



**INVITATION TO BID
ITB# 18-045-G
FOR**

**Pine Grove Culvert
Schedule of Events**

<u>EVENT</u>	<u>DATE</u>
ITB Issue Date	February 21, 2018
Pre-bid Conference not mandatory, attendance highly encouraged	February 28, 2018, 2:00 PM
Deadline for Receipt of Written Questions	March 1, 2018
ITB Response Due Date	March 14 th , 2018, 2:00 PM
ITB Opening	March 14 th , 2018, 2:30 PM
Anticipated Award Date	April 9 th , 2018

(All time references in this document are understood as Local Time, Roswell, GA.)

Questions should be directed in writing via e-mail to:

purchasing@roswellgov.com

**Submit Proposals to:
City of Roswell
Purchasing Division
38 Hill Street, Suite 130
Roswell, Georgia 30075**

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BID LETTER AND CERTIFICATION

(FAILURE TO INCLUDE THIS SIGNED BID LETTER AND BID CERTIFICATION MAY RESULT IN THE REJECTION OF YOUR BID.)

We propose to furnish and deliver any and all of the deliverables and services named in the attached ITB# 18-045-G Pine Grove Culvert for the City of Roswell for which prices have been set. The price or prices offered herein shall apply for the duration of the Project.

It is understood and agreed that this proposal constitutes an offer, which when accepted in writing by the City of Roswell, and subject to the terms and conditions of such acceptance, will constitute a valid and binding contract between the undersigned and the City of Roswell ("City").

It is understood and agreed that we have read the City's specifications shown or referenced in the ITB and that this proposal is made in accordance with the provisions of such specifications. By our written signature on this proposal, we guarantee and certify that all items included in this proposal meet or exceed any and all such City specifications described in this ITB. We further agree, if awarded a contract, to deliver goods and services which meet or exceed the specifications. The City reserves the right to reject any or all proposals, waive technicalities, and informalities, and to make an award in the best interest of the City.

It is understood and agreed that this proposal shall be valid and held open for a period of one hundred eighty (180) calendar days from proposal opening date.

PROPOSAL SIGNATURE AND CERTIFICATION

I certify that this proposal is made without prior understanding, agreement, or connection with any corporation, firm, or person submitting a proposal ("Offeror") for the same materials, supplies, equipment, or services and is in all respects fair and without collusion or fraud. I understand collusive bidding is a violation of state and federal law and can result in fines, prison sentences, and civil damage awards. I agree to abide by all conditions of the proposal and certify that I am authorized to sign this proposal for the Offeror. I further certify that the provisions of O.C.G.A. § 45-10-20, et seq. have not been violated and will not be violated in any respect.

Authorized Signature for Offeror _____

Date _____

Print/Type Name _____

Print/Type Offeror Name Here _____

OFFEROR'S ITB CHECKLIST

10 Critical Things to Keep in Mind When Responding to an ITB for the City of Roswell

1. _____ **Read the entire document.** Note critical items such as: supplies/services required; submittal dates; number of copies required for submittal; contract requirements (e.g. bonding and insurance requirements); etc.
2. _____ **Note the Buyer's name, address, phone numbers and e-mail address.** This is the **only** person you are allowed to communicate with regarding the ITB and is an excellent source of information.
3. _____ **Attend the pre-bid conference** if one is offered. These conferences provide an opportunity to ask clarifying questions, obtain a better understanding of the project, or to notify the City of any ambiguities, inconsistencies, or errors in the ITB. The **Schedule of Events** will indicate if the pre-bid conference is mandatory.
4. _____ **Take advantage of the "question and answer" period.** Submit your questions to the Buyer by the due date listed in the **Schedule of Events** and view the answers given in the formal "addenda" issued for the ITB. All addenda issued for an ITB are posted on the City's website and will include all questions asked and answered concerning the ITB.
5. _____ **Follow the format required in the ITB** when preparing your response. Provide point-by-point responses to all sections in a clear and concise manner.
6. _____ **Provide complete answers/descriptions.** Read and answer **all** questions and requirements. Don't assume the City will know what your company's capabilities are or what items/services you can provide, even if you have previously contracted with the City. The proposals are evaluated based solely on the information and materials provided in the published ITB and in your response.
7. _____ **Use the forms provided**, e.g. cover page, bid sheet, standard forms, etc.
8. _____ **Check the City's website for ITB addenda.** Before submitting your response, check the City's website at <http://www.roswellgov.com/bids> to see whether any addenda were issued for the ITB. **If so, you must submit a signed cover sheet for each addendum issued along with your ITB response.**
9. _____ **Review the ITB document again** to make sure that you have addressed all requirements. Your original response and the requested copies must be identical and complete.
10. _____ **Submit your proposal on time.** Note all the dates and times listed in the **Schedule of Events** and within the document, and be sure to submit all required items on time. Late proposal responses will not be accepted.

This checklist is provided for assistance only and should not be submitted with Offeror's Bid.

PROJECT OVERVIEW

The City of Roswell Council, the governing authority of the City of Roswell, Georgia (“the City”), through its Public Works Department, is requesting offers for the Construction of a new precast double barrel culvert (remove and replace existing), gabion mattress and walls and minor drainage improvements. The Project also includes the removal of and installation of 10" sanitary sewer line and replacement of 8-inch Class 50 DIP water main. Project elements include but are not limited to maintenance of traffic, earthwork, paving, grading, erosion control, dewatering as necessary, concrete culvert construction and installation.

It is anticipated that this project will take 120 for the entire project, with 21 days allowed for road closure. “Days”, means calendar days to complete after issuance of the notice to proceed with regard to the 120 days, the 21 days allowed for road closure. Liquidated damages will begin accruing after the anticipated project completion date in the amount of \$1,000 per day for entire project, \$5,000 per day for extended road closure. Please see project document for details.

SECTION 1: ITB INSTRUCTIONS

1.1 Single Point of Contact

From the date this Invitation to Bid (the “ITB”) is issued until an Offeror is selected, **Offerors are not allowed to communicate with any staff (other than designee below) or elected officials of the City regarding this procurement.** Any unauthorized contact may disqualify the Offeror from further consideration. Contact information for the single point of contact is as follows:

Buyer:	Greg Anderson
Address:	38 Hill Street Roswell, GA 30075
Telephone Number:	770-641-3718
E-mail Address:	purchasing@roswellgov.com

1.2 Required Review

- 1.2.1 **Review ITB:** Offerors should carefully review this ITB in its entirety including all instructions, requirements, specifications, and terms/conditions and promptly notify the Buyer, identified above, in writing or via e-mail of any ambiguity, inconsistency, unduly restrictive specifications, or error which may be discovered upon examination of this ITB.
- 1.2.2 **Addenda:** The City of Roswell may revise this ITB by issuing an addendum prior to its opening. The addendum will be posted on the City’s website alongside the posting of the ITB at <http://www.roswellgov.com/bids> . Addenda will become part of the bid documents and subsequent contract. Offerors must sign and return any addendum with their ITB response. Failure to propose in accordance with an addendum may be cause for rejection. In unusual circumstances, the City of Roswell may postpone an opening in order to notify vendors and to give Offerors sufficient time to respond to the addendum.
- 1.2.3 **Form of Questions:** Offerors with questions or requiring clarification or interpretation of any section within this ITB must address these questions in writing or via e-mail to the Buyer referenced above on or before the date provided in the ***Schedule of Events*** of this ITB. Each question must provide clear reference to the section, page, and item in question. Questions received after the deadline may not be considered.
- 1.2.4 **The City of Roswell’s Answers:** The City of Roswell will provide an official written answer to all questions received within the period stipulated in the ***Schedule of Events***. The City of Roswell’s response will be by formal written addendum, which will be issued a reasonable amount of time prior to bid opening. Any other form of interpretation, correction, or change to this ITB will not be binding upon the City of Roswell. Any formal written addendum will be posted on the City’s website alongside the posting of the ITB at <http://www.roswellgov.com/bids> by the close of business on the date listed. Offerors must sign and return any addendum with their ITB response.

1.3 Pre-bid Conference

If there is a pre-bid conference listed in the ***Schedule of Events***, the date and time will be provided in the ***Schedule of Events***. If a conference is being held, it will be held in Council Chambers, Roswell City Hall, 38 Hill St., Roswell, GA. 30075. The ***Schedule of Events*** will state if the Pre-bid Conference is mandatory. If the Pre-Bid Conference is not listed as Mandatory, then attendance is not required, but highly recommended.

1.4 Submitting a Sealed Bid

1.4.1 **Organization of Bid:** Each bid shall be prepared simply and economically, providing straight-forward, concise delineation of the Offeror's capabilities to satisfy the requirements of this ITB. To expedite the evaluation of proposals, it is essential that Offerors follow the format and instructions contained herein.

Offeror shall reference the bid number and closing date and time on the **outside, lower left corner** of the envelope containing the bid. Failure to include such information may delay opening of the bid.

Offerors must organize their bids in the following format:

- a. **Bid Letter and Certification** – Offeror's authorized representative(s) shall complete and sign the Bid Letter and Certification on page 4 of this ITB and return it with the bid.
- b. **Scope of Project/Specifications** – Offeror shall respond comprehensively and clearly to the requirements of *Section 3* and shall include all documents, information, exceptions, clarifications, etc., as requested therein.
- c. **Offeror Qualification** – Offeror shall include all requested documents and information.
- d. **Price Submission** – Offeror's authorized official to complete, sign, and return with bid response.
 - i. Offerors **must** respond to this ITB by utilizing the Price Bid Form, along with attachments to it (if any) found in Appendix A.
 - ii. Except in rare cases as described in Section 1.4.5, a bid may not be corrected, withdrawn, or canceled by the Offeror for a 180-day period following the deadline for bid submission as defined in the Schedule of Events, or receipt of best and final offer, if required, and Offeror so agrees in submitting the bid.
 - iii. The Price Bid Form will be used as the primary representation of each Offeror's price, and will be used extensively during bid evaluations.
 - iv. Additional information should be included as necessary to explain in detail the Offeror's price.
- e. **Appendix A, Standard Forms** – Offeror's authorized representative(s) **must** complete the standard forms and return with bid response.
- f. **Appendix B, City of Roswell Standard Contract** - This contract is the contract that the City of Roswell utilizes for this type of work and has been included for Offeror review.
- g. **Appendix C, Project Manual and Incorporated Drawings and Plans**

- h. **Addenda** – if any addenda have been issued, complete, sign and return the Bid Price Form and reference All Addenda issued for bid.

1.4.2 **Failure to Comply with Instructions:** The City of Roswell may also choose not to evaluate, may deem non-responsive, and/or may disqualify from further consideration any proposals that do not follow this ITB format, are difficult to understand, are difficult to read, or are missing any requested information.

1.4.3 **Copies Required and Deadline for Receipt of Sealed Bids:** All bids must be received in sealed opaque packaging. Offerors must submit the following number of copies to the address set forth on the Cover Page:

- One (1) unbound hard copy (3-ring binder OK) marked “Original” with original signatures; and
- One (1) electronic copy. The electronic copy shall be submitted in pdf format (OCR) and organized in the same format as the original submission with each Chapter or Section of the original having a corresponding Electronic File.

Bids must be received sealed and at the location noted on the Cover Page prior to the date and time provided on the Cover Page in the **Schedule of Events**. Facsimile or e-mail responses to invitation for bids are NOT accepted.

1.4.4 **Multiple Bids:**

If more than one bid is submitted by an Offeror, or by any person or persons representing the Offeror, all such bids shall be rejected as non-responsive. A party who has submitted subcontract or supply prices to an Offeror may submit prices to other Offerors, and may submit a direct and complete bid for the project to the Owner on its own behalf.

1.4.5 **Late Submissions, Withdrawals, and Corrections:**

- A. **Late Bid:** Regardless of cause, late bids will not be accepted and will automatically be disqualified from further consideration. It shall be the Offeror’s sole risk to assure delivery to the Purchasing Office by the designated time. Late bids will not be opened and may be returned to the Offeror at the expense of the Offeror or destroyed if requested.
- B. **Bid Withdrawal:** An Offeror requesting to withdraw its bid prior to the ITB due date and time may submit a letter to the Buyer requesting to withdraw. The letter must be on company letterhead and signed by an individual authorized to legally bind the firm.
- C. **Bid Correction:** If an obvious clerical error is discovered after the bid has been opened; the Offeror may submit a letter to the designated Buyer within two business days of opening, requesting that the error be corrected. The letter must be on company letterhead and signed by an individual authorized to legally bind the firm. The Offeror must present clear and convincing evidence that an unintentional error was made. The Buyer will review the correction request and a judgment will be made. Generally, modifications to opened bids for reasons other than obvious clerical errors are not permitted.

1.5 Offeror's Certification

- 1.5.1 **Understanding of Specifications and Requirements:** By submitting a response to this ITB, Offeror agrees to an understanding of and compliance with the specifications and requirements described in this ITB.
- 1.5.2 **Offeror's Signature:** All signatures required in the bid on behalf on an Offeror must be signed in ink by an individual authorized to legally bind the business submitting the bid. The Offeror's signature on a bid in response to this ITB guarantees that the prices quoted have been established without collusion and without effort to preclude the City of Roswell from obtaining the best possible supply or service. Proof of authority of the person signing the ITB response must be furnished upon request.
- 1.5.3 **Offer in Effect for 180 Days:** Except in rare cases as described in *Section 1.4.5*, a bid may not be corrected, withdrawn, or canceled by the Offeror for a 180-day period following the deadline for bid submission as defined in the Schedule of Events, or receipt of best and final offer, if required, and Offeror so agrees in submitting the bid.

1.6 Cost of Preparing a Bid

- 1.6.1 **Roswell Not Responsible for Preparation Costs:** The costs for developing and delivering responses to this ITB and any subsequent presentations of the bid as requested by the City of Roswell are entirely the responsibility of the Offeror. The City of Roswell is not liable for any expense incurred by the Offeror in the preparation and presentation of their bid.
- 1.6.2 **All Timely Submitted Materials Become Roswell's Property:** All materials submitted in response to this ITB become the property of the City of Roswell and are to be appended to any formal documentation, which would further define or expand any contractual relationship between the City of Roswell and Offeror resulting from this ITB process.

SECTION 2: ITB RECEIPT AND EVALUATION PROCESS

2.1 Authority

This ITB is issued under the authority of the City of Roswell.

2.2 Receipt of Bids and Public Inspection

- 2.2.1 **Public Information:** During the opening of sealed bids, the Offeror's name, bid amount, and other pertinent information will be read aloud and recorded. No other information will be disclosed at that time. Each bid offer is considered open record and all information received in response to this ITB, including copyrighted material, is deemed public information and will be made available for public viewing and copying shortly after bid opening with the following four (4) exceptions: (1) bona fide trade secrets meeting confidentiality requirements that have been properly marked, separated, and documented; (2) matters involving individual safety as determined by the City of Roswell; (3) any company financial information requested by the City of Roswell to determine

vendor responsibility, unless prior written consent has been given by the Offeror; and (4) other constitutional protections.

2.2.2 **Buyer's Review of Bids:** Upon opening the sealed bids received in response to this ITB, the Buyer in charge of the solicitation will review the bids and separate out any information that meets the referenced exceptions in *Section 2.2.1* above, providing the following conditions have been met:

- Confidential information is clearly marked and separated from the rest of the bid;
- Bid does not contain confidential material in the price section; and
- An affidavit from an Offeror's legal counsel attesting to and explaining the validity of the trade secret claim is attached to each bid containing trade secrets.

Information separated out under this process will be available for review only by Buyer, the Finance Director, and limited other designees. Offerors must be prepared to pay all legal costs and fees associated with defending a claim for confidentiality in the event of a "right to know" (open records) request from another party.

2.3 Classification and Evaluation of Bids

2.3.1 **Initial Classification of Bids as Responsive or Nonresponsive:** All bids will initially be classified as either "responsive" or "nonresponsive". Bids may be found nonresponsive at any time during the evaluation process or negotiations if: any of the required information is not provided; the submitted price is found to be excessive or inadequate as measured by criteria stated in the ITB; or the bid is not within the plans and specifications described and required in the ITB. Bids found nonresponsive may not be considered further.

2.3.2 **Determination of Responsibility:** The Buyer will determine whether an Offeror has met the standards of responsibility. Such a determination may be made at any time during the evaluation process and through negotiation if information surfaces that would result in a determination of non-responsibility. If an Offeror is found non-responsible, the determination must be in writing and made a part of the procurement file.

2.3.3 **Evaluation of Bids:** During the evaluation of the bids, the City reserves the right to request clarification of bid responses and to request the submission of references, if deemed necessary for a complete evaluation of bid responses.

Award will be made to the responsive and responsible Offeror whose bid is most economical according to designated criteria. The determination of the lowest responsive and responsible Offeror may involve all or some of the following factors:

- | | |
|--|---|
| - price | - experience |
| - conformity to specifications | - delivery promise |
| - financial ability to meet the contract | - terms of payment |
| - previous performance | - compatibility as required |
| - facilities and equipment | - other cost |
| - availability of repair parts | - and other objective and accountable factors, if any |

The City shall be the judge of the factors and will make the award in the best interest of the City.

- 2.3.4 **Completeness of Bids:** Selection and award will be based on the Offeror's bid and other items outlined in this ITB. Submitted responses may not include references to information located elsewhere, such as Internet websites or libraries, unless specifically requested. Information or materials presented by Offerors outside the formal response or subsequent discussion/negotiation, if requested, will not be considered, will have no bearing on any award, and may result in the Offeror being disqualified from further consideration.
- 2.3.5 **Opportunity for Discussion/Negotiation:** After receipt of all bids and prior to the determination of the award, the City of Roswell may initiate discussions with one or more Offerors should clarification or negotiation be necessary.
- 2.3.6 **Contract Award:** Award, if any, will be made by City Council upon recommendation, to the Offeror providing the lowest (including selected alternates) responsive and responsible bid and who provides all required documents.

2.4 Roswell's Rights Reserved

While the City of Roswell has every intention to make an award as a result of this ITB, issuance of the ITB in no way constitutes a commitment by the City of Roswell to award and execute a contract. Upon a determination such actions would be in its best interest, the City of Roswell, in its sole discretion, reserves the right to:

- Cancel or terminate this ITB at any time. A notice of cancellation will be issued on the Roswell website. If the ITB is cancelled, the City of Roswell will not reimburse any Offeror for the preparation of its bid. Bids may be returned upon request if unopened;
- Reject any or all bids received in response to this ITB;
- Make a contract award, based directly on the bids received, determined to be in the best interest of the City, in its sole discretion;
- Enter into further discussions with one or more Offerors;
- Waive and/or amend any undesirable, inconsequential, or inconsistent provisions/specifications of this ITB which would not have significant impact on any bid;
- Not award if it is in the best interest of the City of Roswell, or;
- Terminate any contract for cause or convenience.

SECTION 3: SCOPE OF PROJECT/SPECIFICATIONS

3.1 City's Intent

The City of Roswell is accepting bids for the furnishing of all materials, labor, and equipment for the Construction of a new precast double barrel culvert (remove and replace existing), gabion mattress and walls and minor drainage improvements. The Project also includes the removal of and installation of 10" sanitary sewer line and replacement of 8-inch Class 50 DIP water main. Project elements include but are not limited to maintenance of traffic, earthwork, paving, grading, erosion control, dewatering as necessary, concrete culvert construction and installation.

A Notice to Proceed should be expected within 2 weeks of the anticipated award date of 4/9/2018 and 120 Calendar days have been set aside for construction of the entire project, with 21 days allowed for road closure.

3.2 Project Manual and Drawings

See Appendix C.

3.3 Required Information : General Notes

Standard General Notes

1. A Georgia General Contractor's License is required for this project. Submit evidence of licensure with the bid.
2. The quantities shown on the plans are approximate quantities. This project will be paid per the actual material quantities used in the field as dictated by the field conditions unless specific lump sum pricing is requested in the Price Bid form (and any attached Schedules to the Price Bid form). Monthly invoices to be submitted at end of the month for completed work during the previous month. It is the contractor's responsibility to include all necessary expenses for the complete construction of this project.
3. The unit price bid schedule will also apply for change orders, if necessary.
4. The project work hours, in consideration of the City Noise Ordinance, are to be 7:00 AM to 7:00 PM, but any work inside the road, such as up to one (1) lane being closed, shall be limited to 9:00 AM to 4:00 PM.
5. The project time of completion is 120 for the entire project, with 21 days allowed for road closure. calendar days from the "Notice to Proceed."
6. It is solely the contractor's responsibility to follow all safety code and regulations during all sections of construction.
7. It is the contractor's responsibility to determine, and secure access to the job site including areas for materials and equipment storage. The site will be returned to its original condition upon project completion.
8. It shall be the contractor's responsibility to notify any and all utility companies for marking and location of any facilities which might be in the way.
9. The City of Roswell will not be responsible for any delay caused by the failure of any utility companies to respond in a timely manner. No claims will be considered for extra compensation
10. The contractor shall inspect the site, discuss and resolve potential conflicts with the City of Roswell inspector prior to beginning construction.
11. On-site burial of debris is prohibited.
12. If the contractor damages any existing infrastructure during construction, contractor shall, at contractor's own expense, repair or replace the damaged features in kind or as directed by the City of Roswell inspector and/or the infrastructure owner.
13. Contractor to remove temporary silt fence upon final stabilization.
14. Notify City of Roswell inspector 72 hours prior to begin construction.

Special General Notes

15. This project is funded with local funds. funds are dedicated to this project.
16. There are formal DBE goals for this project There is no contract specific DBE goal for this project..
17. City of Roswell Inspector's Office: Email: schua@roswellgov.com Office: 770-594-3773

SECTION 4: OFFEROR QUALIFICATIONS

4.1 City's Right to Investigate

The City may make such investigations as deemed necessary to determine the ability of the offeror to provide the supplies and/or perform the services specified.

4.2 Offeror Informational Requirements

In determining the capabilities of an offeror to perform the services specified herein, the following informational requirement(s) must be met by the offeror.

- 4.2.1 **References:** Offeror shall provide a list of the last **five (5)** clients/projects of the same general size and scope proposed in this ITB. The City reserves the right to use any information or additional references deemed necessary to establish the ability of the offeror to perform the conditions of the contract. Note that the reputation of the Offeror regarding adequacy of their past skillful performance of work of this type and magnitude required herein, shall be considered when making the award of contract and lack thereof is grounds for bid rejection. **(See Exhibit A for Reference Form)**

SECTION 5: PRICE SUBMISSION

Offerors shall respond to this bid utilizing the Price Bid form on Page 23 of this ITB and the Schedule of Items attached to the Price Bid form. Award for this project will go to the lowest responsive responsible Offeror.

SECTION 6: TERMS AND CONDITIONS

The City of Roswell's Terms and Conditions are set forth below. Offerors should notify the City of Roswell of any Terms and Conditions that either preclude them from responding to the ITB or add unnecessary cost. This notification must be made by the deadline for receipt of written/e-mailed questions or with the Offeror's ITB response. Any requests for material, substantive, important exceptions to the standard terms and conditions will be addressed by formal written addendum issued by the designated Buyer. The City of Roswell reserves the right to address any non-material, minor, insubstantial exceptions to the terms and conditions with the highest-scored Offeror at the time of contract negotiation.

6.1 Additional Contract Provisions and Terms

This ITB, including all ITB documents and any addenda, the Offeror's bid, including any amendments, any clarification question responses, and any negotiations shall be included as part of the contract upon award. In the event of a dispute as to the duties and responsibilities of the parties under the contract, the contract, along with any attachments prepared by the City of Roswell, will govern in the same order of precedence as listed in the contract.

Liquidated Damages are detailed in the Project Manual. These fixed liquidated damages are not established as a penalty but are agreed upon in advance by the owner and the contractor due to the uncertainty and impossibility of making a determination as to the actual and consequential damages incurred by the Owner and the general public of the City of Roswell, Georgia as a result of the failure on the part of the Contractor to complete the Work on time. Such liquidated damages referred to herein are intended to be and are cumulative and shall be in addition to every other remedy now or hereafter enforceable at law, in equity, by statute, or under Contract.

6.2 Performance Prior to Contract Execution

The successful Offeror shall not begin performance of the project prior to the execution of a formal written contract by the City of Roswell and the Offeror. Any Offeror beginning performance prior to the execution of the contract shall be deemed to be proceeding at the Offeror's sole risk, and shall not be entitled to any compensation for such performance. In addition, the City of Roswell reserves the right to withdraw or cancel the award of the ITB.

6.3 Contract Term

The contract term for this bid shall be for duration of the project until completion upon written approval of the City and successful Offeror.

6.4 Contract Termination

The City may terminate, by written notice to the Offeror, any resulting contract with or without cause. The City must give notice of termination to the Offeror at least **30 days** prior to the effective date of termination. See Appendix B – Standard Contract for further details relating to Termination.

6.5 Subcontractors

The lowest responsive and responsible Offeror will be the prime contractor, if a contract is awarded, and shall be responsible, in total, for all work of any subcontractors. All subcontractors, if any, must be listed in the bid submission. The City of Roswell reserves the right to approve all subcontractors. The Contractor shall be responsible to the City of Roswell for the acts and omissions of all subcontractors or agents and of persons directly or indirectly employed by such subcontractors, and for the acts and omissions of persons employed directly by the Contractor. Further, nothing contained within this document or any contract documents created as a result of any contract award derived from this ITB shall create any contractual relationships between any subcontractor and the City of Roswell.

6.6 Bonding Requirements

Each bid must be accompanied with a BID BOND (bond only: certified checks or other forms are not acceptable) in an amount equal to five percent (5%) of the base bid, payable to the City of Roswell. Said bid bond guarantees the Offeror will enter into a contract to construct the project strictly within the terms and conditions stated in this bid and in the bidding and contract documents, should the construction contract be awarded.

The successful Offeror shall be required to furnish a bond for the faithful performance on the contract and a bond to secure payment of all claims for materials furnished and/or labor performed in performance of the project, both in amounts equal to one hundred percent (100%) of the contract price.

Bonds shall be issued by a corporate surety appearing on the Treasury Department's most current list (Circular 570 as amended) and be authorized to do business in the State of Georgia.

Date of Bond must not be prior to date of Contract. If Contractor is a Partnership, all partners shall execute Bond.

6.7 General Insurance Requirements

The Offeror shall provide the City of Roswell with a Certificate of Insurance on an ACORD or similar form, along with an additionally insured enforcement, to the address listed under *Section 1.1* indicating the existence of the policies prior to the beginning of the contract term. Each policy shall contain a valid provision or endorsement that the policy may not be canceled without giving thirty (30) days written notice thereof to the City of Roswell representative named in the contract. A renewal certificate shall be delivered to the City of Roswell at least thirty (30) days prior to the expiration date of each expiring policy. If at any time, any of the policies shall be or become unsatisfactory to the City of Roswell as to form or substance, or any of the carriers issuing such policies shall be or become unsatisfactory to the City of Roswell, the Offeror shall deliver to the City of Roswell representative upon demand a certified copy of any policy required herein for review. The Certificates of Insurance shall state that 1095 Old Roswell, LLC (1095 Old Roswell Rd, Roswell, GA 30076), Warsaw Old Roswell Office Investments, LLC (1085 Old Roswell Rd, Roswell GA 30076), and the City of Roswell is additionally insured.

▪ **Statutory Workers' Compensation Insurance:**

Employers Liability:

- Bodily Injury by Accident \$100,000 each accident
- Bodily Injury by Disease \$500,000 policy limit
- Bodily Injury by Disease \$100,000 each employee

- **Comprehensive General Liability Insurance:**
 - (a) \$1,000,000 limit of liability per occurrence for bodily injury and property damage Owner’s and Contractor’s Protective
 - (b) Products/Completed Operations Insurance
 - (c) Broad Form Property Damage
 - (d) Personal Injury Coverage

- **Comprehensive Automobile Liability Insurance:**
 - (a) \$1,000,000 limit of liability
 - (b) Comprehensive form covering all owned, non-owned and hired vehicles

- **Excess Umbrella Liability Insurance:**
 - (a) \$1,000,000 limit of liability
 - (b) Coverage at least as broad as primary coverage as outlined under Items 1, 2 and 3 above

6.8 Compliance with Workers’ Compensation Act

The Contractor is required to supply the City of Roswell with proof of compliance with the Workers’ Compensation Act while performing work for the City of Roswell. Neither the Contractor nor its employees are employees of the City of Roswell. Proof of compliance must be received at the address listed under *Section 1.1* within acceptable time limits established by the contract. If the Contractor does not meet the State’s requirement for workers’ compensation coverage, the certificate of insurance shall state that the contractor waives subrogation in regard to workers’ compensation.

6.9 Compliance with Illegal Immigration Reform and Enforcement Act

E-Verify Program: The City of Roswell is committed to compliance with federal and state laws requiring the verification of newly hired employees to ensure they are lawfully entitled to work in the United States. As such, the City of Roswell shall not enter into a contract for the physical performance of services unless the contractor registers and participates in a federal work authorization program (E-Verify). An Offeror should include a fully executed E-Verify affidavit as part of its proposal (Exhibit D).

Requirement to Participate in a Federal Work Authorization Program (E-Verify):

- (1) Pursuant to O.C.G.A. § 13-10-91:
 - a. Public employers shall not enter into any contract for the physical performance of services within the State of Georgia unless the contractor registers and participates in a federal work authorization program to verify the employment eligibility of all newly hired employees;
 - b. Subcontractors shall not enter into any contract with a contractor for the physical performance of services within the State of Georgia unless such subcontractor registers and participates in a federal work authorization program to verify the employment eligibility of all newly hired employees; and
 - c. Sub-subcontractors shall not enter into any contract with a subcontractor or sub-subcontractor for the physical performance of services within the State of Georgia unless such sub-subcontractor registers and participates in a federal work authorization program to verify the employment eligibility of all newly hired employees.

- (2) As of the date of enactment of O.C.G.A. § 13-10-91, the applicable federal work authorization program is “E-Verify” (<https://e-verify.uscis.gov/enroll/StartPage.aspx?JS=YES>) operated by the United States Citizenship and Immigration Services Bureau of the United States Department of Homeland Security. Information and instructions regarding E-Verify program registration, corporate administrator registration, and designated agent registration can be found at that website address.

Contractor, Subcontractor, and Sub-subcontractor Evidence of Compliance:

- (1) Public employers who enter into a contract for the physical performance of services within the State of Georgia shall include in such contract a provision stating that compliance with the requirements of O.C.G.A. § 13-10-91 are conditions of the contract.
- (2) Pursuant to O.C.G.A. §13-10-91, public employers shall include in all covered contracts a provision stating the contractor’s agreement that, in the event the contractor employs or contracts with a subcontractor in connection with the covered contract, the contractor will secure from such subcontractor attestation of the subcontractor’s compliance with O.C.G.A. 13-10-91 by the subcontractor’s execution of the subcontractor affidavit and maintain records of such attestation for inspection by the City of Roswell at any time. Such subcontractor affidavit shall become a part of the contractor/subcontractor agreement.
- (3) Pursuant to O.C.G.A. §13-10-91, public employers shall include in all covered contracts a provision stating the contractor’s agreement that, in the event the contractor employs or contracts with a subcontractor that employs or contracts with any sub-subcontractor, the subcontractor will secure from such sub-subcontractor attestation of the sub-subcontractor’s compliance with O.C.G.A. § 13-10-91 by the sub-subcontractor’s execution of the sub-subcontractor affidavit and maintain records of such attestation for inspection by the City of Roswell at any time. Such sub-subcontractor affidavit shall become a part of the subcontractor/sub-subcontractor agreement.
- (4) All portions of contracts pertaining to compliance with O.C.G.A. § 13-10-91 and these rules, and any affidavit related hereto, shall be open for public inspection in this State at reasonable times during normal business hours.

6.10 Compliance with Laws

The Offeror must, in performance of work under the contract, fully comply with all applicable federal, state, or local laws, rules and regulations, including, but not limited to, the Civil Rights Act of 1964, the Age Discrimination Act of 1975, the Americans with Disabilities Act of 1990, and Section 504 of the Rehabilitation Act of 1973. Any subletting or subcontracting by the Offeror subjects subcontractors to the same provision. The Offeror agrees that the hiring of persons to perform the contract will be made on the basis of merit and qualifications and there will be no discrimination based upon race, color, religion, creed, political ideas, sex, age, marital status, physical or mental disability, or national origin by the persons performing the contract.

6.11 Drug-Free Workplace

If Contractor is an individual, he or she hereby certifies that he or she will not engage in the unlawful manufacture, sale, distribution, dispensation, possession, or use of a controlled substance or marijuana during the performance of this contract.

- 6.11.1 **Certification:** If Contractor is an entity other than an individual, it hereby certifies that:
- i. A drug-free workplace will be provided for the Contractor's employees during the performance of this contract; and
 - ii. It will secure from any subcontractor hired to work in a drug-free workplace the following written certification: "As part of the subcontracting agreement with (Contractor's Name), (Subcontractor's Name), certifies to the Contractor that a drug-free workplace will be provided for the subcontractor's employees during the performance of this contract pursuant to paragraph 7 of subsection B of Code Section 50-24-3."
- 6.11.2 **Penalties:** Contractor may be suspended, terminated, or debarred if it is determined that:
- iii. The Contractor has made false certification hereinabove; or
 - iv. The Contractor has violated such certification by failure to carry out the requirements of Official Code of Georgia Section 50-24-3.

6.12 Substitutions and Change Orders

NO substitutions of material, schedule cancellations, or change orders are permitted after contract award without written approval by the City Administrator. Where specific employees are proposed by the Offeror for the work, those employees shall perform the work as long as those employees work for the Contractor, either as employees or subcontractors, unless the City of Roswell agrees to a replacement. Requests for any substitution will be reviewed and may be approved by the City of Roswell at its sole discretion. Verbal agreements to the contrary will not be recognized.

The City of Roswell may at any time, by written order, and without notice to the sureties, if any, make changes within the general scope of this contract in any one or more of the following:

1. Drawings, designs, or specifications when the supplies to be furnished are to be specially manufactured for the Government in accordance with the drawings, designs, or specifications.
2. Method of shipment or packing.
3. Place of delivery.

If any such change causes an increase or decrease in the cost of, or the time required for, performance of any part of the work under this contract, whether or not changed by the order, the City shall make an equitable adjustment in the contract price, the delivery schedule, or both, and shall modify the contract.

The Contractor must assert its right to an adjustment under this clause within 30 days from the date of receipt of the written order. However, if the City decides that the facts justify it, the City may receive and act upon a proposal submitted before final payment of the contract.

If the Contractor's proposal includes the cost of property made obsolete or excess by the change, the Contracting Officer shall have the right to prescribe the manner of the disposition of the property.

Failure to agree to any adjustment shall be a dispute. However, nothing in this clause shall excuse the Contractor from proceeding with the contract as changed.

6.13 Invoicing and Payment

The City of Roswell agrees to pay the Offeror in current funds for the performance of the contract subject to additions and deductions as provided in the General Conditions of the contract. Upon completion of work and acceptance of the items, the Offeror shall submit a proper invoice detailing the appropriate charges as currently allowed. The City shall retain ten (10%) percent of each payment. In accordance with O.C.G.A. 13-10-80, the City

may or may not discontinue additional retainage after the first 50% of the project and zero thereafter the Completed Work. When all Work is completed and final acceptance has been approved by the City, the Offeror may invoice for the amount retained.

Invoices shall be submitted to:

Roswell Finance Department
Attn: Accounts Payable
invoices@roswellgov.com
38 Hill Street
Roswell, GA 30075

Upon receipt of invoice and inspection and acceptance of the items, the City of Roswell will render payment. All such invoices will be paid within fifteen (15) days by the City of Roswell unless any items thereon are questioned, in which event payment will be withheld pending verification of the amount claimed and the validity of the claim. All invoiced items must be itemized by roadway. The Offeror will provide complete cooperation during any such investigation.

Successful Offeror(s) must register as a vendor with the City with a completed and signed W-9.

6.14 Taxes

No sales tax will be charged on any orders.

6.15 Deliveries

In the event there are to be deliveries on site, all goods and materials will be F.O.B. Destination, Freight Prepaid and Allowed.

No freight or postage charges will be paid by the City of Roswell unless such charges are included and accepted in the bid price and awarded by contract. The Offeror, at Offeror's expense, will arrange to have someone onsite to inspect and accept delivery. The Offeror has sole responsibility for securing all materials at the project site. Offeror shall transfer and deliver to the department named all of the goods and/or services described in this bid for the consideration set forth herein. Risk of loss of the goods shall pass to the department upon acceptance only. Title to the goods shall remain with vendor until acceptance by the department.

Appendix A – Standard Forms

This section contains the forms necessary to ensure compliance with various laws as described within this ITB.

Please complete, sign, and return each of the following forms with the bid submittal:

- Price Bid Form
- Bid Schedule of Items
- Bid Bond
- References
- Bidder Questionnaire
- List of Subcontractors
- Corporate Certificate
- Affidavit Verifying Contractor Participation in Federal Work Authorization Program (E-Verify)

PRICE BID FORM

TO: BUYER OF RECORD
CITY OF ROSWELL
ROSWELL, GEORGIA 30075

To Whom It May Concern:

In compliance with your Invitation To Bid, the undersigned, hereinafter termed the Offeror, proposes to enter into a Contract with the City of Roswell, Georgia, to provide the necessary machinery, tools, apparatus, other means of construction, and all materials and labor specified in the Contract Documents or as necessary to complete the Work in the manner therein specified within the time specified, as therein set forth, for:

Pine Grove Culvert

The Offeror has carefully examined and fully understands the Contract, Specifications, and other documents hereto attached, has made a personal examination of the Site of the proposed Work, has satisfied himself as to the actual conditions and requirements of the Work, and hereby proposes and agrees that if his bid is accepted, he will contract with the City of Roswell in full conformance with the Contract Documents.

Unless otherwise directed, all work performed shall be in accordance with the Georgia Department of Transportation *Standard Specifications, Construction of Transportation Systems* (current edition). All materials used in the process of completion of the work included in the Contract will be furnished from Georgia Department of Transportation certified suppliers only.

It is the intent of this Bid to include all items of construction and all Work indicated called for in the Specifications, or otherwise a part of the Contract Documents.

In accordance with the foregoing, the undersigned proposes to furnish and construct the items listed in the attached Bid schedule for the unit prices stated.

The Offeror agrees that the cost of any work performed, materials furnished, services provided or expenses incurred, which are not specifically delineated in the Contract Documents but which are incidental to the scope, intent, and completion of the Contract, shall be deemed to have been included in the prices bid for the various items scheduled.

The Offeror further proposes and agrees hereby to promptly commence the Work with adequate forces and equipment within the time periods allotted in the Project Manual.

Attached hereto is an executed Bid Bond in the amount of _____ Dollars (\$ (Five Percent of Base Bid)).

If this bid shall be accepted by the City of Roswell and the undersigned shall fail to execute a satisfactory contract in the form of said proposed Contract, and give satisfactory Performance and Payment Bonds, or furnish satisfactory proof of carriage of the insurance required within ten (10) days from the date of Notice of Award of the Contract, then the City of Roswell may, at its option, determine that the undersigned

abandoned the Contract and there upon this bid shall be null and void, and the sum stipulated in the attached Bid Bond shall be forfeited to the City of Roswell as liquidated damages.

Offeror agrees that from the date this Invitation to Bid is issued until an award is made, offerors **are not allowed to communicate with any staff or elected officials of the City regarding this procurement**. Any unauthorized contact may disqualify the offeror from further consideration. Contact information for the single point of contact is as follows:

Buyer: Greg Anderson
Address: 38 Hill Street
Roswell, GA 30076
Telephone Number: 770-641-3718
E-mail Address: purchasing@roswellgov.com

Offeror has carefully examined the Bidding Documents entitled: Pine Grove Culvert;

Bid Number: 18-045-G;

Bid Due Date: 3/14/2018;

Acknowledges receipt of the following addenda numbers and dates, if any:

_____;

And has examined the premises and conditions affecting the Work, the undersigned proposes to furnish all services, labor and materials called for by them for the Base Bid Work in accordance with said documents, for the sum of:

_____ DOLLARS (Words)

(\$ _____) (Numbers)

Offeror further declares that the full name and resident address of Offeror's Principal is as follows:

Signed, sealed, and dated this _____ day of _____

Offeror _____ (Seal)
Company Name

Offeror Mailing Address: _____

By: _____

Title: _____

Phone: _____

E-Mail: _____

PRICE BID FORM - ATTACHMENT A
SCHEDULE OF ITEMS
ITB# 18-045-G
Pine Grove Culvert

Item No.	Description	Unit	Est. Quantity	Bid Unit Price	Extended Bid Price
150-1000	TRAFFIC CONTROL - ROAD CLOSURE PLAN, ROAD CLOSURE DETOUR SIGNAGE & BARRICADES	LS	1		
151-1000	MOBILIZATION	LS	1		
201-1500	CLEARING AND GRUBBING - SELECT AREAS (APPROX. 0.6 AC)	LS	1		
205-0001	UNCLASSIFIED EXCAVATION	CY	3000		
206-0002	BORROW EXCAV, INCL MATL	CY	1000		
207-0203	FOUNDATION BACKFILL MATL, TP II	CY	450		
208-0100	IN PLACE EMBANKMENT	CY	1000		
209-0202	STABILIZER MATL, TP II	TN	100		
210-0100	GRADING COMPLETE (PROJECT AREA APPROX. 1000 SY)	LS	1		
210-0100	GRADING COMPLETE (375 PINE GROVE ROAD APPROX 550 SY)	LS	1		
310-1101	GR AGGR BASE CRS, 6 INCH, INCL MATL	TN	120		
402-3113	RECYCLED ASPH CONC 12.5 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME	TN	60		
402-3143	RECYCLED ASPH CONC 25 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME	TN	45		
402-3190	RECYCLED ASPH CONC 19 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME	TN	45		
413-0750	BITUMINOUS TACK COAT	GL	50		
432-0208	MILL ASPH CONC PVMT, 2 IN DEPTH	SY	50		
500-3101	CLASS A CONCRETE	CY	20		

500-3800	CLASS A CONCRETE, INCL REINF STEEL (CULV TOE WALL 2 @ APPROX. 30'L X12"W X 3'H)	CY	10		
522-1000	SHORING (600SF INSTALLED 2X)	LS	1		
550-1240	STORM DRAIN PIPE, 24 IN, H 1-10	LF	88		
550-2180	SIDE DRAIN PIPE, 18 IN, H 1-10	LF	20		
603-2181	STN DUMPED RIP RAP, TP 3, 18 IN	SY	95		
603-2182	STN DUMPED RIP RAP, TP 3, 24 IN	SY	65		
603-7000	PLASTIC FILTER FABRIC	SY	220		
610-1055	REM GUARDRAIL	LF	120		
610-1725	REM SAN SEWER PIPE, 10 IN	LF	135		
610-1890	REM SIDE DRAIN PIPE	LF	8		
610-2586	REM ASPH PVMT INCL BASE	SY	175		
610-2700	REM REINF. CONC PIERS (TO 24" BELOW GRADE)	EA	6		
610-5825	REM CONC CLVT WINGWALLS (STONE & MASONRY WALLS APPROX. 12" THICK, 12'H, 80 LF)	LS	1		
610-6512	REM HEADWALL (CONC 8" THICK, 9' TALL)	EA	2		
610-9245	REM CLVT, CONC & RUBBLE MASONRY, PROJ. STA -5+00 (60 LF, 10' RISE X 8' SPAN, CIP CONC TOP AND BOTTOM)	LS	1		
611-5300	RESET GUARDRAIL	LF	120		
641-1200	GUARDRAIL, TP W (ONLY AS DIRECTED BY ENGINEER)	LF	20		
653-1501	THERMOPLASTIC SOLID TRAF STRIPE, 5 IN WHITE	LF	400		
653-1502	THERMOPLASTIC SOLID TRAF STRIPE, 5 IN YELLOW	LF	800		
660-0808	SAN SEWER PIPE, 10 IN, DUCTILE IRON, INSTALLTION ONLY,	LF	142		

	MATLS PROVIDED BY FULTON COUNTY				
668-3300	SAN SEWER MANHOLE, TP 1, INSTALLTION ONLY, MATLS PROVIDED BY FULTON COUNTY	EA	2		
668-2100	DROP INLET, GP 1	EA	1		
668-4311	STORM SEWER MANHOLE, TP 1, ADDL DEPTH, CL 1	EA	1		
670-5000	WATER SERVICE LINE - INSTALLTION ONLY, MATLS PROVIDED BY FULTON COUNTY	LF	100		
700-6001	GRASSING COMPLETE	AC	0.8		
708-1000	PLANT TOPSOIL (2 IN IN DEPTH)	CY	500		
709-9300	SOD (375 PINE GROVE)	SY	550		
709-9300	SOD (400 PINE GROVE INCL ROW IN CULVERT VICINITY)	SY	400		
960-0000	PRECAST CULVERT (SINGLE 8' SPAN X 7' RISE & 8' SPAN X 4' RISE) INCL. WINGWALLS, REIN. CONC. COLLARS, GROUTING BTWN CULVERTS, JOINT SEALING & 18" FILL PLACED IN INVERT 8'X7' CULVERT, STAMPED ENGINEER DESIGN	LS	1		
999-0045	GABION WALL (3' WIDE BASKETS, HEIGHT VARIES AS REQUIRED)	CY	100		
-	EROSION CONTROL ITEMS, SHALL INCL - ALL EROSION CONTROL FEATURES AND REQUIREMENTS OF EROSION CONTROL SERIES 25 THIS PLAN SET. ALSO INCL DEWATERING OF THE CONSTRUCTION SITE AND TEMPORARY STORMWATER MANAGEMENT.	LS	1		
				Total Bid:	

BID BOND

KNOW ALL MEN BY THESE PRESENTS, THAT _____ (Name
of Contractor) _____ (Address of
Contractor) a _____
(Corporation, Partnership and or Individual) hereinafter called Principal, and _____

(Name of Surety)

(Address of Surety)

a corporation of the State of _____, and a surety authorized by law to do business in the State of Georgia, hereinafter called Surety, are held and firmly bound unto

City of Roswell Georgia

(Name of Obligee)

38 Hill Street Suite 235, Roswell Georgia 30075

(Address of Obligee)

herein after referred to as Obligee, 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, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

WHEREAS, the Principal is about to submit, or has submitted, to the City of Roswell, Georgia, a proposal for furnishing materials, labor, and equipment for:

Pine Grove Culvert

WHEREAS, the Principal desires to file this Bond in accordance with law in lieu of a certified Offeror's check otherwise required to accompany this Proposal.

NOW, THEREFORE, the conditions of this obligation are such that if the bid is accepted, the Principal shall within ten days after receipt of notification of the acceptance execute a Contract in accordance with the Bid and upon the terms, conditions, and prices set forth in the form and manner required by the City of Roswell, Georgia, and execute a sufficient and satisfactory Performance Bond and Payment Bond payable to the City of Roswell, Georgia, each in an amount of 100% of the total Contract Price, in form and with security satisfactory to said the City of Roswell, Georgia, and otherwise, to be and remain in full force and virtue in law; and the Surety shall, upon failure of the Principal to comply with any or all of the foregoing requirements within the time specified above, immediately pay to the City of Roswell, Georgia, upon demand, the amount hereof in good and lawful money of the United States of America, not as a penalty, but as liquidated damages.

PROVIDED, FURTHER, that Principal and Surety agree and represent that this bond is executed pursuant, to and

in accordance with the applicable provisions of the Official Code of Georgia Annotated, as Amended, including, but not limited to, O.C.G.A. SS 13-10-1, et. seg. and SS 36-86-101, et. seg. and is intended to be and shall be constructed as a bond in compliance with the requirements thereof.

Signed, sealed, and dated this _____ day of _____ A.D., 20 _____

ATTEST:

(Principal Secretary)

(Principal)

(SEAL)

BY: _____

(Witness to Principal)

(Address)

(Address)

(Surety)

ATTEST

BY: _____
(Attorney-in-Fact) and Resident Agent

(Attorney-in-Fact)

(Seal) _____
(Address)

(Witness as to Surety)

(Address)

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

REFERENCES

REFERENCES: Please provide the City with the last five (5) clients of similar size and scope. You may submit your standard list of references as opposed to using this form as long as that list contains all the same information as requested below, but you still need to complete and sign at the bottom.

REFERENCE # 1

Name of Entity/Firm: _____

Mailing Address: _____

City/State/Zip Code: _____

Contact Person Name: _____

Contact Person Telephone Number: _____

Date When Work Performed: _____

Description of Work Performed: _____

REFERENCE # 2

Name of Entity/Firm: _____

Mailing Address: _____

City/State/Zip Code: _____

Contact Person Name: _____

Contact Person Telephone Number: _____

Date When Work Performed: _____

Description of Work Performed: _____

REFERENCE # 3

Name of Entity/Firm: _____

Mailing Address: _____

City/State/Zip Code: _____

Contact Person Name: _____

Contact Person Telephone Number: _____

Date When Work Performed: _____

Description of Work Performed: _____

REFERENCE # 4

Name of Entity/Firm: _____

Mailing Address: _____

City/State/Zip Code: _____

Contact Person Name: _____

Contact Person Telephone Number: _____

Date When Work Performed: _____

Description of Work Performed: _____

REFERENCE # 5

Name of Entity/Firm: _____

Mailing Address: _____

City/State/Zip Code: _____

Contact Person Name: _____

Contact Person Telephone Number: _____

Date When Work Performed: _____

Description of Work Performed: _____

By signing below, I certify that this bid is made without prior understanding, agreement, or connection with any corporation, firm, or person submitting a bid for same materials, supplies or equipment, and is in all respects fair and without collusion or fraud. I understand that collusive bidding is a violation of State and Federal law and can result in fines, prison sentences, and civil damage awards. I agree to abide by all conditions of this bid, and certify that I am authorized to sign this bid for the offeror. I further certify that the provisions of the Official Code of Georgia Annotated and the Code of Ordinances of the City of Roswell have not and will not be violated in any respect.

Name of Company:

Contact Name: _____

Phone Number: _____ Fax: _____

Email: _____

Signature: _____

BIDDER QUESTIONNAIRE

1. What is the name your firm as it will appear on the Bid Documents? _____
2. Within the past three years has any of your firm's contracts been terminated for default, or terminated for convenience prior to the expiration of the current term, or had a payment or performance bond successfully called? YES NO (please circle one).
3. If yes, please explain the circumstances and provide an owner contact:
 - i. **Circumstances** (attach additional documentation as necessary):

ii. **Owner Contact**

1. Organization Name: _____
2. Contact Name: _____
3. Telephone: _____
4. Email: _____

LIST OF SUBCONTRACTORS

I do _____, do not _____, propose to subcontract some of the work on this project. I propose to Subcontract work to the following subcontractors:

SUBCONTRACTOR	WORK TO BE PERFORMED	% OF THE WORK

Company Name: _____

*** The City of Roswell requires 51% participation by the prime Contractor on all projects.**

CORPORATE CERTIFICATE

I, _____, certify that I am the Secretary of the Corporation named as Contractor on the foregoing bid; that _____ who signed said bid in behalf of the Contractor, was then (title) _____ of said Corporation; that said bid was duly signed for and on behalf of said Corporation by authority of its Board of Directors, and is within the scope of its corporate powers; that said Corporation is organized under the laws of the State of _____.

This _____ day of _____, 20_____

(Signature) _____ (Seal)

AFFIDAVIT - CONTRACTOR PARTICIPATION IN FEDERAL WORK AUTHORIZATION PROGRAM

By executing this affidavit, the undersigned contractor verifies its compliance with O.C.G.A. § 13-10-91, stating affirmatively that the individual, firm or corporation which is engaged in the physical performance of services on behalf of the **City of Roswell (GA)** has registered with, is authorized to use and uses the federal work authorization program commonly known as E-Verify, or any subsequent replacement program, in accordance with the applicable provisions and deadlines established in O.C.G.A. § 13-10-91. Furthermore, the undersigned contractor will continue to use the federal work authorization program throughout the contract period and the undersigned contractor will contract for the physical performance of services in satisfaction of such contract only with subcontractors who present an affidavit to the contractor with the information required by O.C.G.A. § 13-10-91(b).

Contractor hereby attests that its federal work authorization user identification number and date of authorization are as follows:

Federal Work Authorization (E-Verify) User Identification Number

Date of Authorization

Name of Contractor

Name of Project

I hereby declare under penalty of perjury that the foregoing is true and correct.

Executed on _____, _____, 201__ in _____ (city), _____ (state).

Signature of Authorized Officer or Agent

Printed Name and Title of Authorized Officer or Agent

SUBSCRIBED AND SWORN BEFORE ME ON THIS THE ____ DAY OF _____, 201__.

NOTARY PUBLIC

My Commission Expires:

Appendix B – Standard Contract

CONTRACT AGREEMENT

This Contract for the Pine Grove Culvert Project (the “Project”) is made as of the ____ day of _____ 2017 (the “Execution Date”) by and between _____, (“Contractor”) and The **City of Roswell** (“City”). Contractor and City may be referred to individually as a “Party” or collectively as the “Parties”.

CONTRACT:

NOW, THEREFORE, for and in consideration of the mutual promises contained herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties agree as follows:

1. The CONTRACTOR shall furnish all material, labor, equipment, and tools necessary for the Project located in Roswell, GA, as well as all work incidental and pertinent thereto all in accordance with the Contract (hereinafter designated the “CONTRACT”); **ITB# 18-045-G Pine Grove Culvert** (hereinafter designated the “Proposal”), a copy of which is attached hereto as Exhibit A and incorporated herein; and the **CONTRACTOR’S Response to ITB# 18-045-G Pine Grove Culvert** (Exhibit B) (hereinafter designated the “Response”). In the event of any conflict, ambiguity, or inconsistency between the terms contained in this CONTRACT and the Exhibits, the terms set forth in this CONTRACT shall govern and control.
2. The term of the CONTRACT shall begin on the Execution Date above, and shall be for the duration of the project, unless sooner terminated as permitted herein, or unless extended by agreement of the parties set forth in writing. The CONTRACTOR is required to submit to the City a Certificate of Insurance prior to commencing work. In addition, the work shall be scheduled as agreed upon by the parties. Work shall commence with adequate force and equipment within ten (10) days from the Notice to Proceed from the City and shall be completed within \$1,000 per day for entire project, \$5,000 per day for extended road closure. calendar days thereafter.

3. Pricing

The City shall pay the CONTRACTOR for the CONTRACTOR’S performance in accordance with the amounts established in CONTRACTOR’S Completed Price Bid Form or the amount finally awarded by City (\$ _____). The City shall pay the Contractor in accordance with the prices stipulated in the Bid Schedule based upon verified quantities. No price adjustments shall be made during the term or any extension of this Contract except upon mutual consent of the parties. The contractor shall invoice the City on a monthly basis for actual quantities completed.

4. Termination

(a) *Termination by City:* City may at its sole option terminate this CONTRACT by giving the CONTRACTOR thirty (30) days written notice. Should the CONTRACTOR fail to fulfill in a timely and proper manner its obligations under this CONTRACT or if it should violate any of the terms of this CONTRACT, the City shall have the right to immediately terminate the CONTRACT. Such termination shall not relieve CONTRACTOR of any liability to the City for damages sustained by virtue of any breach by CONTRACTOR. A reasonable period of

time to cure a CONTRACTOR breach of CONTRACT can be negotiated with the CONTRACTOR selected.

(b) *Termination by CONTRACTOR.* If at any time or from time to time during the Term, any of the following events shall occur and not be remedied within the applicable period of time herein specified, namely:

(i) City shall materially fail to keep, observe or perform any covenant, agreement, term or provision of this CONTRACT to be kept, observed or performed by City, and such default shall continue for a period of sixty (60) days after written notice thereof by CONTRACTOR to City, which shall specify such failure with particularity.

(c) *Continuing Obligations.* If this CONTRACT is terminated pursuant to this Section 4, the Parties shall account for and pay to the other all sums due and owing pursuant to the terms of this CONTRACT within thirty (30) days after the effective date of termination.

(d) *Force Majeure.* Neither Party shall be liable for any loss, damage, delay or nonperformance of any Services as a result of causes not reasonably within the control of such Party including, but not limited to, acts of God, terrorism, war, riot, insurrection, civil violence or disobedience, blockages, embargoes, sabotage, epidemics, fire, strikes, lock-outs or other industrial or labor disturbances, lighting, hurricanes, cyclonic storms, and explosions; provided, however, that the affected Party notifies the other Party promptly of the occurrence of the cause and thereafter exerts commercially reasonable efforts to overcome the cause of the prevention or hindrance if such cause is within the Party's reasonable control, and to resume performance.

5. Representations and Warranties

(a) *Representations by CONTRACTOR.* CONTRACTOR hereby represents and warrants to City that:

(i) CONTRACTOR is a for profit company duly organized, validly existing and in good standing under the laws of the State of Georgia, is duly qualified to conduct business in the State of Georgia and has the requisite power and authority to enter into this CONTRACT and perform its obligations hereunder.

(ii) CONTRACTOR has all requisite power and authority to enter into and perform this CONTRACT and to perform each of its obligations under this CONTRACT. This CONTRACT and the transactions contemplated by this CONTRACT have been duly and validly authorized by all necessary action on the part of CONTRACTOR.

(iii) This CONTRACT has been duly executed and delivered by CONTRACTOR and constitutes the legal, valid and binding obligation of CONTRACTOR, enforceable against CONTRACTOR in accordance with its terms, except to the extent that its enforceability may be limited by bankruptcy, insolvency and other applicable laws affecting creditors' rights generally.

(iv) The execution and delivery of this CONTRACT by CONTRACTOR does not, and the consummation of the transactions contemplated herein will not (i) result in the breach of any of the terms and conditions of, or constitute a default with respect to or result in the acceleration of any indebtedness or create liability under any material contract, agreement, commitment, indenture, mortgage, note, bond, lease, license or other instrument or obligation to which CONTRACTOR is now a party or by which CONTRACTOR may be bound or affected; or (ii) violate any law or any rule or regulation of any administrative agency or governmental body, or any order, writ, injunction or decree of any court, administrative agency or governmental body. The execution and delivery of this CONTRACT, do not, and will not constitute a material default under any organization or governing agreement relating to CONTRACTOR.

(b) *Representations by City.* City hereby represents and warrants to CONTRACTOR as follows:

(i) City is duly organized, validly existing and in good standing under the laws of the State of Georgia, is duly qualified to conduct business in the State of Georgia and has the requisite power and authority to enter into this CONTRACT and perform its obligations hereunder.

(ii) City has all requisite power and authority to enter into and perform this CONTRACT and to perform each of its obligations under this CONTRACT. This CONTRACT and the transactions contemplated by this CONTRACT have been duly and validly authorized by all necessary action on the part of City.

(iii) This CONTRACT has been duly executed and delivered by City and constitutes the legal, valid and binding obligation of City, enforceable against City in accordance with its terms, except to the extent that its enforceability may be limited by bankruptcy, insolvency and other applicable laws affecting creditors' rights generally.

(iv) The execution and delivery of this CONTRACT by City does not, and the consummation of the transactions contemplated herein will not (i) result in the breach of any of the terms and conditions of, or constitute a default with respect to or result in the acceleration of any indebtedness or create liability under any material contract, agreement, commitment, indenture, mortgage, note, bond, lease, license or other instrument or obligation to which City is now a party or by which City may be bound or affected; or (ii) violate any law or any rule or regulation of any administrative agency or governmental body, or any order, writ, injunction or decree of any court, administrative agency or governmental body. The execution and delivery of this CONTRACT, do not, and will not constitute a material default under any organization or governing agreement relating to City

(c) *Disclaimer of Warranties.* Other than as specifically set forth herein, neither of the Parties makes any representations, warranties or guarantees, express or implied, directly or indirectly, including, but not limited to, any warrant of merchantability or fitness for a particularly purpose.

6. Indemnification

CONTRACTOR hereby agrees to hold harmless and indemnify City, and its employees, agents, representatives, successors and assigns from and against any and all losses, liabilities, damages, demands, claims, suits, actions, causes of action, judgments, assessments, costs and expenses, including, without limitation, interest, penalties, reasonable attorneys' fees, any and all expenses incurred in investigating, preparing or defending against any litigation, commenced or threatened, or any claim whatsoever, and any and all amounts paid in settlement of any claim or litigation (collectively, "Damages"), asserted against, resulting to, imposed upon, or incurred or suffered by of them, directly or indirectly, as a result of, arising from, or relating directly or indirectly to: (i) any inaccuracy in or any breach or nonfulfillment of any of the representations or warranties made by CONTRACTOR in this Agreement; (ii) any breach or nonfulfillment of any of the covenants or agreements made by CONTRACTOR in this CONTRACT; or (iii) any violations of law by CONTRACTOR in performing its obligations under this CONTRACT.

7. Insurance

The CONTRACTOR, at all times that this CONTRACT is in force, agrees to provide, as a minimum, worker's compensation, commercial general liability, and automobile liability insurance coverage in accordance with the Insurance Requirements provided in Section 6.7 of ITB [BID_NUM].

8. Compliance with All Laws and Licenses

The Contractor must obtain all necessary licenses and comply with local, state and federal requirements. The Contractor shall comply with all laws, rules and regulations of any governmental entity pertaining to its performance under this CONTRACT.

9. Assignment

The Contractor shall not assign or subcontract the whole or any part of this CONTRACT without the City of Roswell's prior written consent.

10. Amendments in Writing

No amendments to this CONTRACT shall be effective unless it is in writing and signed by duly authorized representatives of the parties.

11. Policy on Hiring of Non-Resident Aliens

The final award of a contract is contingent upon compliance with O.C.G.A. 13-10-91 and Chapter 300-10-1 of the Rules of the Georgia Department of Labor, and the Contractor certifying to the City that it, and all its subcontractors, has registered and currently participates in the federal work authorization program to verify information of all new employees with respect to all public employers, contractors, or subcontractors. Contractor may be suspended, terminated, or debarred if it is determined that the Contractor has made false certification or that the Contractor has violated such certification by failure to carry out this requirement.

12. Boycott of Israel.

Contractor certifies that Contractor is not currently engaged in, and agrees for the duration of this Contract not to engage in a boycott of Israel, as defined in O.C.G.A. 50-5-85

13. Inclusion of Documents, Exhibits

ITB# 18-045-G and the Contractor's proposal submitted in response thereto, including any best and final offer, are incorporated in this CONTRACT; form an integral part of this CONTRACT; and, are attached hereto as and date issued: _____

Contractor's Proposal identified as _____

In the event of a conflict in language between this Agreement and the foregoing documents incorporated herein, the provisions and requirements set forth in this Agreement shall govern. In the event of a conflict between the language of the ITB, as amended, and the Contractor's bid, the language in the former shall govern.

13.0 Entire Agreement

This Agreement constitutes the entire Agreement between the parties with respect to the subject matter contained herein; all prior agreements, representations, statements, negotiations, and undertakings are suspended hereby. Either party has relied on any representation, promise, or inducement not contained herein.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly executed by their duly authorized officers as of the day and year set forth next to each signature.

CITY OF ROSWELL:

CONTRACTOR:

By: _____

By: _____

Title: _____

Title: _____

Name: _____

Name: _____

Date: _____

Date: _____

Executed in triplicate: _____ of 3

PINE GROVE CULVERT CONTRACT
EXHIBIT A
ITB 18-045-G

PINE GROVE CULVERT CONTRACT
EXHIBIT B
BIDDER RESPONSE TO ITB 18-045-G

Appendix C – Project Manual, Plans, Specifications

The Project Manual, including Specifications, is attached to the solicitation and incorporated in as Appendix C. The Project Manual will be separately paginated.

Drawings and Plans are hereby incorporated by reference, and entitled “CULVERT AND DRAINAGE UPGRADE RIVERSIDE CREEK AT PINE GROVE ROAD” dated 2/8/18. These Drawings and Plans will be posted along with Roswell ITB# 18-045-G.

Project Manual

Roswell Environmental/Public Works Department

ITB#: 18-052-G

Pine Grove Culvert Roswell, Georgia

February 21, 2018



SPECIFICATIONS INCLUDED HEREIN

01 0000	General Requirements
01 2219	Measurements and Payment
01 3100	Project Management and Coordination
01 3233	Photographic Documentation
01 3300	Submittal Procedures
01 4000	Quality Requirements
01 6000	Product Requirements
01 7300	Execution
01 7700	Closeout Procedures
01 7839	Project Record Documents
31 2319	Dewatering
33 1100	Water Utility Distribution Piping
999	Gabion Wall

SPECIFICATIONS AVAILABLE ELSEWHERE

[FULTON COUNTY](#)

Fulton County's Standards and Specifications, including Sanitary Sewer Regulations, latest edition

[GDOT](#)

Section 101 - Definitions and Terms

Section 104 - Scope of Work

Section 105 - Control of Work

Section 106 - Control of Materials

Section 149 - Construction Layout

Section 150 - Traffic Control

Section 151 - Mobilization

Section 155 - Insect Control

Section 161—Control of Soil Erosion and Sedimentation

Section 162—Erosion Control Check Dams

Section 163—Miscellaneous Erosion Control Items

Section 165—Maintenance of Temporary Erosion and Sedimentation Control Devices

Section 167—Water Quality Monitoring

Section 168—Comprehensive Monitoring Program

Section 170—Silt Retention Barrier

Section 171—Silt Fence

Section 201—Clearing and Grubbing Right of Way

Section 204—Channel Excavation

Section 205—Roadway Excavation

Section 206—Borrow Excavation

Section 207—Excavation and Backfill for Minor Structures

Section 208—Embankments

Section 209—Subgrade Construction

Section 210—Grading Complete

Section 216—Unpaved Shoulders

Section 300—General Specifications for Base and Subbase Courses

Section 303—Topsoil, Sand-Clay, or Chert Construction

Section 310—Graded Aggregate Construction
Section 311—Crushed Stone Base
Section 400—Hot Mix Asphaltic Concrete Construction
Section 412—Bituminous Prime
Section 413—Bituminous Tack Coat
Section 441—Miscellaneous Concrete
Section 603—Rip Rap
Section 610—Removal of Miscellaneous Roadway Items
Section 660—Sanitary Sewers
Section 668—Miscellaneous Drainage Structures
Section 700—Grassing
Section 706—Turf Establishment
Section 708—Plant Topsoil
Section 800—Coarse Aggregate
Section 801—Fine Aggregate
Section 802—Aggregates for Asphaltic Concrete
Section 805—Rip Rap and Curbing Stone
Section 810—Roadway Materials
Section 815—Graded Aggregate
Section 817—Shoulder Material
Section 820—Asphalt Cement
Section 828—Hot Mix Asphaltic Concrete Mixtures
Section 830—Portland Cement
Section 831—Admixtures
Section 832—Curing Agents
Section 890—Seed and Sod
Section 891—Fertilizers
Section 893—Miscellaneous Planting Materials

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ISSUED	DATE
Bid Package	

PART 1 - GENERAL

1.1 SUMMARY

- A. This section includes general requirements of the Contract.

1.2 GENERAL REQUIREMENTS

- A. General: The Contractor shall have full use of premises for construction operations, including use of project site, during construction. Contractor's use of premises is limited only by Owner's right to perform work or to retain other contractors on portions of Project and conditions of any easement or right-of-way occupancy permits.
- B. Prior to commencement of Work, the Contractor shall review the construction site with the Owner's representative to make permanent record of existing site conditions such existing damage as cracks in masonry structures, fencing conditons,, pavement condition, and landscaping condition. This record shall serve as a basis for determination of subsequent damage to the structures and adjacent areas due to Contractor's operations. Any damage to these structures and adjacent areas not noted in original review record shall be reported immediately to Owner. Permanent record shall include photographs and/or video graphic recording.
- C. Smoking and Fire Precautions: No smoking, fire, or use of any fire- or explosion- producing tools or equipment will be permitted on the premises or at any locations where such may endanger said premises or the current operations thereon.
- D. Manufacturers Qualifications: The manufacturers of all materials and equipment used must be approved by the Engineer and regularly engaged in the manufacture of the particular material or equipment for the use and service to which it will be subjected.
- E. Compliance with state and local laws: Comply will all applicable requirements of state and local laws and ordinances to the extent that such requirements do not conflict with federal laws or regulations.
- F. Protection of public and private property: The Contractor shall be responsible for preservation of and shall take special care in working areas to protect public and private property. The Contractor shall replace or repair at his own expense any damaged water pipes, power and communication lines, or other public utilities, roads, curbs, gutters, sidewalks, drain pipes, drainage ditches, fencing, all properties and fixtures (both permanent and temporary), and all plantings, including grass or sod on the site of the work. Leave the site in original or better condition after all cleanup work has been done.
- G. Markers: Preserve all surveyed and privately owned markers and monuments; do not remove or disturb any such markers without prior approval from the Owner of the marker. Any removal and replacement of such markers shall be at the expense of the Contractor.
- H. Pavement repair and/or replacement: Whenever existing asphalt is removed, backfill same and restore traffic over the disturbed area as quickly as possible by constructing a temporary eight-inch thick surface of Class A, Grade D crushed stone. Add material and otherwise

GENERAL REQUIREMENTS

Section 01 0000 – Page 2 of 4

maintain such surface until the permanent pavement is restored by the Contractor or until the work is accepted.

- I. Department of Transportation Permits: The Owner will secure any permits and provide bond as required by any federal, state, and local transportation department for the installation of permanent facilities on highway rights-of-way. All such work shall be coordinated with and be subject to the approval of said transportation department and Engineer. The Contractor shall be responsible for permits and bonding for Work not provided for on the Drawings. The Contractor must obtain approval for the Traffic Plan and approval of the ROW permit from Roswell Department of Transportation.
- J. Approved Chemicals: All chemicals used during project construction or furnished for project operation, whether herbicide, pesticide, disinfectant, polymer, reactant, or of other classification, must show approval of either EPA or USDA. The use of all such chemicals and the disposal of residues shall be in strict conformance with manufacturer's instructions.
- K. Catalog Data for Owners: Provide duplicate complete, bound sets of a compilation of catalog data of each manufactured item of mechanical and electrical equipment used in the Work, for transmittal to the Owner before payment of more than ninety percent (90%) is made. Include descriptive data and printed installation, operating, and maintenance instructions (including a parts list for each item of equipment). Provide a complete double index as follows:
 - 1. List the products alphabetically by name.
 - 2. List alphabetically the names of manufacturers whose products have been incorporated in the work, together with their addresses and the names and addresses of the local sales representative.
- L. Installation, Testing and Guarantee: Install all materials and equipment exactly in accordance with the manufacturer's recommendations. The completely installed system shall be guaranteed against any and all defects of manufacture, materials, workmanship, or installation for a period of one year from the date of Substantial Completion.
- M. Operation and Maintenance of the Systems and Instruction to Owner: Where the specifications for equipment require that a factory service representative provide operation and maintenance instruction to the Owner for that equipment, this service shall be performed by prior arrangement with the Owner after and in addition to the manufacturer's instructions to the Contractor for installation and start-up. The individual performing the instructions to the Owner is to be trained and/or certified by the manufacturer as its authorized operation, maintenance, and service specialist. If the said specialist is not a regular, full-time employee of the manufacturer, the specialist's qualifications shall be submitted to the Owner for review and approval prior to scheduling the site visit for instructions to the Owner.
- N. Drawings of Record: Provide and keep up-to-date a complete record set of drawings, which shall be corrected daily to show every change. Keep this set of prints at the job site, and use only as a record set. This shall not be construed as authorization for the Contractor to make changes in the approved layout without definite instructions in each case. Turn the set over to the Owner upon completion of the project.
- O. Preservation of Existing Vegetation: Take reasonable care during construction to avoid damage to vegetation. Where the area to be excavated is occupied by trees, brush, or other uncultivated vegetable growth, clear such growth from the area, and dispose of it in a manner

satisfactory to the Owner. Leave undisturbed any trees, cultivated shrubs, flowers, etc., situated within public rights-of-way and/or easements through private property but not located directly within excavation limits. Transplant small ornamental trees, cultivated shrubs, flowers, etc., located directly within excavation limits so they may be replaced during property restoration operations. Do not remove or disturb any tree larger than six inches (6") in diameter without the permission of the Owner. Take special precautions (including the provision of barricades and the temporary tying back of shrubbery and tree branches) for the protection and preservation of such objects throughout all stages of construction; the Contractor will be held liable for any damage that may result to said objects from excavation or construction operations. Trim any limbs or branches of trees broken during construction operations with a clean cut, and paint with an approved tree pruning compound. Treat tree trunks receiving damage from equipment with an approved tree dressing.

- P. Existing Utilities: The Contractor is to notify Owner of all underground utilities no less than two days in advance of proposed utility interruption before beginning construction in the area. The Contractor is responsible for locating all existing utilities prior to construction and shall carefully protect from damage all utilities in the vicinity of the work at all times. The Contractor shall be responsible for repairing any utilities that were properly located and marked. If it is necessary to repair, remove, and/or replace any such utility in order to complete the work properly, do so in compliance with the rules, regulations, and approval of the particular utility involved. Any such work shall be considered incidental to the construction or repairs of utility lines, and no additional payment will be allowed therefor. Existing utilities shall remain in service at all times during construction. Contractor shall provide any temporary piping necessary to maintain utility service to existing customers.
- Q. Contractor shall comply with the requirements of the Manual on Uniform Traffic Control Devices published by the U.S. Department of Transportation Federal Highway Administration in supplying adequate signage, flagging, personnel, etc. for the entire project. The Contractor shall be responsible for the placement and removal of all signage. The Georgia Department of Transportation guidelines must be followed when working within state right-of-way.
- R. The Contractor shall maintain an acceptable flow of traffic through construction areas. If a roadway must be closed in order to construct the Work, the Contractor shall notify local law enforcement, 911 call center, local school superintendent, and U.S. Postal Service, at a minimum, at least two days prior to roadway closure.
- S. Work in Right-of-Ways:
1. The Contractor shall notify the authorities having jurisdiction prior to entering and working in right-of-ways and shall be responsible for all damages resulting from said Work and for satisfying the requirements of said authorities.
 2. The Contractor shall maintain a suitable and safe condition throughout the right-of-way affected by the Work and provide detours as necessary for public and private traffic.
 3. Materials excavated in right-of-ways shall be hauled to a disposal site immediately and shall not be stockpiled in right-of-way.
- T. Inspection of Work: The Contractor shall provide full access to the project site at all times for inspection and observation of Work by the Owner, Engineer, and agents of any local, state, or federal agency having jurisdiction.

GENERAL REQUIREMENTS

Section 01 0000 – Page 4 of 4

- U. Flood Insurance: The Contractor is required to carry flood insurance for Work which is located in designated flood hazard areas unless insurance is not available.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

3.1 OPERATION OF EXISTING UTILITIES

- A. The Work shall be performed so as to cause minimum interference or interruption with the normal operation of the existing utilities. The Contractor shall plan and conduct construction sequencing operations to avoid disturbing existing utilities and equipment, except as may be provided or approved by the Engineer.

END OF SECTION

ISSUED	DATE
Bid Package	

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for measurement and payment.
- B. Measurement for payment on a unit price basis shall be as described herein. Payment for each item installed shall be made according to the unit price bid, as listed on the Bid Form. Only those items appearing on the Bid Form will be considered for payment on a unit price basis.
- C. For work items included in the technical specifications and not listed herein, such work shall be considered part of or incidental to its related work.
- D. Pay items for the work for which contract lump sum payment will be made are listed on the Bid Form and briefly described herein. All costs for items of work, which are not specifically mentioned to be included in a particular lump sum or unit price payment item, shall be considered incidental to the pay items and the cost of such shall be included in the listed lump sum item most closely associated with the work involved. The lump sum price and payment made for each item listed shall constitute full compensation for furnishing all labor, materials, machinery, equipment, tools, apparatus, service, and other necessary supplies and performing any associated Contractor quality control, environmental protection, meeting safety requirements, tests and reports, and for performing all work required for which separate payment is not otherwise provided.
- E. When actual field conditions differ from assumed design conditions and result in a reduction in materials, equipment, and appurtenances to be installed, a negative adjustment will be made to the Contract. If items are provided on the bid form these items will be used for adjustment, otherwise, the Contractor shall provide costs for a Change Order.
- F. The Contractor shall furnish all necessary labor, materials, machinery, equipment, tools, apparatus, service, and other necessary supplies and perform all work shown on the Drawings and/or described in the Specifications at the price listed on the Bid Form. The Work shall be complete-in-place and ready for operation.
- G. The Contractor has become thoroughly familiar with the terms and conditions of the Bidding Documents and with local conditions affecting the performance and costs of the Work at the place where the Work is to be completed, and has fully inspected the site in all particulars informing himself fully regarding all conditions pertaining to the Work site.
- H. Regular payments to the Contractor by the Owner are contingent upon:
 - 1. The Project being on schedule to finish by the Completion date.
 - 2. If not on schedule to finish by the Completion date, the Contractor having a plan approved by the Owner to get the project back on schedule.
 - 3. If not on schedule to finish by the Completion date, the Owner accepting the estimated delay in schedule.
- I. Section 01 3233 – Photographic Documentation: Photographic Documentation is not a pay item but is required for this work.

MEASUREMENT AND PAYMENT

Section 01 2219 – Page 2 of 2

- J. Section 31 2319 – Dewatering: Dewatering is not a pay item but is required for this work.
- K. Section 33 1100 – Water Utility Distribution Piping: Installation of water utility distribution piping, fittings, taps and service assemblies, meters, and backflow preventers is a pay item. Payment for this work shall be as specified on the Bid Form and considered as full compensation for this item, including all labor, materials, and equipment required to complete the item in accordance with the Bidding Documents. Waterline, sleeves, and valves (as required) will be provided by the Owner. All other materials to be provided by Contractor.
- L. Section 150 – Traffic Control: Lump Sum pay item. Payment for this work shall be considered as full compensation for this item, including all labor, materials, and equipment required to complete the item in accordance with the Bidding Documents. This item includes but is not limited to flaggers, detour signage, barricades and variable message boards for the duration of the project.
- M. Sections 161,162,163,165,167,168,170, & 171 – Included in the Erosion Control Lump Sum pay item: Payment for this work shall be considered as full compensation for this item, including all labor, materials, and equipment required to complete the item in accordance with the Bidding Documents.
- N. Section 522-1000 – Shoring: Lump Sum pay item. Payment for this work shall considered as full compensation for this item, including all labor, materials, and equipment required to complete the item in accordance with the Bidding Documents.
- O. Sections 660 & 668 – Sanitary Sewers (Gravity): Sanitary sewers (gravity) is a pay item. Payment for this work shall be as specified on the Bid Form and considered as full compensation for this item, including all labor, materials, and equipment required to complete the item in accordance with the Bidding Documents. Main line 8” ductile iron pipe and manholes will be provided by the Owner. All other materials, services connections, and incidental service piping to be provided by Contractor.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

ISSUED	DATE
Bid Package	

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative provisions for coordinating construction operations on Project including, but not limited to, the following:
 - 1. General coordination procedures.
 - 2. Coordination drawings.
 - 3. Requests for Information/Interpretation (RFIs).
 - 4. Project meetings.
- B. Related Requirements:
 - 1. Section 01 7700: Procedures for coordinating closeout of the Contract.

1.2 INFORMATIONAL SUBMITTALS

- A. Subcontract List: Prepare written summary identifying individuals or firms proposed for each portion of the Work, including those who are to supply products, special design or professional services.
- B. Key Personnel Names: Before the start of construction operations, submit a list of key personnel assignments, including superintendent and other personnel in attendance at Project site. Identify individuals and their duties and responsibilities; list addresses and telephone numbers, including home, office, and cellular telephone numbers and e-mail addresses.
- C. Within 10 days of NTP, the contractor shall provide a Work Plan detailing the schedule for the work and the detailed traffic plan.

1.3 GENERAL COORDINATION PROCEDURES

- A. Prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required notices, reports, and list of attendees at meetings.
 - 1. Prepare similar memoranda for Owner and separate contractors if coordination of their Work is required.
- B. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities and activities of other contractors to avoid conflicts and to ensure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:
 - 1. Preparation of Contractor's construction schedule.
 - 2. Preparation of the schedule of values.
 - 3. Installation and removal of temporary facilities and controls.

4. Delivery and processing of submittals.
 5. Progress meetings.
 6. Preinstallation conferences.
 7. Project closeout activities.
- C. Conservation: Coordinate construction activities to ensure that operations are carried out with consideration given to conservation of energy, water, and materials. Coordinate use of temporary utilities to minimize waste.

1.4 COORDINATION

- A. Coordinate scheduling, submittals, and Work of various Specification sections and Drawing notes to ensure efficient and orderly sequence of installation of interdependent construction elements, with provisions for accommodating items installed later.
- B. Participate in one or more neighborhood meetings to discuss project with interested parties.
- C. Coordinate outside utility contractors to complete utility installation, connection, and testing.
- D. The Contractor must coordinate notification of geotechnical engineering firm such that all required inspections and observations are conducted before work is covered and in such a way that the work is not impeded.
- E. Coordinate construction operations for efficient and orderly installation of each part of the Work. Coordinate construction operations for Work specified in different Sections that depend on each other for proper installation, connection, and operation.

1.5 REQUESTS FOR INFORMATION OR INTERPRETATION (RFIs)

- A. Immediately on discovery of the need for additional information or interpretation of the Contract Documents, Contractor shall prepare and submit an RFI in the form specified.
 1. Owner or Engineer will return RFIs submitted to Owner by other entities controlled by Contractor with no response.
 2. Coordinate and submit RFIs in a prompt manner so as to avoid delays in Contractor's work or work of subcontractors.
- B. Submission of an RFI constitutes representation that the Contractor requires additional information about the Contract Documents after having made careful study and comparison of the Contract Documents, field conditions, other Owner-provided information, Contractor-prepared coordination drawings, and prior project correspondence or documentation.
- C. If upon evaluation of the RFI the Owner or Engineer finds that the requested information is contained in the Contract Documents or by other documents or methods as outlined in paragraph above, the Owner has the option to obtain reimbursement from the Contractor for costs incurred by the Owner for the Engineer's services and expenses made necessary in answering such requests.

- D. Content of the RFI: Include detailed, legible description of item needing information or interpretation and the following:
1. Project name.
 2. Project number.
 3. Date.
 4. Name of Contractor.
 5. Name of Engineer
 6. RFI number, numbered sequentially.
 7. RFI subject.
 8. Specification Section number and title and related paragraphs, as appropriate.
 9. Drawing number and detail references, as appropriate.
 10. Field dimensions and conditions, as appropriate.
 11. Contractor's suggested resolution. If Contractor's suggested resolution impacts the Contract Time or the Contract Sum, Contractor shall state impact in the RFI.
 12. Contractor's signature.
 13. Attachments: Include sketches, descriptions, measurements, photos, Product Data, Shop Drawings, coordination drawings, and other information necessary to fully describe items needing interpretation.
 - a. Include dimensions, thicknesses, structural grid references, and details of affected materials, assemblies, and attachments on attached sketches.
- E. Engineer's Action: Engineer will review each RFI, determine action required, and respond. Allow at least ten working days for Engineer's response for each RFI. RFIs received by Engineer after 1:00 p.m. will be considered as received the following working day.
1. The following Contractor-generated RFIs will be returned without action:
 - a. Requests for approval of submittals.
 - b. Requests for approval of substitutions.
 - c. Requests for approval of Contractor's means and methods.
 - d. Requests for coordination information already indicated in the Contract Documents.
 - e. Requests for adjustments in the Contract Time or the Contract Sum.
 - f. Requests for interpretation of Engineer's actions on submittals.
 - g. Incomplete RFIs or inaccurately prepared RFIs.
 2. Engineer's action may include request for additional information or clarification, in which case Engineer's time for response will date from time of receipt of additional information or clarification from Contractor.
 3. Engineer's action on RFIs that may result in a change to the Contract Time or the Contract Sum may be eligible for Contractor to submit Change Proposal according to Section 01 2600.
 - a. If Contractor believes the RFI response warrants change in the Contract Time or the Contract Sum, notify Engineer in writing within 10 working days of receipt of the RFI response.

- F. RFI Log: Prepare, maintain, and submit a tabular log of RFIs organized by RFI number. Submit copies of log weekly.
 - 1. Project name.
 - 2. Name and address of Contractor.
 - 3. Name and address of Engineer.
 - 4. RFI number including RFIs that were returned without action or withdrawn.
 - 5. RFI description.
 - 6. Date the RFI was submitted.
 - 7. Date Engineer's response was received.

- G. On receipt of Engineer's action, update the RFI log and immediately distribute the RFI response to affected parties. Review response and notify Engineer within five working days if Contractor disagrees with response.
 - 1. Include identification of related Minor Change in the Work, Construction Change Directive, and Proposal Request, as appropriate.

1.6 PROJECT MEETINGS

- A. General: Schedule and conduct meetings and conferences at Project site unless otherwise indicated.
 - 1. Attendees: Inform participants and others involved, and individuals whose presence is required, of date and time of each meeting. Notify Owner and Engineer of scheduled meeting dates and times.
 - a. Attendees should include:
 - 1) City of Roswell
 - 2) Engineer
 - 3) Geotechnical engineering firm representative, as needed
 - 4) Fulton County Water Representative, as needed
 - 5) Fulton County Sewer Representative, as needed
 - 6) Other utility representatives, as needed
 - 2. Agenda: Prepare the meeting agenda. Distribute the agenda to all invited attendees.
 - 3. Minutes: Entity responsible for conducting meeting will record significant discussions and agreements achieved. Distribute the meeting minutes to everyone concerned, including Owner and Engineer, within three working days of the meeting.

- B. Preconstruction Conference: Schedule and conduct preconstruction conference before starting construction, at a time convenient to Owner and Engineer, but not later than 10 working days after execution of the Agreement.
 - 1. Conduct the conference to review responsibilities and personnel assignments.
 - 2. Attendees: Authorized representatives of Owner, Engineer, and their consultants; Contractor and its superintendent; major subcontractors; suppliers; and other concerned parties shall attend the conference. Participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.
 - 3. Record and distribute meeting minutes.

4. Agenda: Discuss items of significance that could affect progress.
 - a. Tentative construction schedule.
 - b. Phasing.
 - c. Critical work sequencing and long-lead items.
 - d. Weather days.
 - e. Designation of key personnel and their duties.
 - f. Lines of communications.
 - g. Procedures for processing field decisions and Change Orders.
 - h. Procedures for RFIs.
 - i. Procedures for testing and inspecting.
 - j. Procedures for processing Applications for Payment.
 - k. Distribution of the Contract Documents.
 - l. Submittal procedures.
 - m. Preparation of record documents.
 - n. Use of the premises and existing building.
 - o. Work restrictions.
 - p. Working hours.
 - q. Owner's occupancy requirements.
 - r. Responsibility for temporary facilities and controls.
 - s. Procedures for disruptions and shutdowns.
 - t. Construction waste management and recycling.
 - u. Parking availability.
 - v. Office, work, and storage areas.
 - w. Equipment deliveries and priorities.
 - x. First aid.
 - y. Security.
 - z. Progress cleaning.

- C. Preinstallation Conferences: Conduct a preinstallation conference at Project site before each construction activity that requires coordination with other construction.
 1. Attendees: Installer and representatives of manufacturers and fabricators involved in or affected by the installation and its coordination or integration with other materials and installations that have preceded or will follow, shall attend the meeting. Advise Owner of scheduled meeting dates.
 2. Agenda: Review progress of other construction activities and preparations for the particular activity under consideration.
 - a. Contract Documents.
 - b. Options.
 - c. Related RFIs.
 - d. Related Change Orders.
 - e. Purchases.
 - f. Deliveries.
 - g. Submittals.
 - h. Review of mock-ups.
 - i. Possible conflicts.
 - j. Compatibility requirements.
 - k. Time schedules.

- l. Weather limitations.
 - m. Manufacturer recommendations.
 - n. Warranty requirements.
 - o. Compatibility of materials.
 - p. Acceptability of substrates.
 - q. Temporary facilities and controls.
 - r. Space and access limitations.
 - s. Regulations of authorities having jurisdiction.
 - t. Testing and inspecting requirements.
 - u. Installation procedures.
 - v. Coordination with other work.
 - w. Required performance results.
 - x. Protection of adjacent work.
 - y. Protection of construction and personnel.
3. Record significant conference discussions, agreements, and disagreements, including required corrective measures and actions.
 4. Reporting: Distribute minutes of the meeting to each party present and to other parties requiring information.
 5. Do not proceed with installation if the conference cannot be successfully concluded. Initiate whatever actions are necessary to resolve impediments to performance of the Work and reconvene the conference at earliest feasible date.
- D. Progress Meetings: Conduct progress meetings at biweekly intervals.
1. Coordinate dates of meetings with preparation of payment requests.
 2. Attendees: In addition to representatives of Owner, each contractor, subcontractor, supplier, utility company, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the meeting shall be familiar with Project and authorized to conclude matters relating to the Work.
 3. These meetings are intended to be
 4. Agenda: Review and correct or approve minutes of previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.
 - a. Combined Contractor's Construction Schedule: Review progress since the last coordination meeting. Determine whether each contract is on time, ahead of schedule, or behind schedule, in relation to combined Contractor's construction schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.
 - 1) This schedule should include coordination of work by others, including but not limited to:
 - a) City of Roswell
 - b) Engineer
 - c) Geotechnical engineering firm representative, as needed
 - d) Utility Representatives as needed

- b. Schedule Updating: Revise combined Contractor's construction schedule after each coordination meeting where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with report of each meeting.
 - 1) Review schedule for next period.
 - 2) Include updates for Weather Days.
 - c. Review present and future needs of each entity present, including the following:
 - 1) Interface requirements.
 - 2) Sequence of operations.
 - 3) Status of submittals.
 - 4) Deliveries.
 - 5) Off-site fabrication.
 - 6) Access.
 - 7) Site utilization.
 - 8) Temporary facilities and controls.
 - 9) Utility coordination updates.
 - 10) Progress cleaning.
 - 11) Quality and work standards.
 - 12) Hazards and risks.
 - 13) Quality and work standards.
 - 14) Status of correction of deficient items.
 - 15) Field observations.
 - 16) Status of RFIs.
 - 17) Status of proposal requests.
 - 18) Pending changes.
 - 19) Status of Change Orders.
 - 20) Pending claims and disputes.
 - 21) Documentation of information for payment requests.
5. Minutes: Record and distribute the meeting minutes to each party present and to parties requiring information.
- a. Schedule Updating: Revise Contractor's construction schedule after each progress meeting where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with the report of each meeting.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

PROJECT MANAGEMENT AND COORDINATION

ISSUED	DATE
Bid Package	

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for the following:
 - 1. Preconstruction photographs.
 - 2. Periodic construction photographs.
 - 3. Final completion construction photographs.
- B. Related Requirements:
 - 1. Section 01 7700: Submission of photographic documentation as project record documents at Project closeout.
 - 2. Section 31 1000: Photographic documentation before starting site clearing operations.

1.2 INFORMATIONAL SUBMITTALS

- A. Digital Photographs: Submit image files within three working days of taking photographs.
 - 1. Digital Camera: Minimum sensor resolution of 8 megapixels.
 - 2. Format: Minimum 3200 by 2400 pixels, in unaltered original files, with same aspect ratio as the sensor, uncropped, date and time stamped, in folder named by date of photograph, accompanied by key plan file.
 - 3. Identification: Provide the following information with each image description in file metadata tag:
 - a. Name of Project.
 - b. Name and contact information for photographer.
 - c. Name of Engineer.
 - d. Name of Contractor.
 - e. Date photograph was taken.
 - f. Description of vantage point, indicating location, direction (by compass point), and elevation or story of construction.
 - g. Unique sequential identifier keyed to accompanying key plan.

1.3 USAGE RIGHTS

- A. Obtain and transfer copyright usage rights from photographer to Owner for unlimited reproduction of photographic documentation.

PART 2 - PRODUCTS

2.1 PHOTOGRAPHIC MEDIA

- A. Digital Images: Provide images in JPG format, produced by a digital camera with minimum sensor size of 8 megapixels, and at image resolution of not less than 3200 by 2400 pixels.

PART 3 - EXECUTION

3.1 CONSTRUCTION PHOTOGRAPHS

- A. General: Take photographs using maximum depth of field, and that are in focus, to clearly show the Work. Photographs with blurry or out-of-focus areas will not be accepted.
 - 1. Maintain key plan with each set of construction photographs that identifies each photographic location.
- B. Digital Images: Submit digital images exactly as originally recorded in the digital camera, without alteration, manipulation, editing, or modifications using image-editing software.
 - 1. Date and Time: Include date and time in file name for each image.
 - 2. Field Office Images: Maintain one set of images accessible in the field office at Project site, available at all times for reference. Identify images in the same manner as those submitted to Engineer.
- C. Preconstruction Photographs: Before starting construction, take photographs of Project site and surrounding properties, including existing items to remain during construction, from different vantage points, as directed by Engineer.
 - 1. Flag construction limits before taking construction photographs.
 - 2. Take at least 50 photographs to show existing conditions adjacent to property before starting the Work.
 - 3. Take at least 50 photographs of existing buildings, fences, and landscaping in the Right of Way on or adjoining property to accurately record physical conditions at start of construction.
 - 4. Take additional photographs as required to record settlement or cracking of adjacent structures, pavements, and improvements.
- D. Periodic Construction Photographs: Take at least 20 photographs weekly, coinciding with the cutoff date associated with each Application for Payment. Select vantage points to show status of construction and progress since last photographs were taken.
- E. Final Completion Construction Photographs: Take at least 20 color photographs after date of Substantial Completion for submission as project record documents. Engineer will inform photographer of desired vantage points.

END OF SECTION

ISSUED	DATE
Bid Package	

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
1. Administrative and procedural requirements for selection of products for use in Project.
 2. Product delivery, storage, and handling.
 3. Manufacturer standard warranties on products and special warranties
 4. Comparable products.

1.2 DEFINITIONS

- A. Products: Items obtained for incorporating into the Work, whether purchased for Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.
1. Named Products: Items identified by manufacturer's product name, including make or model number or other designation, shown or listed in manufacturer's published product literature that is current as of date of the Contract Documents.
 2. New Products: Items that have not previously been incorporated into another project or facility. Products salvaged or recycled from other projects are not considered new products.
 3. Comparable Product: Product that is demonstrated and approved through Submittal process to have qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics that equal or exceed those of specified product.
- B. Basis-of-Design Product Specification: A specification in which a specific manufacturer's product is named and accompanied by the words "basis-of-design product," including make or model number or other designation, to establish the significant qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics for purposes of evaluating comparable products of additional manufacturers named in the specification.

1.3 ACTION SUBMITTALS

- A. Comparable Product Requests: Submit request for consideration of each comparable product. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.
1. Include data to indicate compliance with the requirements specified in "Comparable Products" Article.
 2. Owner's Action: If necessary, Owner will request additional information or documentation for evaluation within one week of receipt of a comparable product

request. Owner will notify Contractor of approval or rejection of proposed comparable product request within 15 days of receipt of request, or 7 days of receipt of additional information or documentation, whichever is later.

- a. Form of Approval: As specified in Section 01 3300.
- b. Use product specified if Owner does not issue a decision on use of comparable product request within time allocated.

- B. Basis-of-Design Product Specification Submittal: Comply with requirements in Section 01 3300. Provide information sufficient to show compliance with specified requirements.

1.4 QUALITY ASSURANCE

- A. Except as otherwise specifically noted, products shall be new and first (merchantable) quality.
- B. Source Limitations: Supply all products of a given type from a single manufacturer unless otherwise acceptable to the Engineer.
1. Do not change source or proprietary brands for Products during progress of Work without prior permission of Owner.
- C. Where possible, provide standard, domestically produced products likely to be available at later date.
- D. Products of a single type shall be of identical manufacture from a single manufacturer. Duplicate items shall be interchangeable. Where appearance or performance characteristics may vary between manufacturing lots, supply all items of type from a single lot.
- E. Do not use damaged products in the Work.
- F. Use products with limited shelf life within period indicated by manufacturer. Remove from Project site products whose expiration date has passed.
- G. Nameplates: Except for required labels and operating data, do not permanently attach or imprint manufacturer or producer nameplates or trademarks on surfaces of products exposed to view in occupied spaces or on the exterior.
1. Labels: Locate required product labels and stamps on concealed surfaces or, where required for observation after installation, on accessible surfaces that are not conspicuous.
 2. Equipment Nameplates: Provide permanent nameplates on each item of service connected or power operated equipment. Indicate manufacturer name, product name, model number, serial number, capacity, speed, ratings, and similar essential operating data. Locate nameplates on accessible surfaces which, in occupied spaces, are not conspicuous.

1.5 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, and handle products using means and methods that will prevent damage, deterioration, and loss, including theft and vandalism. Comply with manufacturer recommendations.
- B. Delivery and Handling:
 - 1. Schedule deliveries to minimize long-term storage at Project site and to prevent overcrowding of construction spaces.
 - 2. Coordinate deliveries with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses.
 - 3. Deliver products to Project site in undamaged condition in manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.
 - 4. Inspect products on delivery to determine compliance with the Contract Documents and to determine that products are undamaged and properly protected.
- C. Storage:
 - 1. Store products to allow for inspection and measurement of quantity or counting of units.
 - 2. Store materials in a manner that will not endanger Project structure.
 - 3. Store products that are subject to damage by the elements, under cover in a weathertight enclosure above ground, with ventilation adequate to prevent condensation.
 - 4. Protect foam plastic from exposure to sunlight, except to extent necessary for period of installation and concealment.
 - 5. Comply with product manufacturer recommendations for temperature, humidity, ventilation, and weather-protection requirements for storage.
 - 6. Protect stored products from damage and liquids from freezing.

1.6 EXTRA MATERIALS

- A. Supply extra materials from same manufacturing lots as installed products.
- B. Store extra materials in original packaging with intact labels. Mark packages with locations of installed products.
- C. Store extra materials in building where directed by Owner.

1.7 PRODUCT WARRANTIES

- A. Warranties specified in other Sections shall be in addition to, and run concurrent with, other warranties required by the Contract Documents. Manufacturer's disclaimers and limitations on product warranties do not relieve Contractor of obligations under requirements of the Contract Documents.

1. Manufacturer Warranty: Written warranty supplied by individual manufacturer for a particular product and specifically endorsed by manufacturer to Owner.
 2. Special Warranty: Written warranty required by the Contract Documents to provide specific rights for Owner.
- B. Special Warranties: Prepare written document that contains appropriate terms and identification, ready for execution.
1. Manufacturer's Standard Form: Modified to include Project-specific information and properly executed.
- C. Submittal Time: Comply with requirements in Section 01 7700.

PART 2 - PRODUCTS

2.1 PRODUCT SELECTION PROCEDURES

- A. General Product Requirements: Provide products that comply with the Contract Documents, are undamaged, and unless otherwise indicated, are new at time of installation.
1. Provide products complete with accessories, trim, finish, fasteners, and other items needed for a complete installation and indicated use and effect.
 2. Standard Products: If available, and unless custom products or nonstandard options are specified, provide standard products of types that have been produced and used successfully in similar situations on other projects.
 3. Owner reserves the right to limit selection to products with warranties not in conflict with requirements of the Contract Documents.
 4. Where products are accompanied by the term "as selected," Owner will make selection.
 5. Where products are accompanied by the term "match sample," sample to be matched is Owner's.
 6. Descriptive, performance, and reference standard requirements in the Specifications establish salient characteristics of products.
 7. Or Equal: For products specified by name and accompanied by the term "or equal," or "or approved equal," or "or approved," comply with requirements in "Comparable Products" Article to obtain approval for use of an unnamed product.
- B. Product Selection Procedures:
1. Product: Where Specifications name a single manufacturer and product, provide the named product that complies with requirements. Comparable products or substitutions for Contractor's convenience will not be considered.
 2. Manufacturer/Source: Where Specifications name a single manufacturer or source, provide a product by the named manufacturer or source that complies with requirements. Comparable products or substitutions for Contractor's convenience will not be considered.
 3. Basis-of-Design Product: Where Specifications name a product, or refer to a product indicated on Drawings, and include a list of manufacturers, provide the specified or

indicated product or a comparable product by one of the other named manufacturers. Drawings and Specifications indicate sizes, profiles, dimensions, and other characteristics that are based on the product named. Comply with requirements in "Comparable Products" Article for consideration of an unnamed product by one of the other named manufacturers.

- C. Visual Selection Specification: Where Specifications include the phrase "as selected by Owner from manufacturer's full range" or similar phrase, select a product that complies with requirements. Owner will select color, gloss, pattern, density, or texture from manufacturer's product line that includes both standard and premium items.
- D. Provide products complete with accessories, trim, finish, fasteners, and other items needed for a complete installation for indicated use and effect.
- E. Compatibility: Where more than one choice is available for Contractor's selection of products, select products that are compatible with other choices, including previously selected or installed products.
 - 1. Total compatibility among Contractor's options is not assured by limitations within Contract Documents, but must be provided by the Contractor.
 - 2. Compatibility is a basic general requirement of all product selections, and the Owner and Engineer will rely on the Contractor's skill, judgment, and integrity for such selections.
- F. WARRANTY DISCLAIMER: The Engineer and Owner specifically disclaim any warranty as to availability of proprietary products mentioned in the Contract Documents, accuracy of proprietary designations, or safety of manufacture, fabrication, handling, installation, or any other use of specified products.
 - 1. Contractor shall use all precautions necessary to avoid deleterious exposure to harmful substances, and to prevent contamination or pollution of the Project or the general environment.
 - 2. Contractor shall notify the Owner in writing as soon as possible regarding objections to use of any product. Include statement of reasons for objections, and recommendations for alternative products or procedures with equivalent quality and function. Transmittal of submittals constitutes waiver of objections to specified products.

2.2 COMPARABLE PRODUCTS

- A. Conditions for Consideration: Owner will consider Contractor's request for comparable product when the following conditions are satisfied. If the following conditions are not satisfied, Owner may return requests without action, except to record noncompliance with these requirements:
 - 1. Evidence that proposed product does not require revisions to Contract Documents, that it is consistent with the Contract Documents and will produce the indicated results, and that it is compatible with other portions of the Work.
 - 2. Detailed comparison of significant qualities of proposed product with those named in the Specifications. Significant qualities include attributes such as performance, weight, size, durability, visual effect, and specific features and requirements indicated.
 - 3. Evidence that proposed product provides specified warranty.

4. List of similar installations for completed projects with project names and addresses and names and addresses of Engineers and owners, if requested.
5. Samples, if requested.

PART 3 - EXECUTION (Not Used)

END OF SECTION

ISSUED	DATE
Bid Package	

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Construction layout.
 - 2. Field engineering and surveying.
 - 3. Installation of the Work.
 - 4. Cutting and patching.
 - 5. Coordination of Owner-installed products.
 - 6. Progress cleaning.
 - 7. Starting and adjusting.
 - 8. Protection of installed construction.

- B. Related Requirements:
 - 1. Section 01 1000: Limitations on use of Project site.
 - 2. Section 01 3300: Procedures for submitting surveys.
 - 3. Section 01 7700: Submission of final property survey with Project Record Documents, recording of Owner-accepted deviations from indicated lines and levels, and final cleaning.

1.2 DEFINITIONS

- A. Cutting: Removal of in-place construction necessary to permit installation or performance of other work.

- B. Patching: Fitting and repair work required to restore construction to original conditions after installation of other work.

1.3 INFORMATIONAL SUBMITTALS

- A. Prepare submittals per requirements of Section 01 3300 – Submittal Procedures.

- B. Certificates: Submit certificate signed by land surveyor certifying that location and elevation of improvements comply with requirements.

- C. Cutting and Patching Plan: Submit plan describing procedures at least 14 days before the time cutting and patching will be performed. Include the following information:
 - 1. Extent: Describe reason for and extent of each occurrence of cutting and patching.
 - 2. Changes to In-Place Construction: Describe anticipated results. Include changes to structural elements and operating components as well as changes in building appearance and other significant visual elements.

3. Products: List products to be used for patching and firms or entities that will perform patching work.
 4. Dates: Indicate when cutting and patching will be performed.
 5. Utilities and Mechanical and Electrical Systems: List services and systems that cutting and patching procedures will disturb or affect. List services and systems that will be relocated and those that will be temporarily out of service. Indicate length of time permanent services and systems will be disrupted.
- D. Include description of provisions for temporary services and systems during interruption of permanent services and systems.
- E. Certified Surveys: Submit two copies signed by land surveyor.
- F. Final Property Survey: Submit drawing files for the survey in AutoCAD version acceptable to Owner and 5 printed full-size copies showing the Work performed and record survey data.

1.4 QUALITY ASSURANCE

- A. Land Surveyor Qualifications: Legally qualified to practice in jurisdiction where Project is located and experienced in providing land-surveying services for commercial construction projects of similar size and complexity.
- B. Cutting and Patching:
1. Structural Elements: When cutting and patching structural elements, notify Engineer of locations and details of cutting and await directions from Engineer before proceeding. Shore, brace, and support structural elements during cutting and patching. Do not cut and patch structural elements in a manner that could change their load-carrying capacity or increase deflection
 2. Operational Elements: Do not cut and patch operating elements and related components in a manner that results in reducing their capacity to perform as intended or that results in increased maintenance or decreased operational life or safety. Operational elements include the following:
 - a. Primary operational systems and equipment.
 - b. Fire separation assemblies.
 - c. Air or smoke barriers.
 - d. Fire-suppression systems.
 - e. Mechanical systems piping and ducts.
 - f. Control systems.
 - g. Communication systems.
 - h. Fire-detection and -alarm systems.
 - i. Conveying systems.
 - j. Electrical wiring systems.
 - k. Operating systems of special construction.
 3. Other Construction Elements: Do not cut and patch other construction elements or components in a manner that could change their load-carrying capacity, that results in reducing their capacity to perform as intended, or that results in increased maintenance or

- decreased operational life or safety. Other construction elements include but are not limited to the following:
- a. Water, moisture, or vapor barriers.
 - b. Membranes and flashings.
 - c. Exterior curtain-wall construction.
 - d. Sprayed fire-resistive material.
 - e. Equipment supports.
 - f. Piping, ductwork, vessels, and equipment.
 - g. Noise- and vibration-control elements and systems.
4. Visual Elements: Do not cut and patch construction in a manner that results in visual evidence of cutting and patching. Do not cut and patch exposed construction in a manner that would, in Engineer's opinion, reduce the building's aesthetic qualities. Remove and replace construction that has been cut and patched in a visually unsatisfactory manner.
- C. Manufacturer's Installation Instructions: Obtain and maintain on-site manufacturer's written recommendations and instructions for installation of products and equipment.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. In-Place Materials: Use materials for patching identical to in-place materials. For exposed surfaces, use materials that visually match in-place adjacent surfaces to the fullest extent possible.
1. If identical materials are unavailable or cannot be used, use materials that, when installed, will provide a match acceptable to Engineer for the visual and functional performance of in-place materials.
- B. Hazardous Materials: Use products, cleaners, and installation materials that are not considered hazardous.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. EXISTING CONDITIONS DISCLAIMER: The Owner and Engineer specifically disclaim any warranty as to existence and locations of underground and other concealed utilities and construction indicated on Drawings as existing. The Engineer prepared Drawings on the basis of information provided by Owner and did not verify the accuracy of that information. Contractor is therefore advised that actual conditions may differ from those depicted on Drawings or in other Contract Documents.
1. Notify Engineer of existing conditions that are outside Contractor's responsibility that would hinder proper or timely execution, or adversely affect performance of finished Work.

- B. Before beginning sitework, investigate and verify the existence and location of underground utilities and other construction affecting the Work.
 - 1. Before construction, verify the location and invert elevation at points of connection of sanitary sewer, storm sewer, and water-service piping; underground electrical services, and other utilities.
 - 2. Supply location data for work related to Project that must be performed by public utilities serving Project site.
- C. Examination and Acceptance of Conditions: Before proceeding with each component of the Work, examine substrates, areas, and conditions, with Installer or Applicator present where appropriate, for compliance with requirements for installation tolerances and other conditions affecting performance. Record observations.
 - 1. Examine roughing-in for mechanical and electrical systems to verify actual locations of connections before equipment and fixture installation.
 - 2. Examine walls, floors, and roofs for suitable conditions where products and systems are to be installed.
 - 3. Verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
- D. Proceed with installation only after unsatisfactory conditions have been corrected.
- E. Inspect products immediately before installation. Do not install defective or damaged products.

3.2 PREPARATION

- A. Existing Utility Information: Supply information to local utility and Owner that is necessary to adjust, move, or relocate existing utility structures, utility poles, lines, services, or other utility appurtenances located in or affected by construction. Coordinate with authorities having jurisdiction.
- B. Field Measurements: Measure in-place construction as needed for fabrication and execution of the Work. No changes to Contract Sum or Contract Time will be allowed for differences between Drawing dimensions and field measurements.
- C. Space Requirements: Verify space requirements and dimensions of items shown diagrammatically on Drawings, including requirements for operation, maintenance access, and other required clearances.

3.3 CONSTRUCTION LAYOUT

- A. Verification: Before proceeding to lay out the Work, verify layout information shown on Drawings, in relation to the property survey and existing benchmarks. If discrepancies are discovered, notify Engineer promptly.
- B. General: Engage a land surveyor to lay out the Work using accepted surveying practices.

- C. Site Improvements: Locate and lay out site improvements, including pavements, grading, fill and topsoil placement, utility slopes, and rim and invert elevations.
- D. Record Log: Maintain log of layout control work. Record deviations from required lines and levels. Include beginning and ending dates and times of surveys, weather conditions, name and duty of each survey party member, and types of instruments and tapes used. Make the log available for reference by Engineer.

3.4 FIELD ENGINEERING

- A. Identification: Owner will identify existing benchmarks, control points, and property corners.
- B. Reference Points: Locate existing permanent benchmarks, control points, and similar reference points before beginning the Work. Preserve and protect permanent benchmarks and control points during construction operations.
 - 1. Do not change or relocate existing benchmarks or control points without prior written approval of Engineer. Report lost or destroyed permanent benchmarks or control points promptly. Report the need to relocate permanent benchmarks or control points to Engineer before proceeding.
 - 2. Replace lost or destroyed permanent benchmarks and control points promptly. Base replacements on the original survey control points.
- C. Benchmarks: Establish and maintain minimum two permanent benchmarks on Project site, referenced to data established by survey control points. Comply with authorities having jurisdiction for type and size of benchmark.
 - 1. Record benchmark locations, with horizontal and vertical data, on Project Record Documents.
 - 2. Where the actual location or elevation of layout points cannot be marked, provide temporary reference points sufficient to locate the Work.
 - 3. Remove temporary reference points when no longer needed. Restore marked construction to its original condition.
- D. Certified Survey: On completion of foundation walls, major site improvements, and other work requiring field-engineering services, prepare a certified survey showing dimensions, locations, angles, and elevations of construction and sitework.
- E. Final Property Survey: Engage a land surveyor to prepare a final property survey showing significant features (real property) for Project. Include on the survey a certification, signed by land surveyor, that principal metes, bounds, lines, and levels of Project are accurately positioned as shown on the survey.
 - 1. Show boundary lines, monuments, streets, site improvements and utilities, existing improvements and significant vegetation, adjoining properties, acreage, grade contours, and the distance and bearing from a site corner to a legal point.

- F. As-built Survey detailing the culvert faces, headwalls and gabion walls on the upstream and downstream sides in sufficient detail for a LOMR flood study to be conducted on the as-built culvert.

3.5 INSTALLATION

- A. Project structures have been designed for strength, stability, and safety in completed form. Until completed, provide temporary bracing and supports needed for strength, stability, and safety of construction in progress and for protection of persons and property.
- B. General: Locate the Work and components of the Work accurately, in correct alignment and elevation, as indicated.
- C. Comply with manufacturer instructions and recommendations for installing products.
- D. Install products at the time and under conditions that will ensure the best possible results. Maintain conditions required for product performance until Substantial Completion.
- E. Sequence the Work and allow adequate clearances to accommodate movement of construction items on site and placement in permanent locations.
- F. Templates: Obtain and distribute to the parties involved templates for work specified to be factory prepared and field installed. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing products to comply with indicated requirements.
- G. Isolate products from incompatible materials as needed to prevent deterioration.
- H. Install products at time and under conditions that will ensure best possible results. Maintain conditions required for product performance until Substantial Completion.
- I. Protect permeable pavers from clogging of sediment and debris throughout construction.
- J. Tolerances: Where specific tolerances are not stipulated by Contract Documents or manufacturer recommendations, comply with applicable industry standards.
 - 1. Tolerances are noncumulative unless otherwise stated.

3.6 HANDICAPPED ACCESSIBILITY REQUIREMENTS

- A. ADA Requirements: In addition to Code requirements governing handicapped accessibility, install Work in conformance with US Department of Justice publication *2010 ADA Standards for Accessible Design*.
 - 1. Where ADA compliance is indicated in Contract Documents, comply with this document.
 - 2. Contractor is cautioned that normal construction industry tolerances may not be acceptable with respect to maximum and minimum dimensions in this document.

3. Refer questions regarding interpretation of ADA requirements to Owner, with copies of correspondence to Engineer.
 4. Where Code requirements and ADA requirements are at variance, comply with the more restrictive requirements unless otherwise directed by Owner.
- B. The Engineer's site observations for compliance with handicapped accessibility requirements are limited in scope and frequency per its contract with the Owner. The Owner will therefore rely on the Contractor's skill, judgment, and expertise for compliance with handicapped accessibility requirements and will look solely to the Contractor for such compliance.

3.7 CUTTING AND PATCHING

- A. Cutting and Patching, General: Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at earliest feasible time, and complete without delay.
1. Cut in-place construction to provide for installation of other components or performance of other construction, and subsequently patch to restore surfaces to original condition.
- B. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during installation or cutting and patching operations, by methods and with materials so as not to void existing warranties.
- C. Specific cutting and patching requirements applicable to individual units of Work may be specified in other Specification sections.
- D. Requirements of this Section apply to all Work of Contract. Refer to Divisions 21 through 33 for additional requirements and limitations on cutting and patching.
- E. Temporary Support: Provide temporary support of work to be cut.
- F. Protection: Protect in-place construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of Project that might be exposed during cutting and patching operations.
- G. Adjacent Occupied Areas: Where interference with use of adjoining areas or interruption of free passage to adjoining areas is unavoidable, coordinate cutting and patching according to requirements in Section 01 1000.
- H. Existing Utility Services and Mechanical/Electrical Systems: Where existing services or systems are required to be removed, relocated, or abandoned, bypass such services or systems before cutting to minimize interruption to occupied areas.
- I. Cutting: Cut in-place construction by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, using methods least likely to damage elements retained or adjoining construction. If possible, review proposed procedures with original Installer; comply with original Installer's written recommendations.

1. In general, use hand or small power tools designed for sawing and grinding, not hammering and chopping. Cut holes and slots neatly to minimum size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
 2. Finished Surfaces: Cut or drill from the exposed or finished side into concealed surfaces.
 3. Concrete and Masonry: Cut using a cutting machine, such as an abrasive saw or a diamond-core drill.
 4. Excavating and Backfilling: Comply with requirements in applicable Sections where required by cutting and patching operations.
 5. Mechanical and Electrical Services: Cut off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after cutting.
- J. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other work. Patch with durable seams that are as invisible as practicable. Provide materials and comply with installation requirements specified in other Sections, where applicable.
1. Inspection: Where feasible, test and inspect patched areas after completion to demonstrate physical integrity of installation.
 2. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will minimize evidence of patching and refinishing.
 - a. Clean piping, conduit, and similar features before applying paint or other finishing materials.
 - b. Restore damaged pipe covering to its original condition.
 3. Floors and Walls: Where walls or partitions that are removed extend one finished area into another, patch and repair floor and wall surfaces in the new space. Provide an even surface of uniform finish, color, texture, and appearance. Remove in-place floor and wall coverings and replace with new materials, if necessary, to achieve uniform color and appearance.
 - a. Where patching occurs in a painted surface, prepare substrate and apply primer and intermediate paint coats appropriate for substrate over the patch, and apply final paint coat over entire unbroken surface containing the patch. Provide additional coats until patch blends with adjacent surfaces.
 4. Exterior Building Enclosure: Patch components in a manner that restores enclosure to weathertight condition and ensures thermal and moisture integrity of building enclosure.
- K. Cleaning: Clean areas and spaces where cutting and patching are performed. Remove paint, mortar, oils, and similar materials from adjacent finished surfaces.

3.8 OWNER-INSTALLED PRODUCTS

- A. Site Access: Provide access to Project site for Owner's construction personnel.
- B. Coordination: Coordinate construction and operations of the Work with work performed by Owner's construction personnel.

1. Construction Schedule: Inform Owner of Contractor's preferred construction schedule for Owner's portion of the Work. Adjust construction schedule based on a mutually agreeable timetable. Notify Owner if changes to schedule are required due to differences in actual construction progress.
2. Preinstallation Conferences: Include Owner's construction personnel at preinstallation conferences covering portions of the Work that are to receive Owner's work. Attend preinstallation conferences conducted by Owner's construction personnel if portions of the Work depend on Owner's construction.

3.9 PROGRESS CLEANING

- A. General: Clean Project site and work areas daily, including common areas.
 1. Comply with requirements in NFPA 241 for removal of combustible waste materials and debris.
 2. Do not hold waste materials more than seven days during normal weather or three days if the temperature is expected to rise above 80 deg F.
 3. Containerize hazardous and unsanitary waste materials separately from other waste. Mark containers appropriately and dispose of legally, according to regulations.
 - a. Use containers intended for holding waste materials of type to be stored.
 4. Coordinate progress cleaning for joint-use areas where Contractor and other contractors are working concurrently.
- B. Site: Maintain Project site free of waste materials and debris.
- C. Clean spills, misapplications, and other accidents immediately as they occur.
- D. Do not remove or obscure UL labels, third-party certification labels, or other required labeling.
- E. Work Areas: Clean areas where work is in progress to the level of cleanliness necessary for proper execution of the Work.
- F. Installed Work: Keep installed work clean. Clean installed surfaces according to instructions of manufacturer or fabricator of product installed, using only cleaning materials specifically recommended. If specific cleaning materials are not recommended, use cleaning materials that are not hazardous to health or property and that will not damage exposed surfaces.
- G. Concealed Spaces: Remove debris from concealed spaces before enclosing the space.
- H. Exposed Surfaces in Finished Areas: Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.
- I. Waste Disposal: Do not bury or burn waste materials on-site. Do not wash waste materials down sewers or into waterways. Comply with waste disposal requirements in Section 01 5000.

- J. Limiting Exposures: Supervise construction operations to assure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period.

3.10 DAMAGE CORRECTIONS

- A. Provide new conforming Work to replace damaged work that cannot be repaired or refinished in place. Damage includes soiling or staining that cannot be satisfactorily cleaned.

END OF SECTION

ISSUED	DATE
Bid Package	

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Substantial Completion procedures.
 - 2. Final completion procedures.
 - 3. Warranties.
 - 4. Final cleaning.
 - 5. Repair of the Work.

1.2 ACTION SUBMITTALS

- A. Contractor's Punch List of Incomplete Items: Initial submittal at Substantial Completion.
- B. Certified Punch List of Incomplete Items: Final submittal at Final Completion.

1.3 SUBSTANTIAL COMPLETION PROCEDURES

- A. Contractor's List of Incomplete Items: Prepare and submit a list of items to be completed and corrected (Contractor's punch list), indicating the value of each item on the list and reasons why the Work is incomplete.
 - 1. Submit closeout submittals specified in other Division 01 Sections, including project record documents, operation and maintenance manuals, final completion construction photographic documentation, damage or settlement surveys, property surveys, and similar final record information.
 - a. Submit as-built surveys of all improvements, if not previously submitted.
 - 2. Submit closeout submittals specified in individual Sections, including specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.
 - 3. Submit maintenance material submittals specified in individual Sections, including tools, spare parts, extra materials, and similar items, and deliver to location designated by Engineer. Label with manufacturer's name and model number where applicable.
 - 4. Submit test/adjust/balance records.
 - 5. Submit changeover information related to Owner's occupancy, use, operation, and maintenance.
- B. Procedures Before Substantial Completion: Complete the following minimum 10 working days before requesting inspection for determining date of Substantial Completion. List items below that are incomplete at time of request.
 - 1. Advise Owner of pending insurance changeover requirements.

2. Make final changeover of permanent locks and deliver keys to Owner. Advise Owner's personnel of changeover in security provisions.
3. Complete startup and testing of systems and equipment.
4. Perform preventive maintenance on equipment used before Substantial Completion.
5. Instruct Owner's personnel in operation, adjustment, and maintenance of products, equipment, and systems.
6. Advise Owner of changeover in heat and other utilities.
7. Participate with Owner in conducting inspection and walkthrough with local emergency responders.
8. Terminate and remove temporary facilities from Project site, along with mock-ups, construction tools, and similar elements.
9. Complete final cleaning requirements, including touchup painting.
10. Touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects.

1.4 FINAL COMPLETION PROCEDURES

- A. Submittals Before Final Completion: Before requesting final inspection for determining final completion, complete the following:
 1. Certified List of Incomplete Items: Submit certified copy of Engineer's Substantial Completion inspection list of items to be completed or corrected (punch list), endorsed and dated by Engineer. Certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance.
 2. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.

1.5 SUBMITTAL OF PROJECT WARRANTIES

- A. Time of Submittal: Submit written warranties on request of Engineer for designated portions of the Work where commencement of warranties other than date of Substantial Completion is indicated, or when delay in submittal of warranties might limit Owner's rights under warranty.
- B. Partial Occupancy: Submit properly executed warranties within 15 working days of completion of designated portions of the Work that are completed and occupied or used by Owner during construction period by separate agreement with Contractor.
- C. Organize warranty documents into an orderly sequence based on the table of contents of Project Manual.
 1. Warranty Electronic File: Scan warranties and bonds and assemble complete warranty and bond submittal package into a single indexed electronic PDF file with links enabling navigation to each item. Provide bookmarked table of contents at beginning of document.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.

PART 3 - EXECUTION

3.1 FINAL CLEANING

- A. General: Perform final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations.
- B. Complete the following cleaning operations before requesting inspection for certification of Substantial Completion for entire Project or for a designated portion of Project:
 - 1. Clean Project site, yard, and grounds, in areas disturbed by construction activities, including landscape development areas, of rubbish, waste material, litter, and other foreign substances.
 - 2. Sweep paved areas broom clean. Remove petrochemical spills, stains, and other foreign deposits.
 - 3. Rake grounds that are neither planted nor paved to a smooth, even-textured surface.
 - 4. Remove tools, construction equipment, machinery, and surplus material from Project site.
 - 5. Clean exposed exterior hard-surfaced finishes to a dirt-free condition, free of stains, films, and similar foreign substances. Avoid disturbing natural weathering of exterior surfaces. Restore reflective surfaces to their original condition.
 - 6. Remove debris and surface dust from limited access spaces, including shafts, trenches, equipment vaults, manholes, and similar spaces.
 - 7. Remove labels that are not permanent.
 - 8. Wipe surfaces of mechanical and electrical equipment, and similar equipment. Remove excess lubrication, paint and mortar droppings, and other foreign substances.
 - 9. Clean plumbing fixtures to a sanitary condition, free of stains, including stains resulting from water exposure.
 - 10. Clean light fixtures, lamps, globes, and reflectors to function with full efficiency.
 - 11. Leave Project clean and ready for occupancy.

3.2 REPAIR OF THE WORK

- A. Complete repair and restoration operations before requesting inspection for determination of Substantial Completion.

- B. Repair or remove and replace defective construction. Repairing includes replacing defective parts, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating equipment. Where damaged or worn items cannot be repaired or restored, provide replacements. Remove and replace operating components that cannot be repaired. Restore damaged construction and permanent facilities used during construction to specified condition.
1. Remove and replace chipped, scratched, and broken glass, reflective surfaces, and other damaged transparent materials.
 2. Touch up and otherwise repair and restore marred or exposed finishes and surfaces. Replace finishes and surfaces that already show evidence of repair or restoration.
 - a. Do not paint over "UL" and other required labels and identification, including mechanical and electrical nameplates. Remove paint applied to required labels and identification.
 3. Replace parts subject to operating conditions during construction that may impede operation or reduce longevity.
 4. Replace burned-out bulbs, bulbs noticeably dimmed by hours of use, and defective and noisy starters in fluorescent and mercury vapor fixtures to comply with requirements for new fixtures.

END OF SECTION

ISSUED	DATE
Bid Package	

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Record Drawings.
 - 2. Record Specifications.
 - 3. Record Product Data.
 - 4. Miscellaneous record submittals.

- B. Related Requirements:
 - 1. Section 01 7300 "Execution" for final property survey.
 - 2. Section 01 7700 "Closeout Procedures" for general closeout procedures.

1.2 CLOSEOUT SUBMITTALS

- A. Record Drawings: Comply with the following:
 - 1. Number of Copies: Submit one set of marked-up record prints.
 - 2. Submit electronic copy of final As-Built Survey and other documentation as required.

- B. Record Specifications: Submit one paper copy and annotated PDF electronic files of Project's Specifications, including addenda and contract modifications.

- C. Record Product Data: Submit one copy of each Product Data submittal.
 - 1. Where Record Product Data is required as part of operation and maintenance manuals, submit marked-up Product Data as an insert in manual instead of submittal as Record Product Data.

PART 2 - PRODUCTS

2.1 RECORD DRAWINGS

- A. Record Prints: Maintain one set of marked-up paper copies of the Contract Drawings and Shop Drawings, incorporating new and revised drawings as modifications are issued. At Contractor's option, record information may be recorded electronically on PDF files of Contract Drawings.
 - 1. Preparation: Mark record prints to show the actual installation where installation varies from that shown originally. Require individual or entity who obtained record data, whether individual or entity is Installer, subcontractor, or similar entity, to provide information for preparation of corresponding marked-up record prints.
 - a. Give particular attention to information on concealed elements that would be difficult to identify or measure and record later.

- b. Accurately record information in an acceptable drawing technique.
 - c. Record data as soon as possible after obtaining it.
 - d. Record and check the markup before enclosing concealed installations.
 - e. Cross-reference record prints to corresponding archive photographic documentation.
 2. Content: Types of items requiring marking include, but are not limited to, the following:
 - a. Dimensional changes to Drawings.
 - b. Revisions to details shown on Drawings.
 - c. Depths of foundations below first floor.
 - d. Locations and depths of underground utilities.
 - e. Revisions to routing of piping and conduits.
 - f. Revisions to electrical circuitry.
 - g. Actual equipment locations.
 - h. Duct size and routing.
 - i. Locations of concealed internal utilities.
 - j. Changes made by Change Order or Construction Change Directive.
 - k. Changes made following Engineer's written orders.
 - l. Details not on the original Contract Drawings.
 - m. Field records for variable and concealed conditions.
 - n. Record information on the Work that is shown only schematically.
 3. Mark the Contract Drawings and Shop Drawings completely and accurately. Use personnel proficient at recording graphic information in production of marked-up record prints.
 4. Mark record sets with erasable, red-colored pencil. Use other colors to distinguish between changes for different categories of the Work at same location.
 5. Mark important additional information that was either shown schematically or omitted from original Drawings.
 6. Note Construction Change Directive numbers, alternate numbers, Change Order numbers, and similar identification, where applicable.
- B. Format: Identify and date each record Drawing; include the designation "PROJECT RECORD DRAWING" in a prominent location.
 1. Record Prints: Organize record prints and newly prepared record Drawings into manageable sets. Bind each set with durable paper cover sheets. Include identification on cover sheets.
 2. Identification: As follows:
 - a. Project name.
 - b. Date.
 - c. Designation "PROJECT RECORD DRAWINGS."
 - d. Name of Engineer.
 - e. Name of Contractor.

2.2 RECORD SPECIFICATIONS

- A. Preparation: Mark Specifications to indicate the actual product installation where installation varies from that indicated in Specifications, addenda, and contract modifications.
 - 1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
- B. Format: Submit record Specifications as annotated PDF electronic file and paper copy.

PART 3 - EXECUTION

3.1 RECORDING AND MAINTENANCE

- A. Recording: Maintain one copy of each submittal during the construction period for project record document purposes. Post changes and revisions to project record documents as they occur; do not wait until end of Project.
- B. Maintenance of Record Documents and Samples: Store record documents and Samples in the field office apart from the Contract Documents used for construction. Do not use project record documents for construction purposes. Maintain record documents in good order and in a clean, dry, legible condition, protected from deterioration and loss. Provide access to project record documents for Engineer's reference during normal working hours.

END OF SECTION

ISSUED	DATE
Bid Package	

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes construction of dewatering systems.

1.2 PERFORMANCE REQUIREMENTS

- A. Dewatering Performance: Design, furnish, install, test, operate, monitor, and maintain dewatering system of sufficient scope, size, and capacity to control ground-water flow into excavations and permit construction to proceed on dry, stable subgrades.

1.3 QUALITY ASSURANCE

- A. Regulatory Requirements: Comply with water disposal requirements of authorities having jurisdiction.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 PREPARATION

- A. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by dewatering operations.
 - 1. Prevent surface water and subsurface or ground water from entering excavations, from ponding on prepared subgrades, and from flooding site and surrounding area.
 - 2. Protect subgrades and foundation soils from softening and damage by rain or water accumulation.

3.2 INSTALLATION

- A. Install dewatering system utilizing wells, well points, or similar methods complete with pump equipment, standby power and pumps, filter material gradation, valves, appurtenances, water disposal, and surface-water controls.
- B. Before excavating below ground-water level, place system into operation to lower water to specified levels. Operate system continuously until structures such as drains and sewers have been constructed and fill materials have been placed, or until dewatering is no longer required.

- C. Provide an adequate system to lower and control ground water to permit excavation, construction of structures, and placement of fill materials on dry subgrades. Install sufficient dewatering equipment to drain water-bearing strata above and below bottom of foundations, drains, sewers, and other excavations.
 - 1. Do not permit open-sump pumping that leads to loss of fines, soil piping, subgrade softening, and slope instability.
- D. Reduce hydrostatic head in water-bearing strata below subgrade elevations of foundations, drains, sewers, and other excavations.
- E. Dispose of water removed by dewatering in a manner that avoids endangering public health, property, and portions of work under construction or completed. Dispose of water in a manner that avoids inconvenience to others. Provide sumps, sedimentation tanks, and other flow-control devices as required by authorities having jurisdiction.
- F. Provide standby equipment on-site, installed and available for immediate operation, to maintain dewatering on continuous basis if any part of system becomes inadequate or fails. If dewatering requirements are not satisfied due to inadequacy or failure of dewatering system, restore damaged structures and foundation soils at no additional expense to Owner.
 - 1. Remove dewatering system from Project site on completion of dewatering. Plug or fill well holes with sand or cut off and cap wells a minimum of 36 inches below overlying construction.
- G. Damages: Promptly repair damages to adjacent facilities caused by dewatering operations.

END OF SECTION

ISSUED	DATE
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PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes both potable and fire water-distribution piping and specialties outside the building for the following:
 - 1. Water services.

1.2 ACTION SUBMITTALS

- A. Prepare submittals per requirements of Section 01 3300 – Submittal Procedures.
- B. Product Data:
 - 1. Valves and accessories.
 - 2. Water meters and accessories.
 - 3. Backflow preventers and assemblies.
- C. Shop Drawings: Submit shop drawings for water systems, showing piping materials, vaults, sizes and show clearances around piping within structures.

1.3 QUALITY ASSURANCE

- A. Regulatory Requirements:
 - 1. Comply with requirements of utility company supplying water. Include tapping of water mains and backflow prevention.
 - 2. Comply with standards of authorities having jurisdiction for potable-water-service piping, including materials, installation, testing, and disinfection.
- B. Piping materials shall bear label, stamp, or other markings of specified testing agency.
- C. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
- D. NSF Compliance:
 - 1. Comply with NSF 14 for plastic potable-water-service piping.
 - 2. Comply with NSF 61 for materials for water-service piping and specialties for domestic water.

1.4 PROJECT CONDITIONS

- A. Existing Utilities: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary utility services according to requirements indicated:
 - 1. Notify Engineer and Owner not less than three days in advance of proposed utility interruptions.

2. Do not proceed with utility interruptions without Engineer's/Owner's permission.

1.5 COORDINATION

- A. Coordinate connection to water main with utility company.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. In other Part 2 articles where subparagraph titles below introduce lists, the following requirements apply for product selection:
 1. Available Products: Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to, the products specified.
 2. Products: Subject to compliance with requirements, provide one of the products specified.
 3. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the manufacturers specified.
 4. Manufacturers: Subject to compliance with requirements, provide products by the manufacturers specified.

2.2 PIPING MATERIALS

- A. Refer to Part 3 of this Section, "Piping Applications" Article for applications of pipe, tube, fitting, and joining materials.

2.3 PIPE AND FITTINGS

- A. Soft Copper Tube: ASTM B 88, Type K, water tube, annealed temper.
 1. Copper Fittings: ASME B16.18, cast-copper-alloy or ASME B16.22, wrought-copper, solder-joint pressure type. Furnish only wrought-copper fittings if indicated.
- B. PVC, Schedule 80 Pipe: ASTM D 1785.
 1. PVC, Schedule 80 Socket Fittings: ASTM D 2467.

2.4 JOINING MATERIALS

- A. Brazing Filler Metals: AWS A5.8, BCuP Series.
- B. Soldering Flux: ASTM B 813, water-flushable type.
- C. Solder Filler Metal: ASTM B 32, lead-free type with 0.20 percent maximum lead content.

2.5 CORPORATION VALVES AND CURB VALVES

- A. Available Manufacturers:
 - 1. Amcast Industrial Corporation; Lee Brass Co.
 - 2. Ford Meter Box Company, Inc. (The).
 - 3. Mueller Co.; Water Products Div.
 - 4. Jones, James Company.
 - 5. Master Meter, Inc.
 - 6. McDonald, A. Y. Mfg. Co.
 - 7. Red Hed Manufacturing Co.

- B. Service-Saddle Assemblies: Comply with AWWA C800. Include saddle and valve compatible with tapping machine.
 - 1. Service Saddle: Copper alloy with seal and AWWA C800, threaded outlet for corporation valve.
 - 2. Corporation Valve: Bronze body and ground-key plug, with AWWA C800, threaded inlet and outlet matching service piping material.

- C. Curb Valves: Comply with AWWA C800. Include bronze body, ground-key plug or ball, and wide tee head, with inlet and outlet matching service piping material.

- D. Service Boxes for Curb Valves: Similar to AWWA M44 requirements for cast-iron valve boxes. Include cast-iron telescoping top section of length required for depth of burial of valve, plug with lettering "WATER," bottom section with base of size to fit over curb valve, and approximately 3-inch- diameter barrel.
 - 1. Shutoff Rods: Steel, tee-handle with one pointed end, stem of length to operate deepest buried valve, and slotted end matching curb valve.

2.6 WATER METERS

- A. Water meters to be provided by Utility District.

- B. Available Manufacturers:
 - 1. AMCO Water Metering Systems.
 - 2. Badger Meter, Inc.
 - 3. Carlon Meter Co.
 - 4. Mueller Co.; Hersey Meters.
 - 5. ROMAC Industries, Inc.; Hays Fluid Control Div.
 - 6. Schlumberger Limited; Water Div.
 - 7. Sensus Technologies, Inc.

- C. Description: AWWA C700, displacement-type, bronze main case. Register flow in gallons unless cubic feet are indicated.

- D. Water-Meter Boxes: Cast-iron body and cover for disc-type water meter with lettering "WATER METER" in cover; and slotted, open-bottom base section of length to fit over service piping.

2.7 BACKFLOW-PREVENTION DEVICES

- A. Available Manufacturers:
 - 1. Ames Co., Inc.
 - 2. Cla-Val Co.
 - 3. CMB Industries, Inc.; Febco Div.
 - 4. Conbraco Industries, Inc.
 - 5. FLOMATIC Corp.
 - 6. Watts Water Technologies, Inc.; Water Products Div.
 - 7. Zurn Industries, Inc.; Wilkins Div.
- B. General: ASSE standard, backflow preventers.
 - 1. Working Pressure: 150 psig minimum, unless otherwise indicated.
 - 2. NPS 2 and Smaller: Bronze body with threaded ends.
 - 3. Interior Components: Corrosion-resistant materials.
- C. Pipe-Applied, Atmospheric-Type Vacuum Breakers: ASSE 1001, with floating disc and atmospheric vent.
- D. Reduced-Pressure-Principle Backflow Preventers: AWWA C511, suitable for continuous pressure application. Include outside screw and yoke gate valves on inlet and outlet, and strainer on inlet; test cocks; and pressure-differential relief valve with ASME A112.1.2, air-gap fitting located between two positive-seating check valves.
 - 1. Maximum Pressure Loss: 12 psig through middle 1/3 of flow range.

2.8 PROTECTIVE ENCLOSURES

- A. Available Manufacturers:
 - 1. G&C Enclosures, Inc.
 - 2. Hot Box, Inc.
 - 3. HydroCowl, Inc.
 - 4. Watts Water Technologies, Inc.; Water Products Div.
- B. Protective Enclosures, General: ASSE 1060, outdoor weather-resistant enclosure designed to protect aboveground water piping equipment or specialties from vandalism. Include size and dimensions indicated but not less than those required for access and service of protected unit.
- C. Freeze-Protection Enclosures: Insulated and with heat source to maintain minimum internal temperature of 40 deg F (4 deg C) when external temperatures reach as low as minus 34 deg F (minus 36 deg C).

1. Class I-V: For pressure or atmospheric vacuum breaker equipment or devices. Include drain opening in housing.
 - a. Housing: Reinforced-aluminum or -fiberglass construction.
 - 1) Drain opening for units with drain connection.
 - 2) Access doors with locking devices.
 - 3) Insulation inside housing.
 - 4) Anchoring devices for attaching housing to concrete base.
 - b. Electric heating cable or heater with self-limiting temperature control.
- D. Precast concrete base of dimensions required to extend at least 6 inches beyond edges of enclosure housings. Include openings for piping.

PART 3 - EXECUTION

3.1 PIPING APPLICATIONS

- A. Refer to Division 31 Section "Earth Moving" for excavating, trenching, and backfilling.
- B. Underground Water-Service Piping: Use any of the following piping materials for each size range:
 1. NPS 3/4 to NPS 2: Soft copper tube, Type K; wrought-copper fittings; and soldered joints.
 2. NPS 3/4 to NPS 2: PVC, Schedule 80 pipe; PVC, Schedule 80 socket fittings; and solvent-cemented joints.

3.2 JOINT CONSTRUCTION

- A. Make pipe joints according to the following:
 1. Copper Tubing Soldered Joints: ASTM B 828. Use flushable flux and lead-free solder.
 2. PVC Piping Gasketed Joints: Use joining materials according to AWWA C900. Construct joints with elastomeric seals and lubricant according to ASTM D 2774 or ASTM D 3139 and pipe manufacturer's written instructions.
 3. Dissimilar Materials Piping Joints: Use adapters compatible with both piping materials, with OD, and with system working pressure.

3.3 PIPING INSTALLATION

- A. Water-Main Connection: Arrange with utility company for tap of size and in location indicated in water main.
- B. Water-Main Connection: Tap water main according to requirements of water utility company and of size and in location indicated.
- C. Install copper tube and fittings according to CDA's "Copper Tube Handbook."
- D. Install PVC, AWWA pipe according to AWWA M23 and ASTM F 645.

- E. Bury piping with depth of cover over top at least 30 inches, with top at least 12 inches below level of maximum frost penetration.
- F. Extend water-service piping and connect to water-supply source in locations and pipe sizes indicated.
- G. Water Piping Installation Parallel With Sanitary Sewer Piping:
 - 1. Normal Conditions: Water piping shall be laid at least 10 feet horizontally from a sewer or sewer manhole whenever possible. Distance shall be measured edge to edge.
- H. Installation of Water Piping Crossing Sanitary Sewer Piping:
 - 1. Normal Conditions: Water piping crossing above sewer piping shall be laid to provide a separation of at least 18 inches between the bottom of the water piping and the top of the sewer piping.
- I. Sanitary Sewer Manholes: No water piping shall pass through or come in contact with any part of a sewer manhole.

3.4 VALVE INSTALLATION

- A. Corporation Valves and Curb Valves: Install each underground curb valve with head pointed up and with service box.

3.5 WATER-METER INSTALLATION

- A. Install water meters, piping, and specialties according to utility company's written requirements.
- B. Water Meters: Install displacement-type water meters, NPS 2 and smaller, in meter boxes with shutoff valves on water-meter inlets. Include valves on water-meter outlets and valved bypass around meters unless prohibited by authorities having jurisdiction.

3.6 BACKFLOW-PREVENTER INSTALLATION

- A. Install backflow preventers of type, size, and capacity indicated. Include valves and test cocks. Install according to requirements of plumbing and health department and authorities having jurisdiction.
- B. Do not install backflow preventers with relief drain in vault or other space subject to flooding.
- C. Do not install bypass piping around backflow preventers.

3.7 PROTECTIVE ENCLOSURE INSTALLATION

- A. Install concrete base level and with top approximately 2 inches above grade.
- B. Install protective enclosure over valves and equipment.

- C. Anchor protective enclosure to concrete base.

3.8 CLEANING

- A. Clean and disinfect water-distribution piping as follows:
 - 1. Purge new water-distribution piping systems and parts of existing systems that have been altered, extended, or repaired before use.
 - 2. Use purging and disinfecting procedure prescribed by authorities having jurisdiction or, if method is not prescribed by authorities having jurisdiction, use procedure described in AWWA C651 or as described below:
 - a. Fill system or part of system with water/chlorine solution containing at least 50 ppm of chlorine; isolate and allow to stand for 24 hours.
 - b. Drain system or part of system of previous solution and refill with water/chlorine solution containing at least 200 ppm of chlorine; isolate and allow to stand for 3 hours.
 - c. After standing time, flush system with clean, potable water until no chlorine remains in water coming from system.
 - d. Submit water samples in sterile bottles to authorities having jurisdiction. Repeat procedure if biological examination shows evidence of contamination.

END OF SECTION

ISSUED	DATE
Bid Package	

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes: Administrative and procedural requirements governing Allowances.

1.2 WEATHER ALLOWANCE

- A. Included within the completion period for this project are a specified number of "bad weather" days according to Figure 2 below.
- B. The Contractor's progress schedule shall clearly indicate the bad weather day allowance as an "activity" or "activities". In the event weather conditions preclude performance of critical work activities for 50% or more of the Contractor's scheduled workday, that day shall be declared unavailable for work due to weather (a "bad weather" day) and charged against the above allowance. Critical work activities will be determined by review of the Contractor's current progress schedule.
- C. Rules for bad weather impacts to the construction schedule will be as follows:
1. The total amount of precipitation that occurs during one calendar month.
 - a. If the amount of precipitation in a given month is less than the average precipitation for that month, as stated in Figure 1, no claim will be allowed under this rule. If the average inches of precipitation for the month is exceeded, the number of days having precipitation greater than one tenth (0.10") inch that is greater than the average number of precipitation days per month in Figure 2, is considered to be justification for a one day time extension for each day in excess of the average number of precipitation days.
 2. The frequency of the occurrences of precipitation during one calendar month.
 - a. Precipitation of greater than one tenth (0.10") inch per day for three or more days of a consecutive five day period is considered to be unusual frequency and, as such, is considered to be justification for a one day extension. This rule can be used even when Rule Number One is not applicable, but may not apply concurrently with other rules.
 3. Unusually heavy precipitation.
 - a. Precipitation of greater than one inch during a single day is considered to be justification for a one day time extension. For each "heavy precipitation" day or period of consecutive days, a one-day time extension may be allowed for the following day as a "mud day." This rule is applicable only after the precipitation for the month exceeds the normal precipitation for that month as stated in Figure 1.
 4. Temperature
 - a. Temperatures which do not rise above 32 degrees F by 12:00 PM are considered to be justification for a one day time extension. Temperatures which do not rise above that specified for the day's construction activity by 12:00 PM are considered to be justification for a one day time extension. Temperatures that exceed the specified limit and prevent the day's construction activities are considered to be justification for a one day time extension. This rule cannot be applied concurrently with any other rule.
 5. Bad weather credit.

- a. If the number of days in a calendar month with precipitation greater than one tenth (0.10") inch is less than the average number of precipitation days per month listed in Figure 2, the days shall be credited to the project and the total weather delay tally shall be reduced by this number of days.

Normal Precipitation (all measurements are in inches)

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
4.50	4.47	4.97	3.43	4.10	4.55	5.38	4.18	4.11	3.41	4.23	4.13

Figure 1

Average number of calendar days with Precipitation of 0.1 inches or more

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
7	7	7	6	7	8	8	6	5	5	7	7

Figure 2

- D. The closest NOAA reporting station to the jobsite is Atlanta DeKalb Peachtree Airport, station ID GHCND: USW00053863. This is the station to be utilized for the monthly analysis. Shortly after the monthly data is available, the Owner will review it in accordance with the rules above and provide a summary advising if additional days are due or not due for the period.

1.3 ADJUSTMENT OF ALLOWANCES

- A. Allowance Adjustment: To adjust Allowance amounts, prepare a Change Order proposal based on the difference between purchase amount and the Allowance, multiplied by final measurement of work-in-place where applicable. If applicable, include reasonable Allowances for cutting losses, tolerances, mixing wastes, normal product imperfections, and similar margins.
1. Include installation costs in purchase amount only where indicated as part of the Allowance.
 2. If requested, prepare explanation and documentation to substantiate distribution of overhead costs and other margins claimed.
 3. Submit substantiation of a change in scope of work, if any, claimed in Change Orders related to unit-cost Allowances.
 4. Owner reserves the right to establish the quantity of work-in-place by independent quantity survey, measure, or count.
- B. Submit claims for increased costs because of a change in scope or nature of the Allowance described in the Contract Documents, whether for the purchase order amount or Contractor's handling, labor, installation, overhead, and profit.
1. Do not include Contractor's or subcontractor's indirect expense in the Change Order cost amount unless it is clearly shown that the nature or extent of work has changed from what could have been foreseen from information in the Contract Documents.

2. No change to Contractor's indirect expense is permitted for selection of higher- or lower priced materials or systems of the same scope and nature as originally indicated.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION.

3.1 SCHEDULE OF ALLOWANCES

- A. Allowance 1: Weather Allowance. Included within the completion period for this Project are the number of "bad weather" days as indicated in Figure 2 above for the period of months during the Work.
- B. 21 consecutive days are allowed for full road closure. An early completion incentive for minimizing the complete road closure is provided of \$5,000.00 per day up to a maximum of \$40,000.00 (8 days) for any fewer than 21 consecutive days of full road closure that the contractor successfully executes. 50% of the earned early completion incentive shall be paid on the pay application following an ahead of schedule re-opening of the affected roadway, and 50% of the earned incentive shall be paid at the completion of the project.
- C. Liquidated damages in the amount of \$5,000 per day shall be imposed for any days exceeding 21 days when the full road closure is in effect. Partial road closures are allowed during the hours of 9:00 AM and 4:00 PM during the 120 day construction time.
- D. Liquidated damages in the amount of \$1,000 per day shall be imposed for any days exceeding the 120 day construction window.

END OF SECTION

ISSUED	DATE
Bid Package	