor pulse out flow meter – report totalized readings for each of last 3 days
- Battery backup – 72 hours minimum operation of telemetry during loss of power at pumping station
  - Provides exception surge protection for control electronics
  - Monitors power and battery condition and alerts if the batteries need to be replaced or the power is lost
- Speed Setpoint – determines speed of pump in all modes. Can set speed of each pump remotely.

#### 1.1.1.4 Water Plant

##### 1.1.1.4.1 Plant Systems Overview



### 1.1.1.4.2 SCADA Systems Overview



### 1.1.1.4.3 General Requirements

- All automation controllers, HMI, smart sensors and field I/O must communicate via a fault tolerant network
- All communications between automation controllers and HMI must use a secure field protocol with TLS encryption and revocable encryption keys per device
- 8+ hours battery backup (BBU) for each automation controller, network switch, HMI and field I/O – ensures telemetry remains operational during a power loss
- Each BBU must monitor for battery failure and power loss. Automation controllers should monitor the BBU and notify operators if a power or battery problem arises.
- All existing PLC, field I/O, HMI and SCADA will be replaced throughout the plant with the exception of the Solids Building. Existing fiber connections and electrical cabinets can be reused if possible.

### 1.1.1.4.4 Raw H2O Intake

- Local/remote HOA (Hand-Off-Auto) control of 3 raw water pumps
- Monitor flow rate, UV Valve position, and emergency floats
- Control valves and pacing chemical injection
- Monitor pump run and fault status

- Alarm/alert on pump fault, out of band chemistry, low flow
- Provide 10” HMI panel for operator control

#### 1.1.1.4.5 Rapid Mix

- Control pacing chemical injection
- Monitor mix tank levels, emergency float and chemistry
- Alert on equipment fault, out of band chemistry

#### 1.1.1.4.6 Flocculation

- Control pacing chemical injection
- Control auger and Chain and Flight
- Control solids pump
- Monitor flocculation levels, emergency float and chemistry
- Alert on equipment fault, out of band chemistry

#### 1.1.1.4.7 Sedimentation

- Control auger and Chain and Flight
- Control solids pump
- Alert on equipment fault, out of band chemistry

#### 1.1.1.4.8 Filters

- Provide three 15” panel HMI, two in the main plant and one at the control cabinet for operator control
- Control filter valves and automatic backwash process
- Monitor filter levels, chemistry and emergency floats
- Alert on equipment fault and out of band chemistry

#### 1.1.1.4.9 Transfer Pumps

- HOA control of 3 pumps
- Monitor clear well level and automatically start transfer pumps to maintain clear well level
- Monitor wet well floats and analog level via radar/ultrasonic sensor

#### 1.1.1.4.10 Clearwell (x2)

- Monitor clear well level
- Add clear well level indicator at tank – solar powered monitor ensures tank level can be read by operators even during power outage

#### 1.1.1.4.11 Chlorine Injection

- HOA control of CL2 injection pump
- Operator dosing setpoints

- Monitor CL2 level using existing chemistry analyzer
- Provide 10” HMI panel for operator control

#### 1.1.1.4.12 High Service Pumps

- Monitor tower level via cloud SCADA cellular bridge
- Automatically start HSP to fill towers and provide flow for backwash
- Allow users to locally and remotely change start/stop level setpoints
- Local/remote HOA control for each HSP
- Monitor pump run and fault status
- Provide 10” panel HMI for operator control
- Monitor Power/Generator for high service pumps

#### 1.1.1.4.13 Solids Building

- Monitor/control belt process
- Monitor/control decant station
- Provide 10” HMI panel for operator control

#### 1.1.1.4.14 Spares

The bid must include the following spares:

- 1x each type/size of automation controller / HMI panel
- 1x network switch
- 1xField IO controller
- 1x each type of Field IO module used in project (digital in, digital out, analog I/O, etc)
- 5x each unique fuse type/size used in project

## 2 SCOPE

The goal of this project is to replace the existing SCADA system with an Industry 4.0 SCADA/Automation solution that is properly segregated and configured for the plant as it is used now – see section 3.1.1 for a complete listing of plant systems and requirements.

Key objectives are:

1. Replace current PLCs throughout the plant with a modern Industry 4.0 distributed control system that is secure and tailored to the current operation and configuration of the plant.
  - a. This project requires the replacement of every PLC, HMI, SCADA computer, radio, and Field I/O system.
2. Simplify system control – one master PLC with field I/O, fewer points of failure.
3. Complete, real-time automatic control of all aspects of plant.

4. Upgrade UPS for each PLC cabinet so entire control system has 8+ hours of operation during power loss even if power is lost on a single phase.
5. Add solar kit and display at clear well so the level can be checked any time, even during a power outage.
6. Provide ability to securely monitor and manage the plant control system from anywhere in the world using a PC, tablet or mobile device.

## 3 SPECIFICATIONS AND REQUIREMENTS

**Or-Equal Substitutions.** Where this specification references a particular manufacturer, brand name, model, protocol (including NexusSec™), or proprietary feature, such reference establishes the required level of quality, functionality, performance, and interoperability and is not intended to restrict competition. A Bidder may offer an "or equal" product that meets or exceeds every stated requirement. The burden of proving equivalency rests with the Bidder, who shall submit sufficient technical documentation for the Owner to evaluate the proposed substitution. The Owner retains sole discretion to determine whether a proposed substitution is equal.

### 3.1 SUPERVISORY CONTROL AND DATA ACQUISITION (SCADA)

- A. The primary SCADA solution software must be cloud based and must be hosted in a Microsoft Azure data center to ensure physical and cybersecurity of the cloud platform.
- B. The SCADA software must provide granular roles-based permissions with each action requiring a specified role. Users may be assigned multiple roles to allow multiple actions or groups of actions by that user.
- C. The SCADA software must log each change made by a user including the username, what is being changed, old and new values, and date and time. The software must provide a UI for viewing, filtering and exporting these logs.
- D. The SCADA software must allow the user/operator to create new HMI screens and modify existing HMI screens. The HMI designer should be WYSIWYG and have a drag-drop interface.
- E. The SCADA software must support unlimited user-defined alerts and should notify indicated recipients of an alert by SMS text and/or email.
- F. The SCADA software must provide voice callout as an option for alerts and alarms.
- G. The SCADA software must support user-defined dashboards for historical trend analysis.

- H. The SCADA software must communicate with field devices via the MQTT protocol with TLS encryption.
- I. The SCADA software must support two factor authentication (2FA) that can be required per user or for all users on an account.
- J. All features of the SCADA software must be editable and maintainable by the operator/user so that an engineer is not required to make changes that the operator/user desires.
- K. The SCADA software must provide an HTML5 browser-based application and a native android/iOS application.
- L. The SCADA software must provide a Windows/Linux application (Windows SCADA Application) that can run on a control room computer to provide the operator with access to all tags from all Automation Controllers.
- M. The Windows SCADA Application must meet all security requirements previously specified for the cloud based SCADA software.
- N. The Windows SCADA Application must support multiple monitors and allow the user to specify default HMI pages for each monitor.
- O. The Windows SCADA Application must include a local historian with a Time Series Database (TSDB). It must provide a trend graphing tool that allows the user to create custom, on-demand trend graphs with up to 6 tags. It must also provide a data export tool to create a CSV file from the stored historical data, allowing the user to specify the tags to include and the timeframe to export.
- P. The Windows SCADA software must include a license that allows the user to edit and customize every aspect of the software.
- Q. The Windows SCADA software must include drivers for NexusSec™, Ethernet/IP and Modbus TCP to support reading/writing tag data to and from automation controllers and field I/O.
- R. The Windows SCADA software must include an alert/alarm history page with the ability to see every alert/alarm in a table and selectively acknowledge and delete alerts/alarms.

## 3.2 SECURE 4G TELEMETRY

- A. Secure CatM1 4G Gateway will be used in lieu of radios for telemetry and must meet the requirements outlined in this section.
- B. Gateway must use AES-256 encryption for all data with unique, revocable encryption credentials per device.
- C. Gateway must support expansion using IP67 rated field I/O via Modbus RTU (RS-485) port via standard M8-4 or M12-5 connector for ease of field replacement.

- D. Gateways that are solar powered must provide a minimum of 7 days of autonomy. Gateways that are line powered must provide a minimum of 8 hours of battery powered operation when power is lost.
- E. Gateway must be able to automatically switch between AT&T, T-Mobile and Verizon with a single SIM card to ensure maximum reliability.
- F. Gateway must be encased in IP67 housing, eliminating the requirement for a separate enclosure.
- G. Gateway must automatically pull its configuration and program from the cloud SCADA platform automatically upon startup. This provides plug-and-play field replacement by the customer with no need for an on-site engineer or technician to program or otherwise provision the replacement device.
- H. Gateway must be programmable in Python to facilitate protocol conversion, local automation and other features that may be needed in future application.

### 3.3 AUTOMATION CONTROLLER

- A. The following requirements apply to Automation Controllers with less than 128 I/O:
  - 1. Automation Controllers will be used in lieu of PLC for programmable automation. Automation Controllers must have Gateway functionality and must meet the requirements of the SECURE 4G TELEMETRY section and the requirements outlined in this section.
  - 2. Automation Controllers must include a sunlight readable LCD whose size is at least 2.7” and push buttons or a waterproof capacitive touch screen for user interaction.
  - 3. Automation Controller must be programmable in Python to facilitate protocol conversion, local automation and other features that may be needed in future application.
  - 4. Automation Controller must automatically pull its configuration and program from the cloud SCADA platform automatically upon startup. This provides plug-and-play field replacement by the customer with no need for an on-site engineer or technician to program or otherwise provision the replacement device.
  - 5. Automation Controller must have a dual core processor with at least 150MHz operating speed and 520K SRAM.

6. Automation Controller must have internal SD card with minimum of 8GB for file system storage.
  7. Automation Controller must be encased in IP67 housing eliminating the requirement for a separate enclosure.
  8. Automation Controller must be powered from 8-30VDC power supply.
- B. The following requirements apply to Automation Controllers with more than 128 I/O:
1. Automation Controllers will be used in lieu of PLC for programmable automation. Automation Controllers must have Gateway functionality and must meet the requirements of the SECURE 4G TELEMETRY section and the requirements outlined in this section.
  2. Automation Controllers must include an integrated sunlight readable color LCD whose size is at least 10" with a waterproof front bezel and capacitive touch screen for user interaction. If the Automation Controller has more than 250 defined tags, the minimum LCD size is 15".
  3. Automation Controllers must provide user-programmable HMI screens with a dark theme and vector only graphics.
  4. Automation Controllers must be programmable in Python and Ladder Logic. Ladder programs shall be able to invoke Python functions and retrieve the results via a common tag.
  5. Automation Controller must automatically pull its configuration and program from the cloud SCADA platform automatically upon startup. This provides plug-and-play field replacement by the customer with no need for an on-site engineer or technician to program or otherwise provision the replacement device.
  6. Automation Controller shall communicate with Field I/O using NexusSec™, Modbus TCP or Ethernet/IP.
  7. Automation Controller shall communicate PLC-PLC and PLC-PC via TLS with unique security certificates per controller. The certificates shall be managed by the cloud SCADA platform and shall be revokable on-demand or on-schedule.
  8. Automation Controllers shall ensure that the operating configuration and program are authorized and authenticated prior to execution. Simple password protection is not sufficient – all configuration and program artifacts shall be signed using the controller's security certificate.

9. Automation Controllers must have quad core 64-bit processor with minimum 1.8GHz operating speed, 2GB of SDRAM, and 32GB of SSD.
10. Automation Controller shall store up to 60 days history for each defined tag. HMI screens shall provide a user configurable trend graph that can display up to 60 days history for up to 6 user-selected tags.
11. Automation Controllers must provide a minimum of two 10BASET or 10BASET1L ports. It must also support a media-redundancy protocol (RSTP, MRP, or PRP/HSR) for single-cable-failure recovery.
12. Automation Controllers must use a common Development Environment that meets the following requirements:
  - i. The Development Environment must require no license fees and should be available for download by Owner without restriction on Bidder's website.
  - ii. The Development Environment shall support application-level development with multiple projects for PLC and HMI in a instance of the application.
  - iii. The Development Environment shall be connected to the cloud SCADA platform for revision control, authentication, configuration and provisioning.
  - iv. The Development Environment shall be capable of importing .L5X files from RS Logix 5000 and converting to programs compatible with Automation Controller.
  - v. The Development Environment shall include an AI Designer capable of developing a multi-PLC and HMI application from a written specification. The AI Designer should also be capable of correcting errors and adding features to python and ladder programs and HMI designs using text prompts.
13. Automation Controller must be powered from 9-30VDC power supply.

### 3.4 FIELD I/O

- A. The following requirements apply when there are less than 192 digital and analog I/O per Automation Controller:

1. Field I/O system shall be modular and expandable with each module including a minimum of (2) 4-20mA analog inputs, 6 digital inputs, 1 digital output and 1 analog output; in other words, each I/O module must provide sufficient I/O to monitor and control a single pump/motor at a minimum.
  2. Field I/O system shall support up to 16 modules for a total of 192 possible analog and digital I/Os.
  3. Field I/O modules shall provide pluggable headers for field I/O connections and must be hot-swappable so that power does not need to be removed from the system to replace the module.
  4. Field I/O modules shall communicate via Modbus RTU (RS-485).
  5. Field I/O modules shall be powered from an 8-30VDC power supply.
  6. Field I/O modules shall have LED indicators for digital and analog inputs and outputs. For digital I/O the LED shall be lit if the I/O is active. For analog inputs, the LED shall be lit if the analog input is in range. For analog outputs, the LED shall be lit if the output is non-zero and in range.
  7. Field I/O modules shall connect via a 5 pin TBUS connector mounted on the DIN rail. This connector shall have a 5 pin 3.8mm pluggable female header on the left side and a 5 pin 3.8mm pluggable male header on the right side to facilitate stacking. Power and RS-485 signals shall pass through the connector to each attached I/O module.
- B. The following requirements apply when there are more than 192 digital and analog I/O per Automation Controller:
1. Field I/O system shall be modular and expandable with each module including a minimum of 32 digital I/O or 16 analog I/O.
  2. Field I/O system shall include a controller and up to 512 total I/O per block:
    - i. Controller must include at least one 10BaseT or 10BaseT1L port and must support Modbus TCP and Ethernet/IP protocols.
  3. Field I/O modules shall provide pluggable headers for field I/O connections and must be hot-swappable so that power does not need to be removed from the system to replace the module.
  4. Field I/O modules shall be powered from 8-30VDC power supply.
  5. Field I/O modules shall have LED indicators for digital and analog inputs and outputs. For digital I/O the LED shall be lit if the I/O is active. For analog inputs, the LED shall be lit if the analog input is in range. For analog outputs, the LED shall be lit if the output is non-zero and in range.
  6. Field I/O modules shall connect to the controller and each other via a bus connector mounted on the DIN rail. The connector shall pass power and communications signals between the controller and the connected modules.

### 3.5 RADAR LEVEL METERS

- A. Level Meters shall be a 60GHz pulsed coherent radar (PCR) with Modbus RTU or two wire 4-20mA output .
- B. The Level Meter shall be powered from an 8-30VDC power supply.
- C. The Level Meter shall be low power, consuming no more than 300mW at maximum measurement range.
- D. The Level Meter shall be capable of reading fluid level through the wall of a plastic storage tank without requiring an opening in the tank and shall have a maximum measurement range of 30 feet.

### 3.6 LEAK DETECTION SENSORS

- A. Leak Detection Sensors (LDS) shall include the following
  - a. A Gateway as specified in the SECURE 4G TELEMETRY section, capable of reading pressure and reporting every 1 minute to a cloud SCADA platform via secure cellular connection.
  - b. A 12V DC solar power supply capable of 7 days of autonomous operation with no sun.
  - c. A 200psi pressure sensor with M12 A coded connector for easy replacement.

### 3.7 TRAINING

- A. A minimum of 24 hours of operator training shall be provided on-site
- B. A minimum of 40 hours of additional training shall be provided for use at the discretion of the owner

### 3.8 WARRANTY AND SERVICE

- C. All equipment (automation controllers, HMI panels, field I/O etc) must be warranted by the Contractor for a minimum of 3 years from date of installation.
- D. The contractor shall provide a 1 year service contract, the price included in this bid. This contract shall cover all service required whether warranty or non-warranty during the 1 year period. The price of maintenance contract for subsequent years must be included in the Bid.
- E. The Contractor shall provide 1 year subscription for cellular, data, cloud storage, etc – everything that is required to operate the plant. The price for this must be included in the Bid. The price of subscriptions for subsequent years must also be included in the Bid.

### 3.9 DELIVERABLES

The following must be delivered to the Owner prior to completion of the project in both electronic and print form:

1. All application and project files for every ladder and/or python program, HMI screen set, and alarm and historian configuration designed/created for this project.
2. Accurate, As-Built wiring diagrams for each system/cabinet/location.
3. Factory user's manuals for all automation controllers, HMI panels, field I/O and all other components that were installed as a part of this project.
4. Operator's manual for the control system.

Two copies of all electronic files shall be delivered on USB thumb drives.

Two copies of all As-Built drawings shall be printed on ANSI B paper – one is to be placed in the appropriate electrical controls cabinet and the other is to be bound with other drawings in a 3-ring binder.

Two copies of the User's Manual shall be printed on letter-sized paper and bound in 3-ring binders.

## DIVISION XI FILTER CONTROLS SPECIFICATION

### SECTION 1 - GENERAL

#### 1.1 GENERAL

- A. This specification describes a complete operational system to be furnished by a single responsible equipment manufacturer. The equipment described herein is based on products and services as manufactured by Tonka Water, a Kurita brand, of Minneapolis, MN.
- B. It is the intent of this specification that the filter manufacturer assume system and process responsibility for the filtration equipment and appurtenances. Therefore, the filtration equipment manufacturer shall provide the filtration equipment and all appurtenances described in this section of the specification including but not limited to; controls, etc.
- C. This specification has been prepared on the basis of the specific requirements for this application. These specifications require modification of manufacturer's standard equipment design. *It will be mandatory that all equipment manufacturers meet all requirements of this specification. Equipment manufacturer shall modify their standard designs and recommended operational parameters to meet all requirements of this specification.* Any claims to the contrary, whether specific or implied, indicating that the equipment may not meet the specifications, will be considered grounds for rejection of the bid.
- D. The equipment manufacturer must have a quality management system that is ISO 9001:2026 certified. Certification must remain in effect throughout the project start-up.

#### 1.2 QUALITY ASSURANCE

- A. Reference Standards. AWWA, ANSI, ASME, FDA, and NSF.
- B. Qualification of Manufacturers
  - 1. All bidding contractors shall base their bids on systems and equipment manufactured by the named base bid manufacturer: Tonka Water, a Kurita brand, of Minneapolis, MN, **or engineer approved equal.**
  - 2. Engineer Review. The submittal information will be reviewed by the engineer. Contractors submitting requests for alternate manufacturer approval will be notified by written correspondence or by contract addendum. All such decisions shall be final.

#### 1.3 SUBMITTALS/SHOP DRAWINGS

- A. Shop Drawings: Submit complete set electronically for approval prior to fabrication.
- B. O&M manuals: Provide 1 printed copy and 1 digital media copy.

## SECTION 2 - PRODUCTS

### 2.1 MATERIALS/EQUIPMENT

- A. All components of the system herein described shall be fabricated and manufactured from new, unused materials, free from defects, of the highest quality possible.
- B. The materials and equipment shall be of the configuration, quantity and design features as described on the Equipment Schedule found in this specification.

### 2.2 AUTOMATIC FILTER CONTROLS

- A. General. The filter manufacturer shall furnish an automatic control system consisting of a PLC-based control panel with OIT, two remote HMI panels, and one remote PLC-based I/O panel. All panels include hardware, components, timers, operator interface terminal, enclosure, relays, switches, alarms, I/O, VFDs and other items necessary for a complete operational system. The automatic filter control system shall be essentially as described below.
- B. Hardware
  - 5. PLC. The automatic control panel shall be PLC-based using Allen-Bradley Series PLC's with Allen-Bradley I/O modules and network communication hardware (as necessary). SCADA contractor will be responsible for communications hardware and driver to interface with the filter PLC. Manufacturer to provide 10% spare I/O capacity including digital and analog I/O.
  - 6. Components. All HOA switches, lights, and indicators shall be NEMA 4 rated, Allen-Bradley or equal.
  - 7. Operator interface terminal (OIT) shall be Series 1000 Panel-View Plus OIT color touch screen by Allen-Bradley or engineer approved equal. The OIT shall be panel-mounted and shall indicate the following, via a series of a minimum of ten custom designed screens:
    - a. Filter system status (flows, levels, turbidities, etc.)
    - b. Backwash sequence
    - c. Bar graph and Digital Displays of Times In Backwash Monitor Screen.
    - d. Alarms/alarm acknowledges and alarm history
    - e. Event log indicating backwash time, date and how backwash was initiated
    - f. Status of exterior signals (backwash holding tank level, clearwell level, etc.)
    - g. Individual filter status (service, backwash, alarm, etc.)
    - h. Graphics to indicate water flow and valve status during each backwash step.

- i. Other functions, indication and information as required for a complete operating system
- 8. Panel shall include one 15 minute UPS (uninterruptible power supply), UL rated, and shall be furnished to automatically trickle charge. Adequately sized NiCad batteries shall be included to insure PLC and OIT function and indication for an uninterrupted power outage of 15 minutes duration. The UPS will not include power to filter function valves.
- 9. Valves shall be powered by breakers supplied by others, outside of the scope of the filter control panel.
- 10. Enclosure. UL/NEMA 4 rated enclosure, suitable for either pedestal or wall mounting, containing space for separate back panel mounting of PLC, power supply, I/O racks, wiring terminal blocks properly labeled and numbered, circuit breakers, switches, recorders, communication modem, etc., all as required for a complete operating system. Enclosure shall be UL rated and bear the 508 UL stamp prior to shipment.
- 11. Timers. Countdown timers shall be part of the OIT to indicate the following:
  - a. Draindown
  - b. Simultaneous air/water
  - c. Refill / Purge
  - d. Backwash
  - e. Filter to waste

C. Functional Control Description

- 1. General. During automatic operation the PLC shall control the filter functions and shall indicate and communicate filter status to the OIT and remote SCADA system as required.
- 2. Filtration consists of opening filter influent and effluent valves, which are their normal positions. As filter develops headloss throughout the filter run, differential pressure will be sensed.
- 3. At a pre-selected differential pressure, as sensed by the differential sensing device, the filter backwash panel shall automatically indicate backwash required on the appropriate OIT screen. Backwash will be either manually initiated by the operator at the OIT or automatically as programmed. Automatic backwash initiation shall be based on head-loss with a 7-day timer over-ride. The backwash procedure will automatically sequence through the pre-set backwash procedure without operator action.
- 4. The system shall utilize air and water simultaneously to create a sustained collapse-pulse action in the filter bed for a minimum of 10 minutes, followed by a short high-rate water-only backwash for media reclassification. Filter backwashing with air followed by water

wash or simultaneous air and water for short periods limited by filter geometry shall not be acceptable.

5. The simultaneous air and water backwash step shall incorporate air at 3 cfm/ft<sup>2</sup> and water at approximately 3-5 gpm/ft<sup>2</sup>. Backwash rates will vary based on water temperature and media type. Rates shall be set at startup to ensure proper collapse-pulse action and optimal media cleansing. Proper collapse-pulse in accordance with the parameters described herein shall be verified by performance testing at the time of start-up.
  6. Following the air/water backwash step, a water-only step shall be incorporated at the low flow rate for a duration as necessary to purge air from the media bed.
  7. Following the air purge step, a water-only backwash step shall be incorporated at rate sufficient for media fluidization for a duration as necessary to ensure proper reclassification of the filter media.
  8. Separate rate set valves shall be used to attain the proper low and high backwash rates necessary for simultaneous air/water backwashing and media reclassification. Rate set valves shall be set in the field at the time of start-up by the manufacturer's field technician.
  9. After the backwash procedure is complete, the filter shall be placed into a filter to waste mode. The filter shall be placed back into service automatically. There shall be provided a watch dog timer programmed into the PLC to place the filter back into service after a pre-selected time for filter to waste.
- D. Power Failure. If power to the PLC is lost, the uninterruptible power supply shall engage and shall continue automatic operation of the filter control panel (all function and indication) for a minimum of 15 minutes. If after 15 minutes power has not been restored to the filter control panel, then all valves shall fail to "service" condition, meaning that all filters shall be placed into normal service mode. If a filter is in backwash then the backwash process will be placed in hold until the return of power at which time it will resume and complete the process.
- E. Alarms. If required, the following alarms shall be indicated on the alarm OIT screen: backwash required, backwash abort, high clearwell water level, high NTU, high wash water waste holding, filter to waste watch dog timer, backwash hold, and other alarm conditions affecting filter operation.
- F. Communications Modem. The filter control panel shall contain capability for use of a communication modem allowing remote access to the filter control panel PLC and OIT to monitor and troubleshoot the filter and to effect program changes remotely from the factory.
- G. Remote Access Capability. The system control panel shall contain capability for remote screen mirroring, through Ethernet, of the system control panel PLC and OIT to monitor and operate the system, using customer supplied internet access/VPN.
- H. Supply wireless capable tablet with VNC viewer for remote access via VPN.

- I. Remote Programming Capability. The system control panel shall contain router and VPN gateway that includes capability for remote programming, through Ethernet, of the system control panel PLC, and OIT to troubleshoot and make changes to the system, using customer supplied internet access/VPN.
- J. Shop Testing. The filter control panel shall be fully tested with all alarms, indication and I/O fully simulated at the factory. All screens shall be tested along with all alarm functions and other control parameters, verified by factory certification as to inspector and date inspected. Testing shall be subject to verified witnessing by the engineer if required.

## **SECTION 3 - EXECUTION**

### **3.1 INSTALLATION**

- A. Delivery and Storage
  - 1. Upon delivery of the equipment to the jobsite, the contractor shall take inventory of the shipment and immediately report to the equipment manufacturer any discrepancies between the equipment manufacturer's packing lists and shipping documents.
  - 2. The contractor shall be responsible for off-loading and protection of all equipment against damage and during on-site storage and installation. Damaged equipment and materials will be replaced by the contractor at the contractor's expense.
- B. Manufacturer's Instructions. Installation shall be in accordance with the manufacturer's recommendations, installation instructions and assembly drawings. Manufacturer's installation instructions and assembly drawings shall be submitted and approved by the engineer prior to shipment of equipment.

### **3.2 FACTORY SERVICES AND START-UP**

- A. Installation Supervision. The contractor shall coordinate with the treatment equipment manufacturer to provide factory supervision (as outlined on the Equipment Schedule) or direction during critical phases of installation. Critical phases will include setting of equipment, installation of internals, installation of controls, wiring instrumentation and other components critical to the successful operation of the system.
- B. System Start-Up and Training
  - 1. The contractor will verify in writing that the project is ready for manufacturers field services. Copies of written verification shall be given to the manufacturer, engineer and owner prior to scheduling field services.
  - 2. The contractor shall provide the services of a factory representative during start-up of the treatment equipment. The contractor shall provide the number of days on site for start-up supervision as outlined in the Equipment Schedule. At a minimum, the equipment manufacturer's technician shall perform the following start-up functions:

- a. Inspect the final installation to assure proper installation, connection and wiring of all equipment of the manufacturer's supply.
- b. Start-up of the equipment in the presence of the Contractor and Owner's operating personnel.
- c. Training of Owner's operating personnel in proper operation and maintenance procedures, start-up/shutdown procedures, response to emergency conditions, and troubleshooting. The responsibility of the Contractor and the factory service representative with regard to start-up shall be fulfilled when the start-up is complete, the equipment is functioning properly, operating personnel have been trained and the equipment has been accepted by the Owner.

C. Post Start-Up Activities

- 1. Upon completion of his work, the manufacturer's field technician shall submit to the Engineer, six (6) copies of a written report outlining the equipment start-up, names of owner personnel trained and a listing of any deficiencies of equipment or materials as a result of his inspection, adjustments, corrections, repairs and start-up. The report shall include descriptions of the inspection, adjustments, corrections and repairs made, and shall certify that the equipment:
  - a. Has been installed per manufacturer's requirements.
  - b. Has been started and placed on line.
  - c. Has been tested per manufacturer's instructions.
  - d. Operator personnel have been instructed and trained.

++ END OF SECTION ++

**AFFIDAVIT OF PUBLICATION**

**Tulsa World**  
**315 S. Boulder Ave. , Tulsa, OK 74103**  
**(918) 582-0921**

I, Anjana Bhadoriya, of lawful age, being duly sworn upon oath depose and say that I am an agent of Column Software, PBC, duly appointed and authorized agent of the Publisher of Tulsa World, a publication that is a "legal newspaper" as that phrase is defined for the city of Tulsa, for the County of Tulsa, in the state of Oklahoma, that this affidavit is Page 1 of 2 with the full text of the sworn-to notice set forth on the pages that follow, and that the attachment hereto contains the correct copy of what was published in said legal newspaper in consecutive issues on the following dates:

**Publication Dates:**

- Jun 18, 2026
- Jun 25, 2026

**Notice ID:** Wefaa67A5lf7sYTPn2lc

**Notice Name:** SCADA SYSTEM BIDS

**Publication Fee:** \$214.06

I state under penalty of perjury under the laws of Oklahoma that the foregoing is true and correct.

*Anjana Bhadoriya*

\_\_\_\_\_  
Agent

**VERIFICATION**

State of New Jersey  
County of Camden

Signed or attested before me on this: 07/01/2026

*Sharon E. Thomas-Pope*

\_\_\_\_\_  
Notary Public

Notarized remotely online using communication technology via Proof.

**SHARONN E THOMAS-POPE**  
NOTARY PUBLIC  
STATE OF NEW JERSEY  
My Commission Expires January 23, 2027

Published in the Tulsa  
World, Tulsa, Tulsa  
County, Oklahoma, June  
18, 25, 2026

**ADVERTISEMENT FOR BID**

Sealed bids for construction of SCADA Upgrades and Filter Controls will be received by the **City of Coweta at 310 S. Broadway, Coweta, OK 74429** or by certified mail at **P.O. Box 850, Coweta, OK 74429-0850** until **2:00 p.m. local time, July 9th, 2026**, and then publicly opened and read aloud.

The information for Bidders, Form of Bid, Form of Contract, Specifications, and Form of Bid Bond, Performance and Payment Bond, and other contract documents may be examined at the following:

WDB Engineering PLLC

6330 S.E. 74TH Street

Oklahoma City, OK 73135

A complete set of Plans and Specifications may be obtained in an electronic downloadable format for **\$75.00** from QuestCDN. The link to download the electronic bid packet can be found at **wdbengineering.net** under Bid Documents. A hard copy set may be obtained at the office of WDB Engineering, PLLC located at 6330 SE 74th Street, Oklahoma City, OK 73135 upon payment of **\$150.00** per set. If obtaining a hard copy set, please notify WDB Engineering, PLLC at least 24 hours prior to picking up the hard copy set. Hard copy sets may be mailed to the bidder **ONLY** if the bidder provides a FedEx or UPS account number to the sender, WDB Engineering, PLLC. Refunds will not be made. **PRIME BIDDER MUST BE LISTED ON THE QUESTCDN PLAN HOLDER LIST, OTHERWISE THE BID PROPOSAL WILL BE REJECTED.**

Each bidder **MUST** purchase plans from Quest CDN or WDB Engineering, PLLC and appear on the official plan holder's list. **ANY BID RECEIVED BY A BIDDER NOT APPEARING ON THE OFFICIAL PLANHOLDER'S LIST WILL BE REJECTED WITHOUT BEING READ.**

The Owner reserves the right to waive any informalities or to reject any or all bids.

Each bid must be submitted in a sealed envelope bearing on the outside the name of the bidder, his address, and the name of the project for which the bid is submitted. No bid will be accepted more than 72 hours prior to the scheduled bid opening. If forwarded by mail, the sealed envelope containing the bid must be enclosed in another envelope addressed as specified in the bid form.

Each bidder must deposit with his bid, security in the amount, form and subject to the conditions provided in the Information for Bidders. Attention of bidders is particularly called to the requirements as to conditions of employment to be observed and minimum wage rates to be paid under the contract.

No bidder may withdraw his bid within 60 days after the actual date of the opening thereof.

COL-TUL-107092



P.O. BOX 850  
COWETA, OK 74429  
PH. (918) 486-2189  
FAX (918) 486-5366  
[www.cityofcoweta-ok.gov](http://www.cityofcoweta-ok.gov)

## Memorandum

To: Honorable PWA Chairman and Trustees

From: Julie A. Casteen, Trust Manager

Re: **RESOLUTION 2026-37 REGARDING BUDGET AMENDMENTS**

Date: August 3, 2026

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### BACKGROUND

Bids for the SCADA System project were received and opened on July 9, 2026. The lowest responsible bidder was Digital 6 Laboratories in the amount of \$466,500.

The \$16,500 maintenance agreement included in the contract was not considered during the budget process and will not be needed until FY28, but a budget amendment is required to cover the full cost of the contract. Funding for the maintenance agreement will be carried over into FY28.

In accordance with 11 O.S. § 17-216 of the Oklahoma Municipal Budget Act, a budget amendment must be approved to ensure compliance with Oklahoma municipal budget law and applicable U.S. GAAP and GASB standards.

### STAFF RECOMMENDATION

Staff recommends the adoption of Resolution 2026-37.

### ATTACHMENTS

1. 260803-Supplementals Reso 2026-37-PWA SCADA Maintenance Contract

**COWETA PUBLIC WORKS AUTHORITY, COWETA, OKLAHOMA  
RESOLUTION 2026-37**

**A RESOLUTION OF THE BOARD OF TRUSTEES OF THE COWETA PUBLIC WORKS AUTHORITY, COWETA, OKLAHOMA; ADOPTING AMENDMENTS TO THE ANNUAL APPROPRIATIONS FOR THE BUDGET OF THE COWETA PUBLIC WORKS AUTHORITY FOR FISCAL YEAR ENDING JUNE 30, 2027; APPROPRIATING \$16,500 IN THE UTILITY SERVICES FUND FROM UNENCUMBERED FUND BALANCE FOR A MAINTENANCE AGREEMENT FOR THE SCADA SYSTEM AT THE COWETA WATER TREATMENT PLANT.**

**WHEREAS**, the Coweta Public Works Authority has expenses for which the budget for fiscal year 2026-2027 exceeds available resources; and

**WHEREAS**, 62 O.S. Section 310.5 provides that all fund balances reserved for unencumbered appropriations for the prior fiscal year on hand at the close of day September 30, may be appropriated by supplemental appropriation for the current fiscal year; and

**WHEREAS**, the Coweta Public Works Authority desires to make supplemental appropriations for revenue sources and expenditures not appropriated in the budget.

**NOW THEREFORE BE IT RESOLVED** by the Trustees for the Coweta Public Works Authority for Coweta, Oklahoma, that the following supplemental appropriations be made:

| <b>ACCOUNT #</b>          | <b>DESCRIPTION</b>  | <b>AMOUNT</b>           | <b>REASON FOR EXPENDITURE</b> | <b>FUNDING SOURCE</b> | <b>FUND BALANCE AMOUNT</b> |
|---------------------------|---------------------|-------------------------|-------------------------------|-----------------------|----------------------------|
| 04-5325.033               | Contracted Services | \$ 16,500               | Maintenance Agreement         | Fund Balance          | \$ 16,500                  |
| <b>Total Utility Fund</b> |                     | <u><u>\$ 16,500</u></u> |                               |                       | <u><u>\$ 16,500</u></u>    |

**ADOPTED BY THE BOARD OF TRUSTEES OF THE COWETA PUBLIC WORKS AUTHORITY ON THIS 3<sup>RD</sup> DAY OF AUGUST 2026.**

\_\_\_\_\_  
Naomi Hogue, Chair

Approved as to form:

\_\_\_\_\_  
Patrick Boulden, Trust Attorney

ATTEST:

\_\_\_\_\_  
Marcy Kilgore, Secretary